Public participation is invited. When called upon, please approach the microphone and state your name. Kindly limit your remarks to 3 minutes.

# VILLAGE OF VILLA PARK

**Villa Park Recreation Center**
**320 E. Wildwood Ave**
**Villa Park, IL 60181**

**Special Meeting**

## Zoning Board Of Appeals (ZBA)

**December 10, 2025** **6:00 PM**

---

Chair Person: Rodney Pate
Commissioners: Wanda Ackermann, Vicki Flaskamp, Troy Clampit, Richard Gonzales, Jason Jarrett, Deborah Cain
Board Liaison: President Kevin Patrick
Staff Liaison: Michelle House

1. **Call to Order - Roll Call**
2. **Consent Agenda**
3. **Public Hearing - New Business**
   a. **ZBA-25-10** - 351-451 N. Ardmore Avenue & 400-416 N. Beverly Ave. - Planned Unit Development - **Petitioner**: Hawthorneworld Villa Park LP
4. **New Business**
5. **Public Comments on Non-Agenda Items**
6. **Adjournment**

The Villa Park Village Hall is subject to the requirements of the Americans with Disabilities Act of 1990. An elevator is operational at the north side entrance to the Village Hall during normal work hours and also during evenings. Individuals with special needs are requested to contact the Village's Compliance Officer at (630) 834-8500 so that reasonable accommodations can be made for those persons.

**TO:** Zoning Board of Appeals
**FROM:** Community & Economic Development Department
**DATE:** December 10, 2025
**RE:** **Petition ZBA-25-10 | 351-451 N. Ardmore Avenue & 400-416 N. Beverly Avenue | Planned Unit Development**

| PETITIONER | OWNER |
|---|---|
| Hawthorneworld Villa Park LP<br>100 Tower Drive, Suite 238<br>Burr Ridge, IL 60527 | Hawthorneworld Villa Park LP<br>100 Tower Drive, Suite 238<br>Burr Ridge, IL 60527 |

**Request Summary**
The Petitioner is requesting a planned unit development (PUD) for a 7-story, 348-unit mixed-use building with ground-floor commercial space and residential apartment units on the upper floors. As part of the PUD approval the applicant is requesting deviations from the Code.

**Background**
The Petitioner is requesting approval of a mixed-use 7-story building with commercial/retail/restaurant space and rental apartments on the subject property bordered by Ardmore Avenue on the west, Vermont Street on the north, Beverly Avenue on the east, and Terrace Street on the south. The Petitioner previously acquired all parcels within the block and demolished the commercial buildings. The site currently is grass and gravel from the demolition onsite. The building would feature an enclosed parking garage with 424 parking stalls with an additional 13 on-street parking stalls.

The Petitioner previously received approval of a planned unit development and redevelopment agreement (RDA) from the Village in August 2021. Under the terms of that RDA, the Petitioner was to commence construction by March 31, 2022. However, in September 2021, the Petitioner's primary lender backed out at the last minute, leaving the Petitioner unable to fund its project. The RDA was extended several times to give the Petitioner time to find alternate funding, but by March 2024, the Petitioner still had not met the requirements of the RDA and it expired. As such, this application is being treated as a new application with no prior approvals. The Petitioner has indicated a new RDA will be necessary to complete this project, but any new requests for Village assistance will be considered by the Village Board of Trustees, not the Zoning Board of Appeals.

**Site Information**

| | |
|---|---|
| Present Zoning: | Mixed-Use TOD District – MX-1 |
| Present Land Use: | Vacant |
| Property Size: | 126,760 sq. ft. / 2.91 acres |
| PIN: | 06-03-122-001, 06-03-122-009, 06-03-122-010, 06-03-122-012, 06-03-122-013, 06-03-122-014, 06-03-122-015, 06-03-122-016, 06-03-122-017, 06-03-123-006, 06-03-123-007, 06-03-300-006 |

| **Surrounding Zoning** | | **Surrounding Land Use** |
|---|---|---|
| North: | Mixed Residential District – MX-R2 | Residential |
| West: | Mixed-Use TOD District – MX-1 | Mixed-Use |
| East: | Residential Single-Dwelling District- RS-7.5 | Residential |

| | | |
|---|---|---|
| | Mixed-Use TOD District – MX-1 | Mixed-Use |
| | Mixed Residential District 1 – MX-R1 | Residential |
| South: | Mixed Residential District 1 – MX-R1 | Residential |

**Comprehensive Plan Designation – Mixed-Use**
Multi-dwelling residential development refers to properties that accommodate multiple units or households on a single lot. This can include independent buildings comprised of condominiums or apartments, structures within mixed-use developments, or specialized housing for seniors. Currently, such developments exist in various locations throughout the Village. These types of developments should be prioritized in areas close to transit options and commercial centers to facilitate easy access to amenities and transportation, enhancing residents' quality of life.

**Zoning Request**
The Petitioner is requesting approval of a planned unit development (PUD) designated as a "special use" administered under Section 11.3 Planned Unit Development.

**Internal Staff Review**
*Site Plan Review*

1. Building and Structure Location - The following comments relate to the issue of building and structure location in regard to the proposed development plans:
    a. The main entrance to the lobby is off the Ardmore right-of-way.
    b. The proposed building has a door on the southeast corner into the stair corridor across from the METRA station. **The ZBA should note that no transit-oriented lobby design exists for this corner of the building.**
2. Building scale and architecture - The following comments relate to the issue of building scale in regard to the proposed development plans:
    a. The building is considered a storefront building per Code when reviewing against the MX District requirements.
    b. The proposed building only features one trash room on the northern side of the building. All refuse from the residential units and the retail/commercial/restaurant space will need to move the trash to this location for pickup. It does not appear that the retail/commercial/restaurant space has access to take refuse to the trash room within the building and would need to move refuse around the exterior of the building. **The ZBA should consider whether this is acceptable or whether another trash room closer to the retail/commercial space should be required.**
    **c.** The Petitioner is proposing the use of concrete masonry units (CMUs). Referring to the sample and examples of successful installations provided by the Petitioner per Code, **the ZBA should determine whether the CMU should be approved as part of the site plan approval process.**
    **d. The ZBA should ask the Petitioner to confirm the proposed colors of the materials comply with the requirement of utilization of historic color palettes.**
    e. **The main entrance to the building should be reviewed by the ZBA to identify modifications to meet Sec. 4.7.7. Principal Entryway.** Possible modifications could include a different cap than used elsewhere on the building, vertical hierarchy at least 2 stories in height, or other proposed design modifications approved by the Director of Community Development.
    f. The northern, eastern and southern elevations do not feature the same vertical elements that the western elevation features. Existing residential faces the north and east property lines of the proposed development. **The ZBA should consider whether the proposed building features enough architectural interest.**

3. Open Space – The following comments relate to the issue of open space in regard to the proposed development plans:
    a. The building would feature an outdoor space at the northwest corner of the building accessible via part of the residential amenity space.
    b. The apartments would feature a 3rd floor interior courtyard amenity space including a pool, dog run, track, and outdoor seating.
    **c. The ZBA should ask the Petitioner to confirm that the pet area would feature drains and water access during the permit process for sufficient cleaning of the area.**
    d. The second floor of the building would feature an outdoor dining area linked internally to the proposed restaurant tenant space. The Petitioner has stated that the space adjacent to the outdoor dining area is for restaurant service to this dining area but is not linked to the restaurant internally.
4. Lot Coverage - The following comments relate to the issue of lot coverage in regard to the proposed development plans:
    a. With the new garage, the lot coverage would be approximately 93.16%. Maximum lot coverage for MX-1 is 75%. A deviation is required.
5. Landscaping – The following comments relate to the issue of landscaping in regard to the proposed development plans:
    a. The north elevation of the building would require installation of six (6) shade trees along the property line. The Petitioner's plans currently include four (4). A deviation is required.
    b. The south elevation of the building would require installation of six (6) shade trees along the property line. The Petitioner's plans currently include zero (0). A deviation is required.
    c. The Gleditsia triacanthos var. inermis 'Skycole' will need to be added to the Approved Tree Species list for Villa Park. This will be completed internally.
    d. The Petitioner has added foundation plantings where able surrounding the building.
    e. The proposed landscape plan features shade trees, deciduous shrubs, evergreen shrubs, and perennials and ornamental grasses. **The ZBA should note that the plan does not include any ornamental trees.**
    f. **The ZBA should ask the Petitioner to confirm that the proposed plantings are salt and drought tolerant** as the landscape areas are immediately adjacent to pedestrian walkways which may be salted over winter.
    g. **The Petitioner's plans do not provide park space as required per Code**. The Petitioner intends to request the Board of Trustees waive the fee in lieu of park space, which would total $308,642 for this project as proposed.
6. Graphics and Signage – The following comments relate to the issue of landscaping in regard to the proposed development plans:
    a. The Petitioner proposes a ground sign at the northwest corner of the property on a raised landscape bed.
    b. The proposed signage would require a sign permit prior to installation. Final drawings of the signage exhibits can be submitted separately from the building permit for approval.
    c. The proposed signage area for the retail/commercial/restaurant tenant spaces are currently proposed at the minimum of 18.0 inches. **The ZBA should review and consider whether the signage area should be increased for visibility for the future tenants due to the building scale.**
    d. The tenant signage is proposed on the aluminum awnings of the building above the tenant space entrances. The future tenant signage may be limited in style due to this installation location. **The ZBA should ask the Petitioner to specify design criteria for future tenant signage** to be consistent and reduce needed perforations for tenant signage changes in the future.

7. Circulation – The following comments relate to the issue of circulation in regard to the proposed development plans:
    a. The Petitioner has stated that loading and move-in/move-out would occur though the elevator bay in the middle of the garage. Trucks would need to park on Beverly Avenue for loading/unloading. Currently, the west side of Beverly Avenue does not permit parking so that Municipal Code amendment would need to go through the Plan Commission and Village Board separately.
    b. The Petitioner has provided a traffic impact study which will also be reviewed by the Village's third party consultant.
    c. The Petitioner is proposing right-in/right-out at the Terrace and Ardmore intersection so that traffic would not all exit via Beverly Avenue. Terrace Street would be changed to two-way access.
    d. The METRA drop-off will be modified to address the relocation of accessible parking stalls that were eliminated as part of the proposed project.
8. Parking lots – The following comments relate to the issue of parking lots in regard to the proposed development plans:
    a. The Fire Department has requested that the EV chargers be located as close to the garage exit as possible to ease in towing a vehicle should it catch fire. **The ZBA should consider that as a condition.** Currently, the chargers are shown in the southwest corner from the garage, the farthest from the garage exit onto Beverly Avenue.
    b. The Petitioner has included a bike storage/repair room on the plans but has not shown the layout for the room. As such, bike parking is not included in the provided parking within the plan. Every four (4) long-term bicycle parking spaces can be credited as one (1) motor vehicle space per Sec. 7.4.3. **The ZBA should ask the Petitioner for the amount of bike parking spaces that will be provided.**
    c. Overnight parking in the right-of-way is not permitted, thus, the parking along Ardmore Avenue cannot be considered in the required parking for the residential units.
    **d. The ZBA should ask the Petitioner to install additional bicycle racks near the retail/commercial/restaurant tenant spaces.**
    **e. The ZBA should ask the Petitioner to comment on whether the interior garage spaces will be permitted to be used by the retail/commercial/restaurant tenant spaces.**
    f. The Petitioner previously constructed a parking lot east of Beverly Avenue that was to be conveyed to the Village as a public lot. Currently, the Village has an easement on the lot to allow for public parking. The lot is not part of the PUD.
    g. **The ZBA should ask the Petitioner to provide additional information on the hours of use for the residential co-work, office, and exercise room** to confirm the shared parking allowances.
9. Site Illumination – The following comments relate to the issue of site illumination in regard to the proposed development plans:
    a. The proposed photometric plan would require a deviation for lighting levels adjacent to the public right-of-way. **The ZBA should consider that as a condition.**
    b. **The ZBA should ask the Petitioner to confirm illumination near the garage entrances.** It currently appears to be minimally illuminated.
    c. Wall pack fixtures are not permitted. The Lithonia D-Series Size 1 fixture will need to be changed or a deviation requested. **The ZBA should include that as a condition.**
10. Completeness - If the Zoning Board of Appeals requires additional information to determine whether the applicant's development requests comply with the applicable standards of the Code, they may direct the Petitioner to furnish additional information and evidence that may provide clarity regarding their concerns.

*Required Parking*

Parking & loading berth requirements of the Code are summarized in the following tables:

| Parking Requirements | Formula | Quantity | Total Required | Total Proposed |
|---|---|---|---|---|
| Residential units | 1 parking space per dwelling unit or 1 per bedroom whichever is greater | 413 bedrooms | 413 spaces | 437 (shared) |
| Residential lobby/office/ Exercise room | 3 parking spaces per 1,000 sq. ft. | 8,275 sq. ft. | 25 spaces | 437 (shared) |
| Retail/commercial** | 4 parking spaces per 1,000 sq. ft. | 7,560 sq. ft. | 30 spaces | 437 (shared) |
| **Totals** | | | **468** | **437 (-31)** |

*Additional bike parking stalls are not included in the parking stall totals.

**The restaurant use may require additional parking.

*Requested Deviations*

Per the applicant the following deviations are being requested from the Code:

1. Sec. 4.7.2.A. – All upper story windows on all historic, residential, and mixed use buildings shall be recessed, double hung. Percent of transparency is required per building type. Horizontal or vertical strip windows, tinted or reflective glass, and glass block (refer to Figure 4-28) are prohibited within MX districts.
    a. Requested = casement panel on all residential unit.
    b. Requested = possible glazing on windows (not specified in the drawings)
2. Sec. 4.4.2.A.2. – Front Build-to Zone – 0' to 5'
    a. Requested = Up to 14.2' setback on the south façade
    b. Requested = Up to 7.63' setback on the north façade
3. Sec. 4.4.2.A.3. – Corner Build-to Zone – 0' to 5'
    a. Requested = Up to 7.63' setback on the northeast corner
    b. Requested = Up to 35.07' setback on the northwest corner
    c. Requested = Up to 14.19' setback on the southwest corner
    d. Requested = Up to 11.29' setback on the southeast corner
4. Sec. 4.4.2.A.6. – Maximum Impervious Cover
    a. Required = 75%
    b. Requested = 93.16% (18.16% deviation)
5. Sec. 4.4.2.A.9. – Permitted Garage Entrance Location – Rear façade; side façade garage access requires an administrative adjustment.
    a. Requested = One (1) entrance on each north (to the trash room) and south (to the garage) façade which are considered front façades
6. Sec. 4.4.2.D.17. – Primary Frontage Minimum Ground Story Transparency – 75%.
    a. Requested north façade = 13.34% transparency
    b. Requested south façade = 19.90% transparency
7. Sec. 4.4.2.D.20. – Entrance Location and Number – Principal entrance required on primary frontage façade; entrances required a minimum of one per every 60' of building façade.
    a. Requested = Principal entrance on a side façade.
    b. Requested = Up to 191.16' between pedestrian entrances on the north façade.
    c. Requested = Up to 106' between pedestrian entrances on the south façade.

8. Sec. 4.4.2.D.21. – Entryway Configuration and Elevation – Recessed between 3' and 8', maximum 8' wide; entrances shall be 1.5' vertically of adjacent walk elevation.
    a. Requested = Entrances not recessed into the building.
9. Sec. 4.7.1.A. Primary Façade Materials – Eighty (80) percent of each façade shall be constructed of primary materials. For facades over one hundred (100) square feet, more than one (1) material shall be used to meet the eighty (80) percent requirement. Permitted primary building materials include high quality, durable, natural materials, such as stone, brick; wood lap siding; fiber cement board lapped, shingled, or panel siding; glass. Other high quality synthetic materials may be approved during the site plan process with an approved sample and examples of successful, high quality local installations.
    a. Requested = Concrete masonry unit (CMU) proposed which is not listed as a primary building material.
10. Sec. 4.7.7 Principal Entryway – Principal entrances to buildings or units shall be clearly delineated through one (1) or more of the following refer to Figure 4-34):
    A. Cap or Canopy. The entryway shall be covered by a cap or canopy differentiating it from the overall building cap.
    B. Sidelights and Transom. Sidelights and/or transom windows shall be included around the entryway.
    C. Extended Articulation. The entryway shall be included in a separate bay of the building extended up at least two (2) stories.
    D. Other Design Options. The Community Development Director may approve different design options that add emphasis and draw attention to the entryway through a minor exception during design review.
        a. Requested = Entrance without a cap or canopy and only extending up two (2) stories, not exceeding two (2) stories.
11. Sec. 9.4.4 Glare – Table 9-2 Maximum Illumination

| Use/Location/Adjacency | Maximum Footcandles at Property Line |
|---|---|
| Residential to Residential | 0.2 |
| Nonresidential to Residential | 0.2 |
| Nonresidential to Nonresidential | 0.5 |
| Abutting ROW | 0.5 |
| M District | 0.5 |

    a. Requested = 0.9 fc abutting ROW
12. Sec. 9.4.3 General Regulations – Wallpack type fixtures are prohibited.
    a. Requested = wall pack fixture for Lithonia DSXW1P1 fixture
13. Sec. 7.9.6 Access – Driveways across public property and curb cuts may not exceed twenty-four (24) feet in width, as measured at the lot line.
    a. Requested = Driveway width of 26' on Beverly Ave. garage exit
    b. Requested = Driveway width of 26' on Terrace St. garage exit
14. Sec. 9.1.5.C.2.a. Landscape and Screening Requirements – Shade trees must be provided at the rate of at least one tree per fifty (50) feet of frontage along the abutting property line.
    a. North property line
        i. Required = 6 trees
        ii. Requested = 4 trees (deviation of 2 trees)
    b. South
        i. Required = 6 trees
        ii. Requested = 0 trees provided on south property line along Terrace Street (deviation of 6 trees)
15. Sec. 7.2. Minimum Parking Ratios

a. Required = See chart above on page 5
b. Requested = -31 spaces

**Findings**
Per Section 11.4.8. – Review and Approval Criteria: No Special Use may be recommended for approval or approved unless the respective review or decision-making body determines that the proposed Special Use is consistent with and in substantial compliance with all village board policies and plans and that the applicant has presented evidence to support each of the following conclusions for both Special Uses that they are requesting:

**A.** That the proposed use or activity is expressly authorized as a Special Use;
**Petitioner's Response:** *A Planned Unit Development is expressly allowed as a Special Use pursuant to Illinois Municipal Code, 65 ILCS 5/11-13-1-1*.

**B.** That the proposed use at the proposed location is necessary or desirable to provide a service or a facility that is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community;
**Petitioner's Response:** The development of a sustainable, Transit-Oriented, mixed-use development will greatly benefit the general welfare of the community by increase housing options, and reducing vehicle use.

**C.** That the proposed use will not, in the particular case, be detrimental to the health, safety, or general welfare of persons residing or working in the vicinity or be injurious to property values or improvements in the vicinity.
**Petitioner's Response:** This development will benefit the surrounding properties by activating the block.

**D.** That approval of the Special Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district;
**Petitioner's Response:** *This development is designed in a way to minimize impacts on surrounding property including traffic impacts*.

**E.** That the proposed Special Use will be served by adequate utilities, access roads, parking, drainage and other important and necessary facilities, infrastructure, and community services; and
**Petitioner's Response:** *This development is designed in a way to maximize the usefulness of current infrastructure*.

**F.** That the proposed Special Use complies with all applicable regulations of this zoning ordinance except as expressly approved in accordance with the procedures of this zoning ordinance.
**Petitioner's Response:** *This development is designed in a way to comply with all applicable regulations of the zoning code except as described in the attached application materials*.

**Notification**
Legal Notice was published in the Daily Herald on November 25, 2025, a sign placed on the subject property, and notifications sent to property owners within a 250.0 foot radius of the subject property in advance of the Public Hearing.

**Sample Motion**
*To recommend approval of ZBA-25-10 for a Special Use for a Planned Unit Development on the properties 351-415 N. Ardmore Avenue and 400-416 N. Beverly Avenue with [all / the following] requested deviations*.

**Exhibit List**

- Exhibit A – Plat of Survey
- Exhibit B – Site Plan
- Exhibit C – Proposed Architectural Plans, Elevations, Photometric Plans, Signage Exhibits
- Exhibit D – Architectural Cutsheets
- Exhibit E – Landscape Plan
- Exhibit F – Traffic Impact Study

# PLAT OF SURVEY

## GARDEN STATION BLOCK
## VILLA PARK, IL

### SURVEYOR'S NOTES

COMPARE THE DESCRIPTION ON THIS PLAT WITH YOUR DEED, ABSTRACT, OR CERTIFICATE OF TITLE; ALSO COMPARE ALL POINTS BEFORE BUILDING BY SAME, AND REPORT ANY DIFFERENCE IMMEDIATELY.

THIS SURVEY IS NOT VALID WITHOUT THE SURVEYOR'S ORIGINAL SIGNATURE AND IMPRESSED SEAL.

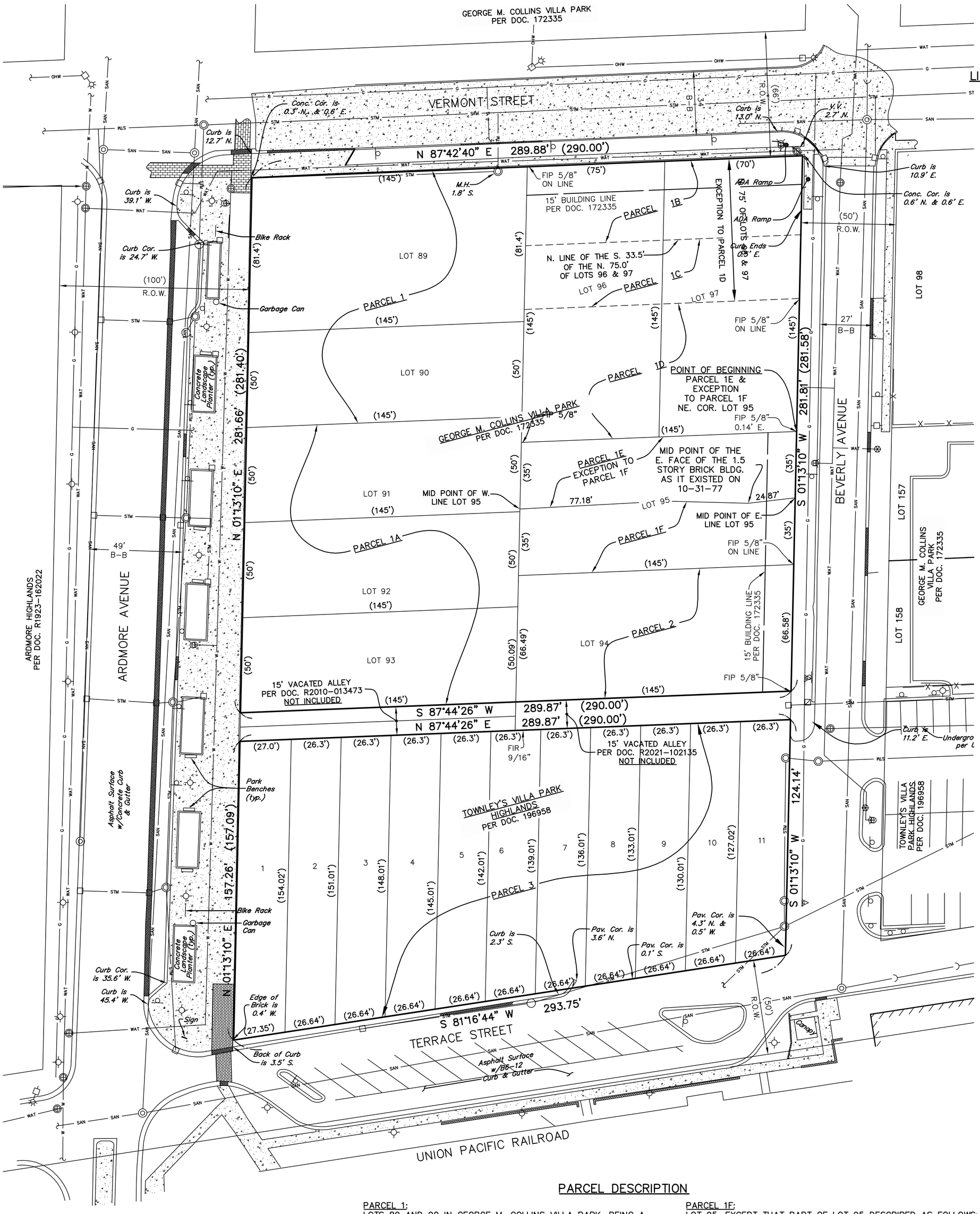
THE BEARINGS SHOWN HEREON ARE BASED UPON THE NORTH LINE OF SUBJECT PROPERTY BEING N 87°42'40" E (ASSUMED).

MEASUREMENTS ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF.

DIMENSIONS ENCLOSED IN ( ) INDICATE RECORD OR DEED DATA. ALL OTHER DIMENSIONS ARE MEASURED OR RECORD EQUALS MEASURED.

PROPERTY CONTAINS 122,227 SQ. FT. (2.806), MORE OR LESS.

FIELD WORK COMPLETED ON MARCH 12, 2020 AND UPDATED 09-15-25.




30 15 0 30

SCALE: 1 INCH = 30 FEET

### LINE/SYMBOL/ABBREVIATION LEGEND

- BOUNDARY LIMITS
- ADJACENT PROPERTY OR R.O.W. LINE
- UNDERLYING PARCEL LINES
- OHW — OVERHEAD WIRES
- G — UNDERGROUND GAS LINE
- STM — UNDERGROUND STORM LINE
- SAN — UNDERGROUND SANITARY LINE
- WAT — UNDERGROUND WATER LINE
- X — FENCE
- AC — AIR CONDITIONER
- B — BOLLARD
- C — CABLE TV PEDESTAL
- STORM MANHOLE
- CATCH BASIN
- INLET
- SANITARY MANHOLE
- FIRE HYDRANT
- WATER VALVE
- VALVE VAULT
- GM — GAS METER
- GV — GAS VALVE
- GAS MARKER POST
- HAND HOLE
- EJB — ELECTRIC JUNCTION BOX
- E — ELECTRIC MANHOLE
- EM — ELECTRIC METER
- E — ELECTRIC PEDESTAL
- T — ELECTRIC TRANSFORMER
- LIGHT STANDARD
- SIGN
- TJB — TELEPHONE JUNCTION BOX
- TELEPHONE MANHOLE
- P — TELEPHONE PEDESTAL
- UTILITY POLE
- GUY WIRE
- CONCRETE SURFACE
- R.O.W. — RIGHT OF WAY
- B-B — BACK-TO-BACK

### PARCEL DESCRIPTION

PARCEL 1:
LOTS 89 AND 90 IN GEORGE M. COLLINS VILLA PARK, BEING A SUBDIVISION IN THE NORTHWEST QUARTER OF SECTION 3 TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 7, 1923 AS DOCUMENT NUMBER 172335, IN DUPAGE COUNTY ILLINOIS.

PARCEL 1A:
LOTS 91, 92 AND 93 IN GEORGE M. COLLINS VILLA PARK, BEING A SUBDIVISION IN THE NORTHWEST QUARTER OF SECTION 3 TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 7, 1923 AS DOCUMENT NUMBER 172335, IN DUPAGE COUNTY ILLINOIS.

PARCEL 1B:
THE NORTH 41.50 FEET OF LOT 96 AND 97 IN GEORGE M. COLLINS VILLA PARK, BEING A SUBDIVISION IN THE NORTHWEST QUARTER OF SECTION 3 TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 7, 1923 AS DOCUMENT NUMBER 172335, IN DUPAGE COUNTY ILLINOIS.

PARCEL 1C:
THE SOUTH 33.5 FEET OF THE NORTH 75.0 FEET OF LOTS 96 AND 97 IN GEORGE M. COLLINS VILLA PARK, BEING A SUBDIVISION OF PART OF THE SOUTH HALF OF LOT 1 OF THE NORTHWEST QUARTER OF SECTION 3 TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 7, 1923 AS DOCUMENT NUMBER 172335, IN DUPAGE COUNTY ILLINOIS.

PARCEL 1D:
LOT 96 (EXCEPT THE NORTH 75 FEET THEREOF) AND LOT 97 (EXCEPT THE NORTH 75 FEET THEREOF) IN GEORGE M. COLLINS VILLA PARK, BEING A SUBDIVISION OF PART TO THE SOUTH HALF OF LOT 1 OF THE NORTHWEST QUARTER OF SECTION 3 TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 7, 1923 AS DOCUMENT NUMBER 172335, IN DUPAGE COUNTY ILLINOIS.

PARCEL 1E:
THE PART OF LOT 95 DESCRIBED AS FOLLOWS: BEGINNING AND THE NORTHEAST CORNER OF LOT 95, THENCE SOUTHERLY ALONG THE EAST LINE OF LOT 95 TO THE MID-POINT OF THE EAST LINE OF LOT 95, THENCE SOUTHWESTERLY TO THE MID POINT OF THE EAST FACE OF THE 1-1/2 STORY BRICK BUILDING AT IT EXISTED ON OCTOBER 31, 1977, THENCE WESTERLY ON A STRAIGHT LINE TO THE MIDDLE POINT OF THE WEST FACE OF SAID 1-1/2 STORY BRICK BUILDING, THENCE WESTERLY ON A STRAIGHT LINE TO MID POINT OF THE WEST LINE OF LOT 95, THENCE NORTH ON THE WEST LINE OF LOT 95 TO THE NORTHWEST CORNER OF LOT 95, THENCE EAST ALONG THE NORTH LINE OF LOT 95 TO THE POINT OF BEGINNING, ALL IN GEORGE M. COLLINS VILLA PARK, BEING A SUBDIVISION IN THE NORTHWEST QUARTER OF SECTION 3 TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 7, 1923 AS DOCUMENT NUMBER 172335, IN DUPAGE COUNTY ILLINOIS.

PARCEL 1F:
LOT 95, EXCEPT THAT PART OF LOT 95 DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF LOT 95; THENCE SOUTHERLY 35 FEET ALONG THE EAST LINE OF LOT 95 TO THE MID-POINT OF THE EAST LINE OF LOT 95; THENCE SOUTH 83 DEGREES 51 MINUTES 58 SECONDS WEST 24.90 FEET MORE OR LESS, TO THE MID-POINT OF THE EAST FACE OF THE 1-1/2 STORY BRICK BUILDING AS IT EXISTED ON OCTOBER 31, 1977; THENCE NORTH 88 DEGREES 33 MINUTES 32 SECONDS WEST 43 FEET MORE OR LESS, TO THE MID-POINT OF THE WEST FACE OF SAID 1-1/2 STORY BRICK BUILDING; THENCE SOUTH 86 DEGREES 46 MINUTES 10 SECONDS WEST, 76.66 MORE OR LESS, TO THE MID-POINT OF THE WEST LINE OF LOT 95; THENCE NORTHERLY 35 FEET ALONG THE WEST LINE OF LOT 95 TO THE NORTHWEST CORNER OF LOT 95; THENCE EAST ALONG THE NORTH LINE OF LOT 95 TO THE POINT OF BEGINNING, ALL IN GEORGE M. COLLINS VILLA PARK, BEING A SUBDIVISION IN THE SOUTH HALF OF LOT 1 OF THE NORTHWEST QUARTER OF SECTION 3 TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 7, 1923 AS DOCUMENT NUMBER 172335, IN DUPAGE COUNTY ILLINOIS.

PARCEL 2:
LOT 94 IN GEORGE M. COLLINS' VILLA PARK, BEING A SUBDIVISION IN THE NORTHWEST 1/4 OF SECTION 3, TOWNSHIP 39 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 7, 1923 AS DOCUMENT 172335, IN DUPAGE COUNTY, ILLINOIS.

PARCEL 3:
LOTS 1 THROUGH 11, BOTH INCLUSIVE, IN TOWNLEY'S VILLA PARK HIGHLANDS, BEING A SUBDIVISION IN THE SOUTHWEST 1/4 OF SECTION 3, TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JULY 28, 1925 AS DOCUMENT NUMBER 196958, IN DUPAGE COUNTY, ILLINOIS.

### SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS)
SS.
COUNTY OF DUPAGE)

I, JEFFREY R. PANKOW, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT THE ABOVE DESCRIBED PROPERTY HAS BEEN SURVEYED UNDER MY DIRECTION AND THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

DATED THIS 1ST DAY OF OCTOBER, A.D., 2025.

JEFFREY R. PANKOW PROFESSIONAL 3483 STATE OF ILLINOIS LAND SURVEYOR LISLE, ILLINOIS

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3483
MY REGISTRATION EXPIRES ON NOVEMBER 30, 2026
PROFESSIONAL DESIGN FIRM LICENSE NO.:184-002937,
EXPIRATION DATE IS APRIL 30, 2027


PREPARED BY:

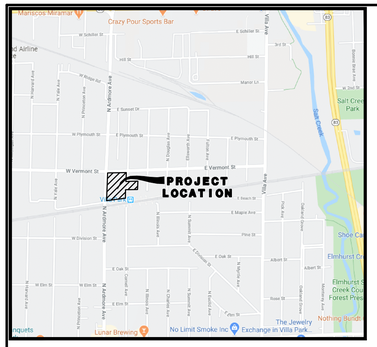
CEMCON, Ltd.

Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100 Aurora, Illinois
60502-9675 PH: 630.862.2100 FAX: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com


DISC NO.: 904351 FILE NAME: PLAT OF SURVEY 2025
DRAWN BY: AJB FLD. BK. / PG. NO.: D93 & NOTES
COMPLETION DATE: 09-30-25 JOB NO.: 904.351


Copyright © 2025 Cemcon, Ltd. All rights reserved.


PLOT FILE CREATED: 10/1/2025 BY: TONY BLUS DRAWING PATH: P:\904351\DWG\SURVEY\DRAWINGS\PLATS\PLAT OF SURVEY_2025.DWG




## LOCATION MAP

*TOTAL AREA OF SUBDIVISION*

2.90 ACRES

(MORE OR LESS)

*ZONING EXISTING & PROPOSED*

MX-1

BUILDING SQ FT AREA:

1st = 114,104 SQ. FT.
2nd = 114,229 SQ. FT.
3rd = 71,622 SQ. FT.
4th THRU 7th = 71,024 SW. FT. PER FLOOR
TOTAL AREA = 584,051 SQ. FT.

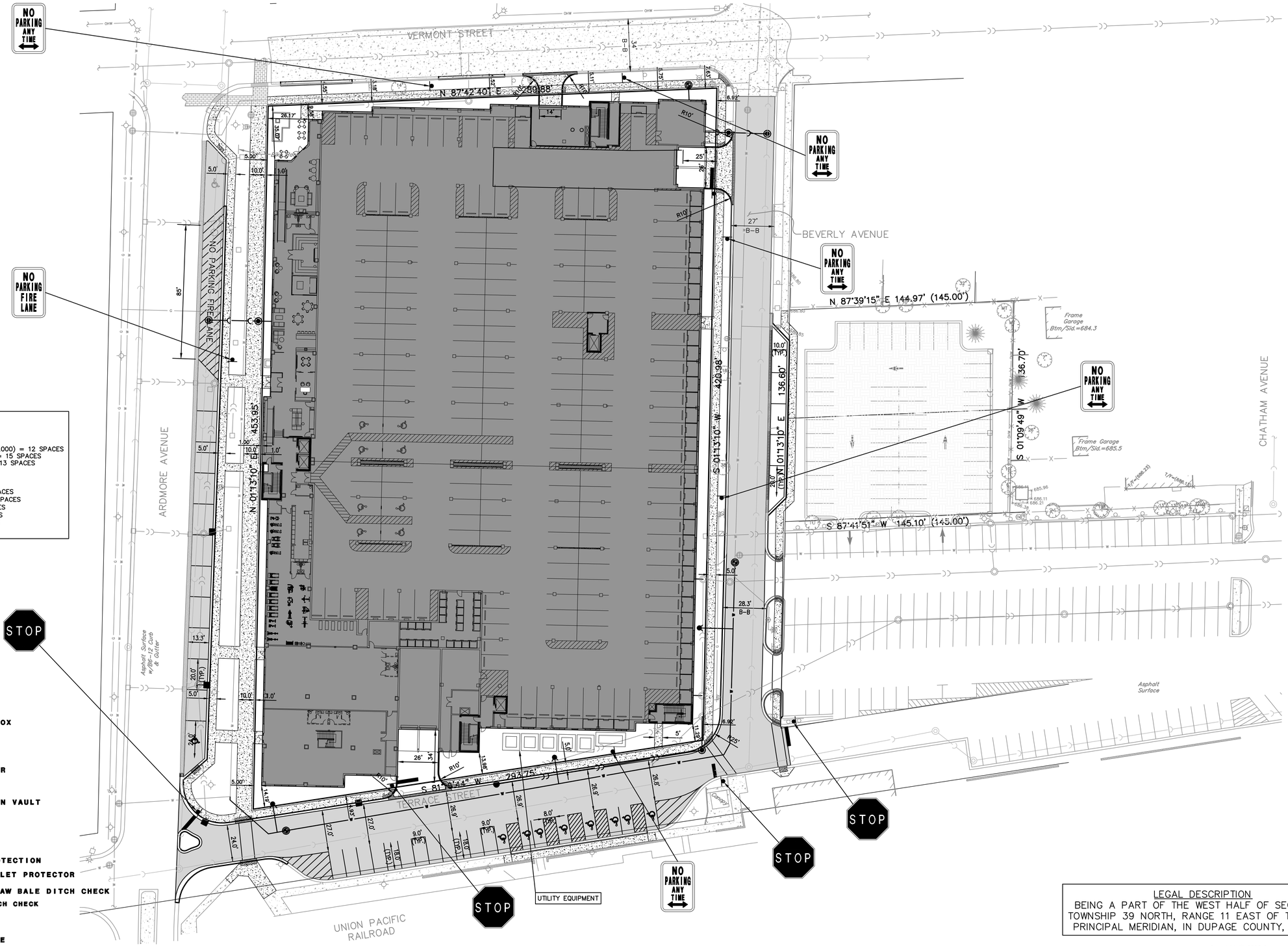
PARKING REQUIREMENTS

DEVELOPMENT SITE:
REQUIRED:
- -RETAIL, 4 SPACES PER 1,000 SQ. FT. = 4 x (2,814,1,000) = 12 SPACES
- -RESTAURANT, 0.33 SPACES PER SEAT = 0.33 x 45 = 15 SPACES
- -RESIDENTIAL, 1 SPACE PER BEDROOM = 1 x 413 = 413 SPACES
- -TOTAL REQUIRED = 440 SPACES

ACTUAL:
- -INTERIOR PARKING GARAGE (FIRST FLOOR) = 202 SPACES
- -INTERIOR PARKING GARAGE (SECOND FLOOR) = 219 SPACES
- -ON STREET PARKING (ARDMORE AVENUE) = 13 SPACES
- -ON STREET PARKING (TERRACE STREET) = 20 SPACES
- -ON STREET PARKING (BEVERLY AVENUE) = 5 SPACES
- -TOTAL ACTUAL = 459 SPACES

## LEGEND

| EXISTING | PROPOSED | DESCRIPTION |
|---|---|---|
| | | MANHOLE |
| | | CATCH BASIN |
| | | INLET |
| | | CLEANOUT |
| | | SLOPE INLET BOX |
| | | HEADWALL |
| | | END SECTION |
| | | STORM SEWER |
| | | SANITARY SEWER |
| | | WATERMAIN |
| | | VALVE & BOX |
| | | WATER VALVE IN VAULT |
| | | FIRE HYDRANT |
| | | CONTOURS |
| (ELEV) | ELEV | ELEVATIONS |
| | | STREET LIGHT |
| | | WATERMAIN PROTECTION |
| | | SILT FENCE INLET PROTECTOR |
| | | TEMPORARY STRAW BALE DITCH CHECK |
| | | SILT FENCE DITCH CHECK |
| | | RIP-RAP |
| | | OVERFLOW ROUTE |




LEGAL DESCRIPTION

BEING A PART OF THE WEST HALF OF SECTION 3, TOWNSHIP 39 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS.

Copyright © 2025 Cemcon, Ltd. All rights reserved.

PREPARED FOR:
HAWTHORNE VILLA PARK LP
100 TOWER DRIVE, SUITE 238
BURR RIDGE, ILLINOIS 60527
(312) 235-6647

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60502-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

REVISIONS

| NO. | DATE | DESCRIPTION | NO. | DATE | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 10-31-25/BCD | REVISED PER VILLAGE REVIEW DATED 10-22-2025 | | | |

# FINAL SITE PLAN

## GARDEN STATION APARTMENTS

| FILE NAME: FINAL SITE PLAN | DSGN. BY: KTS | JOB NO.: 904.351 | FLD. BK./PG.: | SHEET NO. |
|---|---|---|---|---|
| DIR: 904351 | DRN. BY: KMS | DATE: 09-30-2025 | SCALE: 1" = 30' | 1 of 1 |

PLOT FILE CREATED: 10/30/2025 2:41 PM BY BRANDON DAVID DRAWING LAST SAVED: 10/29/2025 12:36 PM BY BRANDON DRAWING PATH: P:\904351\DWG\ENG\DRAWINGS\EXHIBITS\FINAL SITE PLAN.DWG

# LIST OF ABBREVIATIONS

| | | | |
|---|---|---|---|
| AFF | ABOVE FINISH FLOOR | LLV | LONG LEG VERTICAL |
| ADJ | ADJUSTABLE | LP | LOW POINT |
| ALT | ALTERNATE | MFR | MANUFACTURER |
| ALUM | ALUMINUM | MO | MASONRY OPENING |
| AB | ANCHOR BOLTS | MAX | MAXIMUM |
| L | ANGLE | MEP | MECH / ELECT / PLUMB |
| ARCH | ARCHITECTURAL | MECH | MECHANICAL |
| @ | AT | MTL | METAL |
| BD | BOARD | MIN | MINIMUM |
| BLDG | BUILDING | NIC | NOT IN CONTRACT |
| CAB | CABINET | NTS | NOT TO SCALE |
| CLG | CEILING | OC | ON CENTER |
| CL | CENTER LINE | OPNG | OPENING |
| CER | CERAMIC | OD | OUTSIDE DIAMETER |
| CT | CERAMIC TILE | OH | OPPOSITE HAND |
| COL | COLUMN | PLAS LAM | PLASTIC LAMINATE |
| CONC | CONCREATE | PLUMB | PLUMBING |
| CMU | CONCRETE MASONRY UNIT | PLYWD | PLYWOOD |
| CONST | CONSTRUCTION | PL | PLATE |
| CONT | CONTINUOUS | POL | POLISHED |
| CJ | CONTROL JOINT | RAD / R | RADIUS |
| DET | DETAIL | RECEPT | RECEPTACLE |
| DIA | DIAMETER | REINF | REINFORCING |
| DIM | DIMENSION | REQ'D | REQUIRED |
| DR | DOOR | R | RISER/RADIUS |
| DBL | DOUBLE | RD | ROOF DRAIN |
| DS | DOWNSPOUT | RM | ROOM |
| EA | EACH | RO | ROUGH OPENING |
| EW | EACH WAY | SECT | SECTION |
| ELEC | ELECTRIC | SHT | SHEET |
| EWC | ELECTRIC WATER COOLER | SIM | SIMILAR |
| EL | ELEVATOR | SPEC | SPECIFICATION |
| ELEV | ELEVATION | | SQUARE |
| EQU | EQUAL | SS | STAINLESS STEEL |
| EXP | EXPANSION | STD | STANDARD |
| EJ | EXPANSION JOINT | STL | STEEL |
| EXT | EXTERIOR | STRUCT | STRUCTURAL |
| FIN | FINISH | SOB | TOP OF BEAM |
| FF | FINISH FLOOR | TOC | TOP OF CURB |
| FEC | FIRE EXTINGUISHER CABINET | TOJ | TOP OF JOIST |
| FHC | FIRE HOSE CABINET | TOS | TOP OF STEEL |
| FH | FIRE HYDRANT | TOP | TOP OF PLATE |
| FLR | FLOOR | TOW | TOP OF WALL |
| FD | FLOOR DRAIN | T | TREAD |
| GALV | GALVANIZED | TYP | TYPICAL |
| GA | GAUGE | UC | UNDER COUNTER / CABINET |
| GWB | GYPSUM WALL BOARD | UNO | UNLESS NOTED OTHERWISE |
| HR | HOUR | VERT | VERTICAL |
| HT | HEIGHT | VEST | VESTIBULE |
| HM | HOLLOW METAL | VWC | VERTICAL WALL COVERING |
| HOR / HORIZ | HORIZONTAL | WC | WATER CLOSET |
| ID | INTERIOR DIAMETER | WP | WATER PROOF |
| INSUL | INSULATION | WF | WIDE FLANGE |
| INT | INTERIOR | W/ | WITH / WITHOUT |
| LAM | LAMINATE/LAMINATED | WD | WOOD |
| LAV | LAVATORY | WWF | WELDED WIRE FABRIC |
| LLH | LONG LEG HORIZONTAL | | |

# LIST OF DRAWINGS


| SHEET NUMBER | TITLE |
|---|---|
| | COVER |
| LS1.1 | DEVELOPMENT SUMMARY |
| LS1.2 | FIRST FLOOR LIFE SAFETY PLAN |
| LS1.3 | SECOND FLOOR LIFE SAFETY PLAN |
| LS1.4 | THIRD FLOOR LIFE SAFETY PLAN |
| LS1.5 | FOURTH FLOOR LIFE SAFETY PLAN |
| LS1.6 | FIFTH FLOOR LIFE SAFETY PLAN |
| LS1.7 | SIXTH FLOOR LIFE SAFETY PLAN |
| LS1.8 | SEVENTH FLOOR LIFE SAFETY PLAN |
| LS1.9 | LIFE SAFETY DETAILS |
| LS1.10 | LIFE SAFETY DETAILS |
| LS1.11 | LIFE SAFETY DETAILS |
| LS1.12 | LIFE SAFETY DETAILS |
| ADA.1 | ADA DETAILS |
| ADA.2 | ADA DETAILS |
| ADA.3 | ADA DETAILS |
| S0.1 | GENERAL NOTES |
| S1.1A | FOUNDATION PLAN PART A |
| S1.1B | FOUNDATION PLAN PART B |
| S1.1C | FOUNDATION PLAN PART C |
| S1.1D | FOUNDATION PLAN PART D |
| S1.2A | SECOND FLOOR FRAMING PLAN PART A |
| S1.2B | SECOND FLOOR FRAMING PLAN PART B |
| S1.2C | SECOND FLOOR FRAMING PLAN PART C |
| S1.2D | SECOND FLOOR FRAMING PLAN PART D |
| S1.3A | THIRD FLOOR FRAMING PLAN PART A |
| S1.3B | THIRD FLOOR FRAMING PLAN PART B |
| S1.3C | THIRD FLOOR FRAMING PLAN PART C |
| S1.3D | THIRD FLOOR FRAMING PLAN PART D |
| S1.4A | TYPICAL FLOOR FRAMING PLAN PART A |
| S1.4B | TYPICAL FLOOR FRAMING PLAN PART B |
| S1.4C | TYPICAL FLOOR FRAMING PLAN PART C |
| S1.4D | TYPICAL FLOOR FRAMING PLAN PART D |
| S1.5A | ROOF FRAMING PLAN PART A |
| S1.5B | ROOF FRAMING PLAN PART B |
| S1.5C | ROOF FRAMING PLAN PART C |
| S1.5D | ROOF FRAMING PLAN PART D |
| S1.6 | THIRD FLOOR LOADING PLAN |
| S2.1 | FOUNDATION DETAILS |
| S2.2 | FOUNDATION DETAILS |
| S2.3 | FOUNDATION SCHEDULE |
| S2.4 | PRECAST DETAILS |
| S2.5 | WOOD DETAILS |
| A1.1 | FIRST FLOOR PLAN |
| A1.2 | SECOND FLOOR PLAN |
| A1.3 | THIRD FLOOR PLAN |
| A1.4 | FOURTH FLOOR PLAN |
| A1.5 | FIFTH FLOOR PLAN |
| A1.6 | SIXTH FLOOR PLAN |
| A1.7 | SEVENTH FLOOR PLAN |
| A1.8 | FIRST FLOOR REFLECTED CEILING PLAN |
| A1.9 | SECOND FLOOR REFLECTED CEILING PLAN |
| A1.10 | THIRD FLOOR REFLECTED CEILING PLAN |
| A1.11 | FOURTH FLOOR REFLECTED CEILING PLAN |
| A1.12 | FIFTH FLOOR REFLECTED CEILING PLAN |
| A1.13 | SIXTH FLOOR REFLECTED CEILING PLAN |
| A1.14 | SEVENTH FLOOR REFLECTED CEILING PLAN |
| A1.15 | ROOF PLAN |
| A1.16 | UNIT PLANS |
| A1.17 | UNIT PLANS |
| A1.18 | UNIT PLANS |
| A1.19 | UNIT PLANS |
| A1.20 | UNIT PLANS |
| A1.21 | UNIT PLANS |
| A1.22 | UNIT PLANS |
| A1.23 | LARGE SCALE FLOOR PLANS |
| A1.24 | LARGE SCALE FLOOR PLANS |
| A1.25 | LARGE SCALE FLOOR PLANS |
| A1.26 | LARGE SCALE STAIR PLANS |
| A1.27 | LARGE SCALE STAIR PLANS |
| A2.1 | EXTERIOR ELEVATIONS |
| A2.1A | COLORED ELEVATIONS |
| A2.2 | EXTERIOR ELEVATIONS |
| A2.2A | COLORED ELEVATIONS |
| A2.3 | EXTERIOR ELEVATIONS |
| A3.1 | BUILDING SECTIONS |
| A3.2 | BUILDING SECTIONS |
| A3.3 | BUILDING SECTIONS |
| A3.4 | BUILDING SECTIONS |
| A3.5 | ELEVATOR SECTION |
| A3.6 | STAIR SECTIONS |
| A3.7 | STAIR SECTIONS |
| A3.8 | WALL SECTIONS |
| A3.9 | WALL SECTIONS |
| A3.10 | WALL SECTIONS |
| A3.11 | FIRE WALL SECTIONS |
| A4.1 | UNIT CASEWORK & INTERIOR ELEVATIONS |
| A4.2 | UNIT CASEWORK & INTERIOR ELEVATIONS |
| A4.3 | UNIT CASEWORK & INTERIOR ELEVATIONS |
| A4.4 | UNIT CASEWORK & INTERIOR ELEVATIONS |
| A4.5 | UNIT CASEWORK & INTERIOR ELEVATIONS |
| A4.6 | UNIT CASEWORK & INTERIOR ELEVATIONS |
| A4.7 | UNIT CASEWORK & INTERIOR ELEVATIONS |
| A4.8 | UNIT CASEWORK & INTERIOR ELEVATIONS |
| A4.9 | INTERIOR ELEVATIONS |
| A4.10 | DETAILS |
| A4.11 | DETAILS |
| A5.1 | DOOR SCHEDULE |
| A5.2 | FINISH SCHEDULE |
| A5.3 | DOOR & JAMB TYPES |
| A5.4 | WINDOW TYPES |
| M0.0 | HVAC LEGEND & NOTES |
| M1.0 | FIRST FLOOR HVAC DIAGRAM |
| M1.2 | SECOND FLOOR HVAC DIAGRAM |
| M1.3 | THIRD FLOOR HVAC DIAGRAM |
| M1.6 | FOURTH THRU SIXTH FLOOR HVAC DIAGRAM |
| M1.7 | SEVENTH FLOOR HVAC DIAGRAM |
| M1.8 | ROOF HVAC DIAGRAM |
| M3.0 | LARGE SCALE HVAC DIAGRAM |
| M3.1 | LARGE SCALE HVAC DIAGRAM |
| M3.2 | LARGE SCALE HVAC DIAGRAM |
| M3.3 | LARGE SCALE HVAC DIAGRAM |
| M4.0 | HVAC RISER DIAGRAM - AIR/SIDE |
| M4.1 | HVAC RISER DIAGRAM - VRF PIPING |
| M4.2 | HVAC RISER DIAGRAM - VRF PIPING |
| M4.3 | HVAC RISER DIAGRAM - GAS PIPING |
| M5.0 | HVAC SCHEDULES |
| M5.1 | HVAC SCHEDULES |
| M6.0 | HVAC DETAILS |
| M6.1 | HVAC DETAILS |
| M6.2 | HVAC DETAILS |
| MT.0 | BUILDING AUTOMATION SYSTEM NOTES |
| MT.1 | BUILDING AUTOMATION SYSTEM REFRIGERANT DETAILS |
| MT.2 | BUILDING AUTOMATION SYSTEM EXHAUST FANS DETAILS |
| MT.3 | BUILDING AUTOMATION SYSTEM INSTALLATION DETAILS |
| P0.0 | PLUMBING SYMBOLS, NOTES & ABBREVIATIONS |
| P1.0 | UNDERGROUND PLUMBING DIAGRAM |
| P1.1 | FIRST FLOOR PLUMBING DIAGRAM |
| P1.2 | SECOND FLOOR PLUMBING DIAGRAM |
| P1.3 | THIRD FLOOR PLUMBING DIAGRAM |
| P1.4 | FOURTH THRU SIXTH FLOOR PLUMBING DIAGRAM |
| P1.7 | SEVENTH FLOOR PLUMBING DIAGRAM |
| P1.8 | ROOF PLUMBING DIAGRAM |
| P3.0 | LARGE SCALE PLUMBING DIAGRAM |
| P3.1 | LARGE SCALE PLUMBING DIAGRAM |
| P3.2 | LARGE SCALE PLUMBING DIAGRAM |
| P3.3 | LARGE SCALE PLUMBING DIAGRAM |
| P4.0 | PLUMBING RISER DIAGRAM - SUPPLY |
| P4.1 | PLUMBING RISER DIAGRAM - SUPPLY |
| P4.2 | PLUMBING RISER DIAGRAM - WASTE |
| P4.3 | PLUMBING RISER DIAGRAM - WASTE |
| P4.4 | PLUMBING RISER DIAGRAM - WASTE |
| P4.5 | PLUMBING RISER DIAGRAM - WASTE |
| P4.6 | PLUMBING RISER DIAGRAM - WASTE |
| P4.7 | PLUMBING RISER DIAGRAM - WASTE |
| P4.8 | PLUMBING RISER DIAGRAM - WASTE |
| P5.0 | PLUMBING SCHEDULES |
| P6.0 | PLUMBING DETAILS |
| P6.1 | PLUMBING DETAILS |
| E0.0 | ELECTRICAL LEGEND & NOTES |
| E0.1 | ELECTRICAL SITE PLAN |
| E1.1 | FIRST FLOOR ELECTRICAL POWER DIAGRAM |
| E1.2 | SECOND FLOOR ELECTRICAL POWER DIAGRAM |
| E1.3 | THIRD FLOOR ELECTRICAL POWER DIAGRAM |
| E1.4 | FOURTH THRU SEVENTH FLOOR ELECTRICAL POWER DIAGRAM |
| E1.8 | ROOF ELECTRICAL POWER DIAGRAM |
| E2.0 | FIRST FLOOR LIGHTING DIAGRAM |
| E2.2 | SECOND FLOOR LIGHTING DIAGRAM |
| E2.3 | THIRD FLOOR LIGHTING DIAGRAM |
| E2.4 | FOURTH THRU SEVENTH FLOOR LIGHTING DIAGRAM |
| E3.0 | LARGE SCALE ELECTRICAL DIAGRAM |
| E3.1 | LARGE SCALE ELECTRICAL DIAGRAM |
| E3.2 | LARGE SCALE ELECTRICAL DIAGRAM |
| E3.3 | LARGE SCALE ELECTRICAL DIAGRAM |
| E3.4 | LARGE SCALE ELECTRICAL DIAGRAM |
| E3.5 | LARGE SCALE ELECTRICAL DIAGRAM |
| E4.0 | ELECTRICAL RISER DIAGRAM |
| E4.1 | ELECTRICAL EMERGENCY RISER DIAGRAM |
| E4.2 | ELECTRICAL FEEDER SCHEDULE |
| E4.3 | GROUNDING RISER DIAGRAM |
| E4.4 | FIRE ALARM RISER DIAGRAM |
| E5.0 | ELECTRICAL SCHEDULES POWERED EQUIP |
| E5.1 | ELECTRICAL SCHEDULES POWERED EQUIP |
| E5.2 | ELECTRICAL SCHEDULES POWERED EQUIP |
| E5.3 | ELECTRICAL PANEL SCHEDULES |
| E5.4 | ELECTRICAL PANEL SCHEDULES |
| E5.5 | ELECTRICAL PANEL SCHEDULES |
| E5.6 | ELECTRICAL PANEL SCHEDULES |
| E5.7 | ELECTRICAL PANEL SCHEDULES |
| E5.8 | ELECTRICAL PANEL SCHEDULES |
| E5.9 | ELECTRICAL PANEL SCHEDULES |
| E5.10 | ELECTRICAL PANEL SCHEDULES |
| E6.0 | ELECTRICAL DETAILS |
| E6.1 | ELECTRICAL DETAILS |
| E6.2 | ELECTRICAL DETAILS |
| E6.3 | ELECTRICAL DETAILS |
| E6.4 | ELECTRICAL DETAILS |
| E7.1 | PHOTOMETRIC PLAN |
| E7.2 | PHOTOMETRIC DETAILS |
| FP0.0 | FIRE PROTECTION LEGEND & NOTES |
| FP1.0 | FIRST FLOOR FIRE PROTECTION DIAGRAM |
| FP1.2 | SECOND FLOOR FIRE PROTECTION DIAGRAM |
| FP1.3 | THIRD FLOOR FIRE PROTECTION DIAGRAM |
| FP1.4 | FOURTH FLOOR FLOOR FIRE PROTECTION DIAGRAM |
| FP1.5 | FIFTH THRU SEVENTH FIRE PROTECTION DIAGRAM |
| FP4.0 | FIRE PROTECTION RISER DIAGRAM |
| FP6.0 | FIRE PROTECTION DETAILS |


## RESIDENTIAL UNIT MIX

| UNIT TYPE | ADA TYPE | GROSS AREA | LEVEL 3 | LEVEL 4 | LEVEL 5 | LEVEL 6 | LEVEL 7 | TOTAL |
|---|---|---|---|---|---|---|---|---|
| A - ONE BEDROOM | TYPE B | 632 SF | 15 | 15 | 15 | 15 | 15 | 75 |
| B - ONE BEDROOM | TYPE B | 743 SF | 19 | 19 | 19 | 19 | 19 | 95 |
| C - ONE BEDROOM | TYPE B | 828 SF | 4 | 4 | 4 | 4 | 4 | 20 |
| D - ONE BEDROOM | TYPE B | 813 SF | 1 | 1 | 1 | 1 | 1 | 5 |
| E - ONE BEDROOM W/ DEN | TYPE B | 911 SF | 0 | 0 | 1 | 1 | 1 | 3 |
| E-ADA - ONE BEDROOM W/ DEN | TYPE A | 911 SF | 1 | 1 | 0 | 0 | 0 | 2 |
| F - ONE BEDROOM | TYPE B | 821 SF | 0 | 0 | 1 | 1 | 1 | 3 |
| F-ADA - ONE BEDROOM | TYPE A | 821 SF | 0 | 1 | 0 | 0 | 0 | 1 |
| G - TWO BEDROOM | TYPE B | 1066 SF | 7 | 7 | 7 | 7 | 7 | 35 |
| H - TWO BEDROOM | TYPE B | 1101 SF | 0 | 0 | 1 | 1 | 1 | 3 |
| H-ADA - TWO BEDROOM | TYPE A | 1101 SF | 1 | 1 | 0 | 0 | 0 | 2 |
| J - ONE BEDROOM | TYPE B | 965 SF | 0 | 1 | 1 | 1 | 1 | 4 |
| K - ONE BEDROOM | ADAPTABLE | 743 SF | 10 | 11 | 11 | 11 | 11 | 54 |
| L - TWO BEDROOM | ADAPTABLE | 1066 SF | 5 | 5 | 5 | 5 | 5 | 25 |
| M - STUDIO | TYPE B | 632 SF | 1 | 1 | 2 | 2 | 2 | 8 |
| M-ADA - STUDIO | TYPE A | 632 SF | 1 | 1 | 0 | 0 | 0 | 2 |
| N - ONE BEDROOM | TYPE B | 788 SF | 2 | 2 | 2 | 2 | 2 | 10 |
| O - ONE BEDROOM | TYPE B | 821 SF | 1 | 0 | 0 | 0 | 0 | 1 |
| TOTAL | | | 68 | 70 | 70 | 70 | 70 | 348 |

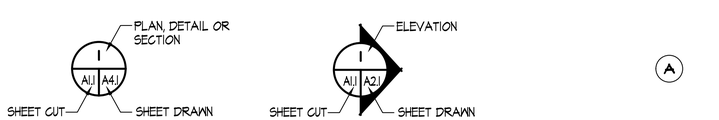
NOTES
1. ADA TYPE "A" UNITS
   REQUIRED = 2% X 348 UNITS = 7 UNITS
   PROVIDED = 7 UNITS (UNITS 310, 379, 386, 410, 425, 476 &483)
2. ADA TYPE "B" UNITS
   REQUIRED = ALL UNITS
   PROVIDED = ALL UNITS
3. ADA ADAPTABLE UNITS
   REQUIRED = 20% X 348 UNITS = 70 UNITS
   PROVIDED = UNIT TYPE K & L = 79 UNITS
4. ALL UNITS SHALL MEET REQUIREMENTS OF THE IAC AND ICC A117.1.

## SHEET DESIGNATIONS

DISCIPLINE
- A - ARCHITECTURAL
- M - MECHANICAL
- P - PLUMBING
- E - ELECTRICAL
- S - STRUCTURAL
- C - CIVIL
- L - LANDSCAPING
- LS - LIFE SAFETY

A1.1
- SHEET NUMBER IN SEQUENCE
- DRAWING TYPE
  - 1 - PLANS
  - 2 - ELEVATION
  - 3 - SECTIONS
  - 4 - DETAILS
  - 5 - SCHEDULES

## SYMBOLS





THE DRAWINGS, THE PROJECT MANUAL, ANY ADDENDA, CHANGE ORDERS AND APPROVED SHOP DRAWINGS ARE PART OF THESE DOCUMENTS. ALL ATTACHED DOCUMENTS MUST BEAR THE SIGNED IDENTIFICATION OF THE ARCHITECT. NO OTHER ATTACHMENTS SHALL BE CONSIDERED PART OF THESE DOCUMENTS. THESE DOCUMENTS ARE THE PROPERTY JONES AND JONES ASSOCIATES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT.


LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

DATE
23 APR 2021

COMMISSION NUMBER
2793

REVISION DATE
31 OCT 2025

# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

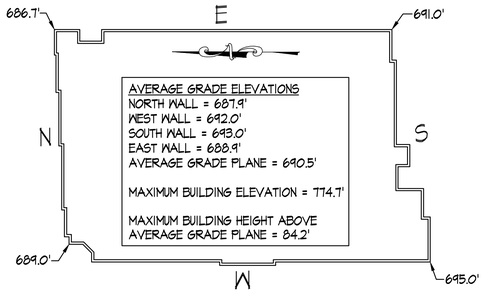

JONES & JONES ASSOCIATES ARCHITECTS PC

db|HMS
DG STRUCTURAL ENGINEERING LLC

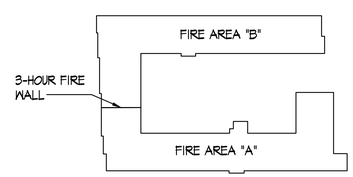
6120 PETERS CREEK ROAD · ROANOKE, VIRGINIA, 24019
TELEPHONE (540)366-3335 · FACSIMILE (540)366-3613

# DEVELOPMENT SUMMARY

- FACILITY USE: RESIDENTIAL, MERCANTILE, RESTAURANT AND PARKING
- APPLICABLE CODES
  - INTERNATIONAL BUILDING CODE - 2021 EDITION
  - INTERNATIONAL MECHANICAL CODE - 2021 EDITION (6)
  - INTERNATIONAL FUEL GAS CODE - 2021 EDITION (5)
  - ILLINOIS PLUMBING CODE - CURRENT EDITION (6)
  - NATIONAL ELECTRIC CODE - 2020 EDITION (5)
  - INTERNATIONAL FIRE CODE - 2021 EDITION
  - ILLINOIS ACCESSIBILITY - 2018 EDITION
  - INTERNATIONAL ENERGY CONSERVATION CODE - 2021 EDITION (5)
  - INTERNATIONAL SWIMMING POOL AND SPA CODE - 2021 EDITION
  - PHIUS - PASSIVE BUILDING DESIGN GUIDE - MULTIFAMILY CONSTRUCTION (1)
  - PHIUS 2021 PASSIVE BUILDING STANDARDS
- USE GROUP:
  - S-2 PARKING GARAGE
  - M MERCANTILE
  - A-2 ASSEMBLY - RESTAURANT
  - A-3 ASSEMBLY
  - R-2 RESIDENTIAL - APARTMENT
- CONSTRUCTION TYPE (PER IBC 602 & 510.2)
  - FLOORS 1 & 2 (USE GROUP S-2, M, A-2 & A-3) IA
  - FLOORS 3 - 7 (USE GROUP R-2) IIIA
- FIRE PROTECTION SYSTEMS REQUIRED
  - TOTAL COVERAGE FIRE SPRINKLER SYSTEM ( NFPA 13 )
    - HABITABLE AND SUPPORT AREAS - WET SYSTEM
    - ATTIC AND CANOPY AREAS - DRY SYSTEM
    - ALL CONTROL VALVES SHALL BE ELECTRICALLY SUPERVISED
  - TYPE V ( III ) ( NFPA 220 )
  - FIRE ALARM SYSTEM ( NFPA 72 )
  - (3) PROVIDE KNOX BOX AT FIRE SPRINKLER ROOM EXTERIOR DOOR AND AT MAIN ENTRY DOOR
- BUILDING HEIGHT ABOVE GRADE PLANE (PER IBC TABLE 504.3)
  - USE GROUP S-2, M, A-2 & A-3 (IA)
    - ALLOWABLE UL
    - ACTUAL MAXIMUM 34'
  - USE GROUP R-2 (IIIA)
    - ALLOWABLE 85'
    - ACTUAL MAXIMUM 84.2'




- NUMBER OF STORIES ABOVE GRADE PLANE (PER IBC TABLE 504.4)
  - USE GROUP S-2, M, A-2 & A-3 (IA)
    - ALLOWABLE UL
    - ACTUAL MAXIMUM 2
  - USE GROUP R-2 (IIIA) (ABOVE HORIZONTAL SEPARATION PER IBC 510.2)
    - ALLOWABLE 5
    - ACTUAL MAXIMUM 5
- BUILDING AREA (PER IBC 506.2)
  - USE GROUP S-2, M, A-2 & A-3 (IA)
    - ALLOWABLE UL
    - ACTUAL
      - FLOOR 1 114,104 SQ. FT.
      - FLOOR 2 114,229 SQ. FT.
  - USE GROUP R-2 (IIIA)
    - ALLOWABLE AREA ($A_a$) (PER IBC 506.2.3 EQUATION 5-2)
      - TABULAR ALLOWABLE AREA ($A_t$) (PER IBC TABLE 506.2) 72,000 SQ. FT.
      - TOTAL ALLOWABLE AREA
        - $A_a = [\ A_t + (NS \times I_f)\ ] \times S_a$
        - $A_a = [\ 72{,}000 + (24{,}000 \times 0\%)\ ] \times 3 =$ 216,000 SQ. FT.
    - ACTUAL AREA
      - FIRE AREA "A"
        - FLOOR 3 37,174 SQ. FT.
        - FLOORS 4-7 (PER FLOOR) 36,576 SQ. FT.
        - TOTAL ACTUAL AREA 183,478 SQ. FT.
      - FIRE AREA "B"
        - FLOORS 3-7 (PER FLOOR) 34,448 SQ. FT.
        - TOTAL ACTUAL AREA 172,240 SQ. FT.




(3) GENERAL ENERGY NOTES
1. AIR INFILTRATION SHALL BE VERIFIED BY WHOLE BUILDING PRESSURIZATION TESTING CONDUCTED IN ACCORDANCE WITH ASTM E779 OR ASTM E1827 BY AN INDEPENDENT THIRD PARTY. THE MEASURED AIR LEAKAGE RATE OF THE BUILDING ENVELOPE SHALL NOT EXCEED 0.25 CFM/FT$^2$ (2.0 L/S x M$^2$) UNDER A PRESSURE DIFFERENTIAL OF 0.3 IN. WATER (75 PA), WITH THE CALCULATED SURFACE AREA BEING THE SUM OF THE ABOVE AND BELOW GRADE BUILDING ENVELOPE. A REPORT THAT INCLUDES THE TESTED SURFACE AREA, FLOOR AREA, AIR BY VOLUME, STORIES ABOVE GRADE, AND LEAKAGE RATES SHALL BE SUBMITTED TO THE CODE OFFICIAL AND THE BUILDING OWNER.
2. COMMISSIONING PLANS, PRELIMINARY AND FINAL COMMISSIONING REPORTS SHOWING COMPLIANCE WITH ASHRAE 90.1-2016 TO BE PROVIDED DURING THE CONSTRUCTION PHASE.

- OCCUPANT LOAD (PER IBC TABLE 1004.1.2)

| | | |
|---|---|---|
| FLOOR 1 | | |
| ASSEMBLY | 11,875 SQ FT / 15 NET | = 792 PEOPLE |
| MERCANTILE | 2,831 SQ FT / 60 GROSS | = 48 PEOPLE |
| PARKING GARAGE | 94,840 SQ FT / 200 GROSS | = 475 PEOPLE |
| EXERCISE | 2,834 SQ FT / 50 GROSS | = 57 PEOPLE |
| BUSINESS | 452 SQ FT / 100 GROSS | = 5 PEOPLE |
| STORAGE | 1,893 SQ FT / 300 GROSS | = 7 PEOPLE |
| TOTAL | | 1,384 PEOPLE |
| FLOOR 2 | | |
| ASSEMBLY | 1,044 SQ FT / 15 NET | = 70 PEOPLE |
| STORAGE | 6,818 SQ FT / 300 GROSS | = 23 PEOPLE |
| PARKING GARAGE | 106,367 SQ FT / 200 GROSS | = 532 PEOPLE |
| TOTAL | | 625 PEOPLE |
| FLOOR 3 | | |
| ASSEMBLY | 2,356 SQ FT / 15 NET | = 158 PEOPLE |
| RESIDENTIAL | 69,265 SQ FT / 200 GROSS | = 347 PEOPLE |
| TOTAL | | 505 PEOPLE |
| FLOORS 4-7 | | |
| RESIDENTIAL (PER FLOOR) | 71,023 SQ FT / 200 GROSS | = 356 PEOPLE |
| TOTAL (FLOORS 4-7) | | 1,424 PEOPLE |
| TOTAL BUILDING | | 3,938 PEOPLE |

- NUMBER OF EXITS (PER IBC 1006.2.1)

| | |
|---|---|
| FLOOR 1 | |
| REQUIRED | 4 DOORS - 1,384 PEOPLE |
| ACTUAL | 12 DOORS - 2,964 PEOPLE |
| FLOOR 2 | |
| REQUIRED | 3 DOORS - 625 PEOPLE |
| ACTUAL | 5 DOORS - 1,135 PEOPLE |
| FLOORS 3 | |
| REQUIRED | 3 DOORS - 505 PEOPLE |
| ACTUAL | 4 DOORS - 908 PEOPLE |
| FLOORS 4-7 | |
| REQUIRED | 2 DOORS - 356 PEOPLE |
| ACTUAL | 4 DOORS - 908 PEOPLE |

- EXIT ACCESS TRAVEL DISTANCE (PER IBC TABLE 1017.2)

| | |
|---|---|
| S-2 - PARKING GARAGE | |
| ALLOWABLE | 400' |
| ACTUAL MAXIMUM | 277' |
| M - RETAIL | |
| ALLOWABLE | 250' |
| ACTUAL MAXIMUM | 57' |
| A-2 - RESTAURANT | |
| ALLOWABLE | 250' |
| ACTUAL MAXIMUM | 66' |
| A-3 | |
| ALLOWABLE | 250' |
| ACTUAL MAXIMUM | 56' |
| R-2 - RESIDENTIAL | |
| ALLOWABLE | 250' |
| ACTUAL MAXIMUM | 248' |

- FIRE RESISTANCE RATINGS (PER IBC TABLES 601 & 1020.1)
  - FLOORS 1 & 2 (CONSTRUCTION TYPE IA)

| | REQUIRED | PROVIDED |
|---|---|---|
| PRIMARY STRUCTURAL FRAME | 3 HOUR | 3 HOUR |
| EXTERIOR BEARING WALLS | 3 HOUR | 3 HOUR - IBC TABLE 721.1(2) ITEM 3 & 4 |
| INTERIOR BEARING WALLS | 3 HOUR | 3 HOUR - IBC TABLE 721.1(2) ITEM 3 & 4 |
| NON BEARING INTERIOR WALLS | 0 HOUR | 0 HOUR |
| FLOOR CONSTRUCTION | 2 HOUR | 2 HOUR - IBC TABLE 721.1(3) ITEM 4 |
| ROOF CONSTRUCTION | 1 1/2 HOUR | 1 1/2 HOUR - IBC TABLE 721.1(3) ITEM 4 |
| SHAFT CONSTRUCTION | 2 HOUR | 2 HOUR - UL U415 C & IBC TABLE 721.1(2) ITEM 3 |
| CORRIDOR WALLS | 0 HOUR | 0 HOUR |

  - FLOORS 3-7 (CONSTRUCTION TYPE IIIA)

| | REQUIRED | PROVIDED |
|---|---|---|
| PRIMARY STRUCTURAL FRAME | 1 HOUR | 1 HOUR |
| EXTERIOR BEARING WALLS | 2 HOUR | 2 HOUR - UL W408 |
| INTERIOR BEARING WALLS | 1 HOUR | 1 HOUR - UL U305 |
| NON BEARING INTERIOR WALLS | 0 HOUR | 0 HOUR |
| FLOOR CONSTRUCTION | 1 HOUR | 1 HOUR - UL L521 |
| ROOF CONSTRUCTION | 1 HOUR | 1 HOUR - UL P522 |
| SHAFT CONSTRUCTION | 2 HOUR | 2 HOUR - UL U415 C & IBC TABLE 721.1(2) ITEM 3 |
| CORRIDOR WALLS | 1/2 HOUR | 1 HOUR - UL U305 |
| DWELLING UNIT SEPARATION | 1 HOUR | 1 HOUR - UL U341 |
| (3) FIRE WALL | 3 HOUR | 3 HOUR - UL U415 G |

ALL FIRE RESISTANT ASSEMBLIES IN CONCEALED SPACES SHALL BE LABELED TO INDICATE THEIR RATING WITH LETTERS 2" IN HEIGHT

- DRAFT STOPPING
  - NOT REQUIRED - BUILDING FULLY SPRINKLED
- PROVIDE KNOX BOX AT FIRE SPRINKLER ROOM EXTERIOR DOOR AND AT MAIN ENTRY DOOR

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELEMENTS OF PERFORMANCE BASED SPECIFICATIONS. THE FIRE ALARM, FIRE SUPPRESSION SYSTEM, AND ALL OTHER BUILDING ELEMENTS REFERENCED IN THE DEVELOPMENT SUMMARY ARE TO BE INSTALLED IN CONFORMANCE WITH THE REFERENCED STANDARDS. ALL SYSTEMS SHALL BE COMPLETELY OPERATIONAL WITH ALL REQUIRED ELEMENTS. THE CONTRACTOR SHALL SUBMIT PLANS FOR ALL LIFE SAFETY SYSTEMS TO THE ARCHITECT, THE BUILDING OFFICIAL AND THE STATE FIRE MARSHAL FOR APPROVAL PRIOR TO ANY FABRICATION OR INSTALLATION.

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2148
DATE
18 JUN 2021

LS1.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

FIRE SUPPRESSION
124

MAXIMUM TRAVEL DISTANCE 205'-1"

MAXIMUM TRAVEL DISTANCE 205'-1"

ELEV LOBBY
123

PARKING GARAGE
120

MAXIMUM TRAVEL DISTANCE 209'-3"

MAXIMUM TRAVEL DISTANCE 277'-0"

ACCESSIBLE PARKING SIGN (TYP)

ACCESSIBLE PARKING SIGN (TYP)

EV CHARGERS

MAXIMUM TRAVEL DISTANCE 255'-0"

MAINTAIN 96" CLEARANCE AT ALL DRIVE AISLES, ACCESSIBLE PARKING SPACES AND ACCESS AISLES IN HATCHED AREA

TRASH
125

FIREPLACE LOUNGE
102

MEDIA ROOM
106

LOUNGE / PARTY ROOM
107

LOBBY
108

OFFICE
109

LOUNGE
111

ELEVATOR LOBBY
112

VEST

MAIL ROOM
114

FITNESS ROOM
115

STORAGE
121

ELEC
122

RAMP UP

RETAIL
118

RESTAURANT
119

STAIR

34" CLEAR 227 PEOPLE

34" CLEAR 197 PEOPLE

FIREFIGHTER ACCESS ELEVATOR
PROVIDE FIREFIGHTER RECALL AND STAR OF LIFE SYMBOL ON BOTH SIDES OF THE LOBBY HOISTWAY FRAME.

## FIRST FLOOR PLAN

SCALE 1/16" = 1'-0"

PROJECT NORTH

## LEGEND

EXIT LIGHT

EM EMERGENCY LIGHT

FE FIRE EXTINGUISHER

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

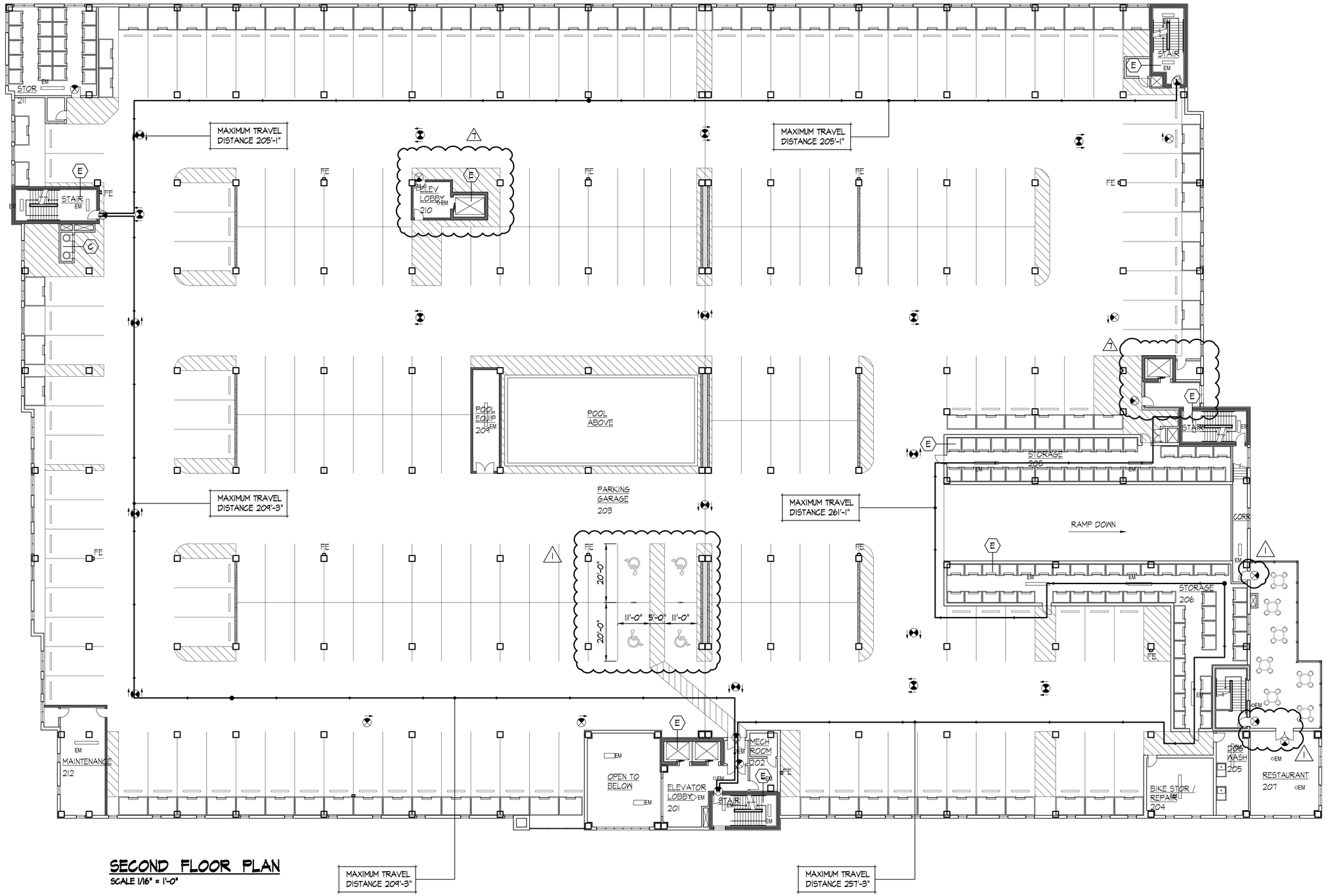
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

JONES & JONES ASSOCIATES / ARCHITECTS PC

LS1.2




## SECOND FLOOR PLAN

SCALE 1/16" = 1'-0"

## LEGEND

EXIT LIGHT

EMERGENCY LIGHT

FIRE EXTINGUISHER

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

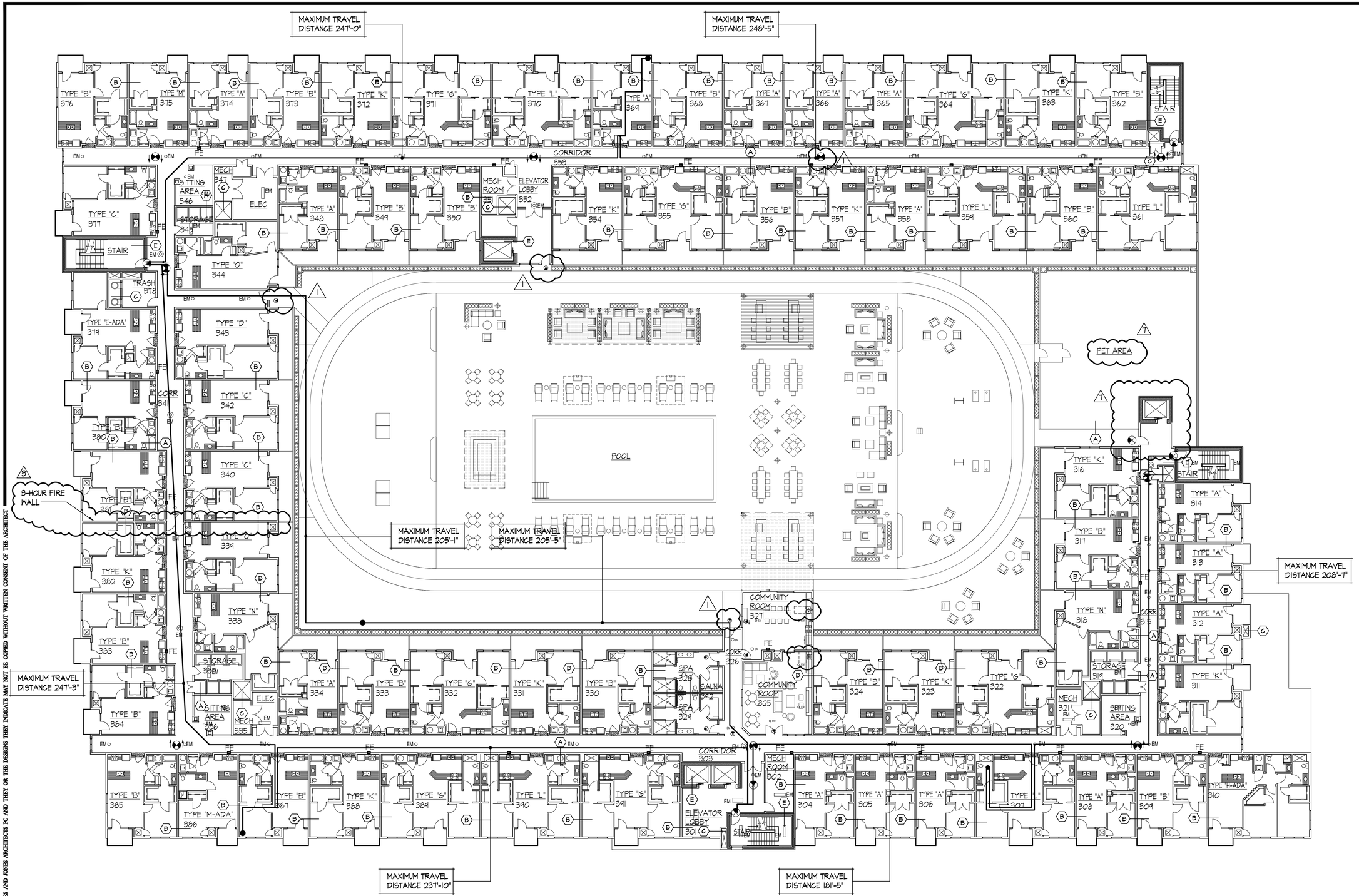
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

LS1.3

JONES & JONES ASSOCIATES / ARCHITECTS PC




# THIRD FLOOR PLAN

SCALE 1/16" = 1'-0"

## LEGEND

- EXIT LIGHT
- EM — EMERGENCY LIGHT
- FE — FIRE EXTINGUISHER

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

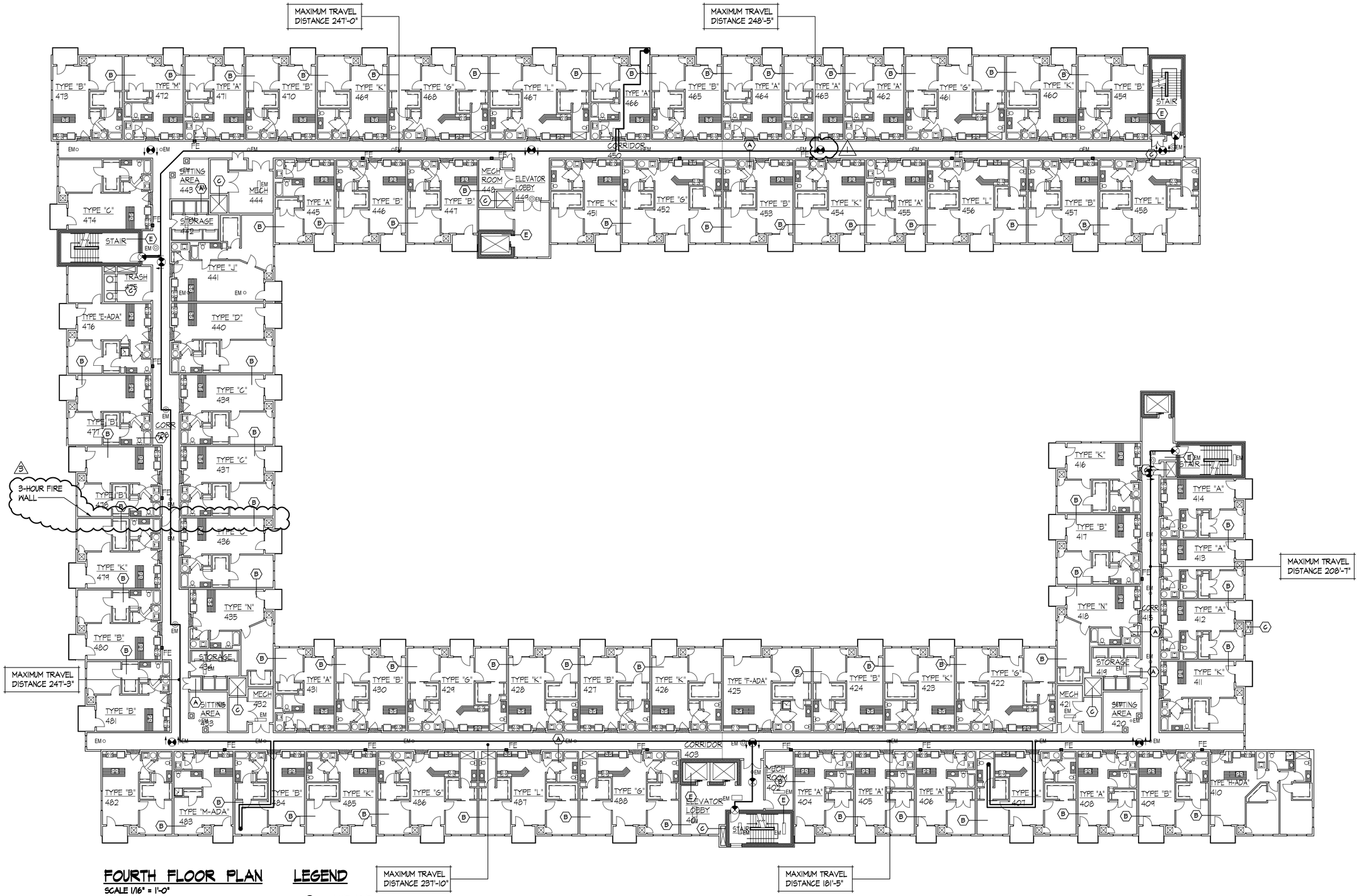
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2748
DATE
18 JUN 2021

JONES & JONES ASSOCIATES ARCHITECTS PC

LS1.4




# FOURTH FLOOR PLAN

SCALE 1/16" = 1'-0"

## LEGEND

- EXIT LIGHT
- EM — EMERGENCY LIGHT
- FE — FIRE EXTINGUISHER

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

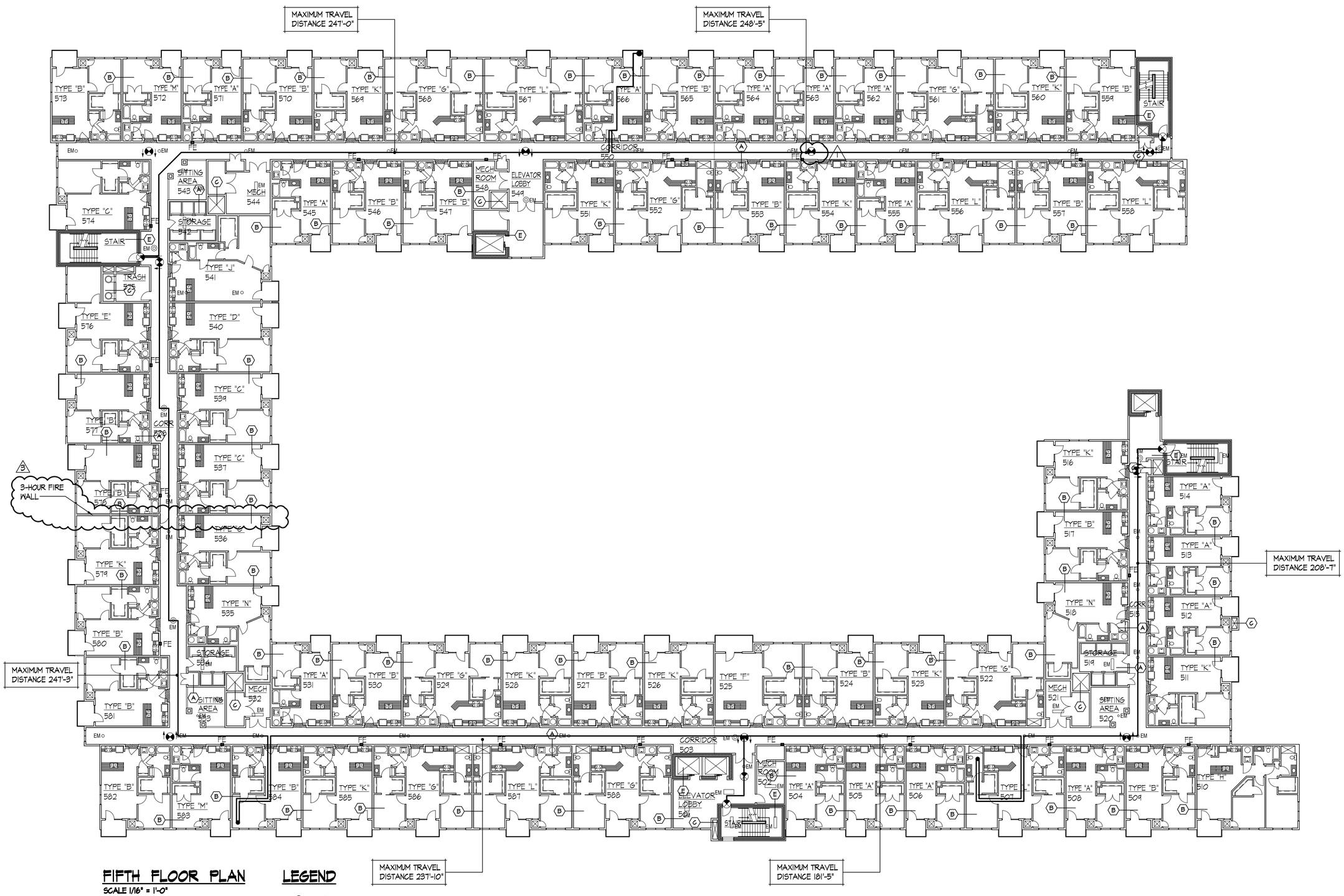
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

LS1.5

JONES & JONES ASSOCIATES / ARCHITECTS PC




## FIFTH FLOOR PLAN

SCALE 1/16" = 1'-0"

## LEGEND

EXIT LIGHT

EM EMERGENCY LIGHT

FE FIRE EXTINGUISHER

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

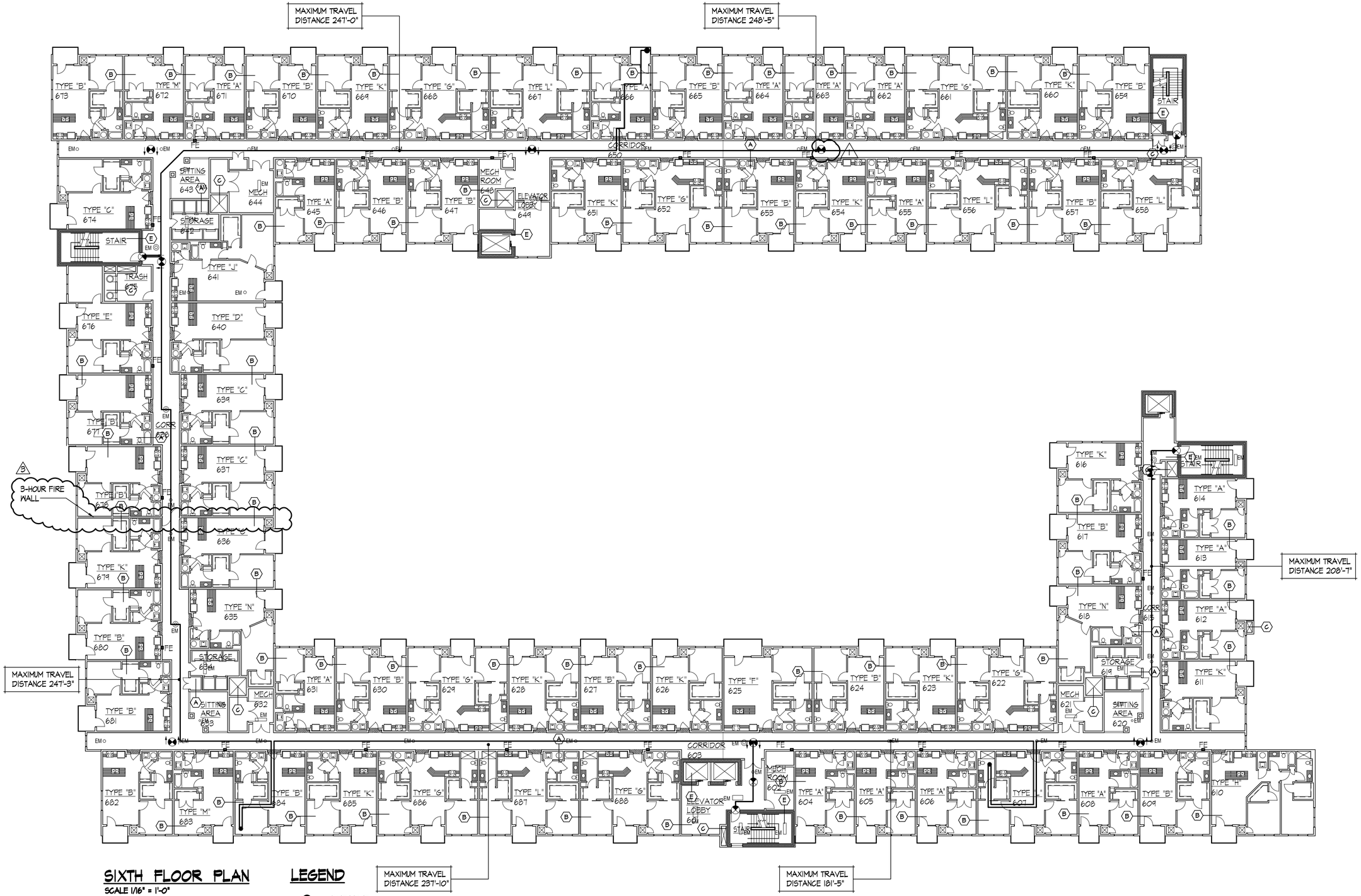
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

LS1.6

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## SIXTH FLOOR PLAN

SCALE 1/16" = 1'-0"

## LEGEND

EXIT LIGHT

EM EMERGENCY LIGHT

FE FIRE EXTINGUISHER

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

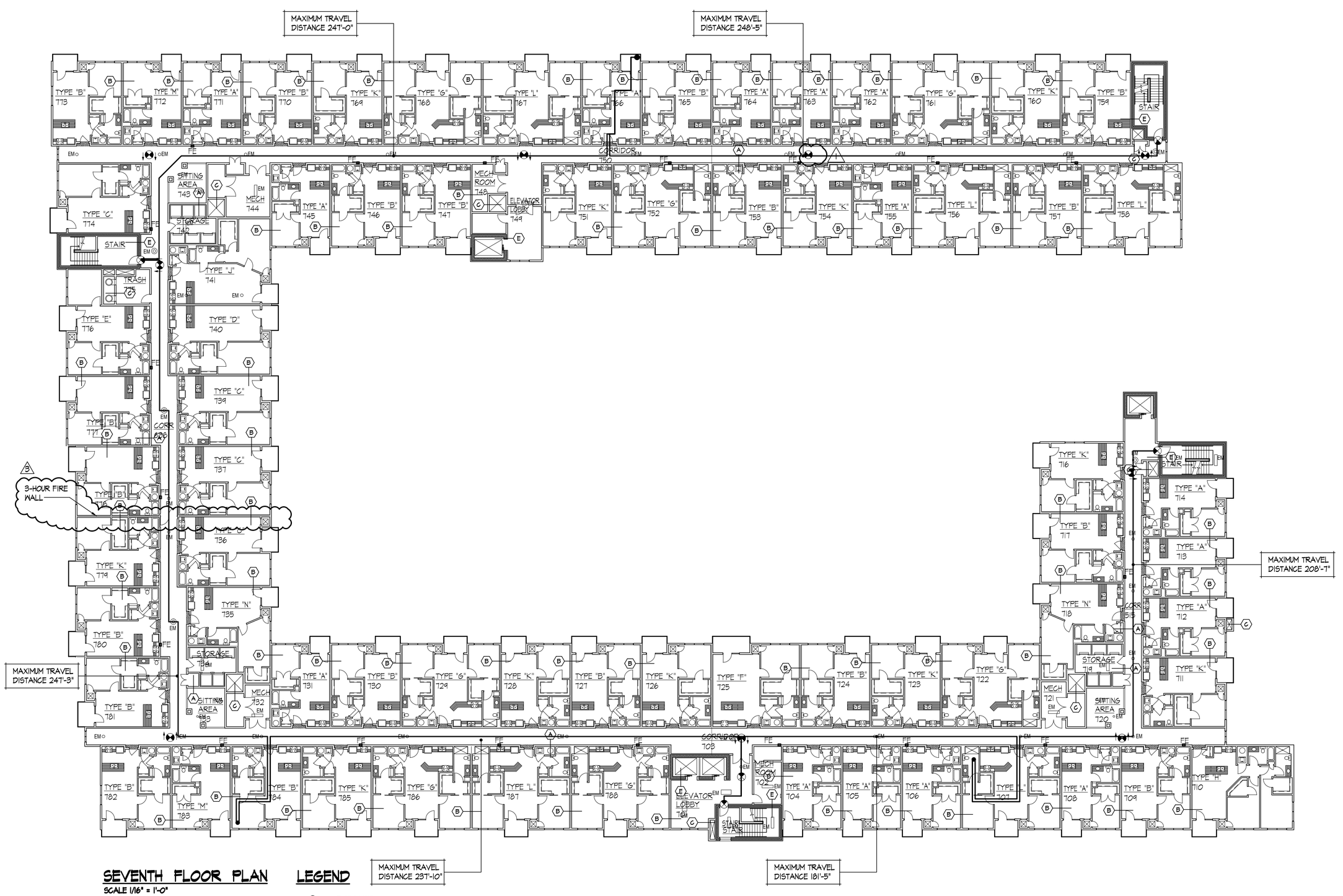
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

LS1.7

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## SEVENTH FLOOR PLAN

SCALE 1/16" = 1'-0"

## LEGEND

EXIT LIGHT

EM EMERGENCY LIGHT

FE FIRE EXTINGUISHER

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2748
DATE
18 JUN 2021

LS1.8

JONES & JONES ASSOCIATES / ARCHITECTS PC

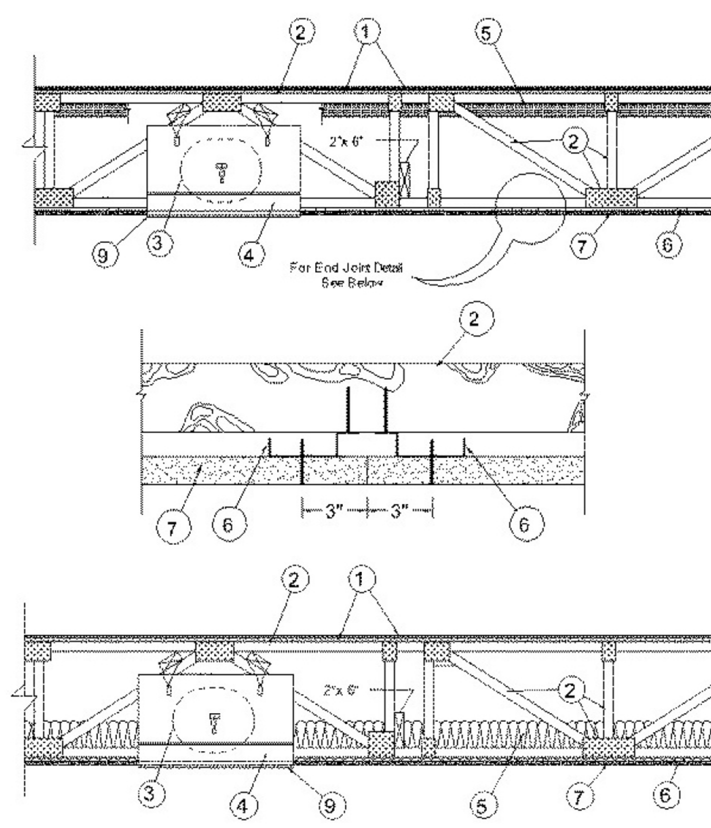
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

# Design No. L521

June 11, 2021

**Unrestrained Assembly Rating — 1 Hr**
**Finish Rating — 25 Min (See Items 5 and 5A), 20 Min (See Items 6H and 7A)**
**This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7**

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**




Alternate Insulation Placement

1. **Flooring System —** The flooring system shall consist of one of the following:

**System No. 1**

**Subflooring** — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

**Vapor Barrier** — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

**Finish Floor** — Min 1 by 4 in. T & G lumber installed perpendicular to trusses, or min 15/32 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panel to be perpendicular to joists with joints staggered.

**System No. 2**

**Subflooring** — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

**Vapor Barrier** — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

**Finish Flooring* — Floor Topping Mixture** — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

**UNITED STATES GYPSUM CO** — Types LRK, HSLRK, CSD

**LATICRETE SUPERCAP L L C** — Types LRK, HSLRK

**USG MEXICO S A DE C V** — Types LRK, HSLRK, CSD

**Floor Mat Materials*** — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.

**UNITED STATES GYPSUM CO** — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25

**Alternate Floor Mat Materials* —** (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding minimum thickness of floor topping over floor mat.
**GRASSWORX L L C** — SC Types

**System No. 3 (For Use with Item 7A Only)**

**Finish Floor —** Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and 2-1/2 in. long nails, spaced 12 in. OC along each truss and 8 in. OC at the perimeter.

**System No. 4**

**Structural Cement-Fiber Units* —** Nom 3/4 in. thick, with long edges tongue and grooved. Long dimension of panels to be perpendicular to wood trusses with end joints staggered a min of 2 ft and centered over the trusses. Panels secured to wood trusses with 1-5/8 in. long, No. 8, self- countersinking wood screw spaced a max of 12 in. OC in the field with a screw located 1 in. and 2 in. from each edge, and 8 in. OC on the perimeter with a screw located 2 in. from each edge, located 1/2 in. from the end edges of the panel.
**UNITED STATES GYPSUM CO** — Types STRUCTO-CRETE, USGSP

**Finish Flooring — Floor Topping Mixture* —** Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
**UNITED STATES GYPSUM CO** — Types LRK, HSLRK, CSD

**LATICRETE SUPERCAP L L C** — Types LRK, HSLRK

**USG MEXICO S A DE C V** — Types LRK, HSLRK, CSD

**Floor Mat Materials* —** (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.
**UNITED STATES GYPSUM CO** — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25

**System No. 5**

**Structural Cement-Fiber Units* —** Nom 3/4 in. thick, with long edges tongue and grooved. Long dimension of panels to be perpendicular to wood trusses with end joints staggered a min of 2 ft and centered over the trusses. Panels secured to wood trusses with 1-5/8 in. long, No. 8, self- countersinking wood screw spaced a max of 12 in. OC in the field with a screw located 1 in. and 2 in. from each edge, and 8 in. OC on the perimeter with a screw located 2 in. from each edge, located 1/2 in. from the end edges of the panel.
**UNITED STATES GYPSUM CO** — Types STRUCTO-CRETE, USGSP

**System No. 6**

**Subflooring —** Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. **Vapor Barrier —** (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt. **Floor Mat Materials* —** (Optional) — Floor mat material nom 1/8 in. (3 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 3/4 in. (19 mm).
**HACKER INDUSTRIES INC** — FIRM-FILL SCM 125

**Alternate Floor Mat Materials — (Optional) —** Floor mat material nom 1/4 in. (6 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1 in. (25 mm).
**HACKER INDUSTRIES INC** — Type FIRM-FILL SCM 250

**Alternate Floor Mat Materials —** (Optional) — Floor mat material nom 3/8 in. (10 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (32 mm)
**HACKER INDUSTRIES INC** — FIRM-FILL SCM 400

**Alternate Floor Mat Materials —** (Optional) — Floor mat material nom 3/4 in. (19 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38 mm).
**HACKER INDUSTRIES INC** — Type FIRM-FILL SCM 750

**Metal Lath (Optional) —** (Optional) — For use with 3/8 in. (10 mm), or greater, floor mat materials, 3/8 in. expanded steel diamond mesh, 3.4 lbs/sq yd placed over the floor mat material. Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1 in. (25 mm) over the floor mat.**Finish Flooring — Floor Topping Mixture*** — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand.
**HACKER INDUSTRIES INC** — Firm-Fill Gypsum Concrete, Firm-Fill 2010, Firm-Fill 3310, Firm-Fill 4010, Gyp-Span Radiant

**System No. 7**

**Subflooring —** Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.**Vapor Barrier —** (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.**Finish Floor* — Mineral and Fiber Board —** Min 1/2 in. thick, supplied in sizes ranging from 3 ft by 4 ft to 8 ft by 12 ft.
**HOMASOTE CO** — Type 440-32 Mineral and Fiber Board

**System No. 8**

**Subflooring** —Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

**Vapor Barrier** —(Optional) - Nom 0.030 in. thick commercial asphalt saturated felt.

**Floor Mat Materials*** — (Optional) — Floor mat material nom 5/64 in. (2 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of floor-topping mixture. Floor topping thickness a min 1 in. over the floor mat.

**HACKER INDUSTRIES INC** — Type Hacker Sound-Mat

**Alternate Floor Mat Materials** — (Optional) — Floor mat material nom 1/4 in. (6 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1-1/4 in. (32 mm) of floor-topping mixture.

**HACKER INDUSTRIES INC** — Type Hacker Sound-Mat II

**Metal Lath (Optional)** — For use with 3/8 in. (10 mm) floor mat materials, 3/8 in. expanded steel diamond mesh, 3.4 lbs/sq yd placed over the floor mat material. Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1-1/4 in. over the floor mat.

**Finish Flooring — Floor Topping Mixture*** — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand.

**HACKER INDUSTRIES INC** — Firm-Fill Gypsum Concrete, Firm-Fill High Strength, Gyp-Span Radiant

2. **Trusses —** Parallel chord trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Min truss depth is 12 in. when no **Ceiling Damper*** is used and 18 in. when a **Ceiling Damper*** is used. Truss members secured together with min 0.0356 in. thick galv steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approx. 7/8 in. centers with four rows of teeth per inch of plate width.

3. **Air Duct* —** Any UL Class 0 or Class 1 flexible air duct installed in accordance with the instructions provided by the damper manufacturer.

4. **Ceiling Damper* —** For use with min 18 in. deep trusses. Max nom area shall be 324 sq in. with the length not to exceed 24 in. and the width not to exceed 20 in. Max height of damper shall be 14 in. Aggregate damper openings shall not exceed 162 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille (Item 9) shall be installed in accordance with installation instructions.
**C&S AIR PRODUCTS** — Model RD-521

**POTTORFF** — Model CFD-521

4A. **Alternate Ceiling Damper* —** For use with min 18 in. deep trusses. Max nom area shall be 196 sq in. with the length not to exceed 26 in. and the width not to exceed 14 in. Max height of damper shall be 7 in. Aggregate damper openings shall not exceed 98 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille (Item 9) not to exceed 144 in.² shall be installed in accordance with installation instructions.
**C&S AIR PRODUCTS** — Model RD-521-BT

**POTTORFF** — Model CFD-521-BT

4B. **Alternate Ceiling Damper* —** For use with min 18 in. deep trusses. Max nom area shall be 256 sq in. with the length not to exceed 24 in. and the width not to exceed 20 in. Max height of damper shall be 17 in. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille (Item 9) shall be installed in accordance with installation instructions.
**C&S AIR PRODUCTS** — Models RD-521-IP, RD-521-NP

**POTTORFF** — Models CFD-521-IP, CFD-521-NP

4C. **Alternate Ceiling Damper* —** For use with min 18 in. deep trusses. Max nom area shall be 144 sq in. with the length not to exceed 14 in. and the width not to exceed 12 in. Max height of damper shall be 17-7/8 in. Aggregate damper openings shall not exceed 74 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille (Item 9) shall be installed in accordance with installation instructions.
**C&S AIR PRODUCTS** — Models RD-521-90, RD-521-NP90

**POTTORFF** — Models CFD-521-90, CFD-521-90NP

4D. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 75 sq in. with the length not to exceed 8-9/16 in. and the width not to exceed 8-3/4 in. Max height of damper shall be 9-7/8 in. Aggregate damper openings shall not exceed 38 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
**DELTA ELECTRONICS INC** — Models CRD2, GBR-CRD, ITG-CRD

4E. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 75 sq in. with the length not to exceed 9-1/4 in. and the width not to exceed 9-3/4 in. Max height of damper shall be 9-7/8 in. Aggregate damper openings shall not exceed 45 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
**DELTA ELECTRONICS INC** — Model SIG-CRD

4F. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 131 sq in. with the length not to exceed 11-1/16 in. and the width not to exceed 11-7/8 in. Aggregate damper openings shall not exceed 66 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
**DELTA ELECTRONICS INC** — Model SMT-CRD

4G. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 103 sq in. with the length not to exceed 10-1/8 in. and the width not to exceed 10-1/8 in. Aggregate damper openings shall not exceed 52 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
**PANASONIC CORPORATION, PANASONIC CORPORATION OF NORTH AMERICA** — Model PC-RD05C5

4H. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 113 sq in. with the length not to exceed 10-1/8 in. and the width not to exceed 11-1/8 in. Aggregate damper openings shall not exceed 57 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
**BROAN-NUTONE L L C** — Model RDFUWT

4I. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 79 sq in. with the length not to exceed 10 in. and the width not to exceed 7-15/16 in. Aggregate damper openings shall not exceed 40 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A metallic grille (Item 9) shall be installed in accordance with installation instructions.
**BROAN-NUTONE L L C** — Models RDJ1 and RDH

4J. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 87 sq in. with the length not to exceed 9 in. and the width not to exceed 9-11/16 in. Aggregate damper openings shall not exceed 44 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
**BROAN-NUTONE L L C** — Model RDMWT

4K. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 87 sq in. with the length not to exceed 9 in. and the width not to exceed 9-11/16 in. Aggregate damper openings shall not exceed 44 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
**BROAN-NUTONE L L C** — Model RDMWT2

5. **Batts and Blankets* —** (Optional) — Glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. When the resilient channels (Item 6) or furring channels (Item 6A) are spaced 24 in. OC, no insulation shall be installed in the concealed space. When the resilient channels (Item 6) or furring channels (Item 6A) are spaced 16 in. OC, the insulation shall be a max of 3-1/2 in. thick, and shall be secured against the subflooring with staples at 12 in. OC or held suspended in the concealed space with 0.090 in. diam galv steel wires attached to the wood trusses at 12 in. OC. When the resilient channels (Item 6) or furring channels (Item 6A) are spaced a max of 12 in. OC or when the Steel Framing Members (Item 6B) are used, there is no limit in the overall thickness of insulation, and the insulation can be secured against the subflooring, held suspended in the concealed space or draped over the resilient or furring channels (or Steel Framing Members) and gypsum panel membrane. When **Steel Framing Members** (Item 6C) are used, max 3-1/2 in. thick insulation shall be draped over the furring channels (Item 6Ca) and gypsum board ceiling membrane, and friction-fitted between trusses and Steel Framing Members (Item 6Cd). The finished rating has only been determined when the insulation is secured to the subflooring.

5A. **Fiber, Sprayed* —** (Dry Dense Packed 100% Borate Formulation) — (Optional) — As an alternate to Item 5, When used, the resilient channel and gypsum board attachment is modified as specified in Items 6 and 7 and wire mesh (Item 10) shall be attached to the furring channels to facilitate installation of the material. The finished rating when Fiber, Sprayed is used has not been determined. The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product. When Item 5A (Fiber, Sprayed) is used, two layers of gypsum board required as described in Item 7. Not evaluated for use with Item 6B, 6C, 6G or 6H.
**U S GREENFIBER L L C** — INS735, INS745, INS750LD, INS765LD, INS773LD, & SANCTUARY to be used with dry application only.

5B. **Fiber, Sprayed* —** (Loose Fill 100% Borate Formulation) — (Optional) — As an alternate to Items 5 and 5A, The finished rating when Fiber, Sprayed is used has not been determined. The fiber is applied without water or adhesive at a minimum dry density of 0.5 lb/ft³ and at a max thickness of 3-1/2 in., in accordance with the application instructions supplied with the product. Wire mesh (Item 10) shall be attached to the furring channels to facilitate installation of the material. When Item 5B (Fiber, Sprayed) is used, two layers of gypsum board required as described in Item 7. Not evaluated for use with Item 6B, 6C, 6D, 6E, 6F, 6G, 6H or 6I.
**U S GREENFIBER L L C** — INS735, INS745, INS750LD, INS765LD, INS773LD, & SANCTUARY to be used with dry application only.

5C. **Foamed Plastic* —** (As alternate to Item 5, 5A, or 5B, Not Shown) — Spray foam insulation applied directly to the underside of the plywood subflooring. Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 lb/ft³ density, while maintaining a minimum 8-1/2 in. clearance between the spray foam insulation and the gypsum board (Item 7). Spray foam insulation is limited for use with minimum 18 in. deep trusses (Item 2). When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) spaced maximum 3 in. away from gypsum butt joints. Gypsum board (Item 7) to be installed using minimum 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 4 through 4K) in the concealed space, minimum 1 in. clearance to be maintained between damper housing and spray foam insulation. Not evaluated for use with Items 5 through 5B, or 6A through 6I.
**SES FOAM INC** — Sucraseal

5D. **Cavity Insulation - Batts and Blankets* or Fiber, Sprayed* —** (As described above in Items 5 through 5B) — (For Use with Item 7A, Not Shown) — Min. 3-1/2 in thick with no limit on maximum thickness fitted in the concealed space, draped over the resilient channel (Item 6H)/gypsum board (Item 7A) ceiling membrane.

5E. **Foamed Plastic* —** (As alternate to Item 5, 5A, or 5C, Not Shown) — Spray foam insulation applied directly to the underside of the plywood subflooring. Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 lb/ft³ or 2.0 lb/ft³ density, depending on the product installed. Spray foam insulation is limited to use with minimum 18 in. deep trusses (Item 2). When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) spaced maximum 3 in. away from gypsum butt joints. Gypsum board (Item 7) to be installed using minimum 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 4 through 4H) in the concealed space, minimum 1 in. clearance to be maintained between damper housing and spray foam insulation. Not evaluated for use with Items 5 through 5B, or 6A through 6I.
**BASF CORP** — Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, and Walltite® HP+

5F. **Foamed Plastic* — —** (As alternate to Item 5, 5A, 5B, 5C or 5E, Not Shown) — Spray foam insulation applied directly to the underside of the plywood subflooring. Spray foam insulation installed to a maximum thickness of 17 in. at a nominal 0.5 lb/ft³ density, while maintaining a minimum 1-1/2 in. clearance between the spray foam insulation and the gypsum board (Item 7). Spray foam insulation is limited for use with minimum 18 in. deep trusses (Item 2). When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) spaced maximum 3 in. away from gypsum butt joints. Gypsum board (Item 7) to be installed using minimum 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 4 through 4K) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Not evaluated for use with Items 5 through 5B, or 6A through 6I.
**SES FOAM INC** — EasySeal.5

5G. **Foamed Plastic* —** (As alternate to Item 5 - not to be used in combination with any alternates to item 5) — Spray foam insulation applied directly to the underside of the plywood subflooring. Spray foam insulation installed to a maximum thickness of 11 in. at a nominal 0.5 lb/ft³ - 2.5 lb/ft³ density, while maintaining a minimum 7 in. clearance between the spray foam insulation and the gypsum board (Item 7). Spray foam insulation is limited for use with minimum 18 in. deep trusses (Item 2). When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board spaced maximum 3 in. away from gypsum butt joints. Gypsum board to be installed using minimum 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 4 through 4K) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Only for use with item 6 not evaluated for use with alternates to item 6.
**CARLISLE SPRAY FOAM INSULATION** — Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.

6. **Resilient Channels —** Formed from min 25 MSG galv steel installed perpendicular to trusses. When there is no insulation installed in the concealed space the resilient channels are spaced 24 in. OC. When insulation (Item 5) is secured to the underside of the subfloor the resilient channels are spaced 16 in. OC. When insulation, Items 5, 5A or 5B is applied over the resilient channel/gypsum panel ceiling membrane, or when Item 5C, 5E or 5F is applied to underside of subflooring, the resilient channels are spaced 12 in. OC. Channels secured to each truss with 1-1/4 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint as shown in the above illustration. Additional channels shall extend min 6 in. beyond each side edge of panel.

6A. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to wood structural members. When insulation, Items 5, 5A or 5B is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.

b. **Steel Framing Members* —**
Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to alternating trusses with No. 8 x 2-1/2 in. course drywall screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to alternating trusses with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. RSIC-Si-X secured to alternating trusses with No 10. X 3-1/2 in. coarse screw. Furring channels are friction fitted into clips. RSIC-1, RSIC-V and RSIC-Si-X clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels. Adjoining channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7. When **Fiber, Sprayed** (Item 5B) is used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board shall be installed as described in Item 7.

**PAC INTERNATIONAL L L C** — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75), RSIC-Si-X

6B. **Steel Framing Members —** (Not Shown) — As an alternate to Item 6, main runners, cross tees, cross channels and wall angle as listed below.
a. **Main Runners —** Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Hanger wires to be located adjacent to main runner/cross tee intersections. Hanger wires wrapped and twist-tied on 16d nails driven in to side of trusses at least 5 in. above the bottom face.

b. **Cross Tees or Channels —** Nom 4 ft long cross tees, with 15/16 in. or 1-1/2 in. wide face, or nom 4 ft long cross channels, with 1-1/2 in. wide face, either spaced 16 in. OC, installed perpendicular to the main runners. Additional cross tees or channels used 8 in. from each side of butted gypsum board end joints. The cross tees or channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.

c. **Wall Angle or Channel —** Painted or galv steel angle with 1 in. legs or channel with 1 in. legs, 1-9/16 in. deep attached to walls at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw-attachment of the gypsum panel.
**CGC INC** — Type DGL or RX

**USG INTERIORS LLC** — Type DGL or RX

6C. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6.
a. **Furring Channels —** Hat-shaped furring channels, 7/8 in. deep by 2-5/8 in. wide at the base and 1-1/4 in. wide at the face, formed from No. 25 ga. galv steel, spaced max. 16 in. OC perpendicular to trusses and Cold Rolled Channels (Item 6Cb). Furring channels secured to Cold Rolled Channels at every intersection with a 1/2 in. pan head self-drilling screw through each furring channel leg. Ends of adjoining channels overlapped 4 in. and tied together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap. Supplemental furring channels at base layer and outer layer gypsum board butt joints are not required. Batts and Blankets draped over furring channels as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 7.

b. **Cold Rolled Channels —** 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to trusses, friction-fitted into the channel caddy on the Steel Framing Members (Item 6Cd). Adjoining lengths of cold rolled channels lapped min. 6 in. and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. **Blocking —** Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by 4 in. lumber (blocking), min. 6 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the truss (Item 2) at the top and bottom of the blocking at each Steel Framing Member (Item 6Cd) location.

d. **Steel Framing Members* —** Hangers spaced 48 in. OC. max along truss, and secured to the Blocking (Item 6Cc) on alternating trusses with a single 5/16 in. by 2 in. hex head lag bolt or four #6 1-1/4 in. drywall screws through mounting hole(s) on the hanger bracket. The two 1/4 in. long steel teeth on the hanger are embedded in the side of the blocking. Hanger positioned on blocking and leveling bolt height adjusted such that furring channels are flush with bottom of trusses before gypsum board installation. Spring gauge of hanger chosen per manufacturer's instructions.
**KINETICS NOISE CONTROL INC** — Type ICW

6D. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to wood structural members. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC, and secured to the bottom chord of alternating trusses with two No. 8 x 2-1/2 in. course drywall screws, one through the hole at each end of the clip. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the clip spacing shall be reduced to 24 in. OC and secured to consecutive trusses. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7. Two layers of gypsum board required as described in Item 7. Not evaluated for use with Item 5B.
**KINETICS NOISE CONTROL INC** — Type Isomax

6E. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to wood structural members. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire near each end of overlap.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC, and secured to the bottom chord of alternating trusses with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the clip spacing shall be reduced to 24 in. OC and secured to consecutive trusses. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7. Not evaluated for use with Item 5B.
**PLITEQ INC** — Type Genie Clip

6F. **Steel Framing Members* —** (Not Shown) — As an alternate to Items 6, furring channels and Steel Framing Members as described below.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-5/8 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to joists. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to joists as described in Item b.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the joists with one 2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold furring channel that supports the gypsum board butt joints as described in Item 7.
**STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

6G. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6 — Not for use with Items 5, 5A or 5B — Main runners nom 12 ft long, spaced 72 in. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. The main runners and cross tees may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.
**USG INTERIORS LLC** — Type DGL or RX

6H. **Resilient Channels —** For Use With Item 7A - Formed from min 25 MSG galv steel installed perpendicular to trusses and spaced 16 in. OC. Channels secured to each truss with 1-5/8 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint. Additional channels shall extend min 6 in. beyond each side edge of panel. Insulation, Item 5D is applied over the resilient channel/gypsum panel ceiling membrane.

6I. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6, furring channels and Steel Framing Members as described below.
a. **Furring Channels —** Formed of No. 25 MSG galvanized steel, 2-1/2 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to trusses. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ia) to the trusses (Item 2). Clips spaced 48 in. OC on alternating trusses and secured to the bottom chord of the trusses with one 2-1/2 in. coarse drywall screw through the center grommet in accordance with the manufacturer's installation instructions. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the furring channel that supports one end of the gypsum board butt joints as described in Item 7.
**REGUPOL AMERICA** — Type SonusClip

6J. **Steel Framing Members* —** (Not Shown) — Used to attach resilient channels (Item 6) to trusses (Item 2). Clips spaced 48 in. OC on adjacent trusses, and secured to trusses with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet hole. Channels secured to clips with one #10 x 1/2 in. pan-head self-drilling screw. Ends of adjoining channels overlapped 6 in. and secured together with two #8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board butt joints require additional resilient channels spaced 3 in. from the butt joint on either side. One edge of the extra channels will extend to an adjacent truss where it is secured with a clip.
**KEENE BUILDING PRODUCTS CO INC** — Type RC+ Assurance Clip

6K. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6. furring channels and Steel Framing Members as described below.
a. **Furring Channels —** Hat channels formed of No. 25 MSG galv steel, nom. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, When there is no insulation installed in the concealed space the resilient channels are spaced 24 in. OC. When insulation (Item 5) is secured to the underside of the subfloor the resilient channels are spaced 16 in. OC. When insulation, Items 5, 5A or 5B is applied over the resilient channel/gypsum panel ceiling membrane, or when Item 5C, 5E or 5F is applied to underside of subflooring, the resilient channels are spaced 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC with No. 8 x 2-1/2 in. course drywall screw through the center grommet. Furring channels are friction fitted into clips. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.
**CLARKDIETRICH BUILDING SYSTEMS** — Type ClarkDietrich Sound Clip

6L. **Steel Framing Members* —** (Not Shown
a. **Furring Channels —** Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced as indicated in Item 6, perpendicular to the trusses. Channels secured to Cold Rolled Channels at every intersection with a 3/4 in. TEK screw through each furring channel leg. Ends of adjoining channels overlapped 12 in. and fastened together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap, or with two 3/4 in. TEK screws in each leg of the overlap section. Two furring channels used at end joints of gypsum board (Item 7), each extending a min of 6 in. beyond both side edges of the board.

b. **Cold Rolled Channels —** 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to trusses, friction-fitted into the channel caddy on the Steel Framing Members (Item 6Ld) and secured with two 3/4 in. TEK screws. Adjoining lengths of cold rolled channels lapped min. 12 in. and secured along bottom legs with four 3/4 in. TEK screws and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. **Blocking —** Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by 4 in. lumber (blocking), min. 12 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the trusses at the top and bottom of the blocking at each Steel Framing Member (Item 6Ld) location with 16d nails or minimum 2-1/2 in. screws.

d. **Steel Framing Members* —** Spaced 48 in. OC. max along truss, and secured to the truss on alternating trusses with two, #10 x 1-1/2 in. screws through mounting holes on the hanger bracket.
**PAC INTERNATIONAL L L C** — Type RSIC-SI-CRC EZ Clip

6M. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced as indicated in Item 6, perpendicular to trusses and friction fit into Steel Framing Members (Item 6Mc). Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap or with two TEK screws along each leg of the 6 in. overlap. Two furring channels used at end joints of gypsum board (Item 7). Butt joint channels held in place by strong back channels placed upside down, on top of, and running perpendicular to primary furring channels, extending 6 in. longer than length of gypsum side joint. Strong back channels spaced maximum 48 in. OC. Strong back channels secured to every intersection of primary furring channels with four 7/16 in. pan head screws, two along each of the legs at intersections. Butt joint channels run perpendicular to strong back channels and shall be minimum 6 in. longer than length of joint, secured to strong back channels with 7/16 in. pan head screws, two along each of the legs at intersection with strong back channels.

b. **Blocking —** Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by 4 in. lumber (blocking), min. 12 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the trusses at the top and bottom of the blocking at each Steel Framing Member (Item 6c) location with 16d nails or minimum 2-1/2 in. screws.

c. **Steel Framing Members* —** Used to attach furring channels (Item 6La) to trusses. Clips spaced 48 in. OC and secured along truss webs at each furring channel intersection with min. 3/4 in. long self-drilling #10 x 1-1/2 in. screws through each of the provided hole locations. Furring channels are friction fitted into clips.
**PAC INTERNATIONAL L L C** — Type RSIC-S1-1 Ultra

6N. **Steel Framing Members* —** (Optional, Not Shown) — Used as an alternate method to attach resilient channels to structural members. A resilient sound isolation accessory shall be used at each attachment point of the resilient channels and spaced max 24 in. O.C. Channel ends butted and centered under the structural members and attached with one accessory at each end. Additional accessories used to hold resilient channels that support the gypsum board end joints. The accessory envelops the mounting edge of the resilient channel. The accessory and resilient channel are fastened to the structural members with the screws supplied with the accessory and per the accessory manufacturer's installation instructions. Gypsum Board butt joints staggered minimum 24 in. OC and Gypsum Board screws spaced 8 in. OC when used.
**PAC INTERNATIONAL L L C** — Types RC-1 Boost

7. **Gypsum Board* —** Nom 5/8 in. thick, 48 in. wide gypsum panels. When resilient channels (Item 6) are used, gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. When insulation (Items 5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane screw spacing shall be reduced to 8 in. OC. When insulation (Item 5C, 5E or 5F) is applied to the underside of the subflooring, screw spacing shall be reduced to 8 in. OC and minimum 1-1/4 in. long Type S screws to install gypsum to the resilient channels (Item 6), and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. End joints secured to both resilient channels as shown in end joint detail. When **Steel Framing Members** (Item 6A) are used, gypsum panels installed with long dimensions perpendicular to furring channels. Panels attached to the furring channels using 1 in. long Type S bugle-head steel screws spaced 8 in. OC along butted end joints and in the field of the panel. Butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum panel shall be supported by a single length of furring channel equal to the width of the gypsum panel plus 6 in. on each end. The two support furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to underside of the truss with one clip at each end of the channel. When **Steel Framing Members*** (Item 6B) are used, gypsum panels installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Panels fastened to cross tees with 1 in. long . Type S bugle-head screws spaced in the field and 8 in. OC along end joints. Panels fastened to main runners with 1 in. long . Type S bugle-head screws spaced midway between cross tees. Screws along sides and ends of panels spaced 3/8 to 1/2 in. from panel edge. End joints of panels shall be staggered with spacing between joints on adjacent panels not less than 4 2 ft OC. When **Fiber, Sprayed** (Items 5A or 5B) is used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board are installed with long dimensions perpendicular to furring channels. Base layer gypsum board secured with 1 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. End joints secured to both resilient channels as shown in end joint detail. Outer layer gypsum board secured with 1-5/8 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. Outer layer shall be finished as described in Item 8. When both **Steel Framing Members** (Item 6A) and **Fiber, Sprayed** (Items 5A or 5B) are used, furring channels spaced 12 in. OC and two layers of nom 5/8 in. thick, 4 ft wide gypsum board are installed with long dimension perpendicular to furring channels. Base layer secured to furring channels with nom 1 in. long Type S bugle head screws spaced 8 in. OC along butted end joints and in the field of the board. Butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 6 in. on each end. The two support furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to the underside of the truss with one clip at each end of the channel. Outer layer secured to furring channels using 1-5/8 in. long Type S screws spaced 8 in. OC and 1-1/2 in. from the end joint. Butted end joints to be offset a min. of 8 in. from base layer end joints. Butted side joints of outer layer to be offset min. 18 in. from butted side joints of base layer. When **Steel Framing Members** (Item 6C) are used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board are installed with long dimensions perpendicular to furring channels (Item 6Ca). Base layer attached to the furring channels using 1 in. long Type S bugle head steel screws spaced 8 in. OC along butted end joints and 12 in. OC in the field of the board. Butted end joints centered on the continuous furring channels. Butted base layer end joints to be offset a min of 16 in. in adjacent courses. Outer layer attached to the furring channels using 1-5/8 in. long Type S bugle head steel screws spaced 8 in. OC at butted end joints and 12 in. OC in the field. Butted end joints centered on the continuous furring channels and offset a min of 16 in. from butted end joints of base layer. Butted side joints of outer layer to be offset min 16 in. from butted side joints of base layer. When **Steel Framing Members** (Item 6D) are used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board are installed with long dimensions perpendicular to furring channels. Base layer attached to the furring channels using 1 in. long Type S bugle-head steel screws spaced 12 in. OC in the field of the board. Butted end joints shall be staggered min 2 ft. within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 6 in. on each end. The two furring channels shall be spaced approximately 4 in. OC, and be attached to underside of the truss with one Isomax clip at each end of the channel. Screw spacing along the gypsum board butt joint shall be 8 in. OC. Outer layer attached to the furring channels using 1-5/8 in. long Type S bugle-head steel screws spaced 12 in. OC in the field. The end of the outer layer boards at the butt joint shall be attached to the base layer boards with 1-5/8 in. long Type G screws spaced 8 in. OC and 1-1/2 in. from the end joint. Butted end joints to be offset a min of 8 in. from base layer end joints. Butted side joints of outer layer to be offset min 18 in. from butted side joints of base layer. Outer layer shall be finished as described in Item 8. When **Steel Framing Members** (Item 6E) are used, one layer of nom 5/8 in. thick, 4 ft wide are installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels using 1 in. long No. 6 Type S bugle-head steel screws spaced 12 in. OC in the field of the board. Butted end joints shall be staggered minimum 2 ft. within the assembly. Additional furring channels constructed as per Item 6E shall be used to support each end of each gypsum board. These additional furring channels shall be attached to underside of the truss with Genie clips as described in Item 6E. Screw spacing along the gypsum board butt joint shall be 8 in. OC. Outer layer attached to the furring channels using 1-5/8 in. long No. 6 Type S bugle-head steel screws spaced 12 in. OC in the field. The outer layer boards at the butt joint shall be attached to the base layer boards with No. 10, 1-1/2 in. long drywall screws spaced 8 in. OC and 1-1/2 in. from the end joint. Butted end joints to be offset a min of 24 in. from base layer end joints. Butted side joints of outer layer to be offset min 16 in. from butted side joints of base layer. When **Steel Framing Members** (Item 6F) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 3 in. on each end. The two support furring channels shall be spaced approximately 3 in. from joint. Screw spacing along the gypsum board butt joint and along both additional channels shall be 8 in. OC. Additional screws shall be placed in the adjacent section of gypsum board into the aforementioned 3 in. extension of the extra butt joint channels as well as into the main channel that runs between. Butt joint furring channels shall be attached with one RESILMOUNT Sound Isolation Clip at each end of the channel.
When alternate **Steel Framing Members*** (Item 6G) are used, gypsum board sheets installed with long dimension (side joints) perpendicular to the 6 ft long cross tees with the end joints staggered min 4 ft and centered between cross tees which are spaced 8 in. OC. Gypsum board side joints may occur beneath or between main runners. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide pieces of gypsum board are to be laid atop the cross tee flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the cross tees at opposite corners of the backer strip with hold down clips to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to cross tees with 1 in. drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board.

When **Steel Framing Members** (Item 6I) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1-1/4 in. long, fine thread, #6, Type S bugle-head steel screws spaced 8 in. OC along butt joints and in the field of the board. Gypsum board butted end joints shall be staggered minimum 24 in. and occur 3 in. from the continuous furring channels. At the gypsum board butt joints, an additional single length of furring channel shall be installed and be spaced approximately 3 in. from the butt joint (6 in. from the continuous furring channels) to support the floating end of the gypsum board. Each of these shorter sections of furring channel shall extend one truss beyond the width of the gypsum panel and be attached to the adjacent trusses with one SonusClip at every truss involved with the butt joint.

When **Steel Framing Members** (Item 6J) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to resilient channels. Gypsum board secured to resilient channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board and located 3/4 in. from side joints and 3 in. end joints. Gypsum board joints are to be staggered by a minimum of 24 in.

When **Steel Framing Members** (Item 6L) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Adjacent butt joints staggered minimum 48 in. OC.

When **Steel Framing Members** (Item 6M) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Butt joints staggered minimum 24 in. OC.

**CGC INC** — Types C, IP-X2, IPC-AR

**UNITED STATES GYPSUM CO** — Types C, IP-X2, IPC-AR

**USG BORAL DRYWALL SFZ LLC** — Type C

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR

7A. **Gypsum Board* —** For use with Items 5D and 6H. Nom 5/8 in. thick, 48 in. wide gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 8 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. Finish Rating with this ceiling system is 20 min.
**CGC INC** — Type ULIX

**UNITED STATES GYPSUM CO** — Type ULIX

8. **Finishing System —** (Not Shown) — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board.

9. **Grille —** Grille installed in accordance with the installation instructions provided with the ceiling damper.

10. **Wire Mesh —** (Not Shown) — For use with Item 5A and 5B — 1 in. 20 gauge galvanized poultry netting installed between the furring channels and gypsum board. The poultry netting is attached with washers and 1/2 in. wafer head screws, spaced 24 in. OC., to the furring channels. The **Fiber, Sprayed** (Item 5A or 5B) is installed through cut-openings in the poultry netting, in-between trusses. The cut-openings in the poultry netting shall be staggered at a maximum of 6 ft.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2021-06-11

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L.
JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

**LS1.9**

JONES & JONES ASSOCIATES / ARCHITECTS PC

# Design No. P522

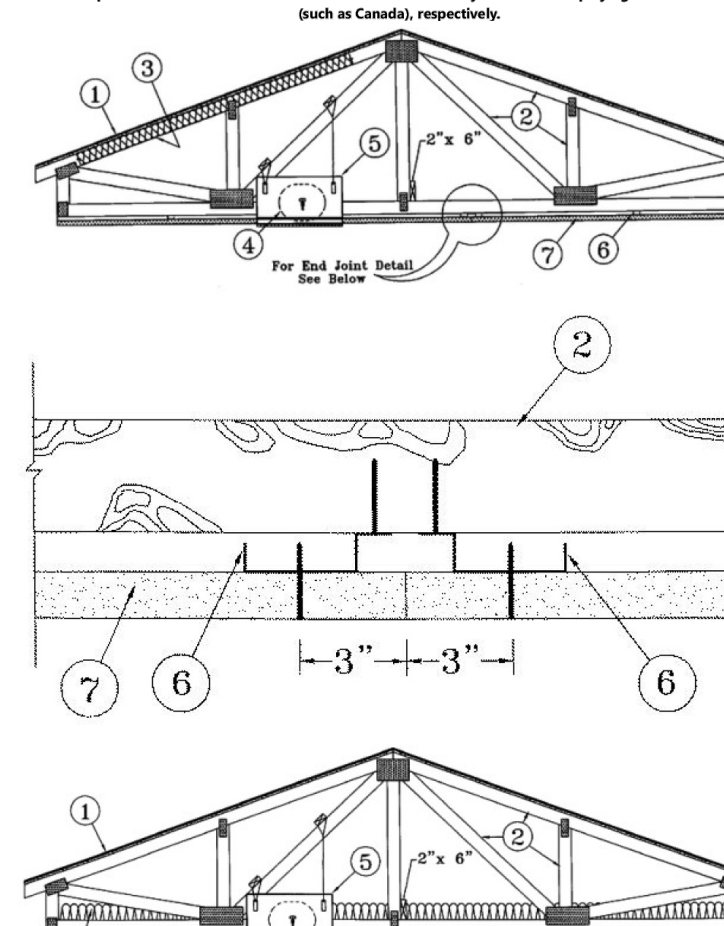
May 22, 2021

**Unrestrained Assembly Rating — 1 Hr**

**Finish Rating — 25 Min (See Items 3 or 3A )**

**This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7**

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**




1. **Roofing System* —** Any UL Class A, B or C Roofing System (TGFU) or Prepared Roof Covering (TFWZ) acceptable for use over nom 15/32 in. thick wood structural panels, min. grade "C-D" or "Sheathing". Nom 15/32 in. thick wood structural panels secured to trusses with No. 6d ringed shank nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Construction adhesive may be used with either the nails or staples.

2. **Trusses —** Pitched or parallel chord wood trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Truss members secured together with min. 0.0356 in. thick galv steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approximately 7/8 in. centers with four rows of teeth per inch of plate width. Minimum parallel chord truss depth shall be 18 in. Where the truss intersects with the interior face of the exterior walls, the min truss depth shall be 5-1/4 in. with a min roof slope of 3/12 and a min. area in the plane of the truss of 21 sq/ft. Where the truss intersects with the interior face of the exterior walls, the min truss depth may be reduced to 3 in. if the batts and blankets ( Item 3) are used as shown in the above illustration (Alternate Insulation Placement) and are firmly packed against the intersection of the bottom chords and the plywood sheathing.

3. **Batts and Blankets* —** (Optional) — Required when Item 6B is used — Glass fiber insulation, secured to the wood structural panels with staples spaced 12 in. OC or to the trusses with 0.090 in. diam galv steel wires spaced 12 in. OC. Any glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance, having a min density of 0.5 pcf. As an option, the insulation may be fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. When **Steel Framing Members** (Item 6B) are used, max 3-1/2 in. thick insulation shall be draped over the furring channels (Item 6Ba) and gypsum board ceiling membrane, and friction-fitted between trusses and Steel Framing Members (Item 6Bd). The finished rating has only been determined when the insulation is secured to the decking.

3A. **Fiber, Sprayed* —** As an alternate to Item 3 (not evaluated for use with Item 6B) — Any thickness of spray-applied cellulose insulation material, having a min density of 0.5 $lb/ft^3$, applied with water, over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. Fiber, Sprayed is applied with moisture in accordance with the application instructions supplied with the product. The finish rating when Fiber Sprayed is used has not been determined. Alternate application method: The fiber is applied without water or adhesive in accordance with the application instructions supplied with a minimum density of 0.5 $lb/ft^3$ over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. Alternate application method: The fiber is applied without water or adhesive to a nominal density of 3.5 $lb/ft^3$ behind netting (Item 9) stapled to the rafters. The netting is stapled at both lower edges of the rafters creating a cavity to accept the cellulose fiber.
**U S GREENFIBER L L C** — INS735, INS745, INS750LD, and SANCTUARY for use with wet or dry application. INS510LD, INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only.

3B. **Foamed Plastic* —** (As an alternate to Item 3 or 3A, Not Shown) — Spray foam insulation applied directly to the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 $lb/ft^3$ density, while maintaining a minimum 8-1/2 in. clearance between the spray foam insulation and the gypsum board (Item 7). When spray foam insulation is used, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) installed at 6 in. OC to allow for maximum 3 in. spacing off ends of the gypsum board joints. Gypsum board (Item 7) to be installed using 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 5 through 5K) in the concealed space, minimum 1 in. clearance to be maintained between damper housing and spray foam insulation. Not evaluated for use with Items 6A through 6F.
**SES FOAM INC** — Sucraseal

3C. **Cavity Insulation - Batts and Blankets* or Fiber, Sprayed* —** (As described above) in Items 3 and 3A — (For Use with Item 7B, Not Shown) — Min. 3-1/2 in thick with no limit on maximum thickness fitted in the concealed space, draped over the resilient channel (Item 6G)/gypsum board (Item 7B) ceiling membrane.

3D. **Foamed Plastic* —** (As alternate to Item 3, 3A, or 3B, Not Shown) — Spray foam insulation applied directly to the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 $lb/ft^3$ or 2.0 $lb/ft^3$ density, depending on the product installed. When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) spaced maximum 3 in. away from gypsum butt joints. Gypsum board (Item 7) to be installed using minimum 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 5 through 5H) in the concealed space, minimum 1 in. clearance to be maintained between damper housing and spray foam insulation. Not evaluated for use with Items 6A through 6F.
**BASF CORP** — Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, and Walltite® HP+

3E. **Foamed Plastic* —** (As an alternate to Item 3, 3A, 3B, 3C, or 3D, Not Shown) — Spray foam insulation applied directly to the underside of the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 17 in. at a nominal 0.5 $lb/ft^3$ density, while maintaining a minimum 1-1/2 in. clearance between the spray foam insulation and the gypsum board (Item 7). When spray foam insulation is used, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) installed at 6 in. OC to allow for maximum 3 in. spacing off ends of the gypsum board joints. Gypsum board (Item 7) to be installed using 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 5 through 5K) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Not evaluated for use with Items 6A through 6F.
**SES FOAM INC** — EasySeal.5

3F. **Foamed Plastic* —** (As alternate to Item 3 - not to be used in combination with any alternates to item 3) — Spray foam insulation applied directly to the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 11 in. at a nominal 1.0 $lb/ft^3$ - 2.5 $lb/ft^3$ density, while maintaining a minimum 7 in. clearance between the spray foam insulation and the gypsum board (Item 7). When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board spaced maximum 3 in. away from gypsum butt joints. Gypsum board to be installed using minimum 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 5 through 5K) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Only for use with item 6 not evaluated for use with alternates to item 6.
**CARLISLE SPRAY FOAM INSULATION** — Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.

4. **Air Duct* —** Any UL Class 0 or Class 1 flexible air duct installed in accordance with the instructions provided by the damper manufacturer.

5. **Ceiling Damper* —** Max nom area, 324 sq in. Max square size, 18 in. by 18 in. rectangular sizes not to exceed 324 sq in. with a max width of 18 in. Max damper height is 14 in. Installed in accordance with manufacturers installation instructions provided with the damper. Max damper openings not to exceed 162 sq in. per 100 sq ft of ceiling area.
**C&S AIR PRODUCTS** — Model RD-521

**POTTORFF** — Model CFD-521

5A. **Alternate Ceiling Damper* —** Max nom area, 196 sq in. Max square size, 14 in. by 14 in. Rectangular sizes not to exceed 196 sq in. with a max width of 26 in. Max overall damper height is 7 in. Installed in accordance with the manufacturers installation instructions provided with the damper. Max damper openings not to exceed 98 sq in. per 100 sq ft of ceiling area.
**C&S AIR PRODUCTS** — Model RD-521-BT

**POTTORFF** — Model CFD-521-BT.

5B. **Alternate Ceiling Damper* —** Max nom area shall be 256 sq in. with the length not to exceed 24 in. and the width not to exceed 20 in. Max height of damper shall be 17 in. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille shall be installed in accordance with installation instructions.
**C&S AIR PRODUCTS** — Model RD-521-IP, RD-521-NP

**POTTORFF** — Models CFD-521-IP, CFD-521-NP

5C. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly. Max nom area shall be 75 sq in. with the length not to exceed 8-9/16 in. and the width not to exceed 8-3/4 in. Max height of damper shall be 9-7/8 in. Aggregate damper openings shall not exceed 38 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturers installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
**DELTA ELECTRONICS INC** — Models CRD2, GBR-CRD, ITG-CRD

5D. **Alternate Ceiling Damper* —** Ceiling damper & fan. Max nom area shall be 75 sq in. with the length not to exceed 9-1/4 in. and the width not to exceed 9-3/4 in. Max height of damper shall be 9-7/8 in. Aggregate damper openings shall not exceed 45 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
**DELTA ELECTRONICS INC** — Model SIG-CRD

5E. **Alternate Ceiling Damper* —** Max nom area shall be 144 sq in. with the length not to exceed 14 in. and the width not to exceed 12 in. Max height of damper shall be 17-7/8 in. Aggregate damper openings shall not exceed 74 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille shall be installed in accordance with installation instructions.
**C&S AIR PRODUCTS** — Model RD-521-90, RD-521-NP90

**POTTORFF** — Models CFD-521-90, CFD-521-90NP

5F. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly. Max nom area shall be 131 sq in. with the length not to exceed 11-1/16 in. and the width not to exceed 11-7/8 in. Aggregate damper openings shall not exceed 66 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
**DELTA ELECTRONICS INC** — Model SMT-CRD

5G. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly. Max nom area shall be 103 sq in. with the length not to exceed 10-1/8 in. and the width not to exceed 10-1/8 in. Aggregate damper openings shall not exceed 52 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
**PANASONIC CORPORATION, PANASONIC CORPORATION OF NORTH AMERICA** — Model PC-RD05C5

5H. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly. Max nom area shall be 113 sq in. with the length not to exceed 10-1/8 in. and the width not to exceed 11-1/8 in. Aggregate damper openings shall not exceed 57 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
**BROAN-NUTONE L L C** — Model RDFUWT

5I. **Alternate Ceiling Damper* —** Ceiling damper & fan. Max nom area shall be 79 sq in. with the length not to exceed 10 in. and the width not to exceed 7-15/16 in. Aggregate damper openings shall not exceed 40 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A metallic grille shall be installed in accordance with installation instructions.
**BROAN-NUTONE L L C** — Models RDJ1 and RDH

5J. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly. Max nom area shall be 87 sq in. with the length not to exceed 9 in. and the width not to exceed 9-11/16 in. Aggregate damper openings shall not exceed 44 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
**BROAN-NUTONE L L C** — Model RDMWT

5K. **Alternate Ceiling Damper* —** Ceiling damper & fan assembly. Max nom area shall be 87 sq in. with the length not to exceed 9 in. and the width not to exceed 9-11/16 in. Aggregate damper openings shall not exceed 44 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
**BROAN-NUTONE L L C** — Model RDMWT2

6. **Furring Channels —** Resilient channels formed of 25 MSG thick galv steel. Installed perpendicular to the trusses (Item 2), spaced a max of 16 in. OC when no insulation (Item 3 or 3A) is fitted in the concealed spaced, or a max of 12 in. OC when insulation (Item 3 or 3A) is fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane, or when insulation (Item 3B, 3D or 3E) is applied to the underside of the roofing system (Item 1). Two courses of resilient channel positioned 6 in. OC at wallboard butt-joints (3 in. from each end of wallboard). Channels oriented opposite at wallboard butt-joints. Channel splices overlapped 4 in. beneath wood trusses. Channels secured to each truss with 1-1/4 in. long Type S screws.

6A. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to trusses when no insulation (Items 3 or 3A) is fitted in the concealed space or 12 in. OC when insulation (Items 3 or 3A) is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane or 24 in. OC when insulation (Items 3 or 3A) is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane and a second layer of gypsum board is attached as described in Item 7 for steel framing members. Channels secured to trusses as described in Item 6Ab. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap.

b. **Steel Framing Members —** Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to alternating trusses with No. 8 by 2-1/2 in. coarse drywall screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to alternating trusses with No. 8 by 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels. Adjoining channels are overlapped as described in Item 6Aa. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.
**PAC INTERNATIONAL L L C** — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

6B. **Steel Framing Members* —** (Not Shown) — As an alternate to Items 6 and 6A.
a. **Furring Channels —** Hat-shaped furring channels, 7/8 in. deep by 2-5/8 in. wide at the base and 1-1/4 in. wide at the face, formed from No. 25 ga. galv steel, spaced max 16 in. OC perpendicular to trusses and Cold Rolled Channels (Item 6Bb). Furring channels secured to Cold Rolled Channels at every intersection with a 1/2 in. pan head self-drilling screw through each furring channel leg. Ends of adjoining channels overlapped 4 in. and tied together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap. Supplemental furring channels at base layer and outer layer gypsum board butt joints are not required. Batts and Blankets draped over furring channels as described in Item 3. Two layers of gypsum board attached to furring channels as described in Item 7.

b. **Cold Rolled Channels —** 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to trusses, friction-fitted into the channel caddy on the Steel Framing Members (Item 6Bd). Adjoining lengths of cold rolled channels lapped min. 6 in. and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. **Blocking —** Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by 4 in. lumber (blocking), min. 6 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the truss (Item 2) at the top and bottom of the blocking at each Steel Framing Member (Item 6Bd) location.

d. **Steel Framing Members* —** Hangers spaced 48 in. OC. max along truss, and secured to the Blocking (Item 6Bc) on alternating trusses with a single 5/16 in. by 2 in. hex head lag bolt or four #6 1-1/4 in. drywall screws through mounting hole(s) on the hanger bracket. The two 1/4 in. long steel teeth on the hanger are embedded in the side of the blocking. Hanger positioned on blocking and leveling bolt height adjusted such that furring channels are flush with bottom of trusses before gypsum board installation. Spring gauge of hanger chosen per manufacturer's instructions.
**KINETICS NOISE CONTROL INC** — Type ICW.

6C. **Steel Framing Members* —** (Not Shown) — As an alternate to Items 6, 6A and 6B.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep installed perpendicular to wood structural members. Channels spaced a max of 16 in. OC when no insulation (Item 3 or 3A) is fitted in the concealed space or a max of 12 in. OC when insulation (Item 3 or 3A) is fitted in the concealed space. Channels secured to trusses as described in Item 6Cb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire near each end of overlap.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ca) to trusses (Item 2). Clips secured to the bottom chord of each truss (48 in. OC) with one No. 8 by 2-1/2 in. long coarse drywall screw through center grommet. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item 6Ca. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.
**PLITEQ INC** — Type Genie Clip

6D. **Steel Framing Members* —** (Not Shown) — As an alternate to Items 6, 6A, 6B and 6C.
a. **Main runners —** Installed perpendicular to trusses — Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft OC. Main runners hung a min of 2 in. from bottom chord of trusses with 12 SWG galv steel wire. Wires located a max of 48 in. OC.

b. **Cross tees or channels —** Nom 4 ft long, 15/16 in. or 1-1/2 in. wide face or cross channels, nom 4 ft long, 1-1/2 wide face, installed perpendicular to the main runners, spaced 16 in. OC. Additional cross tees or channels used at 8 in. from each side of butted gypsum board end joints. The cross tees or channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.

c. **Wall angles or channels —** Used to support steel framing member ends and for screw-attachment of the gypsum wallboard — Min 0.016 in. thick painted or galvanized steel angle with 1 in. legs or min. 0.016 in. thick painted or galvanized steel channel with a 1 by 1-1/2 by 1 in. profile, attached to walls at perimeter of ceiling with fasteners 16 in. OC.
**CGC INC** — Type DGL or RX

**USG INTERIORS LLC** — Type DGL or RX

6E. **Alternate Steel Framing Members* —** (Not Shown) — As an alternate to items 6, 6A, 6B, and 6C, furring channels and Steel Framing Members as described below.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-5/8 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to trusses. When insulation, Items 3 or 3A is used, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to joists as described in Item b.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the wood trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the trusses with one 2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the Gypsum Butt joints as described in Item 7.
**STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

6F. **Steel Framing Members* —** (Not Shown) — As an alternate to Items 6 through 6E- Not for use with Items 3 or 3A. Main runners nom 12 ft long, spaced 72 in. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. The main runners and cross tees may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.
**USG INTERIORS LLC** — Type DGL or RX

6G. **Resilient Channels —** For Use With Item 7B - Formed from min 25 MSG galv steel installed perpendicular to trusses and spaced 16 in. OC. Channels secured to each truss with 1-5/8 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint. Additional channels shall extend min 6 in. beyond each side edge of panel. Insulation, Item 3C is applied over the resilient channel/gypsum panel ceiling membrane.

6H. **Alternate Steel Framing Members* —** (Not Shown) — As an alternate to items 6 through 6G, furring channels and Steel Framing Members as described below.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-1/2 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to trusses. When insulation, Items 3 or 3A is used, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to joists as described in Item b.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the wood trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the trusses with one 2-1/2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the Gypsum Butt joints as described in Item 7.
**REGUPOL AMERICA** — Type SonusClip

7. **Gypsum Board* —** One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to trusses. Attached to the resilient channels using 1 in. long Type S bugle-head screws. Screws spaced a max of 12 in. OC along butted end-joints and in the field when no insulation (Item 3 or 3A) is fitted in the concealed spaced, or a max of 8 in. OC along butted end-joints and in the field when insulation (Item 3 or 3A ) is fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane. When insulation (Item 3B, 3D or 3E) is installed in the concealed space, spray-applied to the underside of the roofing system (Item 1), screws are spaced a max of 8 in. OC along resilient channels, fasteners are increased in length to 1-1/4 in. and gypsum board butt joints shall be staggered min. 2 ft within the assembly, and occur between the main furring channels.
When **Steel Framing Members*** (Item 6A or 6C) are used, sheets installed with long dimension perpendicular to furring channels and side joints of sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3 or 3A) is fitted in the concealed space, or 8 in. OC in the field when insulation (Item 3 or 3A) is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane. Gypsum board butt joints shall be staggered min. 2 ft within the assembly, and occur between the main furring channels. At the gypsum board butt joints, each end of the gypsum board shall be supported by a single length of furring channel equal to the width of the wallboard plus 6 in. on each end. The furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to the trusses with one clip at each end of the channel. Screw spacing along the butt joint to attach the gypsum board to the furring channels shall be 8 in. OC. Second (outer) layer of gypsum board required when furring channels (Item 6A, a) are spaced 24 in. OC and insulation is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane. Outer layer of gypsum board attached to the furring channels using 1-5/8 in. long Type S bugle-head screws spaced 8 in. OC at butted joints and 12 in. OC in the field. Butted end joints of outer layer to be offset a minimum of 8 in. from base layer end joints. Butted side joints of outer layer to be offset minimum 18 in. from butted side joints of base layer.

When **Steel Framing Members** (Item 6B) are used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board are installed with long dimensions perpendicular to furring channels (Item 6Ba). Base layer attached to the furring channels using 1 in. long Type S bugle head steel screws spaced 8 in. OC along butted end joints and 12 in. OC in the field of the board. Butted end joints centered on the continuous furring channels. Butted base layer end joints to be offset a min of 16 in. in adjacent courses. Outer layer attached to the furring channels using 1-5/8 in. long Type S bugle head steel screws spaced 8 in. OC at butted end joints and 12 in. OC in the field. Butted end joints centered on the continuous furring channels and offset a min of 16 in. from butted end joints of base layer. Butted side joints of outer layer to be offset min 16 in. from butted side joints of base layer.

When **Steel Framing Members** (Item 6C) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 72 in. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 3 in. on each end, spaced approximately 2 in. in from joint. Screw spacing along the gypsum board butt joint shall be 8 in. OC. Butt joint furring channels shall be attached with a RESILMOUNT Sound Isolation Clip secured to underside of every truss that is located over the butt joint. Over all Gypsum Board side joints, approximately 20 in. lengths of furring channel shall be installed parallel to trusses (Item 2) between main furring channels. Side joint furring channels shall be attached to underside of the joist with RESILMOUNT Sound Isolation Clips - located approximately 2 in. from each end of the approximate 20 in. length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge.

When **Steel Framing Members** (Item 6E) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 3 in. on each end. The two support furring channels shall be spaced approximately 3 in. in from end joint. Screw spacing along the gypsum board butt joint and along both additional channels shall be 8 in. OC. Additional screws shall be placed in the adjacent section of gypsum board into the aforementioned 3 in. extension of the extra butt joint channels as well as into the main channel that runs between. Butt joint furring channels shall be attached with one RESILMOUNT Sound Isolation Clip at each end of the channel.

When alternate **Steel Framing Members*** (Item 6F) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board sheets installed with long dimension (side joints) perpendicular to the 6 ft long cross tees with the end joints staggered min 4 ft and centered between cross tees which are spaced 8 in. OC. Gypsum board side joints may occur beneath or between main runners. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide pieces of gypsum board are to be laid atop the cross tee flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the cross tees at opposite corners of the backer strip with hold down clips to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to cross tees with 1 in. drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board.

When **Steel Framing Members** (Item 6H) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, an additional single length of furring channel shall be installed and be spaced approximately 3 in. from the butt joint (6 in. from the continuous furring channels) to support the floating end of the gypsum board. Each of these shorter sections of furring channel shall extend one truss beyond the width of the gypsum panel and be attached to the adjacent trusses with one SonusClip at every truss involved with the butt joint.
**CGC INC** — Types C, IP-X2, IPC-AR

**UNITED STATES GYPSUM CO** — Types C, IP-X2, IPC-AR

**USG BORAL DRYWALL SFZ LLC** — Type C

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR

7A. **Gypsum Board* —** For use with Steel Framing Members (Item 6D) when Batts and Blankets* (Item 3) are not used - One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to the main runners. Gypsum board fastened to each cross tee or channel with five wallboard screws, with one screw located at the midspan of the cross tee or channel, one screw located 12 in. from and on each side of the cross tee or channel mid span and one screw located 1-1/2 in. from each gypsum board side joint. Except at wallboard end joints, wallboard screws shall be located on alternating sides of cross tee flange. At gypsum board end joints, gypsum board screws shall be located 1/2 in. from the joint. Gypsum board fastened to main runners with wallboard screws 1/2 in. from side joints, midway between intersections with cross tees or channels (16 in. OC). End joints of adjacent gypsum board sheets shall be staggered not less than 32 in. Gypsum board sheets screw attached to leg of wall angle with wallboard screws spaced 12 in. OC. Joints treated as described in Item 7. For use with **Steel Framing Members*** (Item 6D) when **Batts and Blankets*** (Item 3) are used - Ratings limited to 1 Hour - 5/8 in. thick, 4 ft wide; installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Fastened to cross tees with 1 in. long steel gypsum board screws spaced 8 in. OC in the field and 8 in. OC along end joints. Fastened to main runners with 1 in. long gypsum board screws spaced midway between cross tees. Screws along sides and ends of boards spaced 3/8 to 1/2 in. from board edge. End joints of the sheets shall be staggered with spacing between joints on adjacent boards not less than 4 ft OC.
**CGC INC** — Type C or IP-X2

**UNITED STATES GYPSUM CO** — Type C or IP-X2

**USG BORAL DRYWALL SFZ LLC** — Type C

**USG MEXICO S A DE C V** — Type C or IP-X2

7B. **Gypsum Board* —** For use with Items 3C and 6G. Nom 5/8 in. thick, 48 in. wide gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 8 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. Finish Rating with this ceiling system is 20 min.
**CGC INC** — Type ULIX

**UNITED STATES GYPSUM CO** — Type ULIX

8. **Finishing System —** (Not Shown) — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board. **Alternate Ceiling Membrane** — Not Shown.

9. **Netting —** Fibrous, woven netting material fastened to underside of each joist with staples, with side joints overlapped.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2021-05-22

# Design No. W408

March 13, 2020

**Bearing Wall Rating — 2 Hr when EXPOSED TO FIRE ON INTERIOR FACE ONLY**

**(Maximum loading on the bearing wall to be based on un-braced stud height of 93.75 inches in the week axis of the studs)**

**Bearing Wall Rating — 1 Hr when EXPOSED TO FIRE ON EXTERIOR FACE ONLY, see Item 4 and 6**

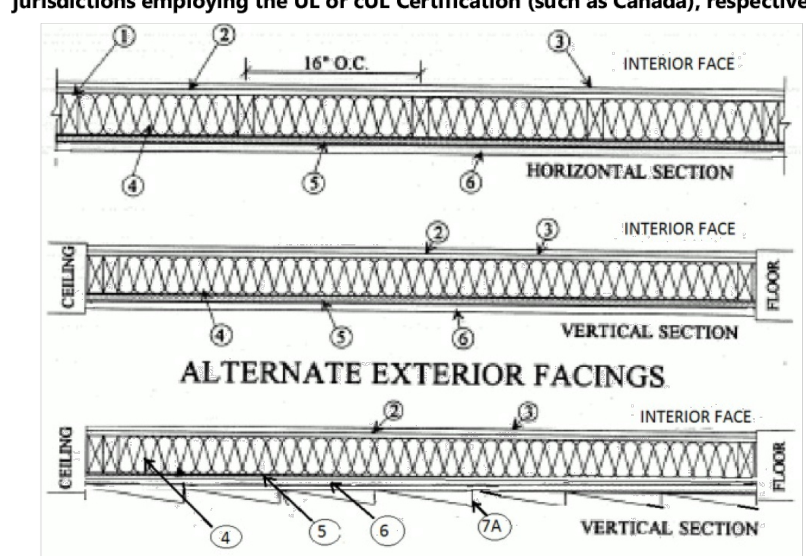
**(Maximum loading on the bearing wall to be based on un-braced stud height of 93.75 inches in the week axis of the studs)**

**For Wood Studs, Finish Rating — 50 min when EXPOSED TO FIRE ON INTERIOR FACE.**

**For Wood Studs, Finish Rating — 17 min when EXPOSED TO FIRE ON EXTERIOR FACE.**

**This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7**

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**




1. **Wood Studs —** Nom 2 by 4 in., spaced 16 in. OC with double 2 by 4 top and single 2 by 4 in, bottom plates, with 2 by 4 in. lateral bracing at 96 in. OC max. Studs effectively fire stopped. As an option, nom 2 by 6 in., spaced 24 in. OC with double 2 by 6 top and single 2 by 6 bottom plates, with 2 by 6 in. lateral bracing at 96 in. OC max may be used in lieu of 2 by 4 studs and plates. Studs effectively fire stopped.

1A. **Steel Studs and Floor and Ceiling Tracks —** As an option to Item 1 — (Not Shown) — Top and bottom tracks of wall assemblies shall consist of steel members, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min No. 20 MSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, that provide a sound structural connection between steel studs, and to adjacent assemblies such as a floor, ceiling, and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. O.C. Steel studs min 3-1/2 in. wide, No. 20 MSG (0.0329 in., min bare metal thickness) corrosion protected cold formed steel studs designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC. Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications.

2. **Gypsum Board* —** Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305. Nom 5/8 in. thick, 4 ft. wide, two layers applied vertically. Base layer nailed to wood studs and bearing plates 6 in. OC. with 6d cup-head drywall nails, 1-7/8 in. long. The face layer, with joints staggered from base layer, nailed to the studs and bearing plates over the base layer, 8 in. OC. with 8d cup-head drywall nails, 2-3/8 in. long. Type W screws of the same length, head diameter, as the nails and at the spacing described for nails may be used instead of nails. When steel framing is substituted for wood framing, 1 and 1-5/8 in. long Type S steel screws are used for base and face layers, respectively.
**CABOT MANUFACTURING ULC** (View Classification) — CKNX.R25370

**AMERICAN GYPSUM CO** (View Classification) — CKNX.R14196

**BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO** (View Classification) — CKNX.R19374

**CERTAINTEED GYPSUM INC** (View Classification) — CKNX.R3660

**CERTAINTEED GYPSUM INC** (View Classification) — CKNX.R18482

**CGC INC** (View Classification) — CKNX.R19751

**GEORGIA-PACIFIC GYPSUM L L C** (View Classification) — CKNX.R2717

**LOADMASTER SYSTEMS INC** (View Classification) — CKNX.R11809

**NATIONAL GYPSUM CO** (View Classification) — CKNX.R3501

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** (View Classification) — CKNX.R7094

**PANEL REY S A** (View Classification) — CKNX.R21796

**SIAM GYPSUM INDUSTRY (SARABURI) CO LTD** (View Classification) — CKNX.R19262

**THAI GYPSUM PRODUCTS PCL** (View Classification) — CKNX.R27517

**UNITED STATES GYPSUM CO** (View Classification) — CKNX.R1319

**USG MEXICO S A DE C V** (View Classification) — CKNX.R16089

3. **Joints and Fastener Heads —** Gypsum board joints covered with tape and joint compound. Fastener heads covered with joint compound.

4. **Batts and Blankets* —** Faced or unfaced mineral fiber insulation, 3-1/2 in. thick, nominal 2.5 pcf, friction fit in the wall cavity between stud, plates, and cross bracing.
See **Batts and Blankets*** (BZJZ) category for names of Classified manufacturers.

4A. **Batts and Blankets* —** As an option to Item 4, when the Fire Resistance Rating is for a fire on the Interior Face only and the Fire Resistance Rating for the Exterior face is not required. Faced or unfaced glass fiber insulation, 3-1/2 in. thick, nom 0.65 pcf, friction fit in the wall cavity between stud, plates, and cross bracing.
See **Batts and Blankets*** (BZJZ) category for names of Classified manufacturers.

5. **Building Units* —** Building units nailed to the wood framing with 1-7/8 in. long, 6d nails, spaced 6 in. OC. on the perimeter and 12 in. OC. in the field. Vertical joints centered on studs. Horizontal joints backed with nom. 2 by 4 wood blocking. When steel framing is substituted for wood framing, 1-1/4 in. long Type S steel screws are used in lieu of nails. Horizontal joints backed by steel framing.
**LOUISIANA-PACIFIC CORP** — Type Blazeguard 2-Side

**LOUISIANA-PACIFIC CORP** — Type LP FlameBlock 2-Side

6. **Exterior Sidings —** One of the Exterior Siding as specified in Item 6A to Item 6D are required for 1 hr Fire Resistance Rating for fire from the Exterior Face, optional for 2 hr Fire Resistance Rating for fire from Interior Face.

6A. **Exterior Wood Siding —** Min 11/32 in. thick, 4 ft wide wood plywood siding panels or 7/16 in. thick, 4 feet wide OSB siding panel. Installed with long dimension of sheet (strength axis) or face grain parallel with studs. Vertical joints centered on studs. Horizontal joints over nom. 2 by 4 in. wood blocking. Attached to studs through the Building Units, Item 5, on the exterior side of wall with 8d nails, 2-1/2 in. long spaced 6 in. OC at perimeter of panels and 12 in. OC in the field.

6B. **Exterior OSB Lap Siding —** Min 7/16 in. thick, OSB lap siding fastened to studs through the Building Units, Item 5, with nails or screws, at the locations specified by the manufacturer.

6C. **Cementitious Stucco —** Portland cement or synthetic stucco systems with self-furring metal lath. Thickness from 3/8 in. to 3/4 in. depending on system, fastened to studs through the Building Units, Item 5, with nails or screws, at the locations specified by the manufacturer.

6D. **Fiber Cement Siding —** Fiber Cement Lap or Vertical Siding. Minimum 5/16 in. thick, fastened to studs through the Building Units, Item 5, with nails or screws, at the locations specified by the manufacturer.

6E. **Brick —** Brick veneer, meeting the requirements of local code agencies. Brick veneer attached to the studs with corrugated metal wall ties attached to each stud with 8d cement coated nails, every sixth course of bricks.

7. **Exterior Facings —** Exterior Facing specified as Item 7A and 7B is not permitted for 1 hr Fire Resistance Rating for fire from the Exterior Face, optional for 2 hr Fire Resistance Rating for fire from Interior Face.

7A. **Vinyl Siding —** (Optional) - UL Classified exterior plastic siding (molded plastic), fastened to the building units or wood panel sheathing with nails or screws, at the locations specified by the manufacturer.

7B. **Exterior Facings —** (Optional - Not Shown) - Any exterior facing approved by the Authority Having Jurisdiction installed in accordance with the manufacturer's installation instructions.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

# LS1.10

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

# Design No. U305

June 18, 2021

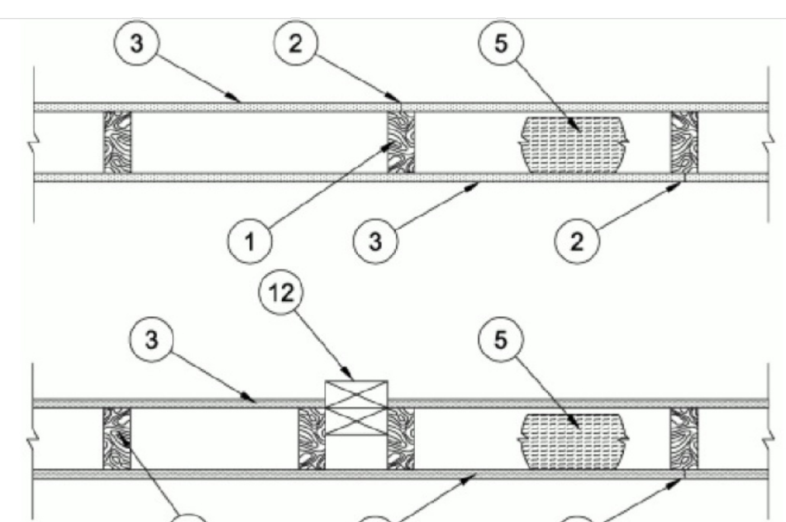
**Bearing Wall Rating — 1 Hr**

**Finish Rating — See Items 3, 3A, 3D, 3E, 3F, 3G, 3H, 3J and 3L.**

**STC Rating - 56 (See Item 9)**

**This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7**

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**




1. **Wood Studs —** Nom 2 by 4 in. spaced 16 in. OC max, effectively firestopped.

2. **Joints and Nail-Heads —** Joints covered with joint compound and paper tape. Joint compound and paper tape may be omitted when square edge boards are used. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with the joints reinforced with paper tape. Nailheads exposed or covered with joint compound.

3. **Gypsum Board* —** 5/8 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths other than 48 in., gypsum panels are to be installed horizontally. For an alternate method of attachment of gypsum panels, refer to Items 6 through 6F, **Steel Framing Members***.

When Items 6, 6B, 6C, 6D, 6E, or 6F, **Steel Framing Members***, are used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

When Item 6A, **Steel Framing Members***, is used, two layers of gypsum panels attached to furring channels. Base layer attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC. Face layer attached to furring channels with 1-5/8 in. long Type S bugle-head steel screws spaced 12 in. OC. All joints in face layers staggered with joints in base layers. One layer of gypsum board attached to opposite side of wood stud without furring channels as described in Item 3.

When Item 7, resilient channels are used, 5/8 in. thick, 4 ft wide gypsum panels applied vertically. Screw attached furring channels with 1 in. long, self-drilling, self-tapping Type S or S-12 steel screws spaced 8 in. OC, vertical joints located midway between studs.

**AMERICAN GYPSUM CO** — Types AGX-1(finish rating 23 min.), M-Glass (finish rating 23 min.), Type AGX-11 (finish rating 26 min), Type AGX-12 (finish rating 22 min), Type LightRoc (finish rating 23 min.) or Type AG-C

**BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO** — Type DBX-1 (finish rating 24 min)

**CABOT MANUFACTURING ULC** — Type X (finish rating 22 min), 5/8 Type X, Moisture Resistant Type X, Gypsum Sheathing Type X, Mold & Mildew Resistant Type X and Mold & Mildew Resistant AR Type X, Type Blueglass Exterior Sheathing

**CERTAINTEED GYPSUM INC** — Type C, Type X or Type X-1 (finish rating 26 min); Type EGRG or GlasRoc (finish rating 23 min), GlasRoc-2, Type Habito (finish rating 26 min).

**CGC INC** — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SCX (finish rating 24 min), Type SHX (finish rating 24 min), Type ULX (finish rating 22 min), Type WRC (finish rating 24 min), Type WRX (finish rating 24 min), Type ULIX (finish rating 20 min)

**CERTAINTEED GYPSUM INC** — Type LGFC6A (finish rating 34 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX (finish rating 21 min), Type CLLX (finish rating 24 min)

**GEORGIA-PACIFIC GYPSUM L L C** — Type 5 (finish rating 26 min), Type 6 (finish rating 23 min), Type 9 (finish rating 26 min), Type C (finish rating 26 min), Type DGG (finish rating 20 min), Type GPFS1 (finish rating 20 min), Type GPFS2 (finish rating 20 min), Type GPFS6 (finish rating 26 min), Type DS, Type DAP, Type DD (finish rating 20 min), Type DA, Type DAPC, Type LS (finish rating 23 min), Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type LWX (finish rating 22 min), Veneer Plaster Base-Type LWX (finish rating 22 min), Water Rated-Type LWX (finish rating 22 min), Sheathing Type-LWX (finish rating 22 min), Soffit-Type LWX (finish rating 22 min), Type DGLW (finish rating 22 min), Water Rated-Type DGLW (finish rating 22 min), Sheathing Type- DGLW (finish rating 22 min), Soffit-Type DGLW (finish rating 22 min), Type LWX (finish rating 22 min), Type LW2X (finish rating 22 min), Veneer Plaster Base - Type LW2X (finish rating 22 min), Water Rated - Type LW2X (finish rating 22 min), Sheathing - Type LW2X (finish rating 22 min), Soffit - Type LW2X (finish rating 22 min), Type DGL2W (finish rating 22 min), Water Rated - Type DGL2W (finish rating 22 min), Sheathing - Type DGL2W (finish rating 22 min)

**NATIONAL GYPSUM CO** — Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSW-6 (finish rating 20 min), Type FSL (finish rating 24 min), Type FSW-8, Type FSLX (finish rating 21 min), Type RSX (finish rating 26 min).

**NATIONAL GYPSUM CO** — Riyadh, Saudi Arabia — Type FR, or WR.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Types C, PG-2 (finish rating 20 min), PG-3 (finish rating 20 min), Types PG-3W, PG-5W (finish rating 20 min), Type PG-4 (finish rating 20 min), Type PG-6 (finish rating 23 min), Types PG-3WS, PG-5WS, PGS-WRS (finish rating 20 min), Types PG-5, PG-9 (finish rating 26 min), PG-11 PG-13 (Nails increased to 2 in.), Type PG-C or PGI (finish rating 26 min)

**PANEL REY S A** — Type GREX, GRIX, PRX, PRC, PRC2; Types RHX, Guard Rey, MDX, ETX (finish rating 22 min), PRX2 (finish rating 21 min)

**SIAM GYPSUM INDUSTRY (SARABURI) CO LTD** — Type EX-1 (finish rating 26 min)

**THAI GYPSUM PRODUCTS PCL** — Type C, Type X (finish rating 26 min)

**UNITED STATES GYPSUM CO** — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type FRX-G (finish rating 29 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type SCX (finish rating 24 min), Type SGX (finish rating 24 min), Type ULX (finish rating 22 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type ULIX (finish rating 20 min)

**USG BORAL DRYWALL SFZ LLC** — Type SGX (finish rating 24 min).

**USG MEXICO S A DE C V** — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), SCX (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type ULX (finish rating 22 min)

3A. **Gypsum Board* —** (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.

**AMERICAN GYPSUM CO** — Types AGX-1 (finish rating 25 min.), M-Glass (finish rating 25 min.), AG-C (finish rating 25 min.), LighttRoc (finish rating 25 min.)

**CERTAINTEED GYPSUM INC** — Type C, Type X, Type X-1 (finish rating 26 min), Type EGRG or GlasRoc.

**CGC INC** — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SCX (finish rating 24 min), Type SHX (finish rating 24 min), Type WRC (finish rating 24 min), Type WRX (finish rating 24 min)

**NATIONAL GYPSUM CO** — Type FSW (finish rating 24 min)

**UNITED STATES GYPSUM CO** — Type AR (finish rating 24 min), Type SCX (finish rating 24 min), Type SGX (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type FRX-G (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min)

**USG BORAL DRYWALL SFZ LLC** — Types C, SCX, SGX (finish rating 24 min).

**USG MEXICO S A DE C V** — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type SCX, Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min)

3B. **Gypsum Board* —** (As an alternate to Item 3) — Nom 3/4 in. thick, installed with 1-7/8 in. long cement coated nails as described in Item 3 or 1-3/8 in. long Type W coarse thread gypsum panel steel screws as described in Item 3A.

**CGC INC** — Types AR, IP-AR

**UNITED STATES GYPSUM CO** — Types AR, IP-AR

**USG MEXICO S A DE C V** — Types AR, IP-AR

3C. **Gypsum Board* —** (As an alternate to Items 3, 3A and 3B) — 5/8 in. thick, 2 ft wide, tongue and groove edge, applied horizontally to one side of the assembly. Installed with 1-7/8 in. long cement coated nails as described in Item 3 or 1-1/4 in. long Type W coarse thread gypsum panel steel screws as described in Item 3A. Joint covering (Item 2) not required.

**CGC INC** — Type SHX

**UNITED STATES GYPSUM CO** — Type SHX

**USG MEXICO S A DE C V** — Type SHX

3D. **Gypsum Board* —** (As an alternate to Items 3, 3A, 3B, or 3C — Not Shown) — For Direct Application to Studs Only- Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs or tabs may be used in lieu of or in addition to the lead batten strips or optional at other locations. Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards underneath screw locations prior to the installation of the screws. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

**RAY-BAR ENGINEERING CORP** — Type RB-LBG (finish rating 24 min)

3E. **Gypsum Board* —** (As an alternate to Items 3, 3A, 3B, 3C, and 3D) — 5/8 in. thick gypsum panels, with square edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last 2 screws 1 and 4 in. from edge of board or nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.

**GEORGIA-PACIFIC GYPSUM L L C** — Type DGG (finish rating 20 min), GreenGlass Type X (finish rating 23 min)

3F. **Gypsum Board* —** (As an alternate to Items 3, 3A, 3B, 3C, 3D, and 3E) — 5/8 in. glass-mat faced with square edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC around the perimeter and in the field with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Nails shall be placed 1 inch and 3 inch from horizontal joints and 7 inch OC thereafter.

**CGC INC** — Type USGX (finish rating 22 min)

**UNITED STATES GYPSUM CO** — Type USGX (finish rating 22 min.)

**USG BORAL DRYWALL SFZ LLC** — , Type USGX (finish rating 22 min.)

**USG MEXICO S A DE C V** — Type USGX (finish rating 22 min.)

3G. **Gypsum Board* —** (As an alternate to Items 3 through 3F) — 5/8 in. thick paper surfaced applied vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.

**GEORGIA-PACIFIC GYPSUM L L C** — Type X ComfortGuard Sound Deadening Gypsum Board (finish rating 27 min)

3H. **Gypsum Board* —** (As an alternate to Items 3) — Not to be used with items 6 or 7. 5/8 in. thick paper surfaced applied vertically only. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.

**NATIONAL GYPSUM CO** — Type SBWB

3I. **Gypsum Board* —** (As an alternate to Items 3 through 3H, Not Shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically. Panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Panel joints covered with paper tape and two layers of joint compound. Nailheads covered with two layers of joint compound.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock ES (finish rating 20 min)

3J. **Gypsum Board* —** (As an alternate to Item 3) — 5/8 in. thick paper surfaced applied vertically or horizontally. Gypsum panels secured per item 3 or 3A.

**CERTAINTEED GYPSUM INC** — Type SilentFX

3K. **Gypsum Board* —** (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 8 in. OC with the last screw 1 in. from the edge of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

**NATIONAL GYPSUM CO** — Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSW-6 (finish rating 20 min), Type FSL (finish rating 24 min).

3L. **Gypsum Board* —** (As an alternate to Item 3) — For Direct Application to Studs Only — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, max 5/16 in. diam by max 0.140 in. thick. compression fitted or adhered over the screw heads. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D".

**MAYCO INDUSTRIES INC** — "X-Ray Shielded Gypsum"

3M. **Gypsum Board* —** (As an alternate to Items 3) — For Direct Application to Studs Only — For use as the base layer or as the face layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Fasteners for face layer gypsum panels (Items 4, 4A or 4B) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4.

**RADIATION PROTECTION PRODUCTS INC** — Type RPP - Lead Lined Drywall

3N. **Gypsum Board* —** (As an alternate to Item 3) — 5/8 in. thick, 4 ft. wide, applied horizontally or vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Secured as described in Item 3 or 3A.

**CERTAINTEED GYPSUM INC** — Easi-Lite Type X (finish rating 24 min), Easi-Lite Type X-2 (finish rating 24 min)

3O. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 3, Not Shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically. Panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Panel joints covered with paper tape and two layers of joint compound. Nailheads covered with two layers of joint compound.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock 527 (finish rating 24 min).

3P. **Gypsum Board* —** (As an alternate to Item 3, Not Shown) — Two layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by wood studs. Horizontal joints on the same side between face and base layers need not be staggered. Base layer gypsum panels fastened to studs with 1-1/4 in. long drywall nails spaced 8 in. OC. Face layer gypsum panels fastened to studs with 1-7/8 in. long drywall nails spaced 8 in. OC starting with a 4" stagger.

**NATIONAL GYPSUM CO** — Type FSW (finish rating 25 min)

3Q. **Gypsum Board* —** (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC with the last two screws 4 and 1 in. from the edges of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

**CERTAINTEED GYPSUM INC** — Type LGFC6A (finish rating 21 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX

3R. **Gypsum Board* —** (As an alternate to Item 3. For use with Item 5H) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 3 above. Applied either horizontally or vertically, and screwed to panels with 1-5/8 in. long Type W coarse thread steel screws at 8 in. OC at perimeter and in the field with the last two screws 4 and 3/4 in. from the edges of the board when applied as the base layer. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

3S. **Gypsum Board* —** 3/4 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels secured as described in Item 3 with nail length increased to 2 in.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type PG-13

3T. **Wall and Partition Facings and Accessories* —** (As an alternate to 5/8 in. thick board as outlined in Item 3) — Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC along the perimeter and 12 in. OC in the field.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock 545

3U. **Gypsum Board* —** (As an alternate to Item 3 - For use with Foamed Plastic products, Item 5J) — 5/8 in. thick, 4 ft. wide, applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.

**AMERICAN GYPSUM CO** — Types AGX-1

**BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO** — Type DBX-1

**CABOT MANUFACTURING ULC** — Type X

**CERTAINTEED GYPSUM INC** — Type X

**CGC INC** — Type SCX

**PANEL REY S A** — Type PRX

**SIAM GYPSUM INDUSTRY (SARABURI) CO LTD** — Type EX-1

**THAI GYPSUM PRODUCTS PCL** — Type X

**UNITED STATES GYPSUM CO** — Types SCX and SGX

**USG BORAL DRYWALL SFZ LLC** — Types SCX and SGX

**USG MEXICO S A DE C V** — Type SCX

3V. **Gypsum Board* —** (As an alternate to Item 3. For use with Item 5K) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 3 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field.

4. **Steel Corner Fasteners —** (Optional) — For use at wall corners. Channel shaped, 2 in. long by 1 in. high on the back side with two 1/8 in. wide cleats protruding into the 5/8 in. wide channel, fabricated from 24 gauge galv steel. Fasteners applied only to the end or cut edge (not along tapered edges) of the gypsum board, no greater than 2 in. from corner of gypsum board, max spacing 16 in. OC. Nailed to adjacent stud through tab using one No. 6d cement coated nail per fastener. Corners of wall board shall be nailed to top and bottom plate using No. 6d cement coated nails.

5. **Batts and Blankets* —** (Optional — Required when Item 6A is used (RC-1)) — Glass fiber or mineral wool insulation. Placed to completely or partially fill the stud cavities. When Item 6A is used, glass fiber or mineral wool insulation shall be friction-fitted to completely fill the stud cavities.

**CERTAINTEED CORP**

**JOHNS MANVILLE**

**KNAUF INSULATION LLC**

**MANSON INSULATION INC**

**ROCKWOOL** — Types Acoustical Fire Batts and Type AFB, min. density 1.69 pcf / 27.0 kg/$m^3$

**ROCKWOOL MALAYSIA SDN BHD** — Type Acoustical Fire Batts

**ROCK WOOL MANUFACTURING CO** — Delta Board

**THERMAFIBER INC** — Type SAFB, SAFB FF

5A. **Fiber, Sprayed* —** (Not Shown — Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/$ft^3$. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/$ft^3$, in accordance with the application instructions supplied with the product. When Item 6B is used, Fiber, Sprayed shall be INS735, INS745, INS750LD, INS765LD or INS773LD.

**U S GREENFIBER L L C** — INS735, INS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only

5B. **Fiber, Sprayed* —** (Not Shown - Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

**NU-WOOL CO INC** — Cellulose Insulation

5C. **Batts and Blankets* —** Required for use with resilient channels, Item 7, 3 in. thick mineral wool batts, friction-fitted to fill interior of wall.

**THERMAFIBER INC** — Type SAFB, SAFB FF

5D. **Glass Fiber Insulation —** (As an alternate to Item 5C) — 3 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, friction-fitted to fill the interior of the wall. See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

5E. **Batts and Blankets* —** (Required for use with Wall and Partition Facings and Accessories, Item 3D) — Glass fiber insulation, nom 3-1/2 in. thick, min. density of 0.80 pcf, with a flame spread of 25 or less and a smoke developed of 50 or less, friction-fitted to completely fill the stud cavities. See Batts and Blankets Category (BKNV) for names of manufacturers.

5F. **Fiber, Sprayed* —** (Optional, Not Shown — Not for use with Items 6, 6A, 6B, 6C, or 6D) — As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied granulated mineral fiber material. The fiber is applied with adhesive, at a minimum density of 4.0 pcf, to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See **Fiber, Sprayed** (CCAZ).

**AMERICAN ROCKWOOL MANUFACTURING, LLC** — Type Rockwool Premium Plus

5G. **Fiber, Sprayed* —** (Optional, Not Shown — Not for use with Items 6, 6A, 6B, 6C, or 6D). — As an alternate to Batts and Blankets (Item 5) and Item 5A - Brown Colored Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed stud cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/$ft^3$.

**INTERNATIONAL CELLULOSE CORP** — Celbar-RL

5H. **Foamed Plastic* —** (Optional -For use with Item 3R) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity.

**SES FOAM INC** — Nexseal™ 2.0 or Nexseal™ 2.0 LE Spray Foam and Sucraseal Spray Foam.

5I. **Fiber, Sprayed* —** (Not Shown — Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/$ft^3$.

**APPLEGATE HOLDINGS L L C** — Applegate Advanced Stabilized Cellulose Insulation

5J. **Foamed Plastic* —** (Optional, Not Shown - For use with Item 3U) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity.

**GACO WESTERN L L C** — Types GacoEZSpray F4500, GacoProFill FR6500R, Gaco 052N, GacoOnePass F1850, GacoOnePass Low GWP F1880, and Gaco WallFoam 183M

5K. **Foamed Plastic* —** (Optional, Not Shown - For use with Item 3V) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity.

**CARLISLE SPRAY FOAM INSULATION** — Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.

6. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.

**PAC INTERNATIONAL L L C** — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75)

6A. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members on one side of studs as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Aa) to one side of studs only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.

**KINETICS NOISE CONTROL INC** — Type Isomax

6B. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ba) to studs. Clips spaced 48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

**PLITEQ INC** — Type Genie Clip

6C. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ca) to studs. Clips spaced 48 in. OC., and secured to studs with No. 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.

**STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

6D. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with a double strand of No. 18 AWG twisted steel wire. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Da) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

**REGUPOL AMERICA** — Type SonusClip

6E. **Steel Framing Members* —** (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 6Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.

**KEENE BUILDING PRODUCTS CO INC** - Type RC+ Assurance Clip

6F. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Fa) to studs. Clips spaced 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

**CLARKDIETRICH BUILDING SYSTEMS** — Type ClarkDietrich Sound Clip

6G. **Steel Framing Members* —** (Optional, Not Shown) — Used as an alternate method to attach resilient channels to wall studs. A resilient sound isolation accessory shall be used at each attachment point of the resilient channels and spaced max 16 in. O.C. Channel ends butted and centered under the structural members and attached with one accessory at each end. Additional accessories used to hold resilient channels that support the gypsum board end joints. The accessory envelops the mounting edge of the resilient channel. The accessory and resilient channel are fastened to the structural members with the screws supplied with the accessory and per the accessory manufacturer's installation instructions.

**PAC INTERNATIONAL L L C** — Type RC-1 Boost

7. **Furring Channel —** Optional — Not Shown — For use on one side of the wall - Resilient channels, 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws. When resilient channels are used, insulation, Items 5C or 5D is required.

8. **Caulking and Sealants —** (Not Shown, Optional) — A bead of acoustical sealant applied around the partition perimeter for sound control.

9. **STC Rating —** The STC Rating of the wall assembly is 56 when it is constructed as described by Items 1 through 6, except:

A. Item 2, above — Nailheads Shall be covered with joint compound.

B. Item 2, above — Joints As described, shall be covered with fiber tape and joint compound.

C. Item 5, above — Batts and Blankets* The cavities formed by the studs shall be friction fit with R-19 unfaced fiberglass insulation batts measuring 6-1/4 in. thick and 15-1/4 in. wide.

D. Item 6, above — Steel Framing Members* Type RSIC-1 clips shall be used to attach gypsum board to studs on either side of the wall assembly.

E. Item 8, above — Caulking and Sealants (Not Shown) A bead of acoustical sealant shall be applied around the partition perimeter for sound control.

F. Steel Corner Fasteners (Item 4), Fiber, Sprayed (Items 5A and 5B) and Steel Framing Members (Item 6A), not evaluated as alternatives for obtaining STC rating.

10. **Wall and Partition Facings and Accessories* —** (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the wood framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock QR-500 and QR-510

11. **Cementitious Backer Units* —** (Optional Item Not Shown — For Use On Face Of 1 Hr Systems With All Standard Items Required) - 7/16 in., 1/2 in., 5/8 in., 3/4 in. or 1 in. thick, min. 32 in. wide. Applied vertically or horizontally with vertical joints centered over studs. Fastened to studs and runners with cement board screws of adequate length to penetrate stud by a minimum of 3/8 in. for steel framing members, and a minimum of 3/4 in. for wood framing members spaced a max of 8 in. OC. When 4 ft. wide boards are used, horizontal joints need not be backed by framing.

**NATIONAL GYPSUM CO** — Type DuraBacker, PermaBase, DuraBacker Plus, or PermaBase Plus

12. **Non-Bearing Wall Partition Intersection —** (Optional) —Two nominal 2 by 4 in. studs or nominal 2 by 6 in. studs nailed together with two 3 in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.

13. **Mesh Netting —** (Not Shown) — Any thin, woven or non-woven fibrous netting material attached with staples to the outer face of one row of studs to facilitate the installation of the sprayed fiber from the opposite row.

14. **Mineral and Fiber Board* —** (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing with 2 in. long Type W steel screws, spaced 12 in. OC. The required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

**HOMASOTE CO** — Homasote Type 440-32

14A. **Mineral and Fiber Board* —** (Optional, Not Shown) — For use with Items 14B-14E) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing with minimum 1-3/8 in. long ring shanked nails or 1-1/4 in. long Type W steel screws, spaced 12 in. OC along board edges and 24 in. OC in field of board along intermediate framing. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

**HOMASOTE CO** — Homasote Type 440-32

14B. **Glass Fiber Insulation —** (For use with Item 14A) — 3-1/2 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, placed to fill the interior of the wall. See Batts and Blankets (BKNV or BZJZ) categories for names of Classified companies.

14C. **Batts and Blankets* —** (As an alternate to Item 14B, For use with Item 14A), 3 in. thick mineral wool batts, placed to fill interior of wall, attached to the 3-1/2 in. face of the studs with staples placed 24 in. OC.

**THERMAFIBER INC** — Type SAFB, SAFB FF

14D. **Adhesive —** (For use with Item 14A) — Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 14A).

14E. **Gypsum Board* —** (For use with Item 14A) — 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 14A) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 14A). Secured to outermost studs and bearing plates with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound. Finish Rating 30 Min.

**AMERICAN GYPSUM CO** — Type AG-C

**CERTAINTEED GYPSUM INC** — Type C

**CGC INC** — Types C, IP-X2, IPC-AR

**CERTAINTEED GYPSUM INC** — Type LGFC-C/A

**GEORGIA-PACIFIC GYPSUM L L C** — Types 5, DAPC, TG-C

**NATIONAL GYPSUM CO** — Types FSK-C, FSW-C

**PANEL REY S A** — Type PRC

**THAI GYPSUM PRODUCTS PCL** — Type C

**UNITED STATES GYPSUM CO** — Types C, IP-X2, IPC-AR

**USG BORAL DRYWALL SFZ LLC** — Type C

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR

14F. **Mineral and Fiber Board —** (Optional, Not Shown) — For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on one side of the wall in between the wood studs and the UL Classified Gypsum Board (Item 3). Fiber boards installed with 1-1/4 in. long, Type W, bugle head, coarse thread gypsum board screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 3) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

**BLUE RIDGE FIBERBOARD INC** — SoundStop

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2021-06-18

**TABLE 721.1(2)**
**RATED FIRE-RESISTANCE PERIODS FOR VARIOUS WALLS AND PARTITIONS[a, o, p]**

| MATERIAL | ITEM NUMBER | CONSTRUCTION | MINIMUM FINISHED THICKNESS FACE-TO-FACE[b] (inches) | | | |
|---|---|---|---|---|---|---|
| | | | 4 hours | 3 hours | 2 hours | 1 hour |
| 3. Concrete masonry units | 3-1.1[f, g] | Expanded slag or pumice. | 4.7 | 4.0 | 3.2 | 2.1 |
| | 3-1.2[f, g] | Expanded clay, shale or slate. | 5.1 | 4.4 | 3.6 | 2.6 |
| | 3-1.3[f] | Limestone, cinders or air-cooled slag. | 5.9 | 5.0 | 4.0 | 2.7 |
| | 3-1.4[f, g] | Calcareous or siliceous gravel. | 6.2 | 5.3 | 4.2 | 2.8 |
| 4. Solid concrete[h, i] | 4-1.1 | Siliceous aggregate concrete. | 7.0 | 6.2 | 5.0 | 3.5 |
| | | Carbonate aggregate concrete. | 6.6 | 5.7 | 4.6 | 3.2 |
| | | Sand-lightweight concrete. | 5.4 | 4.6 | 3.8 | 2.7 |
| | | Lightweight concrete. | 5.1 | 4.4 | 3.6 | 2.5 |

**TABLE 721.1(3)**
**MINIMUM PROTECTION FOR FLOOR AND ROOF SYSTEMS[a, q]**

| FLOOR OR ROOF CONSTRUCTION | ITEM NUMBER | CEILING CONSTRUCTION | THICKNESS OF FLOOR OR ROOF SLAB (inches) | | | | MINIMUM THICKNESS OF CEILING (inches) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 4 hours | 3 hours | 2 hours | 1 hour | 4 hours | 3 hours | 2 hours | 1 hour |
| 4. Lightweight concrete | 4-1.1 | | 5.1 | 4.4 | 3.6 | 2.5 | — | — | — | — |

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

**LS1.11**

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

## Design No. U341

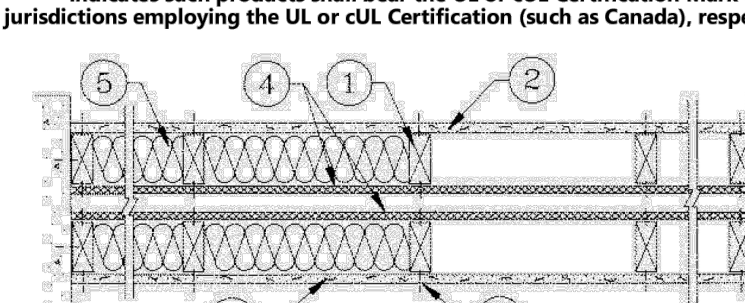
September 23, 2020

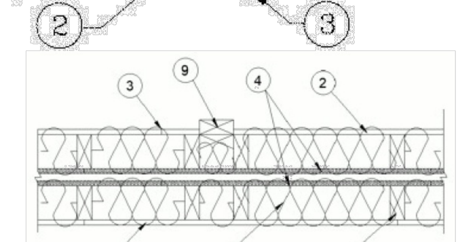
**Bearing Wall Rating — 1 Hr.**

**Finish Rating — Min 20 min.**

**This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7**

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**




HORIZONTAL SECTION

1. **Wood Studs —** Nom 2 by 4 in., spaced 24 in. OC max. Cross braced at mid-height and effectively firestopped at top and bottom of wall. No min. air space between stud rows except to accommodate attachment of sheathing, where required. See items 4 and 5.

2. **Gypsum Board* — Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305.** Nom 5/8 in. thick 4 ft wide. Gypsum board applied horizontally or vertically, unless specified below, and nailed to studs and bearing plates 7 in. OC with 6d cement coated nails, 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam head. As an alternate, No. 6 bugle head drywall screws, 1-7/8 in. long, may be substituted for the 6d cement coated nails.
When **Steel Framing Members*** (Item 6 or any alternate clips) are used, wallboard attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

When used in widths other than 48 in., gypsum board to be installed horizontally.

**AMERICAN GYPSUM CO** (View Classification) — CKNX.R14196

**BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO** (View Classification) — CKNX.R19374

**CABOT MANUFACTURING ULC** (View Classification) — CKNX.R25370

**CERTAINTEED GYPSUM INC** (View Classification) — CKNX.R3660

**CGC INC** (View Classification) — CKNX.R19751

**CERTAINTEED GYPSUM INC** (View Classification) — CKNX.R18482

**GEORGIA-PACIFIC GYPSUM L L C** (View Classification) — CKNX.R2717

**LOADMASTER SYSTEMS INC** (View Classification) — CKNX.R11809

**NATIONAL GYPSUM CO** (View Classification) — CKNX.R3501

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** (View Classification) — CKNX.R7094

**PANEL REY S A** (View Classification) — CKNX.R21796

**SIAM GYPSUM INDUSTRY (SARABURI) CO LTD** (View Classification) — CKNX.R19262

**THAI GYPSUM PRODUCTS PCL** (View Classification) — CKNX.R27517

**UNITED STATES GYPSUM CO** (View Classification) — CKNX.R1319

**USG BORAL DRYWALL SFZ LLC** (View Classification) — CKNX.R38438

**USG BORAL DRYWALL SFZ LLC** (View Classification) — CKNX.R38438

**USG MEXICO S A DE C V** (View Classification) — CKNX.R16089

2A. **Gypsum Board* —** (As an alternate to Item 2, not shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically to studs and bearing plates on one side of the assembly with 1-5/8 in. long Type S screws spaced 12 in. OC at perimeter of panels and 8 in. OC in the field. Horizontal joints of vertically applied panels need not be backed by studs. Panel joints covered with paper tape and two layers of joint compound. Screwheads covered with two layers of joint compound. Batts and Blankets placed in stud cavity as described in Item 5C. Not evaluated for use with Steel Framing Members, Furring Channels or Fiber, Sprayed.
**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock QR-530 (finish rating 23 min).

2B. **Gypsum Board* —** (As an alternate to Item 2, not shown) — Any 5/8 in. thick gypsum panels that are eligible for use in Design Nos. L501, G512 or U305, supplied by the Classified companies listed below shown in the **Gypsum Board*** (CKNX) category. Applied horizontally or vertically and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths other than 48 in., gypsum board to be installed horizontally.
**UNITED STATES GYPSUM CO**

**USG BORAL DRYWALL SFZ LLC**

**USG MEXICO S A DE C V**

2C. **Gypsum Board* —** (As an alternate to Item 2, Not Shown) — 5/8 in. thick gypsum panels applied horizontally or vertically and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths other than 48 in., gypsum board to be installed horizontally.
**AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRoc

**CERTAINTEED GYPSUM INC** — Type C, Type X or Type X-1

**NATIONAL GYPSUM CO** — Type FSK, Type FSK-G, Type FSW, Type FSW-3, Type FSW-5, Type FSW-G, Type FSK-C, Type FSW-C, Type FSMR-C, Type FSW-6, Type FSL

**THAI GYPSUM PRODUCTS PCL** — Type C or Type X

2D. **Gypsum Board* —** (As an alternate to Items 2, 2A, 2B and 2C) — 5/8 in. thick gypsum panels, with square edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last 2 screws 1 and 4 in. from edge of board or nailed as described in Item 2. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.
**GEORGIA-PACIFIC GYPSUM L L C** — GreenGlass Type X, Type DGG.

2E. **Gypsum Board* —** (As an alternate to Items 2 through 2D) — 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically only and secured as described in Item 2.
**GEORGIA-PACIFIC GYPSUM L L C** — Type X ComfortGuard Sound Deadening Gypsum Board.

2F. **Gypsum Board* —** (As an alternate to Items 2 through 2E) - Installed as described in Item 2. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically only and fastened to the studs and plates with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam heads, 7 in. OC. Not for use with item #6.
**NATIONAL GYPSUM CO** — Type SBWB

2G. **Gypsum Board* —** (As an alternate to Items 2 through 2F) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 2.
**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Types QuietRock ES.

2H. **Gypsum Board* —** (As an alternate to Items 2 through 2G) — Installed as described in Item 2. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically or horizontally fastened to the studs and plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board.
**CERTAINTEED GYPSUM INC** — Type SilentFX

2I. **Wall and Partition Facings and Accessories* —** (As an alternate to Items 2 through 2H) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 2.
**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock 527.

2J. **Gypsum Board* —** (As an alternate to 5/8 in. Type FSW in Item 2) — 2 layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal joints on the same side need not be staggered. Inner layer attached with fasteners, as described in item 2, spaced 24 in. OC. Outer layer attached per Item 2.
**NATIONAL GYPSUM CO** — Type FSW.

2K. **Gypsum Board* —** (As an alternate to Item 2) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC with the last two screws 4 and 1 in. from the edges of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.
**CERTAINTEED GYPSUM INC** — Type LGFC6A (finish rating 21 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX

3. **Joints and Nailheads —** Gypsum board joints of outer layer covered with tape and joint compound. Nail heads of outer layer covered with joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with joints reinforced with paper tape.

4. **Sheathing —** (Optional) — Septum may be sheathed with min 7/16 in. thick wood structural panels min grade "C-D" or "Sheathing" or min 1/2 in. thick **Mineral and Fiber Boards***.
See **Mineral and Fiber Boards** (CERZ) category for names of Classified companies.

5. **Batts and Blankets* —** 3-1/2 in. max thickness glass or mineral fiber batt insulation. **Optional** when sheathing (Item 4) is used on both halves of wall.
See **Batts and Blankets** (BZJZ) category for list of Classified companies.

5A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft$^3$. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft$^3$, in accordance with the application instructions supplied with the product.
**U S GREENFIBER L L C** — INS735, INS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only.

5B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) when Sheathing (Item 4) is used on both halves of wall - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
**NU-WOOL CO INC** — Cellulose Insulation

5C. **Batts and Blankets* —** (Required for use with Wall and Partition Facings and Accessories, Item 2A. Use of Sheathing, Item 4, does not nullify requirement of Item 5C for use with Item 2A) — Glass fiber insulation, nom 3-1/2 in. thick, min. density of 0.80 pcf, with a flame spread of 25 or less and a smoke developed of 50 or less, friction-fitted to completely fill the stud cavities. See Batts and Blankets Category (BKNV) for names of manufacturers.

5D. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) and Item 5A when Sheathing (Item 4) is used on both halves of wall - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft$^3$.
**INTERNATIONAL CELLULOSE CORP** — Celbar-RL

5E. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft$^3$.
**APPLEGATE HOLDINGS L L C** — Applegate Advanced Stabilized Cellulose Insulation

6. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
A. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Wallboard attached to furring channels as described in Item 2.

B. **Steel Framing Members* —** Used to attach furring channels (Item a) to studs (Item 1) . Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.

**PAC INTERNATIONAL L L C** — Types RSIC-1, RSIC-1 (2.75).

6A. **Steel Framing Members* —** (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 2.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
**PLITEQ INC** — Type Genie Clip

6B. **Steel Framing Members* —** (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 2.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ba) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
**STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237R

6C. **Steel Framing Members* —** (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:
A. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 6Cb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 2.

B. **Steel Framing Members* —** Used to attach furring channels (Item 6CA) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
**REGUPOL AMERICA** — Type SonusClip

6D. **Steel Framing Members* —** (Optional, Not Shown, As an alternate to Item 6) — Resilient channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 2.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 6Da) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
**KEENE BUILDING PRODUCTS CO INC** — Type RC+ Assurance Clip

6E. **Steel Framing Members* —** (Optional, Not Shown, As an alternate to Item 6) — Used as an alternate method to attach resilient channels to wall studs. A resilient sound isolation accessory shall be used at each attachment point of the resilient channels and spaced max 24 in. O.C. Channel ends butted and centered under the structural members and attached with one accessory at each end. Additional accessories used to hold resilient channels that support the gypsum board end joints. The accessory envelops the mounting edge of the resilient channel. The accessory and resilient channel are fastened to the structural members with the screws supplied with the accessory and per the accessory manufacturer's installation instructions.
**PAC INTERNATIONAL L L C** — Type RC-1 Boost

6F **Steel Framing Members* —** (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below:
a **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 2.

b **Steel Framing Members* —** Used to attach furring channels (Item 6Fa) to studs. Clips spaced maximum 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

**CLARKDIETRICH BUILDING SYSTEMS** — Type ClarkDietrich Sound Clip

7. **Wall and Partition Facings and Accessories* —** (Optional, Not shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the wood framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock QR-500 and QR-510

8. **Mineral and Fiber Board* —** ((Optional, Not Shown) — For optional use as an additional layer on one or both sides of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing as described in Item 2. The required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
**HOMASOTE CO** — Homasote Type 440-32

9. **Non-Bearing Wall Partition Intersection —** (Optional) — Two nominal 2 by 4 in. stud or nominal 2 by 6 in. stud nailed together with two 3in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.

**(Optional, Not Shown) Alternate Construction For Use On One Side Of The Wall.**

10. **Mineral and Fiber Board* —** For use with Items 10A-10D) —Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing with minimum 1-3/8 in. long ring shanked nails or 1-1/4 in. long Type W steel screws, spaced 12 in. OC along board edges and 24 in. OC in field of board along intermediate framing. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
**HOMASOTE CO** — Homasote Type 440-32

10A. **Glass Fiber Insulation —** (For use with Item 10) — 3-1/2 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, placed to fill the interior of the wall. See Batts and Blankets (BKNV or BZJZ) categories for names of Classified companies.

10B. **Batts and Blankets* —** (As an alternate to Item 10B, For use with Item 10), 3 in. thick mineral wool batts, placed to fill interior of wall, attached to the 3-1/2 in. face of the studs with staples placed 24 in. OC.
**THERMAFIBER INC** — Type SAFB, SAFB FF

10C. **Adhesive —** (For use with Item 10) — Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 14A).

10D. **Gypsum Board* —** (For use with Item 10) — 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 14A) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 10). Secured to outermost studs and bearing plates with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound. Finish Rating 30 Min.
**AMERICAN GYPSUM CO** — Type AG-C

**CERTAINTEED GYPSUM INC** — Type C

**CERTAINTEED GYPSUM INC** — Type LGFC-C/A

**GEORGIA-PACIFIC GYPSUM L L C** — Types 5, DAPC, TG-C

**NATIONAL GYPSUM CO** — Types FSK-C, FSW-C

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type PG-C

**PANEL REY S A** — Type PRC

**THAI GYPSUM PRODUCTS PCL** — Type C

**UNITED STATES GYPSUM CO** — Type CTypes C, IP-X2, IPC-AR

**USG BORAL DRYWALL SFZ LLC** — Type C

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

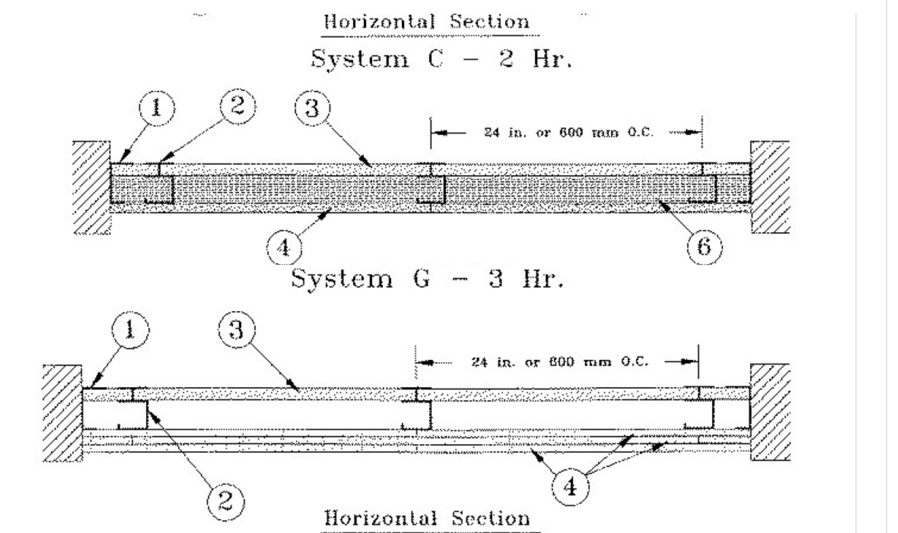
3

## Design No. U415

December 22, 2020

**Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr**

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**




1. **Floor, Side and Ceiling Runners —** "J" - shaped runner, min 2-1/2 in. deep (min 4 in. deep when System C is used), with unequal legs of 1 in. and 2 in., fabricated from min 24 MSG (min 20 MSG when Item 4A, 4B, 4C, 4D or 7 are used) galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. "E" - shaped studs (Item 2A) may be used as side runners in place of "J" - shaped runners.

2. **Steel Studs —** "C-H" - shaped studs, min 2-1/2 in. deep (min 4 in. deep when System C is used), fabricated from min 25 MSG (min 20 MSG when Items 2D, 4A, 4B, 4C, 4D or 7 is used) galv steel. Cut to lengths 3/8 to 1/2 in. less than floor-to-ceiling height and spaced 24 in. or 600 mm OC (max 16 in. OC when Items 4A, 4B, 4C, or 4D are used).

2A. **Steel Studs —** (Not Shown) — "E" - shaped studs installed back to back in place of "C-H" - shaped studs (Item 2) "E" - shaped studs secured together with steel screws spaced a maximum 12 in. OC. Fabricated from min 25 MSG (min 20 MSG when Item 2D, 4A, 4B or 7 is used) galv steel, min 2-1/2 in. deep (min 4 in. deep when System C is used), with one leg 1 in. long and two legs 3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 to 1/2 in. less than floor to ceiling heights.

2B. **Furring Channels —** (Optional, Not Shown) — For use with single or double layer systems. Resilient furring channels fabricated from min 25MSG corrosion protected steel, installed horizontally, and spaced vertically a max 24 in. OC. Flange portion of channel attached to each intersecting "C-H" or "E" stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws. When furring channels are used, wallboard to be installed vertically only. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

2C. **Furring Channels —** For use with System I - "Hat" - shaped, 25 MSG galv steel furring channels attached directly over the inner layers of wallboard to each stud with 2 in. long Type S pan head steel screws. Screws alternate from top flange to bottom flange at each stud intersection. Furring channels spaced vertically max 24 in. OC.

2D. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
**PAC INTERNATIONAL L L C** — Types RSIC-1, RSIC-1 (2.75)

2E. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ea) to studs. Clips spaced 24 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
**STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237R

2F. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A ). Clips spaced max. 24 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
**PLITEQ INC** — Type GENIECLIP

2G. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2Gb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ga) to studs. Clips spaced 24 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
**REGUPOL AMERICA** — Type SonusClip

2H. **Steel Framing Members* —** (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 2Ha) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
**KEENE BUILDING PRODUCTS CO INC** — Type RC+ Assurance Clip

2I. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ia) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
**CLARKDIETRICH BUILDING SYSTEMS** — Type ClarkDietrich Sound Clip

3. **Gypsum Board* —** Gypsum liner panels, nom 1 in. thick, 24 in. or 600 mm (for metric spacing) wide. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" portion of "C-H" studs or the gap between the two 3/4 in. legs of the "E" studs. Free edge of end panels attached to long leg of vertical "J" - runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC. When wall height exceeds liner panel length, liner panel may be butted to extend to the full height of the wall. Horizontal joints need not be backed by steel framing. In System I, butt joints in liner panels are staggered min 36 in. Butt joints backed with 6 in. by 22 in. strips of 3/4 in. thick gypsum wallboard (Item 4). Wallboard strips centered over butt joints and secured to liner panels with six 1-1/2 in. long Type G steel screws, three screws along the 22 in. dimension at the top and bottom of the strips.
**CGC INC** — Type SLX

**UNITED STATES GYPSUM CO** — Type SLX

**USG BORAL DRYWALL SFZ LLC** — Type SLX

**USG MEXICO S A DE C V** — Type SLX

4. **Gypsum Board* —**

### System C — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, secured with 1-1/4 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field when installed vertically or 8 in. OC along the vertical edges and in the field when installed horizontally. Horizontal joints need not be backed by steel framing. Screws along side joints offset 4 in. Requires min 4 in. deep framing per Items 1, 2 and 3. Requires min 3 in. thick mineral wool batts per Item 6.

**CGC INC** — Types IP-X3 or ULTRACODE

**UNITED STATES GYPSUM CO** — Types IP-X3 or ULTRACODE

**USG BORAL DRYWALL SFZ LLC** — Type ULTRACODE

**USG MEXICO S A DE C V** — Types IP-X3 or ULTRACODE

### System G — 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in three layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Middle layer attached to studs with 1-5/8 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 2-1/4 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. . Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

**CGC INC** — Types C, IP-X2, IPC-AR, ULIX, WRC

**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Type C

**UNITED STATES GYPSUM CO** — Types C, IP-X2, IPC-AR, ULIX, WRC

**USG BORAL DRYWALL SFZ LLC** — Type C

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR, WRC

4A. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9) or Lead Discs or Tabs (see Item 10).
**RAY-BAR ENGINEERING CORP** — Type RB-LBG

4B. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or #6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
**NEW ENGLAND LEAD BURNING CO INC, DBA NELCO** — Type Nelco

4C. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A). Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip.
**MAYCO INDUSTRIES INC** — Type X-Ray Shielded Gypsum

4D. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
**RADIATION PROTECTION PRODUCTS INC** — Type RPP - Lead Lined Drywall

5. **Joint Tape and Compound —** (Not Shown)

### Systems A, B, C, E, F, G, H, I

Joints on outer layers of gypsum boards (Item 4 and 4A) covered with paper tape and joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. Exposed screw heads covered with joint compound.

6. **Batts and Blankets* —**

### Systems A, B, E, F, G, H, I

(Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt mineral bearing the UL Classification Marking as to Fire Resistance.

### Systems C & D

Min 3 in. (System C) and min 1-1/2 in. (System D) thick mineral wool batts, friction fitted between the studs and floor and ceiling runners.

**ROCKWOOL** — Type AFB, min. density 1.8 pcf / 28.8 kg/m$^3$

**THERMAFIBER INC** — Type SAFB, SAFB FF

7. **Cementitious Backer Units* —** (System D) — Nom 1/2 or 5/8 in. thick panels, square edge, attached to studs over gypsum wallboard with 1-5/8 in. long, Type S-12, corrosion resistant steel screws spaced 8 in. OC and staggered 8 in. from gypsum wall board screws. Joints covered with glass fiber mesh tape. Vertical joints staggered one stud cavity from gypsum wallboard joints. Horizontal joints staggered a min of 12 in. from the gypsum wallboard joints.
**UNITED STATES GYPSUM CO** — Type DCB

8. **Laminating Adhesive* —** (Optional, Not Shown) — Used to bond outer layer of Cementitious Backer Units (Item 7) to inner layers of Gypsum Board (Item 4) in System D. ANSI A136.1 Type 1 organic adhesive applied with 1/4 in. square notched trowel. See Adhesives (BYWR) in the Fire Resistance Directory or Adhesives (BJLZ) in the Building Materials Directory for names of Classified companies.

9. **Lead Batten Strips —** (Not Shown, For Use With Item 4A) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Required behind vertical joints.

9A. **Lead Batten Strips —** (Not Shown, for use with Item 4C) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D".. Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 6) and optional at remaining stud locations.

10. **Lead Discs or Tabs —** (Not Shown, For Use With Item 4A) — Used in lieu of or in addition to the lead batten strips (Item 9) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4A) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

10A. **Lead Discs —** (Not Shown, for use with Item 4C) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

11. **Lead Batten Strips —** (Not Shown, For Use With Item 4B) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4B) and optional at remaining stud locations.

12. **Lead Tabs —** (Not Shown, For Use With Item 4B) — 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 4B) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2020-12-22

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

LS1.12

JONES & JONES ASSOCIATES / ARCHITECTS PC

CHAPTER 3: BUILDING BLOCKS

302 Floor or Ground Surfaces

302.2 Carpet. Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture.

Pile height shall be 1/2 inch (13 mm) maximum. Exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed exposed edge. Carpet edge trim shall comply with 303.

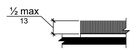



Figure 302.2 Carpet Pile Height

302.3 Openings. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch (13 mm) diameter except as allowed in 407.4.3, 409.4.3, 410.4, 810.5.3 and 810.10. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

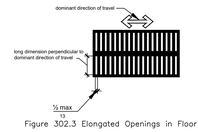



Figure 302.3 Elongated Openings in Floor or Ground Surfaces

303.2 Vertical. Changes in level of 1/4 inch (6.4 mm) high maximum shall be permitted to be vertical.

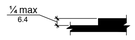



Figure 303.2 Vertical Change in Level

303.3 Beveled. Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.

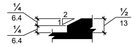



Figure 303.3 Beveled Change in Level

304 Turning Space

304.3.1 Circular Space. The turning space shall be a space of 60 inches (1525 mm) diameter minimum. The space shall be permitted to include knee and toe clearance complying with 306.

304.3.2 T-Shaped Space. The turning space shall be a T-shaped space within a 60 inch (1525 mm) square minimum with arms and base 36 inches (915 mm) wide minimum. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction and the base shall be clear of obstructions 24 inches (610 mm) minimum. The space shall be permitted to include knee and toe clearance complying with 306 only at the end of either the base or one arm.

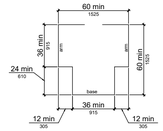



Figure 304.3.2 T-Shaped Turning Space

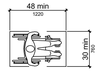



Figure 305.3 Clear Floor or Ground Space

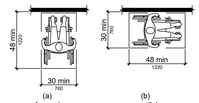



Figure 305.5 Position of Clear Floor or Ground Space

305.7.1 Forward Approach. Alcoves shall be 36 inches (915 mm)wide minimum where the depth exceeds 24 inches (610 mm).

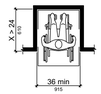



Figure 305.7.1 Maneuvering Clearance in an Alcove, Forward Approach

305.7.2 Parallel Approach. Alcoves shall be 60 inches (1525 mm) wide minimum where the depth exceeds 15 inches (380 mm).

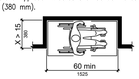



Figure 305.7.2 Maneuvering Clearance in an Alcove, Parallel Approach

306 Knee and Toe Clearance

306.2 Toe Clearance.

306.2.1 General. Space under an element between the finish floor or ground and 9 inches (230 mm) above the finish floor or ground shall be considered toe clearance and shall comply with 306.2.

306.2.2 Maximum Depth. Toe clearance shall extend 25 inches (635 mm) maximum under an element.

306.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear floor space, the toe clearance shall extend 17 inches (430 mm) minimum under the element.

306.2.4 Additional Clearance. Space extending greater than 6 inches (150 mm) beyond the available knee clearance at 9 inches (230 mm) above the finish floor or ground shall not be considered toe clearance.

306.2.5 Width. Toe clearance shall be 30 inches (760 mm) wide minimum.

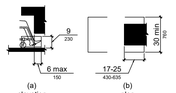



Figure 306.2 Toe Clearance

306.3 Knee Clearance.

306.3.1 General. Space under an element between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground shall be considered knee clearance and shall comply with 306.3.

306.3.2 Maximum Depth. Knee clearance shall extend 25 inches (635 mm) maximum under an element at 9 inches (230 mm) above the finish floor or ground.

306.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear floor space, the knee clearance shall be 11 inches (280 mm) deep minimum at 9 inches (230 mm) above the finish floor or ground, and 8 inches (205 mm) deep minimum at 27 inches (685 mm) above the finish floor or ground.

306.3.4 Clearance Reduction. Between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground, the knee clearance shall be permitted to reduce at a rate of 1 inch (25 mm) in depth for each 6 inches (150 mm) in height.

306.3.5 Width. Knee clearance shall be 30 inches (760 mm) wide minimum.

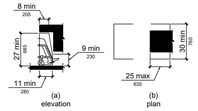



Figure 306.3 Knee Clearance

307 Protruding Objects

307.2 Protrusion Limits. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor or ground shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

EXCEPTION: Handrails shall be permitted to protrude 4 1/2 inches (115 mm) maximum.

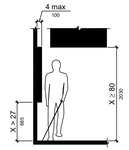



Figure 307.2 Limits of Protruding Objects

307.3 Post-Mounted Objects. Free-standing objects mounted on posts or pylons shall overhang circulation paths 12 inches (305 mm) maximum when located 27 inches (685 mm) minimum and 80 inches (2030 mm) maximum above the finish floor or ground. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches (305 mm), the lowest edge of such sign or obstruction shall be 27 inches (685 mm) maximum or 80 inches (2030 mm) minimum above the finish floor or ground.

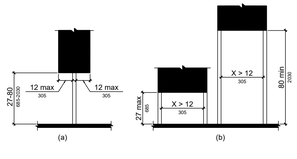



Figure 307.3 Post-Mounted Protruding Objects

307.4 Vertical Clearance. Vertical clearance shall be 80 inches (2030 mm) high minimum. Guardrails or other barriers shall be provided where the vertical clearance is less than 80 inches (2030 mm) high. The leading edge of such guardrail or barrier shall be located 27 inches (685 mm) maximum above the finish floor or ground.

EXCEPTION: Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

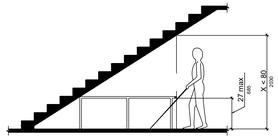



Figure 307.4 Vertical Clearance

308 Reach Ranges

Children's Reach Ranges

| Forward or Side Reach | High (maximum) | Low (minimum) |
|---|---|---|
| Ages 3 and 4 | 36 in (915 mm) | 20 in (510 mm) |
| Ages 5 through 8 | 40 in (1015 mm) | 18 in (455 mm) |
| Ages 9 through 12 | 44 in (1120 mm) | 16 in (405 mm) |

308.2 Forward Reach.

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

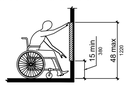



Figure 308.2.2 Obstructed High Forward Reach

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum where the reach depth is 20 inches (510 mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum and the reach depth shall be 25 inches (635 mm) maximum.

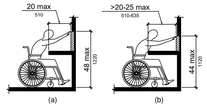
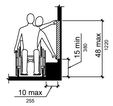



Figure 308.3.1 Unobstructed Side Reach

308.3 Side Reach.

308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the finish floor or ground.




308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 24 inches (610 mm) maximum.

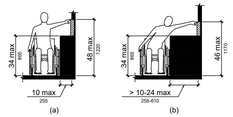



Figure 308.3.2 Obstructed High Side Reach

309 Operable Parts

309.2 Clear Floor Space. A clear floor or ground space complying with 305 shall be provided.

309.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in 308.

309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

CHAPTER 4: ACCESSIBLE ROUTES

402.2 Components. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

Advisory 402.2 Components. Walking surfaces must have running slopes not steeper than 1:20, see 403.3. Other components of accessible routes, such as ramps (405) and curb ramps (406), are permitted to be more steeply sloped.

403 Walking Surfaces

403.1 General. Walking surfaces that are a part of an accessible route shall comply with 403.

403.2 Floor or Ground Surface. Floor or ground surfaces shall comply with 302.

403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

403.4 Changes in Level. Changes in level shall comply with 303.

403.5 Clearances. Walking surfaces shall provide clearances complying with 403.5.

EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

403.5.1 Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.

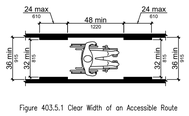



Figure 403.5.1 Clear Width of an Accessible Route

403.5.2 Clear Width at Turn. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

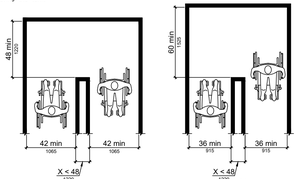



Figure 403.5.2 Clear Width at Turn

403.5.3 Passing Spaces. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum.

404 Doors, Doorways, and Gates

404.2.3 Clear Width. Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening width lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening between 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

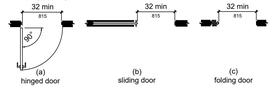



Figure 404.2.3 Clear Width of Doorways

404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

404.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate.

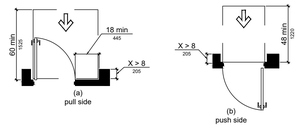



Figure 404.2.4.3 Maneuvering Clearances at Recessed Doors and Gates

404.2.6 Doors in Series and Gates in Series. The distance between two hinged or pivoted doors in series and gates in series shall be 48 inches (1220 mm) minimum plus the width of doors or gates swinging into the space.

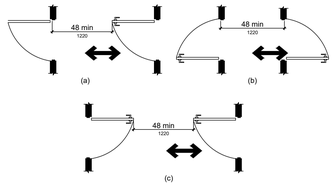



Figure 404.2.6 Doors in Series and Gates in Series

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.

404.2.8.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from the open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:

1. Interior hinged doors and gates: 5 pounds (22.2 N) maximum.
2. Sliding or folding doors: 5 pounds (22.2 N) maximum.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

404.2.11 Vision Lights. Doors, gates, and side lights adjacent to doors or gates, containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor.

404.3 Automatic and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with 404.3. Full-powered automatic doors shall comply with ANSI/BHMA A156.10 (incorporated by reference, see "Referenced Standards" in Chapter 1). Low-energy and power-assisted doors shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1).

404.3.2 Maneuvering Clearance. Clearances at power-assisted doors and gates shall comply with 404.2.4. Clearances at automatic doors and gates without standby power and serving an accessible means of egress shall comply with 404.2.4.

404.3.7 Revolving Doors, Revolving Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

405 Ramps

405.2 Slope. Ramp runs shall have a running slope not steeper than 1:12.

405.3 Cross Slope. Cross slope of ramp runs shall not be steeper than 1:48.

405.5 Clear Width. The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 36 inches (915 mm) minimum.

405.6 Rise. The rise for any ramp run shall be 30 inches (760 mm) maximum.

405.7 Landings. Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with 405.7.

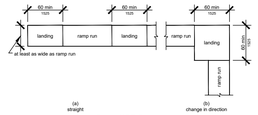



Figure 405.7 Ramp Landings

405.7.1 Slope. Landings shall have slope no steeper than 1:48. Changes in level are not permitted.

405.7.2 Width. The landing clear width shall be at least as wide as the widest ramp run leading to the landing.

405.7.3 Length. The landing clear length shall be 60 inches (1525 mm) long minimum.

405.7.4 Change in Direction. Ramps that change direction between runs at landings shall have a clear landing 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum.

405.7.5 Doorways. Where doorways are located adjacent to a ramp landing, maneuvering clearances required by 404.2.4 and 404.3.2 shall be permitted to overlap the required landing

405.8 Handrails. Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails complying with 505.

405.9 Edge Protection. Edge protection complying with 405.9.1 or 405.9.2 shall be provided on each side of ramp runs and at each side of ramp landings.

405.9.1 Extended Floor or Ground Surface. The floor or ground surface of the ramp run or landing shall extend 12 inches (305 mm) minimum beyond the inside face of a handrail complying with 505.

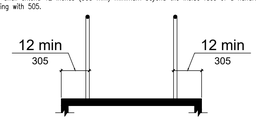



Figure 405.9.1 Extended Floor or Ground Surface Edge Protection

405.9.2 Curb or Barrier. A curb or barrier shall be provided that prevents the passage of a 4 inch (100 mm) diameter sphere, where any portion of the sphere is within 4 inches (100 mm) of the finish floor or ground surface.

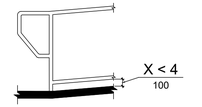



Figure 405.9.2 Curb or Barrier Edge Protection

406 Curb Ramps

406.1 General. Curb ramps on accessible routes shall comply with 406, 405.2 through 405.5, and 405.10.

406.2 Counter Slope. Counter slopes of adjoining gutters and road surfaces immediately adjacent to the curb ramp shall not be steeper than 1:20. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.

Figure 406.2 Counter Slope of Surfaces Adjacent to Curb Ramps

406.3 Sides of Curb Ramps. Where provided, curb ramp flares shall not be steeper than 1:10.

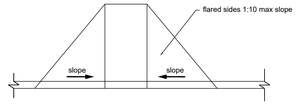



Figure 406.3 Sides of Curb Ramps

406.4 Landings. Landings shall be provided at the tops of curb ramps. The landing clear length shall be 36 inches (915 mm) minimum. The landing clear width shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.

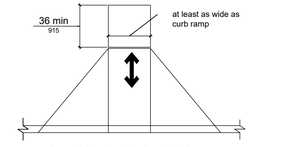



Figure 406.4 Landings at the Top of Curb Ramps

406.5 Location. Curb ramps and the flared sides of curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.

406.6 Diagonal Curb Ramps. Diagonal or corner type curb ramps with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have a clear space 48 inches (1220 mm) minimum outside active traffic lanes of the roadway. Diagonal curb ramps provided at marked crossings shall provide the 48 inches (1220 mm) minimum clear space within the markings. Diagonal curb ramps with flared sides shall have a segment of curb 24 inches (610 mm) long minimum located on each side of the curb ramp and within the marked crossing.

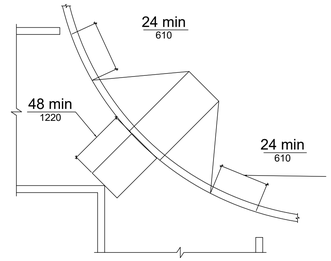



Figure 406.6 Diagonal or Corner Type Curb Ramps

406.7 Islands. Raised islands in crossings shall be cut through level with the street or have curb ramps at both sides. Each curb ramp shall have a level area 48 inches (1220 mm) long minimum by 36 inches (915 mm) wide minimum at the top of the curb ramp in the part of the island intersected by the crossings. Each 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum area shall be oriented so that the 48 inch (1220 mm) minimum length is in the direction of the running slope of the curb ramp it serves. The 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum areas and the accessible route shall be permitted to overlap.

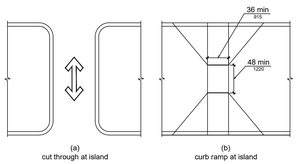



Figure 406.7 Islands in Crossings

GENERAL NOTE -
THIS DATA IS PROVIDED AS AN ADDITIONAL RESOURCE TO THE TEAM OF OWNER, CLIENT, ARCHITECT, ENGINEER AND SPECIFICALLY CONTRACTOR. THIS IS A REFERENCE TOOL PROVIDED TO INFORM ALL PARTIES OF TYPICAL ACCESSIBILITY CONDITIONS AS PUBLISHED PER ADAAG (AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES) EFFECTIVE SEPTEMBER 15, 2010. THE DIAGRAMS PROVIDED ARE DUPLICATIONS OF THE ADAAG STANDARDS AND ARE NOT INDICATIVE OF ALL CONDITIONS AND DO NOT REPRESENT THE ENTIRETY OF THE WRITTEN GUIDELINES AS CONTAINED IN THE PUBLISHED STANDARDS. THE DATA IS IN SUPPORT OF GENERAL ARCHITECTURAL AND ENGINEERING DOCUMENTATION. WHILE THE INFORMATION HERE IS TO ENDEAVOR TO REPRESENT TYPICAL CONDITIONS, IN THE EVENT OF CONFLICT, THE PUBLISHED STANDARDS AND TECHNICAL MEMORANDA SHALL GOVERN.

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

ADA.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

407 Elevators

407.1 General. Elevators shall comply with 407 and with ASME A17.1 (incorporated by reference, see "Referenced Standards" in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

EXCEPTION: Existing conditions don't have to comply

407.2.1.2 Size. Call buttons shall be 3/4 inch (19 mm) minimum in the smallest dimension.

407.2.2.1 Visible and Audible Signals. A visible and audible signal shall be provided at each hoistway entrance to indicate which car is answering a call and the car's direction of travel. Where in-car signals are provided, they shall be visible from the floor area adjacent to the hall call buttons.

407.2.2.2 Visible Signals. Visible signal fixtures shall be centered at 72 inches (1830 mm) minimum above the finish floor or ground. The visible signal elements shall be 2 1/2 inches (64 mm) minimum measured along the vertical centerline of the element. Signals shall be visible from the floor area adjacent to the hall call button.

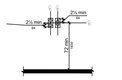



Figure 407.2.2.2 Visible Hall Signals

407.2.3.1 Floor Designation. Floor designations complying with 703.2 and 703.4.1 shall be provided on both jambs of elevator hoistway entrances. Floor designations shall be provided in both tactile characters and braille. Tactile characters shall be 2 inches (51 mm) high minimum. A tactile star shall be provided on both jambs at the main entry level.

Figure 407.2.3.1 Floor Designations on Jambs of Elevator Hoistway Entrances

407.2.3.2 Car Designations. Destination-oriented elevators shall provide tactile car identification complying with 703.2 on both jambs of the hoistway immediately below the floor designation. Car designations shall be provided in both tactile characters and braille. Tactile characters shall be 2 inches (51 mm) high minimum.

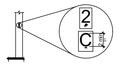



Figure 407.2.3.2 Car Designations on Jambs of Destination-Oriented Elevator Hoistway Entrances

407.3.3.1 Height. The device shall be activated by sensing an obstruction passing through the opening at 5 inches (125 mm) nominal and 29 inches (735 mm) nominal above the finish floor.

407.3.3.3 Duration. Door reopening devices shall remain effective for 20 seconds minimum.

407.3.4 Door and Signal Timing. The minimum acceptable time from notification that a car is answering a call or notification of the car assigned at the means for entry of destination information until the doors of that car start to close shall be calculated from the following equation:

T = D/(1.5 ft/s) or T = D/(455 mm/s) = 5 seconds minimum where T equals the total time in seconds and D equals the distance (in feet or millimeters) from the point in the lobby or corridor 60 inches (1525 mm) directly in front of the farthest call button controlling that car to the centerline of its hoistway door.

407.3.5 Door Delay. Elevator doors shall remain fully open in response to a car call for 3 seconds

407.3.6 Width. The width of elevator doors shall comply with Table 407.4.1.

407.4 Elevator Car Requirements. Elevator cars shall comply with 407.4.

407.4.1 Car Dimensions. Inside dimensions of elevator cars and clear width of elevator doors shall comply with Table 407.4.1.

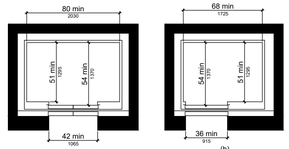



Figure 407.4.1 Elevator Car Dimensions

407.4.3 Platform to Hoistway Clearance. The clearance between the car platform sill and the edge of any hoistway landing shall be 1 1/4 inch (32 mm) maximum.

407.4.4 Leveling. Each car shall be equipped with a self-leveling feature that will automatically bring and maintain the car at floor landings within a tolerance of 1/2 inch (13 mm) under rated loading to zero loading conditions.

407.4.5 Illumination. The level of illumination at the car controls, platform, car threshold and car landing sill shall be 5 foot candles (54 lux) minimum.

407.4.6 Elevator Car Controls. Where provided, elevator car controls shall comply with 407.4.6 and 309.4.

407.4.6.1 Location. Controls shall be located within one of the reach ranges specified in 308.

407.4.6.2 Buttons. Car control buttons with floor designations shall comply with 407.4.6.2 and shall be raised or flush.

407.4.6.2.1 Size. Buttons shall be 3/4 inch (19 mm) minimum in their smallest dimension.

407.4.6.4.1 Height. Emergency control buttons shall have their centerlines 35 inches (890 mm) minimum above the finish floor.

407.4.7.1.1 Type. Control buttons shall be identified by tactile characters complying with 703.2.

407.4.7.1.3 Symbols. The control button for the emergency stop, alarm, door open, door close, main entry floor, and phone, shall be identified with tactile symbols as shown in Table 407.4.7.1.3.

407.4.8.1.1 Size. Characters shall be 1/2 inch (13 mm) high minimum.

407.4.8.2.2 Signal Level. The verbal annunciator shall be 10 dB minimum above ambient, but shall not exceed 80 dB, measured at the annunciator.

407.4.8.2.3 Frequency. The verbal annunciator shall have a frequency of 300 Hz minimum to 3000 Hz maximum.

408 Limited-Use/Limited-Application Elevators

408.1 General. Limited-use/limited-application elevators shall comply with 408 and with ASME A17.1 (incorporated by reference, see "Referenced Standards" in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

408.2 Elevator Landings. Landings serving limited-use/limited-application elevators shall comply with

408.2.1 Call Buttons. Elevator call buttons and keypads shall comply with 407.2.1.

408.2.2 Hall Signals. Hall signals shall comply with 407.2.2.

408.2.3 Hoistway Signs. Signs at elevator hoistways shall comply with 407.2.3.1.

408.3 Elevator Doors. Elevator hoistway doors shall comply with 408.3.

408.3.1 Sliding Doors. Sliding hoistway and car doors shall comply with 407.3.1 through 407.3.3 and 408.4.1.

408.3.2 Swinging Doors. Swinging hoistway doors shall open and close automatically and shall comply with 404, 407.3.2 and 408.3.2.

408.3.2.1 Power Operation. Swinging doors shall be power-operated and shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1).

408.3.2.2 Duration. Power-operated swinging doors shall remain open for 20 seconds minimum when activated.

408.4 Elevator Cars. Elevator cars shall comply with 408.4.

408.4.1 Car Dimensions and Doors. Elevator cars shall provide a clear width 42 inches (1065 mm) minimum and a clear depth 54 inches (1370 mm) minimum. Car doors shall be positioned at the narrow ends of cars and shall provide 32 inches (815 mm) minimum clear width.

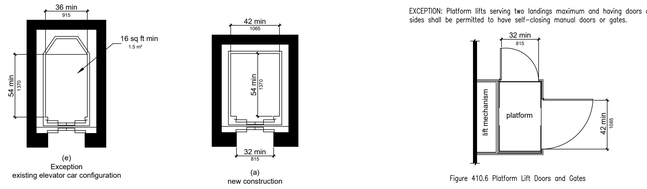



Figure 408.4.1 Limited-Use/Limited-Application (LULA) Elevator Car Dimensions 15 sq ft min

408.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

408.4.3 Platform to Hoistway Clearance. The platform to hoistway clearance shall comply with 407.4.3.

408.4.4 Leveling. Elevator car leveling shall comply with 407.4.4.

408.4.5 Illumination. Elevator car illumination shall comply with 407.4.5.

408.4.6 Car Controls. Elevator car controls shall comply with 407.4.6. Control panels shall be centered on a side wall.

408.4.7 Designations and Indicators of Car Controls. Designations and indicators of car controls shall comply with 407.4.7.

408.4.8 Emergency Communications. Car emergency signaling devices complying with 407.4.9 shall be provided.

409 Private Residence Elevators

409.1 General. Private residence elevators that are provided within a residential dwelling unit required to provide mobility features complying with 809.2 through 809.4 shall comply with 409 and with ASME A17.1 (incorporated by reference, see "Referenced Standards" in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

409.2 Call Buttons. Call buttons shall be 3/4 inch (19 mm) minimum in the smallest dimension and shall comply with 309.

409.3 Elevator Doors. Hoistway doors, car doors, and car gates shall comply with 409.3 and 404.

409.3.1 Power Operation. Elevator car and hoistway doors and gates shall be power operated and shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1). Power operated doors and gates shall remain open for 20 seconds minimum when activated.

409.3.2 Location. Elevator car doors or gates shall be positioned at the narrow end of the clear floor spaces required by 409.4.1.

409.4 Elevator Cars. Private residence elevator cars shall comply with 409.4.

409.4.1 Inside Dimensions of Elevator Cars. Elevator cars shall provide a clear floor space of 36 inches (915 mm) minimum by 48 inches (1220 mm) minimum and shall comply with 305.

409.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

409.4.3 Platform to Hoistway Clearance. The clearance between the car platform and the edge of any landing sill shall be 1 1/2 inch (38 mm) maximum.

409.4.4 Leveling. Each car shall automatically stop at a floor landing within a tolerance of 1/2 inch (13 mm) under rated loading to zero loading conditions.

409.4.5 Illumination Levels. Elevator car illumination shall comply with 407.4.5.

409.4.6 Car Controls. Elevator car control buttons shall comply with 409.4.6, 309.3, 309.4, and shall be raised or flush.

409.4.6.1 Size. Control buttons shall be 3/4 inch (19 mm) minimum in their smallest dimension.

409.4.6.2 Location. Control panels shall be on a side wall, 12 inches (305 mm) minimum from any adjacent wall.

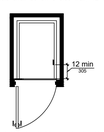



Figure 409.4.6.2 Location of Private Residence Elevator Control Panel

409.4.7 Emergency Communications. Emergency two-way communication systems shall comply with

409.4.7.1 Type. A telephone and emergency signal device shall be provided in the car.

409.4.7.2 Operable Parts. The telephone and emergency signaling device shall comply with 309.3 and 309.4.

409.4.7.3 Compartment. If the telephone or device is in a closed compartment, the compartment door hardware shall comply with 309.

409.4.7.4 Cord. The telephone cord shall be 29 inches (735 mm) long minimum.

410 Platform Lifts

410.1 General. Platform lifts shall comply with ASME A18.1 (1999 edition or 2003 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1). Platform lifts shall not be attendant-operated and shall provide unassisted entry and exit from the lift.

Advisory 410.1 General. Inclined stairway chairlifts and inclined and vertical platform lifts are available for short-distance vertical transportation. Because an accessible route requires an 80 inch (2030 mm) vertical clearance, care should be taken in selecting lifts as they may not be equally suitable for use by people using wheelchairs and people standing. If a lift does not provide 80 inch (2030 mm) vertical clearance, it cannot be considered part of an accessible route in new construction.

The ADA and other Federal civil rights laws require that accessible features be maintained in working order so that they are accessible to and usable by those people they are intended to benefit. Building owners are reminded that the ASME A18 Safety Standard for Platform Lifts and Stairway Chairlifts requires routine maintenance and inspections. Isolated or temporary interruptions in service due to maintenance or repairs may be unavoidable; however, failure to take prompt action to effect repairs could constitute a violation of Federal laws and these requirements.

410.2 Floor Surfaces. Floor surfaces in platform lifts shall comply with 302 and 303.

410.3 Clear Floor Space. Clear floor space in platform lifts shall comply with 305.

410.4 Platform to Runway Clearance. The clearance between the platform sill and the edge of any runway landing shall be 1 inch (32 mm) maximum.

410.5 Operable Parts. Controls for platform lifts shall comply with 309.

410.6 Doors and Gates. Platform lifts shall have low-energy power-operated doors or gates complying with 404.3. Doors shall remain open for 20 seconds minimum. End doors and gates shall provide a clear width 32 inches (815 mm) minimum. Side doors and gates shall provide a clear width 42 inches (1065 mm) minimum.

EXCEPTION: Platform lifts serving two landings maximum and having doors or gates on opposite sides shall be permitted to have self-closing manual doors or gates.




Figure 410.6 Platform Lift Doors and Gates

501 General

501.1 Scope. The provisions of Chapter 5 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

502 Parking Spaces

502.1 General. Car and van parking spaces shall comply with 502. Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings.

EXCEPTION: Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

502.2 Vehicle Spaces. Car parking spaces shall be 96 inches (2440 mm) wide minimum and van parking spaces shall be 132 inches (3350 mm) wide minimum, shall be marked to define the width, and shall have an adjacent access aisle complying with 502.3.

EXCEPTION: Van parking spaces shall be permitted to be 96 inches (2440 mm) wide minimum where the access aisle is 96 inches (2440 mm) wide minimum.

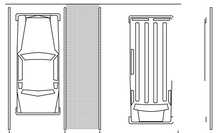



Figure 502.2 Vehicle Parking Spaces

502.3 Access Aisle. Access aisles serving parking spaces shall comply with 502.3. Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle.

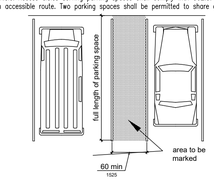



Figure 502.3 Parking Space Access Aisle

502.3.1 Width. Access aisles serving car and van parking spaces shall be 60 inches (1525 mm) wide minimum.

502.3.2 Length. Access aisles shall extend the full length of the parking spaces they serve.

502.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

502.3.4 Location. Access aisles shall not overlap the vehicular way. Access aisles shall be permitted to be placed on either side of the parking space except for angled van parking spaces which shall have access aisles located on the passenger side of the parking spaces.

502.4 Floor or Ground Surfaces. Parking spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the parking spaces they serve. Changes in level are not permitted. EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

502.5 Vertical Clearance. Parking spaces for vans and access aisles and vehicular routes serving them shall provide a vertical clearance of 98 inches (2490 mm) minimum.

502.6 Identification. Parking space identification signs shall include the International Symbol of Accessibility complying with 703.7.2.1. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches (1525 mm) minimum above the finish floor or ground surface measured to the bottom of the sign.

502.7 Relationship to Accessible Routes. Parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes.

503 Passenger Loading Zones

503.2 Vehicle Pull-Up Space. Passenger loading zones shall provide a vehicular pull-up space 96 inches (2440 mm) wide minimum and 20 feet (6100 mm) long minimum.

503.3 Access Aisle. Passenger loading zones shall provide access aisles complying with 503 adjacent to the vehicle pull-up space. Access aisles shall adjoin an accessible route and shall not overlap the vehicular way.

503.3.1 Width. Access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) wide minimum.

503.3.2 Length. Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

503.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

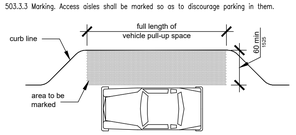



Figure 503.3 Passenger Loading Zone Access Aisle

503.4 Floor and Ground Surfaces. Vehicle pull-up spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the vehicle pull-up space they serve. Changes in level are not permitted. EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

503.5 Vertical Clearance. Vehicle pull-up spaces, access aisles serving them, and a vehicular route from an entrance to the passenger loading zone, and from the passenger loading zone to a vehicular exit shall provide a vertical clearance of 114 inches (2895 mm) minimum.

504 Stairways

504.1 General. Stairs that are part of the means of egress is required to comply with 504

504.2 Treads and Risers. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches (100 mm) high minimum and 7 inches (180 mm) high maximum. Treads shall be 11 inches (280 mm) deep minimum.

504.3 Open Risers. Open risers are not permitted.

504.4 Tread Surface. Stair treads shall comply with 302. Changes in level are not permitted.

504.5 Nosings. The radius of curvature at the leading edge of the tread shall be 1/2 inch (13 mm) maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall extend 1 1/2 inches (38 mm) maximum over the tread below.

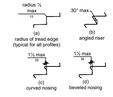



Figure 504.5 Stair Nosings

504.6 Handrails. Stairs shall have handrails complying with 505.

504.7 Wet Conditions. Stair treads and landings subject to wet conditions shall be designed to prevent the accumulation of water.

505 Handrails

505.1 General. Handrails provided along walking surfaces complying with 403, required at ramps complying with 405, and required at stairs complying with 504 shall comply with 505.

Advisory 505.1 General. Handrails are required on ramp runs with a rise greater than 6 inches (150 mm) (see 405.8) and on certain stairways (see 504). Handrails are not required on walking surfaces with running slopes less than 1:20. However, handrails are required to comply with 505 when they are provided on walking surfaces with running slopes less than 1:20 (see 403.6). Sections 505.2, 505.3, and 505.10 do not apply to handrails provided on walking surfaces with running slopes less than 1:20 as these sections only reference requirements for ramps and stairs.

505.2 Where Required. Handrails shall be provided on both sides of stairs and ramps.

505.3 Continuity. Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs.

505.4 Height. Top of gripping surfaces of handrails shall be 34 inches (865 mm) minimum and 38 inches (965 mm) maximum vertically above walking surfaces, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above walking surfaces, stair nosings, and ramp surfaces.

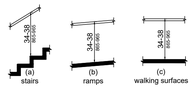



Figure 505.4 Handrail Height

505.5 Clearance. Clearance between handrail gripping surfaces and adjacent surfaces shall be 1 1/2 inches (38 mm) minimum.

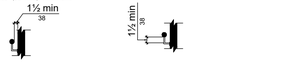



Figure 505.5 Handrail Clearance Figure 505.6 Horizontal Projections Below Gripping Surface

505.6 Gripping Surface. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1 1/2 inches (38 mm) minimum below the bottom of the handrail gripping surface.

505.7.1 Circular Cross Section. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

505.7.2 Non-Circular Cross Sections. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches (100 mm) minimum and 6 1/4 inches (160 mm) maximum, and a cross-section dimension of 2 1/4 inches (57 mm) maximum.

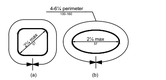



Figure 505.7.2 Handrail Non-Circular Cross Section

505.8 Surfaces. Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges.

505.9 Fittings. Handrails shall not rotate within their fittings.

505.10 Handrail Extensions. Handrail gripping surfaces shall extend beyond and in the same direction of stair flights and ramp runs in accordance with 505.10.

505.10.1 Top and Bottom Extension at Ramps. Ramp handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

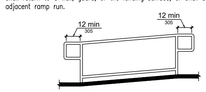



Figure 505.10.1 Top and Bottom Handrail Extension at Ramps

505.10.2 Top Extension at Stairs. At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

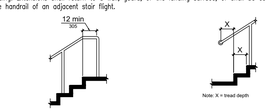



Figure 505.10.2 Top Handrail Extension at Stairs Figure 505.10.3 Bottom Handrail Extension at Stairs

505.10.3 Bottom Extension at Stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

602 Drinking Fountains

602.2 Clear Floor Space. Units shall have a clear floor or ground space complying with 305 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with 306 shall be provided.

EXCEPTION: A parallel approach complying with 305 shall be permitted at units for children's use where the spout is 30 inches (760 mm) maximum above the finish floor or ground and is 3 1/2 inches (90 mm) maximum from the front edge of the unit, including bumpers.

602.3 Operable Parts. Operable parts shall comply with 309.

602.4 Spout Height. Spout outlets shall be 36 inches (915 mm) maximum above the finish floor or ground.

602.5 Spout Location. The spout shall be located 15 inches (380 mm) minimum from the vertical support and 5 inches (125 mm) maximum from the front edge of the unit, including bumpers.

Figure 602.5 Drinking Fountain Spout Location

602.6 Water Flow. The spout shall provide a flow of water 4 inches (100 mm) high minimum and shall be located 5 inches (125 mm) maximum from the front of the unit. The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 3 inches (75 mm) of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 3 inches (75 mm) and 5 inches (125 mm) maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum.

602.7 Drinking Fountains for Standing Persons. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the finish floor or ground.

603 Toilet and Bathing Rooms

603.2 Clearances. Clearances shall comply with 603.2.

603.2.1 Turning Space. Turning space complying with 304 shall be provided within the room.

603.2.2 Overlap. Required clear floor spaces, clearance at fixtures, and turning space shall be permitted to overlap.

603.2.3 Door Swing. Doors shall not swing into the clear floor space or clearance required for any fixture. Doors shall be permitted to swing into the required turning space.

603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604 Water Closets and Toilet Compartments

604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach.

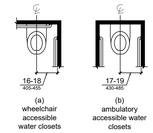



Figure 604.2 Water Closet Location

604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.

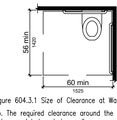



Figure 604.3.1 Size of Clearance at Water Closets

604.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet clearance.

604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.

604.5.1 Side Wall. The side wall grab bar shall be 42 inches (1065 mm) long minimum, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.

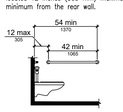



Figure 604.5.1 Side Wall Grab Bar at Water Closets

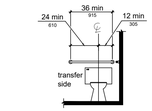



Figure 604.5.2 Rear Wall Grab Bar at Water Closets

604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum and extend from the centerline of the water closet 12 inches (305 mm) minimum on one side and 24 inches (610 mm) minimum on the other side.

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

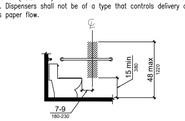



Figure 604.7 Dispenser Outlet Location

604.8 Toilet Compartments. Wheelchair accessible toilet compartments shall meet the requirements of 604.8.1 and 604.8.3. Compartments containing more than one plumbing fixture shall comply with 603. Ambulatory accessible compartments shall comply with 604.8.2 and 604.8.3.

604.8.1 Wheelchair Accessible Compartments. Wheelchair accessible compartments shall comply with 604.8.1.

604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1420 mm) deep minimum for wall hung water closets and 59 inches (1500 mm) deep minimum for floor mounted water closets measured perpendicular to the rear wall. Wheelchair accessible compartments for children's use shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 59 inches (1500 mm) deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.

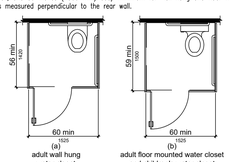



Figure 604.8.1.1 Size of Wheelchair Accessible Toilet Compartment

GENERAL NOTE –
THIS DATA IS PROVIDED AS AN ADDITIONAL RESOURCE TO THE TEAM OF OWNER, CLIENT, ARCHITECT, ENGINEER AND SPECIFICALLY CONTRACTOR. THIS IS A REFERENCE TOOL PROVIDED TO INFORM ALL PARTIES OF TYPICAL ACCESSIBILITY CONDITIONS AS PUBLISHED PER ADAAG (AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES) EFFECTIVE SEPTEMBER 15, 2010. THE DIAGRAMS PROVIDED ARE DUPLICATIONS OF THE ADAAG STANDARDS AND ARE NOT INDICATIVE OF ALL CONDITIONS AND DO NOT REPRESENT THE ENTIRETY OF THE WRITTEN GUIDELINES AS CONTAINED IN THE PUBLISHED STANDARDS. THE DATA IS IN SUPPORT OF GENERAL ARCHITECTURAL AND ENGINEERING DOCUMENTATION. WHILE THE INFORMATION HERE IS TO ENDEAVOR TO REPRESENT TYPICAL CONDITIONS, IN THE EVENT OF CONFLICT, THE PUBLISHED STANDARDS AND TECHNICAL MEMORANDA SHALL GOVERN.

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

RICHARD L. JONES, JR.
001-025003
LICENSED ARCHITECT
STATE OF ILLINOIS
26 SEP 2025

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

ADA.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

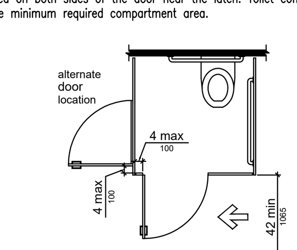


Figure 604.8.1.2 Wheelchair Accessible Toilet Compartment Doors

604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.8.1.4 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) deep with a wall-hung water closet or 65 inches (1650 mm) deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches (1650 mm)deep

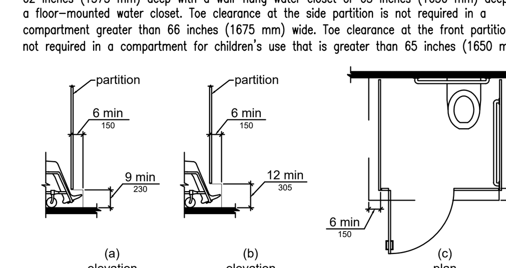


Figure 604.8.1.4 Wheelchair Accessible Toilet Compartment Toe Clearance

604.8.1.5 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a rear-wall grab bar complying with 604.5.2 shall be provided.

604.8.2 Ambulatory Accessible Compartments. Ambulatory accessible compartments shall comply with 604.8.2.

604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.2.3 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided on both sides of the compartment.

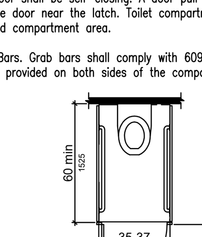


Figure 604.8.2 Ambulatory Accessible Toilet Compartment

604.8.3 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604.9 Water Closets and Toilet Compartments for Children's Use. Water closets and toilet compartments for children's use shall comply with 604.9.

604.9.1 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.9.2 Clearance. Clearance around a water closet shall comply with 604.3.

604.9.3 Height. The height of water closets shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.9.4 Grab Bars. Grab bars for water closets shall comply with 604.5.

604.9.5 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the finish floor. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.9.6 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

604.9.7 Toilet Compartments. Toilet compartments shall comply with 604.8.

605 Urinals

605.2 Height and Depth. Urinals shall be the stall-type or the wall-hung type with the rim 17 inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13 1/2 inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.

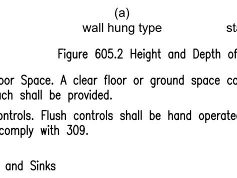


Figure 605.2 Height and Depth of Urinals

605.3 Clear Floor Space. A clear floor or ground space complying with 305 positioned for forward approach shall be provided.

605.4 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.

606 Lavatories and Sinks

606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.

606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.

606.4 Faucets. Controls for faucets shall comply with 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

606.5 Exposed Pipes and Surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

607 Bathtubs

607.2 Clearance. Clearance in front of bathtubs shall extend the length of the bathtub and shall be 30 inches (760 mm) wide minimum. A lavatory complying with 606 shall be permitted at the control end of the clearance. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches (305 mm) minimum beyond the wall at the head end of the bathtub.

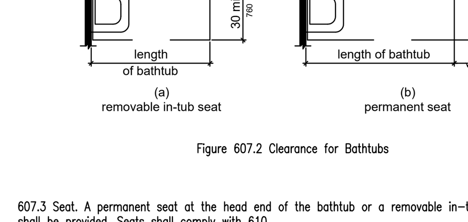


Figure 607.2 Clearance for Bathtubs

607.3 Seat. A permanent seat at the head end of the bathtub or a removable in-tub seat shall be provided. Seats shall comply with 610.

607.4 Grab Bars. Grab bars for bathtubs shall comply with 609 and shall be provided in accordance with 607.4.1 or 607.4.2.

607.4.1 Bathtubs With Permanent Seats. For bathtubs with permanent seats, grab bars shall be provided in accordance with 607.4.1.

607.4.1.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be installed 15 inches (380 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.1.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

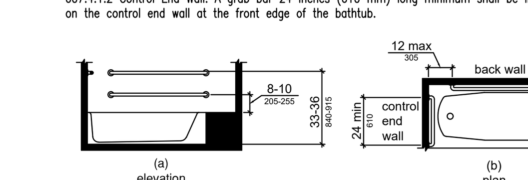


Figure 607.4.1 Grab Bars for Bathtubs with Permanent Seats

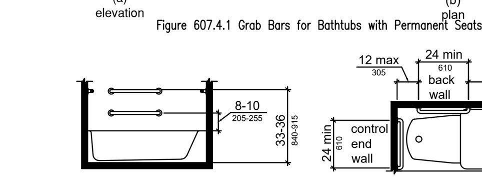


Figure 607.4.2 Grab Bars for Bathtubs with Removable In-Tub Seats

607.4.2 Bathtubs Without Permanent Seats. For bathtubs without permanent seats, grab bars shall comply with 607.4.2.

607.4.2.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be 24 inches (610 mm) long minimum and shall be installed 24 inches (610 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.2.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

607.4.2.3 Head End Wall. A grab bar 12 inches (305 mm) long minimum shall be installed on the head end wall at the front edge of the bathtub.

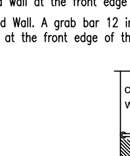


Figure 607.5 Bathtub Control Location

607.5 Controls. Controls, other than drain stoppers, shall be located on an end wall. Controls shall be between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub. Controls shall comply with 309.4.

607.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120°F (49°C) maximum.

607.7 Bathtub Enclosures. Enclosures for bathtubs shall not obstruct controls, faucets, shower and spray units or obstruct transfer from wheelchairs onto bathtub seats or into bathtubs. Enclosures on bathtubs shall not have tracks installed on the rim of the open face of the bathtub.

608 Shower Compartments

608.2 Size and Clearances for Shower Compartments. Shower compartments shall have sizes and clearances complying with 608.2.

608.2.1 Transfer Type Shower Compartments. Transfer type shower compartments shall be 36 inches (915 mm) by 36 inches (915 mm) clear inside dimensions measured at the center points of opposing sides and shall have a 36 inch (915 mm) wide minimum entry on the face of the shower compartment. Clearance of 36 inches (915 mm) wide minimum by 48 inches (1220 mm) long minimum measured from the control wall shall be provided.

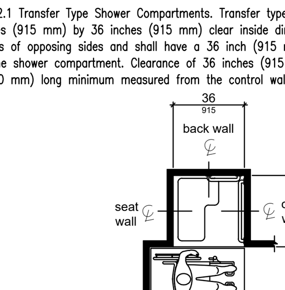


Figure 608.2.1 Transfer Type Shower Compartment Size and Clearance

608.2.2 Standard Roll-In Type Shower Compartments. Standard roll-in type shower compartments shall be 30 inches (760 mm) wide minimum by 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides and shall have a 60 inches (1525 mm) wide minimum entry on the face of the shower compartment.

608.2.2.1 Clearance. A 30 inch (760 mm) wide minimum by 60 inch (1525 mm) long minimum clearance shall be provided adjacent to the open face of the shower compartment.

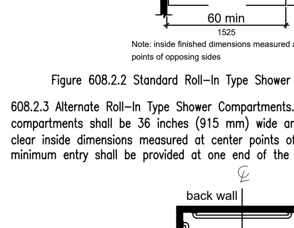


Figure 608.2.2 Standard Roll-In Type Shower Compartment Size and Clearance

608.2.3 Alternate Roll-In Type Shower Compartments. Alternate roll-in type shower compartments shall be 36 inches (915 mm) wide and 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides. A 36 inch (915 mm) wide minimum entry shall be provided at one end of the long side of the compartment.

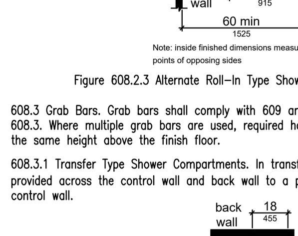


Figure 608.2.3 Alternate Roll-In Type Shower Compartment Size and Clearance

608.3 Grab Bars. Grab bars shall comply with 609 and shall be provided in accordance with 608.3. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the finish floor.

608.3.1 Transfer Type Shower Compartments. In transfer type compartments, grab bars shall be provided across the control wall and back wall to a point 18 inches (455 mm) from the control wall.

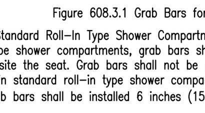


Figure 608.3.1 Grab Bars for Transfer Type Showers

608.3.2 Standard Roll-In Type Shower Compartments. Where a seat is provided in standard roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall opposite the seat. Grab bars shall not be provided above the seat. Where a seat is not provided in standard roll-in type shower compartments, grab bars shall be provided on three walls. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

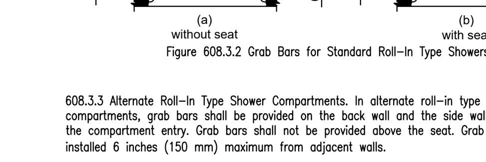


Figure 608.3.2 Grab Bars for Standard Roll-In Type Showers

608.3.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall farthest from the compartment entry. Grab bars shall not be provided above the seat. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

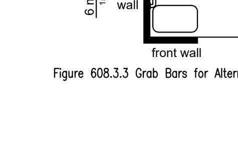


Figure 608.3.3 Grab Bars for Alternate Roll-In Type Showers

608.4 Seats. A folding or non-folding seat shall be provided in transfer type shower compartments. A folding seat shall be provided in roll-in type showers required in transient lodging guest rooms with mobility features complying with 806.2. Seats shall comply with 610.

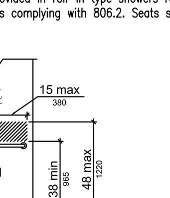


Figure 608.4.1
Transfer Type Shower
Controls and Handshower Location

608.5 Controls. Controls, faucets, and shower spray units shall comply with 309.4.

608.5.1 Transfer Type Shower Compartments. In transfer type shower compartments, the controls, faucets, and shower spray unit shall be installed on the side wall opposite the seat 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor and shall be located on the control wall 15 inches (380 mm) maximum from the centerline of the seat toward the shower opening.

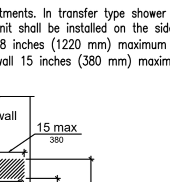


Figure 608.5.1 Transfer Type Shower Compartment Control Location

608.5.2 Standard Roll-In Type Shower Compartments. In standard roll-in type shower compartments, the controls, faucets, and shower spray unit shall be located above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be installed on the back wall adjacent to the seat wall and shall be located 27 inches (685 mm) maximum from the seat wall.

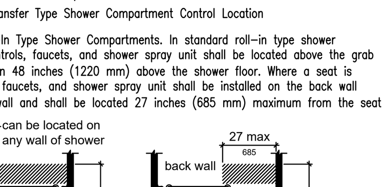


Figure 608.5.2 Standard Roll-In Type Shower Compartment Control Location

608.5.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be located on the side wall

shower spray unit shall be installed on the side wall farthest from the compartment entry.

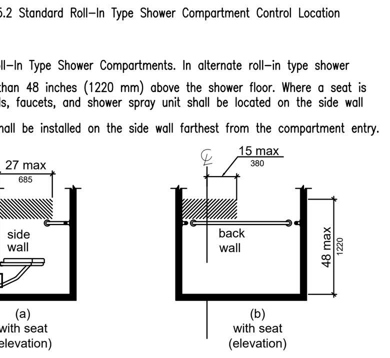


Figure 608.5.3 Alternate Roll-In Type Shower Compartment Control Location

608.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Shower spray units shall deliver water that is 120°F (49°C) maximum.

608.7 Thresholds. Thresholds in roll-in type shower compartments shall be 1/2 inch (13 mm) high maximum in accordance with 303. In transfer type shower compartments, thresholds 1/2 inch (13 mm) high maximum shall be beveled, rounded, or vertical.

608.8 Shower Enclosures. Enclosures for shower compartments shall not obstruct controls, faucets, and shower spray units or obstruct transfer from wheelchairs onto shower seats.

609 Grab Bars

609.1 General. Grab bars in toilet facilities and bathing facilities shall comply with 609.

609.2 Cross Section. Grab bars shall have a cross section complying with 609.2.1 or 609.2.2.

609.2.1 Circular Cross Section. Grab bars with circular cross sections shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

609.2.2 Non-Circular Cross Section. Grab bars with non-circular cross sections shall have a cross-section dimension of 2 inches (51 mm) maximum and a perimeter dimension of 4 inches (100 mm) minimum and 4.8 inches (120 mm) maximum.

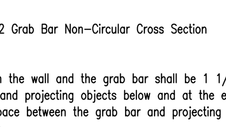


Figure 609.2.2 Grab Bar Non-Circular Cross Section

609.3 Spacing. The space between the wall and the grab bar shall be 1 1/2 inches (38 mm). The space between the grab bar and projecting objects below and at the ends shall be 1 1/2 inches (38 mm) minimum. The space between the grab bar and projecting objects above shall be 12 inches (305 mm) minimum.

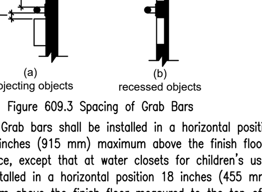


Figure 609.3 Spacing of Grab Bars

609.4 Position of Grab Bars. Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor measured to the top of the gripping surface, except that at water closets for children's use complying with 604.9, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the finish floor measured to the top of the gripping surface. The height of the lower grab bar on the back wall of a bathtub shall comply with 607.4.1.1 or 607.4.2.1.

609.5 Surface Hazards. Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges.

609.6 Fittings. Grab bars shall not rotate within their fittings.

609.7 Installation. Grab bars shall be installed in any manner that provides a gripping surface at the specified locations and that does not obstruct the required clear floor space.

609.8 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the grab bar, fastener, mounting device, or supporting structure.

610 Seats

610.2 Bathtub Seats. The top of bathtub seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. The depth of a removable in-tub seat shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum. The seat shall be capable of secure placement. Permanent seats at the head end of the bathtub shall be 15 inches (380 mm) deep minimum and shall extend from the back wall to or beyond the outer edge of the bathtub.

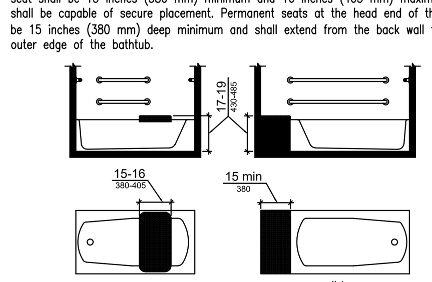


Figure 610.2 Bathtub Seats

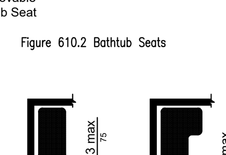


Figure 610.3 Extent of Seat

610.3 Shower Compartment Seats. Where a seat is provided in a standard roll-in shower compartment, it shall be a folding type, shall be installed on the side wall adjacent to the controls, and shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. Where a seat is provided in an alternate roll-in type shower compartment, it shall be a folding type, shall be installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches (75 mm) of the compartment entry. In transfer-type showers, the seat shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. The top of the seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. Seats shall comply with 610.3.1 or 610.3.2.

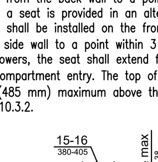


Figure 610.3.1 Rectangular Shower Seat

610.3.1 Rectangular Seats. The rear edge of a rectangular seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The side edge of the seat shall be 1 1/2 inches (38 mm) maximum from the adjacent wall.

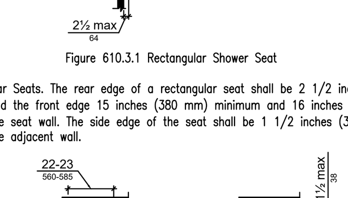


Figure 610.3.2 L-Shaped Shower Seat

610.3.2 L-Shaped Seats. The rear edge of an L-shaped seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The rear edge of the "L" portion of the seat shall be 1 1/2 inches (38 mm) maximum from the wall and the front edge shall be 14 inches (355 mm) minimum and 15 inches (380 mm) maximum from the wall. The end of the "L" shall be 22 inches (560 mm) minimum and 23 inches maximum (585 mm) from the main seat wall.

610.4 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

611 Washing Machines and Clothes Dryers

611.2 Clear Floor Space. A clear floor or ground space complying with 305 positioned for parallel approach shall be provided. The clear floor or ground space shall be centered on the appliance.

611.3 Operable Parts. Operable parts, including doors, lint screens, and detergent and bleach compartments shall comply with 309.

611.4 Height. Top loading machines shall have the door to the laundry compartment located 36 inches (915 mm) maximum above the finish floor. Front loading machines shall have the bottom of the opening to the laundry compartment located 15 inches (380 mm) minimum and 36 inches (915 mm) maximum above the finish floor.

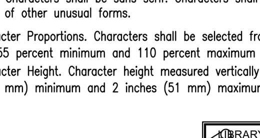


Figure 611.4 Height of Laundry Compartment Opening

612 Saunas and Steam Rooms

612.2 Bench. Where seating is provided in saunas and steam rooms, at least one bench shall comply with 903. Doors shall not swing into the clear floor space required by 903.2.

612.3 Turning Space. A turning space complying with 304 shall be provided within saunas and steam rooms

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

702 Fire Alarm Systems

702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1), except that the maximum allowable sound level of audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3 and 4-4 of NFPA 72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition).

703 Signs

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4.

703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

703.2.2 Case. Characters shall be uppercase.

703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I".

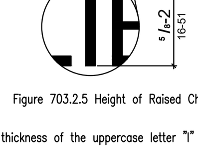


Figure 703.2.5 Height of Raised Characters

703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

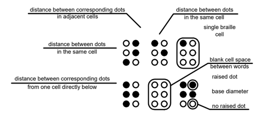


Figure 703.3.1 Braille Measurement

703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

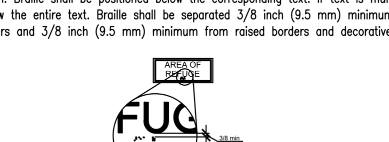


Figure 703.3.2 Position of Braille

703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4.

703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

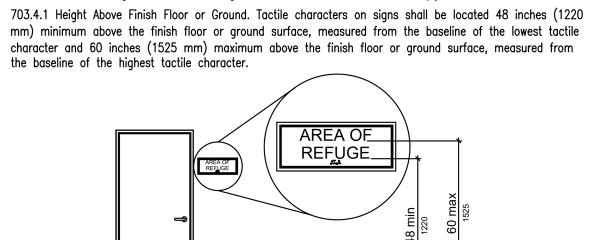


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

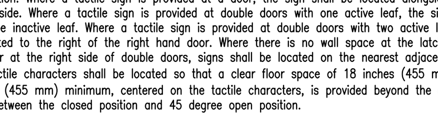


Figure 703.4.2 Location of Tactile Signs at Doors

703.5 Visual Characters. Visual characters shall comply with 703.5.

703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

703.6 Pictograms. Pictograms shall comply with 703.6.

703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.

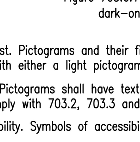


Figure 703.6.1 Pictogram Field
dark-on-light.

703.6.2 Finish and Contrast. Pictograms and their field shall have a non-glare finish. Pictograms shall contrast with their field with either a light pictogram on a dark field or a dark pictogram on a light field.

703.6.3 Text Descriptors. Pictograms shall have text descriptors located directly below the pictogram field. Text descriptors shall comply with 703.2, 703.3 and 703.4.

703.7 Symbols of Accessibility. Symbols of accessibility shall comply with 703.7.

703.7.1 Finish and Contrast. Symbols of accessibility and their background shall have a non-glare finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.

704 Telephones

704.1 General. Public telephones shall comply with 704.

704.2 Wheelchair Accessible Telephones. Wheelchair accessible telephones shall comply with 704.2.

704.2.1 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided. The clear floor or ground space shall not be obstructed by bases, enclosures, or seats.

Advisory 704.2.1 Clear Floor or Ground Space. Because clear floor and ground space is required to be unobstructed, telephones, enclosures and related telephone book storage cannot encroach on the required clear floor or ground space and must comply with the provisions for protruding objects. (See Section 307).

704.2.1.1 Parallel Approach. Where a parallel approach is provided, the distance from the edge of the telephone enclosure to the face of the telephone unit shall be 10 inches (255 mm) maximum.

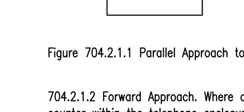


Figure 704.2.1.1 Parallel Approach to Telephone

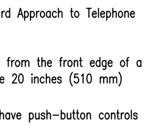


Figure 704.2.1.2 Forward Approach to Telephone

704.2.1.2 Forward Approach. Where a forward approach is provided, the distance from the front edge of a counter within the telephone enclosure to the face of the telephone unit shall be 20 inches (510 mm) maximum.

704.2.2 Operable Parts. Operable parts shall comply with 309. Telephones shall have push-button controls where such service is available.

704.2.3 Telephone Directories. Telephone directories, where provided, shall be located in accordance with 309.

704.2.4 Cord Length. The cord from the telephone to the handset shall be 29 inches (735 mm) long minimum.

704.3 Volume Control Telephones. Public telephones required to have volume controls shall be equipped with a receive volume control that provides a gain adjustable up to 20 dB minimum. For incremental volume control, provide at least one intermediate step of 12 dB of gain minimum. An automatic reset shall be provided.

704.4 TTYs. TTYs required at a public pay telephone shall be permanently affixed within, or adjacent to, the telephone enclosure. Where an acoustic coupler is used, the telephone cord shall be sufficiently long to allow connection of the TTY and the telephone receiver.

704.4.1 Height. When in use, the touch surface of TTY keypads shall be 34 inches (865 mm) minimum above the finish floor.

704.5 TTY Shelf. Public pay telephones required to accommodate portable TTYs shall be equipped with a shelf and an electrical outlet within or adjacent to the telephone enclosure. The telephone handset shall be capable of being placed flush on the surface of the shelf. The shelf shall be capable of accommodating a TTY and shall have 6 inches (150 mm) minimum vertical clearance above the area where the TTY is to be placed.

705 Detectable Warnings

705.1 General. Detectable warnings shall consist of a surface of truncated domes and shall comply with 705.

705.1.1 Dome Size. Truncated domes in a detectable warning surface shall have a base diameter of 0.9 inch (23 mm) minimum and 1.4 inches (36 mm) maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 0.2 inch (5.1 mm).

705.1.2 Dome Spacing. Truncated domes in a detectable warning surface shall have a center-to-center spacing of 1.6 inches (41 mm) minimum and 2.4 inches (61 mm) maximum, and a base-to-base spacing of 0.65 inch (17 mm) minimum, measured between the most adjacent domes on a square grid.

705.1.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark, or dark-on-light.

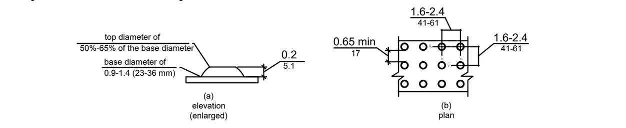


Figure 705.1 Size and Spacing of Truncated Domes

705.2 Platform Edges. Detectable warning surfaces at platform boarding edges shall be 24 inches (610 mm) wide and shall extend the full length of the public use areas of the platform.

706 Assistive Listening Systems

706.2 Receiver Jacks. Receivers required for use with an assistive listening system shall include a 1/8 inch (3.2 mm) standard mono jack.

706.3 Receiver Hearing-Aid Compatibility. Receivers required to be hearing-aid compatible shall interface with telecoils in hearing aids through the provision of neckloops.

706.4 Sound Pressure Level. Assistive listening systems shall be capable of providing a sound pressure level of 110 dB minimum and 118 dB maximum with a dynamic range on the volume control of 50 dB.

706.5 Signal-to-Noise Ratio. The signal-to-noise ratio for internally generated noise in assistive listening systems shall be 18 dB minimum.

706.6 Peak Clipping Level. Peak clipping shall not exceed 18 dB of clipping relative to the peaks of speech.

707 Automatic Teller Machines and Fare Machines

707.2 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided.

707.3 Operable Parts. Operable parts shall comply with 309. Unless a clear or correct key is provided, each operable part shall be able to be differentiated by sound or touch, without activation.

EXCEPTION: Drive-up only automatic teller machines and fare machines shall not be required to comply with 309.2 and 309.3.

707.4 Privacy. Automatic teller machines shall provide the opportunity for the same degree of privacy of input and output available to all individuals.

707.5 Speech Output. Machines shall be speech enabled. Operating instructions and orientation, visible transaction prompts, user input verification, error messages, and all displayed information for full use shall be accessible to and independently usable by individuals with vision impairments. Speech shall be delivered through a mechanism that is readily available to all users, including but not limited to, an industry standard connector or a telephone handset. Speech shall be recorded or digitized human, or synthesized.

707.5.1 User Control. Speech shall be capable of being repeated or interrupted. Volume control shall be provided for the speech function.

707.5.2 Receipts. Where receipts are provided, speech output devices shall provide audible balance inquiry information, error messages, and all other information on the printed receipt necessary to complete or verify the transaction.

707.6 Input. Input devices shall comply with 707.6.

707.6.1 Input Controls. At least one tactilely discernible input control shall be provided for each function. Where provided, key surfaces not on active areas of display screens, shall be raised above surrounding surfaces. Where membrane keys are the only method of input, each shall be tactilely discernable from surrounding surfaces and adjacent keys.

707.6.2 Numeric Keys. Numeric keys shall be arranged in a 12-key ascending or descending telephone keypad layout. The number five key shall be tactilely distinct from the other keys.

707.6.3.1 Contrast. Function keys shall contrast visually from background surfaces. Characters and symbols on key surfaces shall contrast visually from key surfaces. Visual contrast shall be either light-on-dark or

707.6.3.2 Tactile Symbols. Function key surfaces shall have tactile symbols as follows: Enter or Proceed key: raised circle; Clear or Correct key: raised left arrow; Cancel key: raised letter ex; Add Value key: raised plus sign; Decrease Value key: raised minus sign.

707.7 Display Screen. The display screen shall comply with 707.7.

707.7.1 Visibility. The display screen shall be visible from a point located 40 inches (1015 mm) above the center of the clear floor space in front of the machine.

707.7.2 Characters. Characters displayed on the screen shall be in a sans serif font. Characters shall be 3/16 inch (4.8 mm) high minimum based on the uppercase letter "I". Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

707.8 Braille Instructions. Braille instructions for initiating the speech mode shall be provided. Braille shall comply with 703.3.

708 Two-Way Communication Systems

708.1 General. Two-way communication systems shall comply with 708.

708.2 Audible and Visual Indicators. The system shall provide both audible and visual signals.

708.3 Handsets. Handset cords, if provided, shall be 29 inches (735 mm) long minimum.

708.4 Residential Dwelling Unit Communication Systems. Communications systems between a residential dwelling unit and a site, building, or floor entrance shall comply with 708.4.

708.4.1 Common Use or Public Use System Interface. The common use or public use system interface shall include the capability of supporting voice and TTY communication with the residential dwelling unit interface.

CHAPTER 9: BUILT-IN ELEMENTS

902 Dining Surfaces and Work Surfaces

902.2 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for a forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided.

902.3 Height. The tops of dining surfaces and work surfaces shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

902.4 Dining Surfaces and Work Surfaces for Children's Use. Accessible dining surfaces and work surfaces for children's use shall comply with 902.4.

902.4.1 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided, except that knee clearance 24 inches (610 mm) minimum above the finish floor or ground shall be permitted.

902.4.2 Height. The tops of tables and counters shall be 26 inches (660 mm) minimum and 30 inches (760 mm) maximum above the finish floor or ground.

903 Benches

903.2 Clear Floor or Ground Space. Clear floor or ground space complying with 305 shall be provided and shall be positioned at the end of the bench seat and parallel to the short axis of the bench.

903.3 Size. Benches shall have seats that are 42 inches (1065 mm) long minimum and 20 inches (510 mm) deep minimum and 24 inches (610 mm) deep maximum.

903.4 Back Support. The bench shall provide for back support or shall be affixed to a wall. Back support shall be 42 inches (1065 mm) long minimum and shall extend from a point 2 inches (51 mm) maximum above the seat surface to a point 18 inches (455 mm) minimum above the seat surface. Back support shall be 2 1/2 inches (64 mm) maximum from the rear edge of the seat measured horizontally.

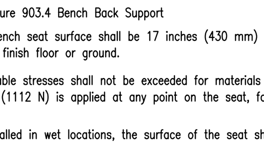


Figure 903.4 Bench Back Support

903.5 Height. The top of the bench seat surface shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the finish floor or ground.

903.6 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

903.7 Wet Locations. Where installed in wet locations, the surface of the seat shall be slip resistant and shall not accumulate water.

904 Check-Out Aisles and Sales and Service Counters

904.1 General. Check-out aisles and sales and service counters shall comply with the applicable requirements of 904.

904.2 Approach. All portions of counters required to comply with 904 shall be located adjacent to a walking surface complying with 403.

904.3 Check-Out Aisles. Check-out aisles shall comply with 904.3.

904.3.1 Aisle. Aisles shall comply with 403.

904.3.2 Counter. The counter surface height shall be 38 inches (965 mm) maximum above the finish floor or ground. The top of the counter edge protection shall be 2 inches (51 mm) maximum above the top of the counter surface on the aisle side of the check-out counter.

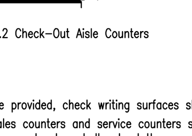


Figure 904.3.2 Check-Out Aisle Counters

904.3.3 Check Writing Surfaces. Where provided, check writing surfaces shall comply with 902.3.

904.4 Sales and Service Counters. Sales counters and service counters shall comply with 904.4.1 or 904.4.2. The accessible portion of the counter top shall extend the same depth as the sales or service counter top.

904.4.1 Parallel Approach. A portion of the counter surface that is 36 inches (915 mm) long minimum and 36 inches (915 mm) high maximum above the finish floor shall be provided. A clear floor or ground space complying with 305 shall be positioned for a parallel approach adjacent to the 36 inch (915 mm) minimum length of counter.

904.4.2 Forward Approach. A portion of the counter surface that is 30 inches (760 mm) long minimum and 36 inches (915 mm) high maximum shall be provided. Knee and toe space complying with 306 shall be provided under the counter. A clear floor or ground space complying with 305 shall be positioned for a forward approach to the counter.

904.5 Food Service Lines. Counters in food service lines shall comply with 904.5.

904.5.1 Self-Service Shelves and Dispensing Devices. Self-service shelves and dispensing devices for tableware, dishware, condiments, food and beverages shall comply with 308.

904.5.2 Tray Slides. The tops of tray slides shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

904.6 Security Glazing. Where counters or teller windows have security glazing to separate personnel from the public, a method to facilitate voice communication shall be provided. Telephone handset devices, if provided, shall comply with 704.3.

GENERAL NOTE –
THIS DATA IS PROVIDED AS AN ADDITIONAL RESOURCE TO THE TEAM OF OWNER, CLIENT, ARCHITECT, ENGINEER AND SPECIFICALLY CONTRACTOR. THIS IS A REFERENCE TOOL PROVIDED TO INFORM ALL PARTIES OF TYPICAL ACCESSIBILITY CONDITIONS AS PUBLISHED PER ADAAG (AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES) EFFECTIVE SEPTEMBER 15, 2010. THE DIAGRAMS PROVIDED ARE DUPLICATIONS OF THE ADAAG STANDARDS AND ARE NOT INDICATIVE OF ALL CONDITIONS AND DO NOT REPRESENT THE ENTIRETY OF THE WRITTEN GUIDELINES AS CONTAINED IN THE PUBLISHED STANDARDS. THE DATA IS IN SUPPORT OF GENERAL ARCHITECTURAL AND ENGINEERING DOCUMENTATION. WHILE THE INFORMATION HERE IS TO ENDEAVOR TO REPRESENT TYPICAL CONDITIONS, IN THE EVENT OF CONFLICT, THE PUBLISHED STANDARDS AND TECHNICAL MEMORANDA SHALL GOVERN.

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

**ADA.3**

JONES & JONES ASSOCIATES / ARCHITECTS PC

## DESIGN CRITERIA

1. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE.
   OCCUPANCY CATEGORY: II
2. DESIGN LOADS:

| | |
|---|---|
| GROUND SNOW LOAD: Pg | 25 PSF |
| FLAT ROOF SNOW LOAD: Pf | 20 PSF |
| ROOF LIVE LOAD: | 20 PSF |
| ROOF DEAD LOADS: | 20 PSF |
| TYPICAL FLOOR LIVE LOAD: | 40 PSF (RESIDENTIAL) |
| (7TH TO 3RD) | 60 PSF (PRIVATE DECK) |
| | 100 PSF (STAIRS & CORRIDORS) |
| PARKING GARAGE LIVE LOAD: | 40 PSF |
| BASIC DESIGN WIND SPEED, V: | 90 MPH ASCE7-05) |
| RISK CATEGORY | II |
| WIND EXPOSURE | B |
| INTERNAL PRESSURE COOFFICIENT | +/-0.55 |
| SEISMIC IMPORTANCE FACTOR, Ie: | 1.0 |
| RISK CATEGORY | II |
| SITE CLASS | D |
| Ss = 0.181 | |
| S1 = 0.061 | |
| Sds = 0.193 | |
| Sd1 = 0.098 | |
| SEISMIC DESIGN CATEGORY | B |

## GENERAL NOTES:

1. ALL MATERIALS, CONSTRUCTION, AND DETAILS SHALL CONFORM WITH THE FOLLOWING:
   PLANS AND SPECIFICATIONS,
   INTERNATIONAL BUILDING CODE
   OSHA REGULATIONS
2. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL BE FAMILIAR WITH THE ENTIRE SET OF CONSTRUCTION DOCUMENTS (ARCHITECTURAL, CIVIL, ELECTRICAL, PLUMBING, STRUCTURAL, ETC.) IN ORDER TO PROVIDE ALL CONSTRUCTION AND MATERIALS FOR THIS PROJECT.
3. DIMENSIONS AND ELEVATIONS SHOWN ON ARCHITECTURAL DRAWINGS SUPERSEDE DIMENSIONS AND ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS.
4. DO NOT SCALE PLANS.
5. IN NO CASE SHALL STRUCTURAL ALTERATIONS OR WORK AFFECTING A STRUCTURAL MEMBER BE MADE UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
6. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND CONSTRUCTION SEQUENCE IN ORDER TO INSURE THE SAFETY OF THE BUILDING AND WORKMEN DURING CONSTRUCTION (MEANS & METHODS OF CONSTRUCTION). THIS INCLUDES, BUT IS NOT LIMITED TO: SHORING, UNDERPINNING, TEMPORARY BRACING, ETC.
7. CONSTRUCTION DOCUMENTS SHOW DIMENSIONS AND ELEVATIONS TO SIGNIFICANT WORKING POINTS (COLUMN CENTERLINES, OUTSIDE FACE OF WALLS, TOP OF FRAMING MEMBERS, ETC.) MATERIAL SUPPLIERS AND DESIGNERS ARE RESPONSIBLE FOR ALL OTHER INFORMATION IN ORDER TO DETAIL/FABRICATE THEIR WORK. CONTACT THE ARCHITECT WITH ANY DISCREPANCIES.
8. IN THE EVENT OF ANY DISCREPANCIES BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER PLANS CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL BRING THE DISCREPANCY TO THE ARCHITECTS ATTENTION IN WRITING IMMEDIATELY OR SHALL BID THE MOST EXPENSIVE INSTALLATION SPECIFIED.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY AND INTEGRITY OF ALL EXISTING STRUCTURES AND STRUCTURAL COMPONENTS DURING CONSTRUCTION.
10. CONTRACTOR SHALL VERIFY ALL EXISTING DETAILS AND DIMENSIONS SHOWN ON THIS DRAWING PRIOR TO CONSTRUCTION.
11. ALL DETAILS AND DIMENSIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND DETAILS AND EQUIPMENT SHOP DRAWINGS.
12. ANY DEFECTS AND INADEQUACIES FOUND IN EXISTING STRUCTURAL ELEMENTS IN THE BUILDING SHALL BE REPORTED TO THE ARCHITECTS AND ENGINEERS IMMEDIATELY.
13. REQUIRED SPECIAL INSPECTIONS AND TESTING SHALL BE PERFORMED ON ALL STEEL, CONCRETE AND MASONRY CONSTRUCTION PER CHAPTER 17 & 21 OF THE BUILDING CODE.

## CONCRETE AND REINFORCEMENT

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318, ACI 301, AND THE ACI CODE OF STANDARD PRACTICE. DELIVERY AND PLACEMENT OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI 304 AND ASTM C94.
2. CONCRETE FOR SLABS ON GRADE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS AND MAXIMUM WATER TO CEMENT RATIO OF 0.45. ALL OTHER CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS AND MAXIMUM WATER TO CEMENT RATIO OF 0.52. CONCRETE EXPOSED TO FREEZE-THAW SHALL HAVE 6% +/- 1% AIR ENTRAINMENT AND MAXIMUM WATER TO CEMENT RATIO OF 0.40.
3. CEMENT SHALL CONFORM TO ASTM C150 TYPE I OR II. FLY ASH CONFORMING TO ASTM C618 MAY BE USED TO REPLACE NOT MORE THAN 20 PERCENT OF THE CEMENT IN THE MIXES. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33.
4. CONCRETE ADMIXTURE FOR AIR-ENTRAINMENT SHALL CONFORM TO ASTM C260. ALL OTHER CONCRETE ADMIXTURES SHALL CONFORM TO ASTM C494. CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED IN THE CONCRETE MIXES.
5. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306 WHEN THE ATMOSPHERIC TEMPERATURE IS EXPECTED TO FALL BELOW 40 DEGREES F. HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305 WHEN THE ATMOSPHERIC TEMPERATURE IS EXPECTED TO RISE ABOVE 90 DEGREES F.
6. FINISHED CONCRETE SHALL BE EVALUATED AND REPAIRED AS NOTED HEREIN AND IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICE. ALL CONCRETE SHALL BE FREE FROM HONEYCOMBS AND OTHER DEFECTS AND SHALL BE PROPERLY CONSOLIDATED IN ACCORDANCE WITH ACI 309 "GUIDE FOR CONSOLIDATION OF CONCRETE".
7. CONCRETE FORMWORK AND FORMED CONCRETE SURFACES SHALL CONFORM TO ACI 347 "GUIDE TO FORMWORK FOR CONCRETE". EXTERIOR CONCRETE SURFACES WHICH WILL BE EXPOSED TO VIEW IN THE FINISHED STRUCTURE SHALL BE CLASS A AND SHALL BE RUBBED SMOOTH. ALL OTHER EXPOSED SURFACES SHALL BE CLASS C EXCEPT THAT CONCEALED SURFACES MAY BE CLASS D. USE FORM RELEASE AGENTS WHICH WILL NOT STAIN THE FINISHED CONCRETE SURFACES OR ADVERSELY AFFECT THE APPLICATION OF FINISHES.
8. REBAR SHALL CONFORM TO ASTM A615 GRADE 60 AND SHALL NOT BE WELDED. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
9. COVER FOR REBAR SHALL BE IN ACCORDANCE WITH ACI 318 AND SHALL NOT BE LESS THAN THE FOLLOWING:

| | |
|---|---|
| CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH | 3" |
| CONCRETE EXPOSED TO EARTH OR WEATHER: | |
| #6 THRU #18 BARS | 2" |
| #5 BAR AND SMALLER | 1-1/2" |
| CONCRETE NOT EXPOSED TO EARTH OR WEATHER: | |
| SLABS, WALLS, AND JOISTS: | |
| #14 AND #18 BARS | 1-1/2" |
| #11 BAR AND SMALLER | 3/4" |

## FOUNDATIONS

1. FOUNDATION DESIGN IS BASED ON ALLOWABLE NET BEARING CAPACITY OF 3000 PSF IN ACCORDANCE WITH RECOMMENDATIONS IN THE REPORT ON SUBSURFACE SOIL.
2. MINIMUM ALLOWABLE BEARING CAPACITY AT THE BOTTOM OF EXCAVATION AT SPREAD FOOTINGS SHALL DESIGN CAPACITY PER NOTE 1.
3. ALL EXCAVATED ELEVATIONS SHALL BE INSPECTED BY A SOILS TESTING LABORATORY PRIOR TO PLACEMENT OF CONCRETE.
4. FILL AND ANY UNDERLYING PEAT / SOFT ORGANIC SOIL SHALL BE REMOVED AT ALL FOUNDATION LOCATIONS AND REPLACED WITH GRANULAR BACKFILL OR LEAN CONCRETE.
5. ALL COMPACTED STRUCTURAL FILL SHALL BE PLACED IN LAYERS NOT EXCEEDING 10" AND COMPACTED TO A MINIMUM DENSITY EQUAL TO 95% OF MAXIMUM DRY DENSITY AS OBTAINED IN ACCORDANCE WITH ASTM D-1557.
6. NO MUD SLABS, FOOTINGS OR SLAB ON GRADE SHALL BE PLACED INTO OR AGAINST SUBGRADES CONTAINING FREE WATER, FROST OR ICE.
7. ALL SUBGRADE AND MUD SLABS UNDER SLABS ON GRADE SHALL BE THOROUGHLY CLEANED IMMEDIATELY PRIOR TO CONCRETE PLACEMENT.

## STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", AND THE AISC "CODE OF STANDARD PRACTICE".
2. STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS (UNLESS OTHERWISE NOTED):

| | |
|---|---|
| STRUCTURAL SHAPES | A-992 |
| PLATES AND ANGLES | A-36 |
| STRUCTURAL TUBING | A-500 GRADE B |
| STRUCTURAL PIPE | A-53 |
| ANCHOR BOLTS | F-1554 GRADE 36 |

3. TYPICAL BEAM CONNECTIONS SHALL BE STANDARD AISC FRAMED BEAM CONNECTIONS, UNLESS OTHERWISE SHOWN. ALL FIELD CONNECTIONS, EXCEPT WHERE SHOWN WELDED, SHALL BE BOLTED WITH 3/4"DIAMETER HIGH STRENGTH BOLTS CONFORMING TO ASTM A-325N, UNLESS NOTED OTHERWISE. CONNECTIONS SHALL BE DESIGNED FOR 60% OF THE TOTAL ALLOWABLE UNIFORM LOAD FOR THE BEAM DERIVED FROM THE TABLE OF UNIFORM LOAD CONSTANTS FOR NON-COMPOSITE BEAMS IN THE AISC MANUAL. CALCULATIONS SEALED BY A STRUCTURAL ENGINEER LICENSED IN ILLINOIS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW.
4. ALL WELDING ELECTRODES SHALL BE E-70XX. ALL SHOP AND FIELD WELDING SHALL BE DONE IN ACCORDANCE WITH A.W.S. D1.1 "CODE FOR WELDING IN BUILDING CONSTRUCTION", AND SHALL BE DONE BY CERTIFIED WELDERS.
5. PROVIDE GOVERNMENT ANCHORS FOR BEAMS BEARING ON MASONRY WHERE ANCHOR BOLTS OR OTHER ANCHORAGE IS NOT SPECIFIED.
6. ALL BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF 2 BOLTS.
7. STAIR DESIGN CALCULATIONS, PREPARED AND SEALED BY A REGISTED STRUCTURAL ENGINEER SHALL BE SUBMITTED FOR REVIEW ALONG WITH THE NECESSARY SHOP DRAWINGS.
8. STEEL COLUMNS AND BEAMS ABUTTING MASONRY SHALL HAVE APPROVED ADJUSTABLE MASONRY ANCHORS, WITH SPACING NOT EXCEEDING 16" VERTICAL AND 32" HORIZONTAL, UNLESS OTHERWISE SHOWN.
9. ALL PORTIONS OF STEEL COLUMNS EXPOSED TO EARTH SHALL HAVE A HEAVY COAT OF ASPHALTIC PAINT. SEE ARCHITECTURAL SPECIFICATIONS FOR REQUIREMENTS.
10. ALL STRUCTURAL STEEL SHALL RECEIVE ONE COAT OF APPROVED SHOP PAINT, AND FIELD PAINT AS SPECIFIED IN THE ARCHITECTURAL SPECIFICATIONS.
11. ALL PORTIONS OF STEEL COLUMNS EXPOSED TO EARTH SHALL HAVE A HEAVY COAT OF ASPHALTIC PAINT. SEE ARCHITECTURAL SPECIFICATIONS FOR REQUIREMENTS.

## MASONRY

1. ALL BRICK AND BLOCK DESIGN AND CONSTRUCTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" LATEST EDITION, ACI 530/ASCE 5, AND "SPECIFICATIONS FOR MASONRY STRUCTURES" LATEST EDITION, ASC 530.1/ASCE 6.

   MORTAR: ASTM C-270. TYPE S - MINIMUM COMPRESSIVE STRENGTH = 2000 PSI AT 28 DAYS U.N.O.

   GROUT: ASTM C-476, MINIMUM COMPRESSIVE STRENGTH = 2750 PSI AT 28 DAYS

   COMPRESSIVE STRENGTH OF STRUCTURAL MASONRY f'm SHALL BE 2000PSI MIN.

2. PROVIDE A POSITIVE MECHANICAL CONNECTION FOR ALL MASONRY TO BUILDING ROOF STRUCTURE.
3. PROVIDE STANDARD DUR-O-WALL OR EQUIVALENT REINFORCEMENT AT EVERY SECOND BLOCK COURSE IN ALL WALLS UNLESS NOTED OTHERWISE. INSTALL JOINT REINFORCMENT IN THE FIRST AND SECOND BED JOINTS, EIGHT (8) INCHES O.C. IMMEDIATELY ABOVE AND BELOW OPENINGS, EXTEND REINFORCMENT TWO (2) FEET BEYOND JAMBS, MININUM.
4. MASONRY CONTROL JOINTS ARE REQUIRED (INTERIOR AND EXTERIOR) AT A MAXIMUM HORIZONTAL SPACING BETWEEN JOINTS OF 30'-0". SEE THE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATIONS.
5. CALCIUM CHLORIDE AND/OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE INCLUDED IN THE MORTAR OR GROUT MIX, EXCEPT WHEN APPROVED IN WRITING BY THE STRUCTURAL ENGINEER. NO ANTI-FREEZE COMPOUNDS SHALL BE USED TO LOWER THE MORTARS FREEZING POINT.
6. NO EXTERIOR MASONRY SHALL BE LAID WHEN THE OUTSIDE AIR TEMPERATURE IS LESS THAN 40°F, UNLESS THE RECOMMENDATIONS IN "SPECIFICATIONS FOR MASONRY STRUCTURES" ACI 530.1/ASCE 6 ARE STRICTLY FOLLOWED. THE SPECIFICATIONS FOR LAYING MASONRY IN HOT WEATHER, CONTAINED IN THE SAME REFERENCE SHALL ALSO BE STRICALY FOLLOWED.
7. MASONRY WALLS SHALL BE BRACED TO WITHSTAND A MINIMUM HORIZONTAL LOAD OF 20PSF DURING THEIR ERECTION, AND UNTIL THEIR DESIGN SUPPORTS ARE IN PLACE.
8. ALL LINTELS, UNLESS OTHERWISE NOTED, SHALL BEAR ON SOLID, OR GROUTED MASONRY, MINIMUM 2'-8" WIDE X 2'-0" DEEP, EACH END, SEE THE STRUCTURAL DETAILS FOR ADDITIONAL INFORMATION. PROVIDE ANCHORS AS REQUIRED.
9. MISCELLANEOUS LINTELS: STEEL LINTELS FOR MASONRY OPENINGS NOT SHOWN ON DRAWINGS SHALL CONFORM TO THE FOLLOWING:

| | |
|---|---|
| OPENINGS UPTO 4'-0" | 1-L4x3½x¼ LLV PER 4" WALL THICKNESS |
| OPENINGS 4'-0" TO 6'-0" | 1-L5x3½x‡ LLV PER 4" WALL THICKNESS |

10. ALL SUCH LINTELS TO BEAR 8" MINIMUM ON SOLID OR GROUTED MASONRY EACH END. SEE ABOVE FOR ADDITIONAL BEARING REQUIREMENTS. VERIFY ALL ROUGH OPENING SIZES AND LOCATIONS WITH THE ARCHITECTURAL DRAWINGS.
11. ALL MASONRY WALLS SHALL BE CONSTRUCTED IN A RUNNING BOND PATTERN AS DESCRIBED BY ACI 530 CURRENT ADDITION UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DOCUMENTS.

## WOOD

1. NAILS, LAG SCREWS, WOOD SCREWS AND OTHER FASTENER HARDWARE SHALL CONFORM TO NDS RECOMMENDATIONS. NAILS SHALL CONFORM TO ASTM F1667. WOOD SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.6.1-1981. LAG SCREWS SHALL CONFORM TO ANSI/ASME B18.2.1-1981.
2. THE MOISTURE CONTENT OF ALL WOOD MATERIALS SHALL BE LESS THAN 19 PERCENT. WOOD MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIES AND GRADES ALONG WITH THE BASIC DESIGN VALUES SHOWN:
   A. SAWN LUMBER, DOUGLAS FIR-LARCH, NO 1, Fb = 1,000 PSI, Fv = 180 PSI, Fc = 1,500 PSI, E = 1,800,000 PSI
   A1. PARALLAM PSL : TRUSJOIST OR EQUAL: Fb = 2900 PSI; E= 2000,000PSI
   B. PLYWOOD - APA PERFORMANCE - RATED SHEATHING:
   B1. ROOF SHEATHING (1/2" MIN. PLYWD, 5/8" MIN. OSB), STRUCT.1 - EXTERIOR, 24/16 SPAN RATED.
   B2. SUBFLOORS (3/4" MIN. PLYWD/OSB), STRUCTURAL 1 - EXPOSURE 1, T & G STURD-I-FLOOR.
   B3. WALL SHEATHING (1/2" MIN. PLYWD/OSB), STRUCTURAL 1 - EXTERIOR.
3. I-JOISTS, ROOF TRUSSES, OPEN-WEB FLOOR TRUSSES AND ALL OTHER PRE-FABRICATED MEMBERS SHALL BE DESIGNED FOR THE REQUIRED LOADS BY AN ILLINOIS LICENSED STRUCTURAL ENGINEER. PRE-FABRICATED ROOF AND FLOOR MEMBERS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH WTCA "METAL PLATE WOOD TRUSS HANDBOOK". SUBMIT SEALED DRAWINGS AND CALCULATIONS TO THE ARCHITECT UPON REQUEST.
4. ALL FIELD CONSTRUCTION SHALL BE IN A CLEAN WORKMANLIKE MANNER. FIELD MODIFICATIONS SHALL HAVE ROUNDED CORNERS AND SHALL AVOID NOTCHING, EXCESSIVE OVER-CUTTING OR OTHER DEFECTS WHICH WILL REDUCE THE LOAD CARRYING CAPABILITIES OF THE MEMBERS. ALL HOLES SHALL BE LIMITED TO 1/3 THE MEMBER DEPTH IN SIZE AND SHALL BE LOCATED WITHIN THE MIDDLE 1/3 DEPTH OF THE MEMBER. ADDITIONALLY, ALL HOLES SHALL BE LOCATED IN THE MIDDLE 1/3 OF THE SUPPORTED SPAN. FIELD-CUTTING OF ENGINEERED WOOD PRODUCTS SHALL BE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATIONS.
5. IN ROOF AND FLOOR JOIST CONSTRUCTION PROVIDE SOLID BLOCKING OR 1x3 X-BRACING AT 7'-0" O.C. MAXIMUM OR PROVIDE APPROVED METAL BRIDGING. PROVIDE SOLID BLOCKING AT 24-IN O.C. BETWEEN JOISTS UNDER ALL PERPENDICULAR WALLS. PROVIDE DOUBLE STUDS ADJACENT TO ALL WINDOW AND DOOR OPENINGS.
6. INSTALL PLYWOOD AND OSB PANELS WITH THE LONG DIMENSION PERPENDICULAR TO THE SUPPORTING JOISTS AND SPANNING ACROSS A MINIMUM OF 3 SUPPORTS. PLYWOOD OR OSB ROOF AND FLOOR DIAPHRAGMS SHALL BE INSTALLED IN THE CASE 1 ORIENTATION AS DEFINED IN THE APA PUBLICATION E30, "RESIDENTIAL & COMMERCIAL DESIGN/CONSTRUCTION GUIDE" WITH STAGGERED JOINTS. FLOOR AND ROOF DIAPHRAGMS SHALL BE GLUED AND SCREWED.
7. PLYWOOD PANEL EDGES SHALL BEAR ON THE FRAMING SUPPORT MEMBERS AND BUTT ALONG THEIR CENTER LINES. NAILS SHALL BE PLACED NOT LESS THAN 3/8" IN FROM THE PANEL EDGE. PLYWOOD SHEATHING SHALL BE FASTENED TO SUPPORTS w/ 10d NAILS SPACED AT 6" o/c AT PANEL EDGES AND 12" o/c AT INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE.
8. DO NOT EMBED WOOD MEMBERS IN CONCRETE.
9. ALL BOLTS AND LAG SCREWS SHALL CONFORM TO ASTM A307. USE STEEL WASHERS BETWEEN HEAD OF BOLT OR LAG SCREW AND WOOD. USE STEEL WASHERS BETWEEN NUT AND WOOD.
10. MAKE NO SUBSTITUTIONS OF ANY ENGINEERED WOOD PRODUCTS (LVL, PSL, LSL, ETC.) SPECIFIED ON ANY FRAMING PLANS WITH OUT THE DIRECT WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER AND ARCHITECT.
11. THE QUANTITY, SIZE AND SPACING OF FASTENERS SHALL CONFORM TO TABLE 2304.9.1 OF THE IBC 2012. NAILS AND BOLTS SHALL NOT BE COMBINED IN THE SAME CONNECTION, UNLESS OTHERWISE NOTED.
12. WOOD IN CONTACT WITH CONCRETE OR MASONRY OR EXPOSED TO WEATHER SHALL BE PRESSURE-TREATED. SILL PLATES ON CONCRETE OR MASONRY SHALL ALSO HAVE A SILL SEALER.
13. FASTENERS FOR EXTERIOR CONSTRUCTION, FOR PRESSURE TREATED WOOD MEMBERS, OR IN CONTACT WITH CEDAR FRAMING OR OTHERWISE EXPOSED TO A CORROSIVE ENVIRONMENT SHALL BE OF A NON-REACTIVE MATERIAL OR SHALL HAVE AN APPROVED PROTECTIVE COATING.
14. WOOD SCREWS OF THE SAME OR GREATER DIAMETER AND LENGTH MAY BE SUBSTITUTED FOR NAILS IN HORIZONTAL AND VERTICAL WALL DIAPHRAGMS. NAILS MAY NOT BE SUBSTITUTED FOR SCREWS UNLESS APPROVED BY THE ARCHITECT/ENGINEER.
15. WOOD MATERIALS SHALL NOT BE STORED DIRECTLY ON GROUND. ALL WOOD MATERIALS SHALL BE STORED FLAT AND SHALL MAINTAIN THE DRY MOISTURE STATE AND CORRECT SHAPE OF THE WOOD, PLYWOOD, OSB, WOOD FRAMING OR ANY OTHER WOOD MATERIALS WHICH HAVE BEEN ALLOWED TO BECOME WET OR MISSHAPEN SHALL BE REMOVED FROM THE JOB SITE AND REPLACED WITH DRY MATERIALS AT NO EXPENSE TO THE OWNER.
16. BOTTOM PLATES (SILL PLATES) ON CONCRETE SHALL BE ANCHORED BY 1/2" DIAMETER J-BOLTS WITH 9" MINIMUM EMBEDMENT AT 48-IN O.C. OR APPROVED DRILLED-IN ANCHORS. WALLS ON WOOD FRAMING SHALL BE ANCHORED USING SIMPSON TIE (ST) OR APPROVED EQUAL ST-HD2A AT CORNERS AND ST-C516 AT 48-IN O.C. CONNECTORS SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
17. WOOD NAILERS ON STEEL SHALL BE ATTACHED WITH HILTI DNI52P8 POWDER-ACTUATED FASTENERS OR APPROVED EQUAL AT ENDS & 48" O.C. ANCHORS SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
18. STUDS, POST, JOISTS, BEAMS OR OTHER HORIZONTAL OR VERTICAL STRUCTURAL MEMBERS SHALL BE SINGLE, CONTINUOUS MEMBERS WITH NO SPLICES BETWEEN POINTS OF SUPPORT.

## PRECAST CONCRETE

1. THE PRECAST CONCRETE MANUFACTURER SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL PRECAST STRUCTURAL ELEMENTS SHOWN IN THE DRAWINGS, AND SHALL SUBMIT CALCULATIONS FOR REVIEW THAT ARE SEALED BY A STRUCTURAL ENGINEER LICENSED IN ILLINOIS. ALL HEADERS REQUIRED AT OPENINGS SHALL BE DESIGNED AND FURNISHED BY THE PRECAST MANUFACTURER.
2. ALL PRECAST CONCRETE SHALL CONFORM TO ACI 318, THE ACI CODE OF STANDARD PRACTICE AND TO PCI PRECAST AND PRESTRESSED CONCRETE DESIGN HANDBOOK RECOMMENDATIONS.
3. CONCRETE FOR PRECAST ELEMENTS SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3500PSI AT 7 DAYS AND 5000PSI AT 28 DAYS. CONCRETE TOPPING SHALL BE BONDED UNLESS OTHERWISE NOTED AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000PSI.
4. PRECAST CONCRETE FLOOR PLANKS SHALL NOT EXCEED THE FOLLOWING WEIGHTS: 57PSF FOR 8" PLANKS; 61PSF FOR 10" PLANKS; AND 79PSF FOR 12" PLANKS.
5. PRECAST CONCRETE PLANKS SHALL BE DESIGNED FOR VERTICAL AND LATERAL LOADS NOTED ON THIS DRAWING.
6. ENDS OF PRECAST PLANKS SHALL BE GROUTED AS REQUIRED WHERE MASONRY BEARING WALLS ARE SUPPORTED ON PLANKS. WHERE GROUT IS NOT REQUIRED BY DESIGN PROVIDE A MINIMUM OF 12" INSULATION TO SEAL THE ENDS OF ALL CELLS.
7. THE GENERAL CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE PRECAST WITH THE STEEL, MASONRY AND CONCRETE CONSTRUCTION AS APPLICABLE, AND SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE PRECAST LAYOUTS WITH THE WORK OF ALL TRADES.

## PRE-ENGINEERED WOOD TRUSSES

1. WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE CURRENT EDITIONS OF "DESIGN SPECIFICATIONS FOR METAL PLATE CONNECTED WOOD TRUSSES" BY TRUSS PLATE INSTITUTE (TPI) AND "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION" BY NATIONAL FOREST PRODUCTS ASSOCIATION, AND OTHER APPLICABLE STANDARDS AND PROCEDURES OF THE TRUSS PLATE INSTITUTE.
2. TRUSSES SHALL BE DESIGNED FOR THE CODE REQUIRED LIVE LOADS APPLIED TO THE TOP CHORD AS WELL AS THE FOLLOWING SUPERIMPOSED DEAD LOADS:

| | |
|---|---|
| ROOF TRUSS: | |
| TOP CHORD DEAD LOAD | 10 PSF |
| BOTTOM CHORD DEAD LOAD | 10 PSF |
| FLOOR TRUSS: | |
| TOP CHORD DEAD LOAD | 15 PSF |
| BOTTOM CHORD DEAD LOAD | 5 PSF |

3. IN ADDITION TO THE LOADS STATED ABOVE THE TRUSSES SHALL BE DESIGNED FOR ANY SNOW DRIFTING, MECHANICAL, AND/OR ANY SPECIAL LOAD CONDITIONS AS SHOWN ON STRUCTURAL PLANS AND AS REQUIRED BY THE INTERNATIONAL BUILDING CODE.
4. ROOF TRUSSES SHALL BE DESIGNED FOR A MAXIMUM LIVE LOAD DEFLECTION OF L/360.
5. FLOOR TRUSSES SHALL BE DESIGNED FOR MAXIMUM LIVE LOAD DEFLECTION OF L/480.
6. FABRICATION, HANDLING, STORAGE, AND ERECTION SHALL BE IN ACCORDANCE WITH "TRUSS PLATE INSTITUTION" RECOMMENDED PRACTICES AND SHALL BE DONE IN A WORKMAN LIKE MANNER SO AS TO NOT DAMAGE THE TRUSSES. TRUSSES SHALL NOT BE CUT, ADDED ONTO OR ALTERED IN ANY WAY WITH OUT THE WRITTEN CONSENT OF THE TRUSS DESIGNER, ENGINEER, AND ARCHITECT.
7. WOOD TRUSS DESIGNER/SUPPLIER SHALL SUBMIT FORMAL STAMPED CALCULATIONS BY A REGISTERED ENGINEER IN THE STATE OF ILLINOIS FOR REVIEW BEFORE FABRICATION.
8. SUBMIT FIVE SETS OF TRUSS SHOP DRAWINGS TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. CONTRACTOR SHALL REVIEW AND STAMP ALL SHOP DRAWINGS BEFORE SUBMITTING TO THE ARCHITECT.
9. CONTRACTOR IS RESPONSIBLE FOR ALL ERECTION PROCEDURES AND TEMPORARY TRUSS BRACING REQUIREMENTS DURING ERECTION IN ACCORDANCE WITH TPI's COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING, AND BRACING METAL PLATE CONNECTED WOOD TRUSSES (HIB-91 BOOKLET) AND THE CURRENT EDITION OF ANSI/TPI-1.
10. TRUSSES EXPOSED TO MOISTURE SHALL BE CONSTRUCTED OF PRESSURE TREATED WOOD AND GALVANIZED METAL PLATES.
11. DESIGN ROOF TRUSSES TO RESIST ALL WIND LOADS INCLUDING UPLIFT AS REQUIRED BY THE INTERNATIONAL BUILDING CODE 2009. MINIMUM NET UPLIFT = 10 PSF, 20 PSF AT CANOPIES & OVERHANGS.
12. ALL TRUSS TO TRUSS CONNECTIONS ARE TO BE DESIGNED, DETAILED, AND SUPPLIED BY THE TRUSS SUPPLIER.
13. TRUSS FABRICATOR SHALL FIELD VERIFY ALL SPAN DIMENSIONS BEFORE FABRICATING.

## ABBREVIATIONS

| | |
|---|---|
| ARCH. | ARCHITECTURAL |
| B | BOTTOM |
| CMU | CONCRETE MASONRY UNITS |
| CONC. | CONCRETE |
| CONT. | CONTINUOUS |
| CONTR. | CONTRACTOR |
| EL. | ELEVATION |
| EOD. | EDGE OF DECK/GRATING |
| EWB | EACH WAY BOTTOM |
| EWT | EACH WAY TOP |
| FIN. | FINISHED |
| FLR | FLOOR |
| F.F. | FINISHED FLOOR |
| FTG. | FOOTING |
| G.C. | GENERAL CONTRACTOR |
| H.C. | HOLLOW CORE |
| HRS | HOURS |
| L | ANGLE |
| LLH | LONG LEG HORIZONTAL |
| LLV | LONG LEG VERTICAL |
| LG. | LONG |
| MAX. | MAXIMUM |
| MIN. | MINIMUM |
| NIC. | NOT IN CONTRACT |
| NTS | NOT TO SCALE |
| O.C. | ON CENTER |
| OWJ | OPEN WEB JOISTS |
| P.C. | PRECAST |
| PL. | PLATE |
| STD. | STANDARD |
| STL | STEEL |
| T | TOP |
| TCX | TOP CHORD EXTENSION |
| THK | THICK |
| TYP | TYPICAL |
| W/ | WITH |
| W.W.F. | WELDED WIRE FABRIC |
| U.N.O. | UNLESS NOTED OTHERWISE |

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER

EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
+1 (708) 668-7360

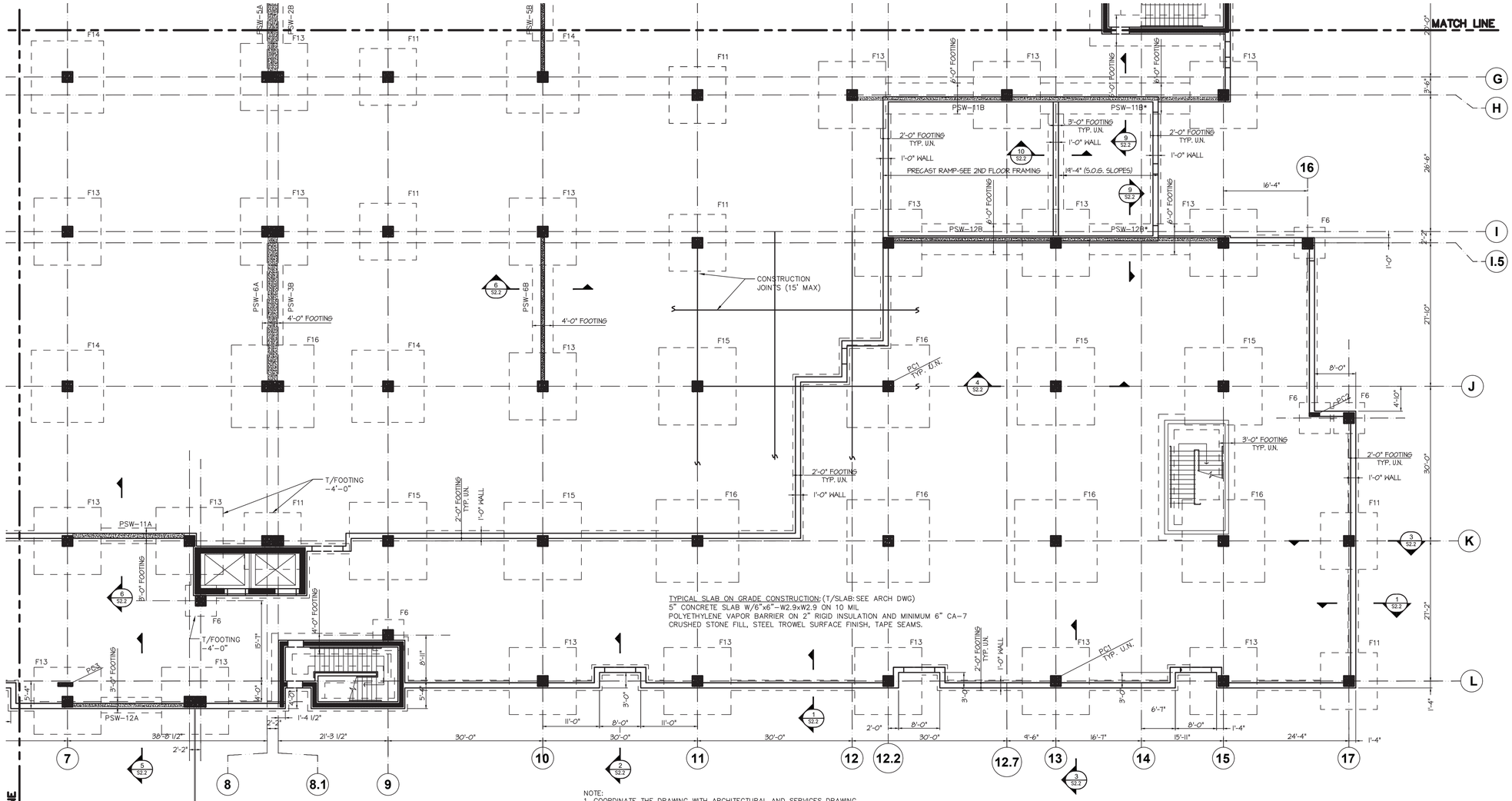
- PROJECT DESCRIPTION: ROOF ACCESS PLATFORM AND LADDER
- PROJECT NAME: GARDEN STATION APARTMENTS
- ADDRESS: ARDMORE AVE. / VERMONT ST., VILLA PARK, IL

Issue Date: MAY 17 2016
Drawn By: BC

Sheet:
GENERAL NOTES

PROJECT NUMBER
1609
S-0.1

© DG STRUCTURAL ENGINEERING LLC



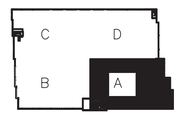

NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE SHEET S-0.1
4. FOR FOUNDATION DETAILS, SEE SHEET S-2.1 AND S-2.2
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR FOOTING SIZES, REFER TO SHEET S-2.3
7. FOR PRECAST SHEAR WALL SCHEDULE, REFER TO SHEET S-2.3
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. TOP OF FLOOR: EL. = +0'-0"
10. PROVIDE CONCRETE ENCASED GROUNDING ELECTRODES IN THE FOUNDATIONS IN ACCORDANCE WITH NEC 250-52 A (3).SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.

## FOUNDATION PLAN 1

SCALE: 3/32" = 1' - 0"

N

KEY PLAN




STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
ILLINOIS STRUCTURAL ENGINEER
EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021
Revised Per Comments:
July 06 2021

PREPARED FOR:AC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-1360

PROJECT DESCRIPTION:
FOUNDATION AND STRUCTURAL FRAMING PLANS
PROJECT NAME:
GARDEN STATION APARTMENTS
ADDRESS:
ARDMORE AVE./ VERMONT STREET
VILLA PARK, ILLINOIS

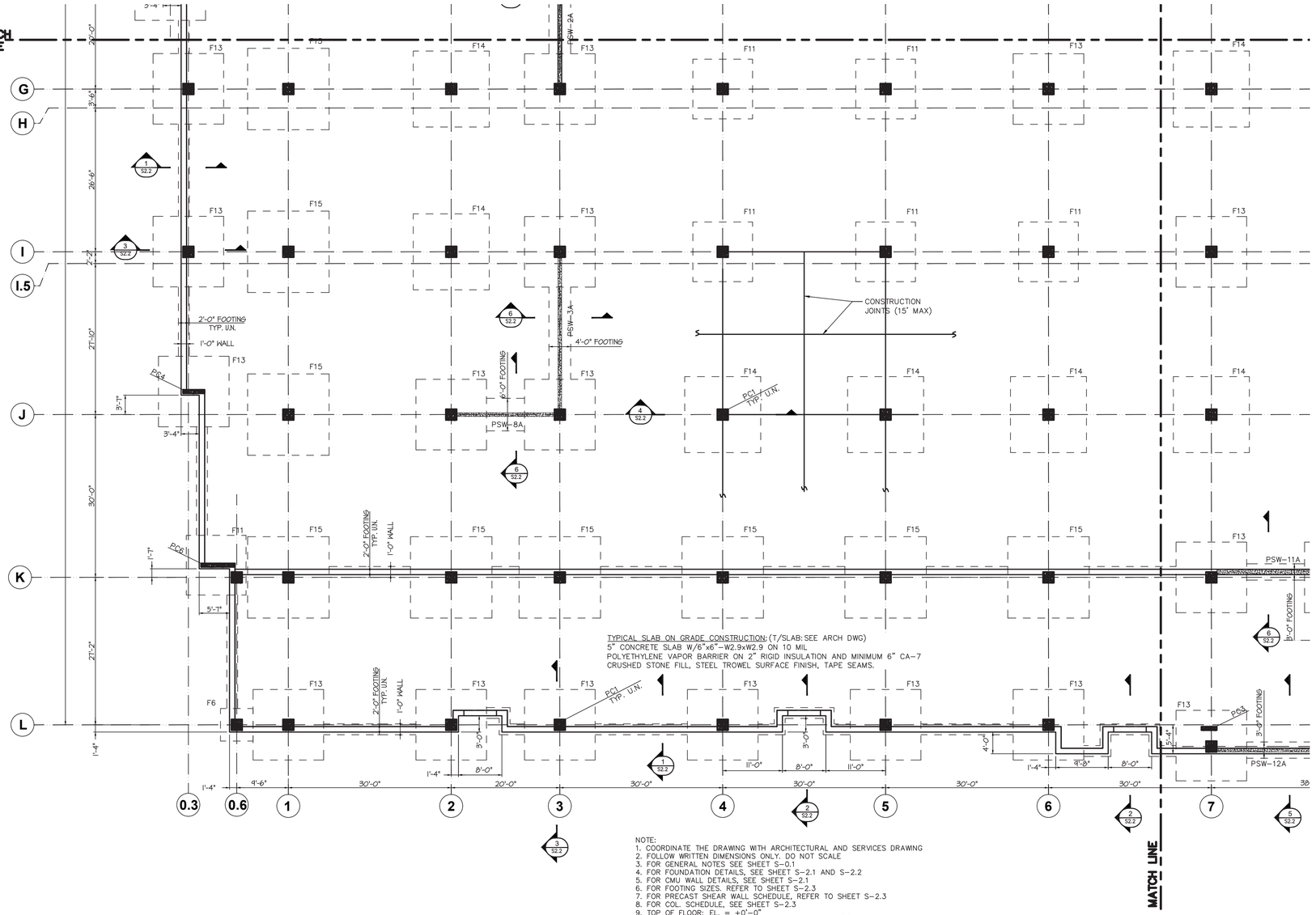
Issue Date: MAY 17 2016
Drawn By: BC

Sheet:
FOUNDATION PLAN PART A

PROJECT NUMBER
1609

S-1.1A

© DG STRUCTURAL ENGINEERING, LLC




TYPICAL SLAB ON GRADE CONSTRUCTION: (T/SLAB: SEE ARCH DWG)
5" CONCRETE SLAB W/6"x6"-W2.9xW2.9 ON 10 MIL
POLYETHYLENE VAPOR BARRIER ON 2" RIGID INSULATION AND MINIMUM 6" CA-7
CRUSHED STONE FILL, STEEL TROWEL SURFACE FINISH, TAPE SEAMS.

NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE SHEET S-0.1
4. FOR FOUNDATION DETAILS, SEE SHEET S-2.1 AND S-2.2
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR FOOTING SIZES. REFER TO SHEET S-2.3
7. FOR PRECAST SHEAR WALL SCHEDULE, REFER TO SHEET S-2.3
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. TOP OF FLOOR: EL. = +0'-0"
10. PROVIDE CONCRETE ENCASED GROUNDING ELECTRODES IN THE FOUNDATIONS IN ACCORDANCE WITH NEC 250-52 A (3).SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.

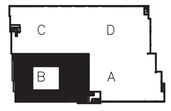
## FOUNDATION PLAN 1

SCALE: 3/32" = 1' - 0"

N

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021
Revised Per Comments:
July 06 2021

PREPARED FOR TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
TF (708) 589-1360

PROJECT DESCRIPTION:
FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME:
GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

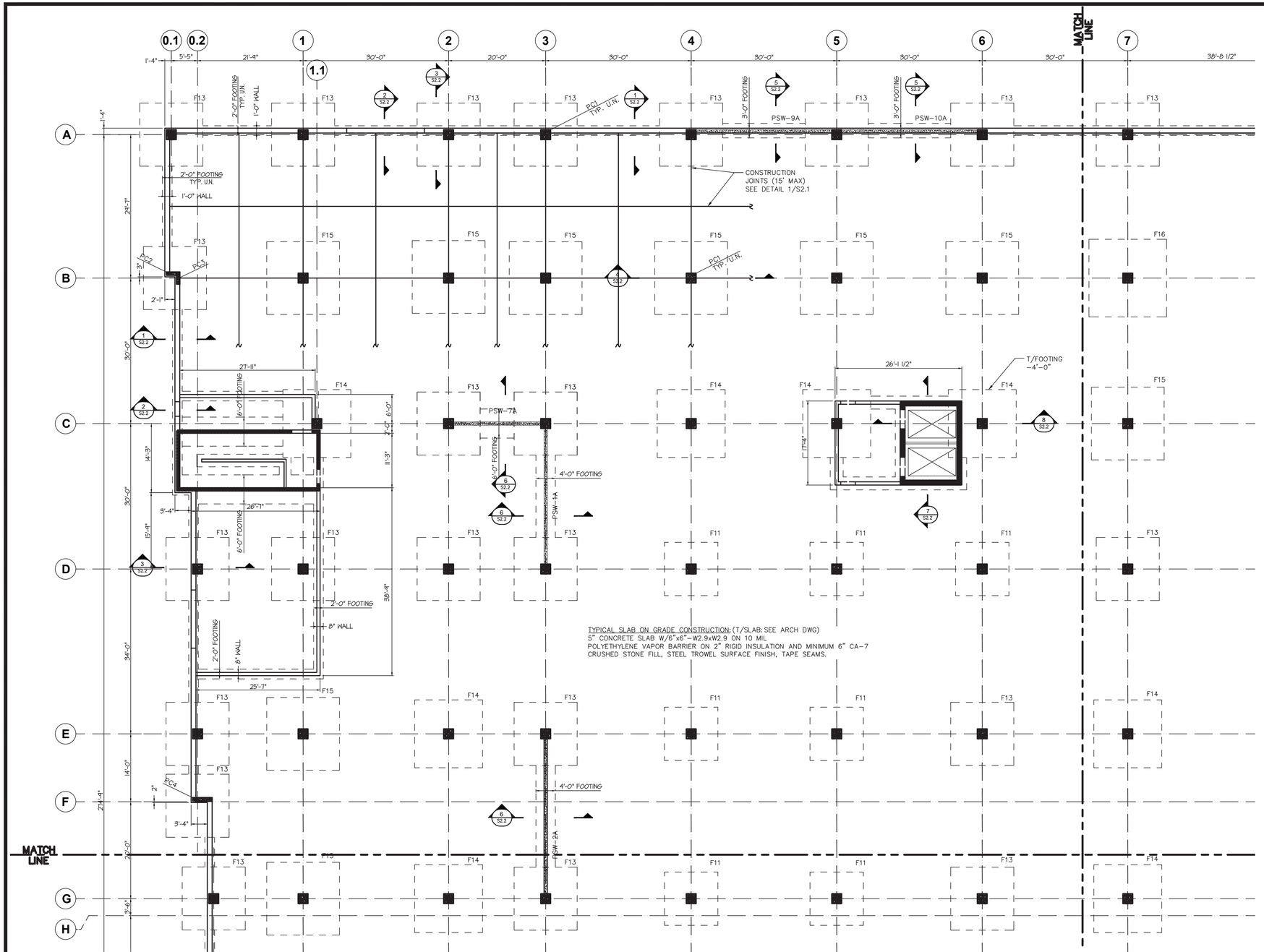
Issue Date: MAY 17 2016
Drawn By: BC

Sheet:
FOUNDATION PLAN PART B

PROJECT NUMBER
1609

S-1.1B

© DG STRUCTURAL ENGINEERING LLC




TYPICAL SLAB ON GRADE CONSTRUCTION: (T/SLAB: SEE ARCH DWG)
5" CONCRETE SLAB W/6"x6"–W2.9xW2.9 ON 10 MIL
POLYETHYLENE VAPOR BARRIER ON 2" RIGID INSULATION AND MINIMUM 6" CA–7
CRUSHED STONE FILL, STEEL TROWEL SURFACE FINISH, TAPE SEAMS.

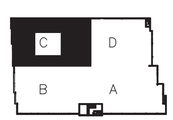
NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE SHEET S–0.1
4. FOR FOUNDATION DETAILS, SEE SHEET S–2.1 AND S–2.2
5. FOR CMU WALL DETAILS, SEE SHEET S–2.1
6. FOR FOOTING SIZES, REFER TO SHEET S–2.3
7. FOR PRECAST SHEAR WALL SCHEDULE, REFER TO SHEET S–2.3
8. FOR COL. SCHEDULE, SEE SHEET S–2.3
9. TOP OF FLOOR: EL. = +0'–0"
10. PROVIDE CONCRETE ENCASED GROUNDING ELECTRODES IN THE FOUNDATIONS IN ACCORDANCE WITH NEC 250–52 A (3).SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.

## FOUNDATION PLAN 1
SCALE: 3/32" = 1' – 0"

N

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021
Revised Per Comments:
July 06 2021

PREPARED FOR:TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-1260

PROJECT DESCRIPTION:
FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME:
GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

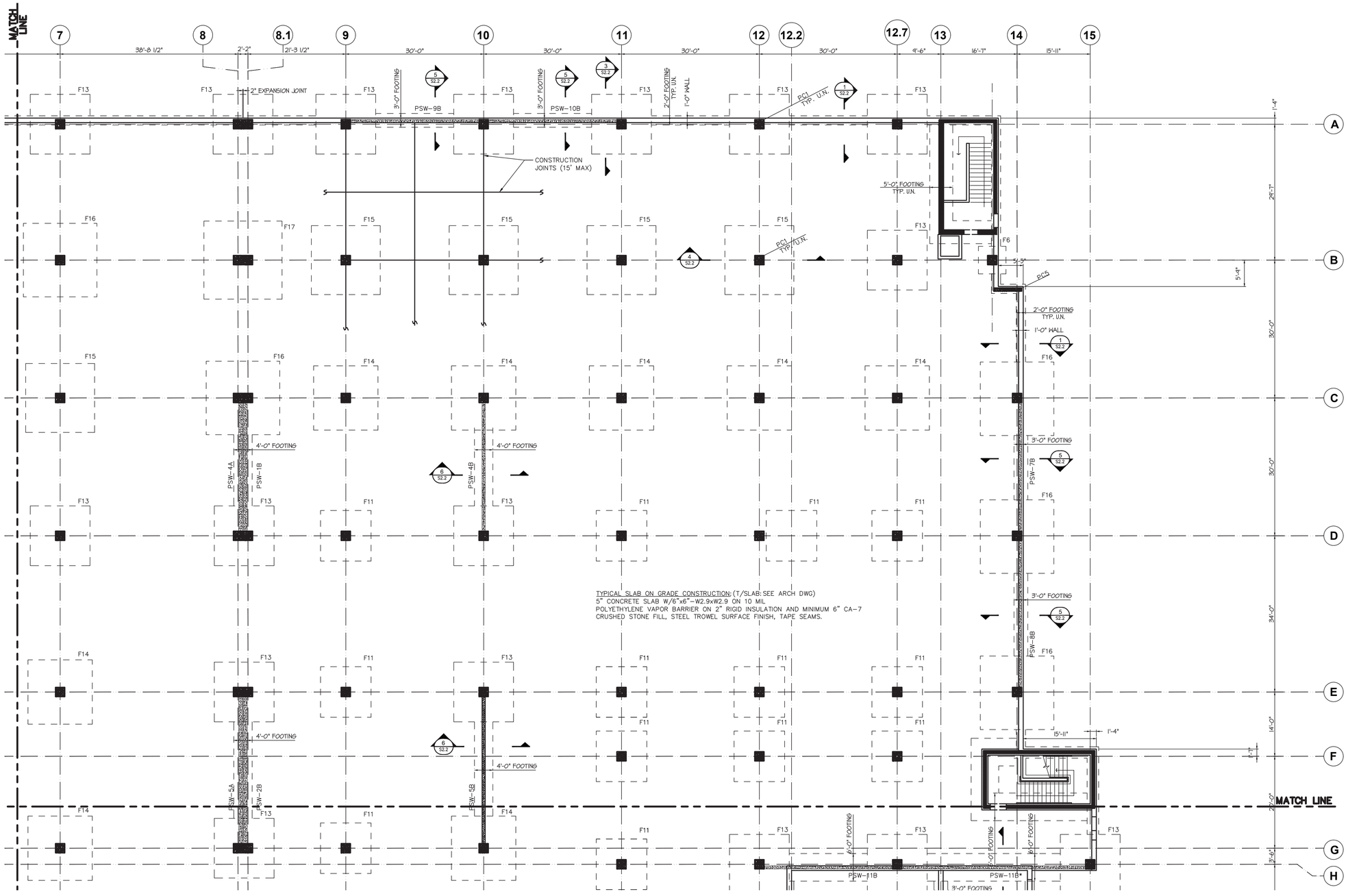
Issue Date: MAY 17 2016
Drawn By: BC

Sheet:
FOUNDATION PLAN PART C

PROJECT NUMBER
1609

S-1.1C

© DG STRUCTURAL ENGINEERING LLC




TYPICAL SLAB ON GRADE CONSTRUCTION: (T/SLAB: SEE ARCH DWG)
5" CONCRETE SLAB W/6"x6"-W2.9xW2.9 ON 10 MIL
POLYETHYLENE VAPOR BARRIER ON 2" RIGID INSULATION AND MINIMUM 6" CA-7
CRUSHED STONE FILL, STEEL TROWEL SURFACE FINISH, TAPE SEAMS.

## FOUNDATION PLAN 1

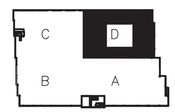
SCALE: 3/32" = 1' - 0"

N

NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE SHEET S-0.1
4. FOR FOUNDATION DETAILS, SEE SHEET S-2.1 AND S-2.2
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR FOOTING SIZES, REFER TO SHEET S-2.3
7. FOR PRECAST SHEAR WALL SCHEDULE, REFER TO SHEET S-2.3
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. TOP OF FLOOR: EL. = +0'-0"
10. PROVIDE CONCRETE ENCASED GROUNDING ELECTRODES IN THE FOUNDATIONS IN ACCORDANCE WITH NEC 250-52 A (3).SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021
Revised Per Comments:
July 06 2021

PREPARED FOR: TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-1360

PROJECT DESCRIPTION:
FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME:
# GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

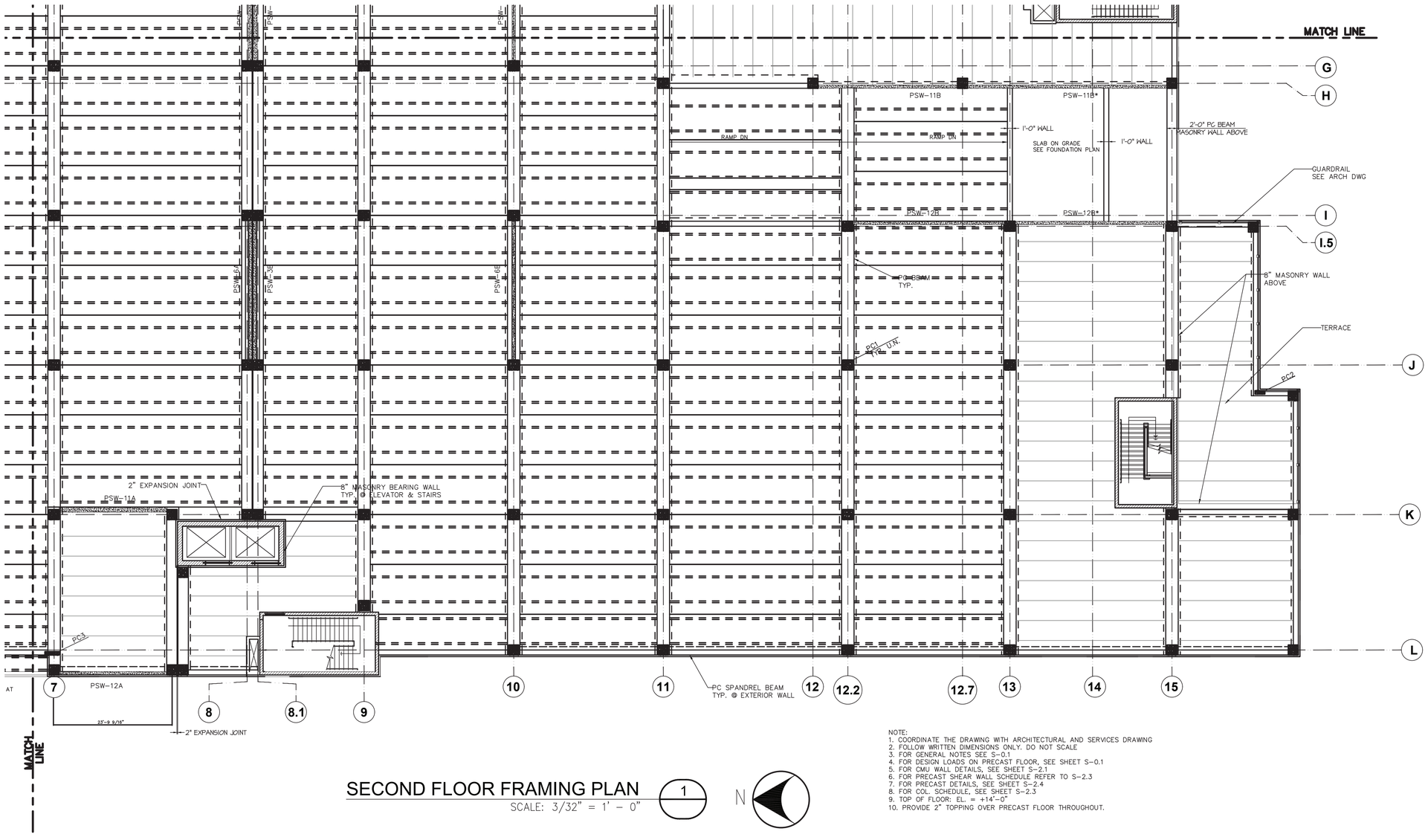
Issue Date: MAY 17 2016
Drawn By: BC

Sheet:
FOUNDATION PLAN PART D

PROJECT NUMBER
1609

S-1.1D

© DG STRUCTURAL ENGINEERING LLC




## SECOND FLOOR FRAMING PLAN

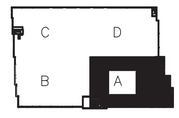
SCALE: 3/32" = 1' – 0"

NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S–0.1
4. FOR DESIGN LOADS ON PRECAST FLOOR, SEE SHEET S–0.1
5. FOR CMU WALL DETAILS, SEE SHEET S–2.1
6. FOR PRECAST SHEAR WALL SCHEDULE REFER TO S–2.3
7. FOR PRECAST DETAILS, SEE SHEET S–2.4
8. FOR COL. SCHEDULE, SEE SHEET S–2.3
9. TOP OF FLOOR: EL. = +14'–0"
10. PROVIDE 2" TOPPING OVER PRECAST FLOOR THROUGHOUT.

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER

EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:AC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127 AURORA, IL 60504
M: (708) 668-1260

PROJECT DESCRIPTION:
FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME:
GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

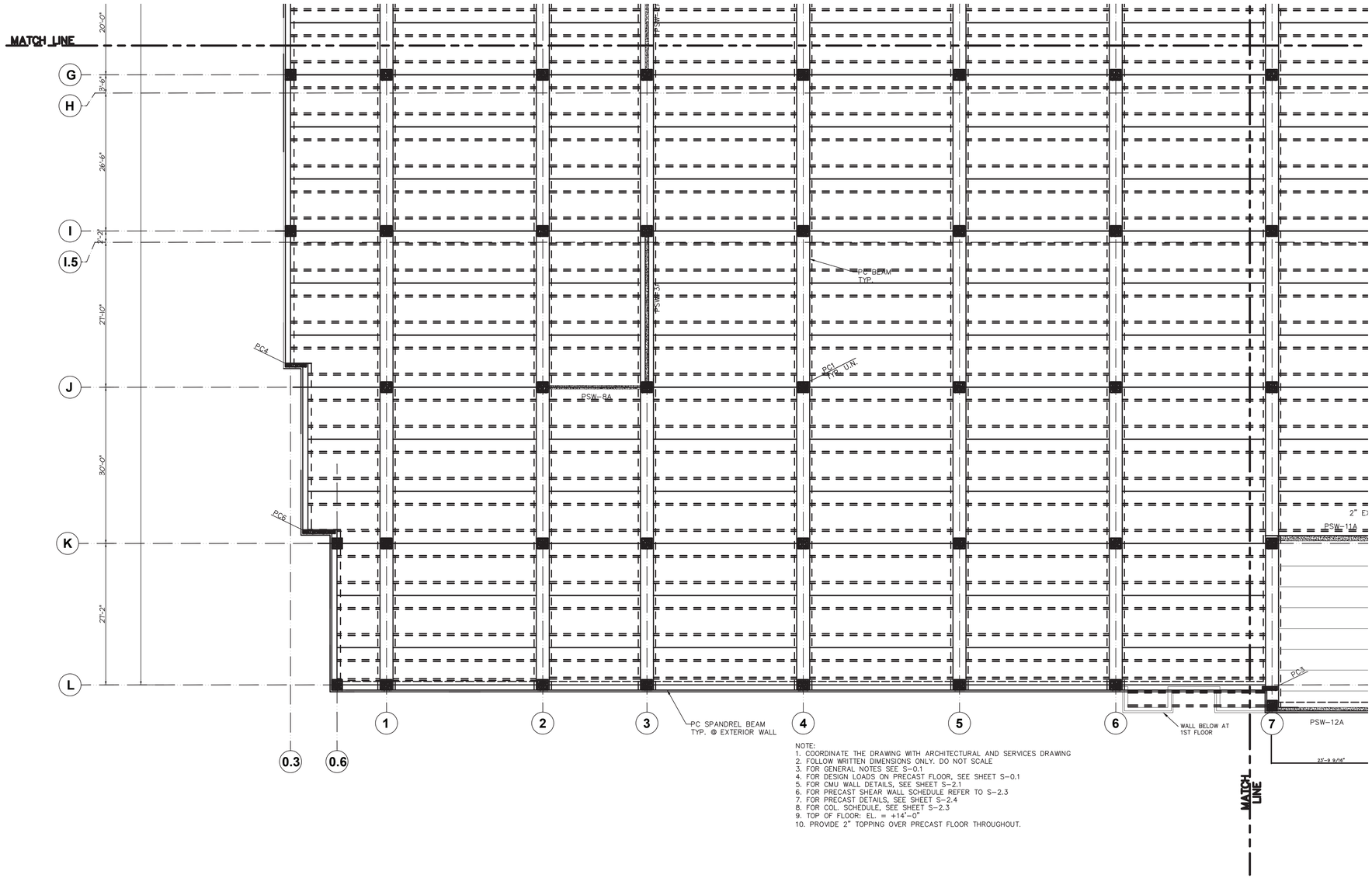
Issue Date: -
Drawn By: PRC

Sheet:
2ND FLR.
FRAMING PLAN
PART A

PROJECT NUMBER
1609

S-1.2A

© DG STRUCTURAL ENGINEERING LLC




NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR DESIGN LOADS ON PRECAST FLOOR, SEE SHEET S-0.1
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR PRECAST SHEAR WALL SCHEDULE REFER TO S-2.3
7. FOR PRECAST DETAILS, SEE SHEET S-2.4
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. TOP OF FLOOR: EL. = +14'-0"
10. PROVIDE 2" TOPPING OVER PRECAST FLOOR THROUGHOUT.

## SECOND FLOOR FRAMING PLAN

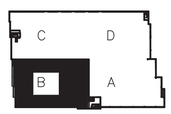
SCALE: 3/32" = 1' - 0"

1

N

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:AC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127 AURORA, IL 60504
M: (708) 548-1360

PROJECT DESCRIPTION:
FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME:
GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

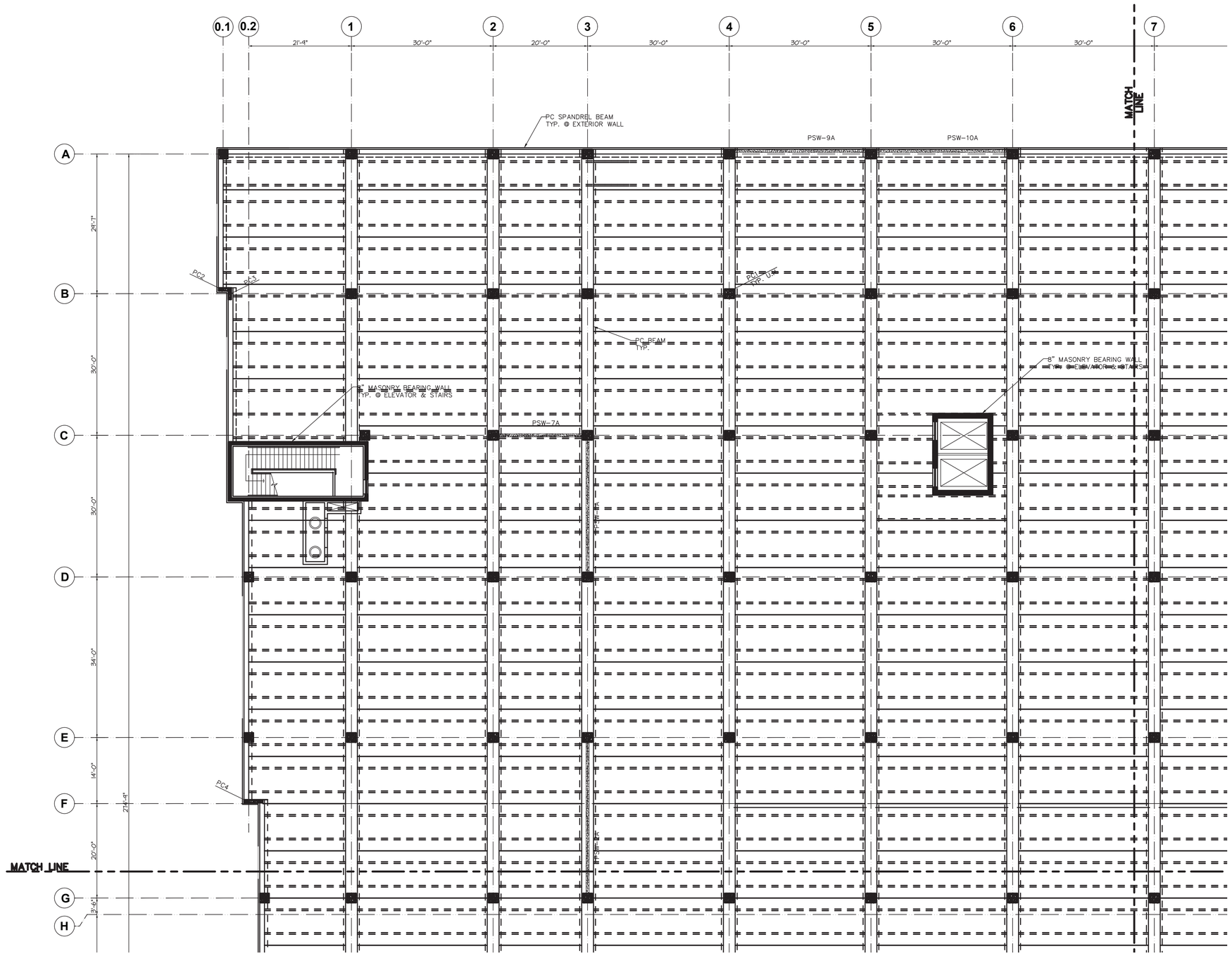
Issue Date: -
Drawn By: PRC

Sheet:
2ND FLR. FRAMING PLAN PART B

PROJECT NUMBER
1609

S-1.2B

© DG STRUCTURAL ENGINEERING LLC




## SECOND FLOOR FRAMING PLAN

SCALE: 3/32" = 1' - 0"

1

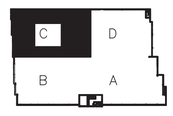
N

NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR DESIGN LOADS ON PRECAST FLOOR, SEE SHEET S-0.1
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR PRECAST SHEAR WALL SCHEDULE REFER TO S-2.3
7. FOR PRECAST DETAILS, SEE SHEET S-2.4
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. TOP OF FLOOR: EL. = +14'-0"
10. PROVIDE 2" TOPPING OVER PRECAST FLOOR THROUGHOUT.

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER

EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 548-1360

PROJECT DESCRIPTION:
**FOUNDATION AND STRUCTURAL FRAMING PLANS**

PROJECT NAME:
# GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

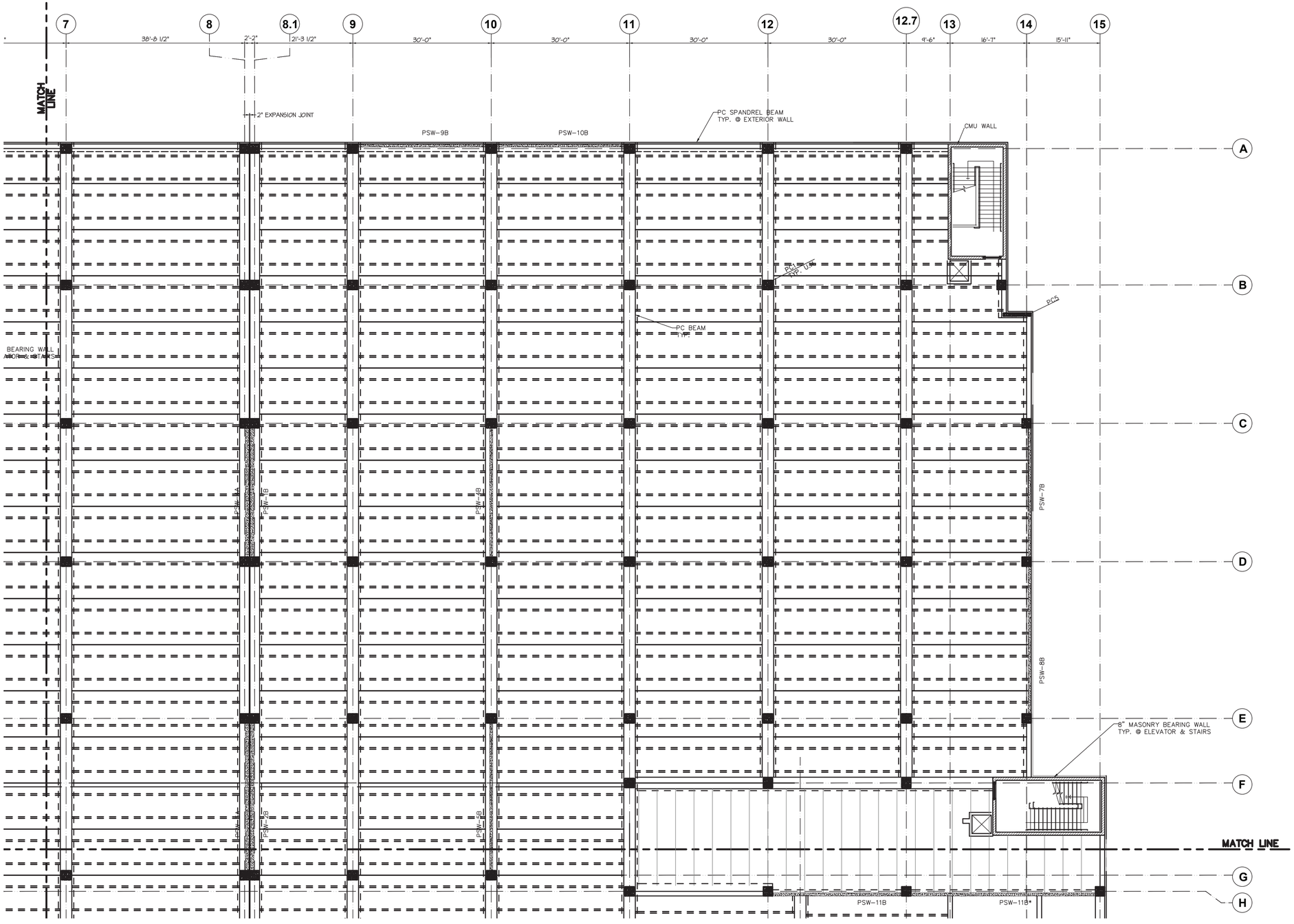
Issue Date: -
Drawn By: PRC

Sheet:
2ND FLR. FRAMING PLAN PART C

PROJECT NUMBER
1609

S-1.2C

© DG STRUCTURAL ENGINEERING, LLC




NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR DESIGN LOADS ON PRECAST FLOOR, SEE SHEET S-0.1
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR PRECAST SHEAR WALL SCHEDULE REFER TO S-2.3
7. FOR PRECAST DETAILS, SEE SHEET S-2.4
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. TOP OF FLOOR: EL. = +14'-0"
10. PROVIDE 2" TOPPING OVER PRECAST FLOOR THROUGHOUT.

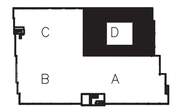
## SECOND FLOOR FRAMING PLAN (1)

SCALE: 3/32" = 1' - 0"

N

STATE OF ILLINOIS
DEEPAK GIDWANI
081-008114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:
TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127 AURORA, IL 60504
M: (708) 668-1360

PROJECT DESCRIPTION:
**FOUNDATION AND STRUCTURAL FRAMING PLANS**

PROJECT NAME:
# GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

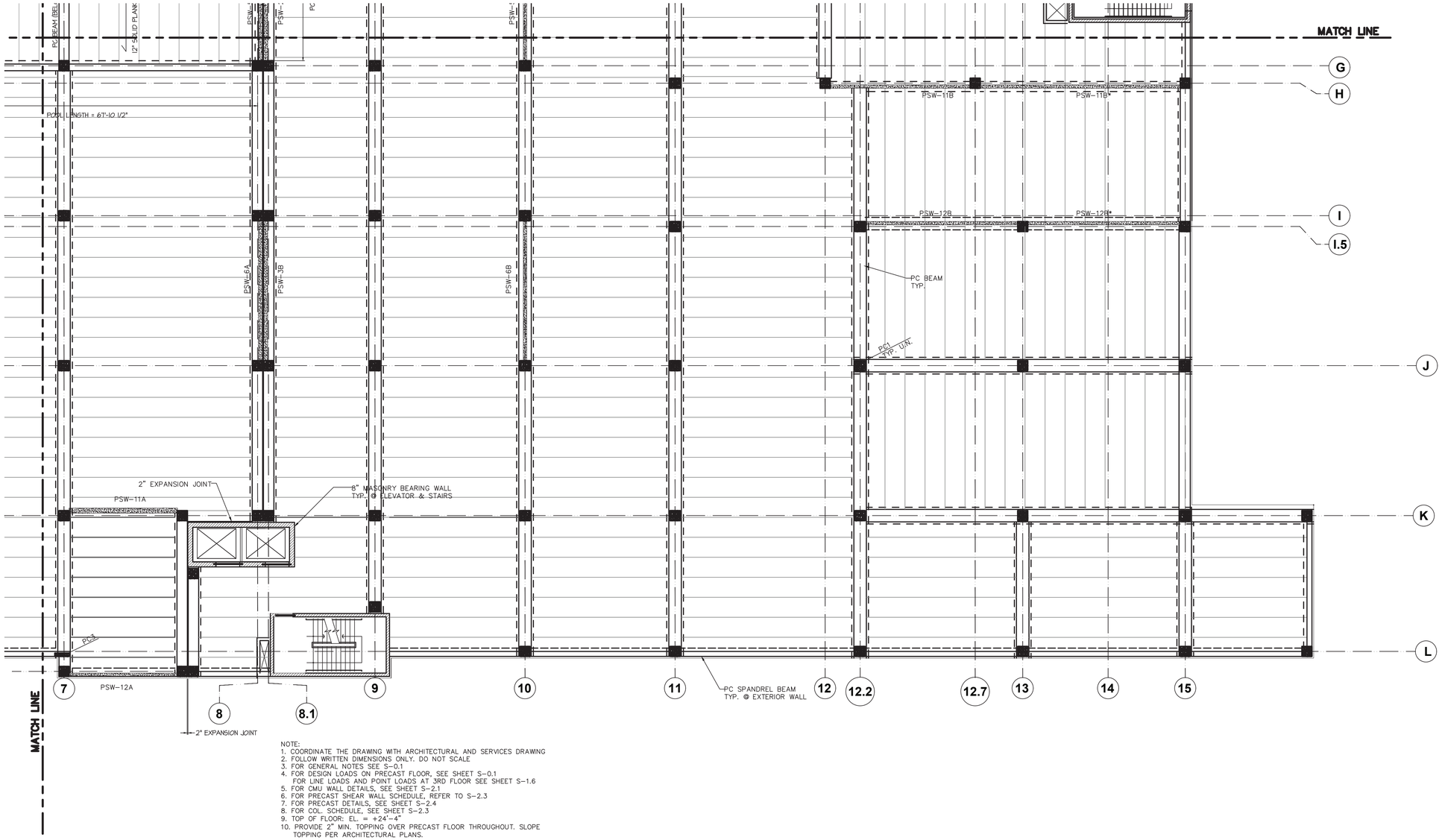
Issue Date: -
Drawn By: PRC

Sheet:
2ND FLR. FRAMING PLAN PART D

PROJECT NUMBER
1609

S-1.2D

© DG STRUCTURAL ENGINEERING, LLC



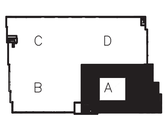

NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR DESIGN LOADS ON PRECAST FLOOR, SEE SHEET S-0.1
   FOR LINE LOADS AND POINT LOADS AT 3RD FLOOR SEE SHEET S-1.6
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR PRECAST SHEAR WALL SCHEDULE, REFER TO S-2.3
7. FOR PRECAST DETAILS, SEE SHEET S-2.4
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. TOP OF FLOOR: EL. = +24'-4"
10. PROVIDE 2" MIN. TOPPING OVER PRECAST FLOOR THROUGHOUT. SLOPE TOPPING PER ARCHITECTURAL PLANS.

## THIRD FLOOR FRAMING PLAN (1)

SCALE: 3/32" = 1' - 0"

N

KEY PLAN




STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:
TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-1360

PROJECT DESCRIPTION:
FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME:
GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

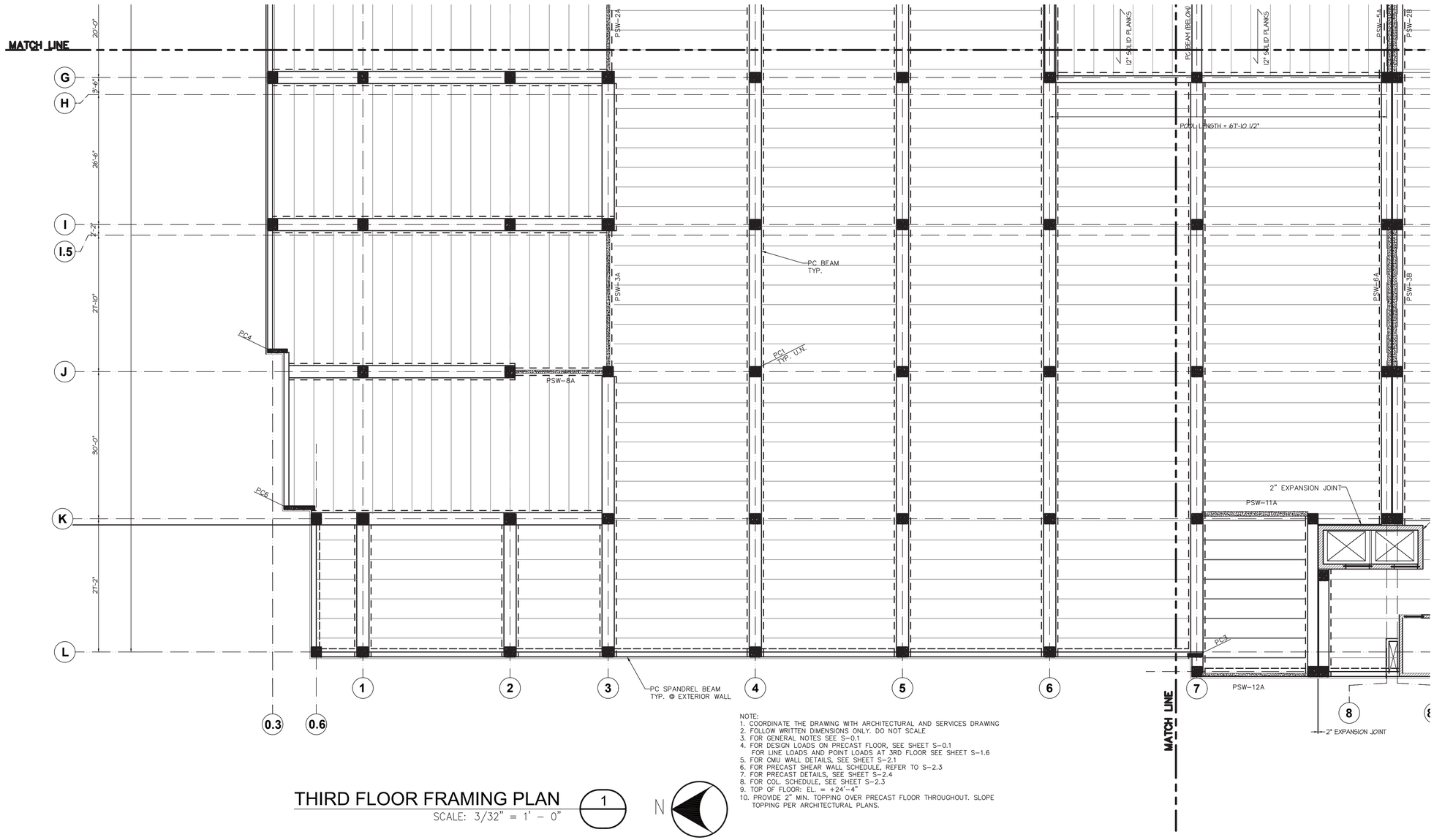
Issue Date: -
Drawn By: PRC

Sheet:
3RD. FLR. FRAMING PLAN PART A

PROJECT NUMBER
1609

S-1.3A

© DG STRUCTURAL ENGINEERING LLC




NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR DESIGN LOADS ON PRECAST FLOOR, SEE SHEET S-0.1
   FOR LINE LOADS AND POINT LOADS AT 3RD FLOOR SEE SHEET S-1.6
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR PRECAST SHEAR WALL SCHEDULE, REFER TO S-2.3
7. FOR PRECAST DETAILS, SEE SHEET S-2.4
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. TOP OF FLOOR: EL. = +24'-4"
10. PROVIDE 2" MIN. TOPPING OVER PRECAST FLOOR THROUGHOUT. SLOPE TOPPING PER ARCHITECTURAL PLANS.

## THIRD FLOOR FRAMING PLAN

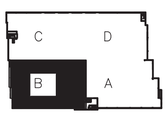
SCALE: 3/32" = 1' - 0"

1

N

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:AC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-1360

PROJECT DESCRIPTION:
FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME:
GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE./ VERMONT STREET
VILLA PARK, ILLINOIS

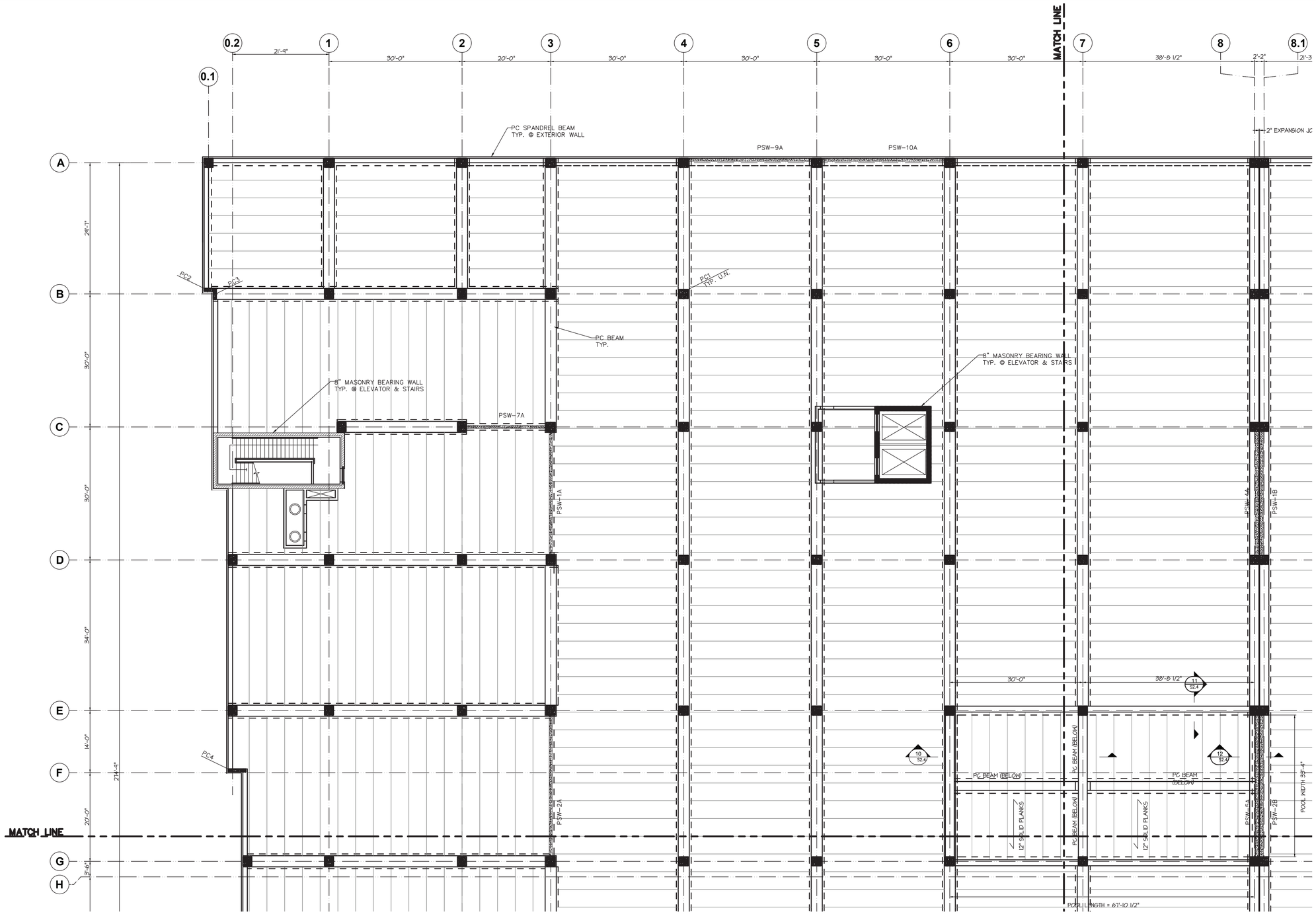
Issue Date: -
Drawn By: PRC

Sheet:
3RD FLR.
FRAMING PLAN
PART B

PROJECT NUMBER
1609

S-1.3B

© DG STRUCTURAL ENGINEERING LLC




## THIRD FLOOR FRAMING PLAN

SCALE: 3/32" = 1' – 0"

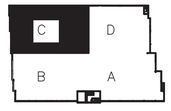
1

NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S–0.1
4. FOR DESIGN LOADS ON PRECAST FLOOR, SEE SHEET S–0.1
   FOR LINE LOADS AND POINT LOADS AT 3RD FLOOR SEE SHEET S–1.6
5. FOR CMU WALL DETAILS, SEE SHEET S–2.1
6. FOR PRECAST SHEAR WALL SCHEDULE, REFER TO S–2.3
7. FOR PRECAST DETAILS, SEE SHEET S–2.4
8. FOR COL. SCHEDULE, SEE SHEET S–2.3
9. TOP OF FLOOR: EL. = +24'–4"
10. PROVIDE 2" MIN. TOPPING OVER PRECAST FLOOR THROUGHOUT. SLOPE TOPPING PER ARCHITECTURAL PLANS.

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER

EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:
TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
V: (708) 668-1360

PROJECT DESCRIPTION:
**FOUNDATION AND STRUCTURAL FRAMING PLANS**

PROJECT NAME:
# GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

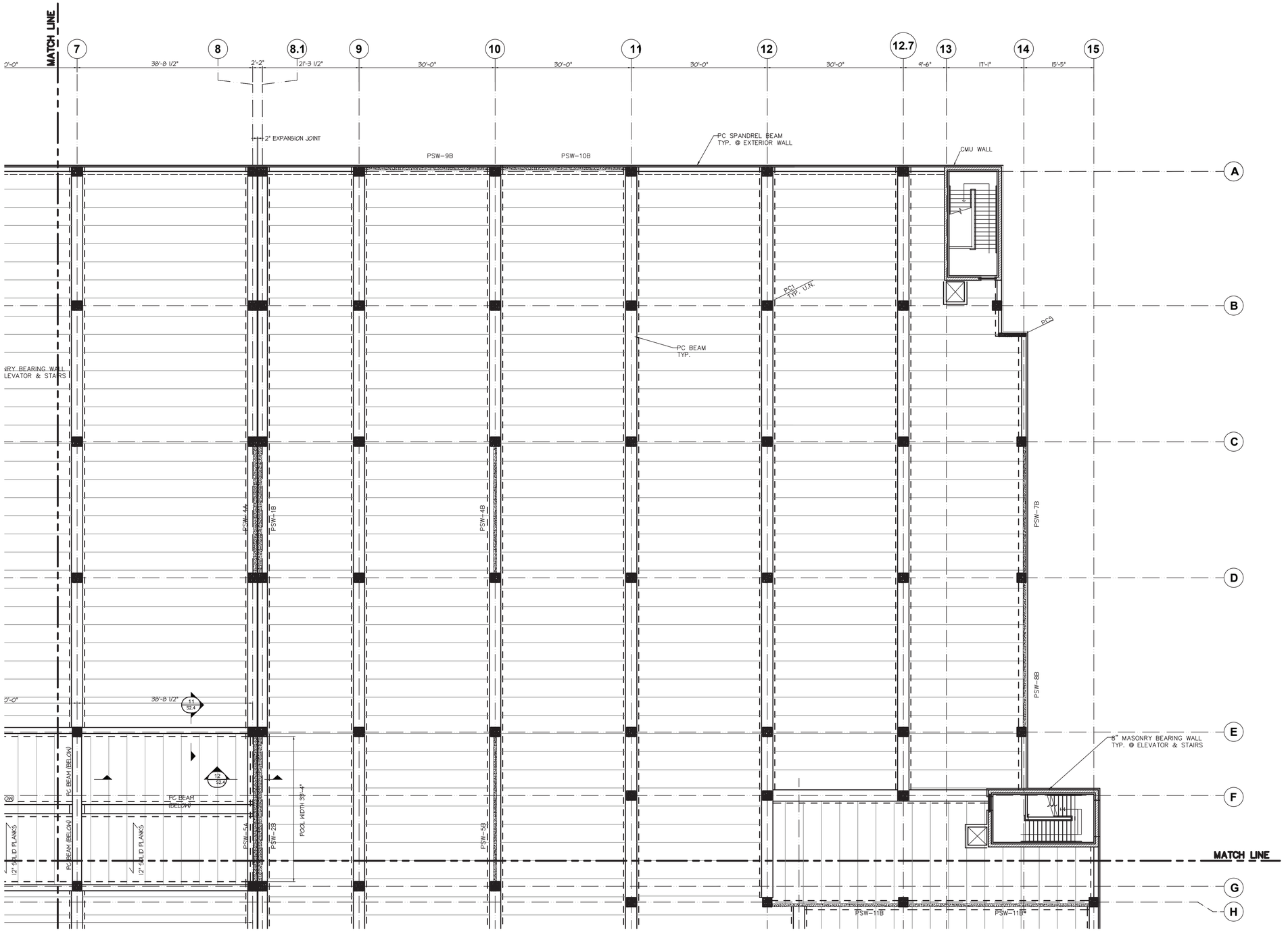
Issue Date: -
Drawn By: PRC

Sheet:
3RD FLR.
FRAMING PLAN
PART C

PROJECT NUMBER
1609

S-1.3C

© DG STRUCTURAL ENGINEERING, LLC



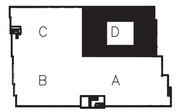

## THIRD FLOOR FRAMING PLAN

SCALE: 3/32" = 1' - 0"

NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR DESIGN LOADS ON PRECAST FLOOR, SEE SHEET S-0.1
   FOR LINE LOADS AND POINT LOADS AT 3RD FLOOR SEE SHEET S-1.6
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR PRECAST SHEAR WALL SCHEDULE, REFER TO S-2.3
7. FOR PRECAST DETAILS, SEE SHEET S-2.4
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. TOP OF FLOOR: EL. = +24'-4"
10. PROVIDE 2" MIN. TOPPING OVER PRECAST FLOOR THROUGHOUT. SLOPE TOPPING PER ARCHITECTURAL PLANS.

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-1260

PROJECT DESCRIPTION:
**FOUNDATION AND STRUCTURAL FRAMING PLANS**

PROJECT NAME:
# GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

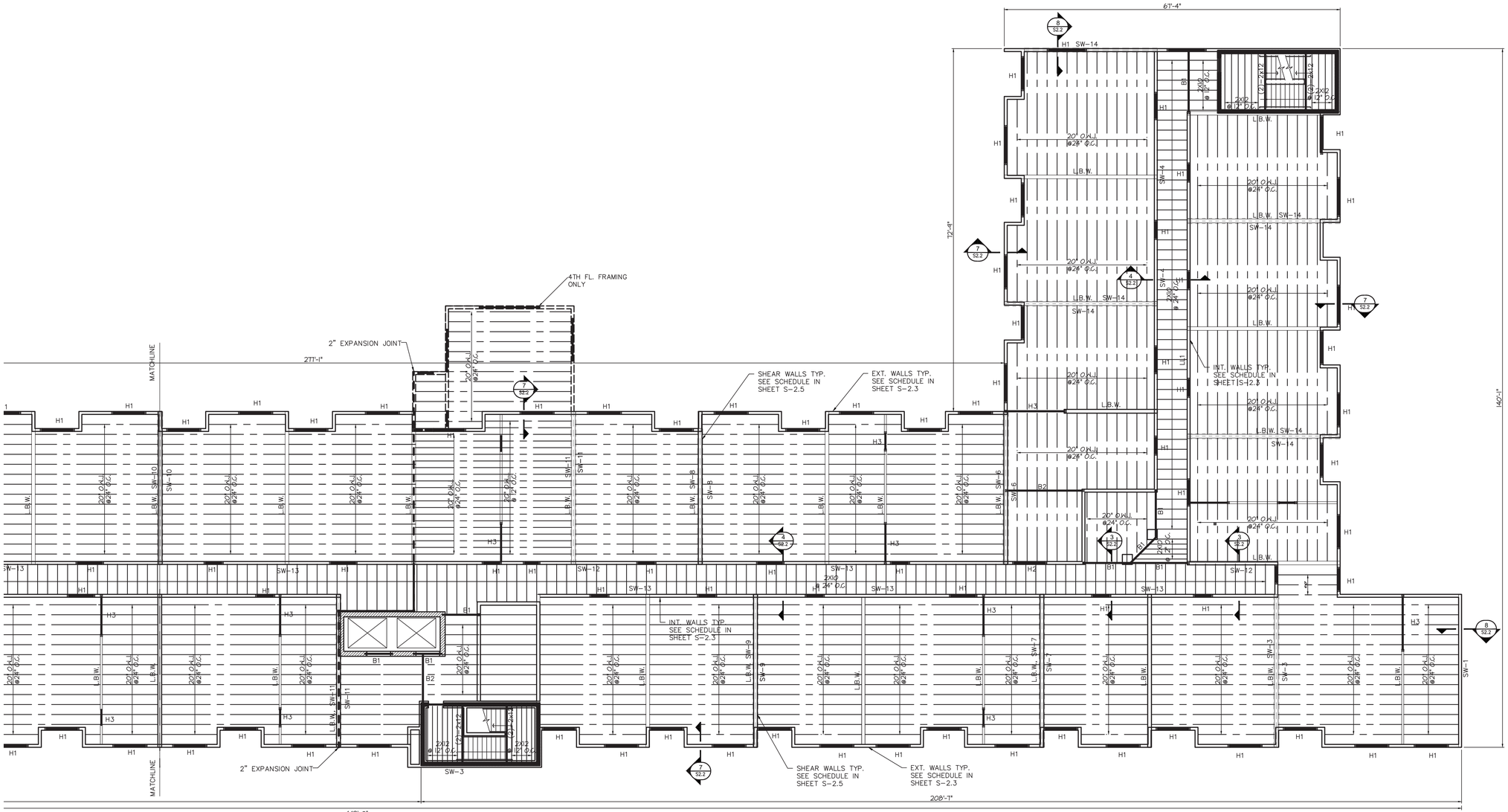
Issue Date: -
Drawn By: PRC

Sheet:
3RD FLR.
FRAMING PLAN
PART D

PROJECT NUMBER
1609

S-1.3D

© DG STRUCTURAL ENGINEERING, LLC

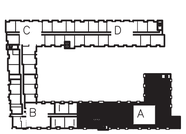



NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR FRAMING DETAILS, SEE SHEET S-2.5
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR SHEAR WALL SCHEDULE REFER TO S-2.5
7. FOR PRECAST DETAILS, SEE SHEET S-2.4
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. FOR HEADER AND BEAM SIZES, SEE SHEET S-2.5
10. FOR CORRIDOR, EXT. AND DEMISING WALL SCHEDULE, SEE S-2.3
11. TOP OF FLOOR ELEVATIONS:
    4TH FL. EL. = +34'-4"
    5TH FL. EL. = +44'-4"
    6TH FL. EL. = +54'-4"
    7TH FL. EL. = +64'-4"

4TH, 5TH, 6TH AND 7TH FLOORS
## TYP. FL. FRAMING PLAN (1)
SCALE: 3/32" = 1'-0"

N

KEY PLAN




STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-1360

PROJECT DESCRIPTION:
**FOUNDATION AND STRUCTURAL FRAMING PLANS**

PROJECT NAME:
# GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE./ VERMONT STREET
VILLA PARK, ILLINOIS

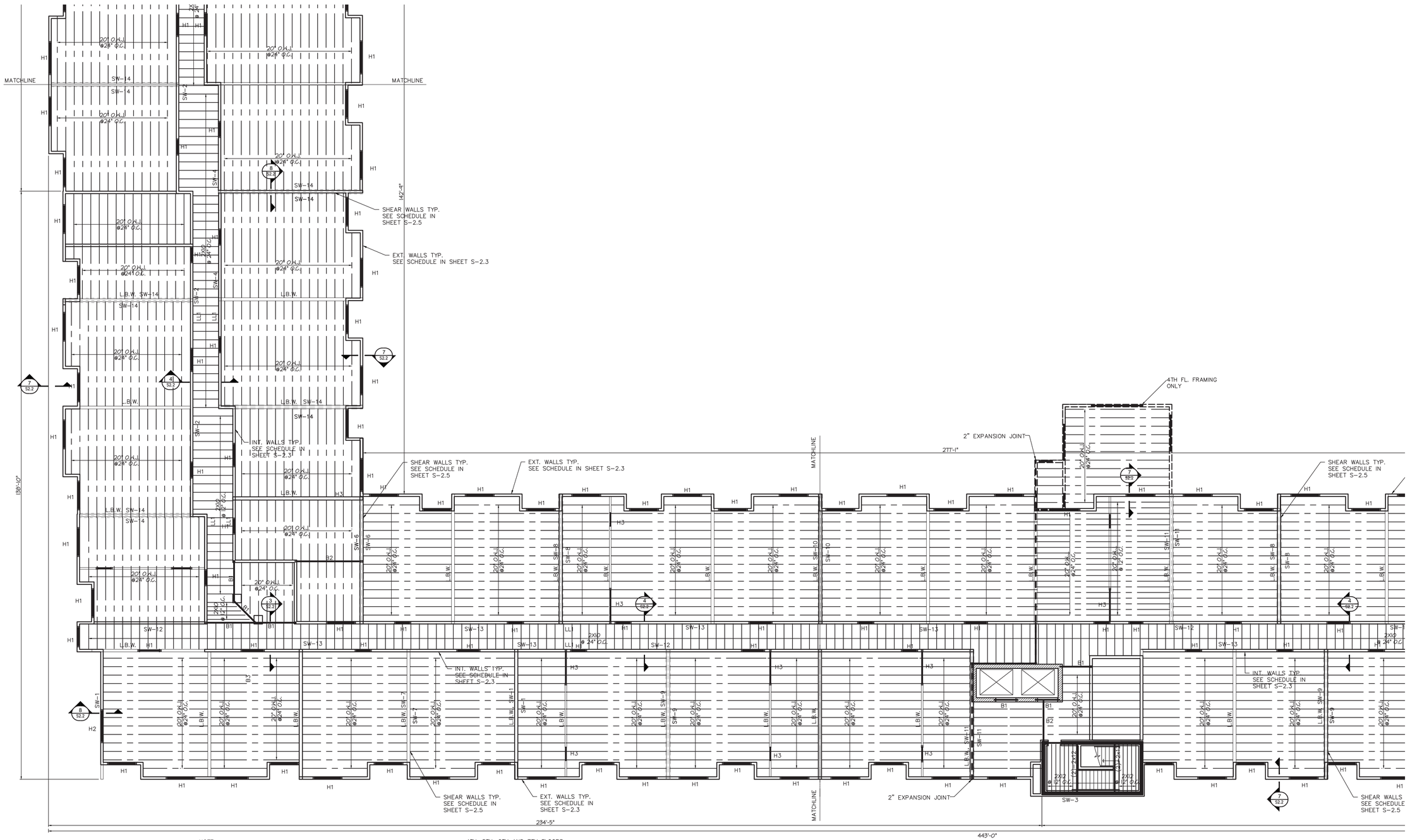
Issue Date: -
Drawn By: PRC

Sheet:
# TYP. FLOOR FRAMING PLAN PART A

PROJECT NUMBER
1609

S-1.4A

© DG STRUCTURAL ENGINEERING LLC




NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR FRAMING DETAILS, SEE SHEET S-2.5
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR SHEAR WALL SCHEDULE REFER TO S-2.5
7. FOR PRECAST DETAILS, SEE SHEET S-2.4
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. FOR HEADER AND BEAM SIZES, SEE SHEET S-2.5
10. FOR CORRIDOR, EXT. AND DEMISING WALL SCHEDULE, SEE S-2.3
11. TOP OF FLOOR ELEVATIONS:
    4TH FL. EL. = +34'-4"
    5TH FL. EL. = +44'-4"
    6TH FL. EL. = +54'-4"
    7TH FL. EL. = +64'-4"

4TH, 5TH, 6TH AND 7TH FLOORS

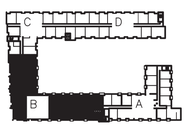
## TYP. FL. FRAMING PLAN

1

SCALE: 3/32" = 1' - 0"

N

KEY PLAN



EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:
TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
V: (708) 668-1360

PROJECT DESCRIPTION:
**FOUNDATION AND STRUCTURAL FRAMING PLANS**

PROJECT NAME:
# GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

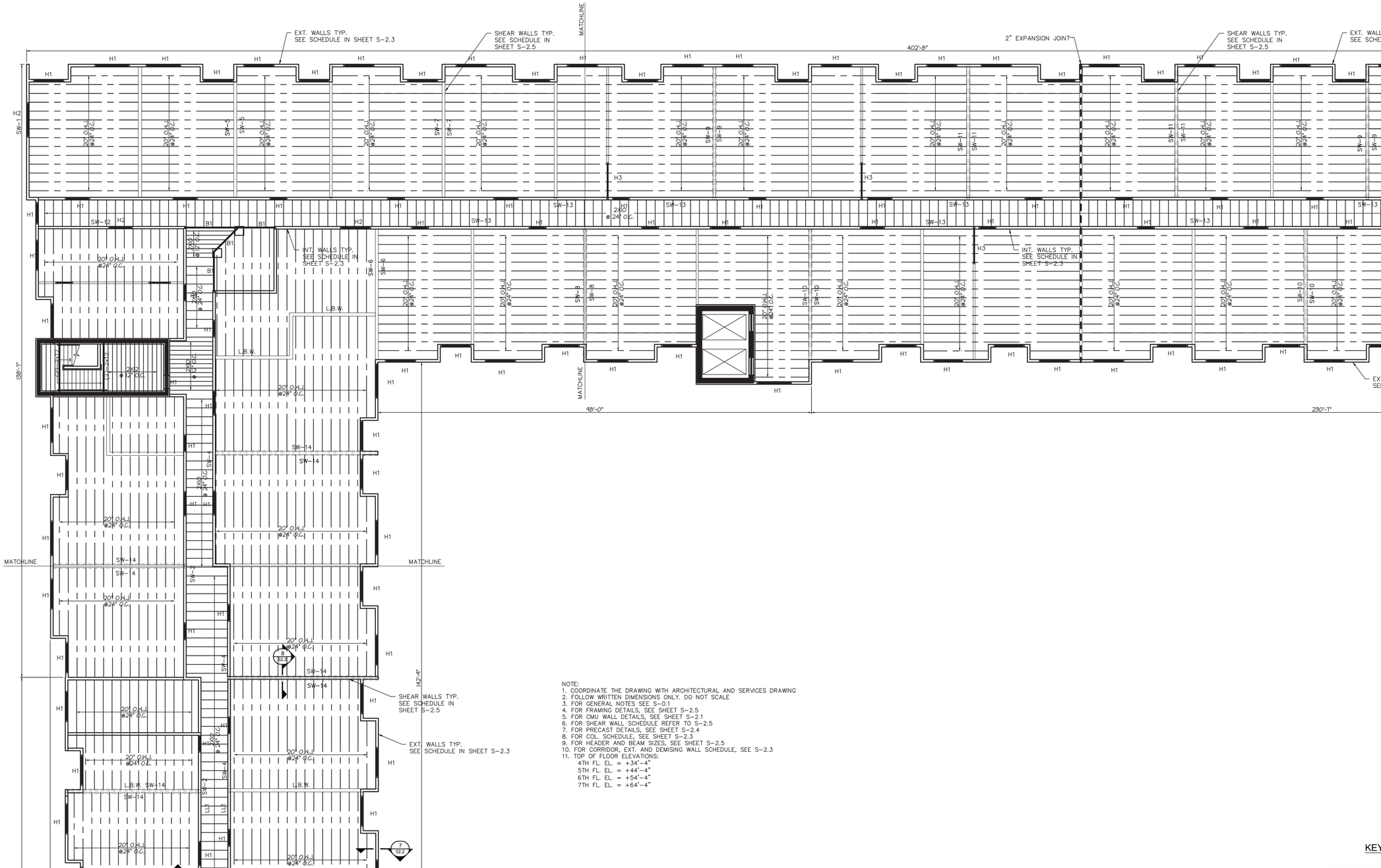
Issue Date: -
Drawn By: PRC

Sheet:
TYP. FLOOR FRAMING PLAN PART B

PROJECT NUMBER
1609

S-1.4B

© DG STRUCTURAL ENGINEERING LLC



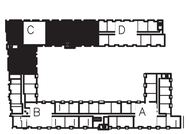

NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR FRAMING DETAILS, SEE SHEET S-2.5
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR SHEAR WALL SCHEDULE REFER TO S-2.5
7. FOR PRECAST DETAILS, SEE SHEET S-2.4
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. FOR HEADER AND BEAM SIZES, SEE SHEET S-2.5
10. FOR CORRIDOR, EXT. AND DEMISING WALL SCHEDULE, SEE S-2.3
11. TOP OF FLOOR ELEVATIONS:
    4TH FL. EL. = +34'-4"
    5TH FL. EL. = +44'-4"
    6TH FL. EL. = +54'-4"
    7TH FL. EL. = +64'-4"

4TH, 5TH, 6TH AND 7TH FLOORS

TYP. FL. FRAMING PLAN (1)

SCALE: 3/32" = 1' - 0"

KEY PLAN




STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:AC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127 AURORA, IL 60504
M: (708) 668-1360

PROJECT DESCRIPTION:
**FOUNDATION AND STRUCTURAL FRAMING PLANS**

PROJECT NAME:
# GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

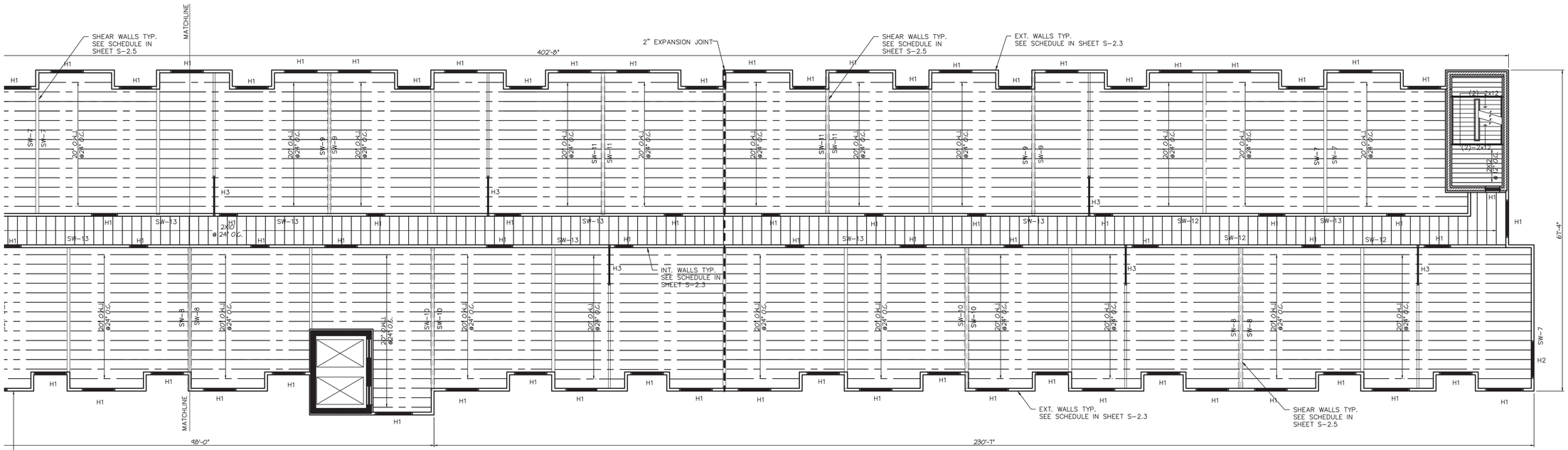
Issue Date: -
Drawn By: PRC

Sheet:
TYP. FLOOR FRAMING PLAN PART C

PROJECT NUMBER
1609

S-1.4C

© DG STRUCTURAL ENGINEERING LLC




NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR FRAMING DETAILS, SEE SHEET S-2.5
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR SHEAR WALL SCHEDULE REFER TO S-2.5
7. FOR PRECAST DETAILS, SEE SHEET S-2.4
8. FOR COL. SCHEDULE, SEE SHEET S-2.3
9. FOR HEADER AND BEAM SIZES, SEE SHEET S-2.5
10. FOR CORRIDOR, EXT. AND DEMISING WALL SCHEDULE, SEE S-2.3
11. TOP OF FLOOR ELEVATIONS:
    4TH FL. EL. = +34'-4"
    5TH FL. EL. = +44'-4"
    6TH FL. EL. = +54'-4"
    7TH FL. EL. = +64'-4"

4TH, 5TH, 6TH AND 7TH FLOORS

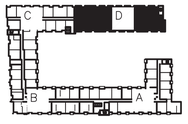
## TYP. FL. FRAMING PLAN (1)

SCALE: 3/32" = 1' - 0"

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER

EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:
TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
+1 (708) 648-1360

PROJECT DESCRIPTION:
**FOUNDATION AND STRUCTURAL FRAMING PLANS**

PROJECT NAME:
GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

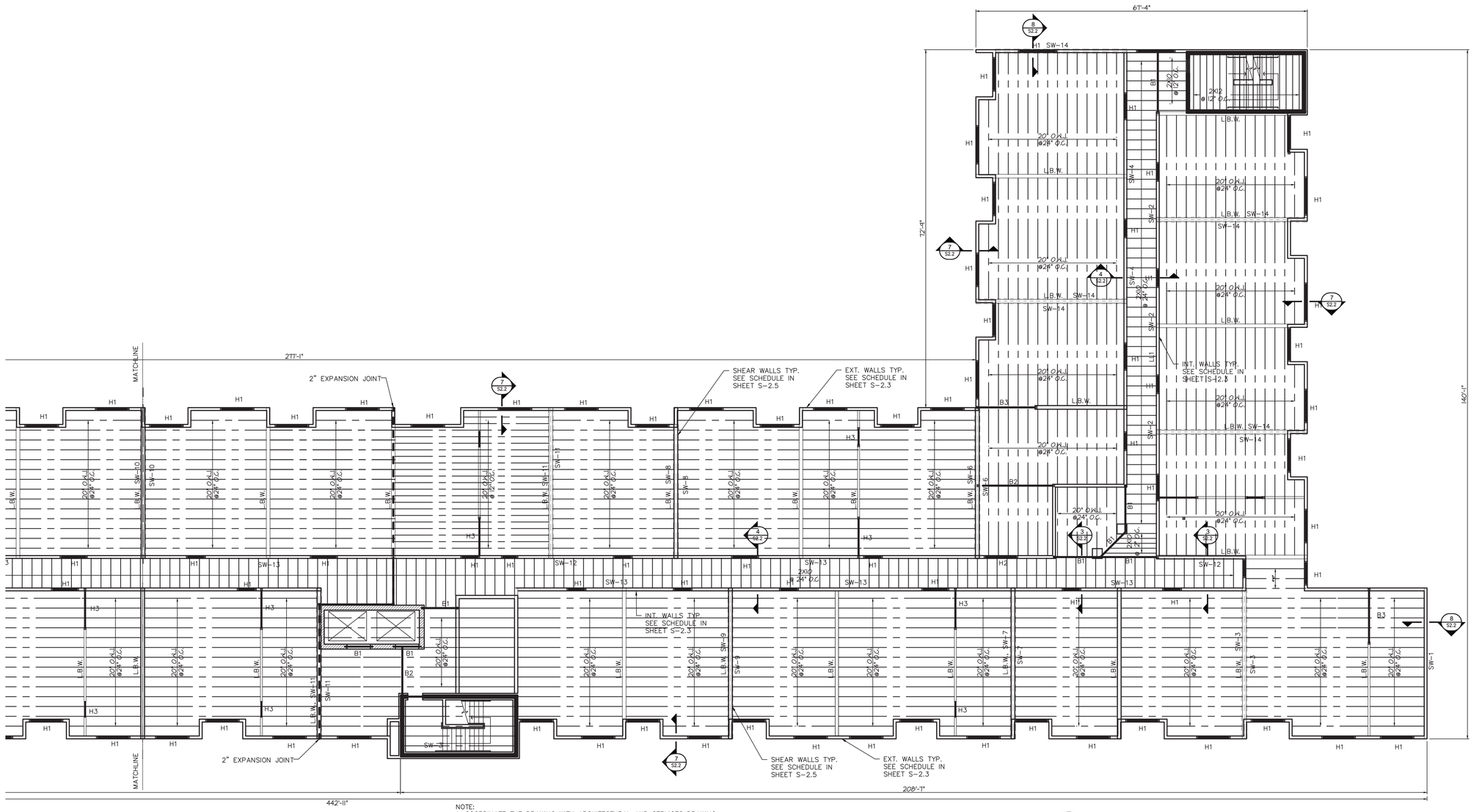
Issue Date: -
Drawn By: PRC

Sheet:
TYP. FLOOR FRAMING PLAN PART D

PROJECT NUMBER
1609

S-1.4D

© DG STRUCTURAL ENGINEERING LLC

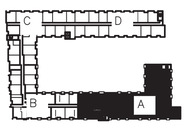



NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR FRAMING DETAILS, SEE SHEET S-2.5
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR SHEAR WALL SCHEDULE REFER TO S-2.5
7. FOR WALL LOAD AND COL. SCHEDULE, SEE SHEET S-2.3
8. FOR CORRIDOR, EXT. AND DEMISING WALL SCHEDULES, SEE SHEET S-2.3
9. FOR HEADER AND BEAM SIZES, SEE SHEET S-2.5
10. ROOF ELEVATION: EL. = +78'-6"

ROOF FRAMING PLAN (1)
SCALE: 3/32" = 1' - 0"

N

KEY PLAN



EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:
TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-1360

PROJECT DESCRIPTION:
FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME:
GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE. / VERMONT ST., VILLA PARK, IL

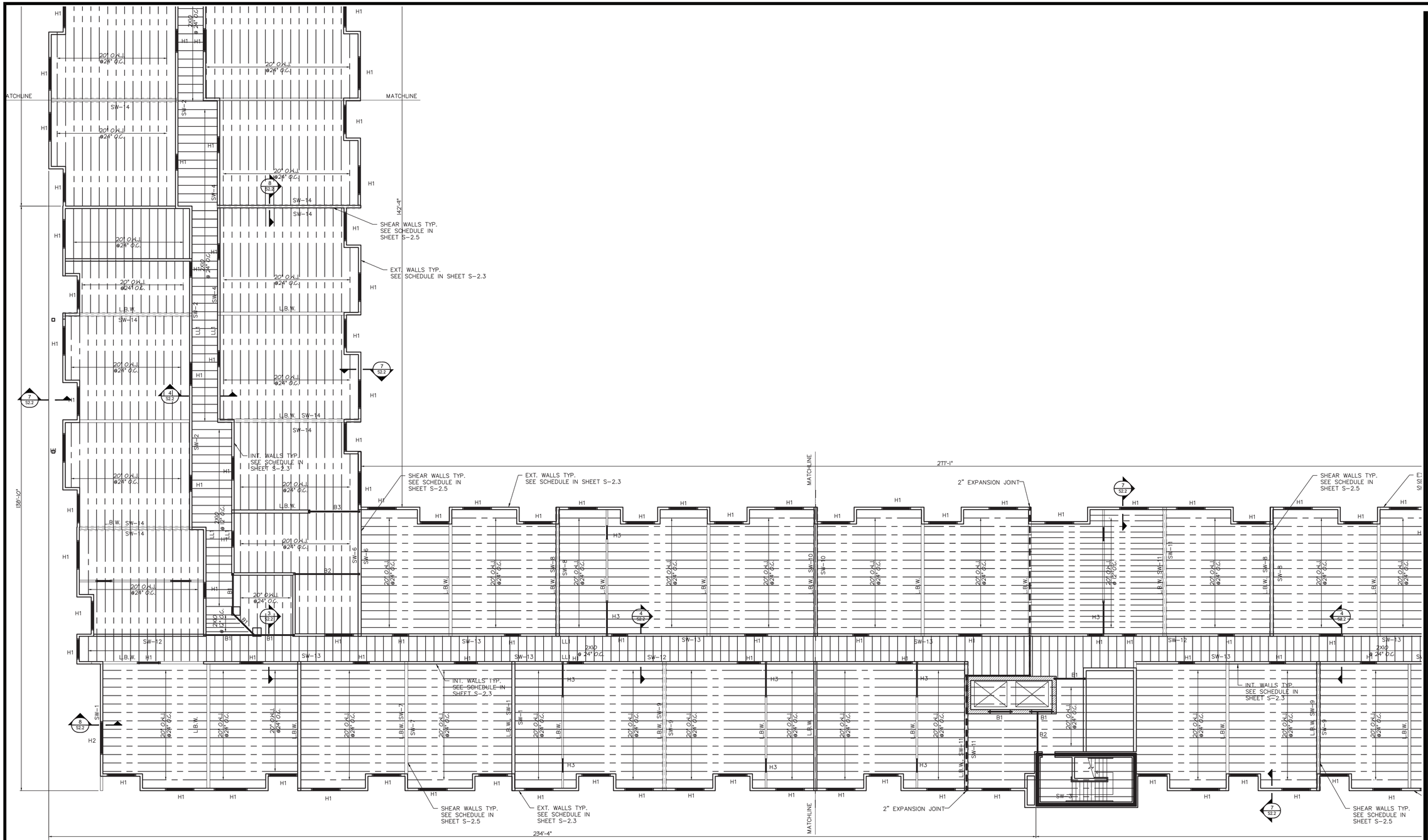
Issue Date: -
Drawn By: PRC

Sheet: ROOF FRAMING PLAN PART A

PROJECT NUMBER
1609

S-1.5A

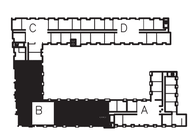
© DG STRUCTURAL ENGINEERING, LLC




NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR FRAMING DETAILS, SEE SHEET S-2.5
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR SHEAR WALL SCHEDULE REFER TO S-2.5
7. FOR WALL LOAD AND COL. SCHEDULE, SEE SHEET S-2.3
8. FOR CORRIDOR, EXT. AND DEMISING WALL SCHEDULES, SEE SHEET S-2.3
9. FOR HEADER AND BEAM SIZES, SEE SHEET S-2.5
10. ROOF ELEVATION: EL. = +78'-6"

ROOF FRAMING PLAN (1)
SCALE: 3/32" = 1' - 0"

KEY PLAN



EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:
TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-1360

PROJECT DESCRIPTION:
FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME:
GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE./ VERMONT STREET
VILLA PARK, ILLINOIS

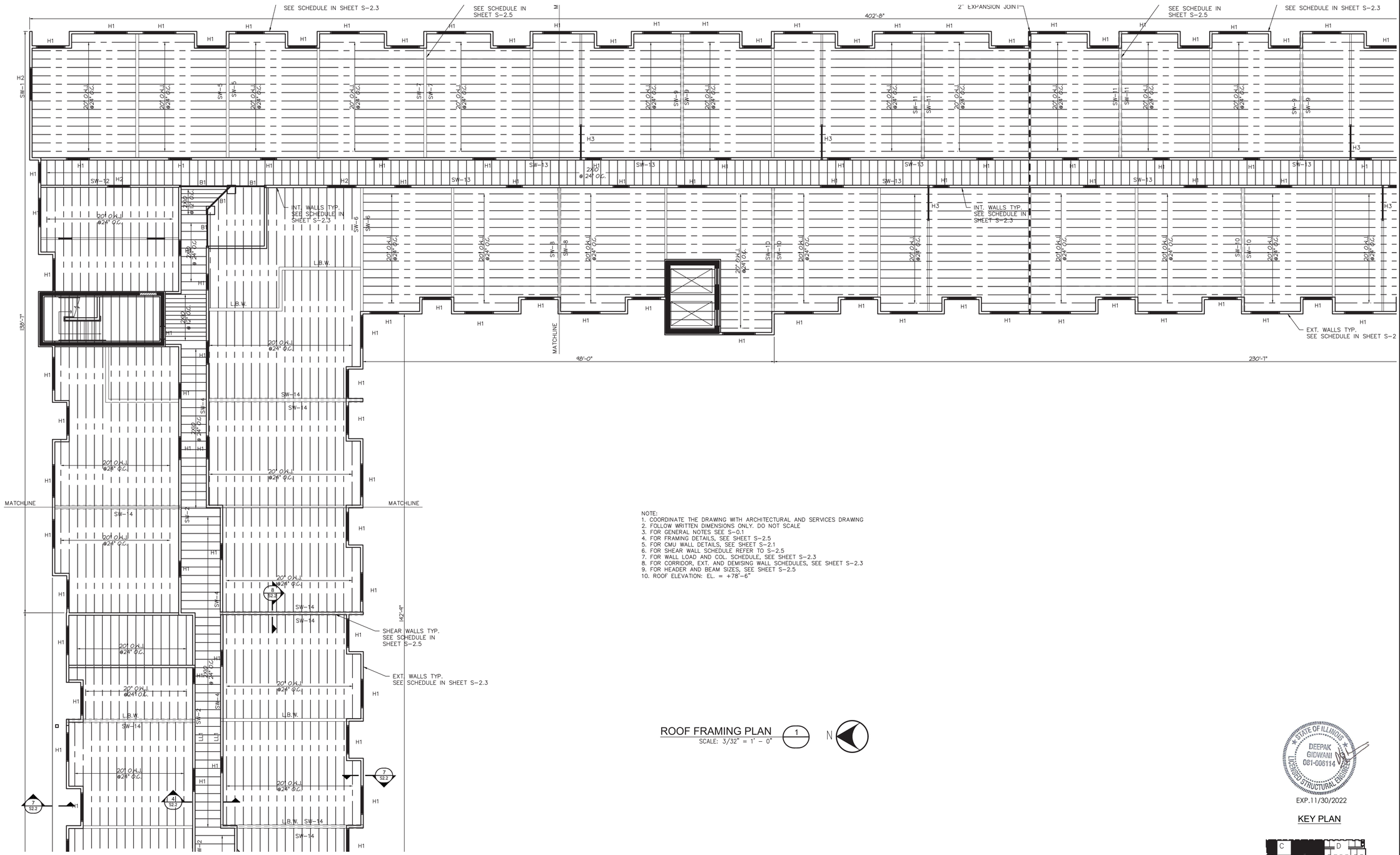
Issue Date: -
Drawn By: PRC

Sheet: ROOF FRAMING PLAN PART B

PROJECT NUMBER
1609

S-1.5B

© DGI STRUCTURAL ENGINEERING LLC



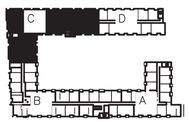

NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR FRAMING DETAILS, SEE SHEET S-2.5
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR SHEAR WALL SCHEDULE REFER TO S-2.5
7. FOR WALL LOAD AND COL. SCHEDULE, SEE SHEET S-2.3
8. FOR CORRIDOR, EXT. AND DEMISING WALL SCHEDULES, SEE SHEET S-2.3
9. FOR HEADER AND BEAM SIZES, SEE SHEET S-2.5
10. ROOF ELEVATION: EL. = +78'-6"

ROOF FRAMING PLAN (1)
SCALE: 3/32" = 1' - 0"

N

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:AC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
TP: (708) 668-1360

PROJECT DESCRIPTION:
**FOUNDATION AND STRUCTURAL FRAMING PLANS**

PROJECT NAME:
# GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

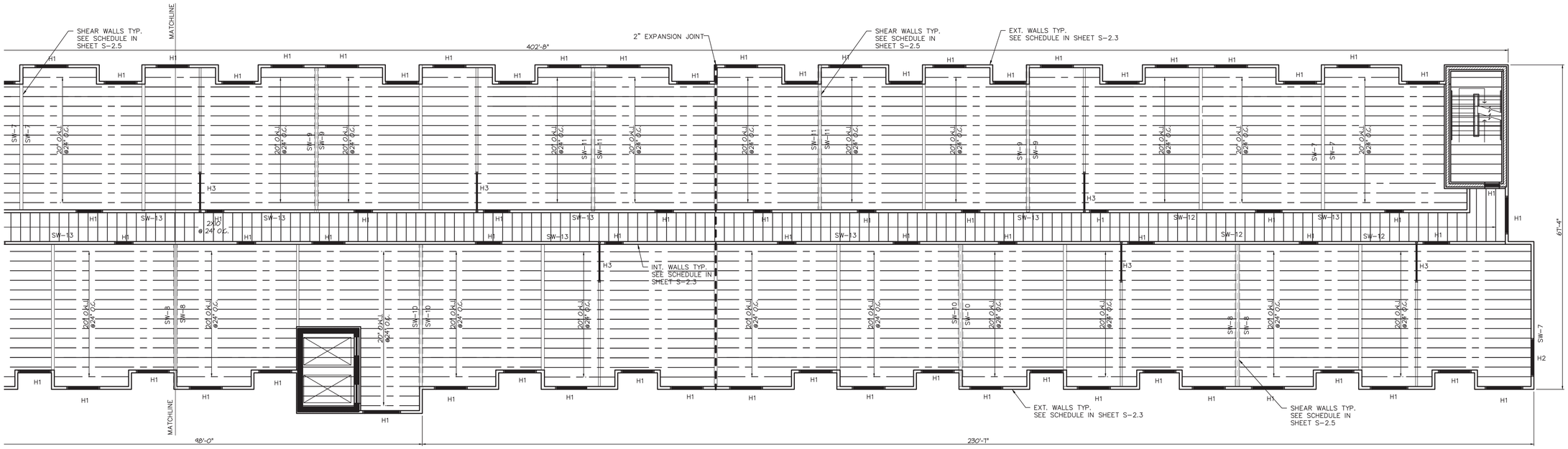
Issue Date: -
Drawn By: PRC

Sheet:
## ROOF FRAMING PLAN PART C

PROJECT NUMBER
1609

S-1.5C

© DG STRUCTURAL ENGINEERING, LLC




NOTE:
1. COORDINATE THE DRAWING WITH ARCHITECTURAL AND SERVICES DRAWING
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE
3. FOR GENERAL NOTES SEE S-0.1
4. FOR FRAMING DETAILS, SEE SHEET S-2.5
5. FOR CMU WALL DETAILS, SEE SHEET S-2.1
6. FOR SHEAR WALL SCHEDULE REFER TO S-2.5
7. FOR WALL LOAD AND COL. SCHEDULE, SEE SHEET S-2.3
8. FOR CORRIDOR, EXT. AND DEMISING WALL SCHEDULES, SEE SHEET S-2.3
9. FOR HEADER AND BEAM SIZES, SEE SHEET S-2.5
10. ROOF ELEVATION: EL. = +78'-6"

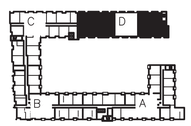
ROOF FRAMING PLAN (1)
SCALE: 3/32" = 1' - 0"

N

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER

EXP.11/30/2022

KEY PLAN




MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:
JAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-1360

PROJECT DESCRIPTION:
**FOUNDATION AND STRUCTURAL FRAMING PLANS**

PROJECT NAME:
# GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

Issue Date: -
Drawn By: PRC

Sheet:
## ROOF FRAMING PLAN PART D

PROJECT NUMBER
1609

S-1.5D

© DG STRUCTURAL ENGINEERING, LLC

3RD FLOOR LOADING PLAN
SCALE: 3/32" = 1' - 0"

N

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:AC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 567-1360

- PROJECT DESCRIPTION: FOUNDATION AND STRUCTURAL FRAMING PLANS
- PROJECT NAME: GARDEN STATION APARTMENTS
- ADDRESS: ARDMORE AVE / VERMONT STREET VILLA PARK, ILLINOIS

Issue Date: .
Drawn By: PRC

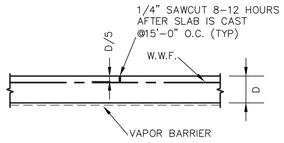
Sheet:

# 3RD FLOOR LOADING PLAN

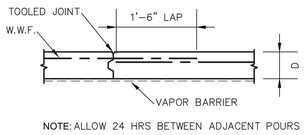
PROJECT NUMBER
1609

S-1.6

© DG STRUCTURAL ENGINEERING LLC

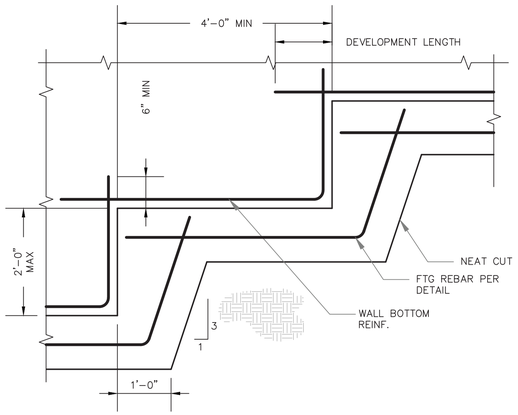



## TYP CONTROL. JOINT (1)
SCALE: 3/4" = 1'–0"

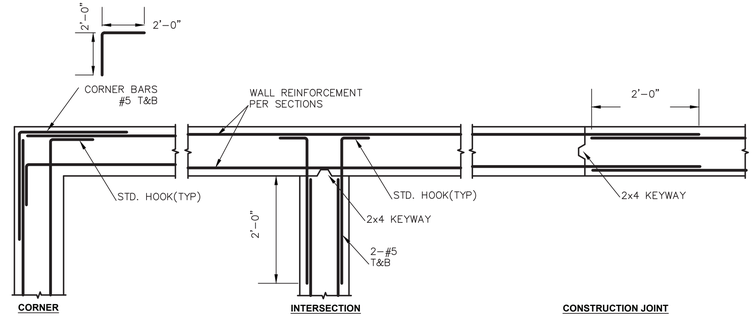



NOTE: ALLOW 24 HRS BETWEEN ADJACENT POURS

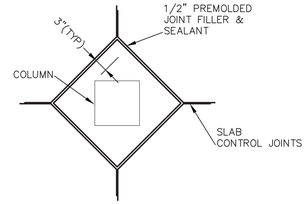
## TYP CONST. JOINT (2)
SCALE: 3/4" = 1'–0"



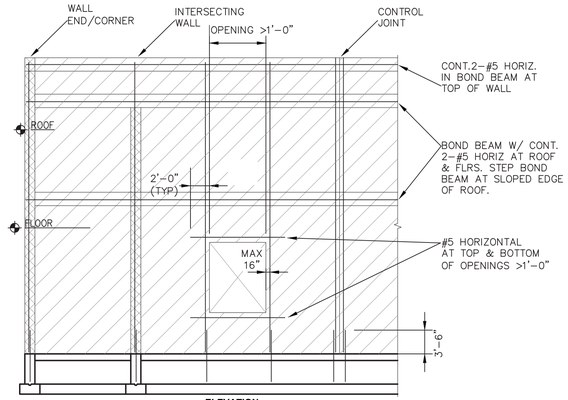

## TYP STEPPED FTG DET (3)
SCALE: 3/4" = 1'–0"



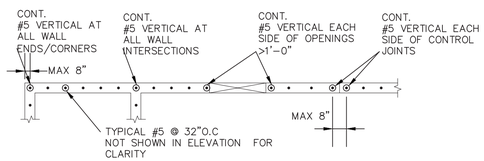

## TYP FOUNDN WALL JN. DETAILS (4)
SCALE: 3/4" = 1'–0"




## TYP. COL. ISOLATION JNT. (5)
SCALE: 3/4" = 1'–0"



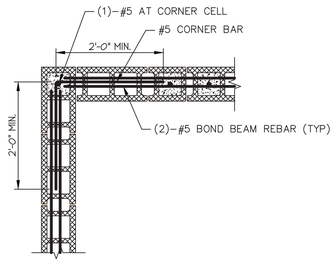

ELEVATION



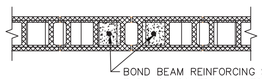

PLAN

## TYP. MASONRY REINF. DETAIL (6)
SCALE: 3/4" = 1'–0"

NOTE:
1. PROVIDE FACE SHELL MORTAR BEDDING TYPICAL
2. GROUT ALL CELLS HAVING VERTICAL REINFORCEMENT
3. SEE SHEET 1 FOR GENERAL MASONRY NOTES



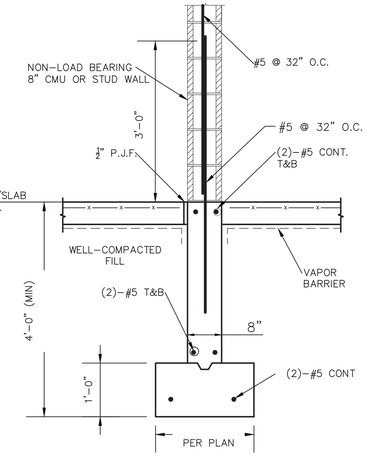

## CMU WALL CORNER JOINTS (7A)
SCALE: 3/4" = 1'–0"



BOND BEAM REINFORCING SHALL BE CONTINUOUS THROUGH CONTROL JOINTS. REF. ARCH. DRGS. FOR LOCATION OF CONTROL JOINTS. PROVIDE VERT WALL REINF. IN FIRST CELL EACH SIDE OF CONTROL JOINT AND AT CORNER. SIZE BARS TO MATCH VERT. WALL REINF. SCHEDULED.

NOTES:
1. DO NOT PLACE CONTROL JOINTS IN LINE WITH BEAM OR JOIST BEARING LOCATIONS, U.N.O.
2. CMU, GROUT AND JOINT REINF SHALL BE DISCONTINUOUS AT CONTROL JOINTS DOWN TO TOP OF FOOTING OR CONC STEM WALL. DO NOT LOCATE CONTROL JOINT WHITHIN 2'–0" OF OPENINGS, U.N.O.

## CMU WALL CONTROL JOINTS (7B)
SCALE: 3/4" = 1'–0"




## CMU WALL FNDN DETAIL (8)
SCALE: 3/4" = 1'–0"

### MASONRY WALL REINFORCEMENT SCHEDULE

| | STAIR WALLS | ELEVATOR WALLS | NON–BEARING WALLS | |
|---|---|---|---|---|
| ROOF TO 4TH FLOOR | #5 @ 48" O.C. | #5 @ 48" O.C. | – | |
| 3RD FLOOR TO 1ST FLOOR | #5 @ 24" O.C. | #5 @ 24" O.C. | #5 @ 32" O.C. | |
| FOUNDATION DOWELS | #5 @ 24" O.C. | #5 @ 24" O.C. | #5 @ 32" O.C. | |

NOTES: REFER TO GENERAL NOTES ON S–0.1.
REFER TO ARCHITECTURAL DWGS FOR WALL LOCATIONS.
REFER TO DETAILS ON S–2.1 FOR ADDITIONAL REINF.
THE REINFORCMENT SHOWN IS FOR THE WALLS ABOVE INDICATED FLOORS.
THE DOWELS ARE 2'–0" INTO FOUNDATION WALL, WITH 3'–0" OVERLAP AT MASONRY WALL.

EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
M: (708) 668-2982

FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME: GARDEN STATION APARTMENTS

ADDRESS: ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

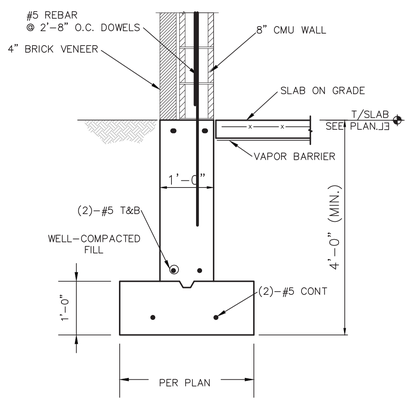
Issue Date: MAY 17 2016
Drawn By: BC
Sheet:

# FOUNDATION DETAILS

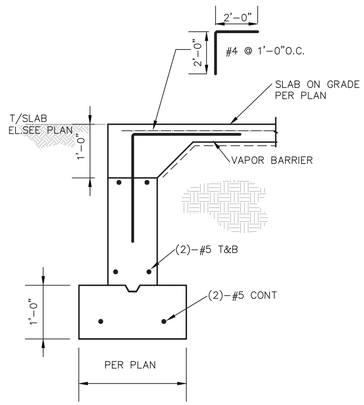
PROJECT NUMBER
1609

S-2.1

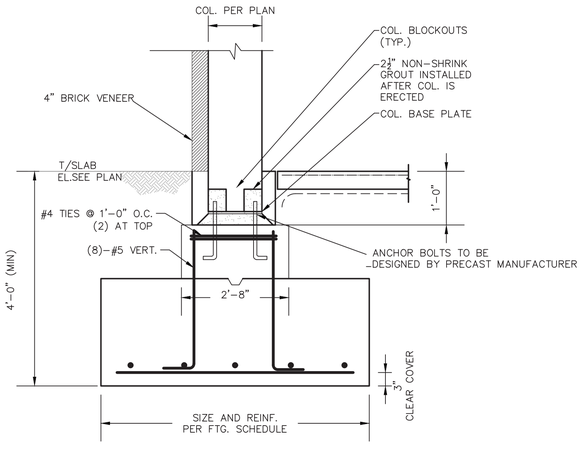
© DG STRUCTURAL ENGINEERING LLC



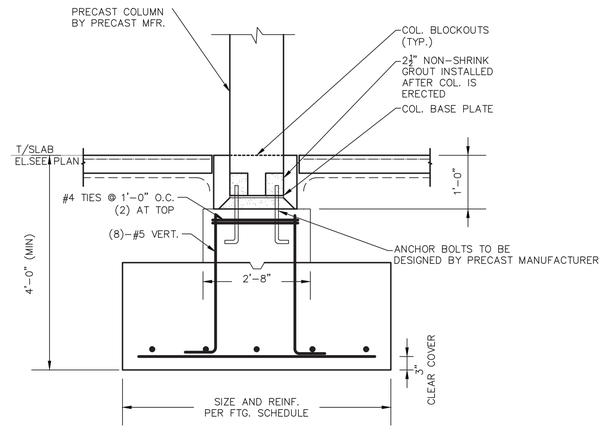

EXT. CMU WALL FTG. 1
SCALE: 3/4" = 1'-0"



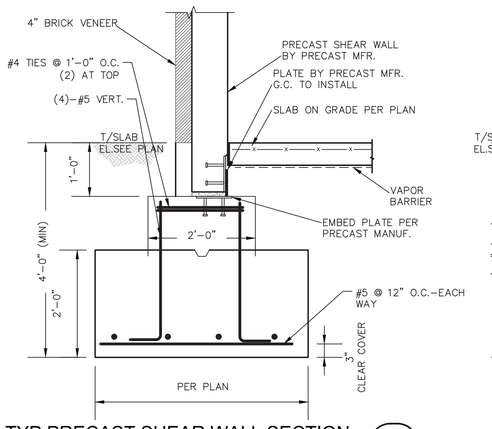

EXT. WALL FTG. AT DOOR 2
SCALE: 3/4" = 1'-0"



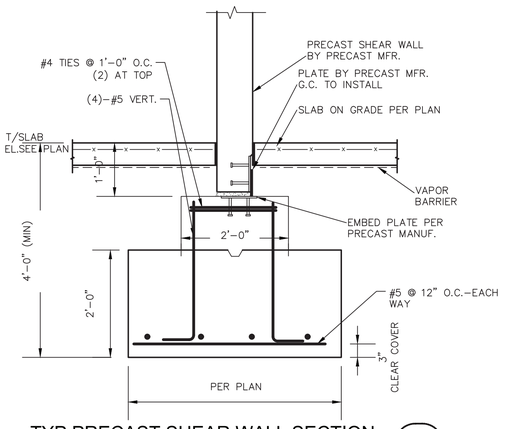

TYP. PC COLUMN BRG. 3
SCALE: 3/4" = 1'-0"



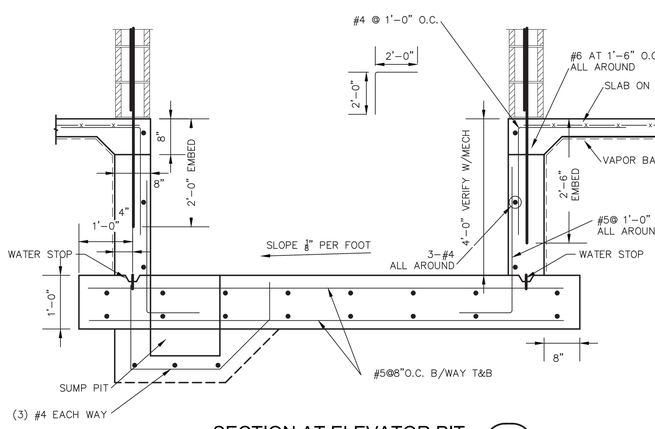

TYP. PC COLUMN BRG. 4
SCALE: 3/4" = 1'-0"



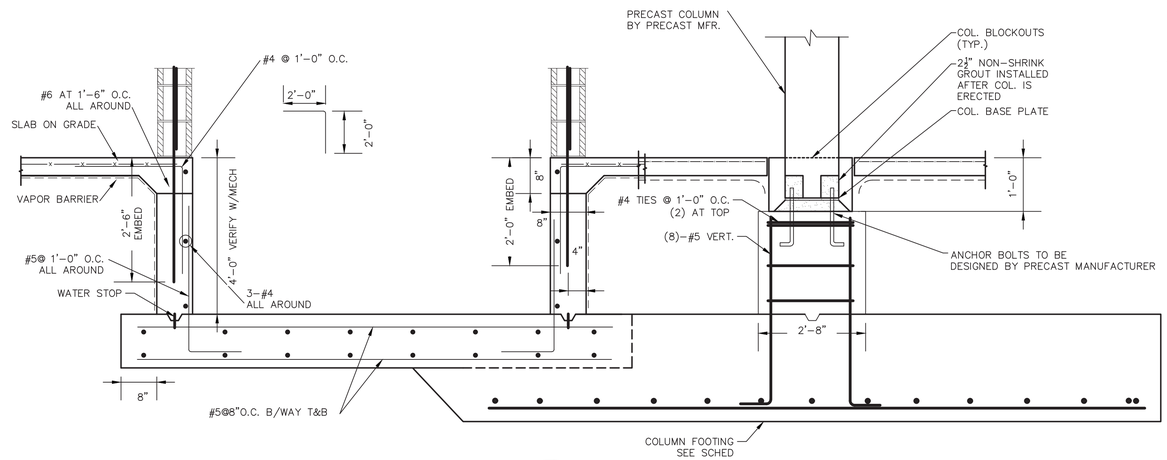

TYP PRECAST SHEAR WALL SECTION 5
SCALE: 3/4" = 1'-0"



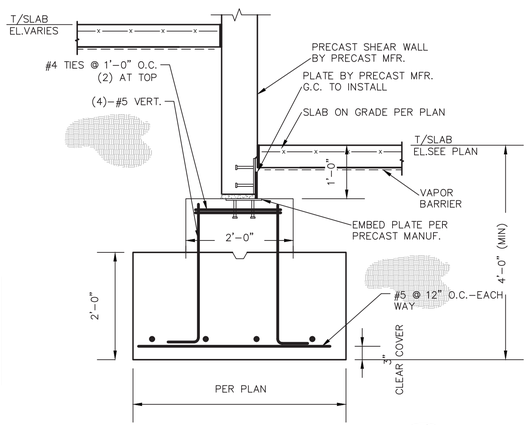

TYP PRECAST SHEAR WALL SECTION 6
SCALE: 3/4" = 1'-0"



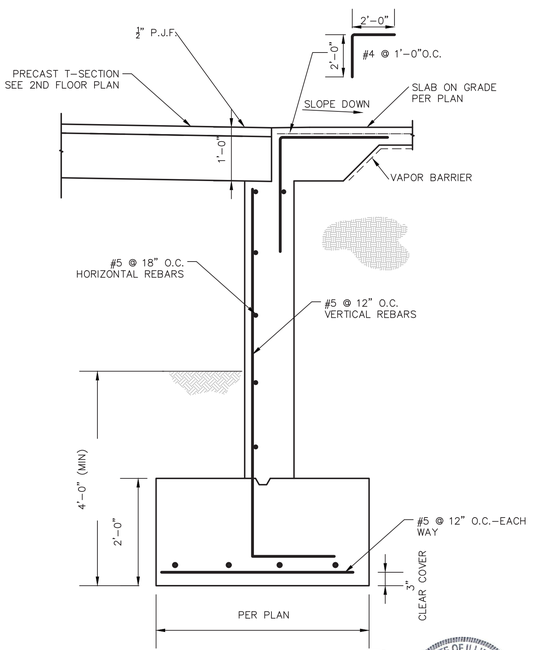

SECTION AT ELEVATOR PIT 7
SCALE: 3/4" = 1'-0"




SECTION AT ELEVATOR PIT 8
SCALE: 3/4" = 1'-0"




RAMP SECTION 9
SCALE: 3/4" = 1'-0"




RAMP SECTION 10
SCALE: 3/4" = 1'-0"

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR:AC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
V: (708) 687-2961

FOUNDATION AND STRUCTURAL FRAMING PLANS

PROJECT NAME:
GARDEN STATION APARTMENTS

ADDRESS:
ARDMORE AVE / VERMONT STREET
VILLA PARK, ILLINOIS

Issue Date: MAY 17 2016
Drawn By: BC

Sheet:
FOUNDATION DETAILS

PROJECT NUMBER
1609

S-2.2

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

© DG STRUCTURAL ENGINEERING LLC

## FOOTING SCHEDULE

| MARK | SIZE (MIN) | THICKNESS (MIN) | REBAR | REMARKS |
|---|---|---|---|---|
| F5 | 5'-0"x5'-0" | 1'-0" | (4)-#5 E.W.B. | |
| F6 | 6'-0"x6'-0" | 1'-3" | (6)-#5 E.W.B. | |
| F7 | 7'-0"x7'-0" | 1'-6" | (8)-#5 E.W.B. | |
| F11 | 11'-0"x11'-0" | 2'-2" | (10)-#7 E.W.B. | |
| F13 | 13'-0"x13'-0" | 2'-6" | (13)-#7 E.W.B. | |
| F14 | 14'-0"x14'-0" | 2'-7" | (12)-#8 E.W.B. | |
| F15 | 15'-0"x15'-0" | 3'-0" | (11)-#9 E.W.B. | |
| F16 | 16'-0"x16'-0" | 3'-0" | (12)-#9 E.W.B. | |
| F17 | 17'-0"x17'-0" | 3'-0" | (14)-#9 E.W.B. | |
| | | | | |

NOTES: NET SOIL BEARING CAPACITY = 3000 PSF
REFER TO GEOTECHNICAL REPORT.
REFER TO GENERAL NOTES FOR MINIMUM COVER REQUIREMENT.
ALL LAPS IN STEEL REINFORCING SHALL BE CLASS "B" LAP SPLICES UNLESS NOTED OTHERWISE.

## PRECAST COLUMN

| MARK | SIZE | | REMARKS |
|---|---|---|---|
| PC1 | 2'-0"x2'-0" | | |
| PC2 | 0'-8"x2'-0" | | |
| PC3 | 0'-8"x2'-6" | | |
| PC4 | 0'-8"x4'-0" | | |
| PC5 | 0'-8"x6'-1" | | |
| PC6 | 0'-8"x6'-3" | | |

NOTES: PRECAST MANUFACTURER TO DESIGN AND PROVIDE SHOP DRAWINGS.
PRECAST MANUFACTURER TO DESIGN THE CONNECTION OF COLUMNS /FLOORS/FOUNDATION.
REFER TO GENERAL NOTES ON S0.0

## PRECAST SHEAR WALL

| MARK | AXIAL LOAD (KIPS/FT) (4TH FLR & ABOVE) | SHEAR FORCE (KIPS) | | REMARKS |
|---|---|---|---|---|
| | | 3RD FLOOR | 2ND FLOOR | |
| PSW-1A | 1.2 | 138 | 49 | |
| PSW-2A | 1.2 | 138 | 49 | |
| PSW-3A | 1.2 | 138 | 49 | |
| PSW-4A | 1.2 | 98 | 35 | |
| PSW-5A | – | 98 | 35 | |
| PSW-6A | 1.2 | 98 | 35 | |
| PSW-7A | 10.5 | 78 | 28 | |
| PSW-8A | 10.5 | 78 | 28 | |
| PSW-9A | 1.2 | 142 | 49 | |
| PSW-10A | 1.2 | 142 | 49 | |
| PSW-11A | 2.3 | 136 | 51 | |
| PSW-12A | 1.2 | 136 | 51 | |
| PSW-1B | 1.2 | 61 | 24 | |
| PSW-2B | – | 61 | 24 | |
| PSW-3B | 1.2 | 61 | 24 | |
| PSW-4B | 1.2 | 70 | 27 | |
| PSW-5B | – | 70 | 27 | |
| PSW-6B | 1.2 | 70 | 27 | |
| PSW-7B | 1.2 | 89 | 35 | |
| PSW-8B | – | 108 | 42 | |
| PSW-9B | 1.2 | 105 | 41 | |
| PSW-10B | 1.2 | 105 | 41 | |
| PSW-11B | 10.5 | 98 | 38 | *EARTH LATERAL PRESSURE |
| PSW-12B | 10.5 | 98 | 38 | *EARTH LATERAL PRESSURE |

NOTES: SHEAR FORCE SHOWN IS FOR SEISMIC WITH 0.7E.
AXIAL LOAD SHOWN IS ONLY FROM FLOORS 4, 5, 6, 7 & ROOF.
PRECAST MANUFACTURER TO DESIGN AND PROVIDE SHOP DRAWINGS.
PRECAST MANUFACTURER TO DESIGN THE CONNECTION OF SHEAR WALLS WITH COLUMNS/FLOORS/FOUNDATION.
REFER TO GENERAL NOTES ON S0.0

## WALL LOAD SCHEDULE

| MARK | DEAD LOAD (K/FT) | LIVE LOAD (K/FT) | TOTAL LOAD (K/FT) |
|---|---|---|---|
| WL-1 | 2.2 | 1.8 | 4.00 |
| WL-2 | 0.8 | 0.2 | 1.00 |
| WL-3 | 1.1 | 1.45 | 2.55 |
| WL-5 | 3.7 | 3.8 | 7.50 |
| WL-6 | 4.1 | 4.2 | 8.30 |
| WL-7 | 2.8 | 2.7 | 5.50 |
| WL-8 | 2.4 | 2.15 | 4.55 |
| WL-9 | 2.9 | 2.85 | 5.75 |
| WL-10 | 2.26 | 1.89 | 4.10 |

NOTES: PRECAST FLOOR TO BE DESIGNED FOR WALL LOAD AS SHOWN BY PRECAST MFR.

## WOOD STUD WALL

| | EXTERIOR BEARING WALL | EXTERIOR NON-BEARING WALL | INTERIOR DEMISING WALL | CORRIDOR WALL |
|---|---|---|---|---|
| 7TH FLOOR | 2x6 SPF #1/#2 @ 16" O.C. | 2x6 SPF #1/#2 @ 16" O.C. | 2x4 SPF #1/#2 @ 16" O.C. | 2x6 SPF #1/#2 @ 16" O.C. |
| 6TH FLOOR | 2x6 SPF #1/#2 @ 16" O.C. | 2x6 SPF #1/#2 @ 16" O.C. | 2x4 SPF #1/#2 @ 16" O.C. | 2x6 SPF #1/#2 @ 16" O.C. |
| 5TH FLOOR | 2x6 SPF #1/#2 @ 16" O.C. | 2x6 SPF #1/#2 @ 16" O.C. | DOUBLE 2x4 SPF #1/#2 @ 16" O.C. | 2x6 SPF #1/#2 @ 16" O.C. |
| 4TH FLOOR | 2x6 DFL #1 @ 16" O.C. | 2x6 DFL #1 @ 16" O.C. | DOUBLE 2x4 DFL #1 @ 16" O.C. | 2x6 DFL #1 @ 16" O.C. |
| 3RD FLOOR | 2x6 DFL #1 @ 16" O.C. | 2x6 DFL #1 @ 16" O.C. | DOUBLE 2x4 DFL #1 @ 16" O.C. | 2x6 DFL #1 @ 16" O.C. |

NOTES: REFER TO GENERAL NOTES ON S-0.1.
REFER TO ARCHITECTURAL DWGS FOR WALL CONSTRUCTION INCLUDING INSULATION, SHEATHING, ETC.
REFER TO DETAILS ON S-2.5.

## SPECIAL INSPECTION SCHEDULE

PER IBC CHAPTER 17

| ITEMS | CONTINUOUS INSPECTION | PERIODIC INSPECTION | COMMENTS |
|---|---|---|---|
| SOILS | | | |
| GRADING, EXCAVATION & FILL | | | BY GEOTECHNICAL ENGINEER |
| FINAL FOUNDATION PREPARATION | | | BY GEOTECHNICAL ENGINEER |
| | | | |
| CONCRETE | | | |
| REINFORCING PLACEMENT | | X | |
| REINFORCING WELDING | X | | |
| REINFORCING COUPLING | X | X | REF. NOTE 5 |
| ANCHOR BOLTS & INSERTS | | X | |
| FORMWORK | | X | |
| PREPARATION OF TEST SPECIMENS | X | | |
| CONCRETE PLACEMENT | X | | |
| ADHESIVE ANCHOR PLACEMENT | X | | REF. NOTE 6 |
| EXPANSION ANCHOR PLACEMENT | X | | REF. NOTE 6 |
| UNDERCUT ANCHOR PLACEMENT | X | | REF. NOTE 6 |
| EMBEDDED STEEL ITEMS | X | | |
| CURING | | X | |
| | | | |
| STRUCTURAL STEEL | | | |
| FABRICATION & ERECTION | X | | REF. NOTE 7 |
| HIGH STRENGTH BOLTING | X | | REF. NOTE 8 |
| SINGLE PASS FILLET WELDS </= 5/16" | X | | REF. NOTE 9 |
| ALL OTHER FILLET WELDS | X | | REF. NOTE 9 |
| PARTIAL/COMPLETE PENETRATION WELD | X | | REF. NOTE 10 |
| | | | |
| OTHER WELDING | | | |
| WELDING OF ANCHORS AND STUDS | X | | |
| WELDING-STAIRS/RAILING SYSTEMS | | X | |
| METAL DECK WELDING | X | | |
| LIGHT GAUGE METAL FRAMING WELDING | | X | |
| | | | |
| PREFABRICATED CONSTRUCTION | | | REF. NOTE 4 |
| PRECAST CONCRETE ERECTION | | X | |
| | | | |
| WOOD | | | |
| PREFABRICATION & ERECTION | X | | |
| NAILING, BOLTING & OTHER FASTENING OF SHEAR WALLS | X | | |
| INFILLS WITH NAIL SPACING<=4" O.C. | X | | |

### INSPECTION SCHEDULE NOTES:

1. THE ITEMS CHECKED WITH AN "X" SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTOR FROM AN APPROVED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO PROJECT SPECIFICATIONS, THE STRUCTURAL NOTES AND THE NOTES BELOW. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ARCHITECT, ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET THE PROJECT SPECIFICATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS. INSPECTION AND TESTING REQUIREMENTS FOR SYSTEMS DESIGNED BY OTHERS SHALL BE DEFINED BY THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THEIR DESIGN, EXCEPT THAT THE INSPECTION REQUIREMENTS SHALL NOT BE LESS THAN SPECIFIED IN THIS SCHEDULE.
2. SPECIAL INSPECTION IS NOT REQUIRED FOR WORK PERFORMED BY AN APPROVED FABRICATOR PER IBC SECTION 1704.2.2.
3. CONTINUOUS SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON THE SITE AT ALL TIMES OBSERVING THE WORK REQUIRING SPECIAL INSPECTION (IBC 1702). PERIODIC SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON SITE AT TIME INTERVALS NECESSARY TO CONFIRM THAT ALL WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE.
4. INSPECTION FOR PREFABRICATED CONSTRUCTION SHALL BE THE SAME AS IF THE MATERIAL USED IN THE CONSTRUCTION TOOK PLACE ON SITE. CONTINUOUS INSPECTION WILL NOT BE REQUIRED DURING PREFABRICATION IF THE APPROVED AGENCY CERTIFIES THE CONSTRUCTION AND FURNISHES EVIDENCE OF COMPLIANCE.
5. CONTINUOUS INSPECTION IS REQUIRED FOR INSTALLATION OF COUPLERS. PERIODIC INSPECTION MAY BE USED FOR VERIFICATION OF COUPLER MATERIALS.
6. INSPECTION OF DRILLED CONCRETE ANCHORS, INCLUDING UNDERCUT, EXPANSION AND ADHESIVE GROUTED ANCHORS, SHALL INCLUDE VISUAL VERIFICATION ANCHOR TYPE AND DIMENSIONS, OF DRILLED HOLE DEPTH, SPACING, EDGE DISTANCES, HOLE CLEANING, ANCHOR EMBEDMENT AND TIGHTENING TORQUE. FOR GROUTED ANCHORS, GROUT INSTALLATION SHALL BE OBSERVED AND GROUT PRODUCT SPECIFICATION AND PREPARATION SHALL BE VERIFIED.
7. INSPECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH IBC SECTION 1704.3. THE STEEL FRAME SHALL BE INSPECTED FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS INCLUDING BRACING, STIFFENING, MEMBER LOCATIONS AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION.
8. INSPECTION OF BOLT INSTALLATION FOR PRETENSIONING IS PERMITTED TO BE PERFORMED ON A PERIODIC BASIS WHEN USING THE TURN-OF-NUT METHOD WITH MATCHMARKING TECHNIQUES, THE DIRECT TENSION INDICATOR METHOD, OR THE ALTERNATE DESIGN FASTENER (TWIST-OFF BOLT) METHOD. JOINTS DESIGNATED AS SNUG TIGHT NEED ONLY PERIODIC INSPECTION.
9. ALL WELDS SHALL BE VISUALLY INSPECTED.
10. ALL COMPLETE PENETRATION WELDS SHALL BE TESTED ULTRASONICALLY OR BY USING ANOTHER APPROVED METHOD.
11. EFFECTIVE WIND AREA AT -10sf.
12. WIND PRESSURES ARE ULTIMATE LOADS.

STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021
Revised Per Comments:
July 06 2021

PREPARED FOR:TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
75 EXECUTIVE DR. SUITE 127, AURORA, IL 60504
V: (708) 668-1360

■ FOUNDATION AND STRUCTURAL FRAMING PLANS
■ PROJECT NAME: GARDEN STATION APARTMENTS
■ ADDRESS: ARDMORE AVE / VERMONT STREET VILLA PARK, ILLINOIS

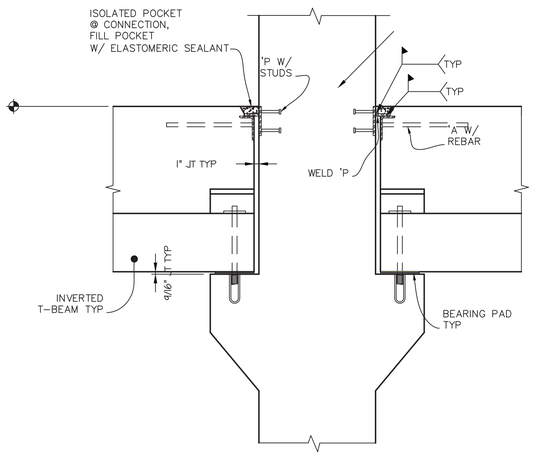
Issue Date: MAY 17 2016
Drawn By: BC
Sheet:

SCHEDULES

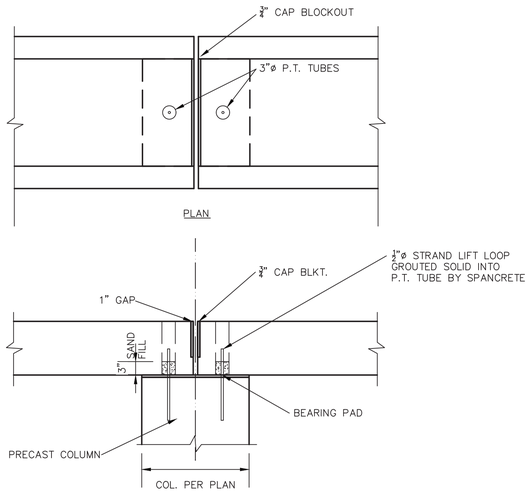
PROJECT NUMBER
1609

S-2.3

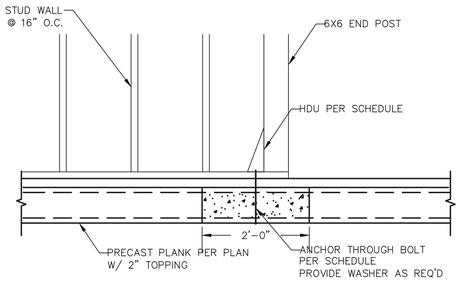
© DG STRUCTURAL ENGINEERING LLC



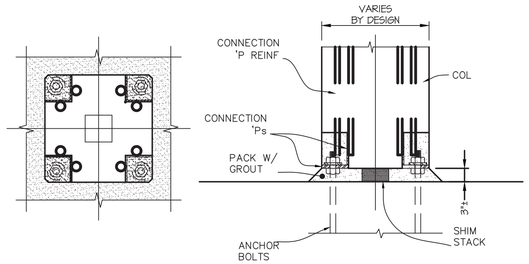

## TYP. PC BEAM BRG AT 2ND FLR 1
SCALE: 3/4" = 1'-0"



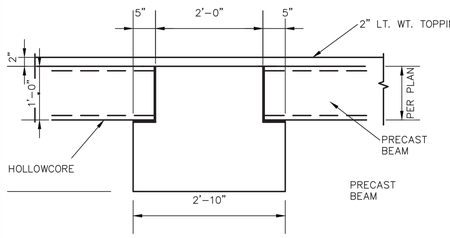

## TYP. PC BEAM BRG AT 3RD FLR 2
SCALE: 3/4" = 1'-0"



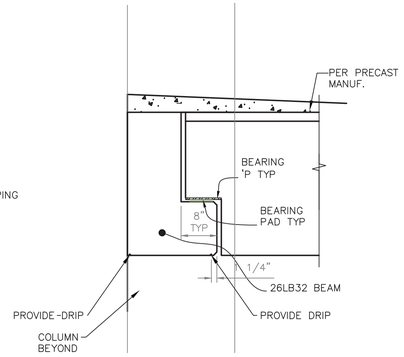

## INTERIOR SHEAR WALL END POST DETAIL 3
SCALE: 3/4" = 1'-0"




## COL. BASE (ANCHOR BOLT CONN.) 4
SCALE: 3/4" = 1'-0"

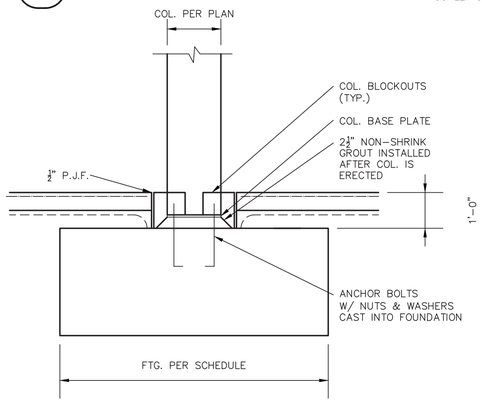



## PC PLANK BRG ON BEAM 5
SCALE: 3/4" = 1'-0"

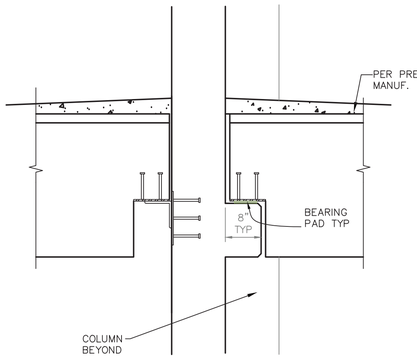



NOTE: PRECASTER SHALL DESIGN SPANDREL BEAMS FOR VEHICLE BARRIER LOADS IN ACCORDANCE WITH BUILDING CODEAT LOCATIONS INDICATED IN PLAN.

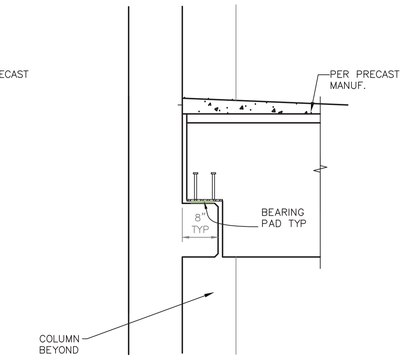
## DOUBLE TEE TO EXT. GIRDER 6
SCALE: 3/4" = 1'-0"



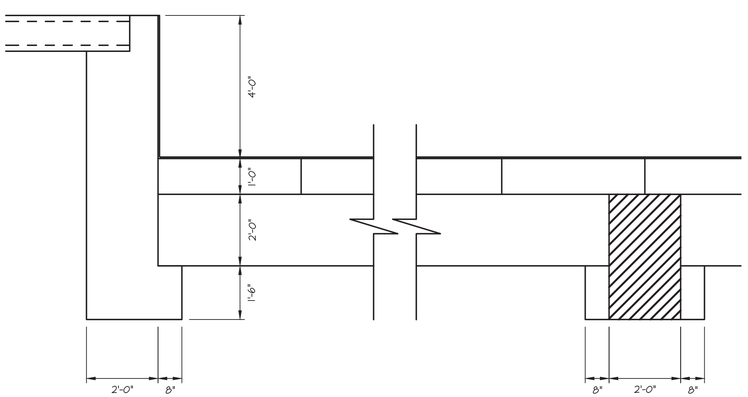

## TYP. PC COLUMN BRG. 7
SCALE: 3/4" = 1'-0"



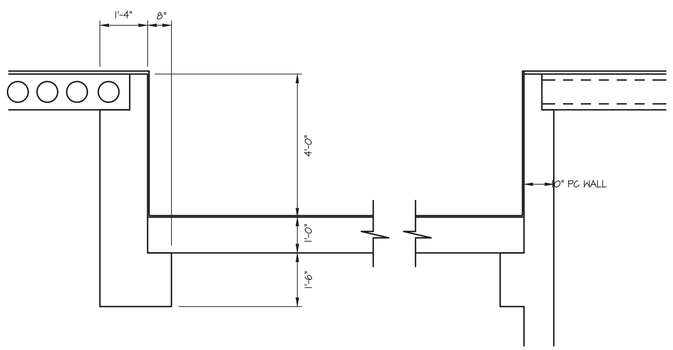

## DOUBLE TEE TO INT. PC WALL 8
SCALE: 3/4" = 1'-0"




## DOUBLE TEE TO EXT. PC WALL 9
SCALE: 3/4" = 1'-0"




## POOL SECTION 10
SCALE: 1/2" = 1' - 0"




## POOL SECTION 11
SCALE: 1/2" = 1' - 0"




## POOL SECTION 12
SCALE: 1/2" = 1' - 0"

© DG STRUCTURAL ENGINEERING LLC

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR TAC CONSTRUCTION
BY

DG STRUCTURAL ENGINEERING LLC
73 EXECUTIVE DR. SUITE 727 AURORA, IL 60504
V (331) 681-5263

- FOUNDATION AND STRUCTURAL FRAMING PLANS
- PROJECT NAME: GARDEN STATION APARTMENTS
- ADDRESS: ARDMORE AVE / VERMONT STREET VILLA PARK, ILLINOIS

Issue Date: MAY 17 2016
Drawn By: BC

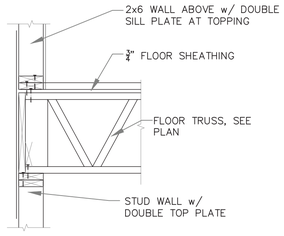
Sheet:

# PRECAST DETAILS

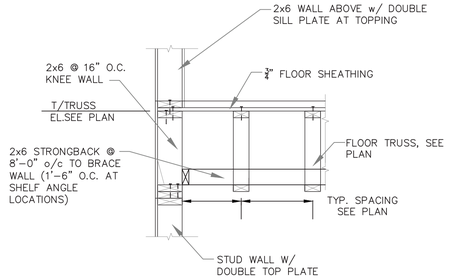
PROJECT NUMBER
1609

S-2.4

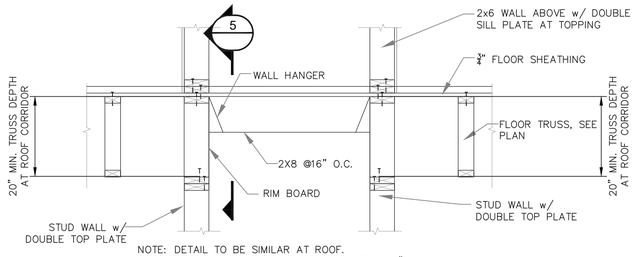
STATE OF ILLINOIS
DEEPAK GIDWANI
081-006114
LICENSED STRUCTURAL ENGINEER
EXP.11/30/2022




## TYP JOIST BRG DETAIL (1)
SCALE: 3/4" = 1'-0"

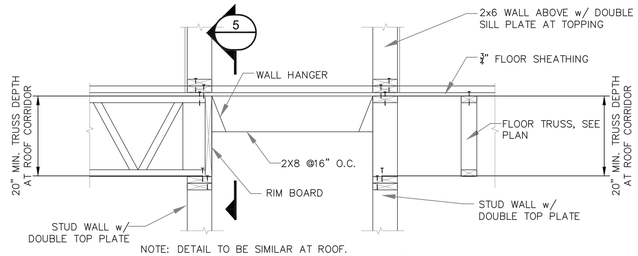



## KNEE WALL PAR'L'L TO JOIST (2)
SCALE: 3/4" = 1'-0"

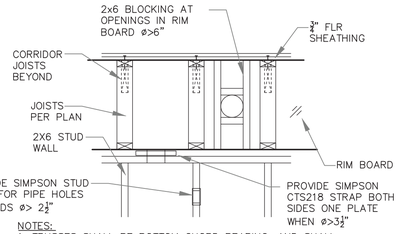



NOTE: DETAIL TO BE SIMILAR AT ROOF. DEPTH OF ROOF TRUSS AT CORRIDOR= 20" MIN. ¼"/FT SLOPE AT ROOF TRUSSES.

## SECTION AT CORRIDOR (4)
SCALE: 3/4" = 1'-0"

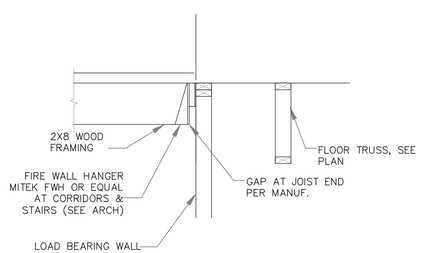



NOTE: DETAIL TO BE SIMILAR AT ROOF. DEPTH OF ROOF TRUSS AT CORRIDOR= 20" MIN. ¼"/FT SLOPE AT ROOF TRUSSES.

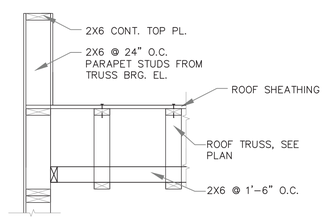



NOTES:
1. TRUSSES SHALL BE BOTTOM CHORD BEARING, AND SHALL BEAR DIRECTLY ON WALL STUDS.
2. ALLIGN CORRIDOR JOISTS W/ TRUSSES.
3. PROVIDE 2x6 BLOCKING AT OPENINGS IN RIM BOARD >3"ø.

## TRUSS & JOIST LAYOUT, PIPE OPENINGS (5)
SCALE: 3/4" = 1'-0"

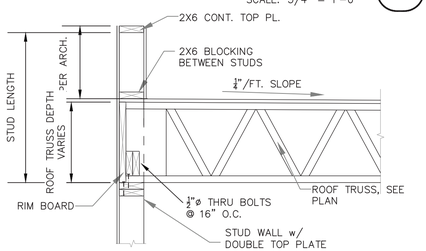



## SECTION (6)
SCALE: 3/4" = 1'-0"

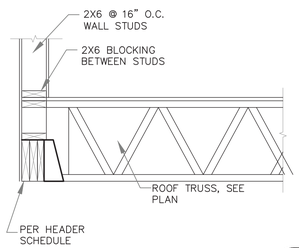



NOTE: SHELF ANGLE & BLOCKING ONLY AT LOCATIONS SHOWN IN PLAN

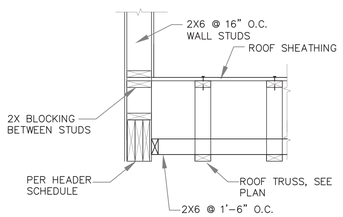
## PARAPET PAR'L'L TO JOIST (7)
SCALE: 3/4" = 1'-0"




## PARAPET @ TRUSS BRG (8)
SCALE: 3/4" = 1'-0"




## JOIST BRG @ FLR HEADER (9)
SCALE: 3/4" = 1'-0"




## KNEE WALL @ FLR HEADER (10)
SCALE: 3/4" = 1'-0"

## WOOD SHEARWALL SCHEDULE

| MARK | FLOOR | LENGTH | END POST-EACH SIDE | AXIAL TENSION (LB) | HOLDDOWN ANCHORS/ STRAPS | SHEATHING | NAILING | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | EDGES | INT FRAMING |
| SW-1 | 7TH, 6TH & 5TH FLOOR | 14'-0" | (2) 2x4 | – | MST48 | 19/32 WSP SHEATHING (2-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x5¼ PSL | 934 | MST48 | 19/32 WSP SHEATHING (2-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x7 PSL | 3063 | HDU8 | 19/32 WSP SHEATHING (2-SIDE) | 10d @ 6" | 10d @ 12" |
| SW-2 | 7TH, 6TH & 5TH FLOOR | 20'-9" | (2) 2x4 | 976 | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x5¼ PSL | 2688 | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x7 PSL | 5095 | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| SW-3 | 7TH, 6TH & 5TH FLOOR | 18'-0" | (2) 2x4 | 788 | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x3½ PSL | 2229 | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x5¼ PSL | 4259 | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| SW-4 | 7TH, 6TH & 5TH FLOOR | 20'-0" | (2) 2x4 | 581 | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x3½ PSL | 1953 | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x5¼ PSL | 3913 | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| SW-5 | 7TH, 6TH & 5TH FLOOR | 30'-0" | (2) 2x4 | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x3½ PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x5¼ PSL | – | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| SW-6 | 7TH, 6TH & 5TH FLOOR | 30'-0" | (2) 2x4 | 2402 | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x3½ PSL | 4931 | MST60 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x5¼ PSL | 8324 | HDU14 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| SW-7 | 7TH, 6TH & 5TH FLOOR | 30'-0" | (2) 2x4 | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x5¼ PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x7 PSL | – | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| SW-8 | 7TH, 6TH & 5TH FLOOR | 30'-0" | (2) 2x4 3½x5¼ PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x7 PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x7 PSL | 1245 | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 4" | 10d @ 12" |
| SW-9 | 7TH, 6TH & 5TH FLOOR | 30'-0" | (2) 2x4 3½x5¼ PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x7 PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x7 PSL | 1245 | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 4" | 10d @ 12" |
| SW-10 | 7TH, 6TH & 5TH FLOOR | 30'-0" | (2) 2x4 3½x5¼ PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x7 PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x7 PSL | 3408 | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 4" | 10d @ 12" |
| SW-11 | 7TH, 6TH & 5TH FLOOR | 30'-0" | (2) 2x4 3½x5¼ PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x7 PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x7 PSL | 2473 | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 4" | 10d @ 12" |
| SW-12 | 7TH, 6TH & 5TH FLOOR | 36'-0" | (2) 2x4 3½x3½ PSL | 760 | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x7 PSL | 3008 | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x7 PSL | 6252 | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 4" | 10d @ 12" |
| SW-13 | 7TH, 6TH & 5TH FLOOR | 21'-0" | (2) 2x4 3½x3½ PSL | 545 2313 | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x7 PSL | 5078 | MST60 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x7 PSL | 8839 | HDU14 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 4" | 10d @ 12" |
| SW-14 | 7TH, 6TH & 5TH FLOOR | 26'-0" | (2) 2x4 3½x3½ PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 4TH FLOOR | | 3½x7 PSL | – | MST48 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 6" | 10d @ 12" |
| | 3RD FLOOR | | 3½x7 PSL | 2547 | HDU8 | 19/32 WSP SHEATHING (1-SIDE) | 10d @ 4" | 10d @ 12" |

NOTES:
1. PROVIDE SIMPSON/STRONG-TIE HOLDOWN AS INDICATED (HD) AT ENDS OF WALL. PROVIDE ANCHOR BOLT DIAMETER AS SPECIFIED BY HOLDDOWN MANUFACTURER, FOLLOW ALL INSTALLATION RECOMMENDATION GIVEN BY MANUFACTURER.
2. PROVIDE EXTERIOR RATED WOOD STRUCTURAL PANEL SHEATHING. PROVIDE SOLID 2X6 BLOCKING AT PANEL EDGES.
3. POST AXIAL TENSION FORCES ARE THE NET FORCES USING ASD LOAD COMBINATION, AT BOTH END POSTS OF SHEAR WALLS.

## HEADER SCHEDULE

| MARK | SIZE | MAX. OPENING(U.N.O.) |
|---|---|---|
| H1 | (3)-2x10 SPF NO.1/NO.2 | L UP TO 7'-0" |
| H2 | (3)-2x12 SPF NO.1/NO.2 | L UP TO 8'-0" |
| H3 | (2)-1¾x11¼ LVL | L UP TO 8'-0" |

## BEAM SCHEDULE

| MARK | BEAM SIZE AND TYPE |
|---|---|
| B1 | (2)-1½X11¼ LVL |
| B2 | (2)-1½X16 LVL |
| B3 | (3)-1½X16 LVL |

STATE OF ILLINOIS – DEEPAK GIDWANI 081-006114 – LICENSED STRUCTURAL ENGINEER

EXP.11/30/2022

MILESTONE DATES:
Issued For Permit:
April 16 2021

PREPARED FOR TAC CONSTRUCTION BY

DG STRUCTURAL ENGINEERING LLC
73 DECOTAH DR. SUITE 127, AURORA, IL 60504
P: (708) 488-3980

- FOUNDATION AND STRUCTURAL FRAMING PLANS
- PROJECT NAME: GARDEN STATION APARTMENTS
- ADDRESS: ARDMORE AVE / VERMONT STREET VILLA PARK, ILLINOIS

Issue Date: MAY 17 2016
Drawn By: BC

Sheet:

WOOD DETAILS

PROJECT NUMBER
1609

S-2.5

© DG STRUCTURAL ENGINEERING LLC

# FIRST FLOOR PLAN

SCALE 1/16" = 1'-0"

NOTE
INDOOR FIREPLACE SHALL BE MODEL FLEX 5065 ETHANOL BURNING AS MANUFACTURED BY ECOSMART FIRE

FIRE SUPPRESSION 124
STAIR 136
STAIR 143
STAIR 142
TRASH 125
ELEV LOBBY 123
PARKING GARAGE 120
STORAGE 121
ELEC 122
STAIR 133
STAIR 145
STAIR 132
RAMP UP
STORAGE 127
RETAIL 118
RESTAURANT 119
FITNESS ROOM 115
FIREPLACE LOUNGE 102
MEDIA ROOM 106
LOUNGE / PARTY ROOM 107
LOBBY 108
LOUNGE 111
OFFICE 109
CONF 110
ELEVATOR LOBBY 112
MAIL ROOM 114
TOIL 116
TOIL 117
FIRE COMM 126

4"ø x 3'-0" HIGH STEEL BOLLARD FILLED WITH CONCRETE
4" WIDE PAVEMENT MARKING (TYPICAL)
6"x8'-0" WHEEL STOP BUMPERS
ACCESSIBLE PARKING SIGN (TYP)
EXP. JOINT
EV CHARGERS

402'-8"
430'-8"
277'-5"
107'-2"
243'-9 1/2"
56'-3 1/4"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

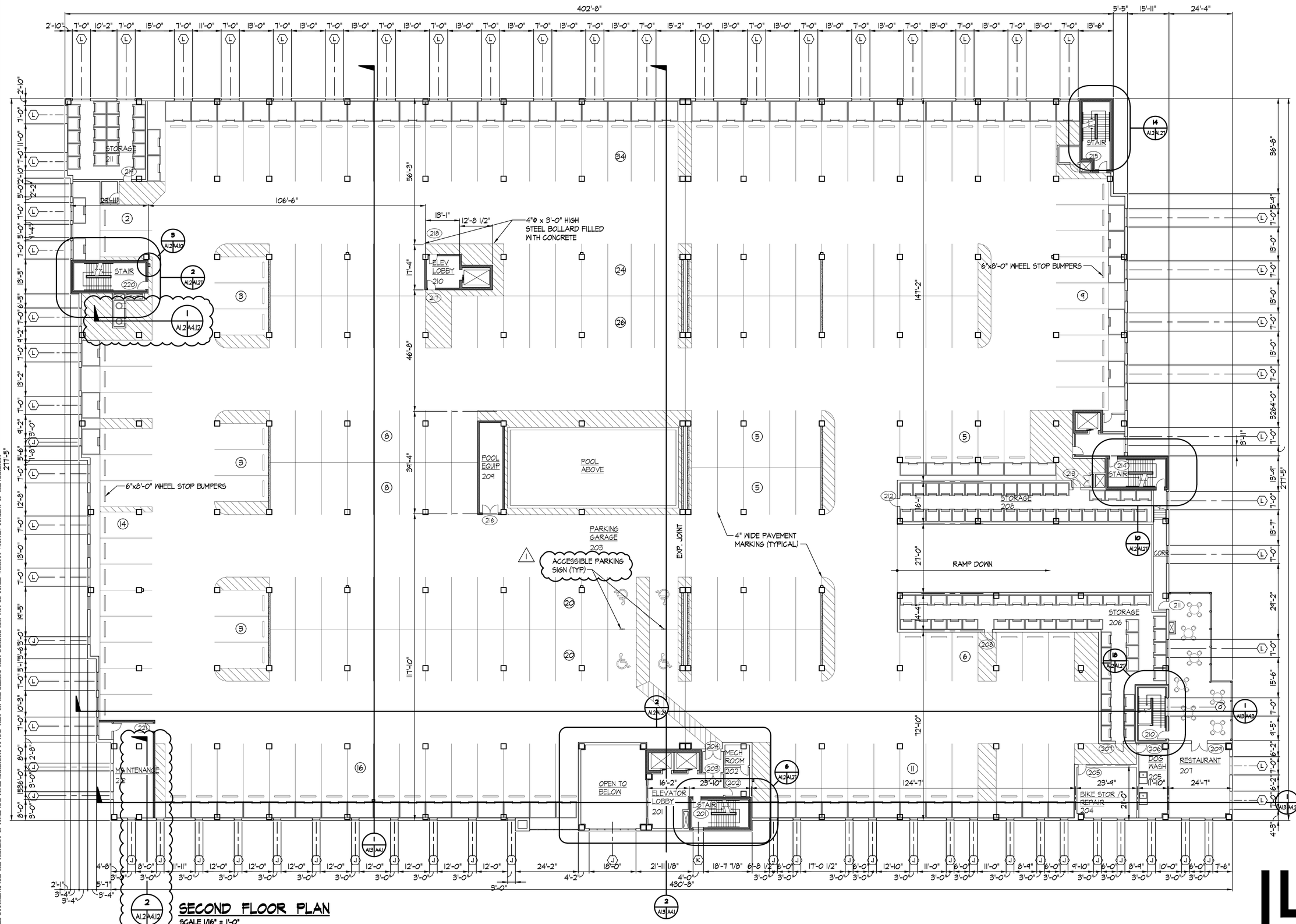
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

**A1.1**

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

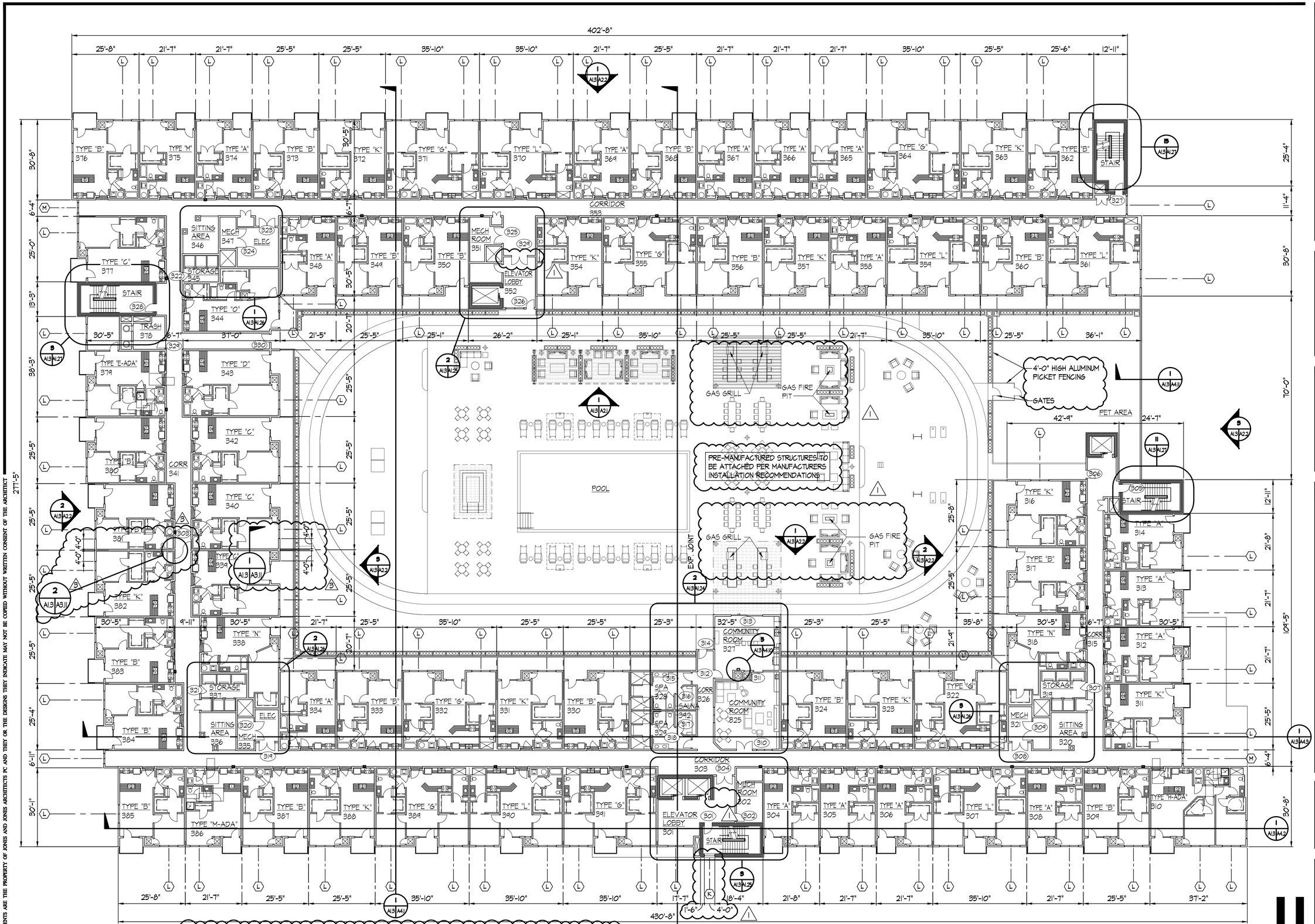
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

**A1.2**

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## THIRD FLOOR PLAN

SCALE 1/16" = 1'-0"

NOTES
1. PROVIDE 4" EXTENSIVE SOIL MIX ON GRANULAR DRAINAGE AT THIRD FLOOR PERVIOUS AREAS
2. PROVIDE WATERPROOF COATING SYSTEM ON THIRD FLOOR CONCRETE DECK
3. OUTDOOR GAS FIREPITS SHALL BE MODEL GIN 90 NATURAL GAS AS MANUFACTURED BY ECOSMART FIRE
4. OUTDOOR GAS GRILLS SHALL BE MODEL IBI36NG AS MANUFACTURED BY CROWN VERITY

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

RICHARD L. JONES, JR. 001-025003 LICENSED ARCHITECT STATE OF ILLINOIS
31 OCT 2025

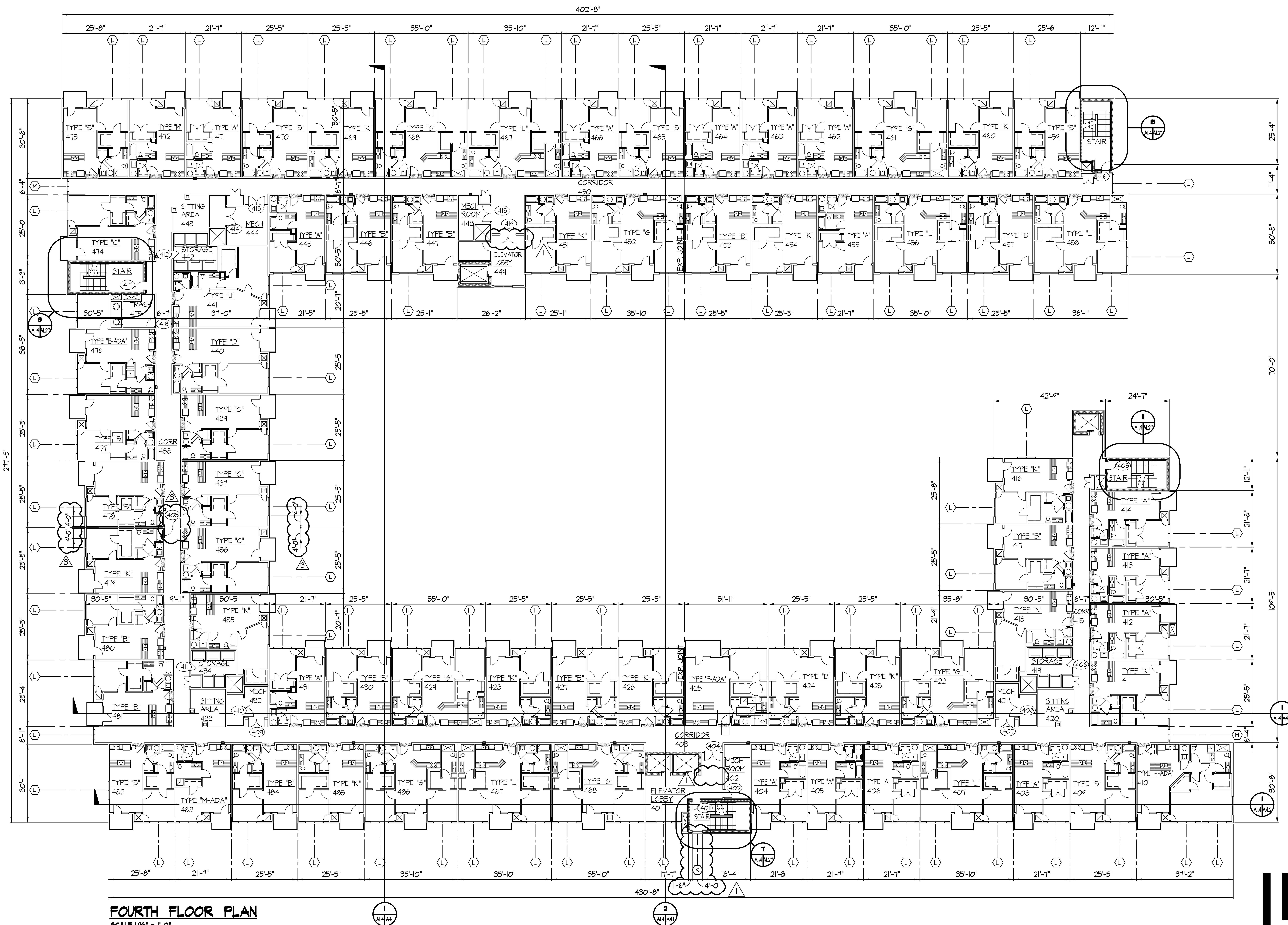
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A1.3

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## FOURTH FLOOR PLAN

SCALE 1/16" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

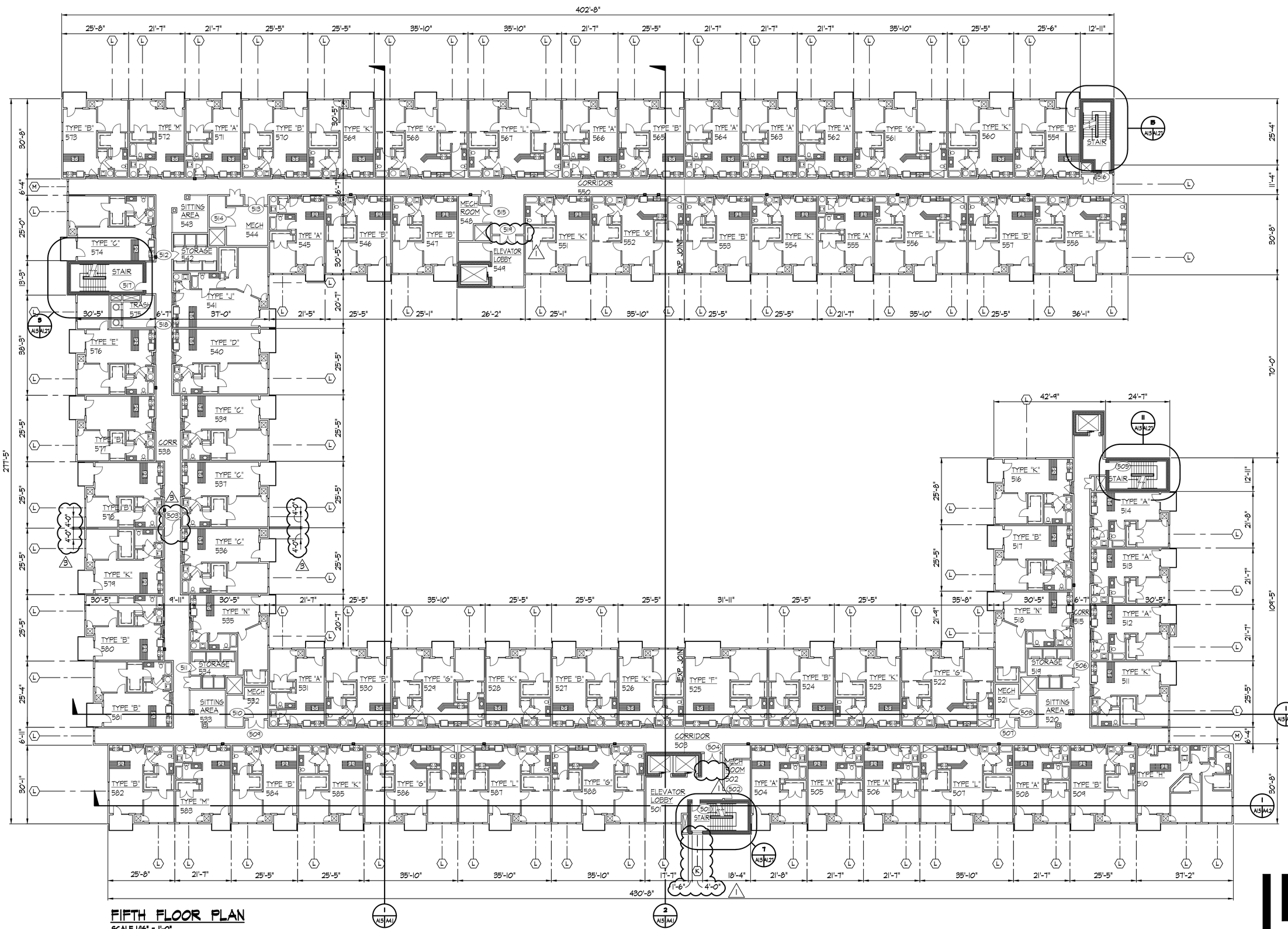
# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A1.4

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




**FIFTH FLOOR PLAN**
SCALE 1/16" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

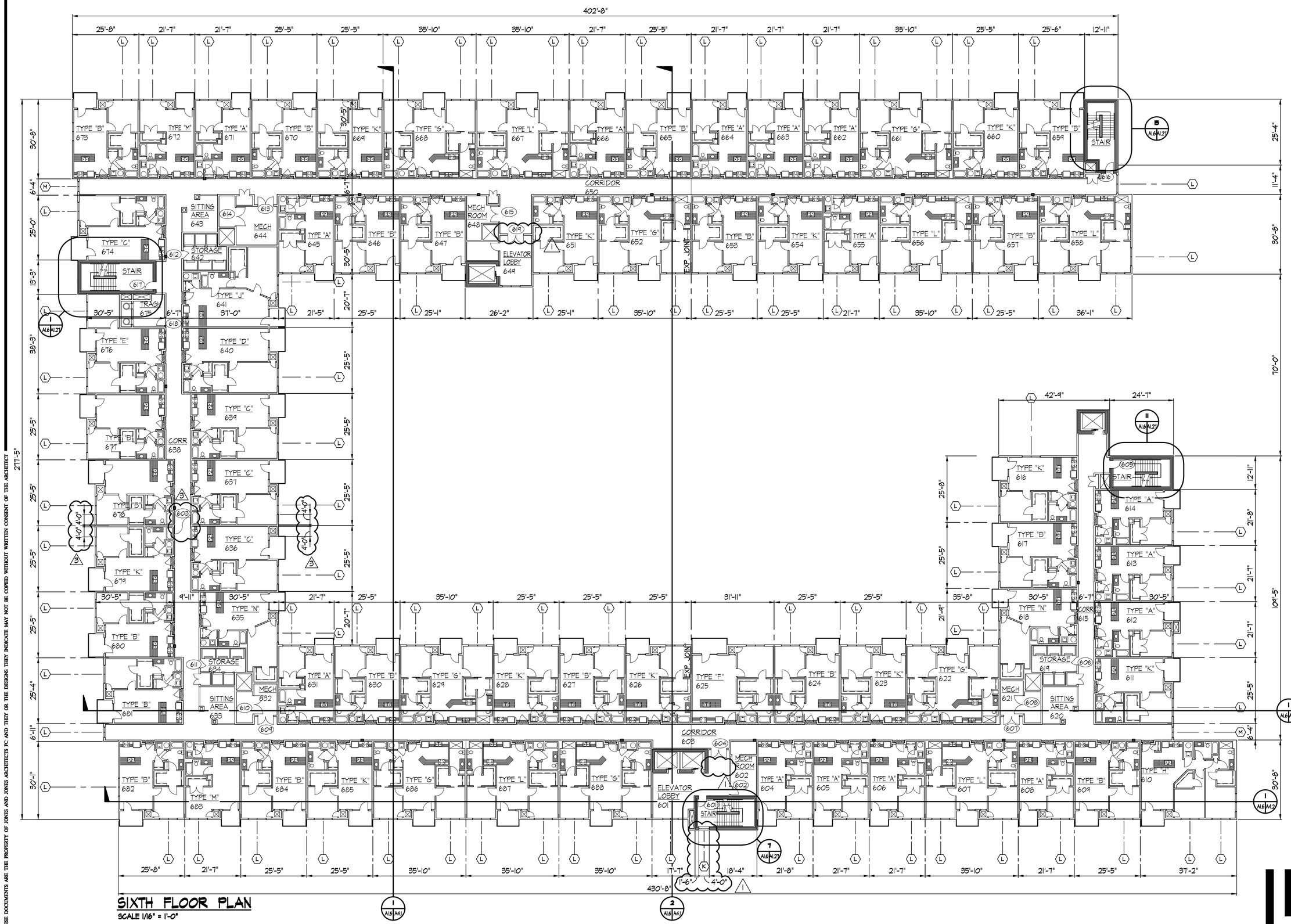
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

**A1.5**

JONES & JONES ASSOCIATES / ARCHITECTS PC




## SIXTH FLOOR PLAN

SCALE 1/16" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

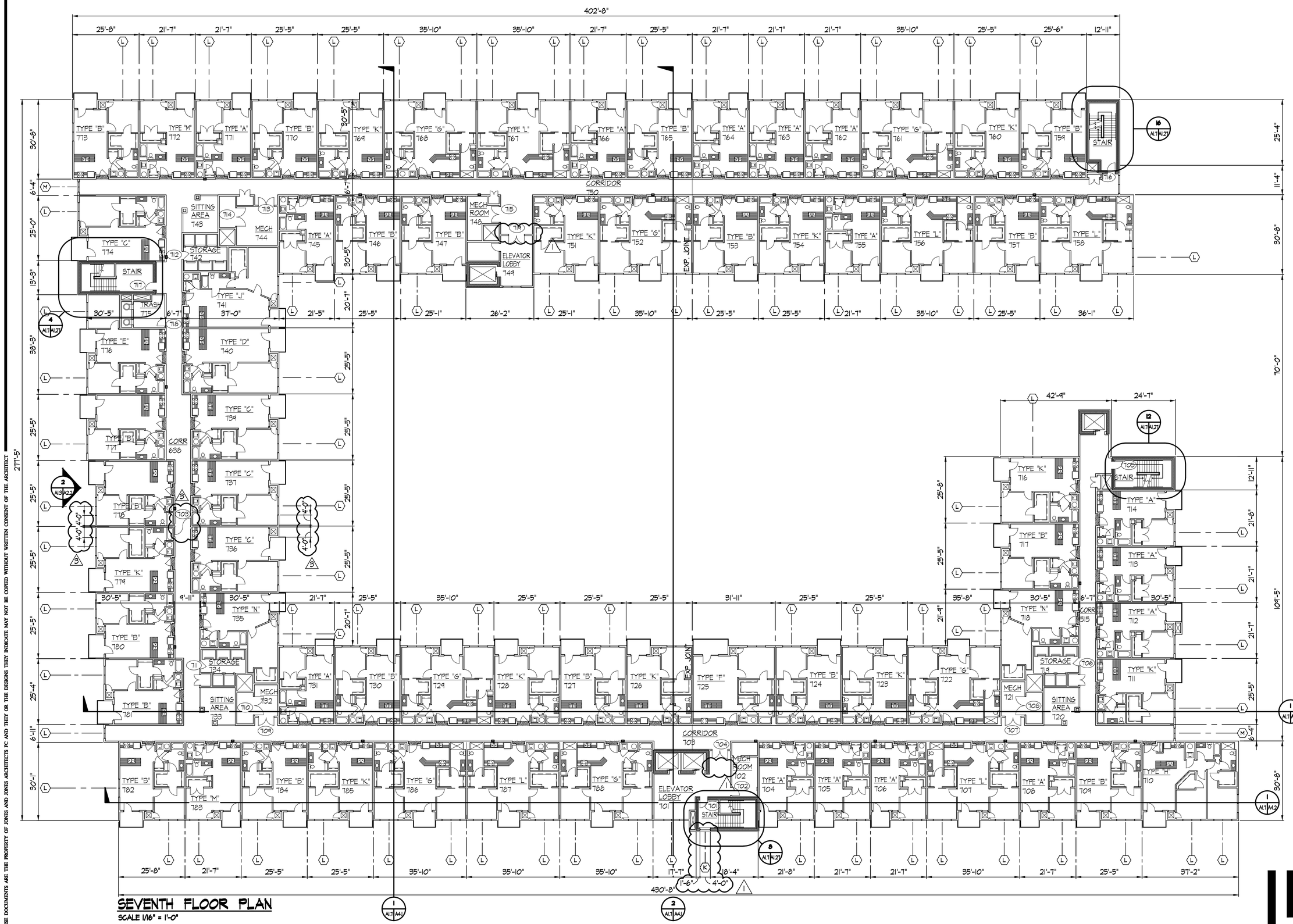
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

**A1.6**

JONES & JONES ASSOCIATES / ARCHITECTS PC




## SEVENTH FLOOR PLAN

SCALE 1/16" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

RICHARD L. JONES, JR. 001-025003 LICENSED ARCHITECT STATE OF ILLINOIS
31 OCT 2025

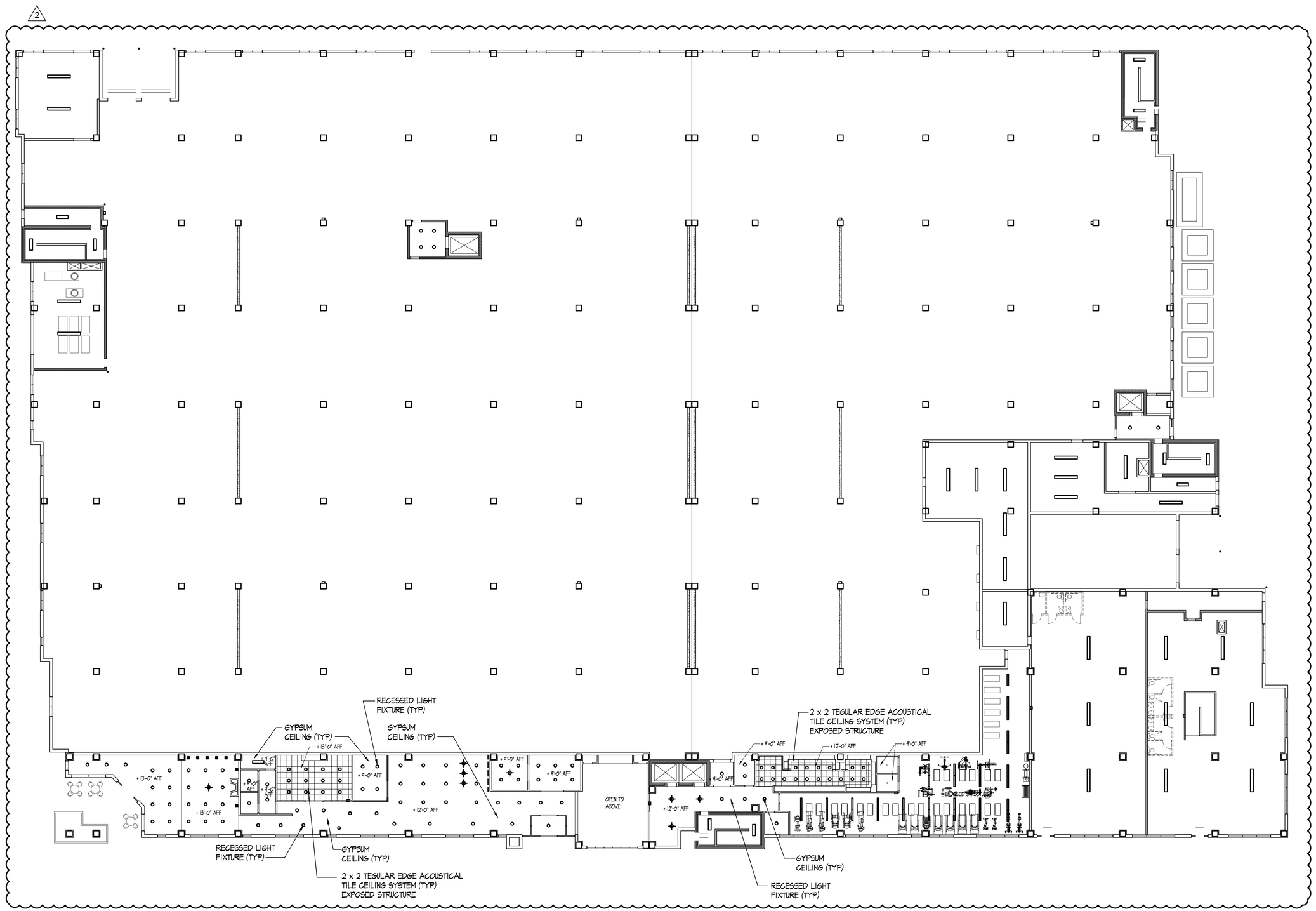
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A1.7

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## FIRST FLOOR REFLECTED CEILING PLAN

SCALE 1/16" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

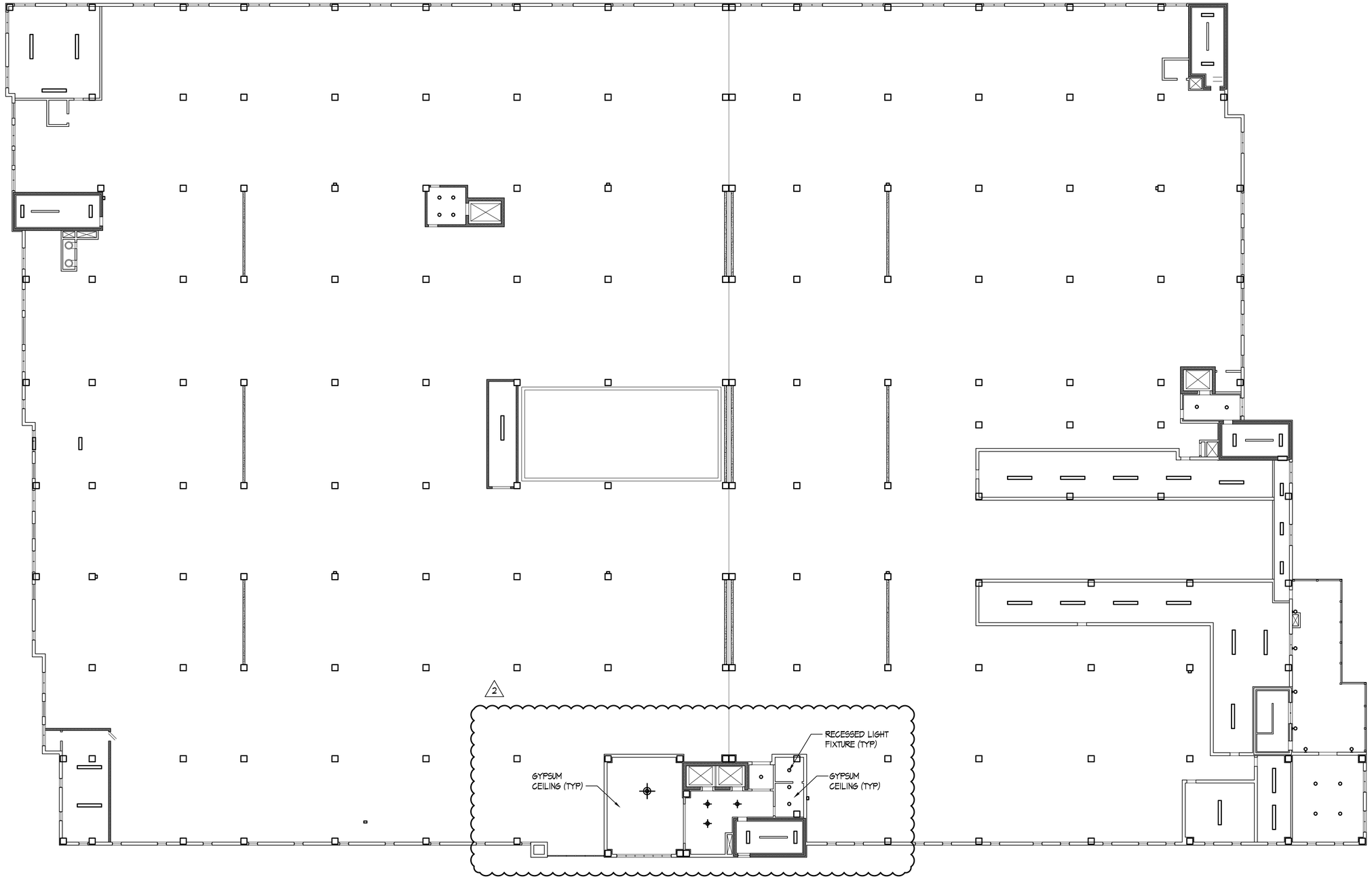
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A1.8

JONES & JONES ASSOCIATES / ARCHITECTS PC




## SECOND FLOOR REFLECTED CEILING PLAN

SCALE 1/16" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

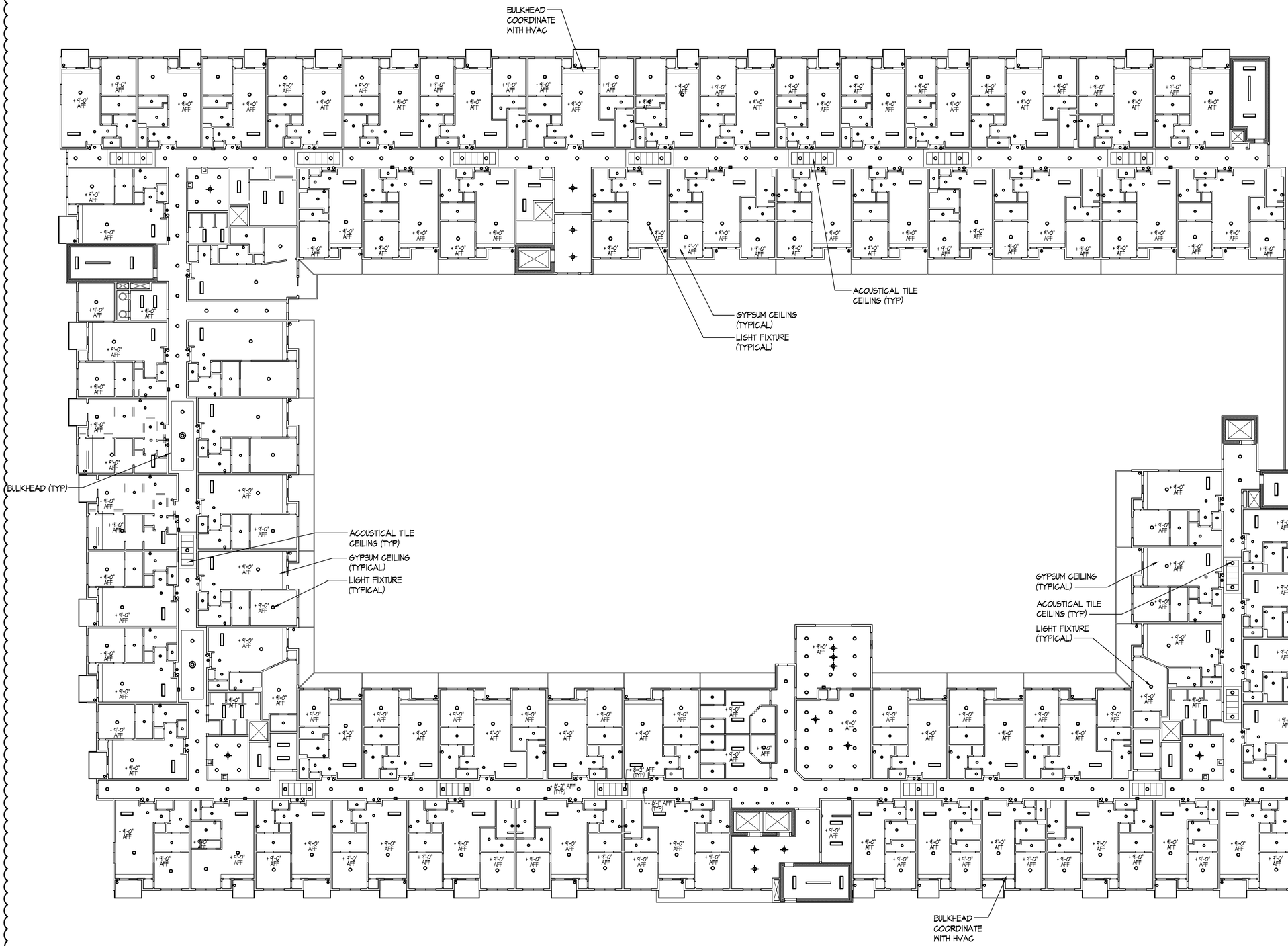
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A1.9

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

2




## THIRD FLOOR REFLECTED CEILING PLAN

SCALE 1/16" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

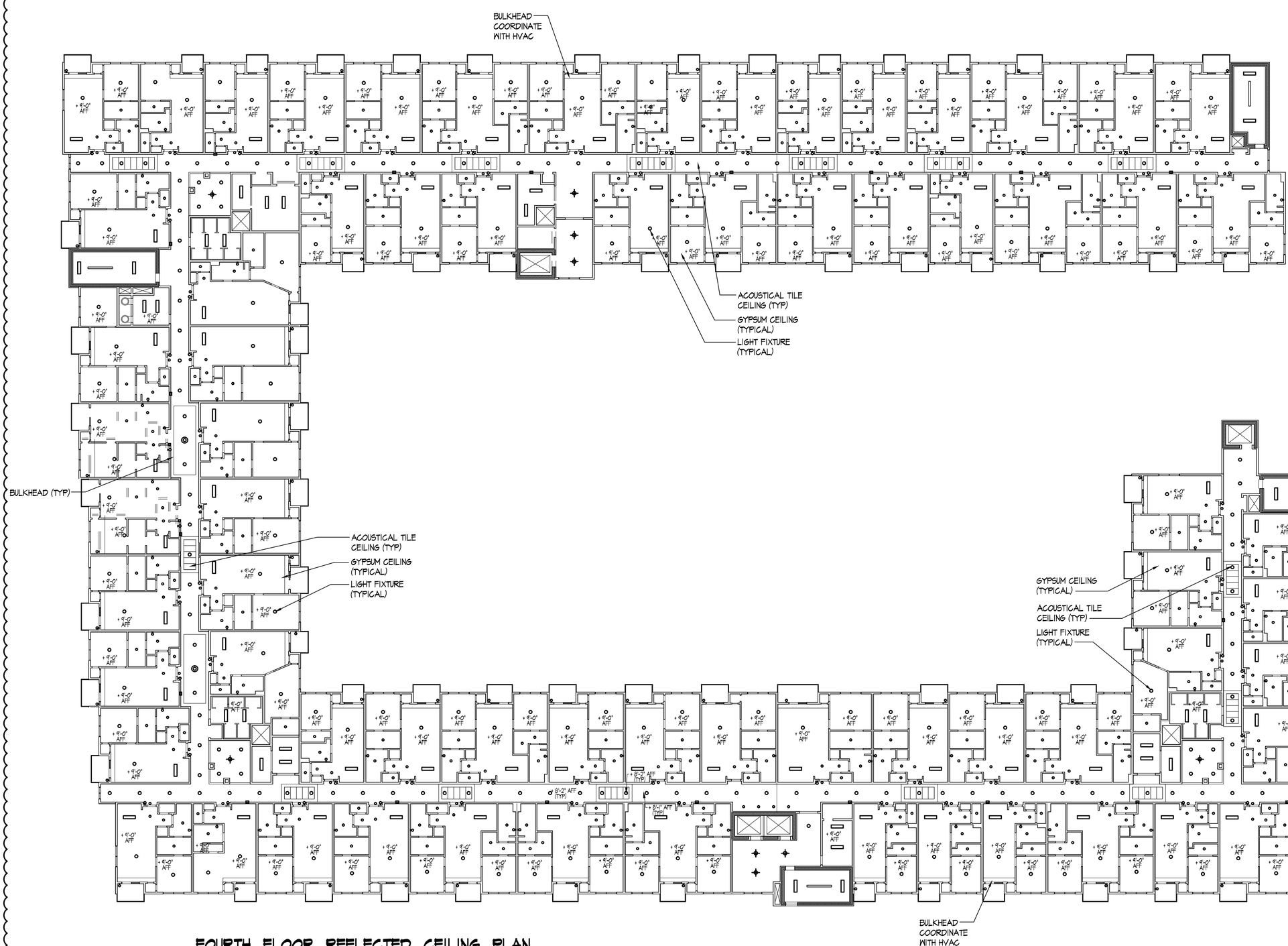
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A1.10

JONES & JONES ASSOCIATES / ARCHITECTS PC

2




## FOURTH FLOOR REFLECTED CEILING PLAN

SCALE 1/16" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

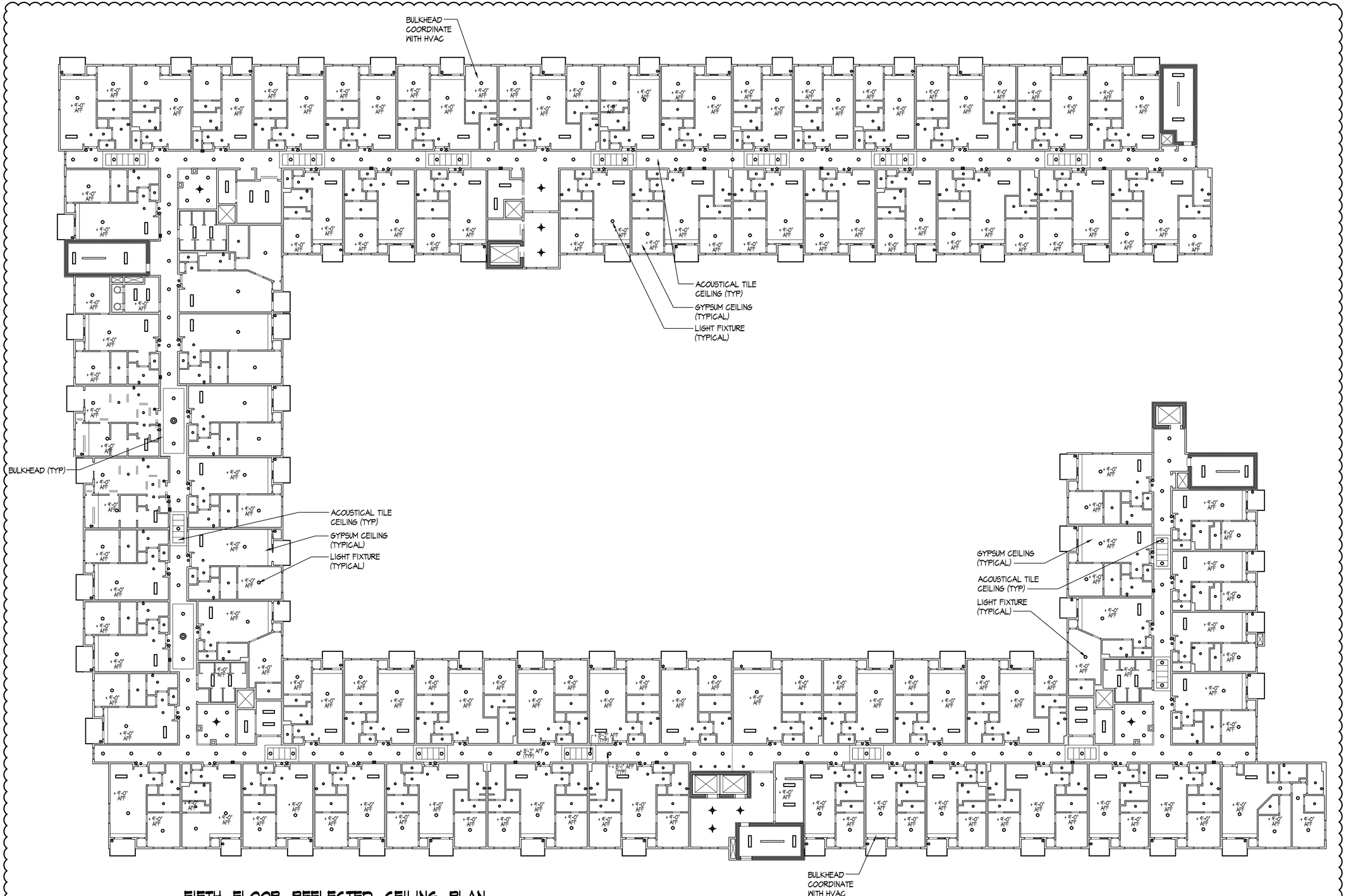
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A1.11

JONES & JONES ASSOCIATES / ARCHITECTS PC

2




## FIFTH FLOOR REFLECTED CEILING PLAN

SCALE 1/16" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

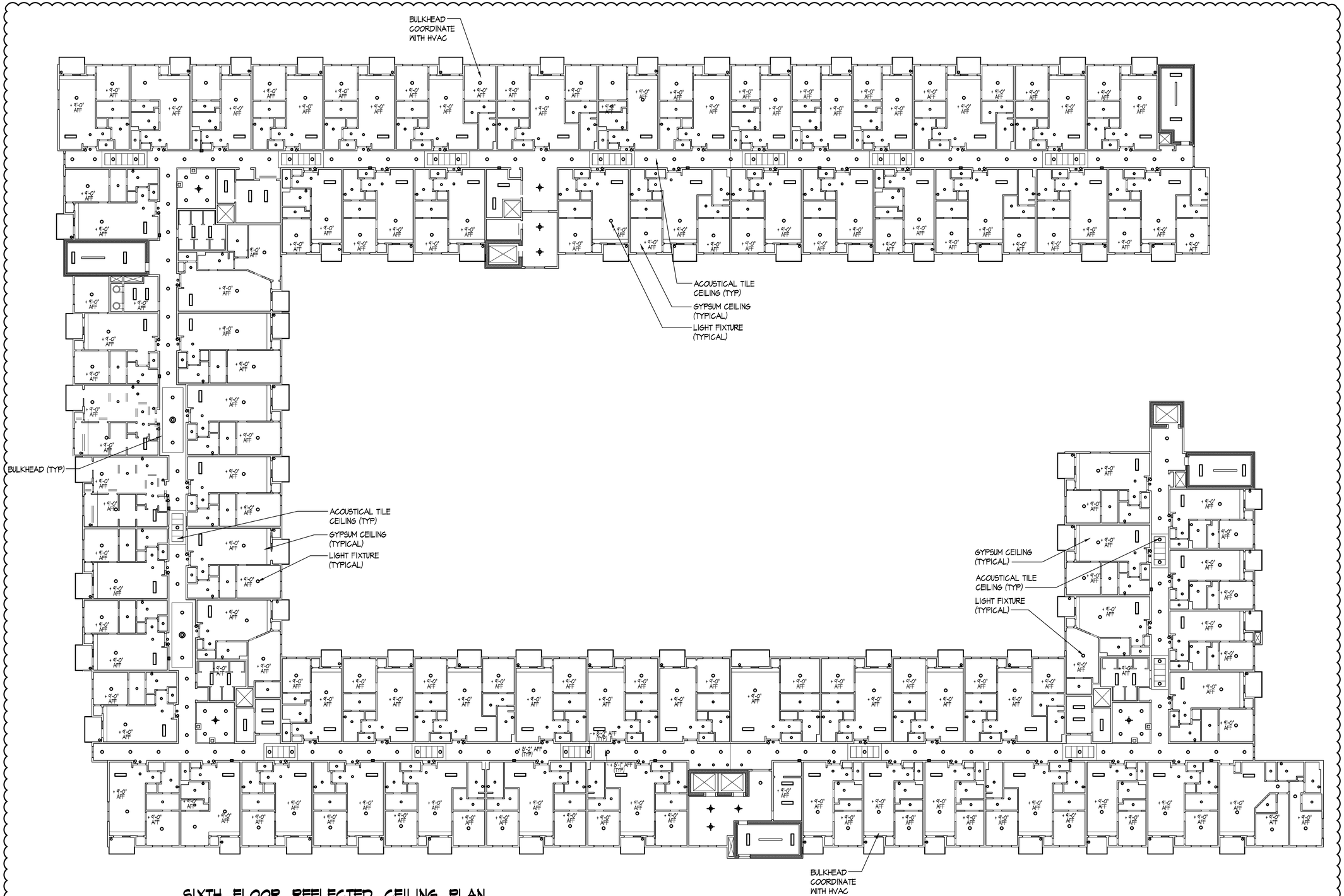
# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A1.12

JONES & JONES ASSOCIATES / ARCHITECTS PC

2




## SIXTH FLOOR REFLECTED CEILING PLAN

SCALE 1/16" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

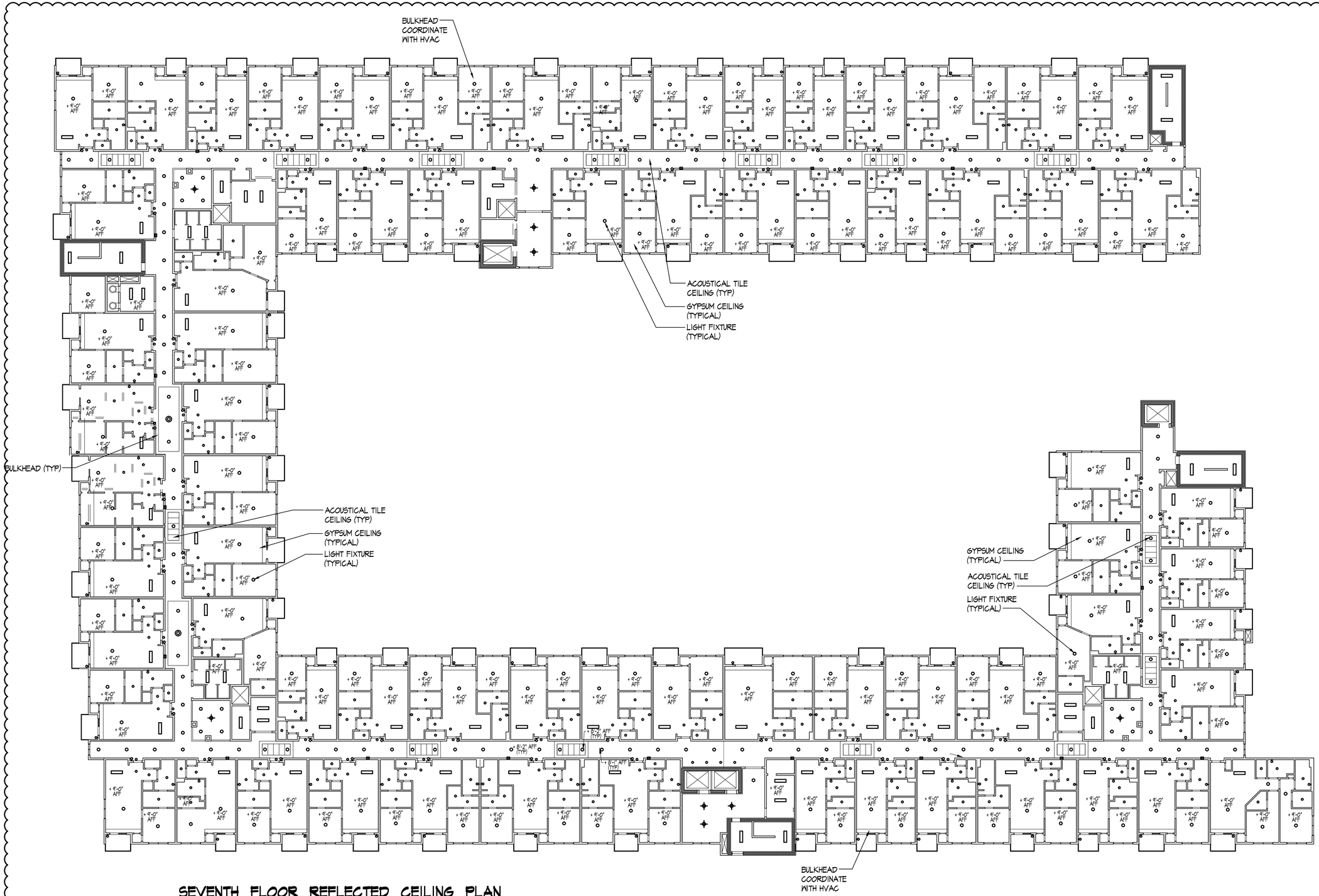
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A1.13

JONES & JONES ASSOCIATES / ARCHITECTS PC

2




## SEVENTH FLOOR REFLECTED CEILING PLAN

SCALE 1/16" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

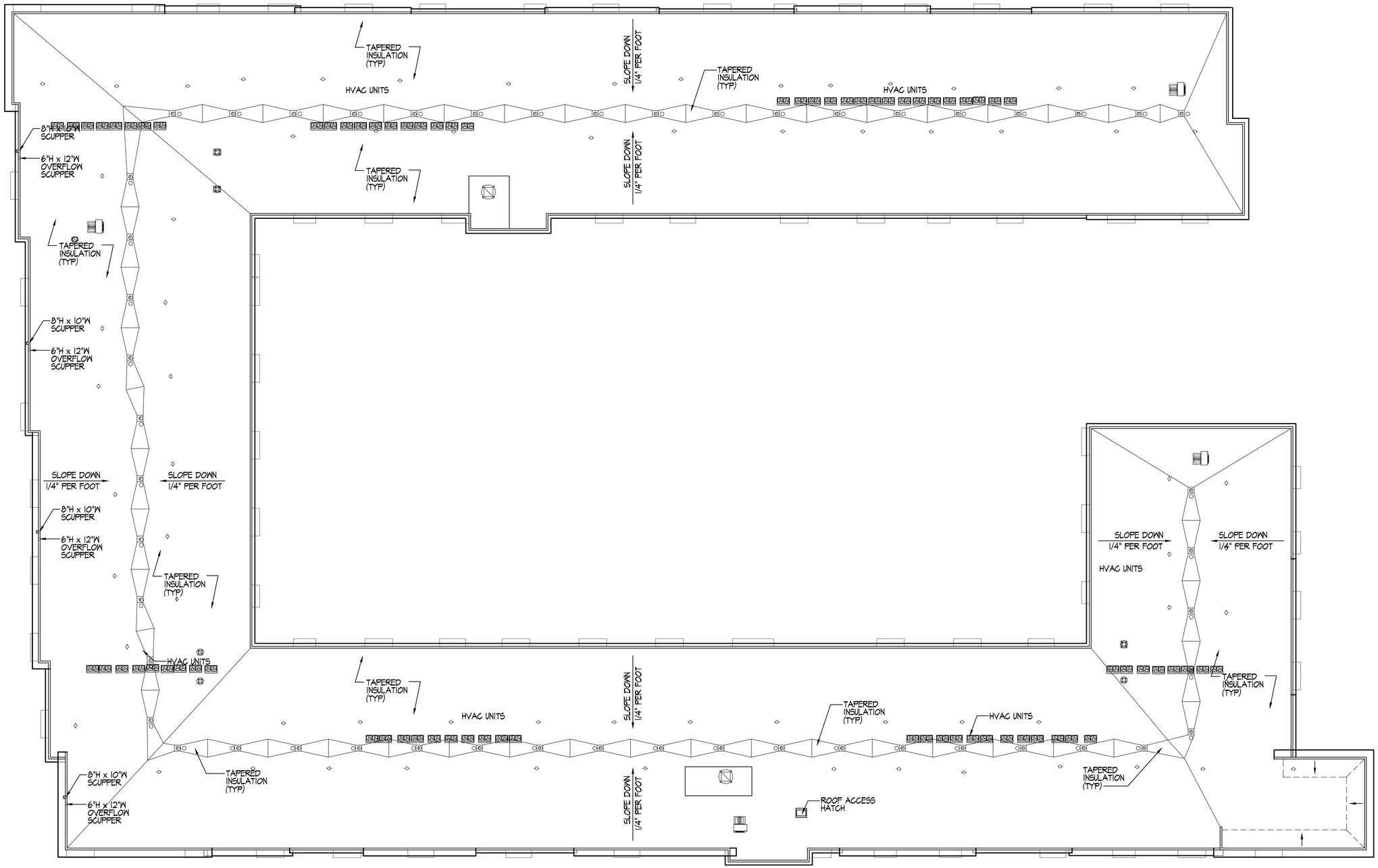
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A1.14

JONES & JONES ASSOCIATES / ARCHITECTS PC




## ROOF PLAN

SCALE 1/16" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

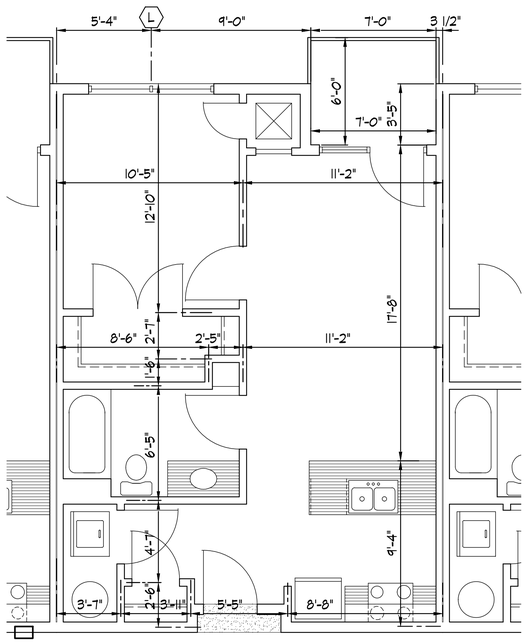
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

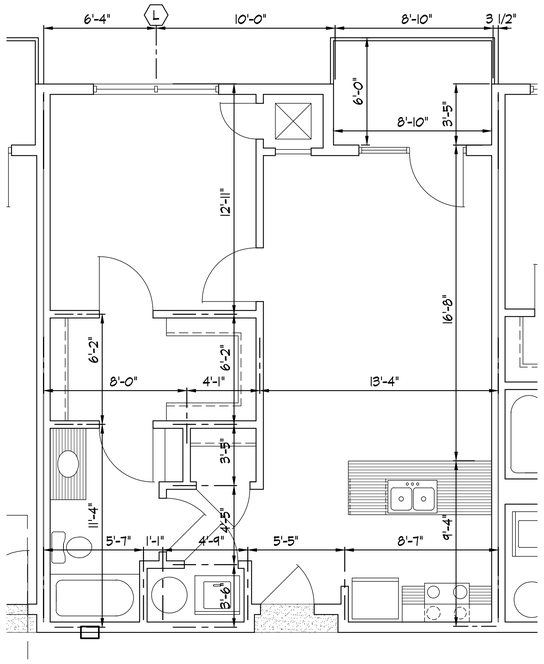
A1.15

JONES & JONES ASSOCIATES / ARCHITECTS PC



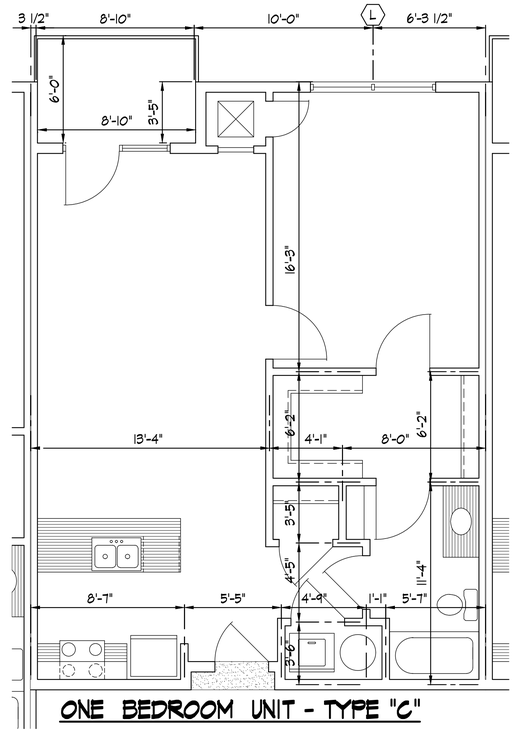

## ONE BEDROOM UNIT - TYPE "A"

SCALE 1/4" = 1'-0"



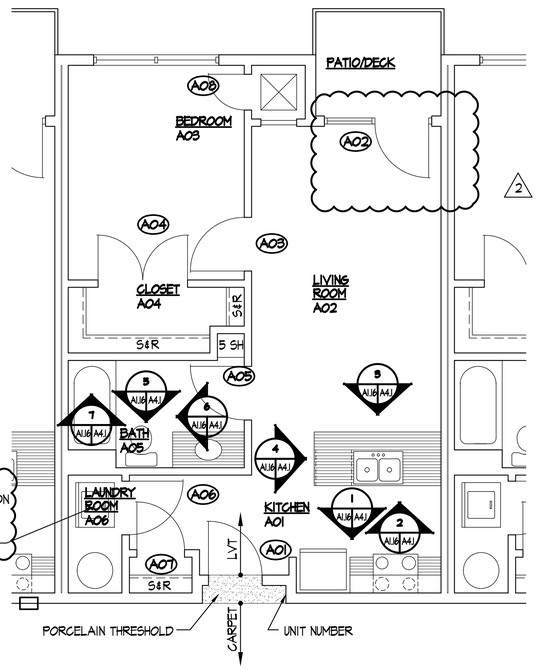

## ONE BEDROOM UNIT - TYPE "B"

SCALE 1/4" = 1'-0"



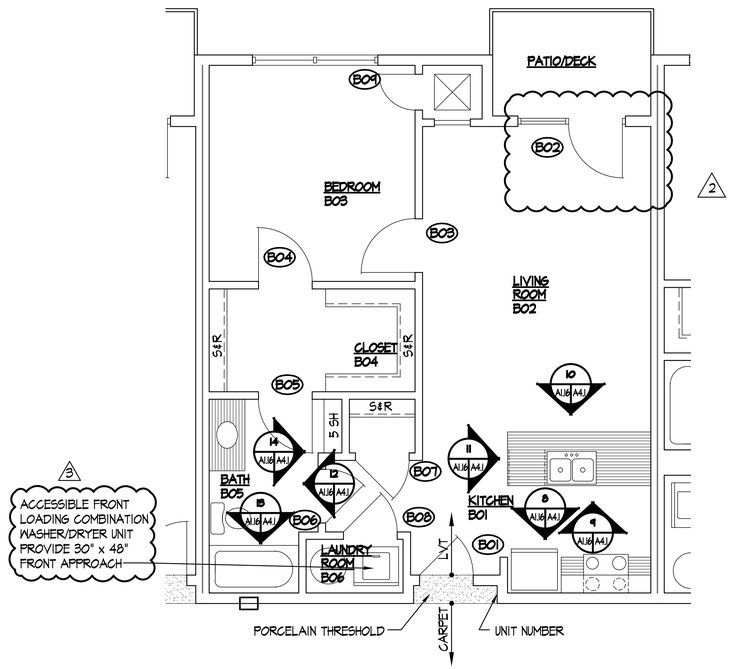

## ONE BEDROOM UNIT - TYPE "C"

SCALE 1/4" = 1'-0"



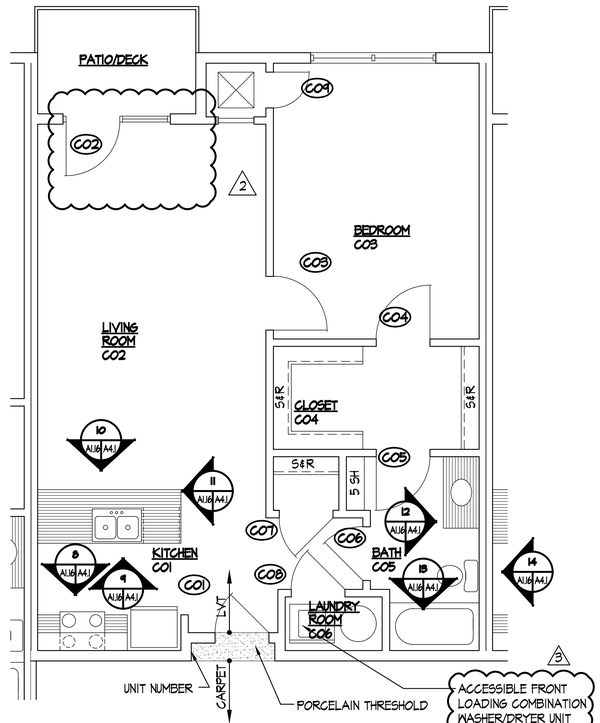

## ONE BEDROOM UNIT - TYPE "A"

SCALE 1/4" = 1'-0"




## ONE BEDROOM UNIT - TYPE "B"

SCALE 1/4" = 1'-0"




## ONE BEDROOM UNIT - TYPE "C"

SCALE 1/4" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

RICHARD L. JONES, JR.
001-025003
LICENSED ARCHITECT
STATE OF ILLINOIS
31 OCT 2025

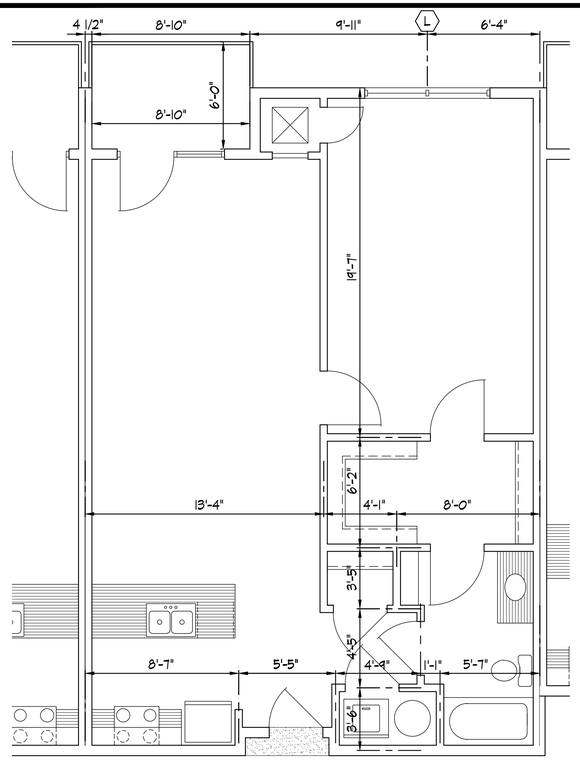
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A1.16

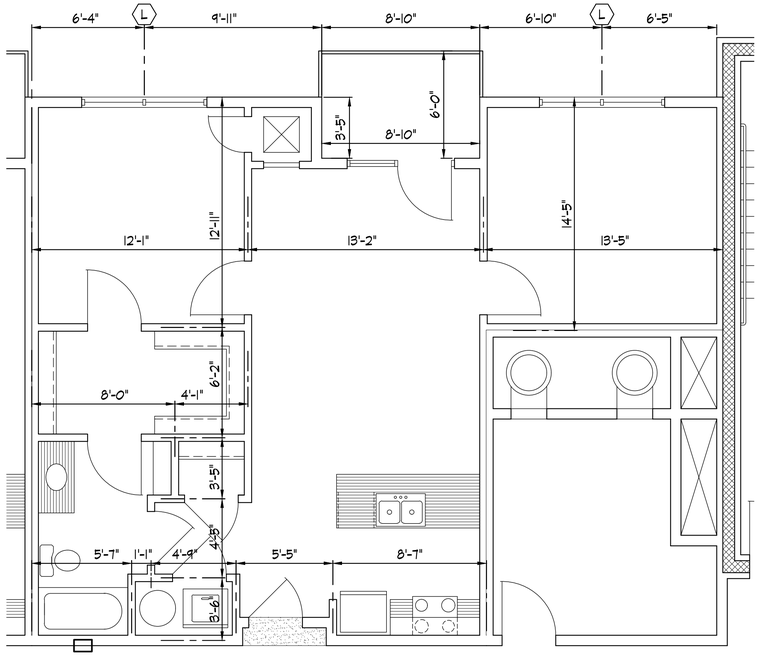
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



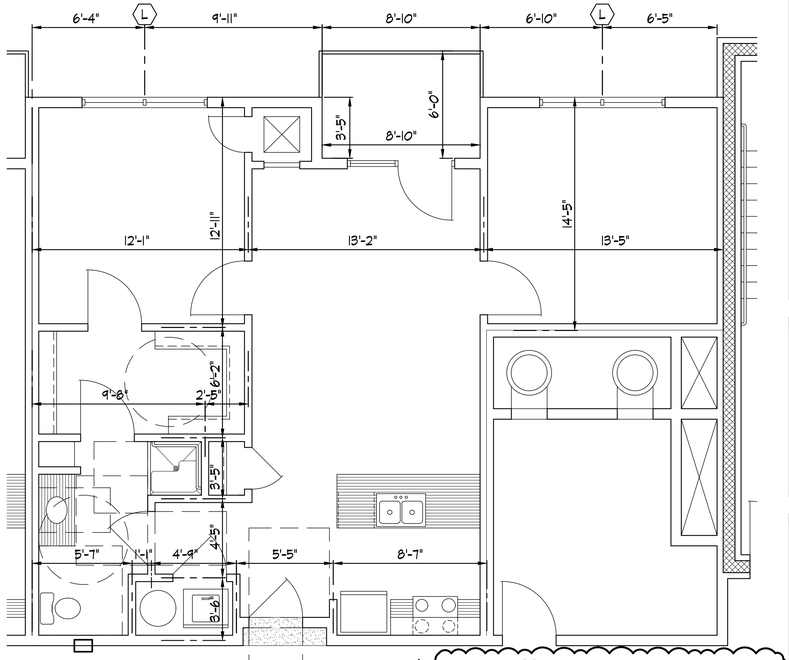

## ONE BEDROOM UNIT - TYPE "D"

SCALE 1/4" = 1'-0"




## ONE BEDROOM UNIT - TYPE "E"

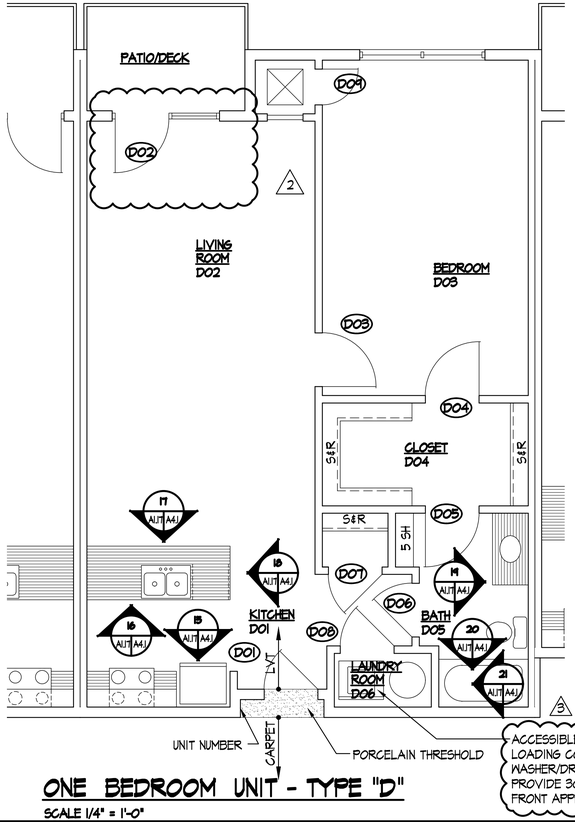
SCALE 1/4" = 1'-0"




## ONE BEDROOM UNIT - TYPE "E - ADA"

SCALE 1/4" = 1'-0"

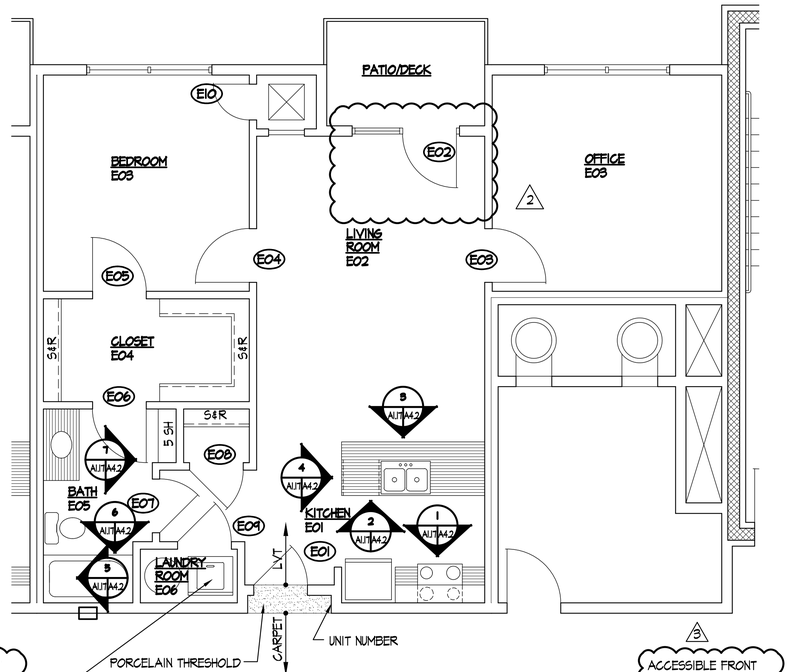
3 ACCESSIBLE TYPE "A" UNIT NOTES
ALL LIGHTING CONTROLS, ELECTRICAL PANELBOARDS, ELECTRICAL SWITCHES AND RECEPTACLE OUTLETS, ENVIRONMENTAL CONTROLS, APPLIANCE CONTROLS, OPERATING HARDWARE FOR OPERABLE WINDOWS, PLUMBING FIXTURE CONTROLS, AND USER CONTROLS FOR SECURITY OR INTERCOM SYSTEMS SHALL BE MOUNTED AT ACCESSIBLE HEIGHTS AS FOLLOWS:
- BETWEEN 15" AND 48" AFF WHERE NO OBSTRUCTIONS
- 44" MAX AFF AT ALL COUNTERTOP AND CASEWORK LOCATIONS




## ONE BEDROOM UNIT - TYPE "D"

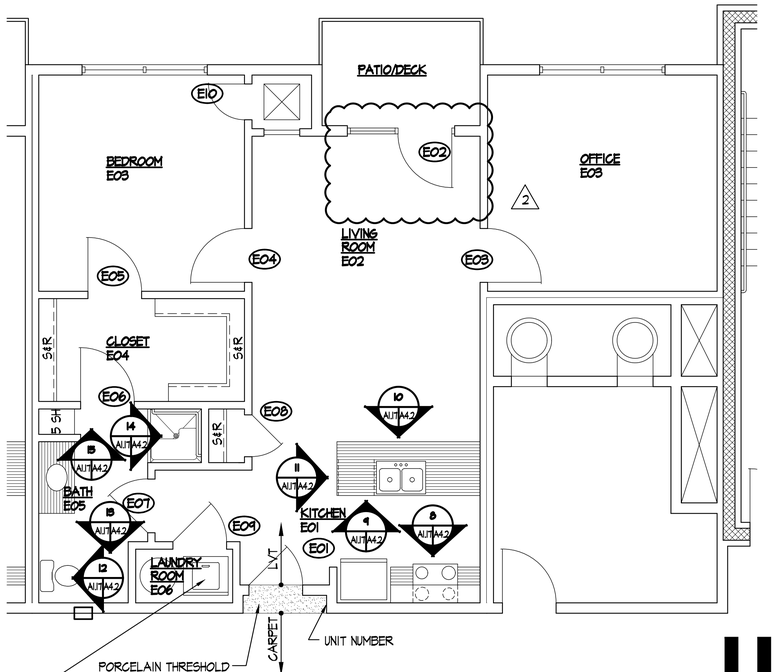
SCALE 1/4" = 1'-0"

3 ACCESSIBLE FRONT LOADING COMBINATION WASHER/DRYER UNIT PROVIDE 30" x 48" FRONT APPROACH




## ONE BEDROOM UNIT - TYPE "E"

SCALE 1/4" = 1'-0"




3 ACCESSIBLE FRONT LOADING COMBINATION WASHER/DRYER UNIT PROVIDE 30" x 48" FRONT APPROACH

## ONE BEDROOM UNIT - TYPE "E - ADA"

SCALE 1/4" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

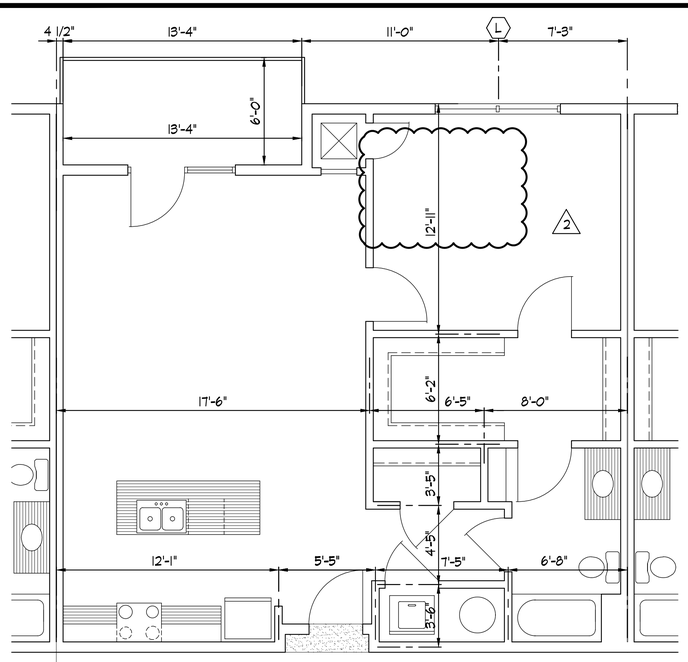
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

**A1.17**

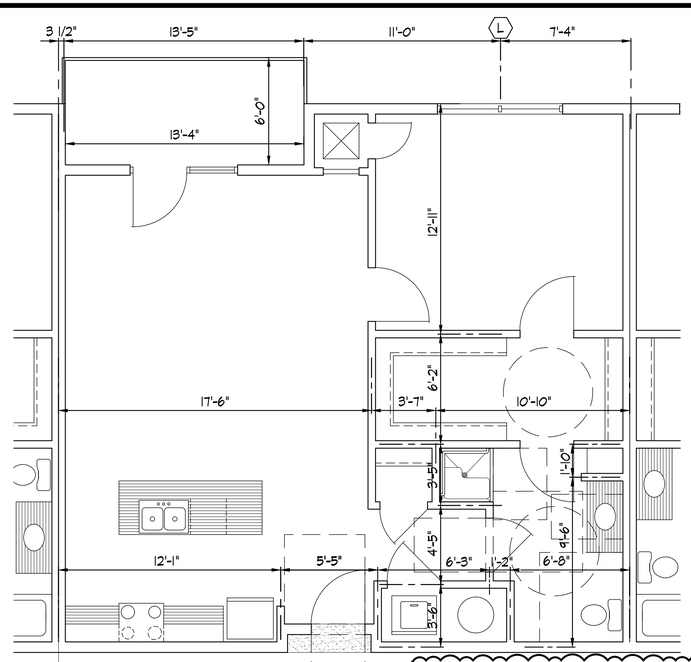
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## ONE BEDROOM UNIT - TYPE "F"

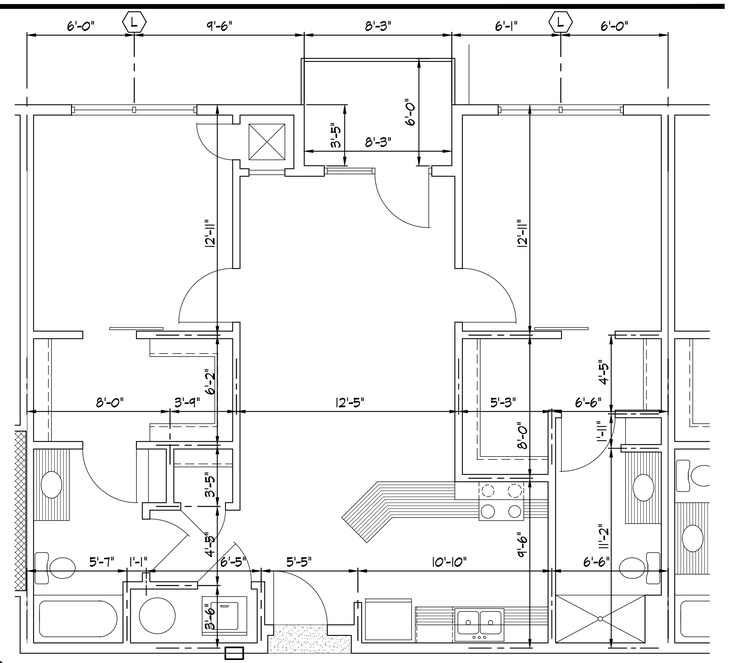
SCALE 1/4" = 1'-0"




## ADA ONE BEDROOM UNIT - TYPE "F-ADA"

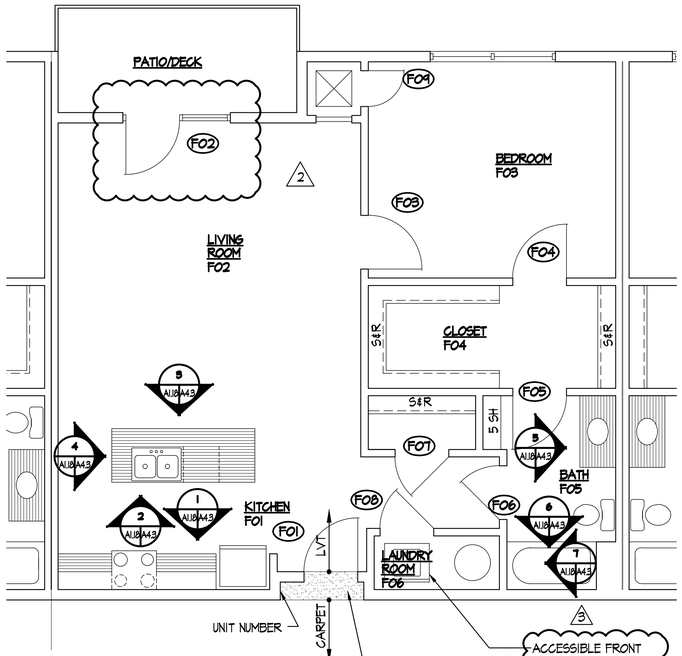
SCALE 1/4" = 1'-0"

3 ACCESSIBLE TYPE "A" UNIT NOTES
ALL LIGHTING CONTROLS, ELECTRICAL PANELBOARDS, ELECTRICAL SWITCHES AND RECEPTACLE OUTLETS, ENVIRONMENTAL CONTROLS, APPLIANCE CONTROLS, OPERATING HARDWARE FOR OPERABLE WINDOWS, PLUMBING FIXTURE CONTROLS, AND USER CONTROLS FOR SECURITY OR INTERCOM SYSTEMS SHALL BE MOUNTED AT ACCESSIBLE HEIGHTS AS FOLLOWS:
- BETWEEN 15" AND 48" AFF WHERE NO OBSTRUCTIONS
- 44" MAX AFF AT ALL COUNTERTOP AND CASEWORK LOCATIONS



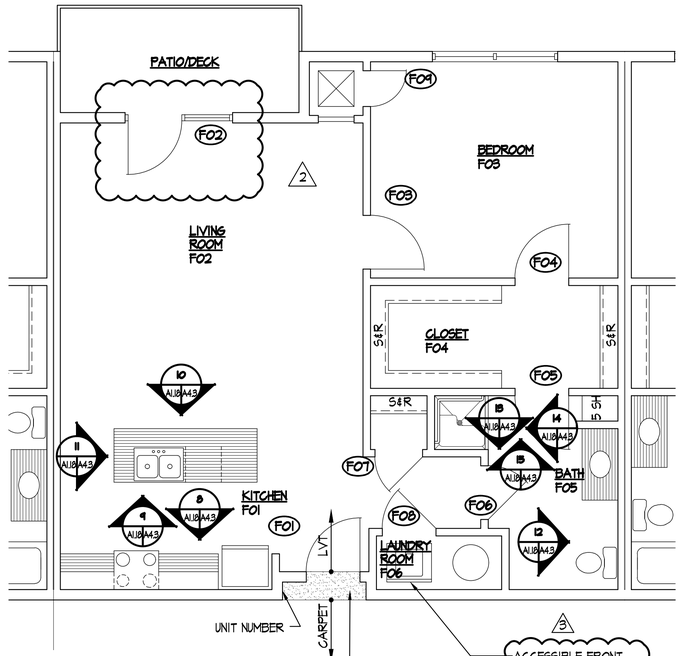

## TWO BEDROOM UNIT - TYPE "G"

SCALE 1/4" = 1'-0"



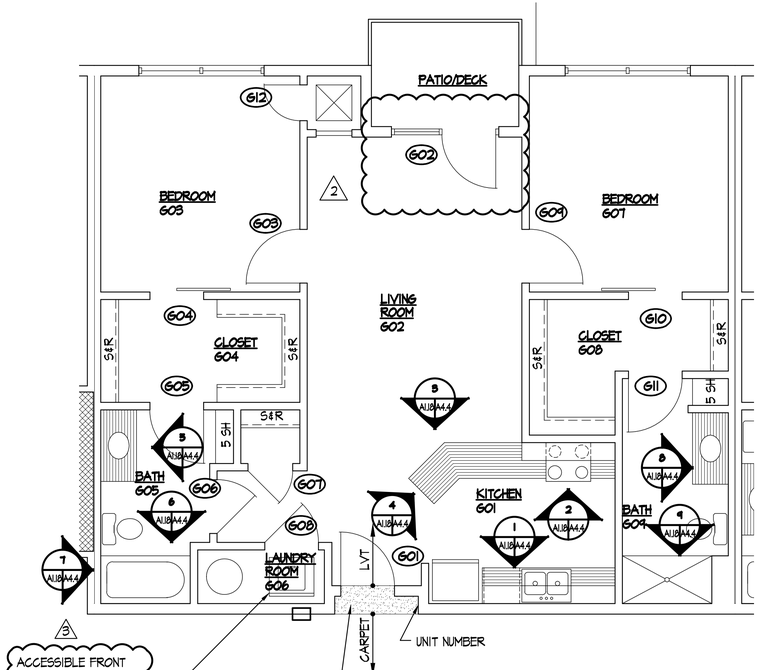

## ONE BEDROOM UNIT - TYPE "F"

SCALE 1/4" = 1'-0"




## ADA ONE BEDROOM UNIT - TYPE "F-ADA"

SCALE 1/4" = 1'-0"




## TWO BEDROOM UNIT - TYPE "G"

SCALE 1/4" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

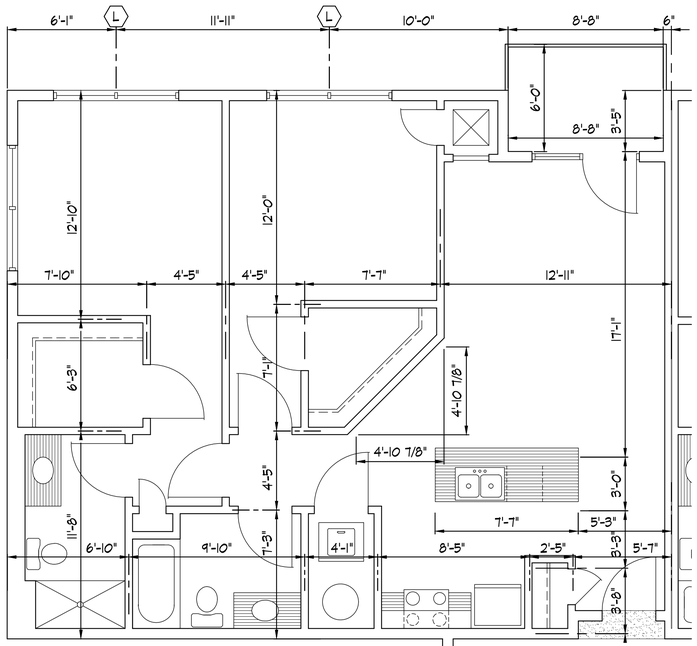
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A1.18

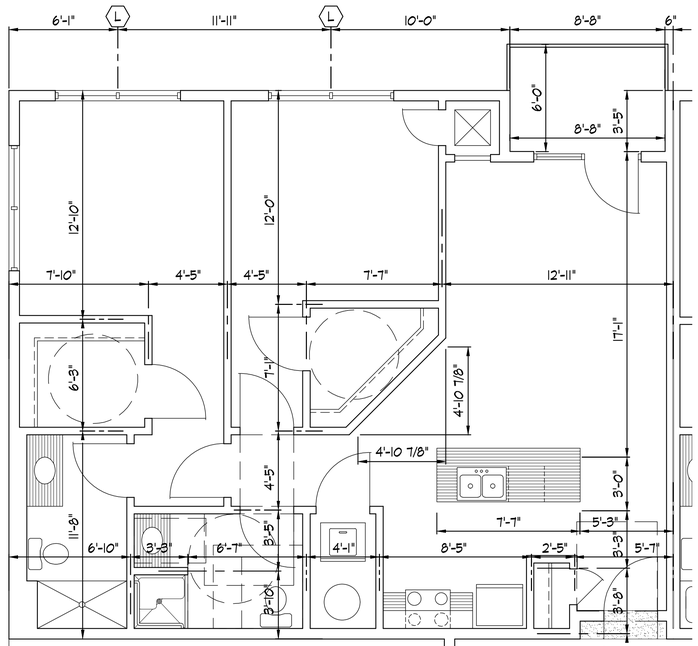
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## TWO BEDROOM UNIT - TYPE "H"

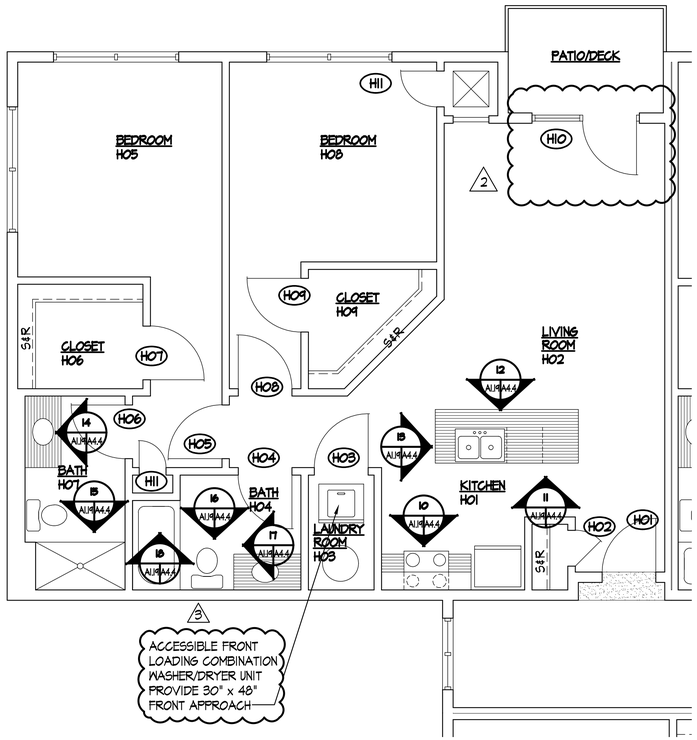
SCALE 1/4" = 1'-0"




## TWO BEDROOM UNIT - TYPE "H-ADA"

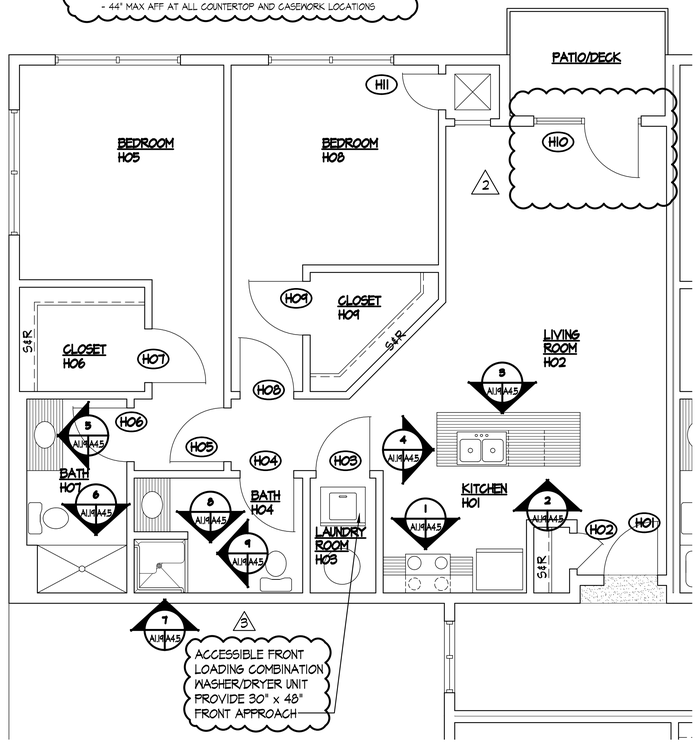
SCALE 1/4" = 1'-0"

3 ACCESSIBLE TYPE "A" UNIT NOTES
ALL LIGHTING CONTROLS, ELECTRICAL PANELBOARDS, ELECTRICAL SWITCHES AND RECEPTACLE OUTLETS, ENVIRONMENTAL CONTROLS, APPLIANCE CONTROLS, OPERATING HARDWARE FOR OPERABLE WINDOWS, PLUMBING FIXTURE CONTROLS, AND USER CONTROLS FOR SECURITY OR INTERCOM SYSTEMS SHALL BE MOUNTED AT ACCESSIBLE HEIGHTS AS FOLLOWS:
- BETWEEN 15" AND 48" AFF WHERE NO OBSTRUCTIONS
- 44" MAX AFF AT ALL COUNTERTOP AND CASEWORK LOCATIONS




## TWO BEDROOM UNIT - TYPE "H"

SCALE 1/4" = 1'-0"




## TWO BEDROOM UNIT - TYPE "H-ADA"

SCALE 1/4" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

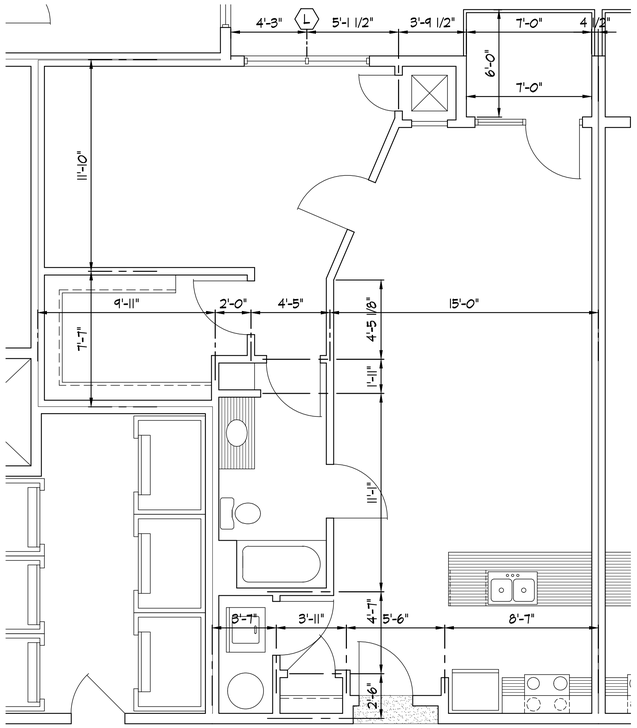
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A1.19

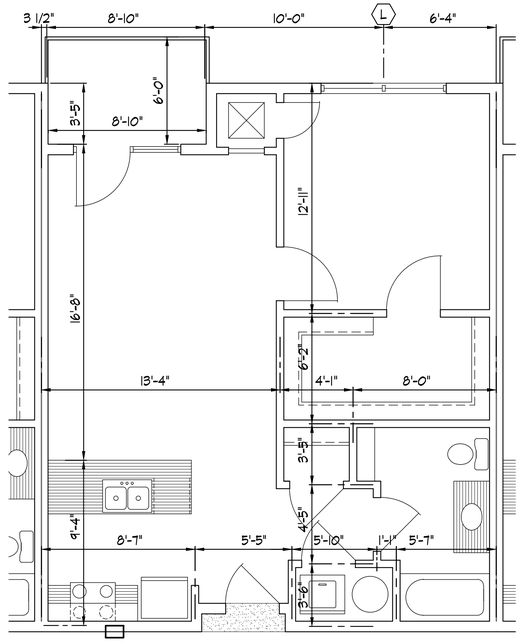
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



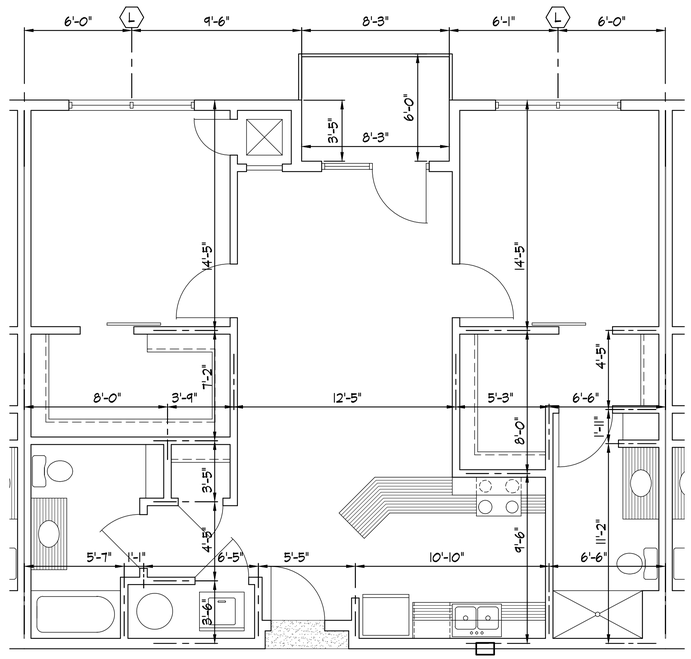

## ONE BEDROOM UNIT - TYPE "J"

SCALE 1/4" = 1'-0"



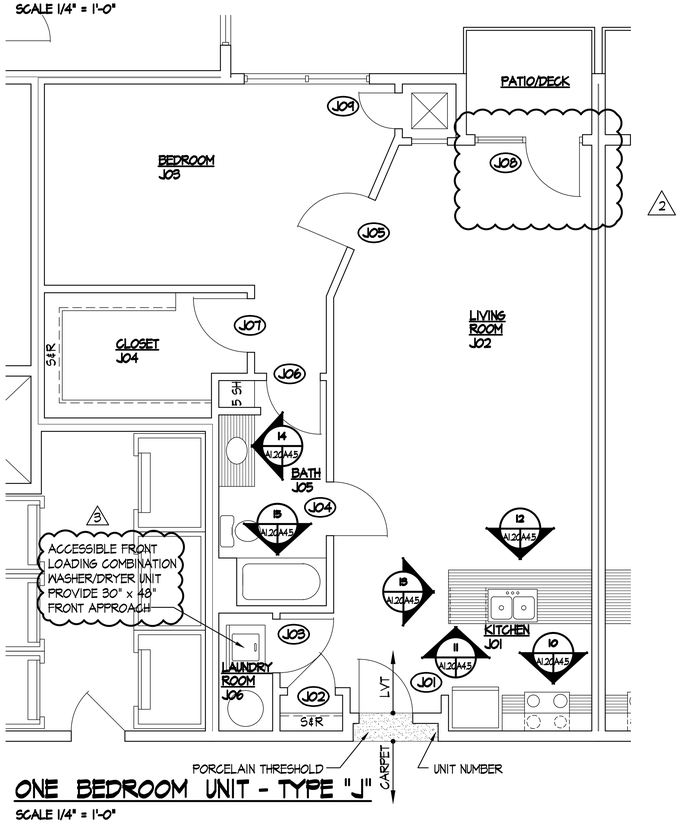

## ONE BEDROOM UNIT - TYPE "K"

SCALE 1/4" = 1'-0"



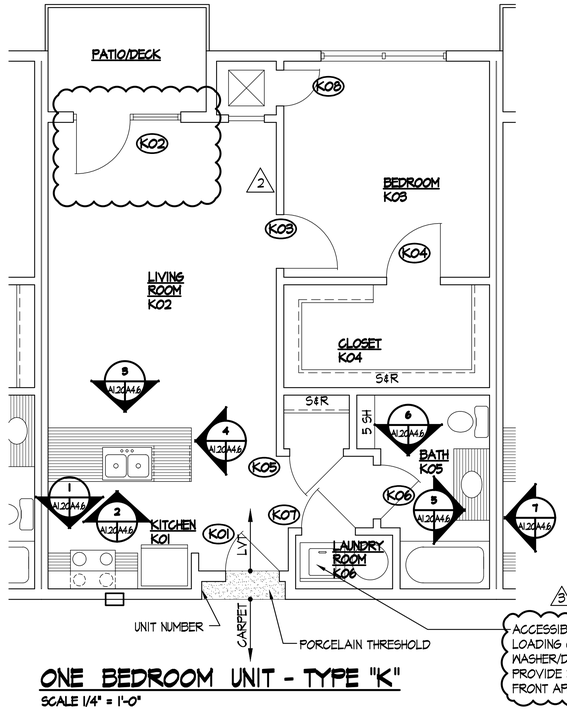

## TWO BEDROOM UNIT - TYPE "L"

SCALE 1/4" = 1'-0"



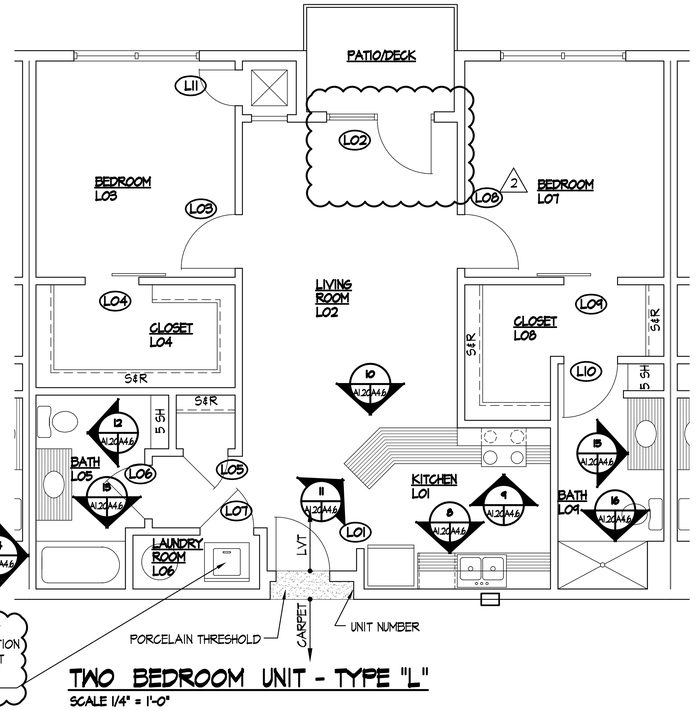

## ONE BEDROOM UNIT - TYPE "J"

SCALE 1/4" = 1'-0"




## ONE BEDROOM UNIT - TYPE "K"

SCALE 1/4" = 1'-0"




## TWO BEDROOM UNIT - TYPE "L"

SCALE 1/4" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

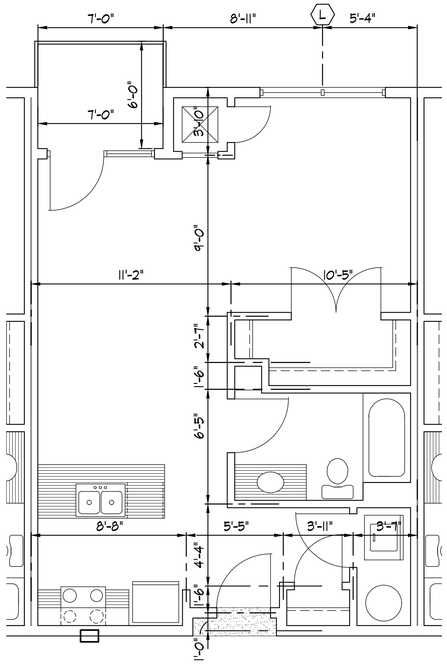
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

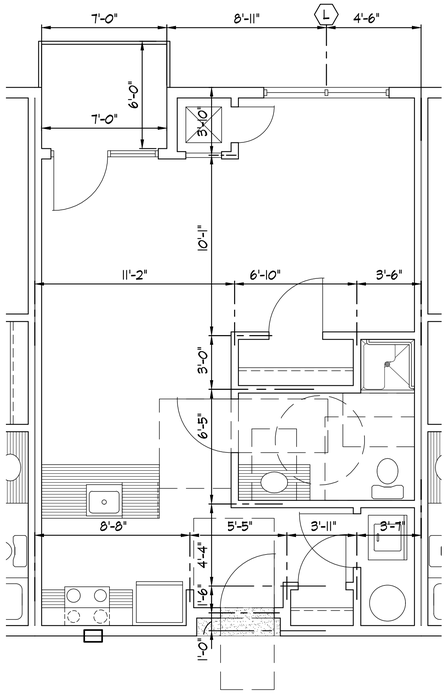
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A1.20

JONES & JONES ASSOCIATES / ARCHITECTS PC

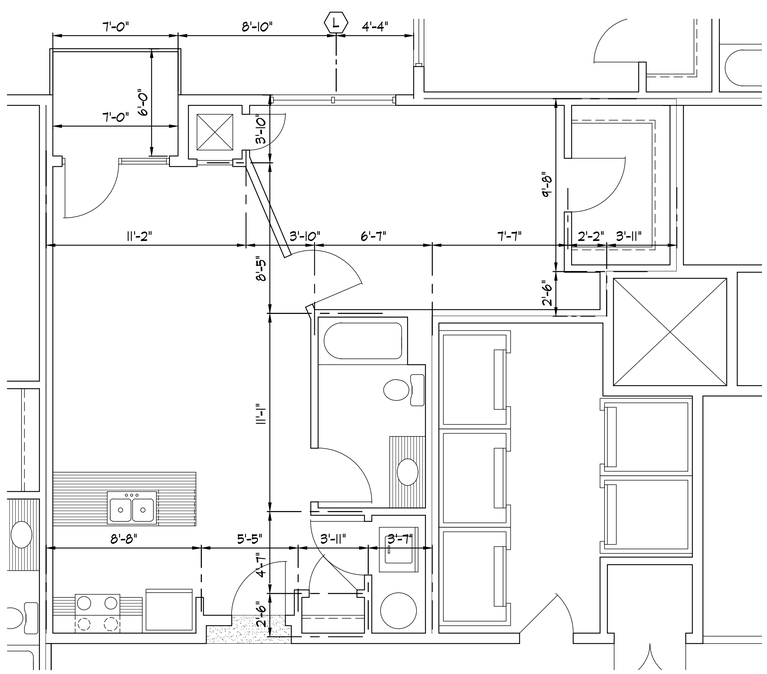



## STUDIO UNIT - TYPE "M"
SCALE 1/4" = 1'-0"

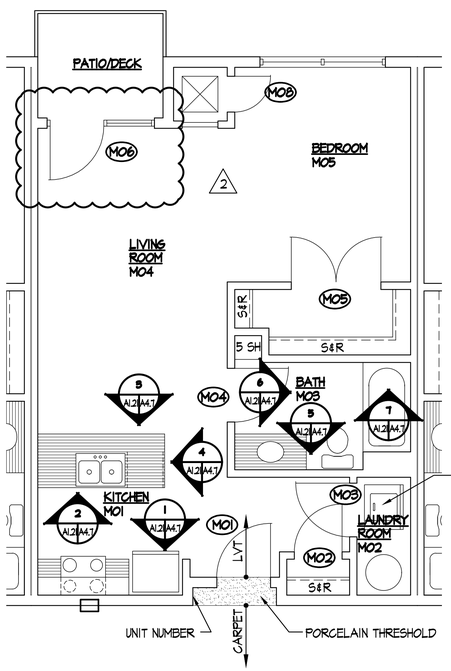



## STUDIO UNIT - TYPE "M-ADA"
SCALE 1/4" = 1'-0"

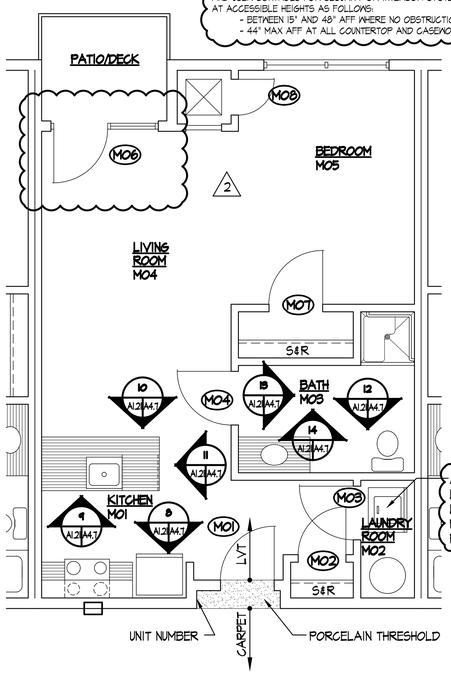
3 ACCESSIBLE TYPE 'A' UNIT NOTES
ALL LIGHTING CONTROLS, ELECTRICAL PANELBOARDS, ELECTRICAL SWITCHES AND RECEPTACLE OUTLETS, ENVIRONMENTAL CONTROLS, APPLIANCE CONTROLS, OPERATING HARDWARE FOR OPERABLE WINDOWS, PLUMBING FIXTURE CONTROLS, AND USER CONTROLS FOR SECURITY OR INTERCOM SYSTEMS SHALL BE MOUNTED AT ACCESSIBLE HEIGHTS AS FOLLOWS:
- BETWEEN 15" AND 48" AFF WHERE NO OBSTRUCTIONS
- 44" MAX AFF AT ALL COUNTERTOP AND CASEWORK LOCATIONS



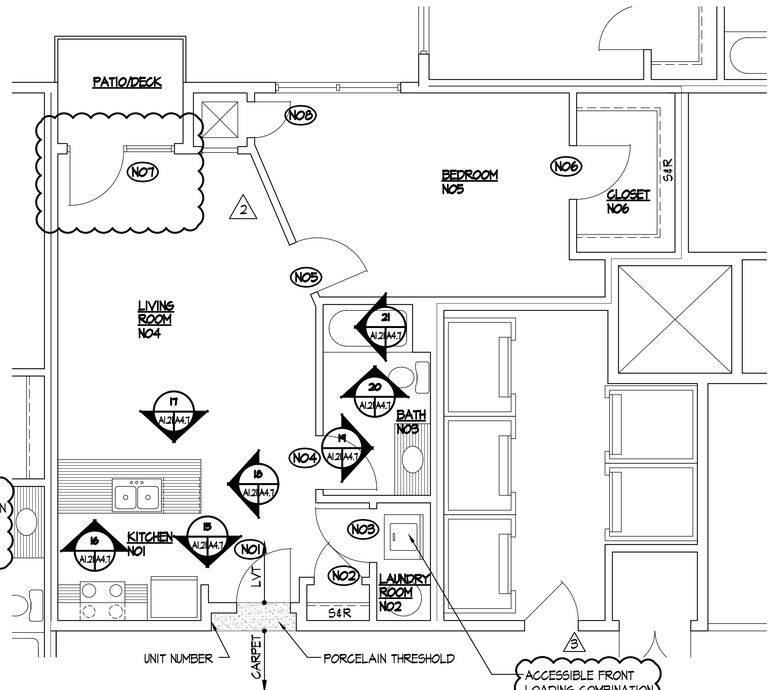

## ONE BEDROOM UNIT - TYPE "N"
SCALE 1/4" = 1'-0"




## STUDIO UNIT - TYPE "M"
SCALE 1/4" = 1'-0"




## STUDIO UNIT - TYPE "M-ADA"
SCALE 1/4" = 1'-0"




## ONE BEDROOM UNIT - TYPE "N"
SCALE 1/4" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

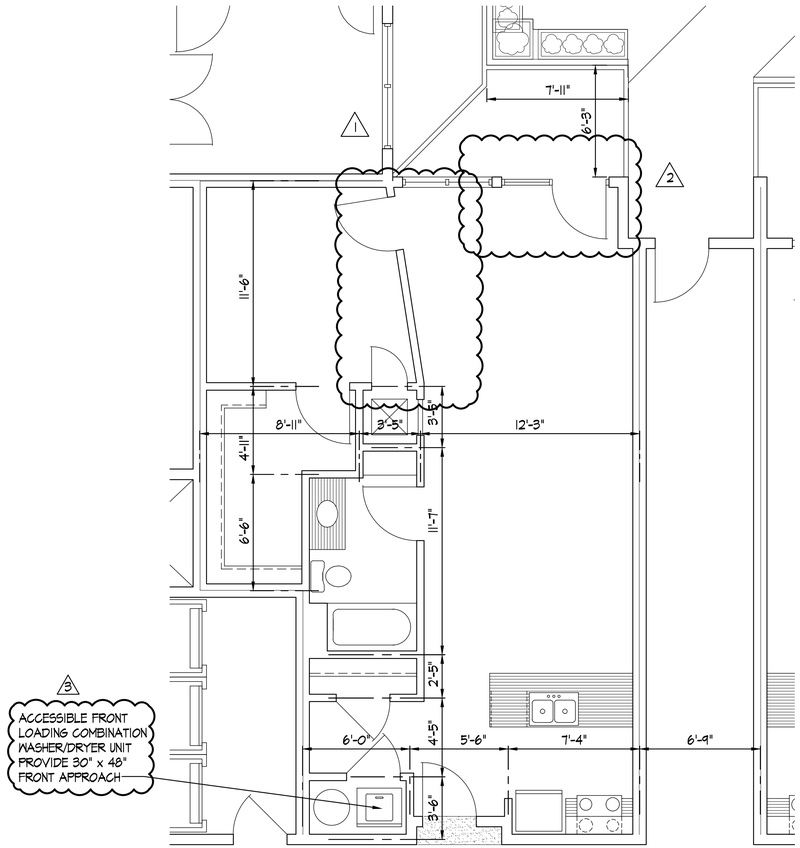
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

A1.21

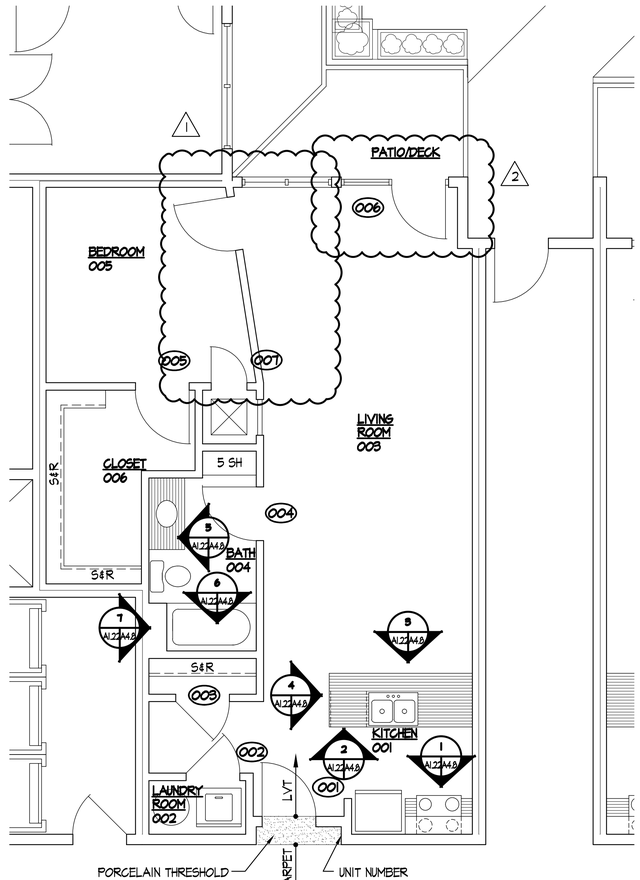
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## ONE BEDROOM UNIT - TYPE "O"

SCALE 1/4" = 1'-0"




## ONE BEDROOM UNIT - TYPE "O"

SCALE 1/4" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

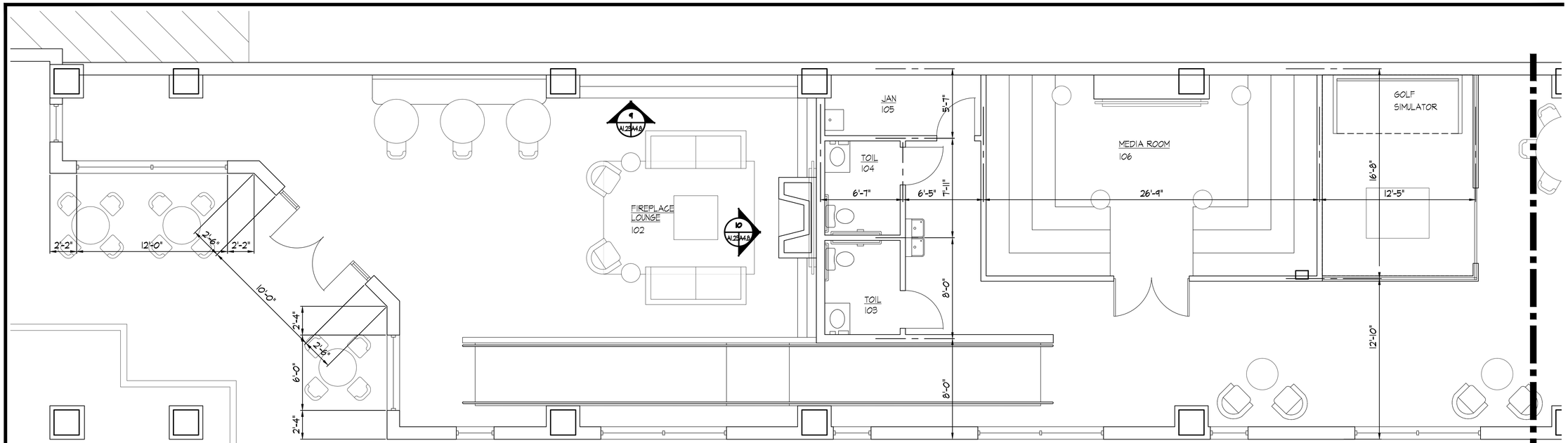
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A1.22

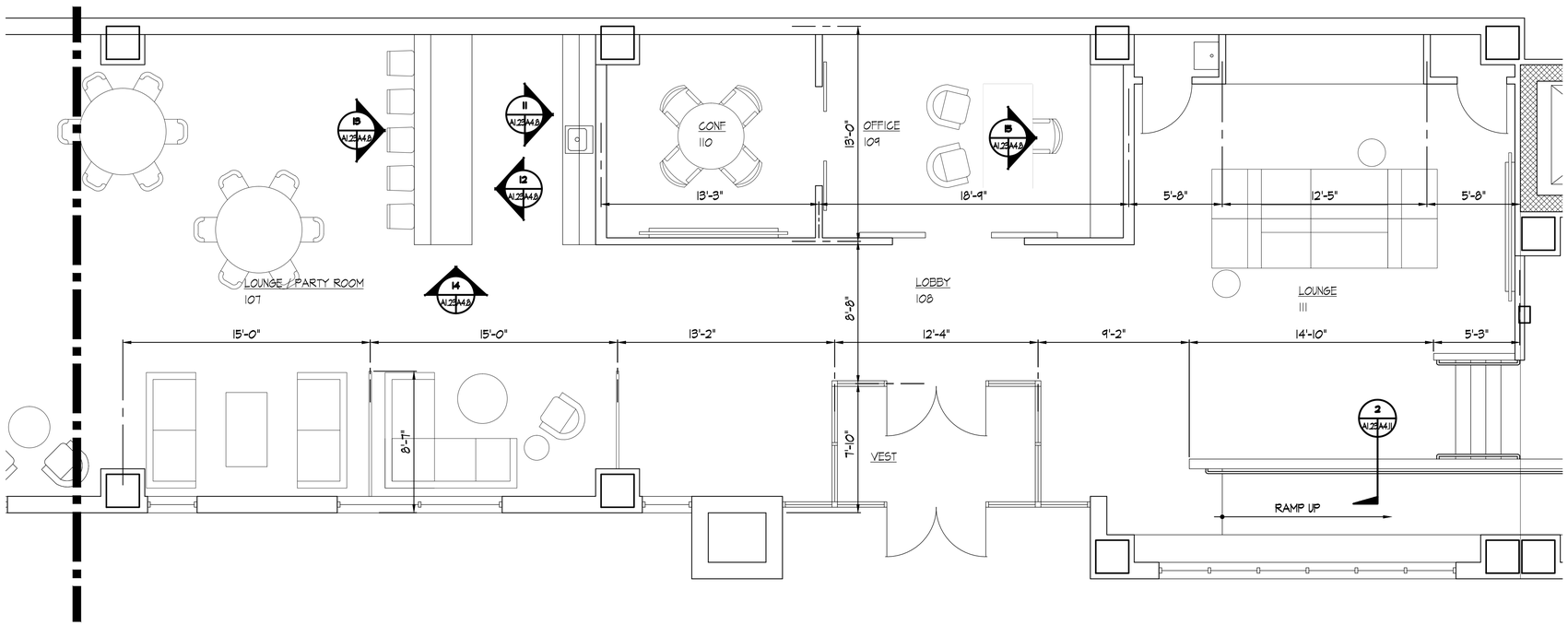
JONES & JONES ASSOCIATES / ARCHITECTS PC




## LARGE SCALE
## AMENITIES FLOOR PLAN

SCALE 1/4" = 1'-0"

1 | A1.1 | A1.23




REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

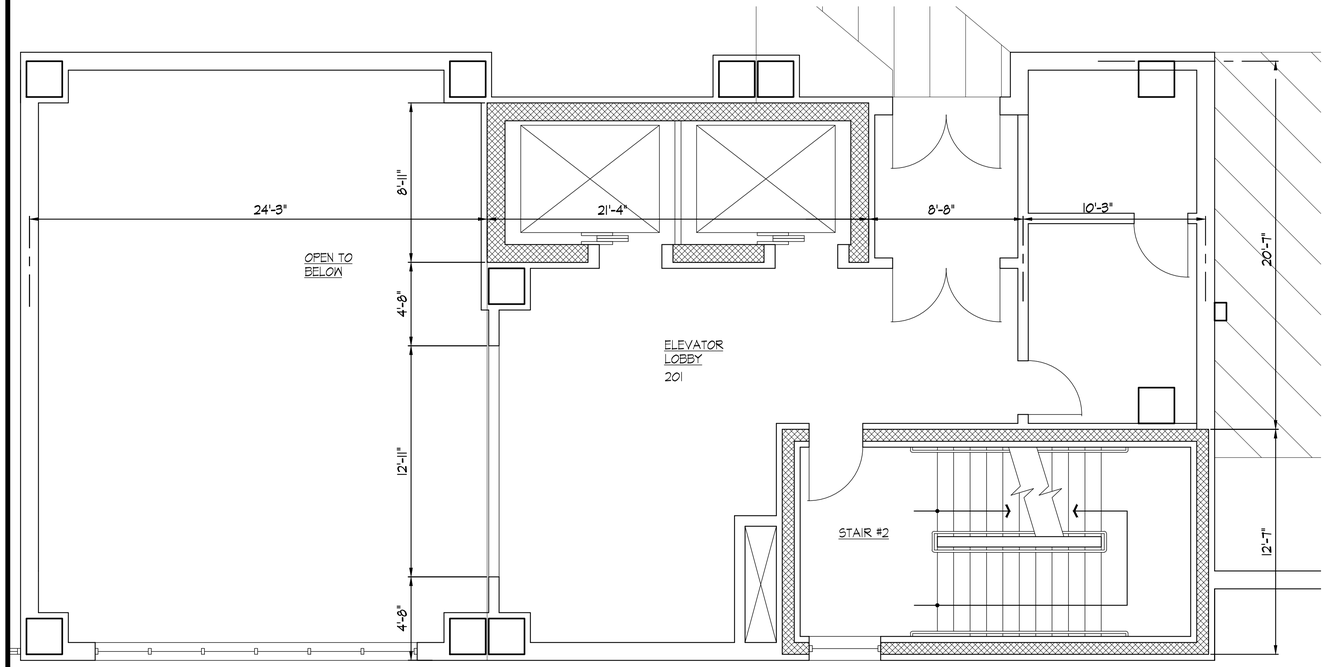
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

**A1.23**

JONES & JONES ASSOCIATES / ARCHITECTS PC

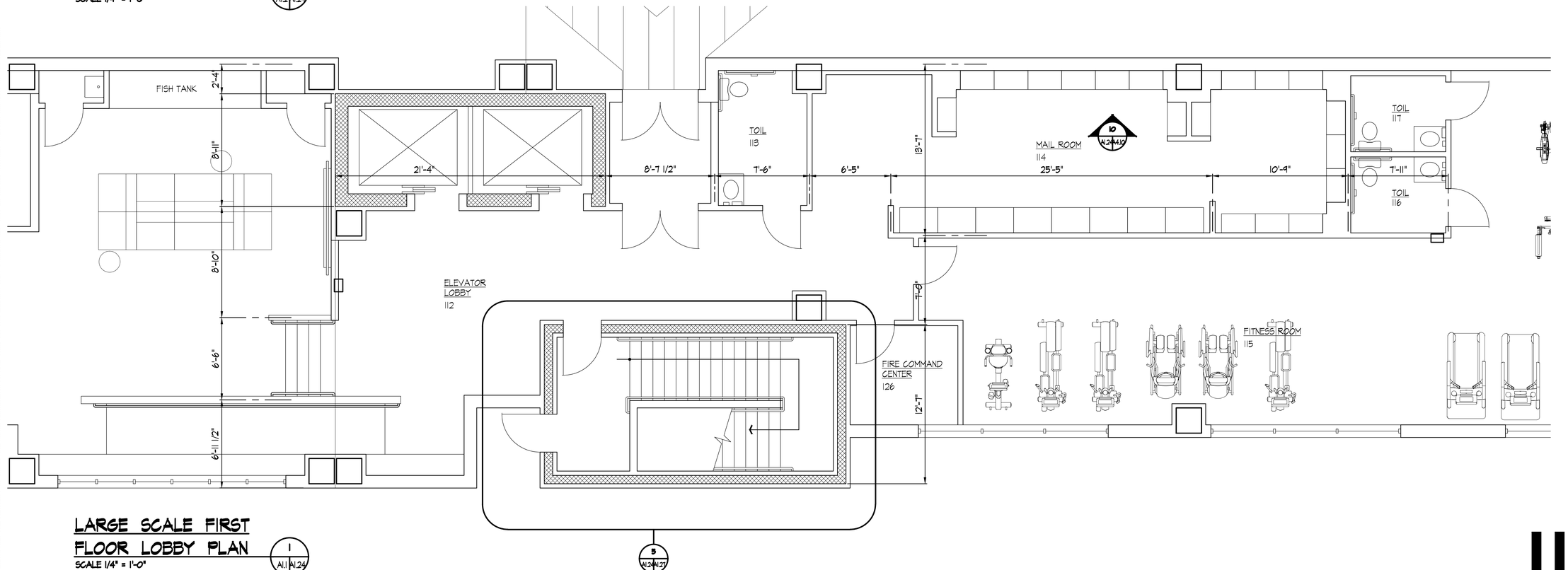
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## LARGE SCALE SECOND FLOOR LOBBY PLAN

SCALE 1/4" = 1'-0"

2 A1.24 | A1.24




## LARGE SCALE FIRST FLOOR LOBBY PLAN

SCALE 1/4" = 1'-0"

1 A1.1 | A1.24

5 A1.24 | A1.27

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

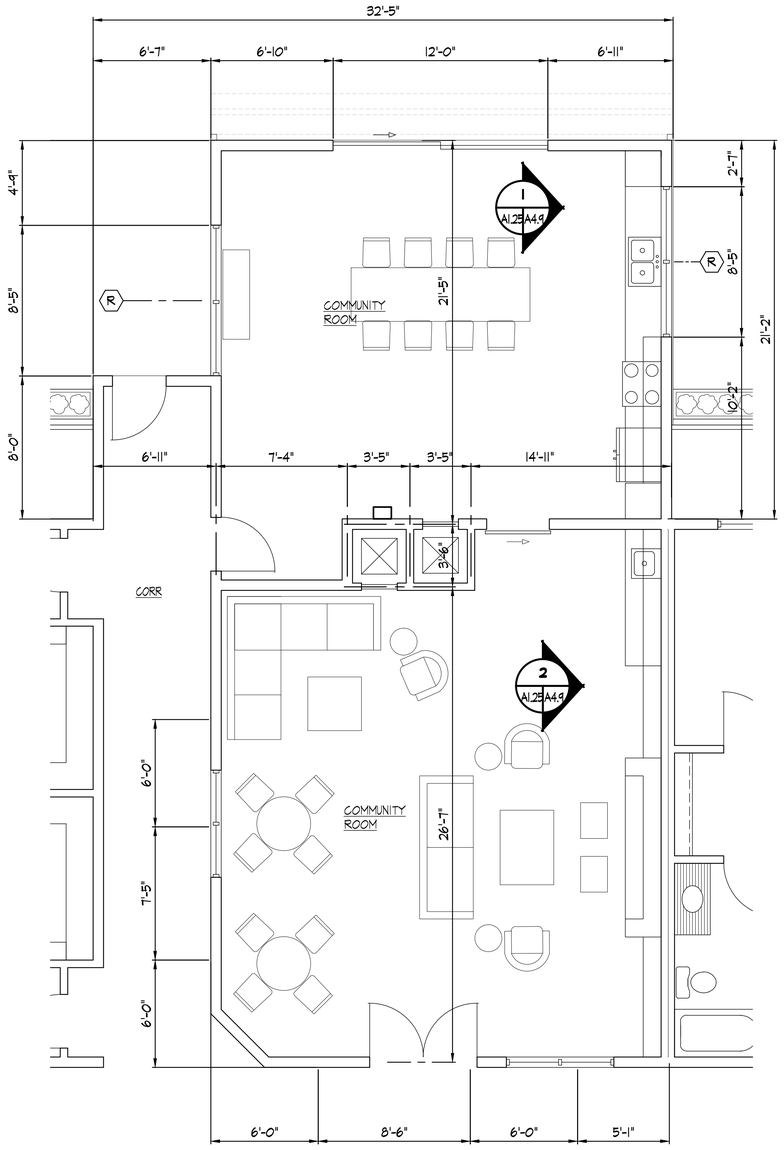
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

A1.24

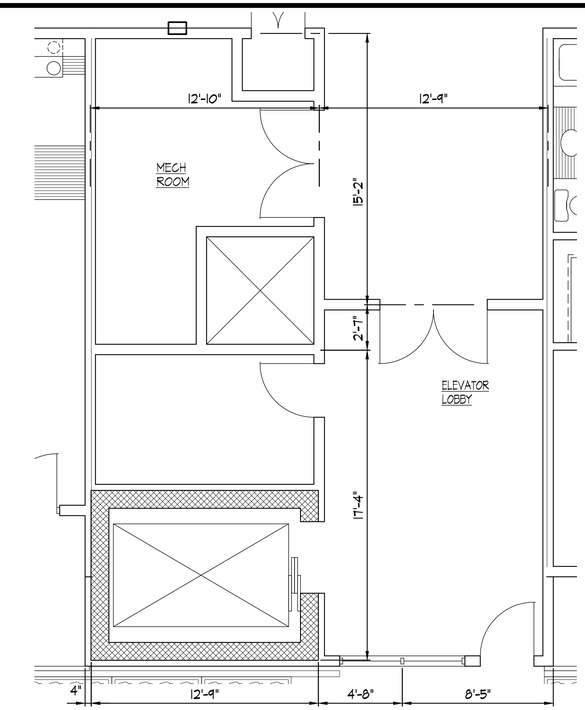
JONES & JONES ASSOCIATES / ARCHITECTS PC




## LARGE SCALE FLOOR PLAN

SCALE 1/4" = 1'-0"

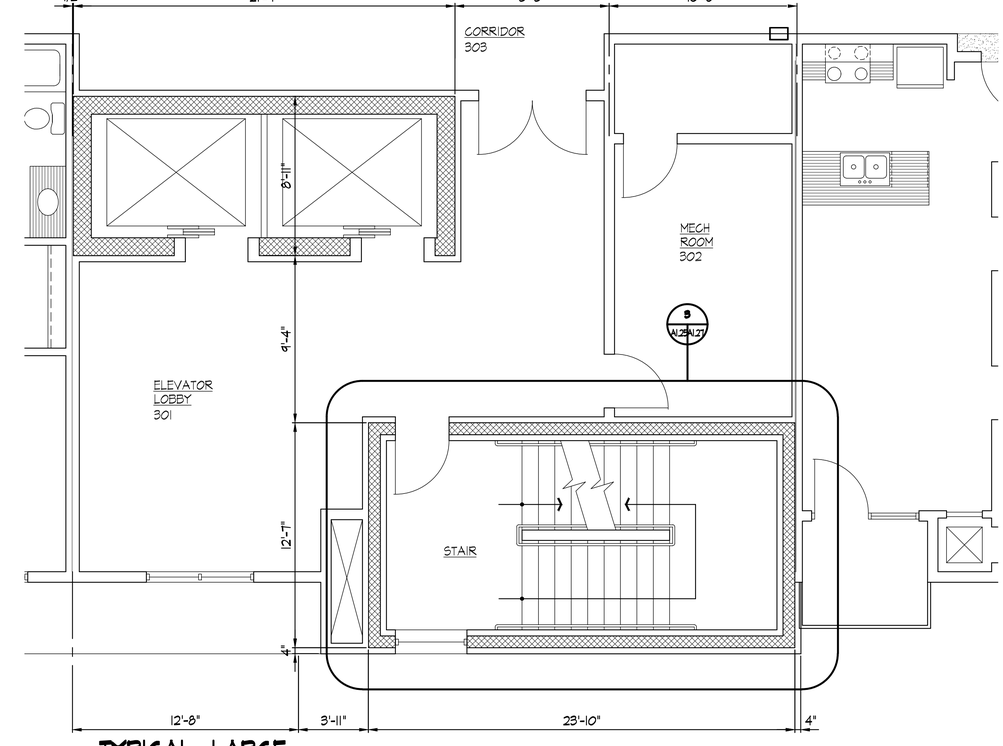
1 A1.3 | A1.25




## TYPICAL LARGE SCALE LOBBY PLAN

SCALE 1/4" = 1'-0"

2 A1.3 | A1.24




## TYPICAL LARGE SCALE LOBBY PLAN

SCALE 1/4" = 1'-0"

3 A1.3 | A1.24

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

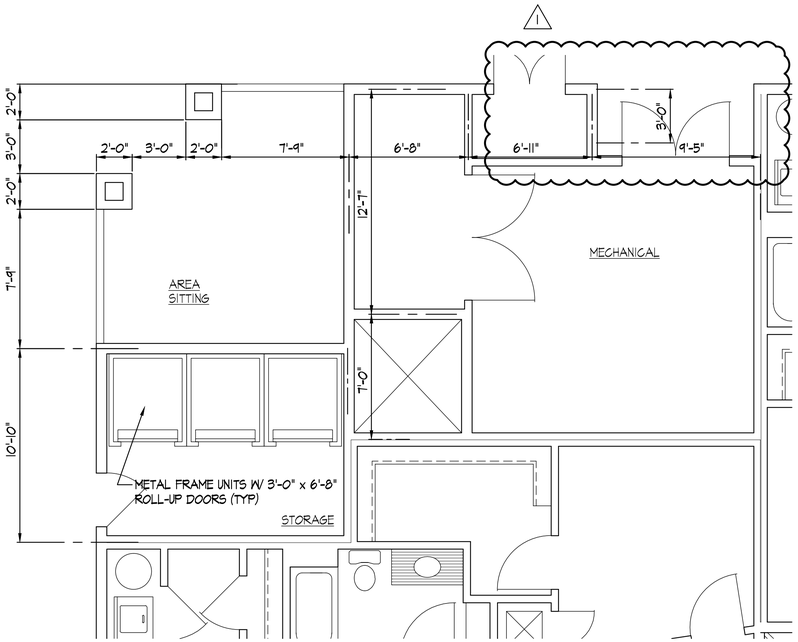
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

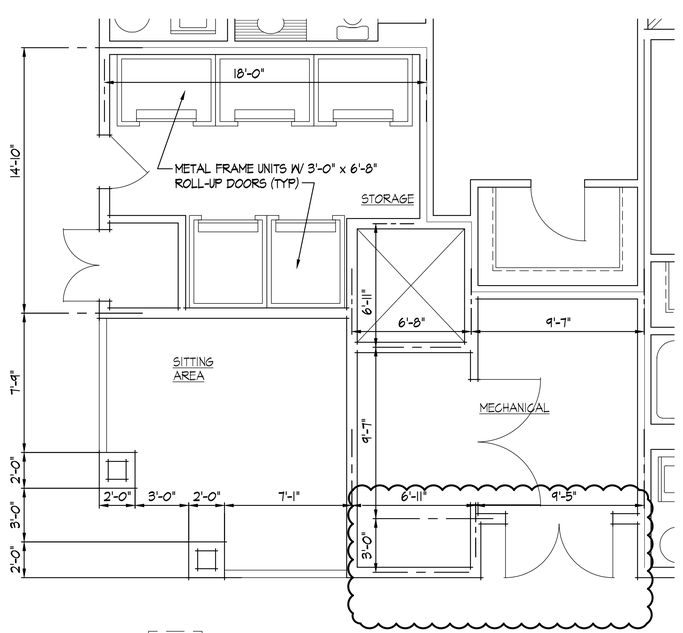
A1.25

JONES & JONES ASSOCIATES / ARCHITECTS PC

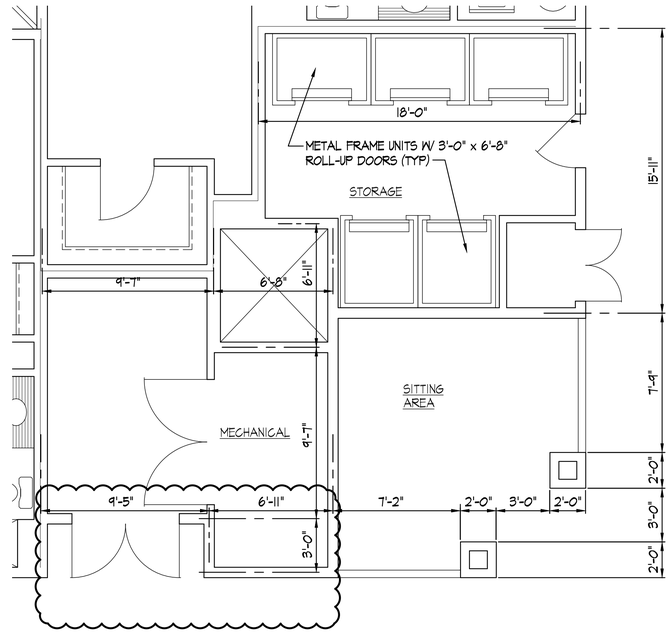
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




TYPICAL LARGE
SCALE FLOOR PLAN 1
SCALE 1/4" = 1'-0"
A1.3 | A1.26




TYPICAL LARGE
SCALE FLOOR PLAN 2
SCALE 1/4" = 1'-0"
A1.3 | A1.26




TYPICAL LARGE
SCALE FLOOR PLAN 3
SCALE 1/4" = 1'-0"
A1.3 | A1.26

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

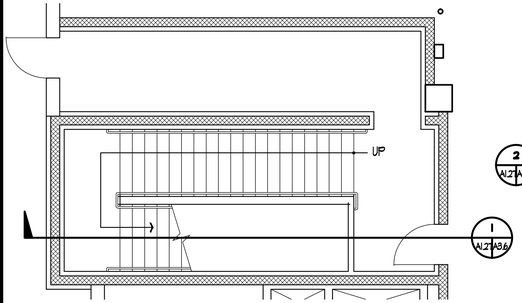
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

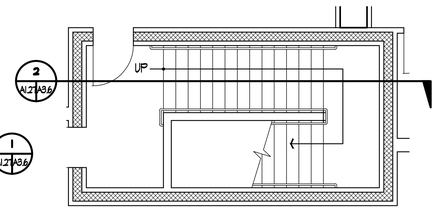
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

A1.26

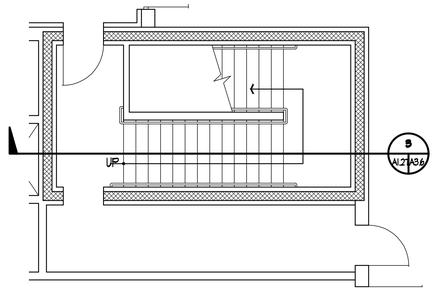
JONES & JONES ASSOCIATES / ARCHITECTS PC



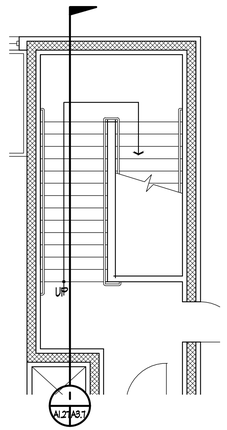

STAIR # 1 - FIRST FLOOR (1 / A1.1 | A1.2)
SCALE 3/16" = 1'-0"



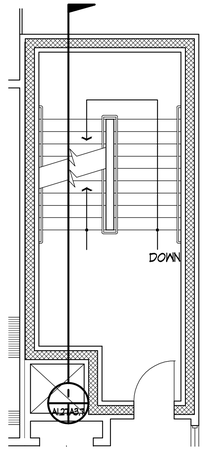

STAIR # 2 - FIRST FLOOR (5 / A1.2 | A1.2)
SCALE 3/16" = 1'-0"



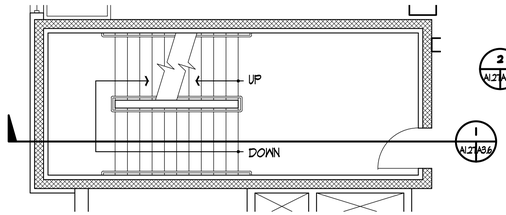

STAIR # 3 - FIRST FLOOR (9 / A1.1 | A1.2)
SCALE 3/16" = 1'-0"



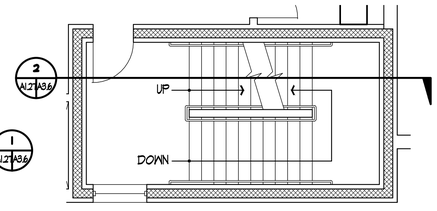

STAIR # 4 - FIRST FLOOR (13 / A1.1 | A1.2)
SCALE 3/16" = 1'-0"



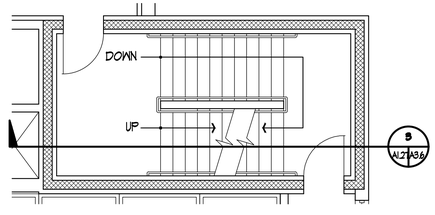

STAIR # 4 - SEVENTH FLOOR (16 / A1.7 | A1.2)
SCALE 3/16" = 1'-0"



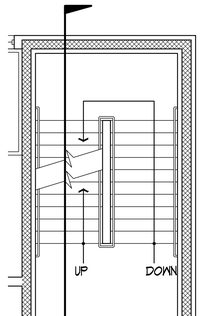

STAIR # 1 - SECOND FLOOR (2 / A1.2 | A1.2)
SCALE 3/16" = 1'-0"



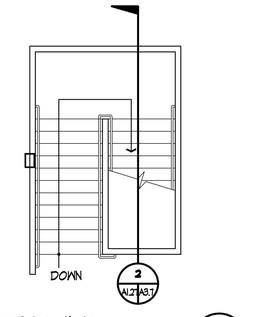

STAIR # 2 - SECOND FLOOR (6 / A1.2 | A1.2)
SCALE 3/16" = 1'-0"



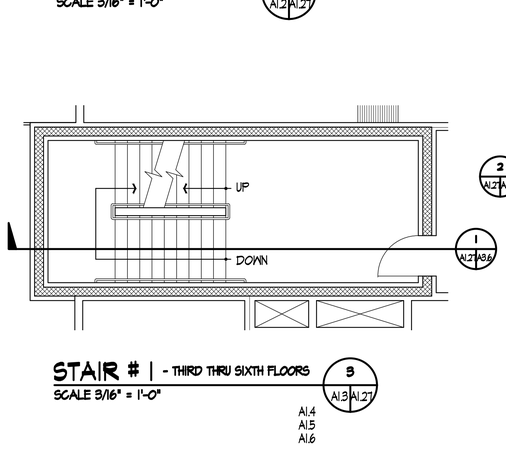

STAIR # 3 - SECOND FLOOR (10 / A1.2 | A1.2)
SCALE 3/16" = 1'-0"



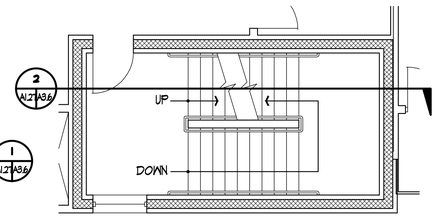

STAIR # 4 - SECOND FLOOR (14 / A1.2 | A1.2)
SCALE 3/16" = 1'-0"



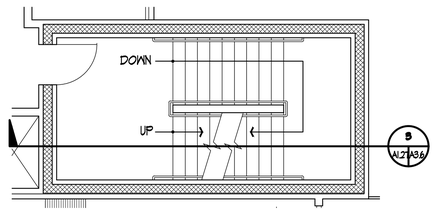

STAIR # 5 - FIRST FLOOR (17 / A1.1 | A1.2)
SCALE 3/16" = 1'-0"



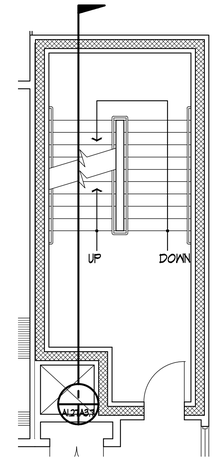

STAIR # 1 - THIRD THRU SIXTH FLOORS (3 / A1.3 | A1.2)
SCALE 3/16" = 1'-0"
A1.4
A1.5
A1.6



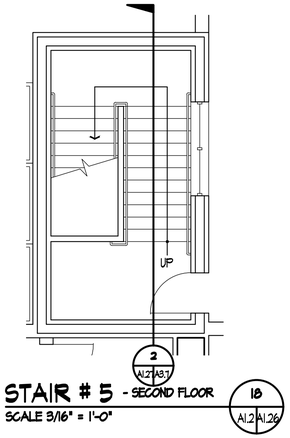

STAIR # 2 - THIRD THRU SIXTH FLOOR (7 / A1.4 | A1.2)
SCALE 3/16" = 1'-0"
A1.5
A1.6
A1.25



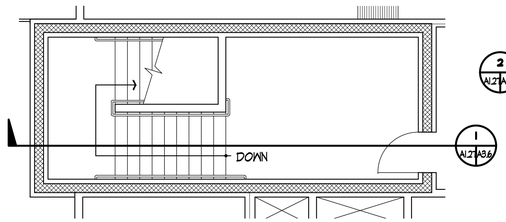

STAIR # 3 - THIRD THRU SIXTH FLOOR (11 / A1.3 | A1.2)
SCALE 3/16" = 1'-0"
A1.4
A1.5
A1.6



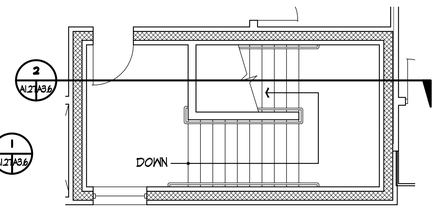

STAIR # 4 - THIRD THRU SIXTH FLOOR (15 / A1.3 | A1.2)
SCALE 3/16" = 1'-0"
A1.4
A1.5
A1.6



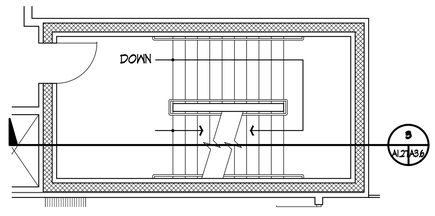

STAIR # 5 - SECOND FLOOR (18 / A1.2 | A1.26)
SCALE 3/16" = 1'-0"




STAIR # 1 - SEVENTH FLOOR (4 / A1.7 | A1.2)
SCALE 3/16" = 1'-0"




STAIR # 2 - SEVENTH FLOOR (8 / A1.7 | A1.2)
SCALE 3/16" = 1'-0"




STAIR # 3 - SEVENTH FLOOR (12 / A1.7 | A1.2)
SCALE 3/16" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

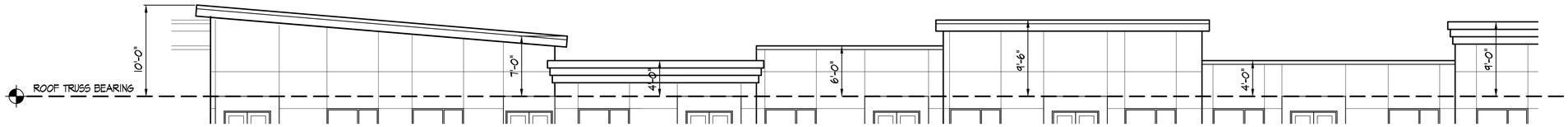
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A1.27

JONES & JONES ASSOCIATES / ARCHITECTS PC

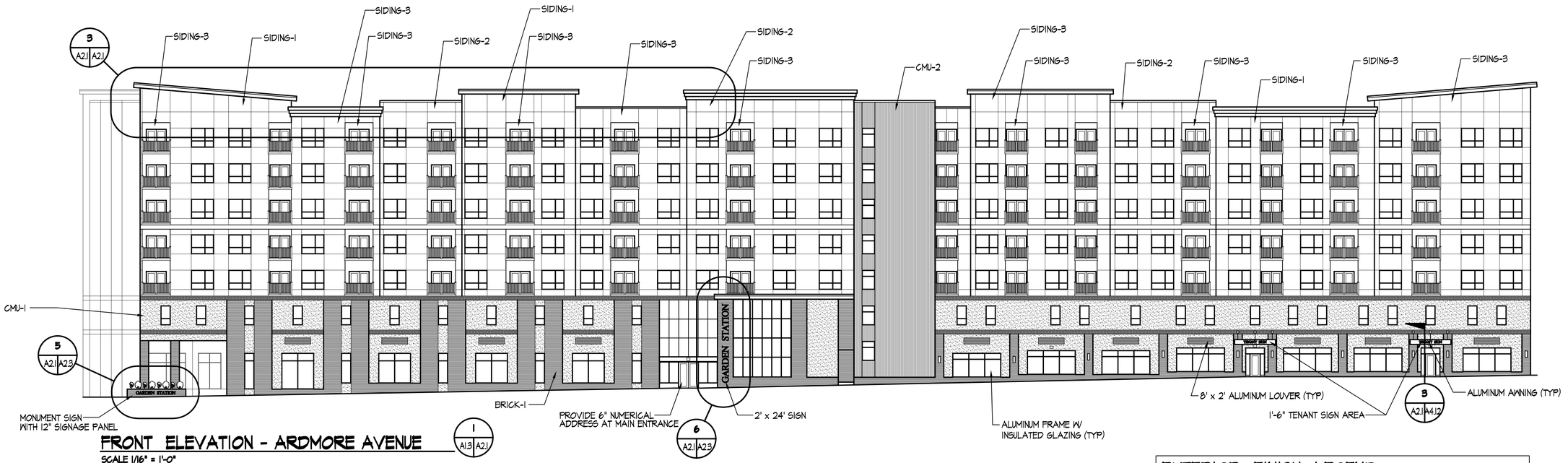
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## LARGE SCALE PARAPET ELEVATION

SCALE 1/16" = 1'-0"

5 A2.1 | A2.1




## FRONT ELEVATION - ARDMORE AVENUE

SCALE 1/16" = 1'-0"

1 A1.3 | A2.1

## RIGHT SIDE ELEVATION - TERRACE STREET

SCALE 1/16" = 1'-0"

2 A1.3 | A2.1

## EXTERIOR FINISH LEGEND

| | PRODUCT | COLOR BASIS OF DESIGN |
|---|---|---|
| CMU-1 | CONCRETE MASONRY UNITS<br>MFR: KANTA<br>PRODUCT: SPLIT FACE CMU<br>COLOR: CASTLE WHITE | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2829<br>COLOR: CLASSICAL WHITE |
| CMU-2 | CONCRETE MASONRY UNITS<br>MFR: KANTA<br>PRODUCT: SPLIT FACE CMU 5-SCORE<br>COLOR: KANTA BROWN | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2808<br>COLOR: ROOKWOOD DARK BROWN |
| BRICK-1 | BRICK<br>MFR: GENERAL SHALE<br>COLLECTION: DENVER<br>COLOR: OLD CHICAGO | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2824<br>COLOR: RENWICK GOLDEN OAK |
| SIDING-1 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: LIGHT MIST | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2844<br>COLOR: ROYCROFT MIST GRAY |
| SIDING-2 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: GRAY SLATE | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2821<br>COLOR: DOWNING STONE |
| SIDING-3 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: IRON GRAY | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2848<br>COLOR: ROYCROFT PEWTER |

NOTE
SUBSTITUTIONS SHALL BE ALLOWED FOR ALL EXTERIOR FINISHES PROVIDED THAT THEY MAINTAIN SIMILAR ELEMENTS OF ARCHITECTURAL DESIGN AND MEET ALL LOCAL ZONING ORDINANCES. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A2.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

FRONT ELEVATION - ARDMORE AVENUE

SCALE 1/16" = 1'-0"

1 A1.3 A2.1

RIGHT SIDE ELEVATION - TERRACE STREET

SCALE 1/16" = 1'-0"

2 A1.3 A2.1

## EXTERIOR FINISH LEGEND

| | PRODUCT | COLOR BASIS OF DESIGN |
|---|---|---|
| CMU-1 | CONCRETE MASONRY UNITS<br>MFR: KANTA<br>PRODUCT: SPLIT FACE CMU<br>COLOR: CASTLE WHITE | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2829<br>COLOR: CLASSICAL WHITE |
| CMU-2 | CONCRETE MASONRY UNITS<br>MFR: KANTA<br>PRODUCT: SPLIT FACE CMU 5-SCORE<br>COLOR: KANTA BROWN | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2808<br>COLOR: ROOKWOOD DARK BROWN |
| BRICK-1 | BRICK<br>MFR: GENERAL SHALE<br>COLLECTION: DENVER<br>COLOR: OLD CHICAGO | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2824<br>COLOR: RENWICK GOLDEN OAK |
| SIDING-1 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: LIGHT MIST | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2844<br>COLOR: ROYCROFT MIST GRAY |
| SIDING-2 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: GRAY SLATE | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2821<br>COLOR: DOWNING STONE |
| SIDING-3 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: IRON GRAY | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2848<br>COLOR: ROYCROFT PEWTER |

NOTE
SUBSTITUTIONS SHALL BE ALLOWED FOR ALL EXTERIOR FINISHES PROVIDED THAT THEY MAINTAIN SIMILAR ELEMENTS OF ARCHITECTURAL DESIGN AND MEET ALL LOCAL ZONING ORDINANCES. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A2.1A

JONES & JONES ASSOCIATES / ARCHITECTS PC

## LEFT SIDE ELEVATION - VERMONT STREET

SCALE 1/16" = 1'-0"

1 A1.3 | A2.2

## EXTERIOR FINISH LEGEND

| | PRODUCT | COLOR BASIS OF DESIGN |
|---|---|---|
| CMU-1 | CONCRETE MASONRY UNITS<br>MFR: KANTA<br>PRODUCT: SPLIT FACE CMU<br>COLOR: CASTLE WHITE | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2829<br>COLOR: CLASSICAL WHITE |
| CMU-2 | CONCRETE MASONRY UNITS<br>MFR: KANTA<br>PRODUCT: SPLIT FACE CMU 5-SCORE<br>COLOR: KANTA BROWN | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2808<br>COLOR: ROOKWOOD DARK BROWN |
| BRICK-1 | BRICK<br>MFR: GENERAL SHALE<br>COLLECTION: DENVER<br>COLOR: OLD CHICAGO | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2824<br>COLOR: RENWICK GOLDEN OAK |
| SIDING-1 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: LIGHT MIST | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2844<br>COLOR: ROYCROFT MIST GRAY |
| SIDING-2 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: GRAY SLATE | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2821<br>COLOR: DOWNING STONE |
| SIDING-3 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: IRON GRAY | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2848<br>COLOR: ROYCROFT PEWTER |

NOTE
SUBSTITUTIONS SHALL BE ALLOWED FOR ALL EXTERIOR FINISHES PROVIDED THAT THEY MAINTAIN SIMILAR ELEMENTS OF ARCHITECTURAL DESIGN AND MEET ALL LOCAL ZONING ORDINANCES. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.

## REAR ELEVATION - BEVERLY AVENUE

SCALE 1/16" = 1'-0"

2 A1.3 | A2.2

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A2.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

LEFT SIDE ELEVATION - VERMONT STREET

SCALE 1/16" = 1'-0"

1 A1.3 A2.2

## EXTERIOR FINISH LEGEND

| | PRODUCT | COLOR BASIS OF DESIGN |
|---|---|---|
| CMU-1 | CONCRETE MASONRY UNITS<br>MFR: KANTA<br>PRODUCT: SPLIT FACE CMU<br>COLOR: CASTLE WHITE | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2829<br>COLOR: CLASSICAL WHITE |
| CMU-2 | CONCRETE MASONRY UNITS<br>MFR: KANTA<br>PRODUCT: SPLIT FACE CMU 5-SCORE<br>COLOR: KANTA BROWN | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2808<br>COLOR: ROOKWOOD DARK BROWN |
| BRICK-1 | BRICK<br>MFR: GENERAL SHALE<br>COLLECTION: DENVER<br>COLOR: OLD CHICAGO | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2824<br>COLOR: RENWICK GOLDEN OAK |
| SIDING-1 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: LIGHT MIST | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2844<br>COLOR: ROYCROFT MIST GRAY |
| SIDING-2 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: GRAY SLATE | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2821<br>COLOR: DOWNING STONE |
| SIDING-3 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: IRON GRAY | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2848<br>COLOR: ROYCROFT PEWTER |

NOTE
SUBSTITUTIONS SHALL BE ALLOWED FOR ALL EXTERIOR FINISHES PROVIDED THAT THEY MAINTAIN SIMILAR ELEMENTS OF ARCHITECTURAL DESIGN AND MEET ALL LOCAL ZONING ORDINANCES. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.

REAR ELEVATION - BEVERLY AVENUE

SCALE 1/16" = 1'-0"

2 A1.3 A2.2

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A2.2A

JONES & JONES ASSOCIATES / ARCHITECTS PC

## COURTYARD EXTERIOR ELEVATION - ARDMORE STREET

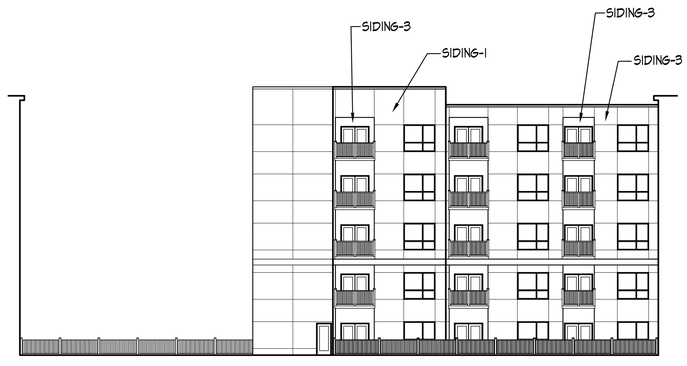
1 A1.3 | A2.3

SCALE 1/16" = 1'-0"

## COURTYARD EXTERIOR ELEVATION - BEVERLY AVENUE

2 A1.3 | A2.3

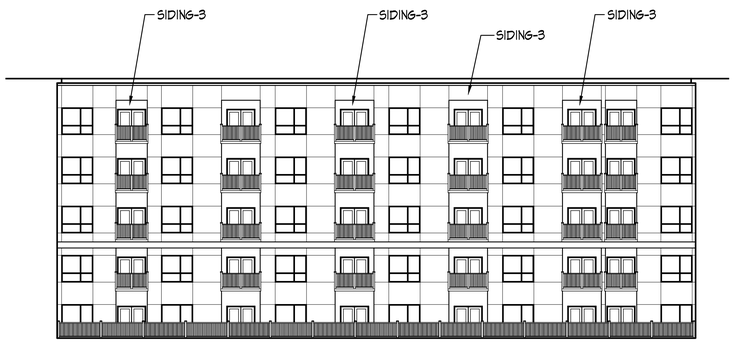
SCALE 1/16" = 1'-0"




## COURTYARD EXTERIOR ELEVATION - TERRACE STREET

3 A1.3 | A2.3

SCALE 1/16" = 1'-0"




## COURTYARD EXTERIOR ELEVATION - VERMONT STREET

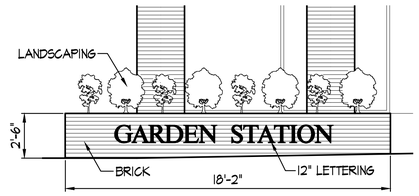
4 A1.3 | A2.3

SCALE 1/16" = 1'-0"

## EXTERIOR FINISH LEGEND

| | PRODUCT | COLOR BASIS OF DESIGN |
|---|---|---|
| CMU-1 | CONCRETE MASONRY UNITS<br>MFR: KANTA<br>PRODUCT: SPLIT FACE CMU<br>COLOR: CASTLE WHITE | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2824<br>COLOR: CLASSICAL WHITE |
| CMU-2 | CONCRETE MASONRY UNITS<br>MFR: KANTA<br>PRODUCT: SPLIT FACE CMU 5-SCORE<br>COLOR: KANTA BROWN | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2808<br>COLOR: ROOKWOOD DARK BROWN |
| BRICK-1 | BRICK<br>MFR: GENERAL SHALE<br>COLLECTION: DENVER<br>COLOR: OLD CHICAGO | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2824<br>COLOR: RENWICK GOLDEN OAK |
| SIDING-1 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: LIGHT MIST | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2844<br>COLOR: ROYCROFT MIST GRAY |
| SIDING-2 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: GRAY SLATE | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2821<br>COLOR: DOMINO STONE |
| SIDING-3 | CEMENTITIOUS SIDING<br>MFR: JAMES HARDIE<br>PRODUCT: HARDIE PANEL SIDING<br>COLOR: IRON GRAY | MFR: SHERWIN WILLIAMS<br>COLOR ID: SW2848<br>COLOR: ROYCROFT PEWTER |

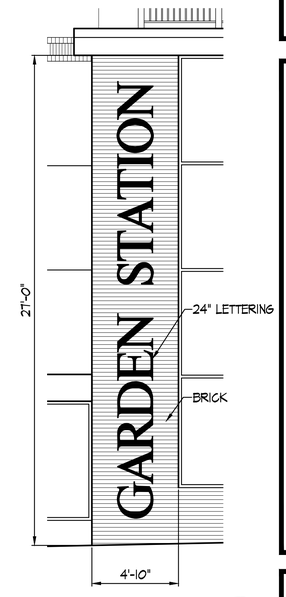
NOTE
SUBSTITUTIONS SHALL BE ALLOWED FOR ALL EXTERIOR FINISHES PROVIDED THAT THEY MAINTAIN SIMILAR ELEMENTS OF ARCHITECTURAL DESIGN AND MEET ALL LOCAL ZONING ORDINANCES. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.




## MONUMENT SIGN

5 A2.1 | A2.3

SCALE 1/4" = 1'-0"




## BUILDING SIGN

6 A2.1 | A2.3

SCALE 1/4" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

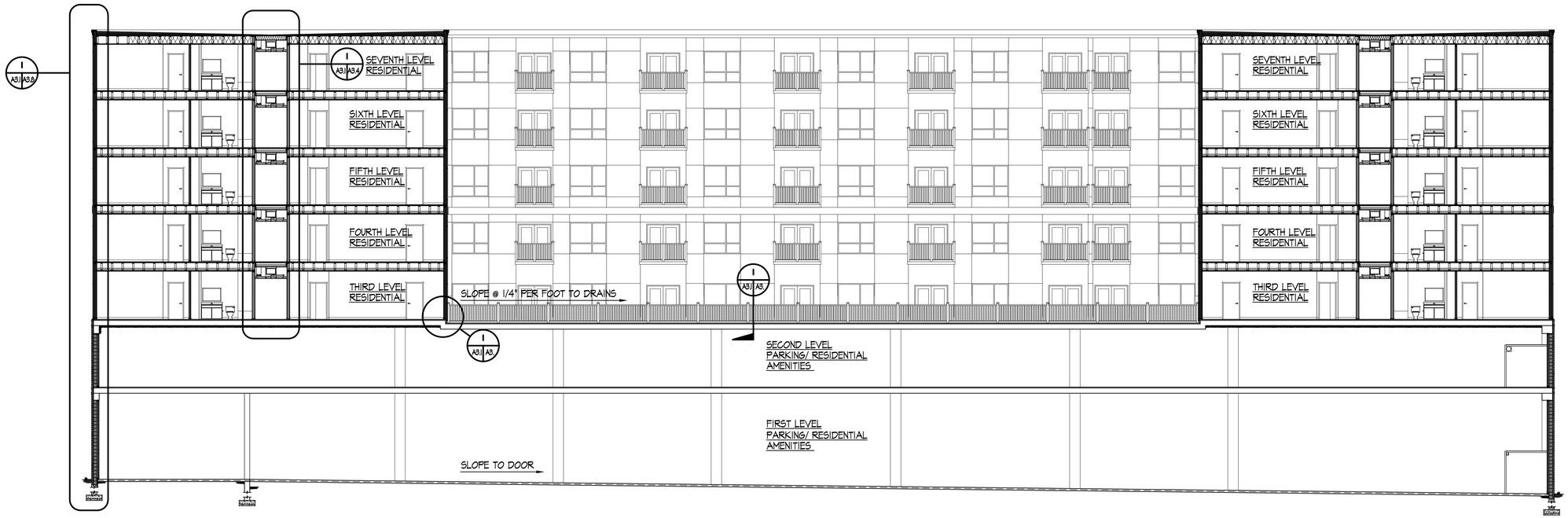
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A2.3

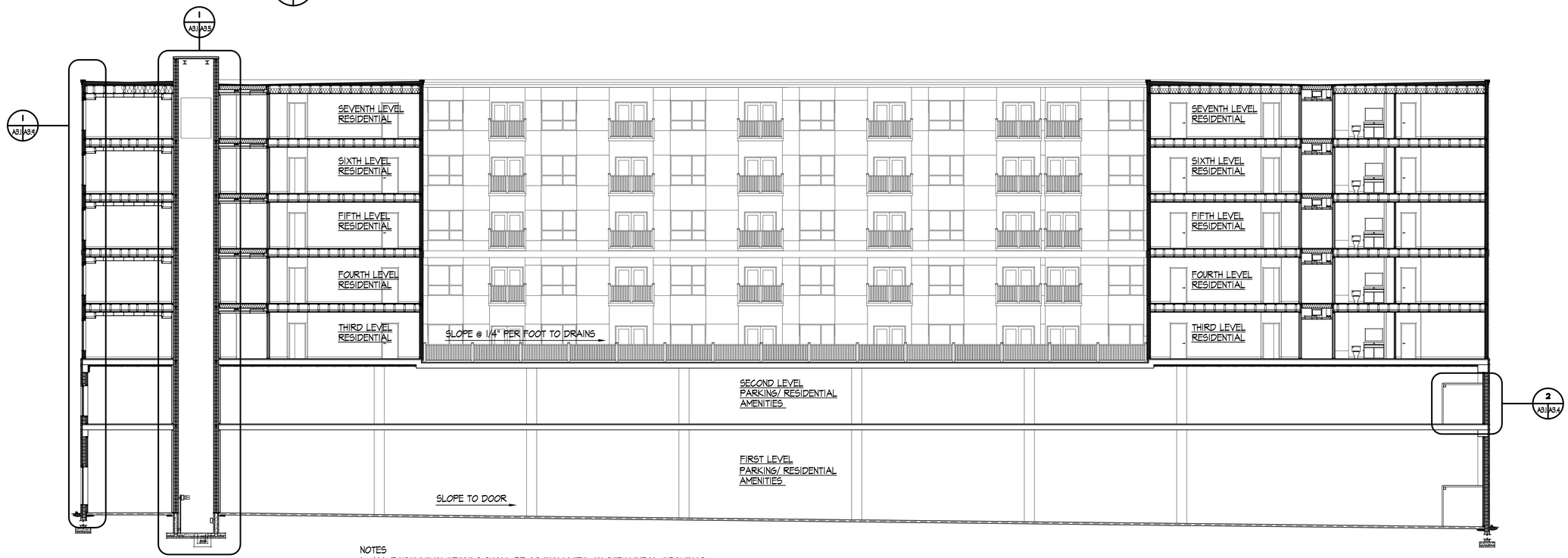
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## BUILDING SECTION

SCALE 3/32" = 1'-0"




## BUILDING SECTION

SCALE 3/32" = 1'-0"

NOTES
1. ALL FOUNDATION DETAILS SHALL BE AS INDICATED ON STRUCTURAL DRAWINGS
2. PROVIDE 4" EXTENSIVE SOIL MIX ON GRANULAR DRAINAGE AT THIRD FLOOR PERVIOUS AREAS
3. PROVIDE WATERPROOF COATING SYSTEM ON THIRD FLOOR CONCRETE DECK

1

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

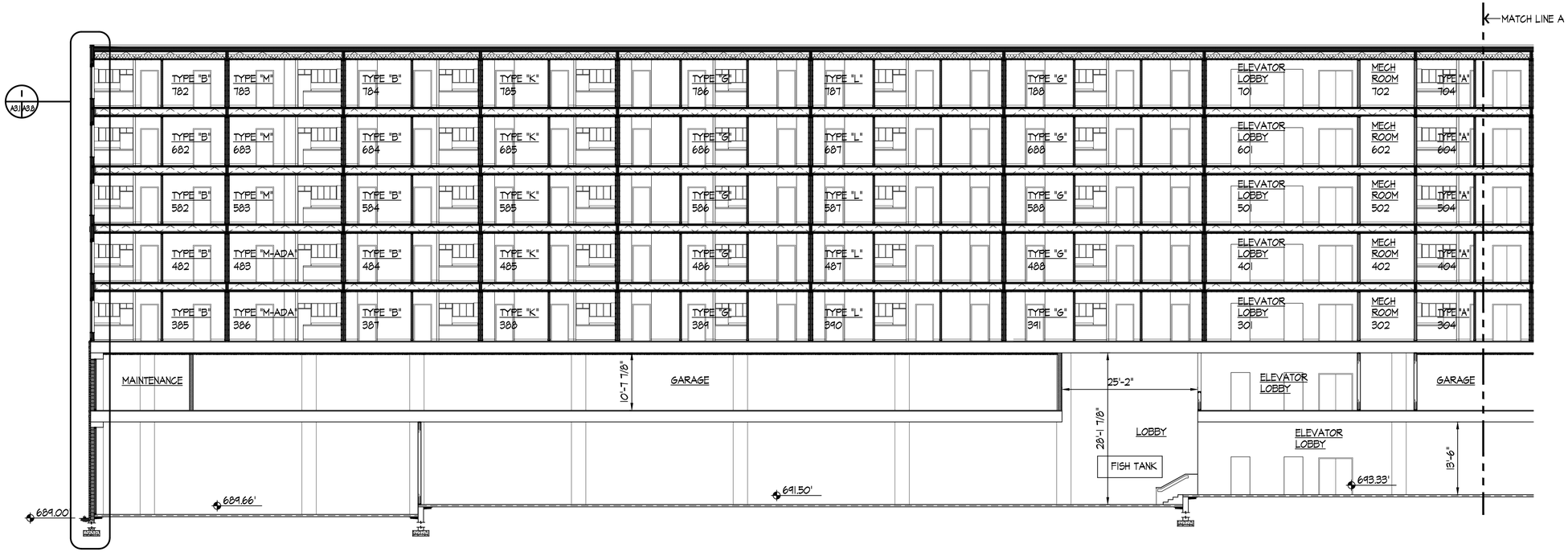
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2743
DATE
18 JUN 2021

A3.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## BUILDING SECTION

SCALE 3/32" = 1'-0"

1 A1.1 A3.2

NOTE
ALL FOUNDATION DETAILS SHALL BE AS INDICATED ON STRUCTURAL DRAWINGS

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

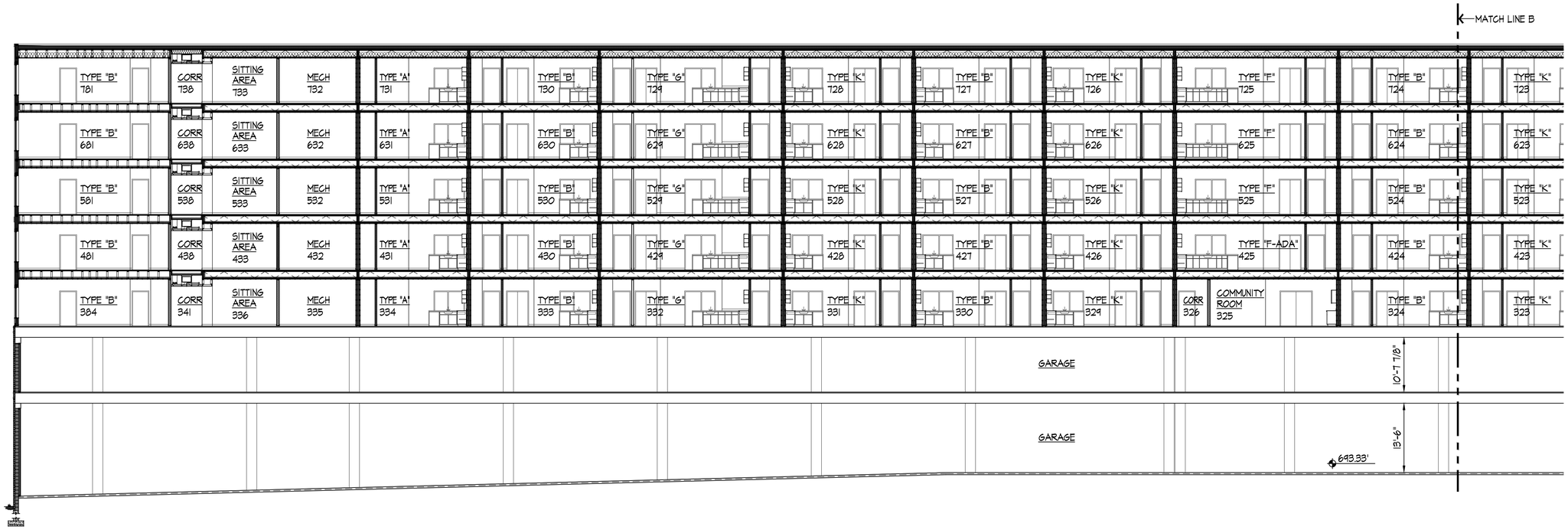
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A3.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

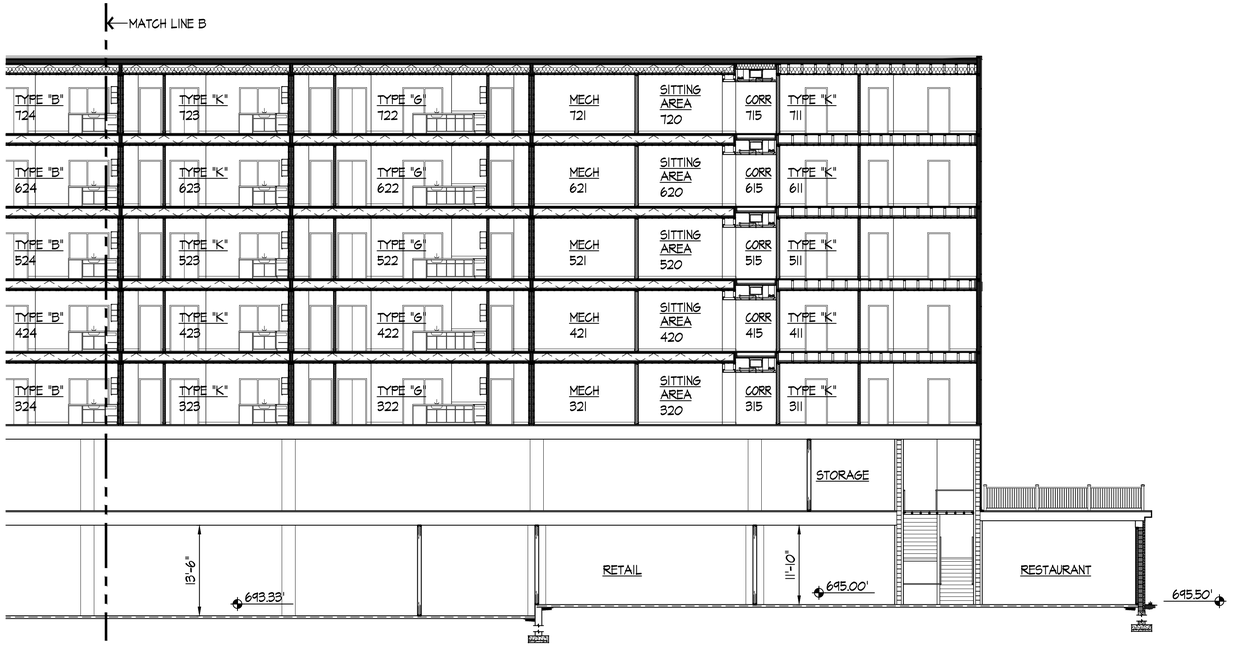



## BUILDING SECTION

SCALE 1/16" = 1'-0"

1 / A11 | A3.3

NOTE
ALL FOUNDATION DETAILS SHALL BE AS INDICATED ON STRUCTURAL DRAWINGS




REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

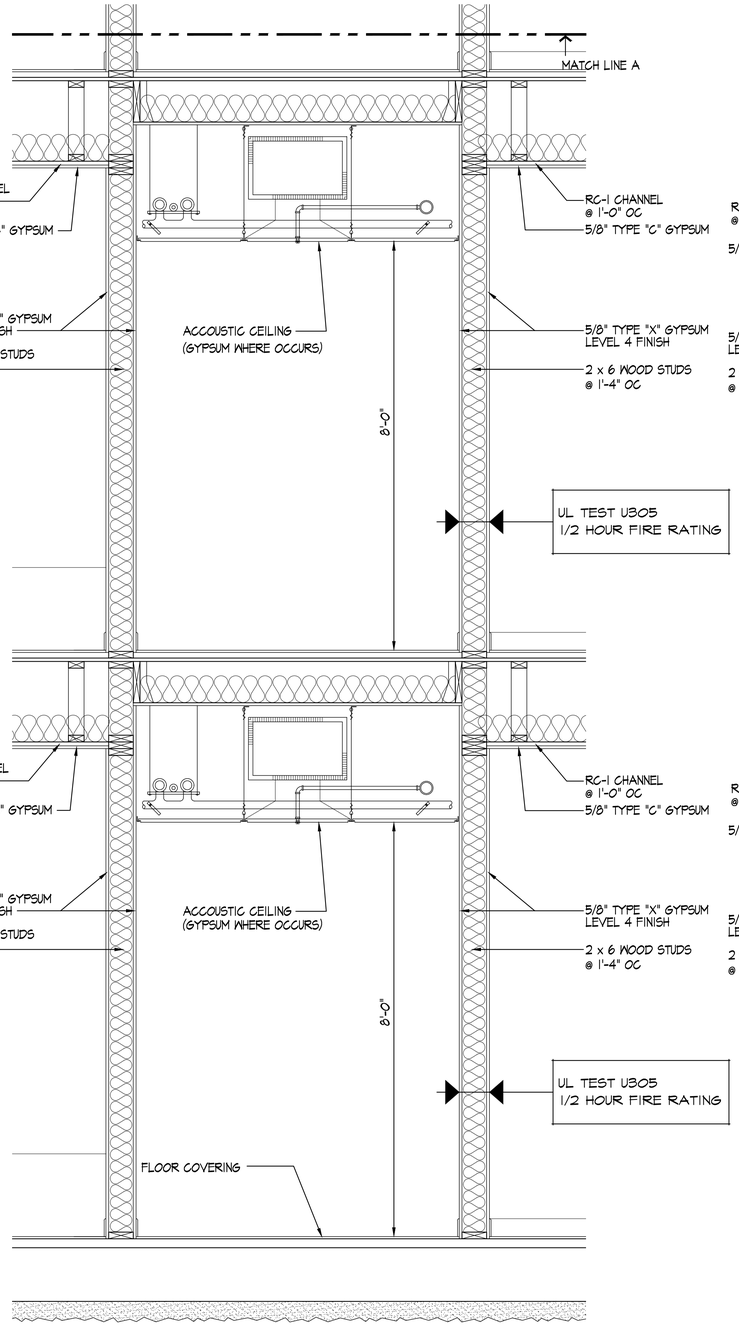
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

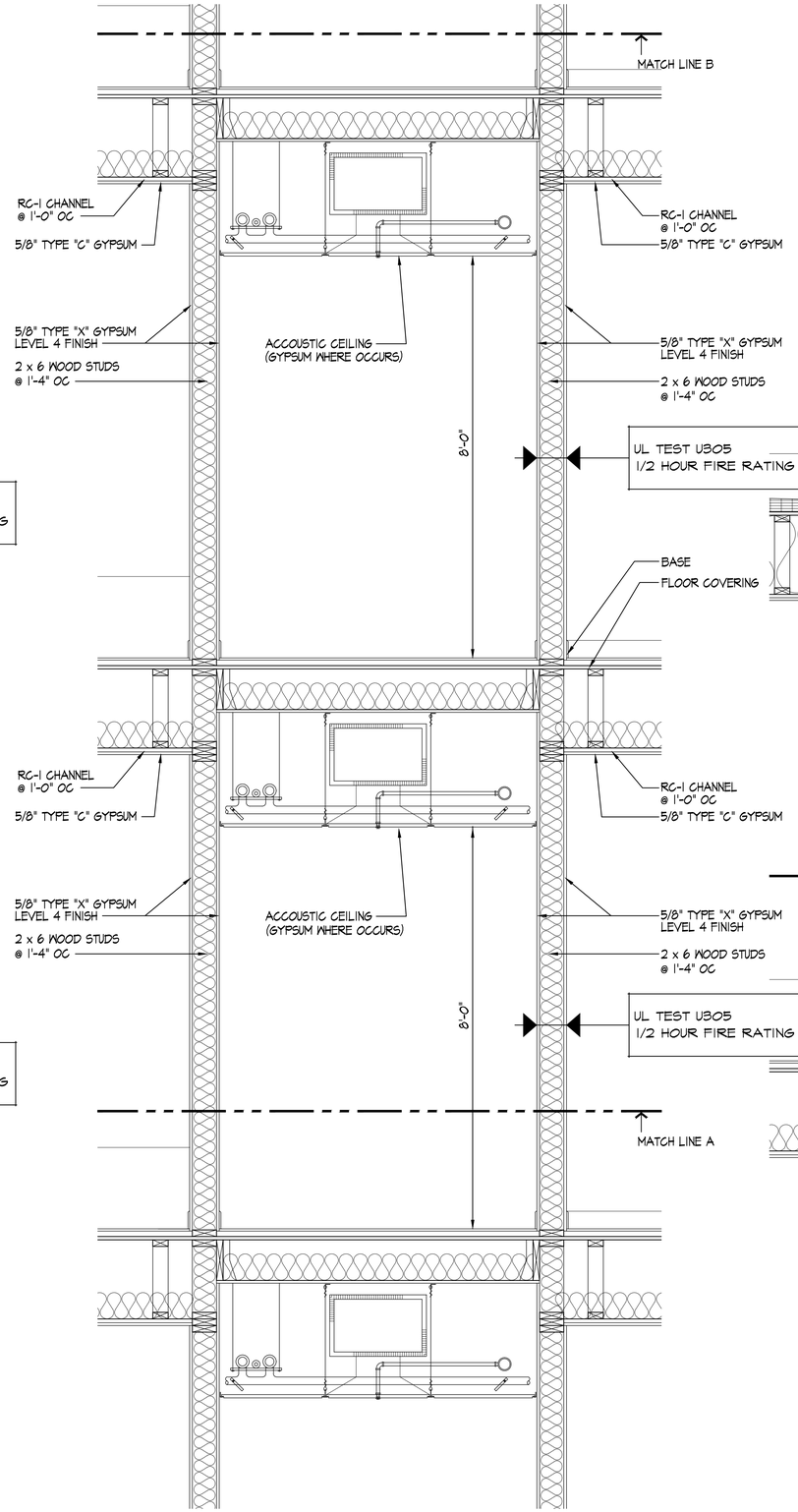
A3.3

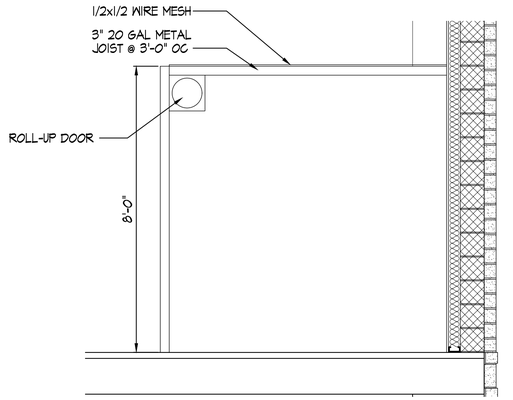
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

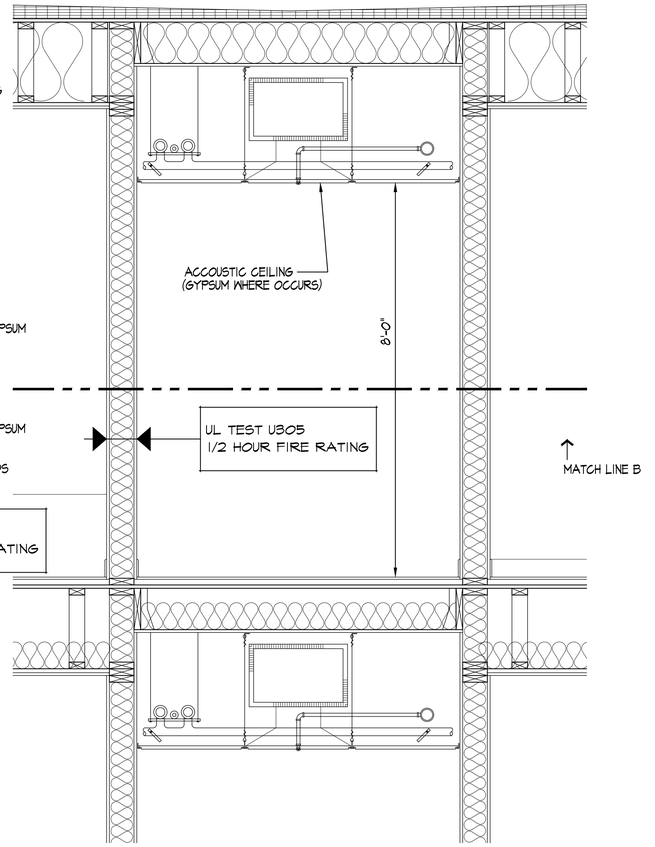



SECTION
SCALE 3/4" = 1'-0"
1
A3.1 | A3.4




TYPICAL STORAGE UNIT
SCALE 1/2" = 1'-0"
2
A3.1 | A3.4




NOTES
1. THE BOTTOM OF FOOTING ELEVATION SHALL BE A MINIMUM OF 4'-0" BELOW THE INDICATED FINISH GRADE AND SHALL COURSE OUT IN 8" INCREMENTS
2. ALL FIRE RATED ASSEMBLY INTERSECTIONS SHALL BE SEALED IN ACCORDANCE WITH GYPSUM MANUFACTURERS INSTRUCTIONS
3. ALL INSULATING MATERIAL SHALL MEET OR EXCEED THE FOLLOWING RATINGS: FLAME SPREAD INDEX OF NOT MORE THAN 25, SMOKE DEVELOPMENT 0-450
4. PROVIDE 2 x 6 STUDS AT ALL PLUMBING WALLS AND WALLS CONTAINING ELECTRICAL PANELS
5. PROVIDE STC-50 INSULATION IN WALLS BETWEEN RESIDENCE ROOMS

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

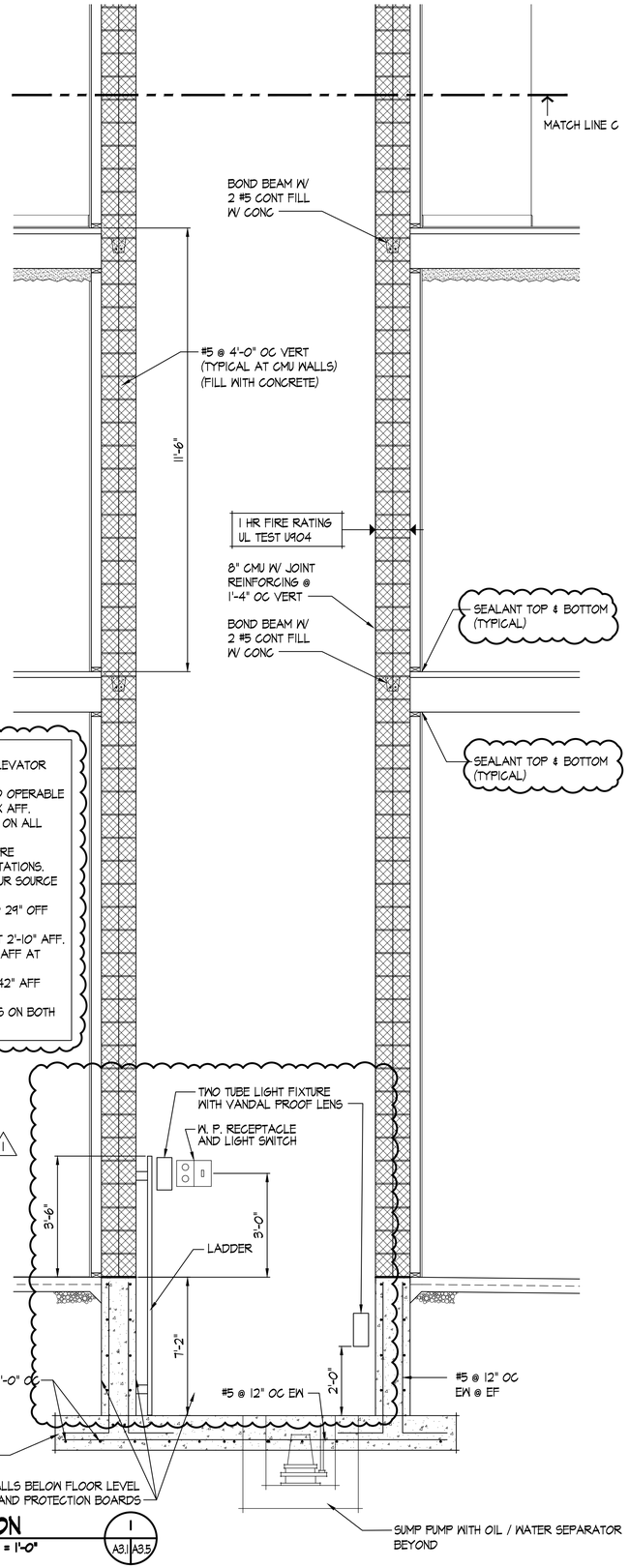
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A3.4

JONES & JONES ASSOCIATES / ARCHITECTS PC

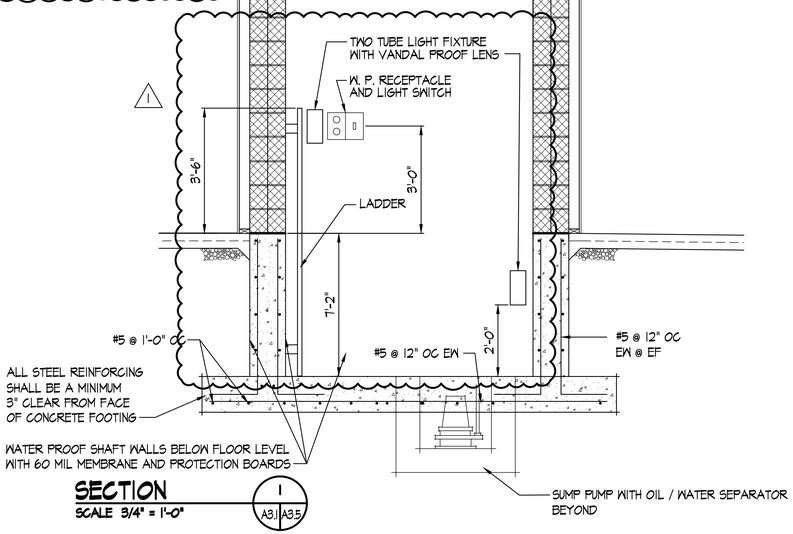
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




3

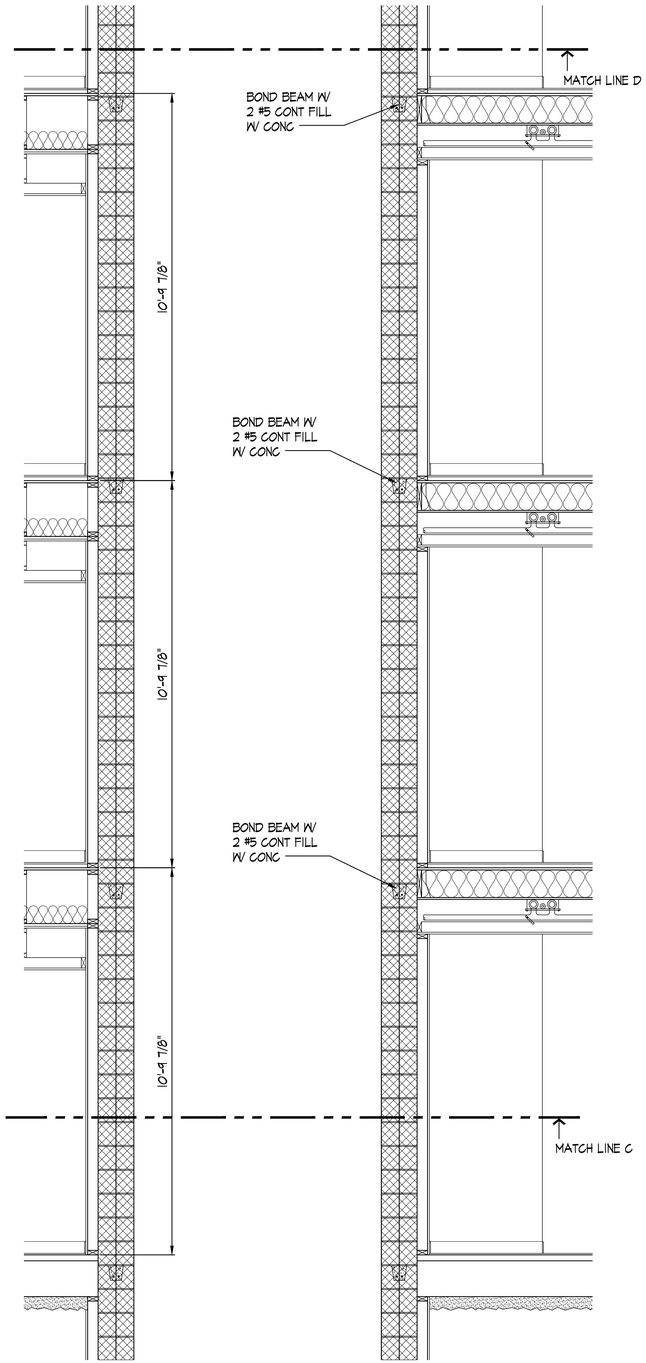
GENERAL ELEVATOR NOTES

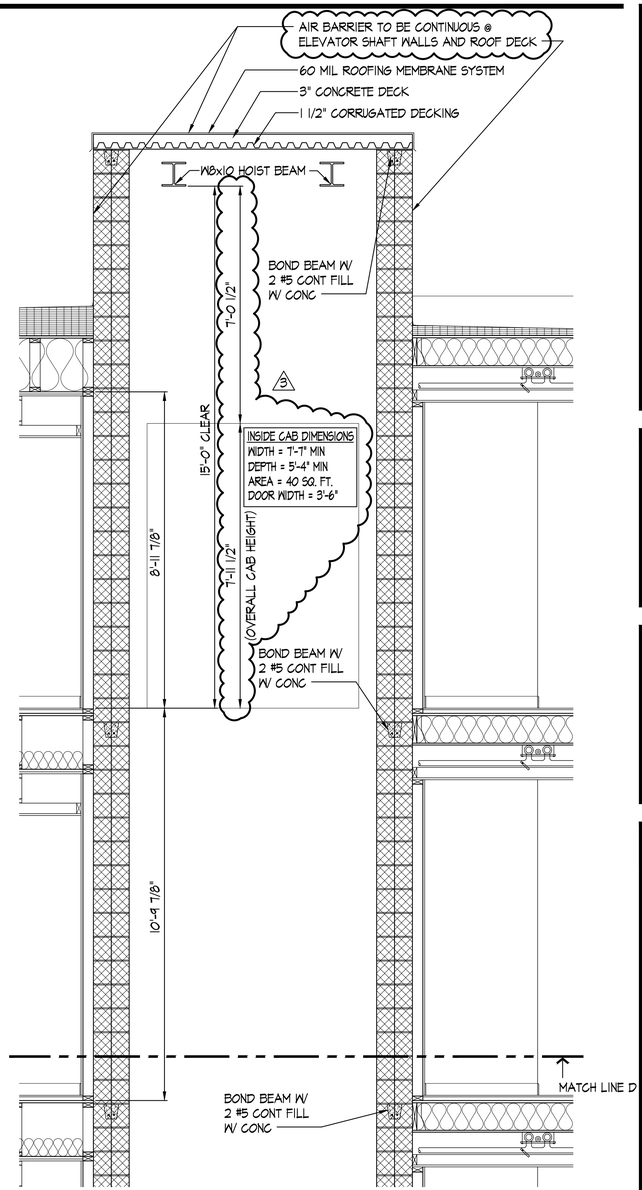
1. COORDINATE ALL ELEMENTS WITH ELEVATOR MANUFACTURE.
2. ALL ELEVATOR CAB CONTROLS AND OPERABLE PARTS SHALL BE LOCATED 48" MAX AFF.
3. PROVIDE 70 DEGREE METAL TAPER ON ALL LEDGES BIGGER THAN 2".
4. PROVIDE 4 SYMBOL PICTOGRAPH FIRE WARNING SIGNS ABOVE ALL HALL STATIONS.
5. PROVIDE A TELEPHONE TO A 24-HOUR SOURCE WITH VOICE MESSAGE.
6. PROVIDE ELECTRIC EYES AT 5" AND 29" OFF THE SILL.
7. PROVIDE HANDRAILS INSIDE CAB AT 2'-10" AFF.
8. PROVIDE HALL SIGNALS AT 72" MIN AFF AT EACH ELEVATOR.
9. CALL BUTTONS SHALL BE MOUNTED 42" AFF AND SHALL BE RAISED OR FLUSH.
10. PROVIDE FLOOR DESIGNATION SIGNS ON BOTH SIDES OF HOISTWAY AT 60" AFF.




1

**SECTION**
SCALE 3/4" = 1'-0"
A3.1 | A3.5




NOTES

1. THE BOTTOM OF FOOTING ELEVATION SHALL BE A MINIMUM OF 4'-0" BELOW THE INDICATED FINISH GRADE AND SHALL COURSE OUT IN 8" INCREMENTS
2. ALL FIRE RATED ASSEMBLY INTERSECTIONS SHALL BE SEALED IN ACCORDANCE WITH GYPSUM MANUFACTURERS INSTRUCTIONS
3. ALL INSULATING MATERIAL SHALL MEET OR EXCEED THE FOLLOWING RATINGS: FLAME SPREAD INDEX OF NOT MORE THAN 25, SMOKE DEVELOPMENT 0-450
4. PROVIDE 2 x 6 STUDS AT ALL PLUMBING WALLS AND WALLS CONTAINING ELECTRICAL PANELS
5. PROVIDE STC-50 INSULATION IN WALLS BETWEEN RESIDENCE ROOMS
6. GROUT AND REINFORCING OF CMU AS INDICATED BY STRUCTURAL DRAWINGS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

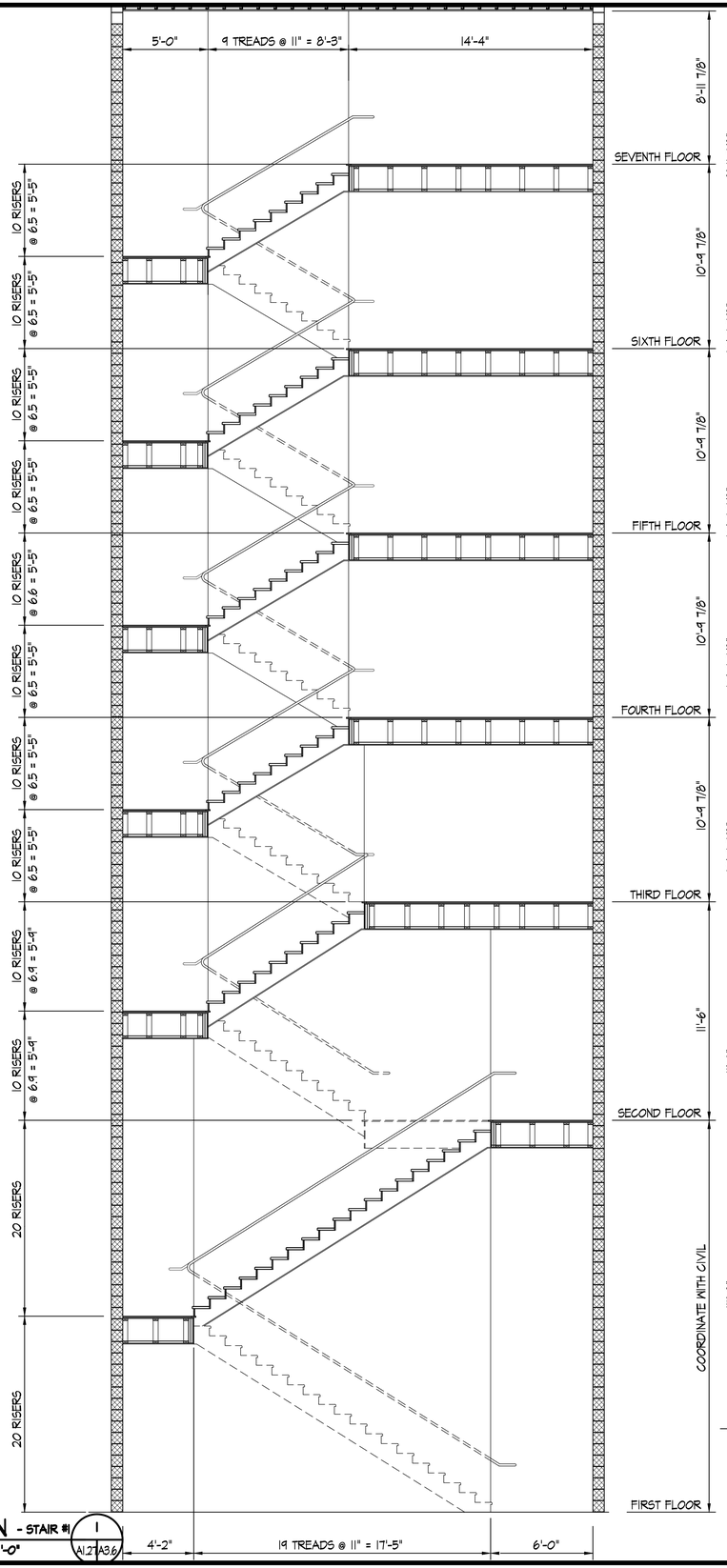
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

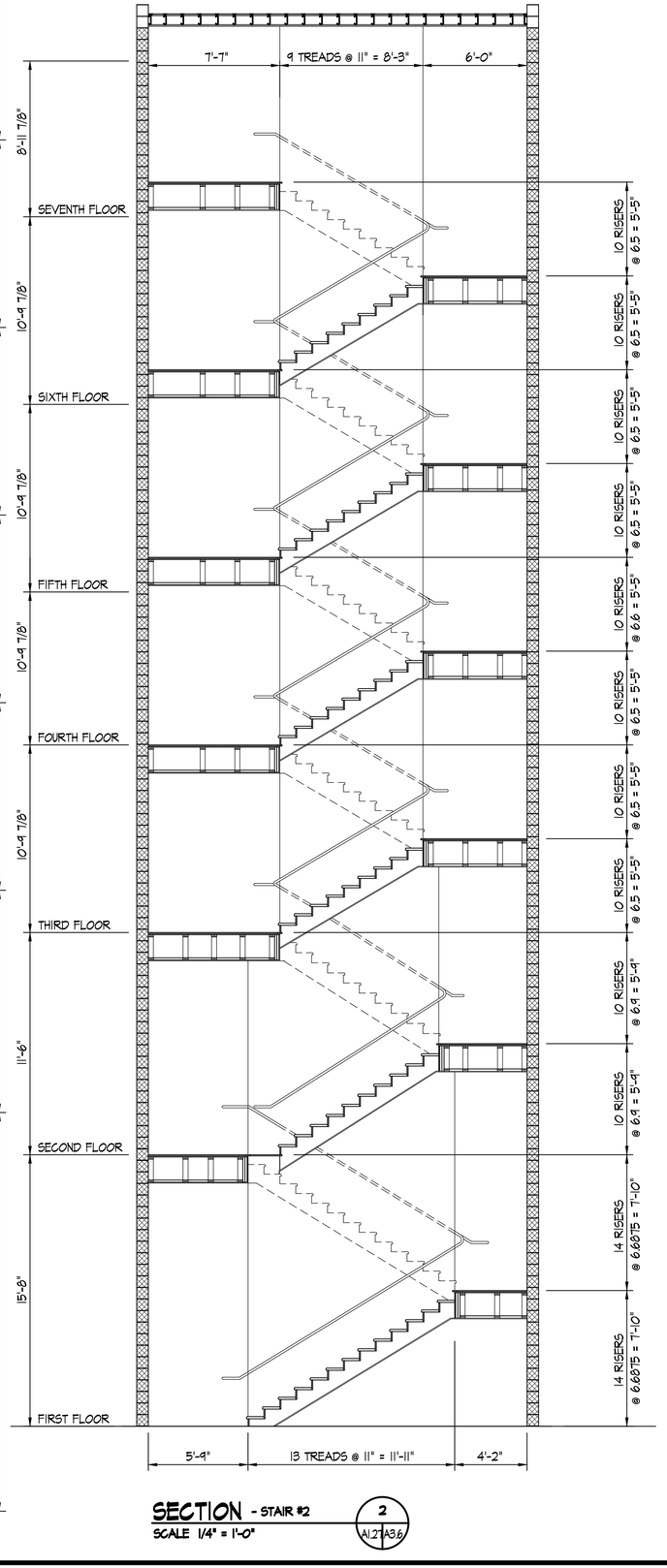
PROJECT ARCHITECT
RLJ, JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A3.5

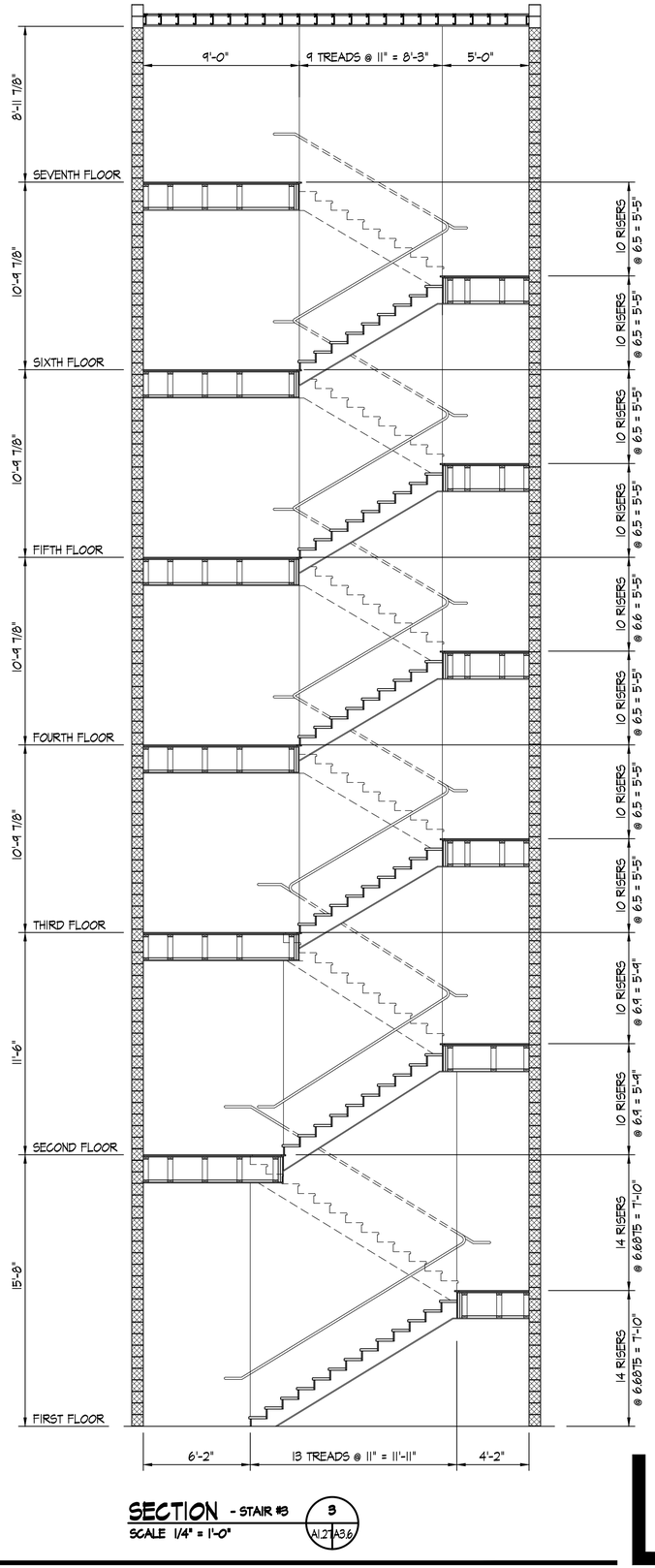
JONES & JONES ASSOCIATES / ARCHITECTS PC




SECTION - STAIR #1 (1 / A1.2 A3.6)
SCALE 1/4" = 1'-0"




SECTION - STAIR #2 (2 / A1.2 A3.6)
SCALE 1/4" = 1'-0"




SECTION - STAIR #3 (3 / A1.2 A3.6)
SCALE 1/4" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

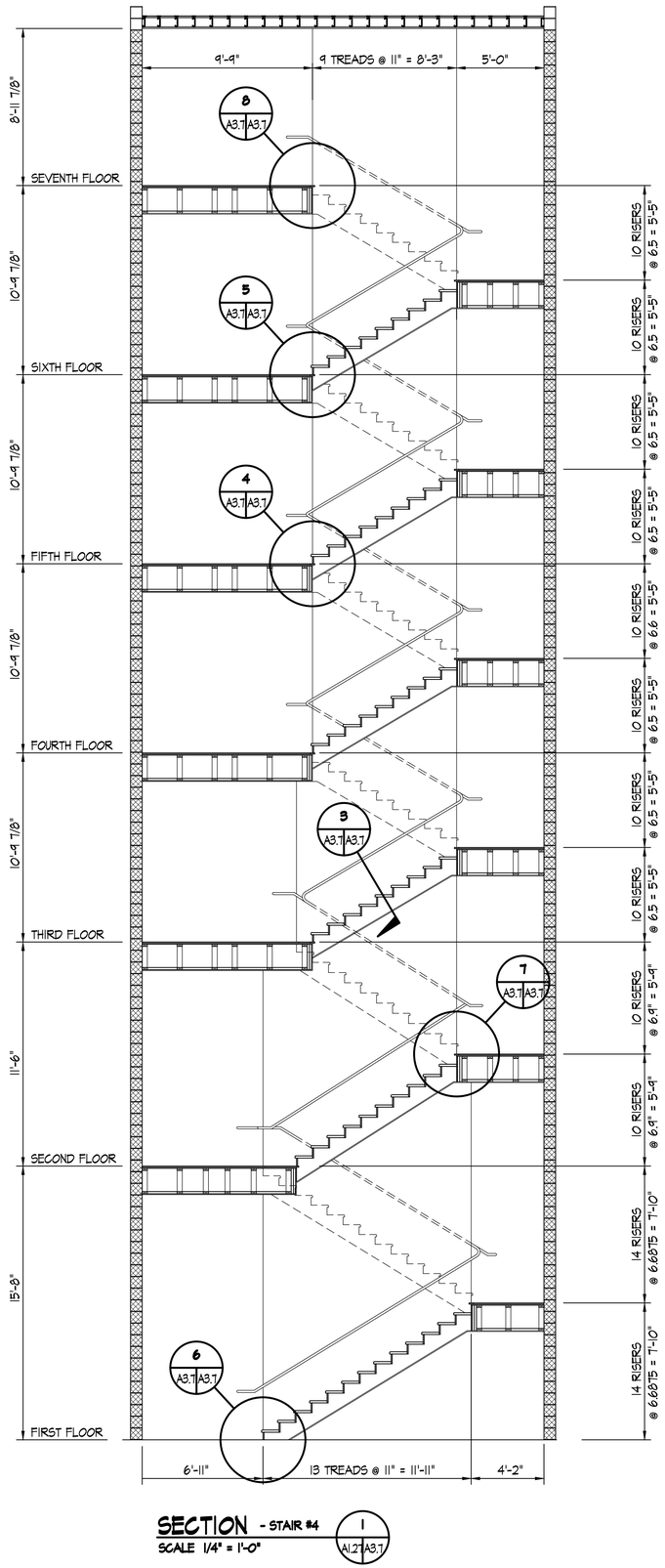
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

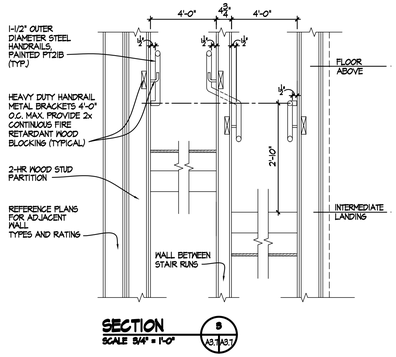
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A3.6

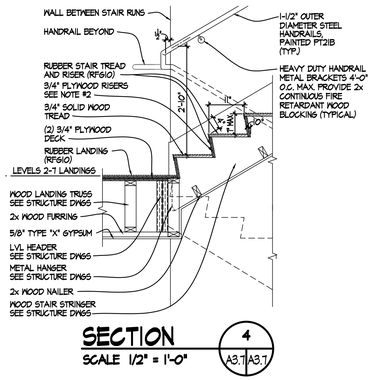
JONES & JONES ASSOCIATES / ARCHITECTS PC



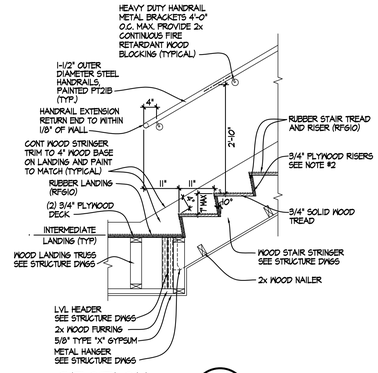

**SECTION** - STAIR #4 (1 / A1.2 A3.7)
SCALE 1/4" = 1'-0"




**SECTION** (5 / A3.7 A3.7)
SCALE 5/4" = 1'-0"

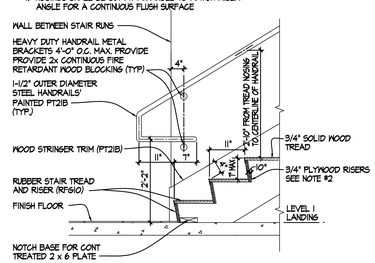



**SECTION** (4 / A3.7 A3.7)
SCALE 1/2" = 1'-0"

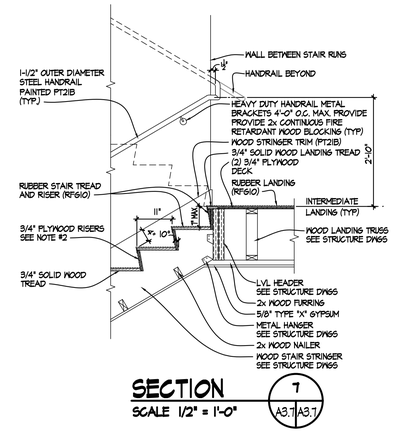



**SECTION** (5 / A3.7 A3.7)
SCALE 1/2" = 1'-0"

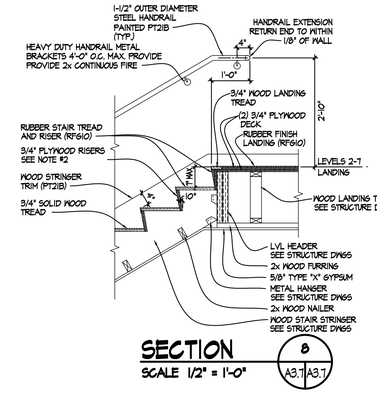
NOTES
1. TREADS, RISERS AND LANDINGS SHALL HAVE RUBBER FINISH (RF6IO). REFER TO DIFFERENTIATION LEGEND ON A5.2 FOR MORE INFORMATION
2. RISERS TO SLOPE UNDER TREAD AT AN ANGLE OF 10 DEGREED FROM VERTICAL
3. NOSING SHALL NOT PROJECT BEYOND THE RISER
4. NOSINGS SHALL BE CUT AT AN ANGLE TO MATCH RISER ANGLE FOR A CONTINUOUS FLUSH SURFACE



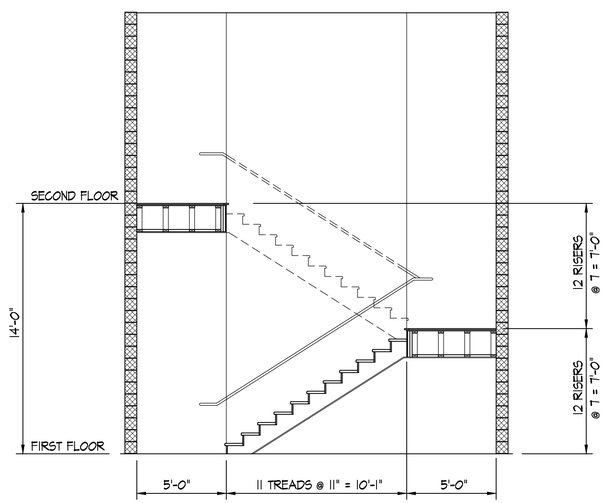

**SECTION** (6 / A3.7 A3.7)
SCALE 1/2" = 1'-0"




**SECTION** (7 / A3.7 A3.7)
SCALE 1/2" = 1'-0"




**SECTION** (8 / A3.7 A3.7)
SCALE 1/2" = 1'-0"




**SECTION** - STAIR #5 (2 / A1.2 A3.7)
SCALE 1/4" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

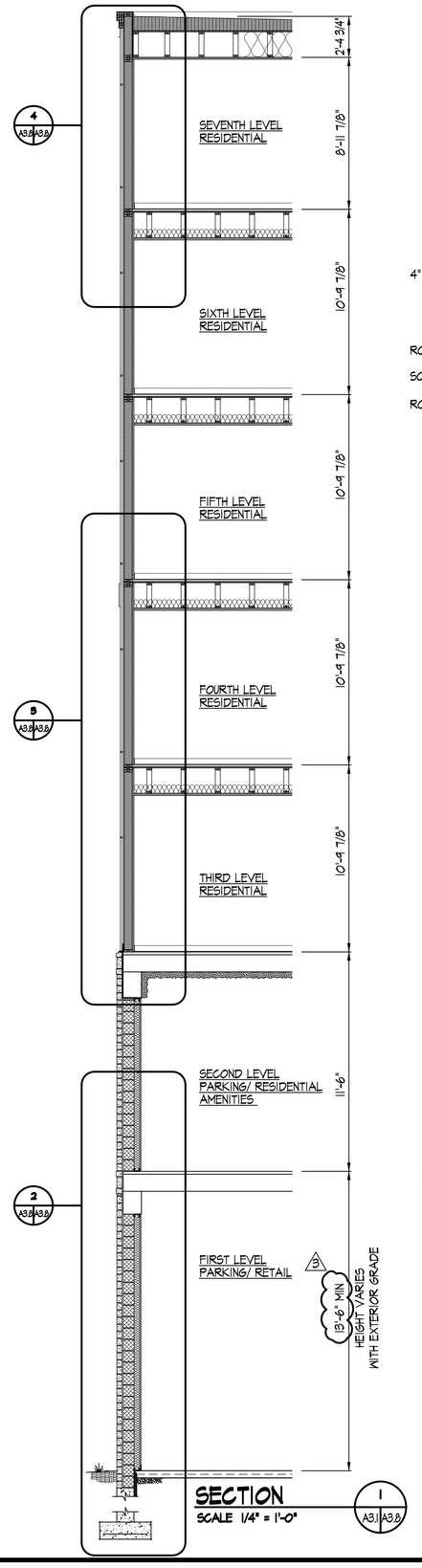
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

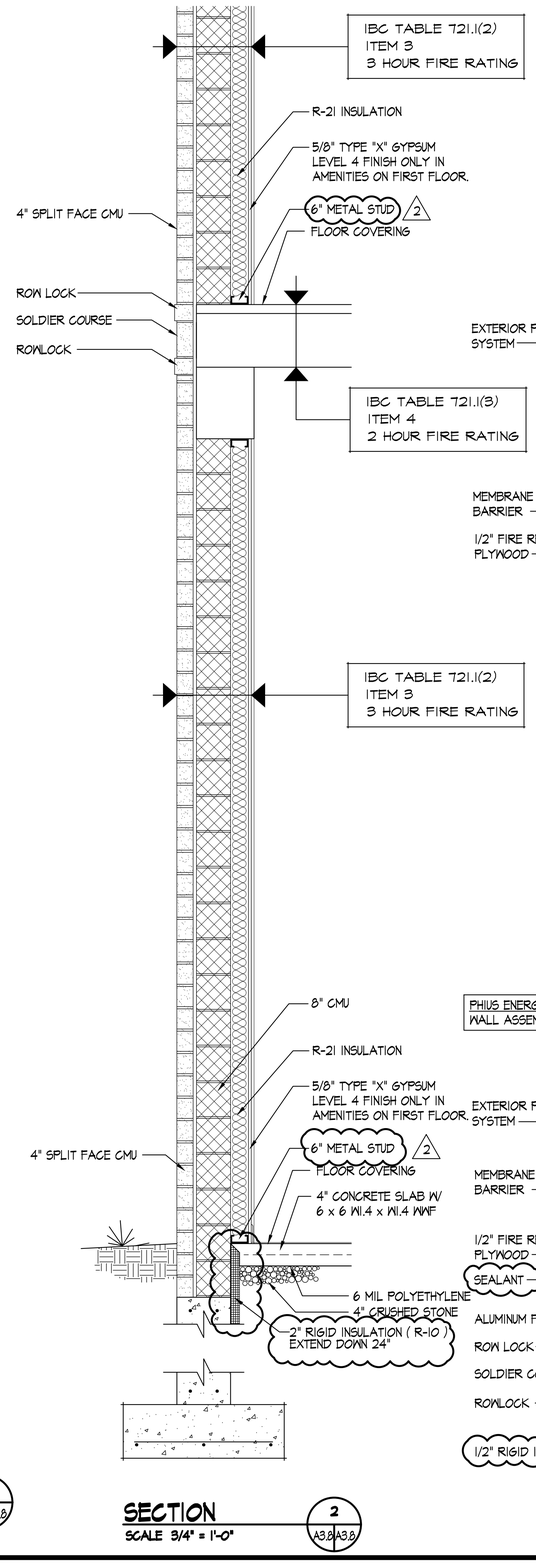
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2743
DATE
18 JUN 2021

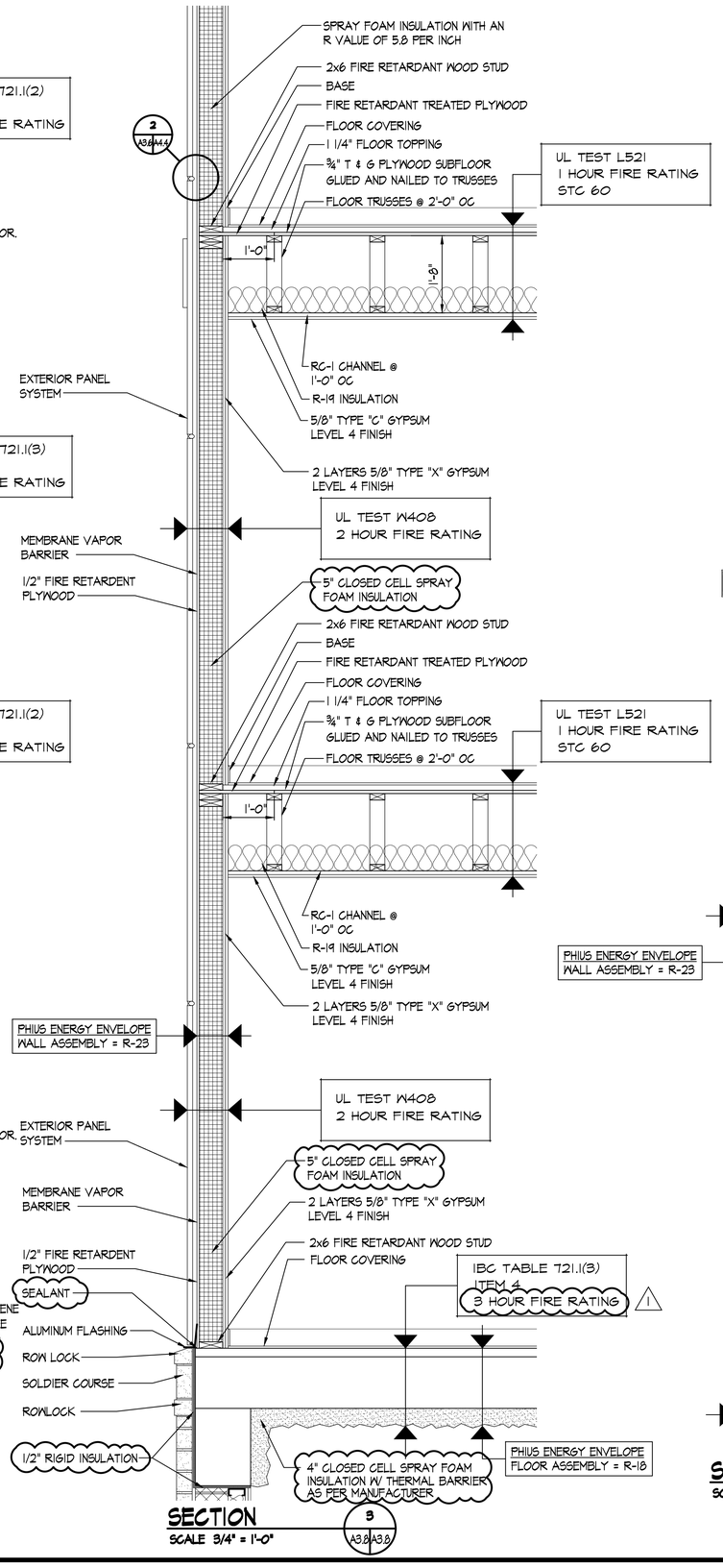
A3.7

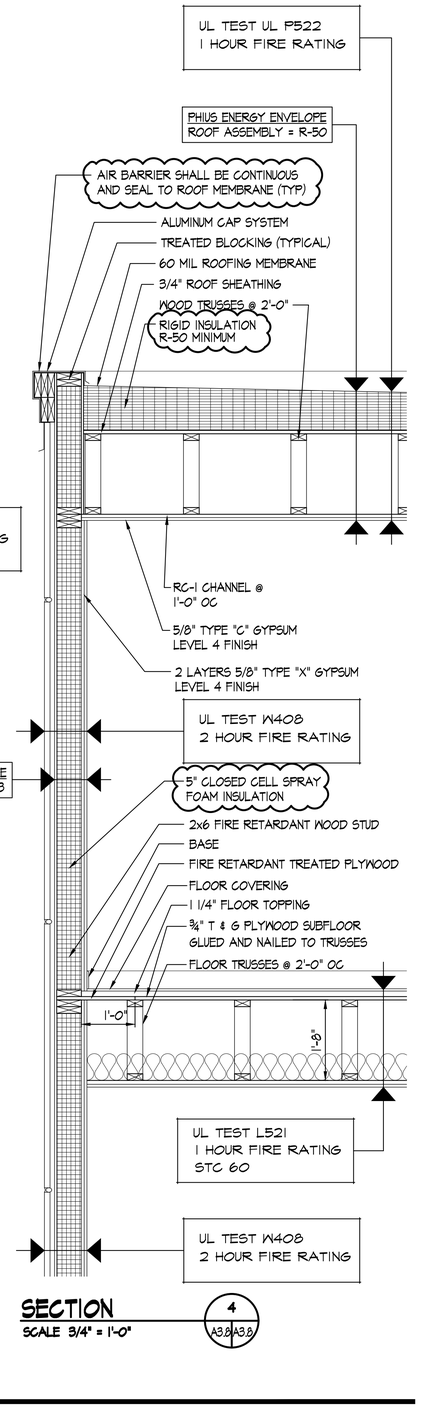
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

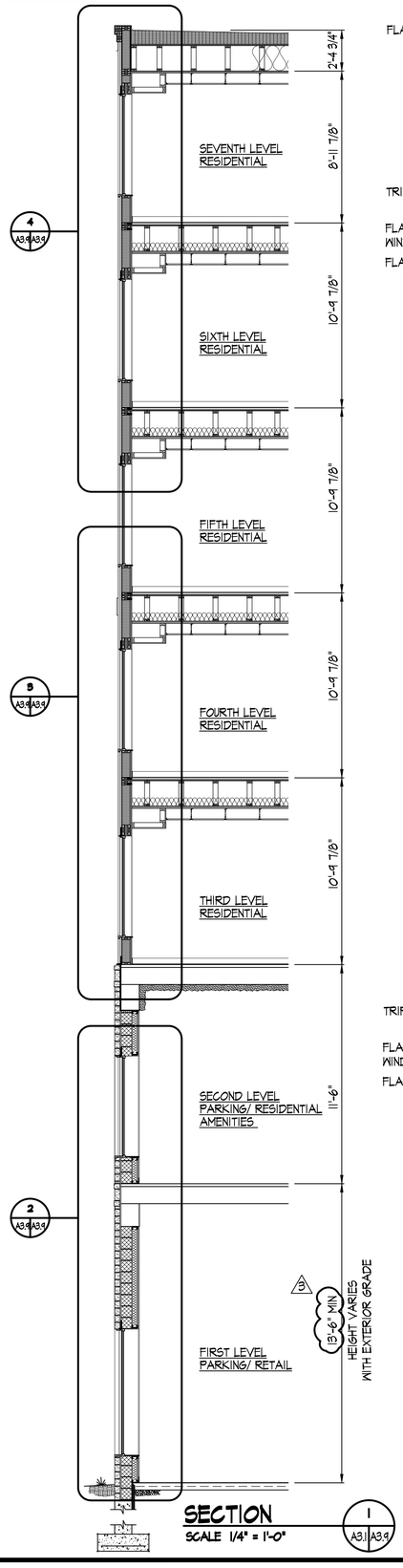
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

A3.8

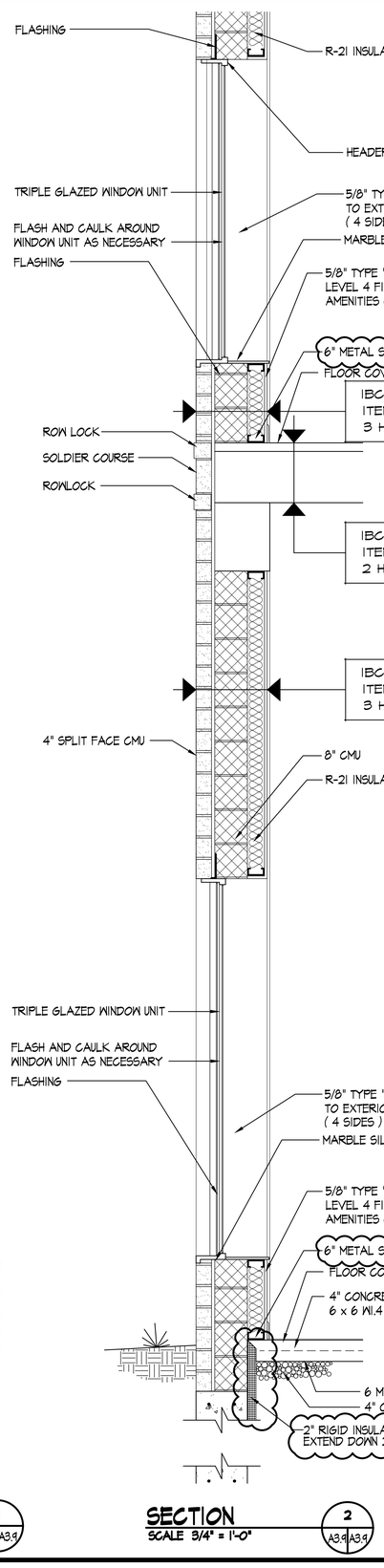
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

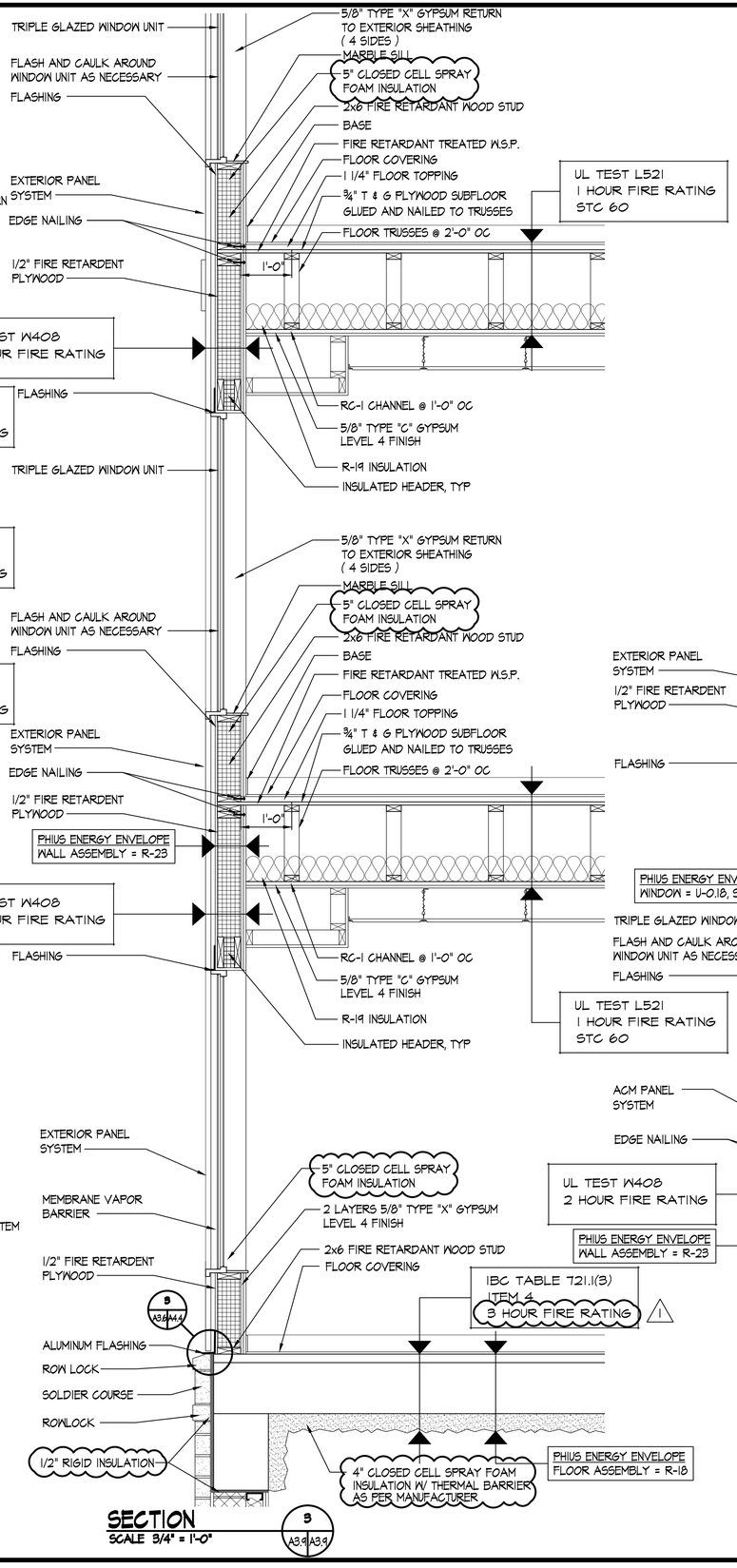
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



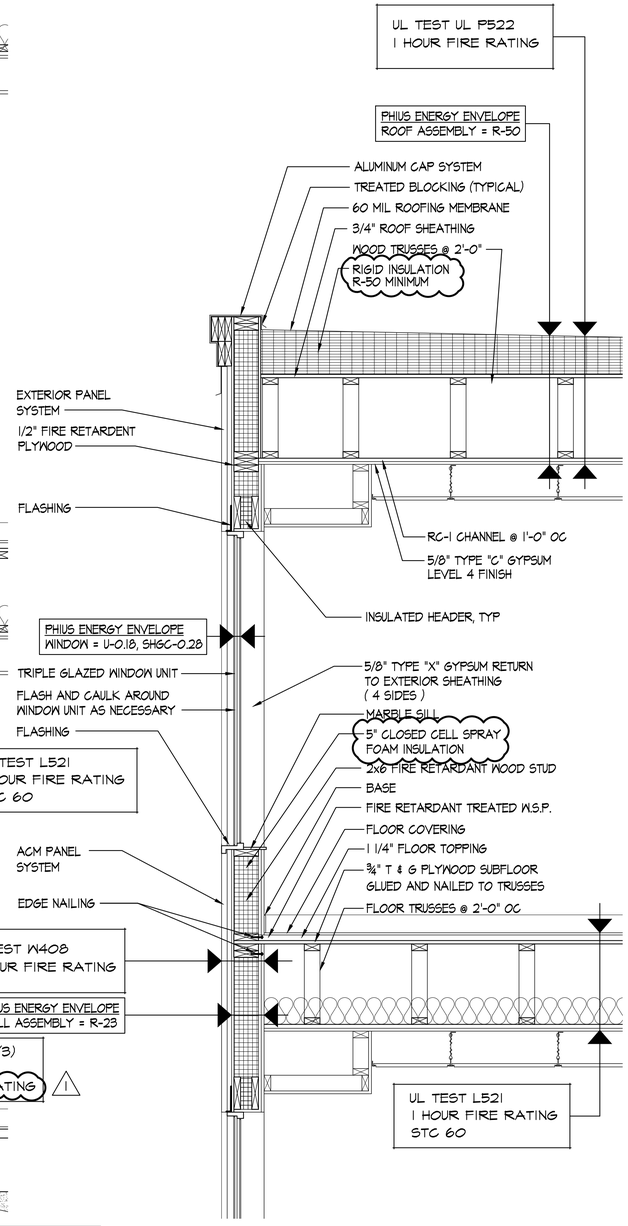

## SECTION
SCALE 1/4" = 1'-0"
1 A3.1/A3.9




## SECTION
SCALE 3/4" = 1'-0"
2 A3.9/A3.9




## SECTION
SCALE 3/4" = 1'-0"
3 A3.9/A3.9




## SECTION
SCALE 3/4" = 1'-0"
4 A3.9/A3.9

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

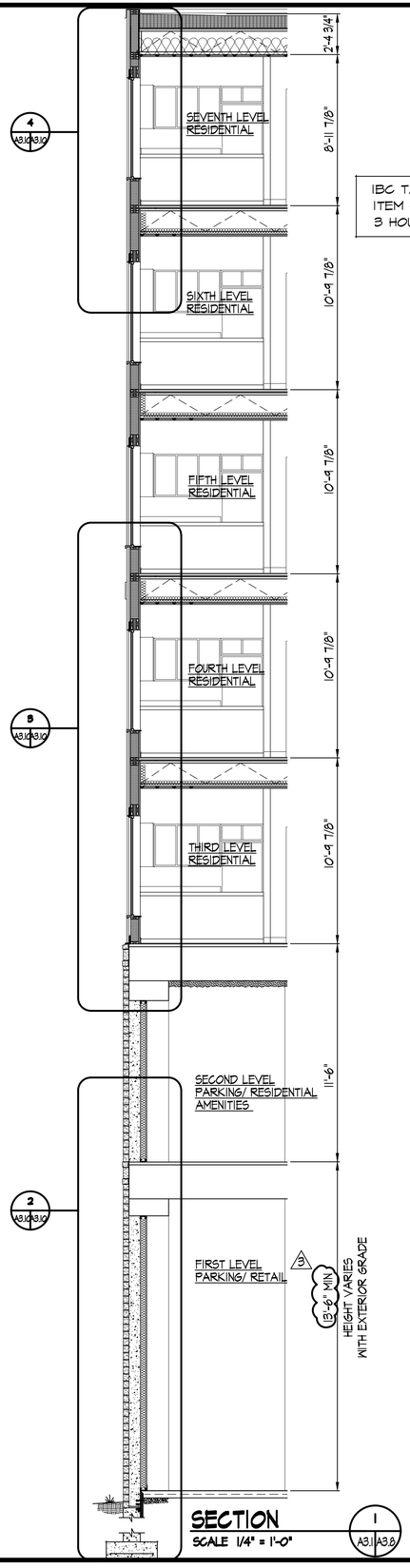
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

JONES & JONES ASSOCIATES / ARCHITECTS PC

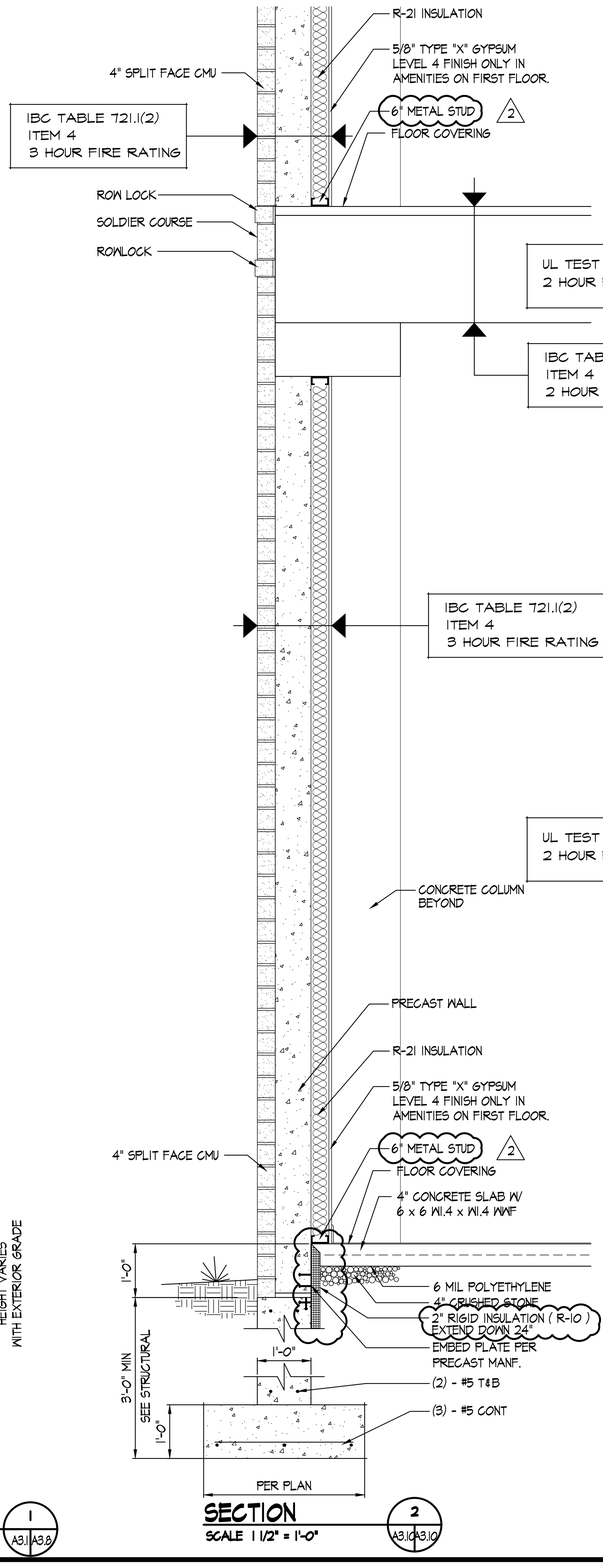
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A3.9

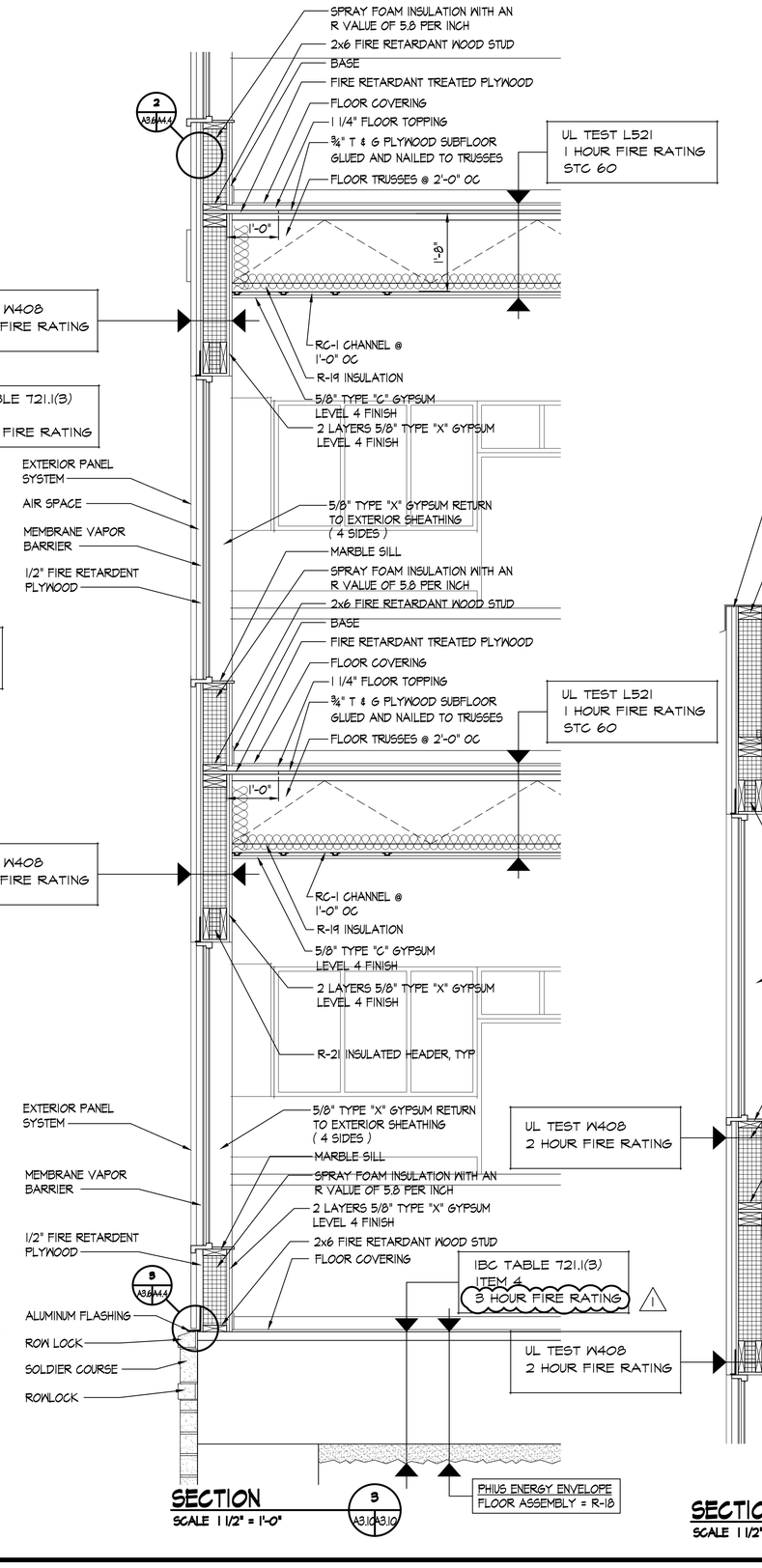
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



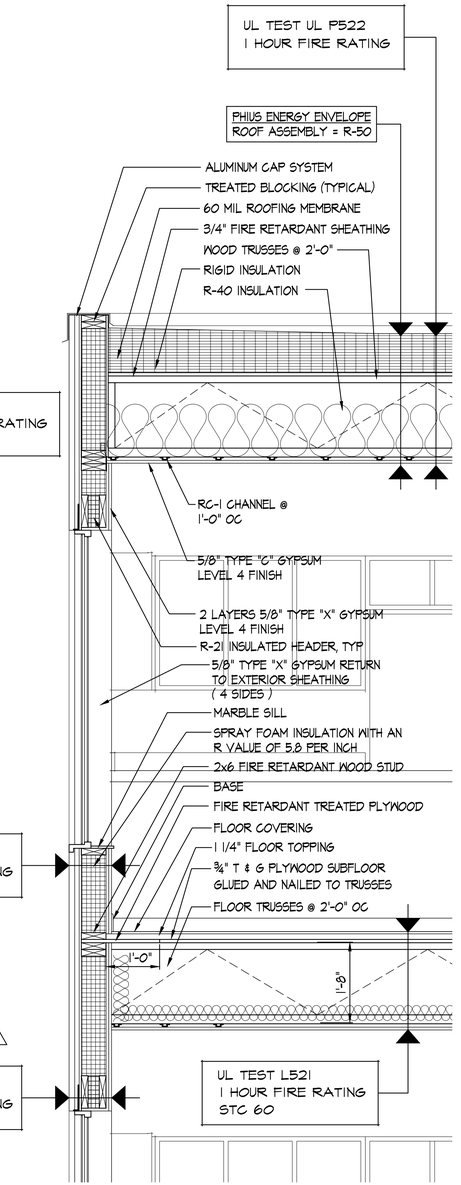

SECTION
SCALE 1/4" = 1'-0"
1 A3.1/A3.8




SECTION
SCALE 1 1/2" = 1'-0"
2 A3.1/A3.10




SECTION
SCALE 1 1/2" = 1'-0"
3 A3.1/A3.10




SECTION
SCALE 1 1/2" = 1'-0"
4 A3.1/A3.10

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

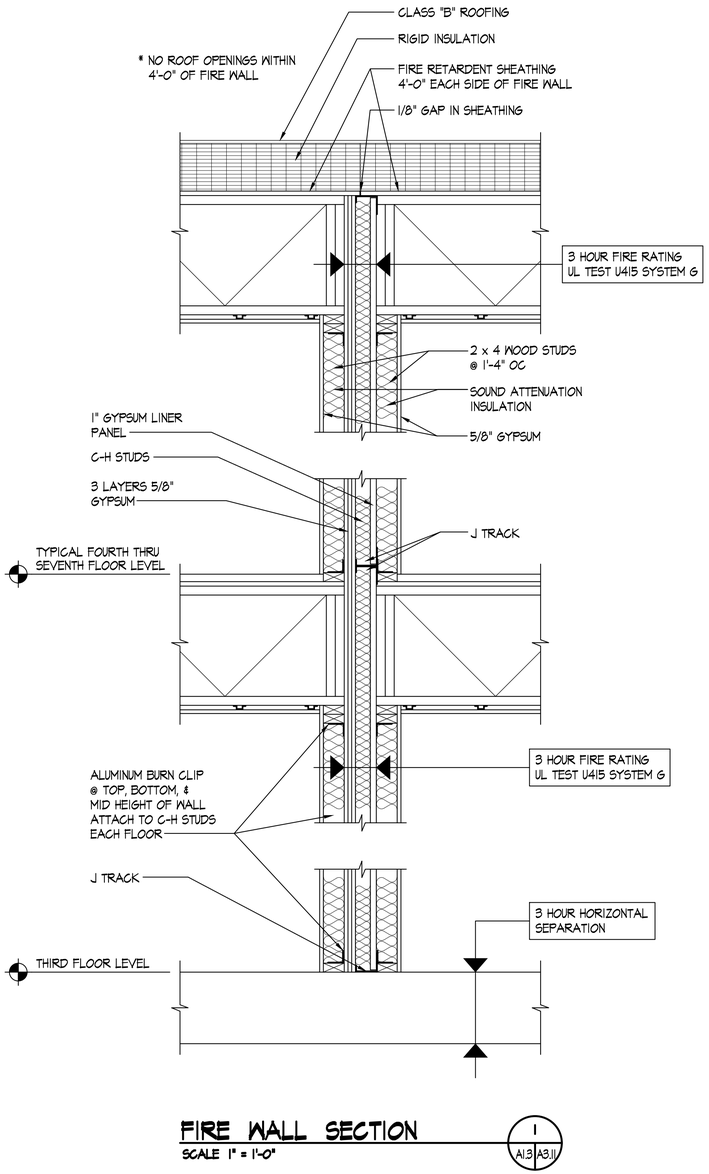
LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

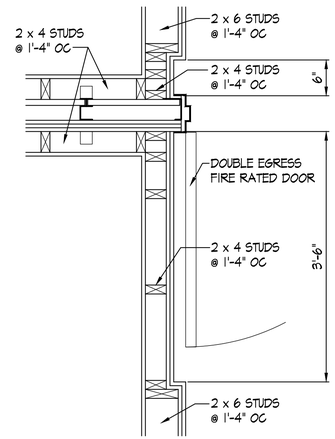
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A3.10

JONES & JONES ASSOCIATES / ARCHITECTS PC




FIRE WALL SECTION
SCALE 1" = 1'-0"
1 A1.3 A3.11




FIRE WALL DETAIL @ CORRIDOR
SCALE 1" = 1'-0"
2 A1.3 A3.11

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

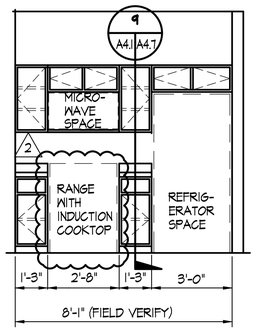
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A3.11

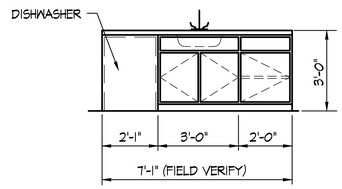
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

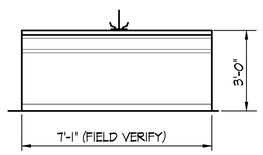
# UNIT A



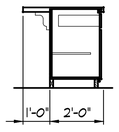

ELEVATION 1 — SCALE 3/8" = 1'-0" — A1.16 | A4.1



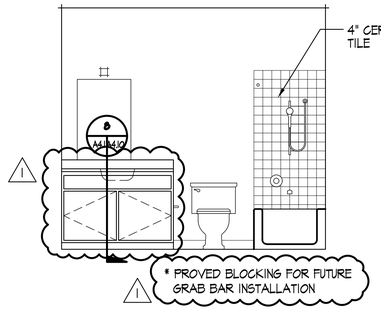

ELEVATION 2 — SCALE 3/8" = 1'-0" — A1.16 | A4.1



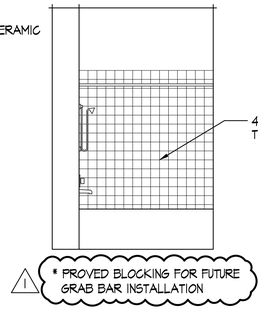

ELEVATION 3 — SCALE 3/8" = 1'-0" — A1.16 | A4.1



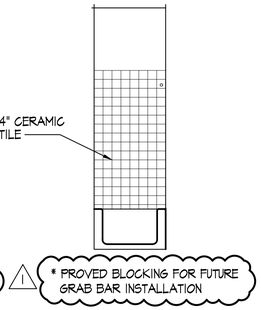

ELEVATION 4 — SCALE 3/8" = 1'-0" — A1.16 | A4.1




ELEVATION 5 — SCALE 3/8" = 1'-0" — A1.16 | A4.1

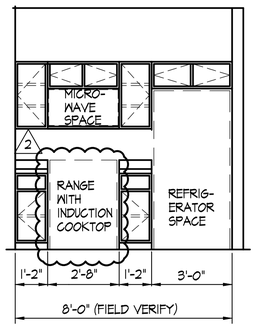



ELEVATION 6 — SCALE 3/8" = 1'-0" — A1.16 | A4.1



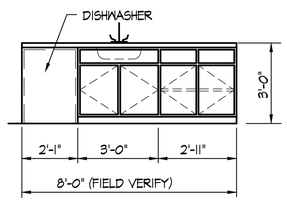

ELEVATION 7 — SCALE 3/8" = 1'-0" — A1.16 | A4.1

# UNITS B & C



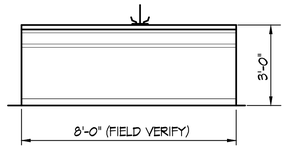

ELEVATION 8 — SCALE 3/8" = 1'-0" — A1.16 | A4.1

*MIRRORED IN UNIT C



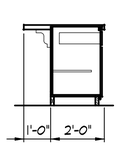

ELEVATION 9 — SCALE 3/8" = 1'-0" — A1.16 | A4.1

*MIRRORED IN UNIT C



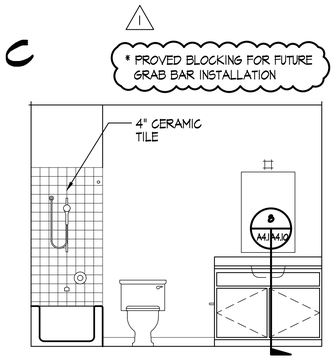

ELEVATION 10 — SCALE 3/8" = 1'-0" — A1.16 | A4.1

*MIRRORED IN UNIT C



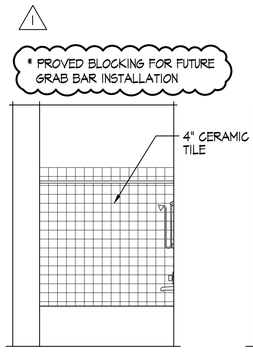

ELEVATION 11 — SCALE 3/8" = 1'-0" — A1.16 | A4.1

*MIRRORED IN UNIT C



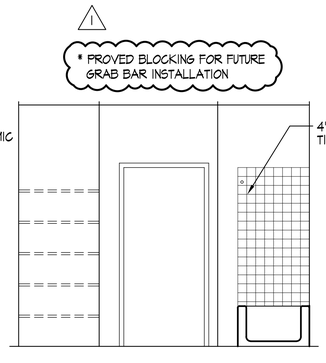

ELEVATION 12 — SCALE 3/8" = 1'-0" — A1.16 | A4.1

*MIRRORED IN UNIT C




ELEVATION 13 — SCALE 3/8" = 1'-0" — A1.16 | A4.1

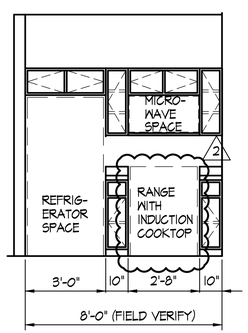
*MIRRORED IN UNIT C



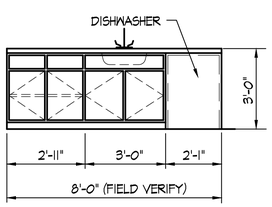

ELEVATION 14 — SCALE 3/8" = 1'-0" — A1.16 | A4.1

*MIRRORED IN UNIT C

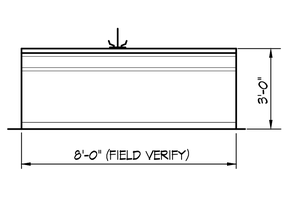
# UNIT D



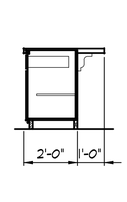

ELEVATION 15 — SCALE 3/8" = 1'-0" — A1.17 | A4.1



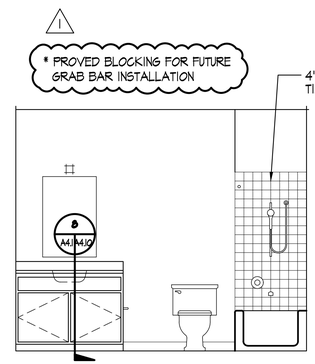

ELEVATION 16 — SCALE 3/8" = 1'-0" — A1.17 | A4.1



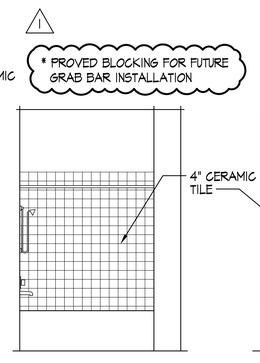

ELEVATION 17 — SCALE 3/8" = 1'-0" — A1.17 | A4.1



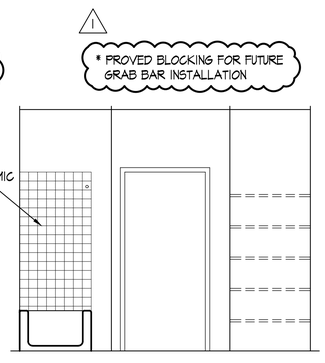

ELEVATION 18 — SCALE 3/8" = 1'-0" — A1.17 | A4.1




ELEVATION 19 — SCALE 3/8" = 1'-0" — A1.17 | A4.1




ELEVATION 20 — SCALE 3/8" = 1'-0" — A1.17 | A4.1




ELEVATION 21 — SCALE 3/8" = 1'-0" — A1.17 | A4.1

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

RICHARD L. JONES, JR. 001-025003 LICENSED ARCHITECT STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

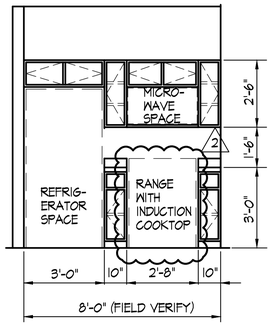
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

**A4.1**

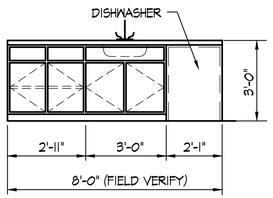
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

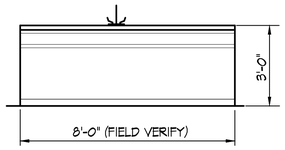
# UNIT E



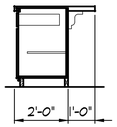

ELEVATION 1 — SCALE 3/8" = 1'-0" — A1.1T|A4.2



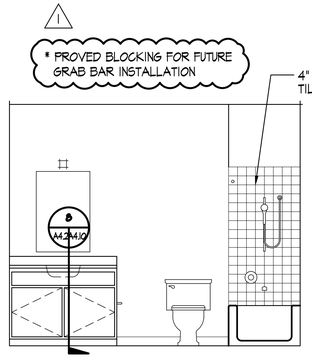

ELEVATION 2 — SCALE 3/8" = 1'-0" — A1.1T|A4.2



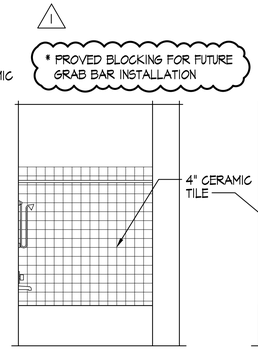

ELEVATION 3 — SCALE 3/8" = 1'-0" — A1.1T|A4.2



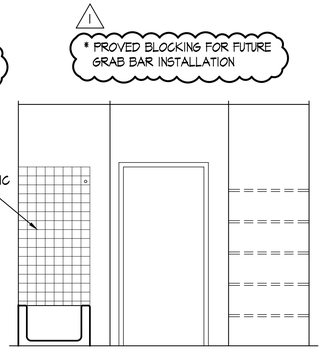

ELEVATION 4 — SCALE 3/8" = 1'-0" — A1.1T|A4.2




ELEVATION 5 — SCALE 3/8" = 1'-0" — A1.1T|A4.2

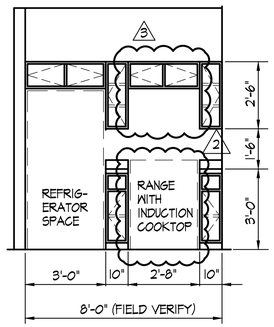



ELEVATION 6 — SCALE 3/8" = 1'-0" — A1.1T|A4.2

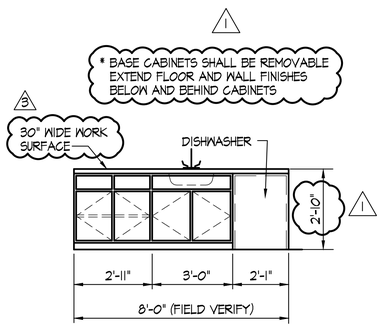



ELEVATION 7 — SCALE 3/8" = 1'-0" — A1.1T|A4.2

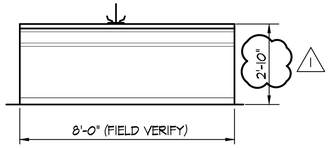
# UNIT E-ADA



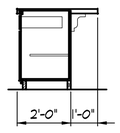

ELEVATION 8 — SCALE 3/8" = 1'-0" — A1.1T|A4.2



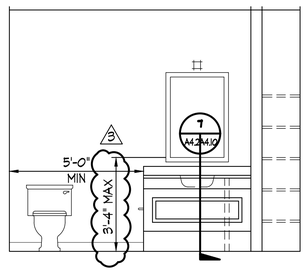

ELEVATION 9 — SCALE 3/8" = 1'-0" — A1.1T|A4.2



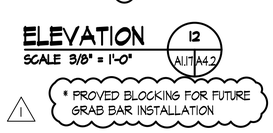

ELEVATION 10 — SCALE 3/8" = 1'-0" — A1.1T|A4.2

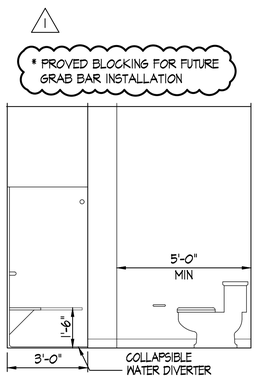



ELEVATION 11 — SCALE 3/8" = 1'-0" — A1.1T|A4.2

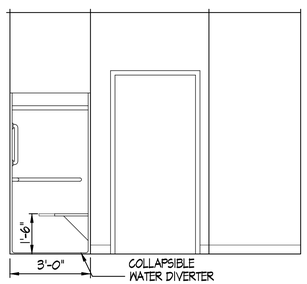



ELEVATION 12 — SCALE 3/8" = 1'-0" — A1.1T|A4.2

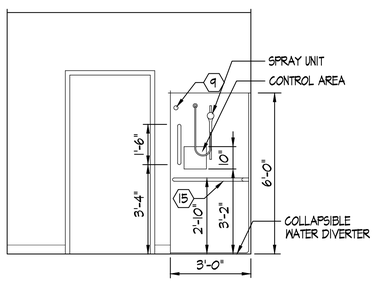



ELEVATION 13 — SCALE 3/8" = 1'-0" — A1.1T|A4.2




ELEVATION 14 — SCALE 3/8" = 1'-0" — A1.1T|A4.2




ELEVATION 15 — SCALE 3/8" = 1'-0" — A1.1T|A4.2

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

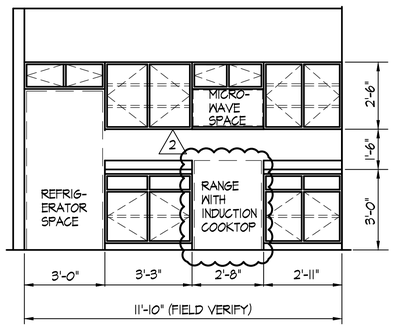
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

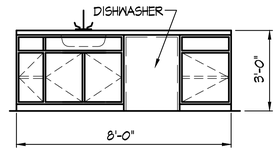
A4.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

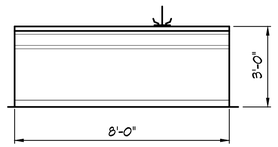
# UNIT F



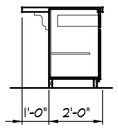

ELEVATION 1 — SCALE 3/8" = 1'-0" — A1.1B/A4.3



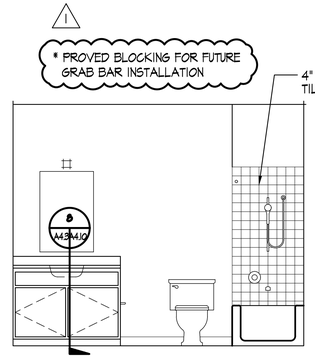

ELEVATION 2 — SCALE 3/8" = 1'-0" — A1.1B/A4.3



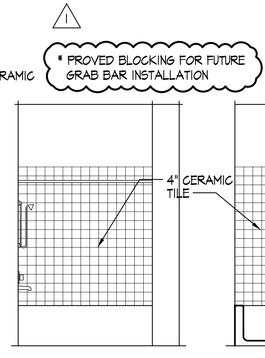

ELEVATION 3 — SCALE 3/8" = 1'-0" — A1.1B/A4.3



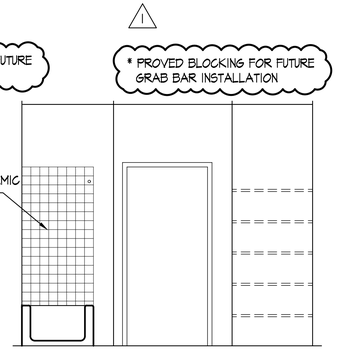

ELEVATION 4 — SCALE 3/8" = 1'-0" — A1.1B/A4.3




ELEVATION 5 — SCALE 3/8" = 1'-0" — A1.1B/A4.3

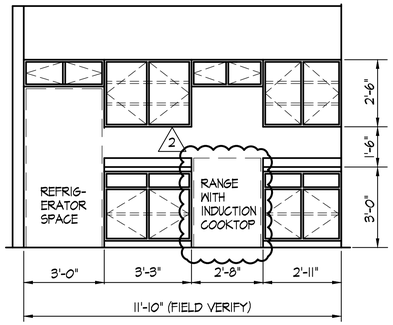



ELEVATION 6 — SCALE 3/8" = 1'-0" — A1.1B/A4.3

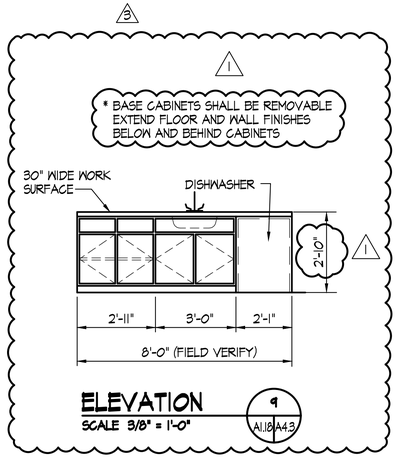



ELEVATION 7 — SCALE 3/8" = 1'-0" — A1.1B/A4.3

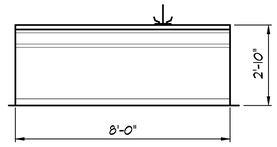
# UNIT F - ADA



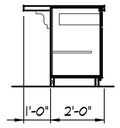

ELEVATION 8 — SCALE 3/8" = 1'-0" — A1.1B/A4.3



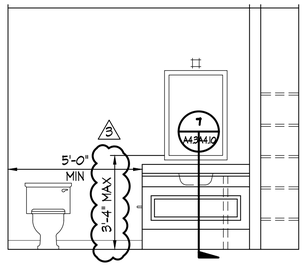

ELEVATION 9 — SCALE 3/8" = 1'-0" — A1.1B/A4.3




ELEVATION 10 — SCALE 3/8" = 1'-0" — A1.1B/A4.3

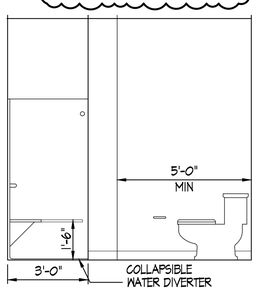



ELEVATION 11 — SCALE 3/8" = 1'-0" — A1.1B/A4.3



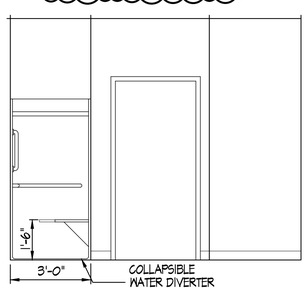

ELEVATION 12 — SCALE 3/8" = 1'-0" — A1.1B/A4.3

1
* PROVED BLOCKING FOR FUTURE GRAB BAR INSTALLATION



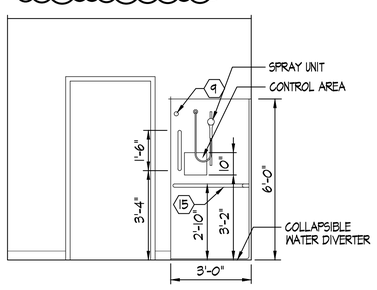

ELEVATION 13 — SCALE 3/8" = 1'-0" — A1.1B/A4.3

1
* PROVED BLOCKING FOR FUTURE GRAB BAR INSTALLATION




ELEVATION 14 — SCALE 3/8" = 1'-0" — A1.1B/A4.3

1
* PROVED BLOCKING FOR FUTURE GRAB BAR INSTALLATION




ELEVATION 15 — SCALE 3/8" = 1'-0" — A1.1B/A4.3

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

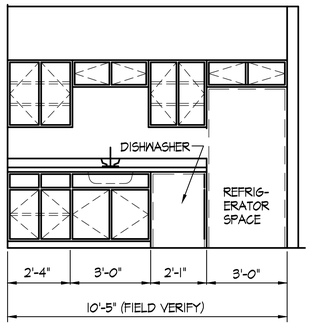
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

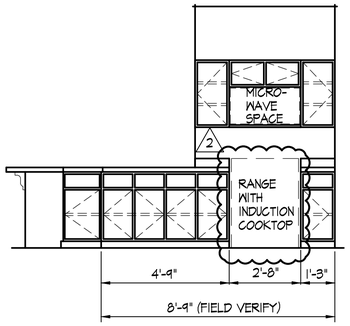
A4.3

JONES & JONES ASSOCIATES / ARCHITECTS PC

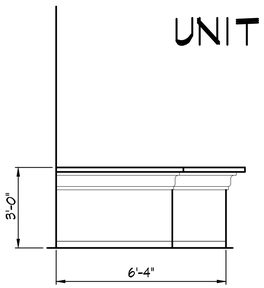
# UNIT G



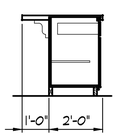

ELEVATION 1 — SCALE 3/8" = 1'-0" — A1.8|A4.4



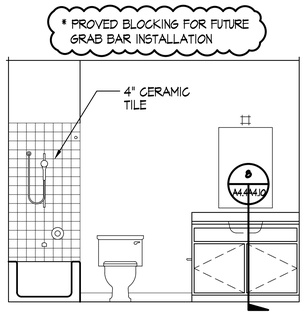

ELEVATION 2 — SCALE 3/8" = 1'-0" — A1.8|A4.4



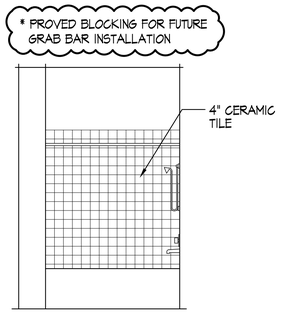

ELEVATION 3 — SCALE 3/8" = 1'-0" — A1.8|A4.4



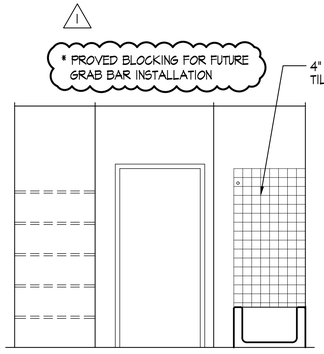

ELEVATION 4 — SCALE 3/8" = 1'-0" — A1.8|A4.4



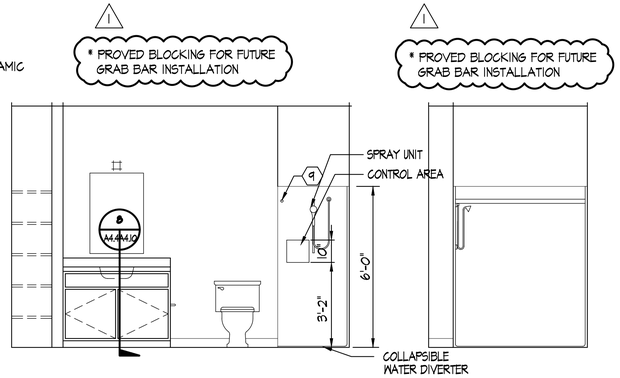

ELEVATION 5 — SCALE 3/8" = 1'-0" — A1.8|A4.4




ELEVATION 6 — SCALE 3/8" = 1'-0" — A1.8|A4.4




ELEVATION 7 — SCALE 3/8" = 1'-0" — A1.8|A4.4

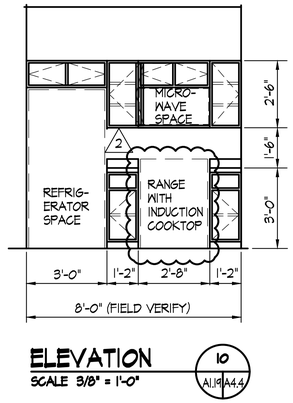



ELEVATION 8 — SCALE 3/8" = 1'-0" — A1.8|A4.4




ELEVATION 9 — SCALE 3/8" = 1'-0" — A1.8|A4.4

# UNIT H



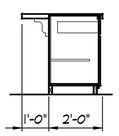

ELEVATION 10 — SCALE 3/8" = 1'-0" — A1.9|A4.4



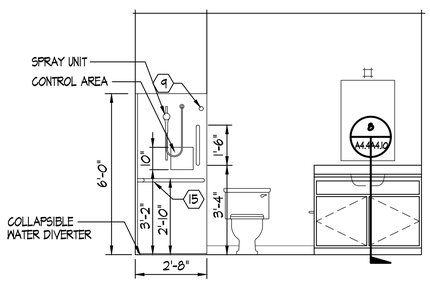

ELEVATION 11 — SCALE 3/8" = 1'-0" — A1.9|A4.4




ELEVATION 12 — SCALE 3/8" = 1'-0" — A1.9|A4.4

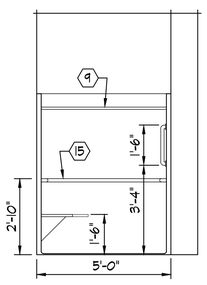



ELEVATION 13 — SCALE 3/8" = 1'-0" — A1.9|A4.4



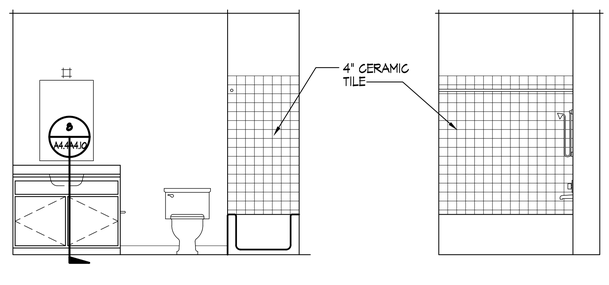

ELEVATION 14 — SCALE 3/8" = 1'-0" — A1.9|A4.4

1 * PROVED BLOCKING FOR FUTURE GRAB BAR INSTALLATION




ELEVATION 15 — SCALE 3/8" = 1'-0" — A1.9|A4.4

1 * PROVED BLOCKING FOR FUTURE GRAB BAR INSTALLATION

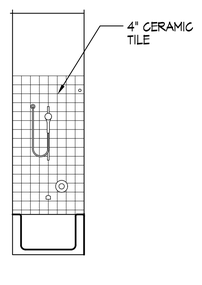



ELEVATION 16 — SCALE 3/8" = 1'-0" — A1.9|A4.4

1 * PROVED BLOCKING FOR FUTURE GRAB BAR INSTALLATION

ELEVATION 17 — SCALE 3/8" = 1'-0" — A1.9|A4.4

1 * PROVED BLOCKING FOR FUTURE GRAB BAR INSTALLATION




ELEVATION 18 — SCALE 3/8" = 1'-0" — A1.9|A4.4

1 * PROVED BLOCKING FOR FUTURE GRAB BAR INSTALLATION

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

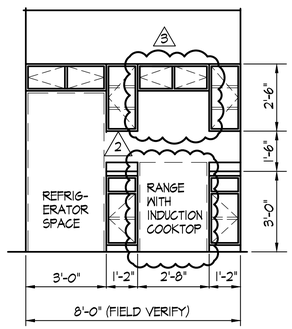
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

**A4.4**

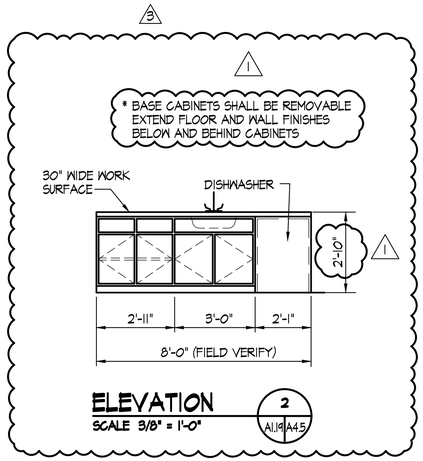
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

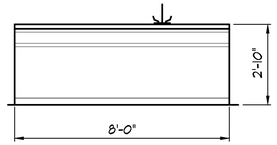
# UNIT H - ADA



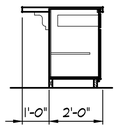

ELEVATION 1 — SCALE 3/8" = 1'-0" — A1.1 | A4.5



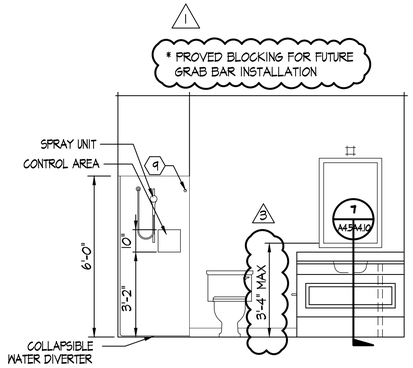

ELEVATION 2 — SCALE 3/8" = 1'-0" — A1.1 | A4.5



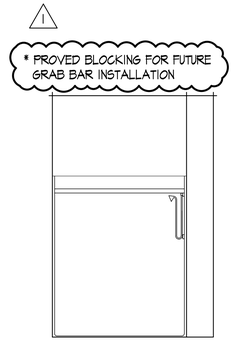

ELEVATION 3 — SCALE 3/8" = 1'-0" — A1.1 | A4.5




ELEVATION 4 — SCALE 3/8" = 1'-0" — A1.1 | A4.5




ELEVATION 5 — SCALE 3/8" = 1'-0" — A1.1 | A4.5




ELEVATION 6 — SCALE 3/8" = 1'-0" — A1.1 | A4.5




ELEVATION 7 — SCALE 3/8" = 1'-0" — A1.1 | A4.5

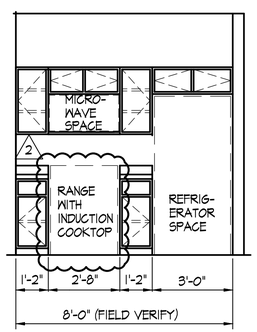



ELEVATION 8 — SCALE 3/8" = 1'-0" — A1.1 | A4.5

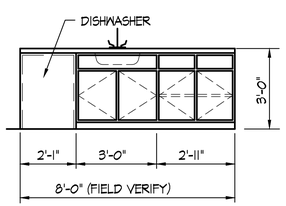



ELEVATION 9 — SCALE 3/8" = 1'-0" — A1.1 | A4.5

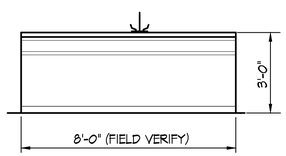
# UNIT J



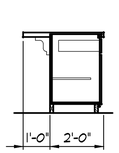

ELEVATION 10 — SCALE 3/8" = 1'-0" — A1.2 | A4.5



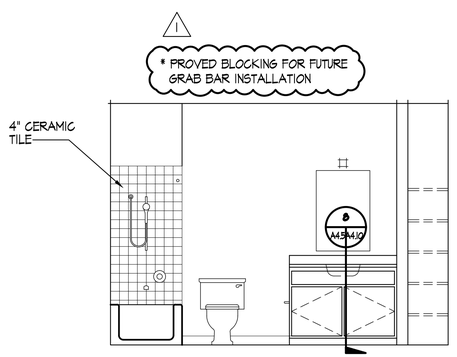

ELEVATION 11 — SCALE 3/8" = 1'-0" — A1.2 | A4.5



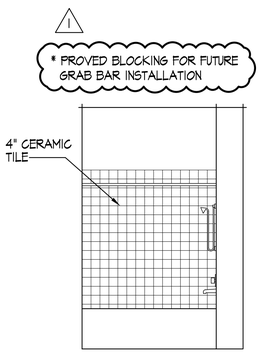

ELEVATION 12 — SCALE 3/8" = 1'-0" — A1.2 | A4.5




ELEVATION 13 — SCALE 3/8" = 1'-0" — A1.2 | A4.5




ELEVATION 14 — SCALE 3/8" = 1'-0" — A1.2 | A4.5




ELEVATION 15 — SCALE 3/8" = 1'-0" — A1.2 | A4.5

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

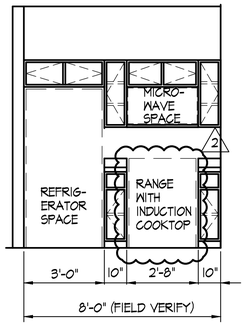
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

**A4.5**

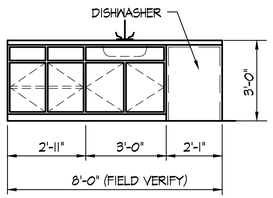
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

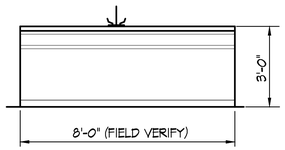
# UNIT K



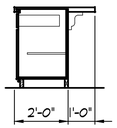

ELEVATION 1 A1.20A4.6
SCALE 3/8" = 1'-0"



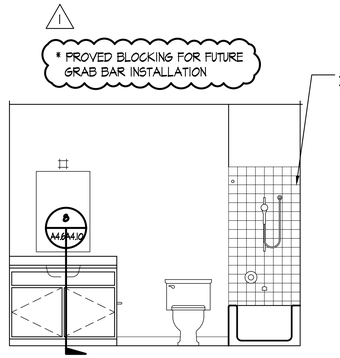

ELEVATION 2 A1.20A4.6
SCALE 3/8" = 1'-0"



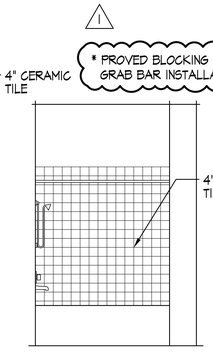

ELEVATION 3 A1.20A4.6
SCALE 3/8" = 1'-0"



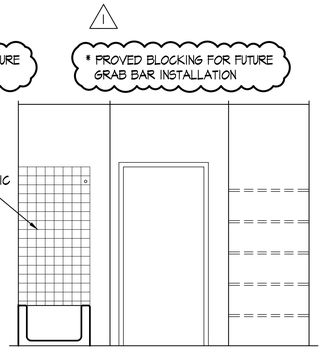

ELEVATION 4 A1.20A4.6
SCALE 3/8" = 1'-0"




ELEVATION 5 A1.20A4.6
SCALE 3/8" = 1'-0"

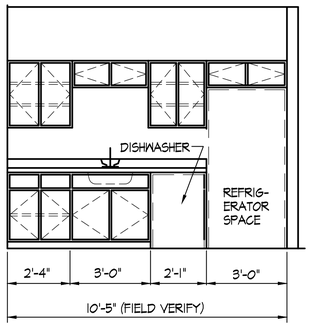



ELEVATION 6 A1.20A4.6
SCALE 3/8" = 1'-0"

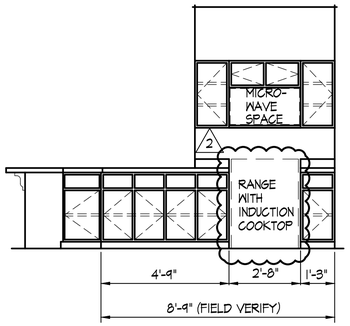



ELEVATION 7 A1.20A4.6
SCALE 3/8" = 1'-0"

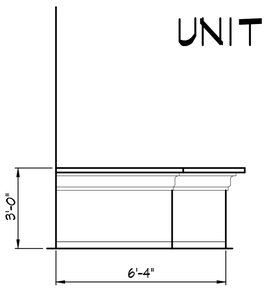
# UNIT L



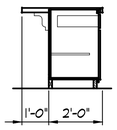

ELEVATION 8 A1.20A4.6
SCALE 3/8" = 1'-0"



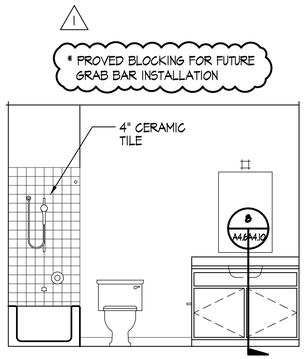

ELEVATION 9 A1.20A4.6
SCALE 3/8" = 1'-0"



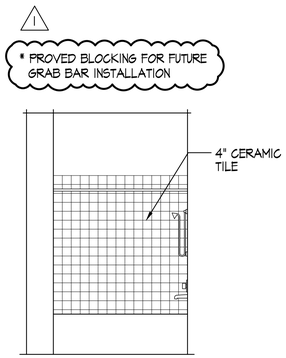

ELEVATION 10 A1.20A4.6
SCALE 3/8" = 1'-0"



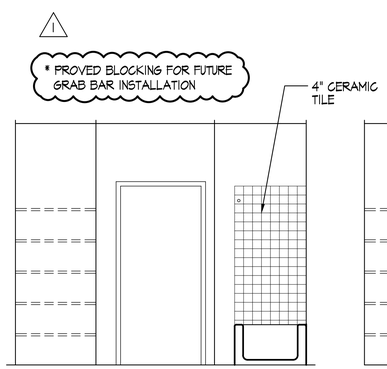

ELEVATION 11 A1.20A4.6
SCALE 3/8" = 1'-0"



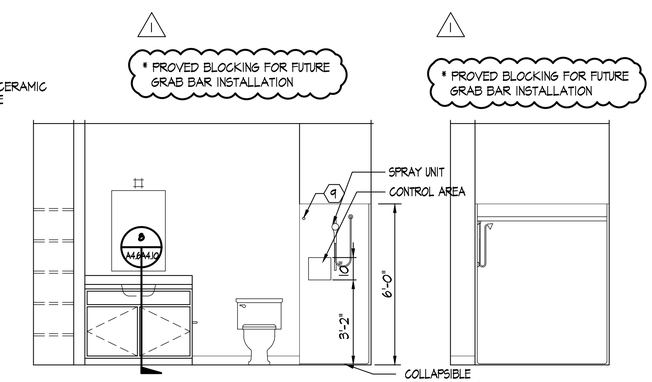

ELEVATION 12 A1.20A4.6
SCALE 3/8" = 1'-0"




ELEVATION 13 A1.20A4.6
SCALE 3/8" = 1'-0"




ELEVATION 14 A1.20A4.6
SCALE 3/8" = 1'-0"




ELEVATION 15 A1.20A4.6
SCALE 3/8" = 1'-0"




ELEVATION 16 A1.20A4.6
SCALE 3/8" = 1'-0"

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

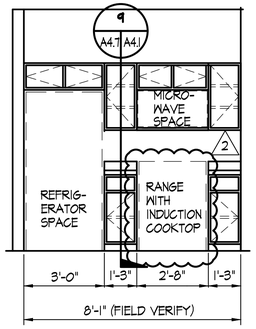
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

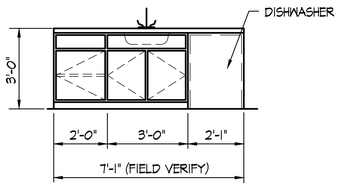
**A4.6**

JONES & JONES ASSOCIATES / ARCHITECTS PC

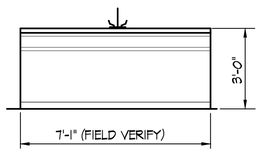
# UNIT M



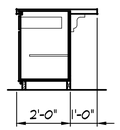

ELEVATION 1 — SCALE 3/8" = 1'-0" — A1.2\|A4.7



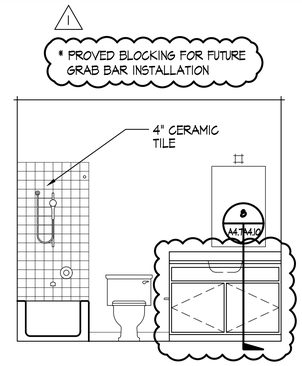

ELEVATION 2 — SCALE 3/8" = 1'-0" — A1.2\|A4.7



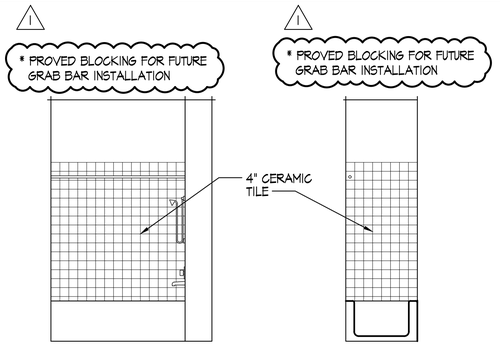

ELEVATION 3 — SCALE 3/8" = 1'-0" — A1.2\|A4.7




ELEVATION 4 — SCALE 3/8" = 1'-0" — A1.2\|A4.7



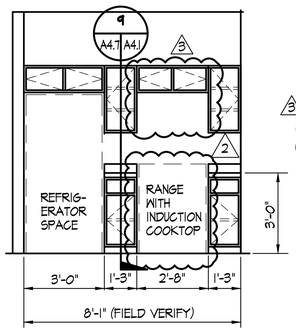

ELEVATION 5 — SCALE 3/8" = 1'-0" — A1.2\|A4.7



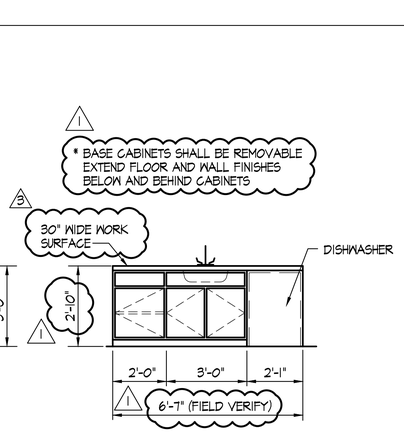

ELEVATION 6 — SCALE 3/8" = 1'-0" — A1.2\|A4.7

ELEVATION 7 — SCALE 3/8" = 1'-0" — A1.2\|A4.7

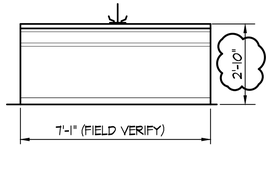
# UNIT M-ADA




ELEVATION 8 — SCALE 3/8" = 1'-0" — A1.2\|A4.7

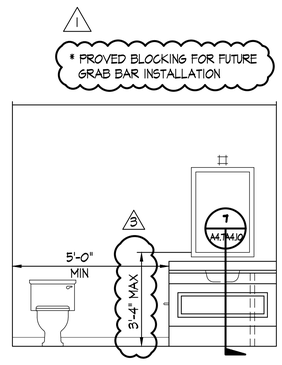



ELEVATION 9 — SCALE 3/8" = 1'-0" — A1.2\|A4.7

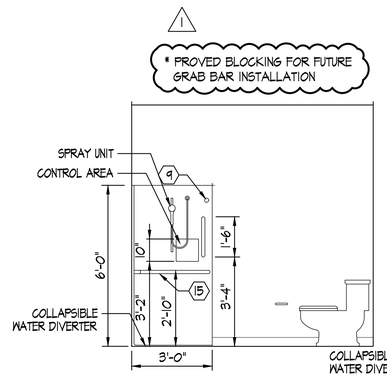



ELEVATION 10 — SCALE 3/8" = 1'-0" — A1.2\|A4.7

ELEVATION 11 — SCALE 3/8" = 1'-0" — A1.2\|A4.7



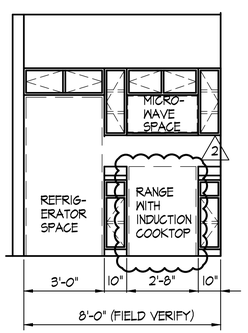

ELEVATION 12 — SCALE 3/8" = 1'-0" — A1.2\|A4.7



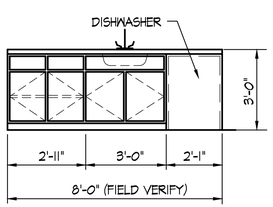

ELEVATION 13 — SCALE 3/8" = 1'-0" — A1.2\|A4.7

ELEVATION 14 — SCALE 3/8" = 1'-0" — A1.2\|A4.7

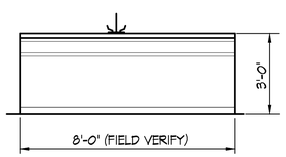
# UNIT N



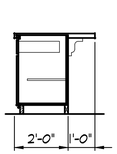

ELEVATION 15 — SCALE 3/8" = 1'-0" — A1.2\|A4.7



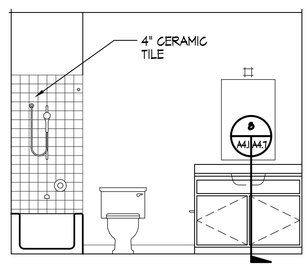

ELEVATION 16 — SCALE 3/8" = 1'-0" — A1.2\|A4.7



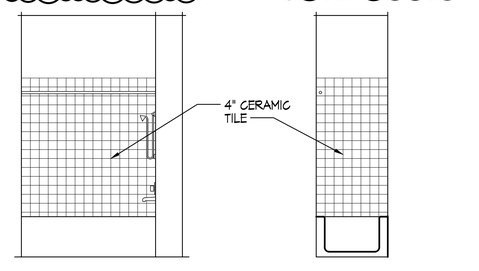

ELEVATION 17 — SCALE 3/8" = 1'-0" — A1.2\|A4.7




ELEVATION 18 — SCALE 3/8" = 1'-0" — A1.2\|A4.7




ELEVATION 19 — SCALE 3/8" = 1'-0" — A1.2\|A4.7




ELEVATION 20 — SCALE 3/8" = 1'-0" — A1.2\|A4.7

ELEVATION 21 — SCALE 3/8" = 1'-0" — A1.2\|A4.7

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

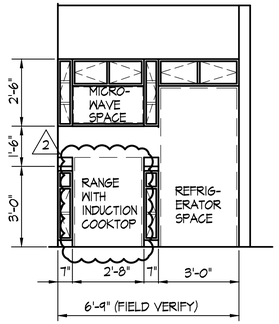
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

**A4.7**

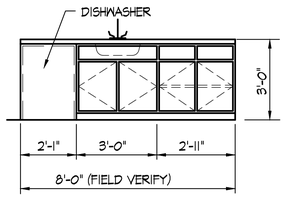
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

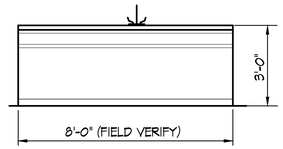
# TYPE O



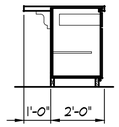

ELEVATION 1
SCALE 3/8" = 1'-0"
A1.22A4.8



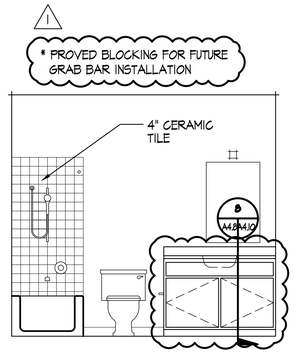

ELEVATION 2
SCALE 3/8" = 1'-0"
A1.22A4.8



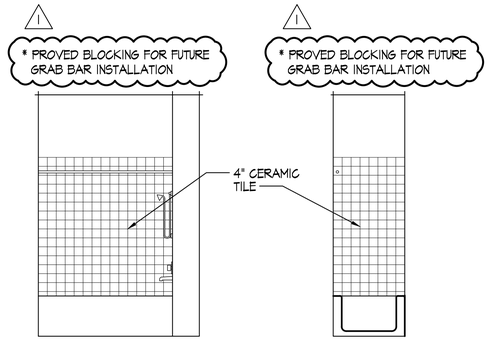

ELEVATION 3
SCALE 3/8" = 1'-0"
A1.22A4.8




ELEVATION 4
SCALE 3/8" = 1'-0"
A1.22A4.8



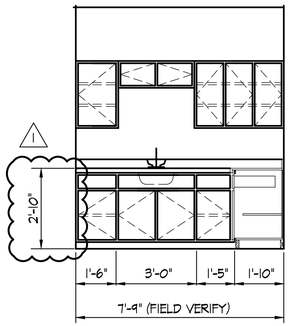

ELEVATION 5
SCALE 3/8" = 1'-0"
A1.22A4.8



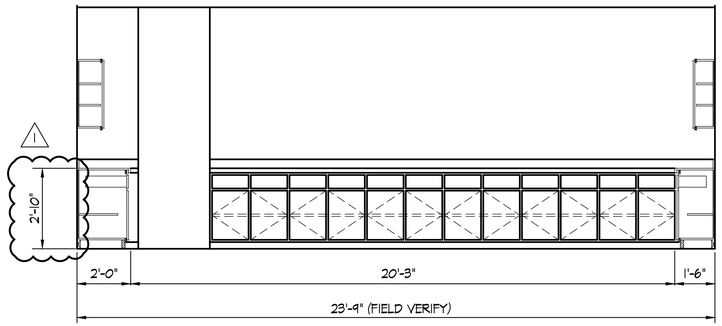

ELEVATION 6
SCALE 3/8" = 1'-0"
A1.22A4.8

ELEVATION 7
SCALE 3/8" = 1'-0"
A1.22A4.8

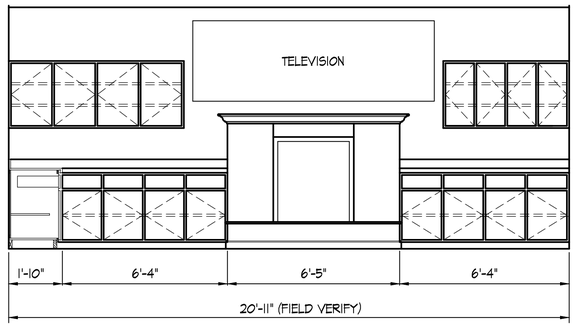
# COMMON AREAS



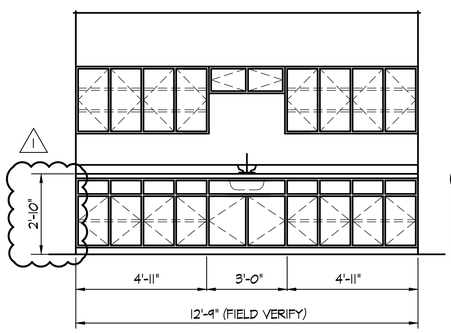

ELEVATION 8
SCALE 3/8" = 1'-0"
A1.23A4.8



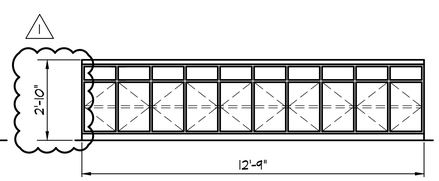

ELEVATION 9
SCALE 3/8" = 1'-0"
A1.23A4.8



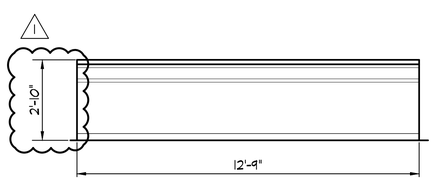

ELEVATION 10
SCALE 3/8" = 1'-0"
A1.23A4.8



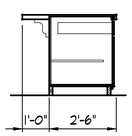

ELEVATION 11
SCALE 3/8" = 1'-0"
A1.23A4.8



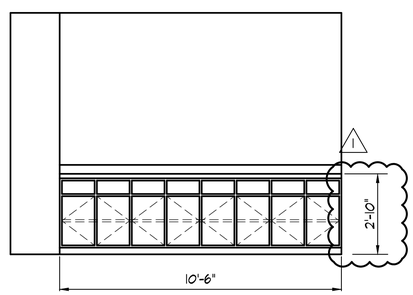

ELEVATION 12
SCALE 3/8" = 1'-0"
A1.23A4.8




ELEVATION 13
SCALE 3/8" = 1'-0"
A1.23A4.8




ELEVATION 14
SCALE 3/8" = 1'-0"
A1.23A4.8




ELEVATION 15
SCALE 3/8" = 1'-0"
A1.23A4.8

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

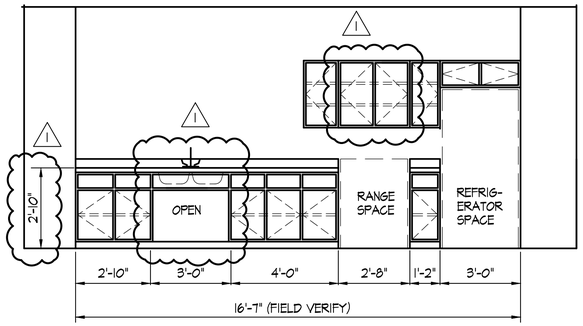
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

A4.8

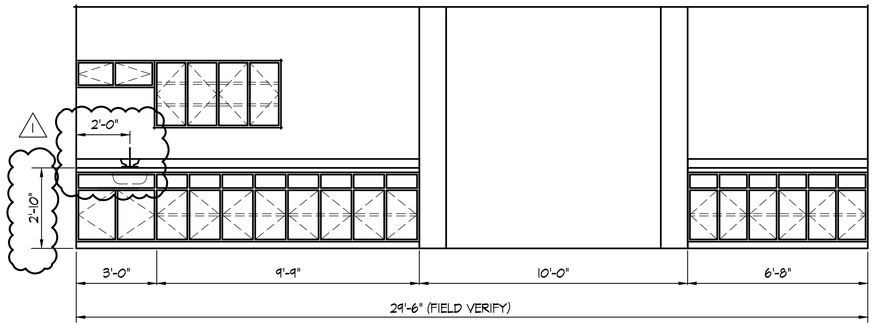
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

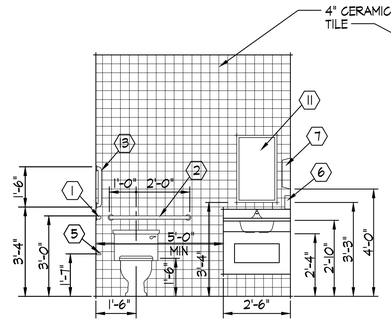
# COMMON AREAS



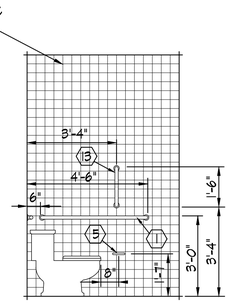

ELEVATION 1
SCALE 3/8" = 1'-0"
A1.2 3 A4.9




ELEVATION 2
SCALE 3/8" = 1'-0"
A1.2 3 A4.9




TYPICAL ELEVATION @ PUBLIC TOILETS
SCALE 3/8" = 1'-0"




TYPICAL ELEVATION @ PUBLIC TOILETS
SCALE 3/8" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

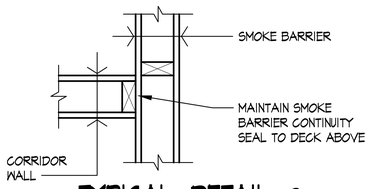
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

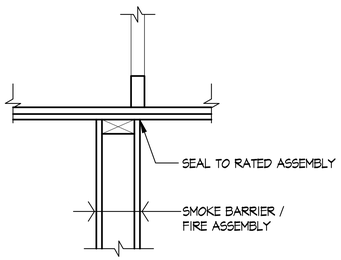
A4.9

JONES & JONES ASSOCIATES / ARCHITECTS PC

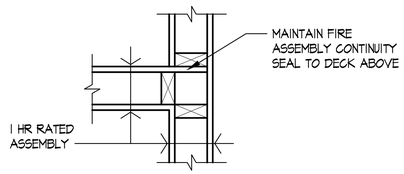
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



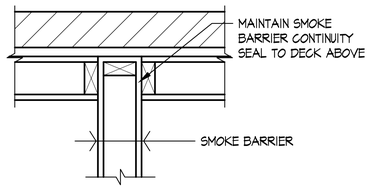

## TYPICAL DETAIL @ SMOKE BARRIER
SCALE 1 1/2" = 1'-0"



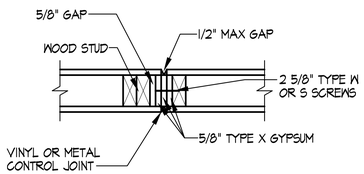

## TYPICAL DETAIL @ SMOKE BARRIER
SCALE 1 1/2" = 1'-0"



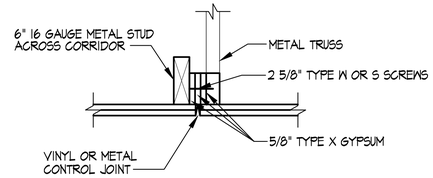

## TYPICAL DETAIL @ FIRE PARTITION
SCALE 1 1/2" = 1'-0"



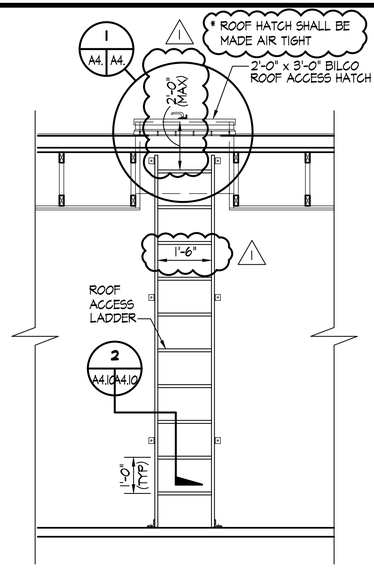

## TYPICAL DETAIL @ SMOKE BARRIER
SCALE 1 1/2" = 1'-0"




## TYPICAL WALL CONTROL JOINT
SCALE 1 1/2" = 1'-0"

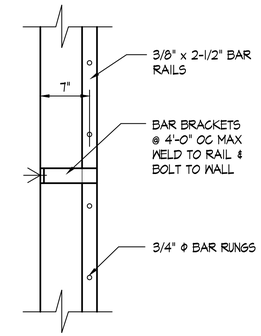



## TYPICAL CEILING CONTROL JOINT
SCALE 1 1/2" = 1'-0"

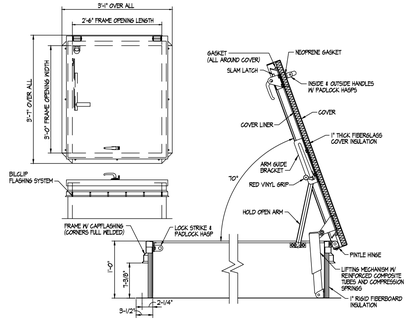



## SECTION
SCALE 1/2" = 1'-0" — 1 / A1.1 A4.1

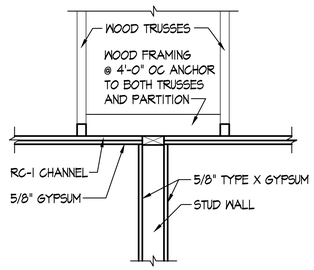
NOTE-
ALL ACCESS LADDERS SHALL COMPLY WITH THE 2015 INTERNATIONAL MECHANICAL CODE 306.5




## SECTION
SCALE 1" = 1'-0" — 2 / A4.1 A4.1

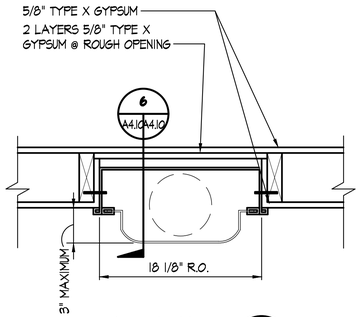



## SECTION
SCALE 1/2" = 1'-0" — 3 / A4.1 A4.1

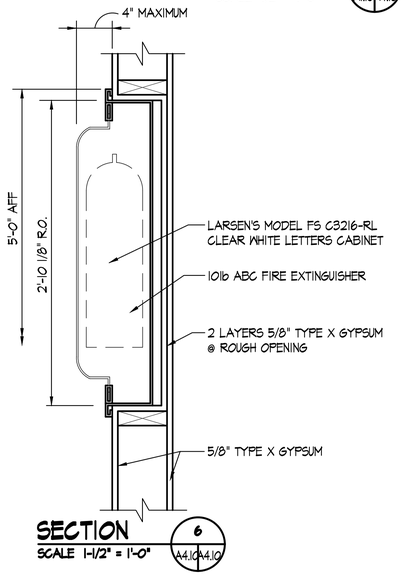



( TYPICAL AT WALLS PARALLEL TO TRUSSES )

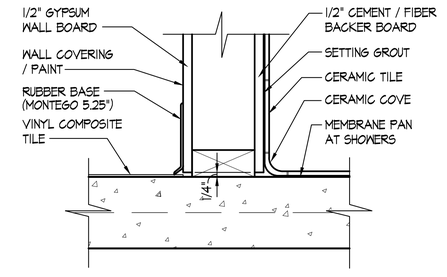
## SECTION
SCALE 1" = 1'-0" — 4 / A1.6 A4.1



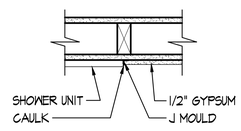

## SECTION
SCALE 1-1/2" = 1'-0" — 5 / A1.1 A4.1



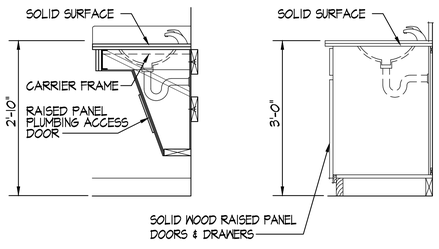

## SECTION
SCALE 1-1/2" = 1'-0" — 6 / A4.1 A4.1



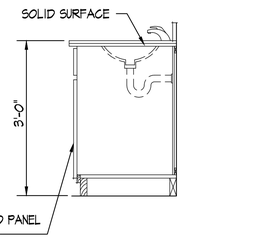

## TYPICAL BASE DETAIL
SCALE 3" = 1'-0"



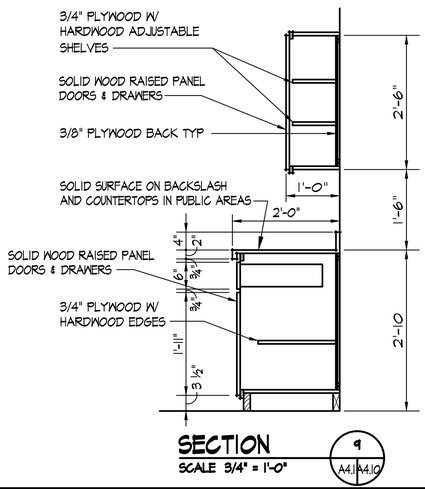

## TYPICAL DETAIL @ SHOWER UNIT
SCALE 1 1/2" = 1'-0"




## SECTION
SCALE 3/4" = 1'-0" — 7 / A4.1 A4.1



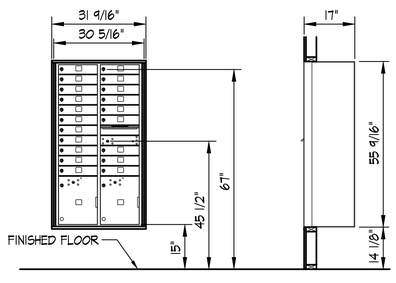

## SECTION
SCALE 3/4" = 1'-0" — 8 / A4.1 A4.1




## SECTION
SCALE 3/4" = 1'-0" — 9 / A4.1 A4.1

## TOILET ACCESSORIES

| | DESCRIPTION | MODEL |
|---|---|---|
| 1 | GRAB BAR - 1 1/2" x 48" LONG | BOBRICK B6806x42" |
| 2 | GRAB BAR - 1 1/2" x 36" LONG | BOBRICK B-6806x36" |
| 3 | GRAB BAR - 1 1/2" x 24" LONG | BOBRICK B6866 |
| 4 | TOWEL BAR - 18" LONG | BOBRICK B-674x18" |
| 5 | TOILET PAPER DISPENSER | BOBRICK B-685 |
| 6 | SOAP DISPENSER | BY OWNER |
| 7 | PAPER TOWEL DISPENSER | BY OWNER |
| 8 | DOUBLE ROBE HOOK | BOBRICK B-672 |
| 9 | SHOWER CURTAIN ROD | BOBRICK B-6107 |
| 10 | PRIVACY CURTAIN TRACK | BY OWNER |
| 11 | MIRROR 18" x 30" | BOBRICK B-290-1830 |
| 12 | MIRROR 36" x 42" | BOBRICK B-290-3642 |
| 13 | GRAB BAR - 1 1/2" x 18" LONG | BOBRICK B-6806x18" |
| 15 | GRAB BAR | W/ SHOWER UNIT |




## MAILBOX ELEVATION
SCALE 1/2" = 1'-0" — 10 / A1.2 A4.1

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2023
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

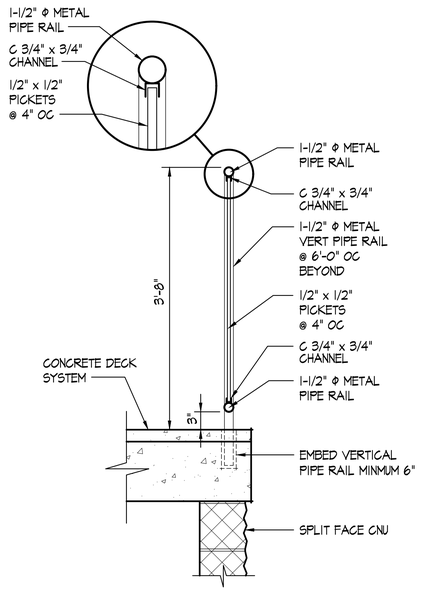
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

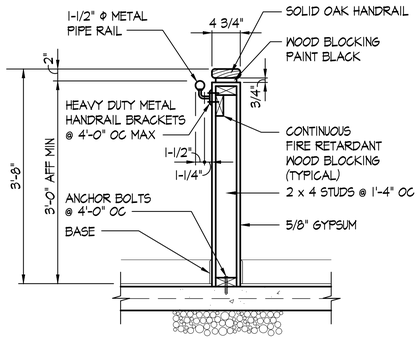
**A4.10**

JONES & JONES ASSOCIATES / ARCHITECTS PC

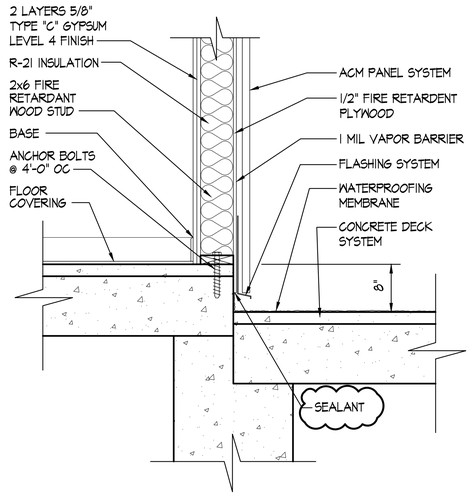
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



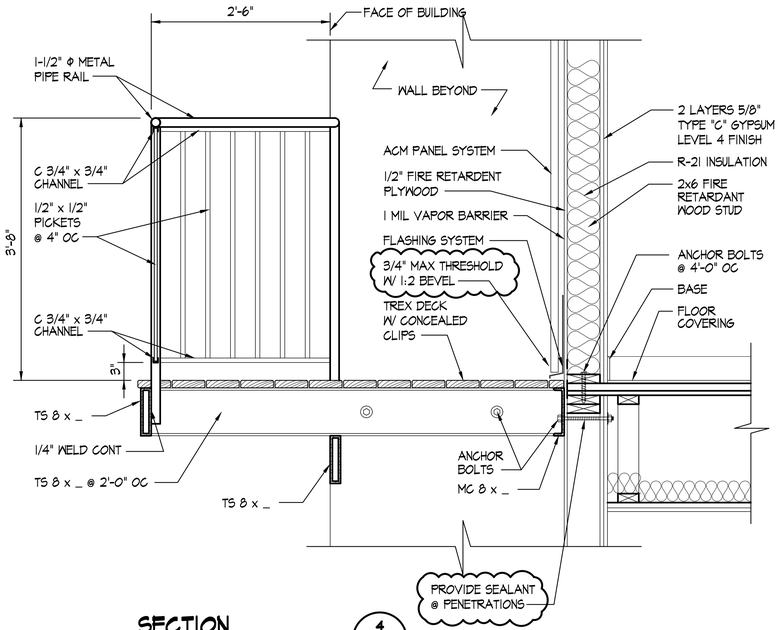

SECTION 1
SCALE 1" = 1'-0"
A1.1 | A4.11



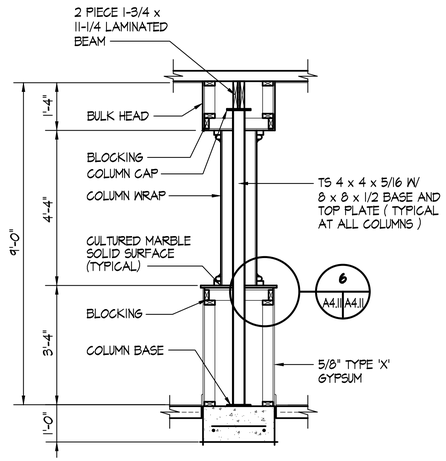

SECTION 2
SCALE 1" = 1'-0"
A1.2 | A4.11



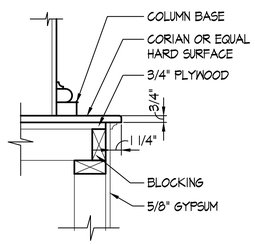

SECTION 3
SCALE 1" = 1'-0"
A1. | A4.11




SECTION 4
SCALE 1" = 1'-0"
A1. | A4.11

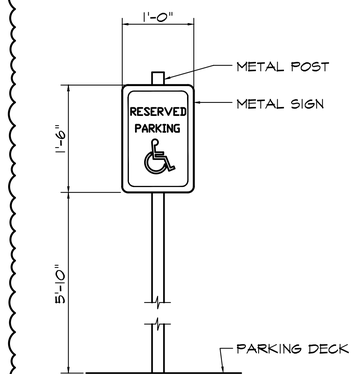



SECTION 5
SCALE 1/2" = 1'-0"
A1. | A4.11

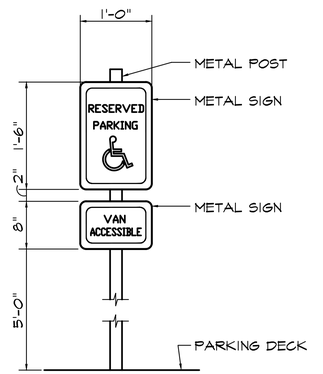



SECTION 6
SCALE 1-1/2" = 1'-0"
A4.11 | A4.11

1

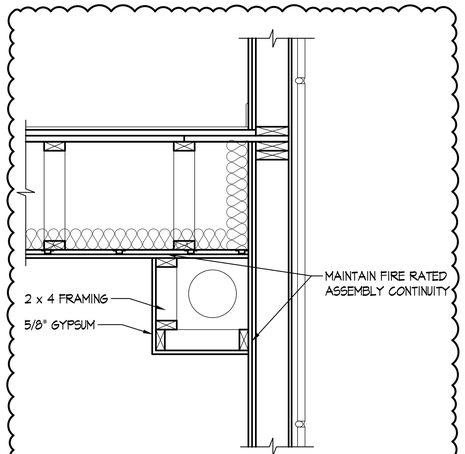



SECTION 7
SCALE 1" = 1'-0"
A1.1 | A4.11




SECTION 8
SCALE 1" = 1'-0"
A1.1 | A4.11

3




TYPICAL SECTION @ BULKHEAD
SCALE 1" = 1'-0"
A1. | A4.11

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

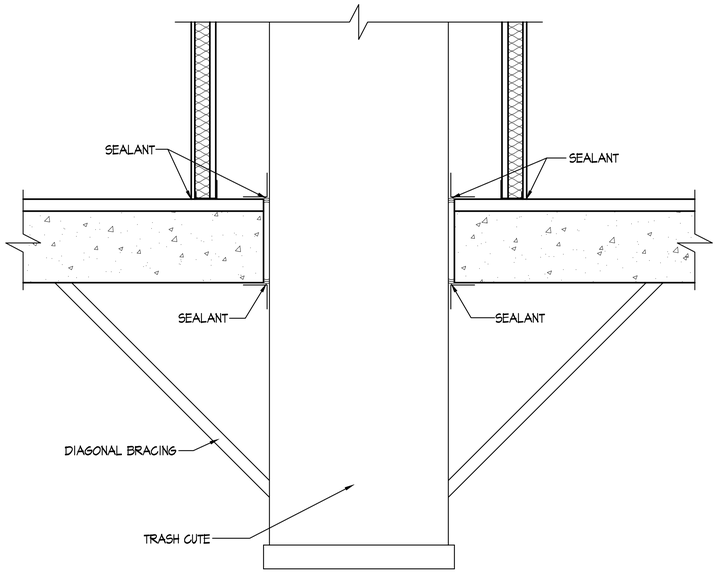
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

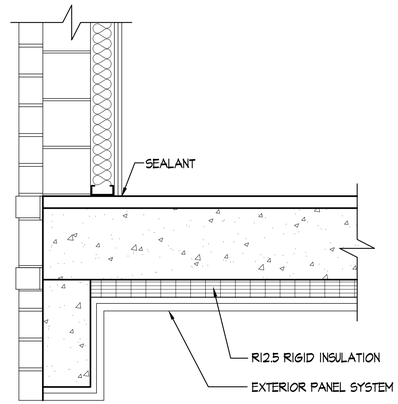
**A4.11**

JONES & JONES ASSOCIATES / ARCHITECTS PC

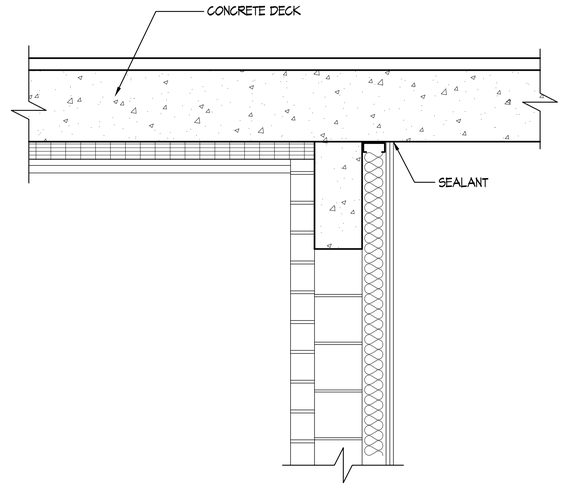
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

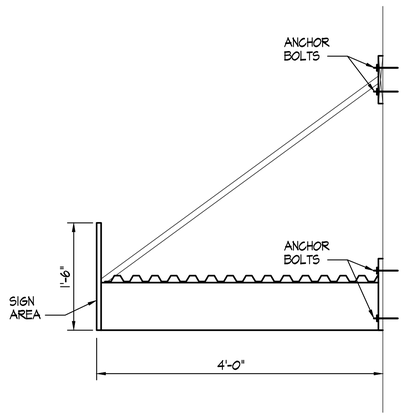



SECTION 1
SCALE 1/2" = 1'-0"
A1.2|A4.12




SECTION 2
SCALE 1/2" = 1'-0"
A1.2|A4.12




*ALL STRUCTURAL DESIGN PARAMETERS AS PER MANUFACTURER

PREFABRICATED METAL AWNING 3
SCALE 1" = 1'-0"
A2.1|A4.12

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2798
DATE
18 JUN 2021

A4.12

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

# DOOR SCHEDULE

| MARK | SIZE | TYPE | HEAD | JAMB | SILL | HDW SET NO | REMARKS |
|---|---|---|---|---|---|---|---|
| 101 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 102 | 3-0 x 6-8 x 1 ¾ | F | 5 | 6 | | 6 | 45 MINUTE FIRE RATING |
| 103 | OMIT | | | | | | |
| 104 | OMIT | | | | | | |
| 105 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 5 | |
| 106 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 5 | |
| 107 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 6 | |
| 108 | PAIR 3-0 x 6-8 x 1 ¾ | K | 9 | 10 | | 8 | |
| 109 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 110 | PAIR 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | 3 | |
| 111 | PAIR 3-0 x 6-8 x 1 ¾ | A | 9 | 10 | | 3 | |
| 112 | PAIR 3-0 x 6-8 x 1 ¾ | A | 13 | | | 15 | SLIDING DOUBLE DOOR |
| 113 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 114 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 115 | PAIR 3-0 x 6-8 x 1 ¾ | A | 9 | 10 | | 8 | |
| 116 | PAIR 3-0 x 6-8 x 1 ¾ | O | 3 | 4 | | 8 | 1 1/2 HOUR FIRE RATING |
| 117 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 5 | |
| 118 | 3-0 x 6-8 x 1 ¾ | D | 9 | 10 | | 7 | |
| 119 | OMIT | | | | | | |
| 120 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 5 | |
| 121 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 5 | |
| 122 | 3-0 x 6-8 x 1 ¾ | P | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 123 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 5 | |
| 124 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 5 | 1 1/2 HOUR FIRE RATING |
| 125 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 126 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 127 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 128 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 129 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 130 | 10-0 x 10-0 x 1 ¾ | N | | | | | ROLL-UP DOOR |
| 131 | 10-0 x 10-0 x 1 ¾ | N | | | | | ROLL-UP DOOR |
| 132 | 4-0 x 6-8 x 1 ¾ | L | 1 | 2 | | 2 | |
| 133 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 134 | 4-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 18 | 1 1/2 HOUR FIRE RATING |
| 135 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 136 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 137 | 3-0 x 6-8 x 1 ¾ | P | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 138 | 3-0 x 6-8 x 1 ¾ | P | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 139 | 10-0 x 10-0 x 1 ¾ | N | | | | | ROLL-UP DOOR |
| 140 | 10-0 x 10-0 x 1 ¾ | N | | | | | ROLL-UP DOOR |
| 141 | PAIR 3-0 x 6-8 x 1 ¾ | I | 3 | 4 | | 9 | 1 1/2 HOUR FIRE RATING |
| 142 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 143 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 144 | 14-0 x 14-0 x 1 ¾ | N | | | | | ROLL-UP DOOR |
| 145 | PAIR 3-0 x 6-8 x 1 ¾ | O | 3 | 4 | | 9 | 1 1/2 HOUR FIRE RATING |
| 146 | PAIR 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | 3 | |
| 147 | PAIR 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | 3 | |
| 201 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 202 | 3-0 x 6-8 x 1 ¾ | F | 5 | 6 | | 6 | 45 MINUTE FIRE RATING |
| 203 | PAIR 3-0 x 6-8 x 1 ¾ | A | 9 | 10 | | 8 | |
| 204 | PAIR 3-0 x 6-8 x 1 ¾ | O | 3 | 4 | | 8 | 1 1/2 HOUR FIRE RATING |
| 205 | 3-0 x 6-8 x 1 ¾ | P | 3 | 4 | | 5 | 1 1/2 HOUR FIRE RATING |
| 206 | 3-0 x 6-8 x 1 ¾ | P | 3 | 4 | | 5 | 1 1/2 HOUR FIRE RATING |
| 207 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 5 | 1 1/2 HOUR FIRE RATING |
| 208 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 5 | 1 1/2 HOUR FIRE RATING |
| 209 | PAIR 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | 3 | |
| 210 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 211 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 212 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 5 | 1 1/2 HOUR FIRE RATING |
| 213 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 5 | 1 1/2 HOUR FIRE RATING |
| 214 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 215 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 216 | PAIR 3-0 x 6-8 x 1 ¾ | I | 3 | 4 | | 9 | 1 1/2 HOUR FIRE RATING |
| 217 | 3-0 x 6-8 x 1 ¾ | P | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 218 | 3-0 x 6-8 x 1 ¾ | P | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 219 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 5 | 1 1/2 HOUR FIRE RATING |
| 220 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 221 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 6 | 1 1/2 HOUR FIRE RATING |
| 301 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 302 | 3-0 x 6-8 x 1 ¾ | F | 5 | 6 | | 6 | 45 MINUTE FIRE RATING |
| 303 | PAIR 3-0 x 6-8 x 1 ¾ | S | 14 | 15 | | 8 | 3 HOUR FIRE RATING |
| 304 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| 305 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 306 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 307 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 308 | PAIR 3-0 x 6-8 x 1 ¾ | J | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 309 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 310 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| 311 | 4-10 x 6-8 x 1 ¾ | D | 13 | | | 14 | SLIDING DOOR |
| 312 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 7 | 20 MINUTE FIRE RATING |
| 313 | PAIR 6-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | SLIDING DOOR |
| 314 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 315 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 316 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 317 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 318 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 319 | PAIR 3-0 x 6-8 x 1 ¾ | J | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 320 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 321 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 322 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 323 | PAIR 3-0 x 6-8 x 1 ¾ | I | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 324 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 325 | PAIR 3-0 x 6-8 x 1 ¾ | I | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 326 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 327 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 328 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 329 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 6 | 20 MINUTE FIRE RATING |
| 330 | 3-0 x 6-8 x 1 ¾ | D | 1 | 2 | | 1 | |
| 331 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| 401 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 402 | 3-0 x 6-8 x 1 ¾ | F | 5 | 6 | | 6 | 45 MINUTE FIRE RATING |
| 403 | PAIR 3-0 x 6-8 x 1 ¾ | S | 14 | 15 | | 8 | 3 HOUR FIRE RATING |
| 404 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| 405 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 406 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 407 | PAIR 3-0 x 6-8 x 1 ¾ | J | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 408 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 409 | PAIR 3-0 x 6-8 x 1 ¾ | J | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 410 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 411 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 412 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 413 | PAIR 3-0 x 6-8 x 1 ¾ | I | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 414 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 415 | PAIR 3-0 x 6-8 x 1 ¾ | I | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |

# DOOR SCHEDULE

| MARK | SIZE | TYPE | HEAD | JAMB | SILL | HDW SET NO | REMARKS |
|---|---|---|---|---|---|---|---|
| 416 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 417 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 418 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 6 | 20 MINUTE FIRE RATING |
| 419 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| 501 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 502 | 3-0 x 6-8 x 1 ¾ | F | 5 | 6 | | 6 | 45 MINUTE FIRE RATING |
| 503 | PAIR 3-0 x 6-8 x 1 ¾ | S | 14 | 15 | | 8 | 3 HOUR FIRE RATING |
| 504 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| 505 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 506 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 507 | PAIR 3-0 x 6-8 x 1 ¾ | J | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 508 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 509 | PAIR 3-0 x 6-8 x 1 ¾ | J | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 510 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 511 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 512 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 513 | PAIR 3-0 x 6-8 x 1 ¾ | I | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 514 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 515 | PAIR 3-0 x 6-8 x 1 ¾ | I | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 516 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 517 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 518 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 6 | 20 MINUTE FIRE RATING |
| 519 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| 601 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 602 | 3-0 x 6-8 x 1 ¾ | F | 5 | 6 | | 6 | 45 MINUTE FIRE RATING |
| 603 | PAIR 3-0 x 6-8 x 1 ¾ | S | 14 | 15 | | 8 | 3 HOUR FIRE RATING |
| 604 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| 605 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 606 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 607 | PAIR 3-0 x 6-8 x 1 ¾ | J | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 608 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 609 | PAIR 3-0 x 6-8 x 1 ¾ | J | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 610 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 611 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 612 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 613 | PAIR 3-0 x 6-8 x 1 ¾ | I | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 614 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 615 | PAIR 3-0 x 6-8 x 1 ¾ | I | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 616 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 617 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 618 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 6 | 20 MINUTE FIRE RATING |
| 619 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| 701 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 702 | 3-0 x 6-8 x 1 ¾ | F | 5 | 6 | | 6 | 45 MINUTE FIRE RATING |
| 703 | PAIR 3-0 x 6-8 x 1 ¾ | S | 14 | 15 | | 8 | 3 HOUR FIRE RATING |
| 704 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| 705 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 706 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 707 | PAIR 3-0 x 6-8 x 1 ¾ | J | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 708 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 709 | PAIR 3-0 x 6-8 x 1 ¾ | J | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 710 | PAIR 3-0 x 6-8 x 1 ¾ | K | 9 | 10 | | 9 | |
| 711 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 712 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 5 | 20 MINUTE FIRE RATING |
| 713 | PAIR 3-0 x 6-8 x 1 ¾ | I | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 714 | PAIR 3-0 x 6-8 x 1 ¾ | Q | 9 | 10 | | 9 | |
| 715 | PAIR 3-0 x 6-8 x 1 ¾ | I | 5 | 6 | | 9 | 45 MINUTE FIRE RATING |
| 716 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 717 | 3-0 x 6-8 x 1 ¾ | E | 3 | 4 | | 7 | 1 1/2 HOUR FIRE RATING |
| 718 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 6 | 20 MINUTE FIRE RATING |
| 719 | PAIR 3-0 x 6-8 x 1 ¾ | B | 7 | 8 | | 8 | 20 MINUTE FIRE RATING |
| A01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| A02 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| A03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| A04 | PAIR 2-6 x 6-8 x 1 ¾ | K | 9 | 10 | | 13 | |
| A05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| A06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| A07 | 2-8 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| A08 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| B01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| B02 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| B03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| B04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| B05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| B06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| B07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| B08 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| B09 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| C01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| C02 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| C03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| C04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| C05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| C06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| C07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| C08 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| C09 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| D01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| D02 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| D03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| D04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| D05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| D06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| D07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| D08 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| D09 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| E01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| E02 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| E03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| E04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| E05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| E06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| E07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| E08 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| E09 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| E10 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| F01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| F02 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| F03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| F04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| F05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| F06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| F07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| F08 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |

# DOOR SCHEDULE

| MARK | SIZE | TYPE | HEAD | JAMB | SILL | HDW SET NO | REMARKS |
|---|---|---|---|---|---|---|---|
| F09 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| G01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| G02 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| G03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| G04 | 3-0 x 6-8 x 1 ¾ | H | 11 | | | 14 | SLIDING DOOR |
| G05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| G06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| G07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| G08 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| G09 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| G10 | 3-0 x 6-8 x 1 ¾ | H | 11 | | | 14 | SLIDING DOOR |
| G11 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| G12 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| H01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| H02 | 2-6 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| H03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| H04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| H05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| H06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| H07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| H08 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| H09 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| H10 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| H11 | 1-6 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| H12 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| J01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| J02 | 2-8 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| J03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| J04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| J05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| J06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| J07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| J08 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| J09 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| K01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| K02 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| K03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| K04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| K05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| K06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| K07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| K08 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| L01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| L02 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| L03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| L04 | 3-0 x 6-8 x 1 ¾ | H | 11 | | | 14 | SLIDING DOOR |
| L05 | 2-6 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| L06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| L07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| L08 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| L09 | 3-0 x 6-8 x 1 ¾ | H | 11 | | | 14 | SLIDING DOOR |
| L10 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| L11 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| M01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| M02 | 2-8 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| M03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| M04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| M05 | PAIR 2-6 x 6-8 x 1 ¾ | K | 9 | 10 | | 13 | |
| M06 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| M07 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| M08 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| N01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| N02 | 2-8 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| N03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| N04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| N05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| N06 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| N07 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| N08 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |
| O01 | 3-0 x 6-8 x 1 ¾ | G | 7 | 8 | | 17 | 20 MINUTE FIRE RATING |
| O02 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| O03 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| O04 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 11 | |
| O05 | 3-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 12 | |
| O06 | 3-0 x 6-8 x 1 ¾ | A | 1 | 2 | | | |
| O07 | 2-0 x 6-8 x 1 ¾ | H | 9 | 10 | | 16 | |

## FINISHING HARDWARE

Set Number 1
1 Exit Device - Sargent - 8500 - KL - BSP
3 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
1 Threshold - National Guard - 427 DKB
1 Closer - Sargent - 1430 Parallel Arm - BSP
1 Bumper - Ives - 408 1/2 - BSP
4 Silencer
1 Weather Stripping - National Guard - 1370 KB
1 Door Sweep - National Guard - 200DKB

Set Number 2
1 Exit Device - Sargent - 8500 - KL - BSP
4 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
1 Threshold - National Guard - 427 DKB
1 Closer - Sargent - 1430 Parallel Arm - BSP
1 Bumper - Ives - 408 1/2 - BSP
4 Silencer
1 Weather Stripping - National Guard - 1370 KB
1 Door Sweep - National Guard - 200DKB

Set Number 3
2 Exit Device - Sargent - 8700 - KL - BSP
6 Hinges - Hager - BB850 BSP 1/2 x 4 1/2
1 Threshold - National Guard - 427 DKB
2 Closer - Sargent - 1430 Parallel Arm - BSP
2 Bumper - Ives - 408 1/2 - BSP
1 Weather Stripping - National Guard - 1370 KB
2 Door Sweep - National Guard - 200DKB
8 Silencer

Set Number 4
1 Lockset - Sargent - 65G05 B E4 H001 BSP
3 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
1 Bumper - Ives - 408 1/2 - BSP
4 Silencer

Set Number 5
1 Lockset - Sargent - 65U65 B E4 H001 BSP
3 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
1 Bumper - Ives - 408 1/2 - BSP
1 Closer - Sargent - 1430 Parallel Arm - 10
4 Silencer

Set Number 6
1 Lockset - Sargent - 65G37 B E4 H001 BSP
3 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
1 Bumper - Ives - 408 1/2 - BSP
1 Kick Plate - 2'-10" x 8"
1 Closer - Sargent - 1430 Parallel Arm - BSP
4 Silencer

Set Number 7
1 Exit Device - Sargent - 8700 - KL - BSP
3 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
1 Bumper - Ives - 408 1/2 - BSP
1 Closer - Sargent - 1430 Parallel Arm - BSP
4 Silencer

Set Number 8
2 Exit Device - Sargent - 8700 - KL - BSP
6 Hinges - Hager - BB850 BSP 1/2 x 4 1/2
2 Bumper - Ives - 408 1/2 - BSP
2 Closer - Sargent - 1430 Parallel Arm - BSP
2 Electronic Hold Open Device Connected To The Fire Alarm System
8 Silencer

Set Number 9
2 Exit Device - Sargent - 8700 - KL - BSP
6 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
2 Bumper - Ives - 408 1/2 - BSP
2 Kick Plate - 2'-10" x 8"
2 Closer - Sargent - 1430 Parallel Arm - BSP
8 Silencer

Set Number 10
1 Lockset - Sargent - 65G05 B E4 H001 BSP
3 Hinges - Hager - BB1262 BSP 4 1/2 X 4 1/2
1 Bumper - Ives - 408 1/2 - BSP
4 Silencer
1 Closer - Sargent - 1430 Parallel Arm - BSP
1 Threshold - National Guard - 427 DKB

Set Number 11
1 Lockset - Sargent - 65U15 B E4 H001 BSP
3 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
1 Bumper - Ives - 408 1/2 - BSP
4 Silencer

Set Number 12
1 Lockset - Sargent - 65U93 B E4 H001 BSP
1 Ball Catch - Ives - 346 - BSP
3 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
1 Bumper - Ives - 408 1/2 - BSP
4 Silencer

Set Number 13
1 Passage Lock - Sargent B E4 H001 BSP
6 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
2 Bumper - Ives - 408 1/2 - BSP
1 Lever Pull - Sargent - 65U93 - BSP
6 Silencer
1 Flush Bolt

Set Number 14
1 Lockset - Sargent - 65U93 B E4 H001 BSP
1 Door Pull - Ives - 227 BSP
1 Box Trolley Track - Stanley - 414540
5 Side Mount Brackets - Stanley - 414900
2 End Caps - Stanley - 413361
2 Box Track Hangers - Stanley - 411003
1 Stay Roller - Stanley - 411008
1 Bumper - Ives - 406 1/2 - BSP

Set Number 15
2 Lockset - Sargent - 65U93 B E4 H001 BSP
2 Door Pull - Ives - 227 BSP
2 Box Trolley Track - Stanley - 414540
10 Side Mount Brackets - Stanley - 414900
4 End Caps - Stanley - 413361
4 Box Track Hangers - Stanley - 411003
2 Stay Roller - Stanley - 411008
2 Bumper - Ives - 406 1/2 - BSP

Set Number 16
1 Deadbolt - Sargent - 475 - BSP
3 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
4 Silencer

Set Number 17
1 Electronic Access Control - Sargent - IN100 7976 B E4 H001 BSP
3 Hinges - Hager - BB1262 BSP 4 1/2 X 4 1/2
1 Bumper - Ives - 408 1/2 - BSP
4 Silencer
1 Closer - Sargent - 1430 Parallel Arm - BSP
1 Threshold - National Guard - 427 DKB

Set Number 18
1 Lockset - Sargent - 65G37 B E4 H001 BSP
4 Hinges - Hager - BB850 BSP 4 1/2 x 4 1/2
1 Bumper - Ives - 408 1/2 - BSP
1 Kick Plate - 3'-10" x 8"
1 Closer - Sargent - 1430 Parallel Arm - BSP
4 Silencer

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

**PROJECT ARCHITECT** RLJ JR
**TECHNICIANS** JMB
**COMMISSION NUMBER** 2793
**DATE** 18 JUN 2021

# A5.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

# FINISH LEGEND

CPT-1 CARPET TILE
- MFR: INTERFACE
- COLLECTION: TBD
- STYLE: TBD
- COLOR: TBD

CPT-2 CARPET TILE - ACCENT
- MFR: INTERFACE
- COLLECTION: TBD
- STYLE: TBD
- COLOR: TBD

CPT-3 CARPET
- MFR: SHAW
- COLLECTION: GENESIS
- STYLE: TBD
- COLOR: TBD

LVT-1 LUXURY VINYL TILE WOOD PLANK FLOORING
- MFR: INTERFACE
- COLLECTION: ARTISTRY PLANK
- COLOR: TBD

RFC-1 RESILIENT FLOOR COVERING
- MFR: TBD
- COLLECTION: TBD
- COLOR: TBD

VCT-1 VINYL COMPOSITE TILE
- MFR: TBD
- COLLECTION: TBD
- COLOR: TBD

CT-1 CERAMIC TILE WALL TILE
- MFR: DALTILE
- COLLECTION: SALERNO
- COLOR: TBD
- SIZE: 10"X14"
- INSTALLATION: FLOOR TO CEILING
- GROUT: MATCH CERAMIC TILE WITH SEALANT

CT-2 CERAMIC TILE SHOWER FLOOR
- MFR: DALTILE
- COLLECTION: SALERNO
- COLOR: TBD
- SIZE: 12"X12" SHEET
- GROUT: COLOR TBD

CT-3 CERAMIC TILE COVE BASE
- MFR: DALTILE
- COLLECTION: SALERNO S-36C4TB
- COLOR: TBD

CT-4 CERAMIC TILE FLOOR
- MFR: DALTILE
- COLLECTION: SALERNO
- COLOR: TBD

ACT-1 ACOUSTICAL CEILING TILE
- MFR: ARMSTRONG CEILING TILE
- TYPE: FINE FISSURED

PNT-1 PAINT
- MFR: SHERWIN WILLIAMS
- NOTE: SEE SPEC FOR INFORMATION

WC-1 WALL COVERING
- MFR: TBD
- COLLECTION: TBD
- COLOR: TBD

VB-1 VINYL BASE
- MFR: JOHNSONITE
- COLOR: TBD
- SIZE: 4"

WB-1 WOOD BASE
- MFR: TBD
- COLOR: TBD
- SIZE: TBD

## FINISH SCHEDULE

| MARK | SPACE | FLOOR: CPT-1 | CPT-2 | CPT-3 | LVT-1 | RFC-1 | VCT-1 | CT-2 | CT-4 | CONCRETE | WALL: GYPSUM | CMU | CONCRETE | PNT-1 | CT-1 | WC-1 | BASE: CT-3 | VB-1 | WB-1 | CEILING: GYPSUM | ACT-1 | CONCRETE | HEIGHT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 101 | OPEN | | | | | | | | | | | | | | | | | | | | | | | |
| 102 | FIREPLACE LOUNGE | | | | | | | ● | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 103 | TOILET | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 104 | TOILET | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 105 | JANITOR | | | | | ● | | | | | ● | | | ● | | | ● | | | ● | | | | |
| 106 | MEDIA ROOM | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 107 | LOUNGE / PARTY ROOM | | | | | | | ● | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 108 | LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 109 | OFFICE | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 110 | CONFERENCE | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 111 | LOUNGE | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 112 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 113 | TOILET | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 114 | MAIL ROOM | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 115 | FITNESS ROOM | | | | | ● | | | | | ● | | | ● | | | ● | | | ● | | | | |
| 116 | TOILET | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 117 | TOILET | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 118 | RETAIL | | | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 119 | RESTAURANT | | | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 120 | PARKING GARAGE | | | | | | | | ● | | | ● | | ● | | | ● | | | ● | | | | |
| 121 | STORAGE | | | | | | | | ● | | | ● | | ● | | | ● | | | ● | | | | |
| 122 | ELECTRICAL | | | | | | | | ● | | | ● | | ● | | | ● | | | ● | | | | |
| 123 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 124 | FIRES SUPPRESSION | | | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 125 | TRASH | | | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 126 | FIRE COMMAND | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 127 | STORAGE | | | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 201 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 202 | MECHANICAL | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 203 | PARKING DECK | | | | | | | | ● | | | ● | | ● | | | ● | | | ● | | | | |
| 204 | BIKE REPAIR | | | | | | | ● | | | | ● | | ● | | | ● | | | ● | | | | |
| 205 | DOG WASH | | | | | | | ● | | | | ● | | ● | | | ● | | | ● | | | | |
| 206 | STORAGE | | | | | | | | ● | | | ● | | ● | | | ● | | | ● | | | | |
| 207 | RESTAURANT | | | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 208 | STORAGE | | | | | | | | ● | | | ● | | ● | | | ● | | | ● | | | | |
| 209 | POOL EQUIPMENT | | | | | | | | ● | | | ● | | ● | | | ● | | | ● | | | | |
| 210 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 211 | STORAGE | | | | | | | | ● | | | ● | | ● | | | ● | | | ● | | | | |
| 212 | MAINTENANCE | | | | | | | | ● | | | ● | | ● | | | ● | | | ● | | | | |
| 301 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 302 | MECHANICAL ROOM | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 303 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 315 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 318 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 320 | SITTING AREA | ● | ● | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 321 | MECHANICAL | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 325 | COMMUNITY ROOM | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 326 | CORRIDOR | ● | ● | | | | | | ● | | ● | | | ● | | | ● | | | ● | ● | | | |
| 327 | COMMUNITY ROOM | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 328 | SPA | | | | | | | ● | | | ● | ● | | | ● | | | | | ● | | | | |
| 329 | SPA | | | | | | | ● | | | ● | ● | | | ● | | | | | ● | | | | |
| 335 | MECHANICAL | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 336 | SITTING AREA | ● | ● | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 337 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 341 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 345 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 346 | SITTING AREA | ● | ● | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 347 | MECHANICAL | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 351 | MECHANICAL | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 352 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 353 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 378 | TRASH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 342 | SAUNA | | | | | | | | | | | | | | | | | | | | | | | FINISH AS PER MANUFACTURER |
| 401 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 402 | MECHANICAL ROOM | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 403 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 415 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 418 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 420 | SITTING AREA | ● | ● | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 421 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 432 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 433 | SITTING AREA | ● | ● | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 434 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 438 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 442 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 443 | SITTING AREA | ● | ● | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 444 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 448 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 449 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 450 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 475 | TRASH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 501 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 502 | MECHANICAL ROOM | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 503 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 515 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 518 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 520 | SITTING AREA | ● | ● | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 521 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 532 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 533 | SITTING AREA | ● | ● | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 534 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 538 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 542 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 543 | SITTING AREA | ● | ● | | | | | | ● | | ● | | | ● | | | ● | | | ● | | | | |
| 544 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 548 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 549 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | | | ● | | | ● | | | | |
| 550 | CORRIDOR | ● | ● | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 575 | TRASH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |

## FINISH SCHEDULE

| MARK | SPACE | FLOOR: CPT-1 | CPT-2 | CPT-3 | LVT-1 | RFC-1 | VCT-1 | CT-2 | CT-4 | CONCRETE | WALL: GYPSUM | CMU | CONCRETE | PNT-1 | CT-1 | WC-1 | BASE: CT-3 | VB-1 | WB-1 | CEILING: GYPSUM | ACT-1 | CONCRETE | HEIGHT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 601 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 602 | MECHANICAL ROOM | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 603 | CORRIDOR | ● | | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 615 | CORRIDOR | ● | | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 619 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 620 | SITTING AREA | ● | | | | | | | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 621 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 632 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 633 | SITTING AREA | ● | | | | | | | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 634 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 638 | CORRIDOR | ● | | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 642 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 643 | SITTING AREA | ● | | | | | | | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 644 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 648 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 649 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 650 | CORRIDOR | ● | | | | | | ● | | | ● | | | ● | ● | | ● | | | ● | ● | | | |
| 675 | TRASH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 701 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 702 | MECHANICAL ROOM | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 703 | CORRIDOR | ● | | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 715 | CORRIDOR | ● | | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 719 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 720 | SITTING AREA | ● | | | | | | | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 721 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 732 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 733 | SITTING AREA | ● | | | | | | | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 734 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 738 | CORRIDOR | ● | | | | | | ● | | | ● | | | ● | | | ● | | | ● | ● | | | |
| 742 | STORAGE | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 743 | SITTING AREA | ● | | | | | | | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 744 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 748 | MECH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |
| 749 | ELEVATOR LOBBY | | | | | | | ● | | | ● | | | ● | ● | | ● | | | ● | | | | |
| 750 | CORRIDOR | ● | | | | | | ● | | | ● | | | ● | ● | | ● | | | ● | ● | | | |
| 775 | TRASH | | | | | | ● | | | | ● | | | ● | | | ● | | | ● | | | | |

## FINISH SCHEDULE - RESIDENT ROOMS

| MARK | SPACE | FLOOR: CPT-1 | CPT-2 | CPT-3 | LVT-1 | RFC-1 | VCT-1 | CT-2 | CT-4 | CONCRETE | WALL: GYPSUM | CMU | CONCRETE | PNT-1 | CT-1 | WC-1 | BASE: CT-3 | VB-1 | WB-1 | CEILING: GYPSUM | ACT-1 | CONCRETE | HEIGHT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ONE BEDROOM UNITS | | | | | | | | | | | | | | | | | | | | | | | | |
| 01 | KITCHEN | | | ● | | | | | | | ● | | | ● | ● | | | ● | | | ● | | | |
| 02 | LIVING ROOM | | | ● | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| 03 | BEDROOM | | ● | | | | | | | | ● | | | ● | | ● | | ● | | | ● | | | |
| 04 | CLOSET | | ● | | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| 05 | BATHROOM | | | | | | | ● | ● | | ● | | | ● | ● | | | ● | | | ● | | | |
| 06 | LAUNDRY ROOM | | | ● | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| TWO BEDROOM UNITS | | | | | | | | | | | | | | | | | | | | | | | | |
| 01 | KITCHEN | | | ● | | | | | | | ● | | | ● | ● | | | ● | | | ● | | | |
| 02 | LIVING ROOM | | | ● | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| 03 | BEDROOM | | ● | | | | | | | | ● | | | ● | | ● | | ● | | | ● | | | |
| 04 | CLOSET | | ● | | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| 05 | BATHROOM | | | | | | | ● | ● | | ● | | | ● | ● | | | ● | | | ● | | | |
| 06 | LAUNDRY ROOM | | | ● | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| 07 | BEDROOM | | ● | | | | | | | | ● | | | ● | | ● | | ● | | | ● | | | |
| 08 | CLOSET | | ● | | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| 09 | BATHROOM | | | | | | | | ● | ● | ● | | | ● | ● | | | ● | | | ● | | | |
| THREE BEDROOM UNITS | | | | | | | | | | | | | | | | | | | | | | | | |
| 01 | KITCHEN | | | ● | | | | | | | ● | | | ● | ● | | | ● | | | ● | | | |
| 02 | LIVING ROOM | | | ● | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| 03 | BATHROOM | | | | | | | | ● | ● | ● | | | ● | ● | | | ● | | | ● | | | |
| 04 | BEDROOM | | ● | | | | | | | | ● | | | ● | | ● | | ● | | | ● | | | |
| 05 | CLOSET | | ● | | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| 06 | BATHROOM | | | | | | | | ● | ● | ● | | | ● | ● | | | ● | | | ● | | | |
| 07 | BEDROOM | | ● | | | | | | | | ● | | | ● | | ● | | ● | | | ● | | | |
| 08 | CLOSET | | ● | | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| 09 | BEDROOM | | ● | | | | | | | | ● | | | ● | | ● | | ● | | | ● | | | |
| 10 | CLOSET | | ● | | | | | | | | ● | | | ● | | | | ● | | | ● | | | |
| 11 | LAUNDRY ROOM | | | ● | | | | | | | ● | | | ● | | | | ● | | | ● | | | |

NOTES
1. PROVIDE 1/2" CEMENTITOUS BACKER BOARD ON ALL WALLS RECEIVING CERAMIC TILE OR FIBERGLASS REINFORCED PANELS
2. PROVIDE FIBERGLASS REINFORCED PANELS ON ALL WALLS AT SERVICE SINKS
3. ALL FINISH MATERIALS SHALL MEET OR EXCEED THE REQUIREMENTS FOR CLASS B FINISHES (FLAME SPREAD 26-75, SMOKE DEVELOPMENR 0-450)
4. ALL GWB IN TOILET ROOMS, BATHS, AND LAUNDRY ROOMS SHALL BE MOISTURE RESISTANT.
5. ALL CERAMIC TILE SHALL BE THIN SET.
6. ALL CERAMIC TILE SHOWERS SHALL HAVE COMPOSITE PANS.
7. ALL BASE SHALL HAVE FACTORY MADE CORNERS.
8. COORDINATE ALL FINISHES AND DESIGN ELEMENTS WITH PLANS BY KOO LLC. IN THE EVENT OF CONFLICT, THE MORE RESTRICTIVE SHALL APPLY. (1)

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

RICHARD L. JONES, JR. 001-025003 LICENSED ARCHITECT STATE OF ILLINOIS
26 SEP 2025

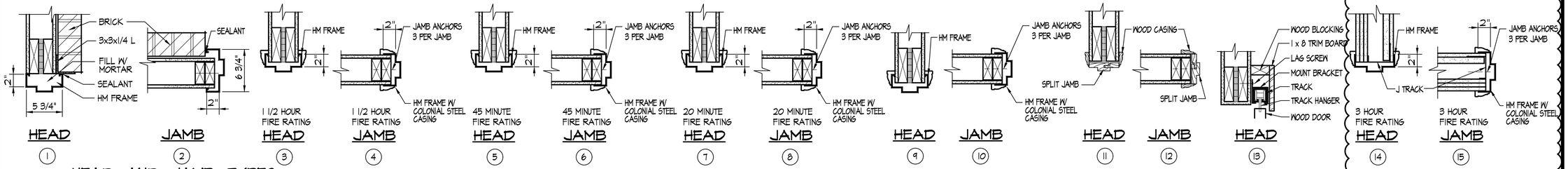
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

JONES & JONES ASSOCIATES / ARCHITECTS PC

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

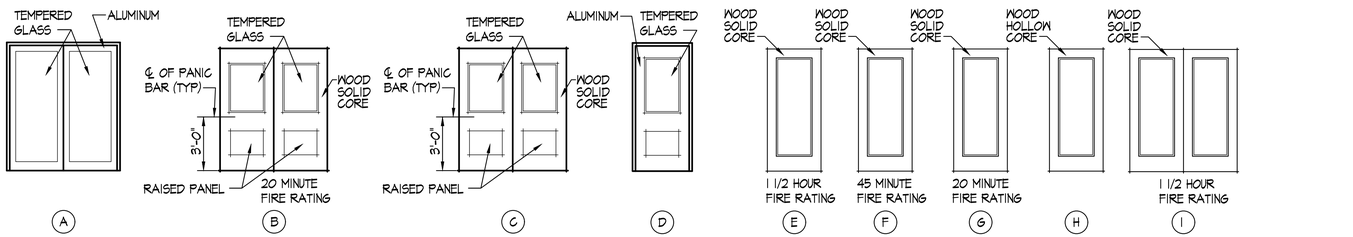
A5.2

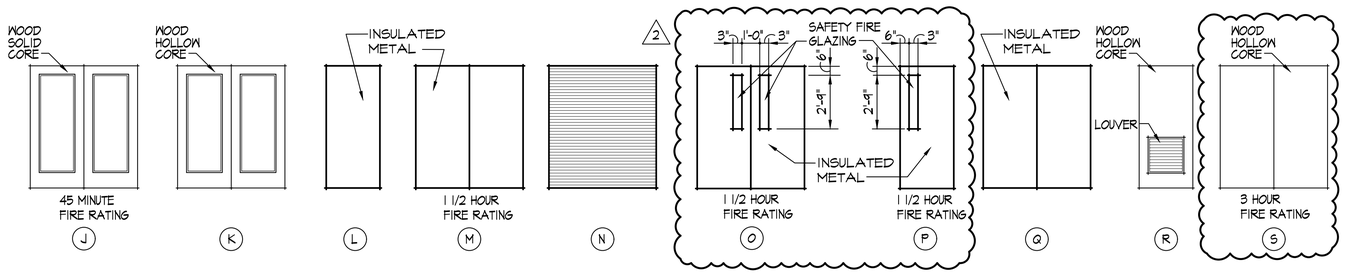
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## HEAD AND JAMB TYPES

SCALE 1 1/2" = 1'-0"

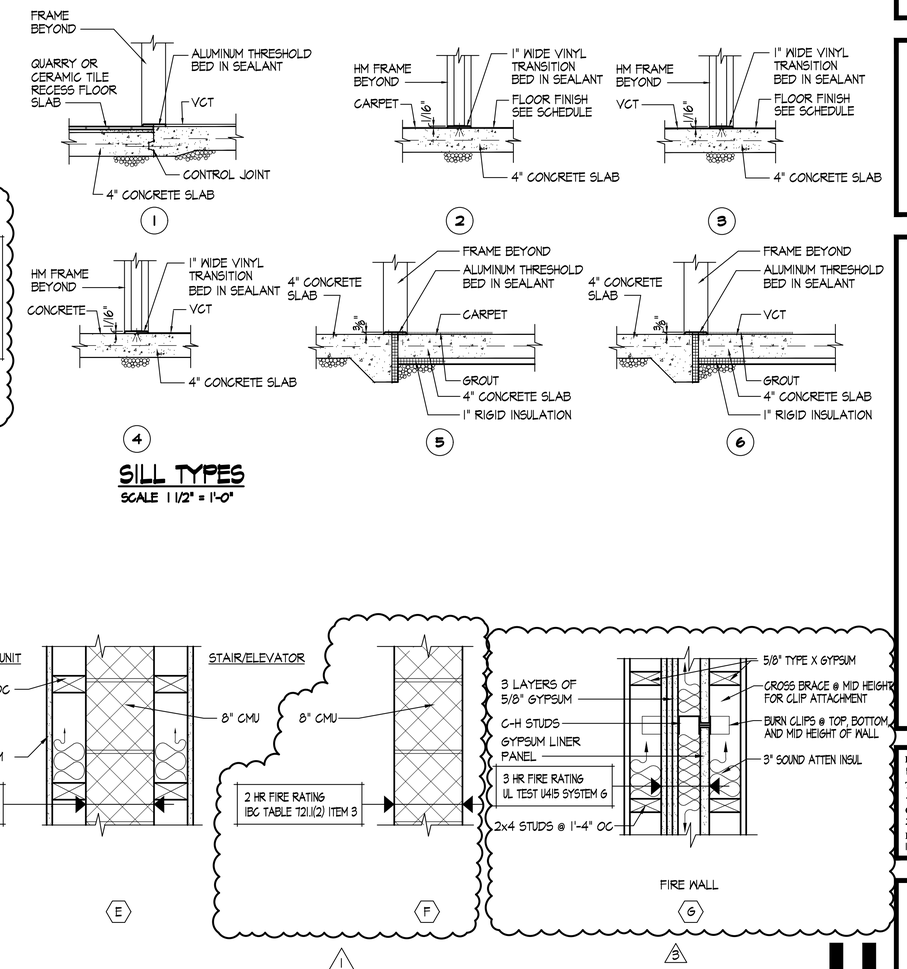



## DOOR TYPES

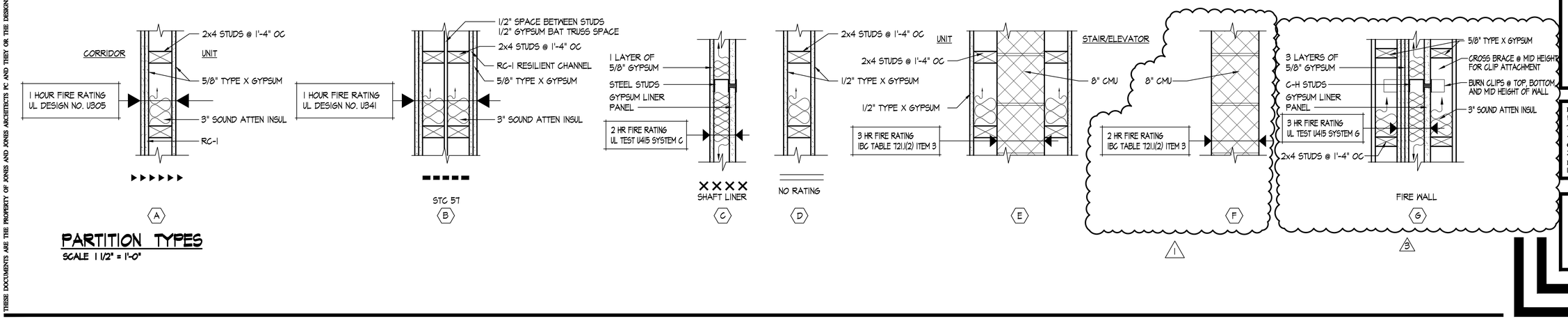
SCALE 1/4" = 1'-0"

1 NOTE
ALL GLAZING IN DOORS SHALL BE TEMPERED SAFETY GLAZING.




## SILL TYPES

SCALE 1 1/2" = 1'-0"




## PARTITION TYPES

SCALE 1 1/2" = 1'-0"

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

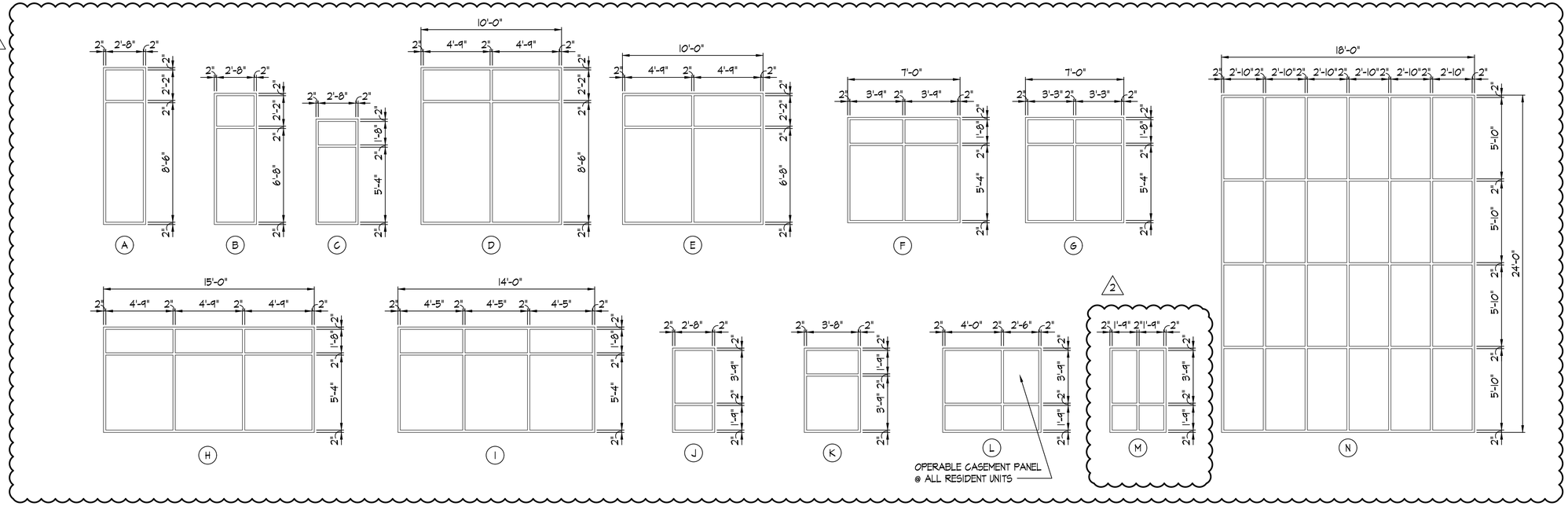
**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2193
DATE
18 JUN 2021

**A5.3**

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## WINDOW TYPES

SCALE 1/4" = 1'-0"

NOTES

1. RESTRICT VERTICAL WINDOW OPERATION TO 6" OPENING IN RESIDENT ROOMS AND PROVIDE SCREEN OF NOT LESS THAN 16 MESH PER INCH
2. THE BOTTOM OF ALL GLAZING SHALL BE 18" AFF MINIMUM
3. PROVIDE TEMPERED SAFETY GLAZING IN THE FOLLOWING LOCATIONS:
   - WITHIN 24" OF ANY DOOR
   - AT ALL STAIRWAY LANDINGS
4. ALL WINDOWS AT FLOORS 3 THRU 7 SHALL BE PHIUS APPROVED

1

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025

LICENSED ARCHITECT
RICHARD L. JONES, JR.
001-025003
STATE OF ILLINOIS
26 SEP 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
18 JUN 2021

A5.4

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

## VENTILATION SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| | NEW DUCTWORK |
| | DUCT SECTION - SUPPLY UP |
| | DUCT SECTION - SUPPLY DOWN |
| | DUCT SECTION - RETURN UP |
| | DUCT SECTION - RETURN DOWN |
| | DUCT SECTION - EXHAUST UP |
| | DUCT SECTION - EXHAUST DOWN |
| | DUCT SECTION - OUTSIDE AIR UP |
| | DUCT SECTION - OUTSIDE AIR DOWN |
| | EXISTING DUCT |
| | DUCT/EXISTING WORK TO BE REMOVED |
| R | INCLINED RISE WITH RESPECT TO AIRFLOW |
| D | INCLINED DROP WITH RESPECT TO AIRFLOW |
| | FLEXIBLE CONNECTION TO EQUIPMENT |
| | LOUVER & SCREEN WXD GROSS OPENING |
| | FLEXIBLE DUCT |
| | VOLUME DAMPER WITH QUADRANT LOCKING |
| M | MOTORIZED DAMPER |
| | SPLITTER DAMPER |
| BDD | BACKDRAFT DAMPER (GRAVITY) |
| FD | FIRE DAMPER, SLEEVE & ACCESS DOOR |
| | AIR EXTRACTING VANES |
| | TURNING VANES, DOUBLE THICKNESS AIRFOIL TYPE |
| SYSTEM / RISER NO. | RISER MARK |
| T | THERMOSTAT (G) W/ GUARD |
| S | SENSOR |
| H | HUMIDISTAT |
| | CONNECTION TO EXISTING PIPING, DUCTWORK, ETC. |
| 700-R 20x12 | EXHAUST OR RETURN AIR REGISTER |
| 800-S 20x12 | RECTANGULAR CEILING SUPPLY DIFFUSER |
| 800-S 20X12 | ROUND CEILING SUPPLY DIFFUSER |
| 800-S 20X12 | SIDE WALL, SUPPLY REGISTER W/ VOLUME DAMPER |
| 24x12 DG | DOOR GRILLE W/ BUILT-IN FIRE DAMPER IF LOCATED ON A FIRE DOOR |
| | LINEAR DIFFUSER W/ BOOT. NO VOLUME DAMPER IN BOOT |
| | AIR VALVE |
| | TERMINAL UNIT, VARIABLE VOLUME INTEGRAL DIFFUSER |
| UC | DOOR UNDERCUT MINIMUM 1" |
| | ROOF MOUNTED POWER OR GRAVITY VENTILATOR |
| | ROOF MOUNTED AIR INTAKE |
| | ELECTRIC DUCT HEATER |
| TAG / SIZE / CFM | DIFFUSER / REGISTER TAG |

## MECHANICAL SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| | PRESSURE GAGE & COCK |
| | STRAINER |
| | STRAINER WITH BLOW OFF VALVE |
| | THERMOMETER |
| P/T | PRESSURE/TEMPERATURE SENSOR |
| | CAP |
| | UNION |
| | ANCHOR W/ ALIGNMENT GUIDES |
| | EXPANSION JOINT |
| | FLEXIBLE CONNECTION |
| P | PRESSURE REDUCING VALVE |
| | RELIEF VALVE |
| | TRIPLE DUTY VALVE |
| | CHECK VALVE |
| | BALANCING VALVE |
| | GLOBE VALVE |
| | GATE VALVE |
| | BUTTERFLY WHEN VALVE IS 4" OR MORE<br>BALL VALVE WHEN VALUE IS 3" OR LESS |
| M | VALVE WITH MEMORY STOP |
| | GAS COCK |
| | CONTROL VALVE 2 WAY |
| | CONTROL VALVE 3 WAY |
| | PRESSURE/TEMPERATURE TAP |
| | CIRCUIT SETTER |
| BF | CODE BACKFLOW PREVENTER |
| | UNIT HEATER VERTICAL |
| | UNIT HEATER HORIZONTAL |
| | PIPE DOWN |
| | PIPE UP |
| | EXISTING PIPE TO BE REMOVED |
| | EXISTING PIPE TO REMAIN |
| | NEW PIPING |
| | PIPING ASSEMBLY (SEE DETAIL) |
| V | AIR VENT |
| | FLOW CONTROL FITTING |
| FI | FLOW INDICATOR |
| FS | FLOW SWITCH |
| PS | PRESSURE SWITCH |
| | BASE MOUNTED PUMP (SEE DETAIL) |
| P | INLINE PUMP (SEE DETAIL) |
| | EQUIPMENT (SPECIFIED BY TAG BELOW) |
| XX / X | EQUIPMENT TAG |
| SD | SMOKE DETECTOR |
| FSD | FIRE / SMOKE DETECTOR |

## SYSTEMS ABBREVIATIONS

| DUCTWORK | | MECHANICAL PIPING | |
|---|---|---|---|
| **ABBREVIATION** | **SYSTEM NAME** | **ABBREVIATION** | **SYSTEM NAME** |
| FLUE | BOLIER FLUE | CD | CONDENSATE DRAIN |
| CAI | COMBUSTION AIR INTAKE | NGLP | NATURAL GAS - LOW PRESSURE |
| GE | EXHAUST AIR | NGMP | NATURAL GAS MEDIUM PRESSURE |
| KE | KITCHEN EXHAUST | | |
| OA | OUTSIDE AIR | | |
| RCR | RECIRCULATION AIR | | |
| RA | RETURN AIR | | |
| SA | SUPPLY AIR | | |
| TE | TOILET EXHAUST | | |
| TRE | TRASH EXHAUST | | |

## MECHANICAL ABBREVIATIONS

| ABBREVIATION | DESCRIPTION |
|---|---|
| AC | AIR CONDITIONER |
| ACH | AIR CHANGES PER HOUR |
| ADS | AIR DIRT SEPARATOR |
| AFF | ABOVE FINISH FLOOR |
| AFG | ABOVE FINISHED GRADE |
| AFMS | AIR FLOW MONTIORING STATION |
| AFU | ANNUAL FUEL EFFICIENCY RATIO |
| AHU | AIR HANDLER |
| AMP | AMPERAGE |
| APD | AIR PRESSURE DROP |
| AS | AIR SEPARATOR |
| ATU | AIR TERMINAL UNIT |
| AUX. | AUXILLARY |
| B | BOILER |
| BAS | BUILDING AUTOMATION SYSTEM |
| BLDG | BUILDING |
| BTU | BRITSH THERMAL UNITS |
| BTU/H | BRITISH THERMAL UNITS PER HOUR |
| CAI | COMBUSTION AIR INTAKE |
| CAP. | CAPACITY |
| CAV | CONSTANT AIR VOLUME |
| CAV | CABINET UNIT HEATER |
| CC | COOING COIL |
| CFH | CUBIC FEET PER HOUR |
| CFM | CUBIC FEET PER MINUTE |
| CFM | GAUGE |
| CHWP | CHILLED WATER PUMP |
| CLG | CEILING |
| CO2 | CARBON DIOXIDE |
| CONN | CONNECTION |
| COP | COEFFICIENT OF PERFORMANCE |
| CP | STEAM CONDENSATE PUMP |
| CRAC | COMPUTER ROOM AIR CONDITIONER |
| CT | COOLING TOWER |
| CUH | CABINET UNIT HEATERS |
| CWP | CONDESER WATER PUMP |
| DB | DRY-BULB TEMPERATURE |
| DE | DRYER EXHAUST |
| DEF | DRYER EXHAUST FAN |
| DIA, Ø | DIAMETER |
| DN | DOWN |
| DOA | DEDICATED OUTSIDE AIR |
| EAD | EXHAUST AIR DAMPER |
| EAT | ENTERING AIR TEMPERATURE |
| EER | ENERGY EFFICIENCY RATIO |
| EF | EXHAUST FAN |
| EFF | EFFICIENCY |
| ESP | EXTERNAL STATIC PRESSURE |
| ET | EXPANSION TANK |
| EUH | ELECTRIC UNIT HEATERS |
| EWT | ENTERING WATER TEMPERATURE |
| EX | EXISTING |
| EXH | EXHAUST |
| F | FAHRENHEIT |
| F.S.P. | FAN STATIC PRESSURE |
| FCU | FAN COIL UNIT |
| FD | FIRE DAMPER |
| FLA | FULL LOAD AMPERAGE |
| FPB | FAN POWERED BOX |
| FPI | FINS PER INCH |
| FPM | FEET PER MINUTE |
| FPS | FEET PER SECOND |
| FT | FIN-TUBE |
| FT/MIN | FEET PER MINUTE |
| GAL. | GALLONS |
| GE | EXHAUST AIR |
| GPM | GALLONS PER MINUTE |
| GPR | GEOEXCHANGE PIPE RETURN |
| GPS | GEOEXCHANGE PIPE SUPPLY |
| GWP | ETHYLENE GLYCOL WATER PUMP |
| H | HUMIDISTAT |
| HC | HEATING COIL |
| HCP | HEATING COIL PUMP |
| HOA | HANDS-OFF-AUTO |
| HP | HORSE POWER |
| HP | HEAT PUMP |
| HPS | HIGH PRESSURE SUPPLY |
| HWP | HOT WATER PUMP |
| HWV | HOT WATER VALVE |
| HX | HEAT EXCHANGER |
| HZ | HERTZ |
| IH | INTAKE AIR HOOD |
| IHD | INTAKE HOOD DAMPER |
| IN/WC | INCHES WATER COLUMN |
| IN/WG | INCHES WATER GAUGE |
| KEF | KITCHEN EXHAUST FAN |
| KFD | KITCHEN EXHAUST CONTROL DAMPER |
| KW | KILOWATTS |
| LAT | LEAVING AIR TEMPERATURE |
| LB/HR | POUNDS PER HOUR |
| LBS | POUNDS |
| LEF | LAUNDRY EXHAUST FAN |
| LWT | LEAVING WATER TEMPERATURE |
| MAX. | MAXIMUM |
| MBH | THOUSAND BRITSH THERMAL UNITS |
| MCA | MAXIMUM CURRENT AMPERAGE |
| MD | MANUAL DAMPER |
| MERV. | MINIMUM EFFICIENCY RATING VALUE |
| MFG | MANUFACTURER |
| MIN. | MINIMUM |
| MOCP | MAXIMUM OVER-CURRENT PROTECTION |
| MPS | MEDIUM PRESSURE SUPPLY |
| MTD | MOUNTED |
| O.B.D | OPPOSED BLADE DAMPER |
| OA | OUTSIDE AIR |
| OAD | OUTSIDE AIR DAMPER |
| OAI | OUTSIDE AIR INTAKE |
| P | PUMP |
| P.D. | PRESSURE DROP |
| P/T | PRESSURE TESTING |
| PH | ELECTRICAL PHASE |
| PRV | PRESSURE REDUCING VALVE |
| PSI | POUNDS PER SQUARE INCH |
| PSIG | POUNDS PER SQURE INCH GAUGE |

## MECHANICAL ABBREVIATIONS

| ABBREVIATION | DESCRIPTION |
|---|---|
| PTAC | PACKAGED TERMINAL AIR CONDITIONER |
| PWP | PROCESS WATER PUMP |
| RA | RETURN AIR |
| RAD | RETURN AIR DAMPER |
| RBD | ROUND BACKDRAFT DAMPER |
| RCR | RECIRCULATION AIR |
| RF | RETURN FAN |
| RH | RELATIVE HUMIDITY |
| RH | RELIEF AIR HOOD |
| RHV | REHEAT WATER VALVE |
| RPM | REVOLUTIONS PER MINUTE |
| RTU | ROOFTOP UNIT |
| RV | RELIEF VALVE |
| S | SENSOR |
| SA | SUPPLY AIR |
| SEER | SEASONAL ENERGY EFFICIENCY RATIO |
| SF | SUPPLY FAN |
| SQ. FT. | SQUARE FEET |
| STV | STEAM VALVE |
| T | THERMOSTAT |
| TE | TOILET EXHAUST |
| TEF | TOILET EXHAUST FAN |
| TFD | TOILET EXHAUST CONTROL DAMPER |
| TG | TRANSFER GRILLE |
| TRE | TRASH EXHAUST |
| TSP | TOTAL STATIC PRESSURE |
| TYP | TYPICAL |
| UH | UNIT HEATERS |
| V | VOLTAGE |
| VAV | VARIABLE AIR VOLUME |
| VEL | VELOCITY |
| VFD | VARIABLE FREQUENCY DRIVE |
| VSD | VARIABLE SPEED DRIVE |
| WB | WET-BULB TEMPERATURE |
| WC | INCHES IN WATER COLUMN |

# GENERAL MECHANICAL NOTES

## NOTES APPLY TO ALL MECHANICAL DRAWINGS

1. EACH TRADE CONTRACTOR SHALL VISIT CONSTRUCTION SITE PRIOR TO BIDDING, EXAMINE SCOPE AND CONDITIONS OF OTHER CONTRACT WORK, EXAMINE EXISTING CONDITIONS AND ALL INTERFERENCES AND REQUIRED COORDINATION IN ORDER TO INCLUDE EFFECT OF SAID CONDITIONS IN THEIR BID. BID DRAWINGS ARE DIAGRAMMATIC AND DO NOT INDICATE ALL REQUIRED RELOCATIONS, OFFSETS, CHANGE IN ASPECT RATIOS, OR ROUTING CHANGES REQUIRED TO INTEGRATE WORK WITH ALL OTHER CONDITIONS OR TRADES. WORK INSTALLED BEFORE COORDINATING SO AS TO CAUSE INTERFERENCES WITH OTHER TRADES SHALL BE REMOVED AND REWORKED WITHOUT COST TO OWNER. COST OF PROVIDING SUCH RELOCATIONS, OFFSETS, SIZE, CHANGES, REROUTING, ETC. SHALL BE INCLUDED IN BID. CODE CONFORMING SCALED (1/4") COORDINATED DRAWINGS SHALL BE PREPARED BY EACH TRADE TO FACILITATE AND VERIFY FIT AND CONGRUENCE OF THEIR INSTALLATION WITH OTHER TRADES
2. WHERE ADDITIONAL DETAILS, DIAGRAMS, EQUIPMENT DATA, AND ISOMETRICS ARE REQUIRED BY BUILDING DEPARTMENT OR CODE AUTHORITIES FOR PERMIT OR APPROVAL, CONTRACTOR SHALL PROVIDE SAME AT NO ADDITIONAL COST.
3. BUILDING PLANS SHOWN ARE COMPILED FROM SOURCES BELIEVED TO BE ACCURATE. HOWEVER, THE INFORMATION SHOWN ON THESE PLANS IS SCHEMATIC AND CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROPER DIMENSIONS, SIZES, SYSTEM VOLTAGES, QUANTITIES AND EXTENT OF WORK.
4. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE PROTECTION, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR COORDINATION AND EXTENT OF THE WORK OF THE VARIOUS TRADES AND IMPACT ON THEIR WORK.
5. WITH THE APPROVAL OF THE ARCHITECT AND WITHOUT ADDITIONAL COST TO THE OWNER, MAKE MODIFICATIONS IN THE WORK, INCLUDING REROUTING AS REQUIRED BY INTERFERENCE WITH STRUCTURAL, GENERAL AND WORK OF OTHER TRADES FOR PROPER EXECUTION OF THE WORK.
6. REFER TO THE ARCHITECTURAL DRAWINGS, FIELD CONDITIONS AND DETAILS FOR EXACT LOCATION OF PARTITIONS. RCP, DIMENSIONED ELEMENTS.
7. CUTTING AND PATCHING FOR THEIR WORK SHALL BE PERFORMED BY EACH TRADE CONTRACTOR UNLESS NOTED OTHERWISE.
8. REFER TO ELECTRICAL DIAGRAM AND SPECIFICATIONS FOR VFD DRIVES TYPE, MODEL REQUIREMENTS.
9. ALL WORK SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH BUILDING STANDARDS AND ALL APPLICABLE CODES.
10. MEDIUM/LOW PRESSURE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS. SUPPLY DUCTWORK, MEDIUM PRESSURE SHALL NOT EXCEED 2000 FPM VELOCITY OR 0.2 IN/100 FT. PRESSURE DROP. LOW PRESSURE DUCTWORK SHALL NOT EXCEED 1500 FPM OR 0.08 IN/100 FT. PRESSURE DROP. EXHAUST DUCTWORK SHALL NOT EXCEED 1500 FPM OR 0.08 IN/100 FT. PRESSURE DROP.
11. PROVIDE MANUAL DAMPER ON ALL LOW PRESSURE SUPPLY BRANCH TAKE-OFF OF DUCTWORK.
12. ALL DUCT SIZES SHOWN SHALL BE CLEAR INSIDE DIMENSIONS.
13. DIFFUSERS, REGISTERS ARE AS SCHEDULED IN THE DRAWING. CONTRACTOR TO VERIFY AND COORDINATE WITH ARCHITECT TYPE OF CEILING TO DETERMINE FRAME TYPE.
14. BLANK-OFF WITH BLACK PAINTED PANEL WHERE SHOWN. DO NOT PAINT EXPOSED DUCTS OR REGISTERS.
15. PROVIDE UL APPROVED FIRE DAMPERS IN ALL DUCT PENETRATIONS THRU FIRE RATED ASSEMBLIES WHETHER INDICATED OR NOT. PROVIDE ACCESS TO FIRE DAMPERS IN COMPLIANCE WITH IMC 607.4 2
16. FLEXIBLE DUCTWORK: FINAL CONNECTIONS TO ALL BOOT ASSEMBLIES, DIFFUSERS AND REGISTERS SHALL BE MADE WITH CODE-APPROVED INSULATED FLEXIBLE DUCT, THE RMAFLEX TYPE M-KE OR AS MANUFACTURED BY FLEX MASTER OR GENFLEX. FLEXIBLE DUCTWORK SHALL NOT BE USED IN DUCTWORK AS AN ELBOW. FLEXIBLE DUCTWORK SHALL BE: STRAIGHT WITH ONLY MINOR OFFSETS NECESSARY FOR FIELD CONDITIONS. FLEXIBLE DUCTWORK SHALL NOT EXCEED 6'-0" IN LENGTH IN EITHER MEDIUM OR LOW VELOCITY SYSTEMS, SHALL BE PROPERLY SUPPORTED TO PREVENT KINKS OR SAGS, AND SHALL BE NOT BE USED AS AN ELBOW. CONNECTIONS SHALL BE SECURED WITH WRAP LOCK CLAMPS AND SEALED WITH DUCT SEALER. INSTALLATION SHALL BE IN ACCORDANCE WITH LOCAL CODES WHICH MAY RESTRICT TYPE, LENGTH AND USE OF FLEXIBLE DUCT.
17. ALL CONCEALED COLD TEMPERATURE DUCTWORK, INCLUDING SUPPLY DUCTS, SHALL BE INSULATED AS REQUIRED OR PER BUILDING STANDARDS TO PREVENT CONDENSATION. ALL NEW CONCEALED DUCTWORK UPSTREAM OF VAV TERMINAL UNITS SHALL BE INSULATED, INTERIOR DUCT LINING IS NOT ALLOWED.
18. FUEL GAS PIPING AND CONTROLS MUST CONFORM TO THE INTERNATIONAL FUEL GAS CODE(IFGC), CHAPTER 4 (WITH MODIFICATIONS AS NOTED IN ARTICLE 14). [18-28-1400]
19. GAS PIPING MUST BE SIZED IN ACCORDANCE WITH IFGC TABLES 402.(1) THROUGH 402.3 (34). [IFGC 402.3]
20. THE MAXIMUM DESIGN OPERATING PRESSURE FOR GAS PIPING SYSTEMS LOCATED INSIDE BUILDINGS SHALL NOT EXCEED 5 PSIG (SOME EXCEPTIONS ARE NOTED). [TFGC 402.5]
21. GAS PIPING MATERIALS MUST CONFORM TO THE GAS PIPING & TUBING MATERIAL MATRIX (IFGC 403 REQUIREMENTS). [IFGC 403]
22. GAS PIPING IN CONCEALED LOCATIONS MUST CONFORM TO IFGC 404.4, 404.5 & 404.7 & FITTINGS SHALL BE LIMITED TO THREADED ELBOWS, TEES, COUPLINGS, BRAZED, WELDED, AND FITTINGS LISTED TO ANSI LC-1/CSA 6.26 OR ANSI LC-4. 3
23. GAS PIPES MUST BE SLOPED AT 1/4 INCH IN EVERY 15 FEET. [IFGC 408.1]
24. ALL FITTINGS AND CONNECTIONS FOR ALL CHILLED WATER, COOLING WATER, HEATING HOT WATER SYSTEMS INSIDE THE BUILDING, EXCEPT INSIDE THE EQUIPMENT ROOM SHALL BE WELDED OR BRAZED.
25. PROVIDE FLEXIBLE DUCTS RATED FOR 10 INCH WG PRESSURE RATING. PROVIDE STRAP FOR INSIDE AND OUTSIDE LINING AT EACH CONNECTION POINT. MINIMUM HYDRONIC PIPING SIZE SHALL BE 3/4".
26. SMOKE DUCT DETECTORS SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THEIR LOCATION BASED ON THE ACTUAL DUCT ROUTING. INSTALLATION TO BE LEAK FREE AND SHALL PASS THE DUCT PRESSURE TEST.
27. LINE THE FOLLOWING DUCTWORK, REGARDLESS OF WHETHER SYSTEMS ARE EXPOSED OR CONCEALED, WITH 1" LINING.
    A. ALL NEW DUCTWORK WITHIN 25' OF FANS
    B. NEW TRANSFER AIR DUCTS
    C. NEW DUCTWORK FOR AT LEAST 15' DOWNSTREAM OF VAV TERMINAL DUCTS
28. EVERY REFRIGERANT-CONTAINING PART OF EVERY SYSTEM, EXCEPT THOSE WHICH ARE FACTORY TESTED SHALL BE TESTED AND PROVED TIGHT AFTER INSTALLATION AND BEFORE OPERATION. TESTS SHALL INCLUDE BOTH THE HIGH AND LOW-PRESSURE SIDES OF EACH SYSTEM AT NOT LESS THAN THE LOWER OF THE DESIGN PRESSURES. REFER TO SPECIFIRATION SECTION 233300.3.7.B 3

**GENERAL NOTE:** NOT ALL SYMBOLS, NOTES AND ABBREVIATIONS ARE APPLICABLE TO THIS PROJECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT REVISIONS | 06.02.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |


db HMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

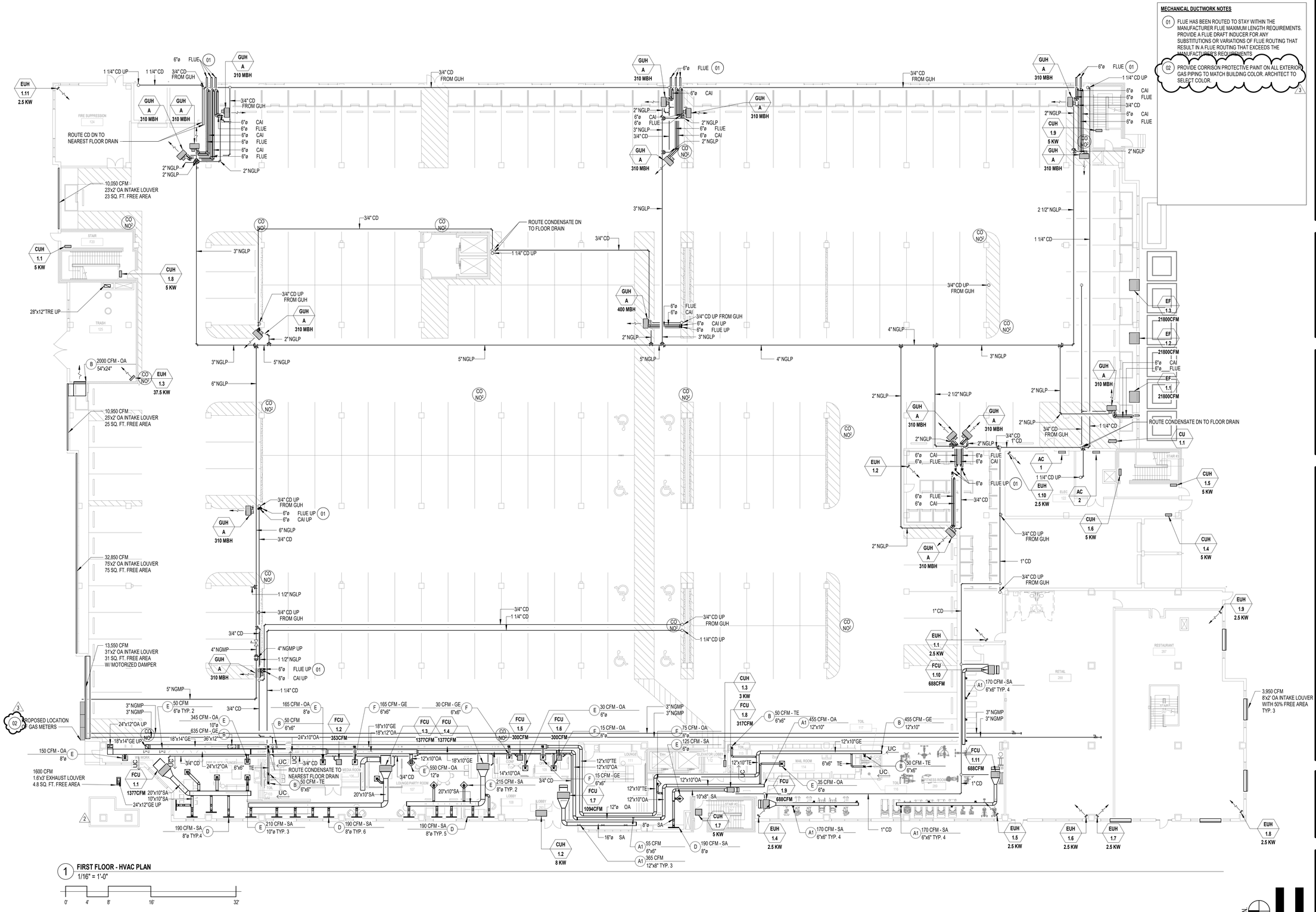

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

| | |
|---|---|
| PROJECT ARCHITECT | RLJ JR |
| TECHNICIANS | JMB |
| COMMISSION NUMBER | 2793 |
| DATE | 15 APR 2021 |


JONES & JONES ASSOCIATES / ARCHITECTS PC


M0.0


THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




REVISION DATE
ISSUE FOR PERMIT 04.02.2021
REVISIONS #1 06.02.2021
PERMIT REVISIONS #2 08.03.2021

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

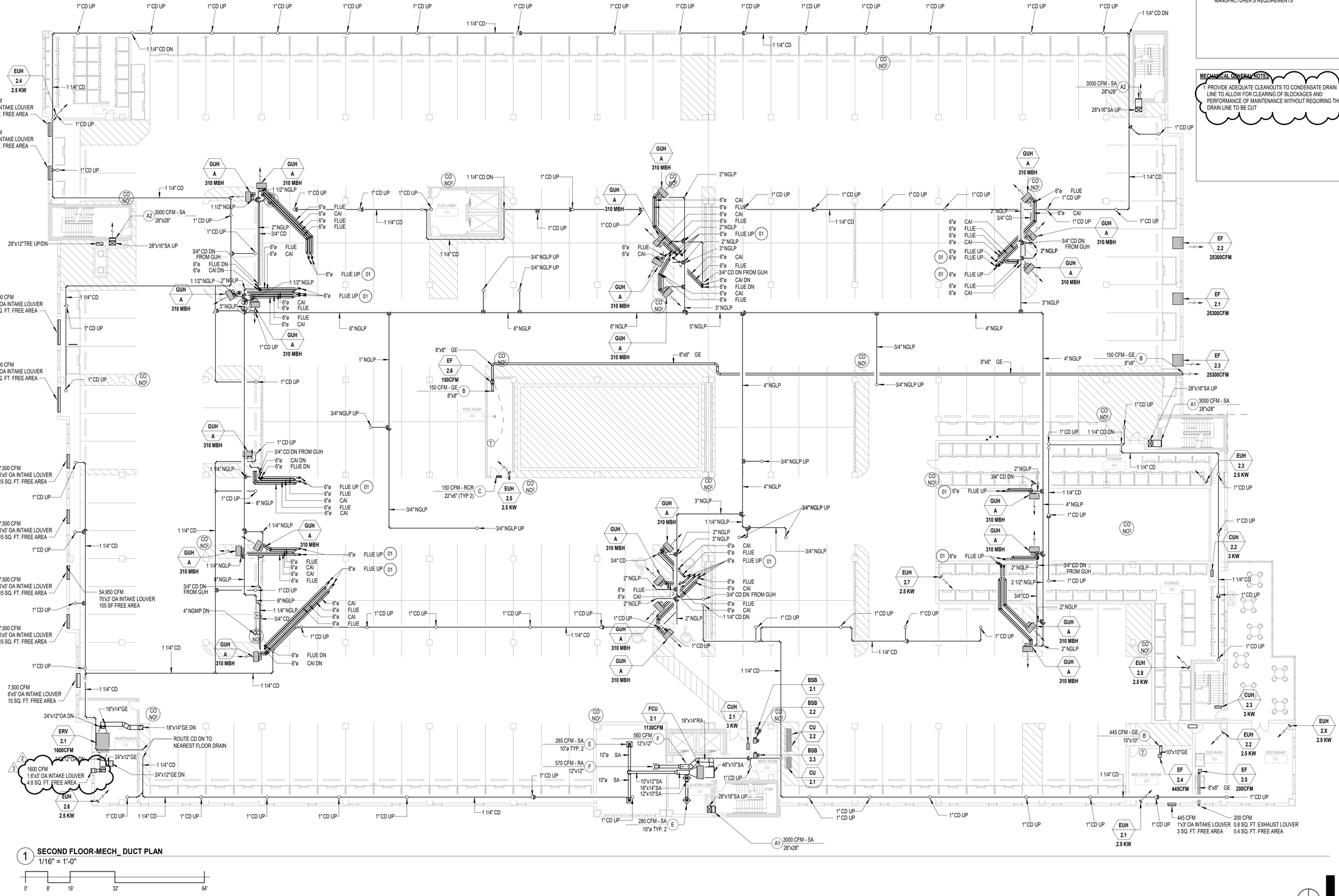
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M1.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **SECOND FLOOR-MECH_ DUCT PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

**MECHANICAL DUCTWORK NOTES**

01 FLUE HAS BEEN ROUTED TO STAY WITHIN THE MANUFACTURER FLUE MAXIMUM LENGTH REQUIREMENTS. PROVIDE A FLUE DRAFT INDUCER FOR ANY SUBSTITUTIONS OR VARIATIONS OF FLUE ROUTING THAT RESULT IN A FLUE ROUTING THAT EXCEEDS THE MANUFACTURER'S REQUIREMENTS

**MECHANICAL GENERAL NOTES**

1 PROVIDE ADEQUATE CLEANOUTS TO CONDENSATE DRAIN LINE TO ALLOW FOR CLEARING OF BLOCKAGES AND PERFORMANCE OF MAINTENANCE WITHOUT REQUIRING THE DRAIN LINE TO BE CUT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| REVISIONS #1 | 06.02.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

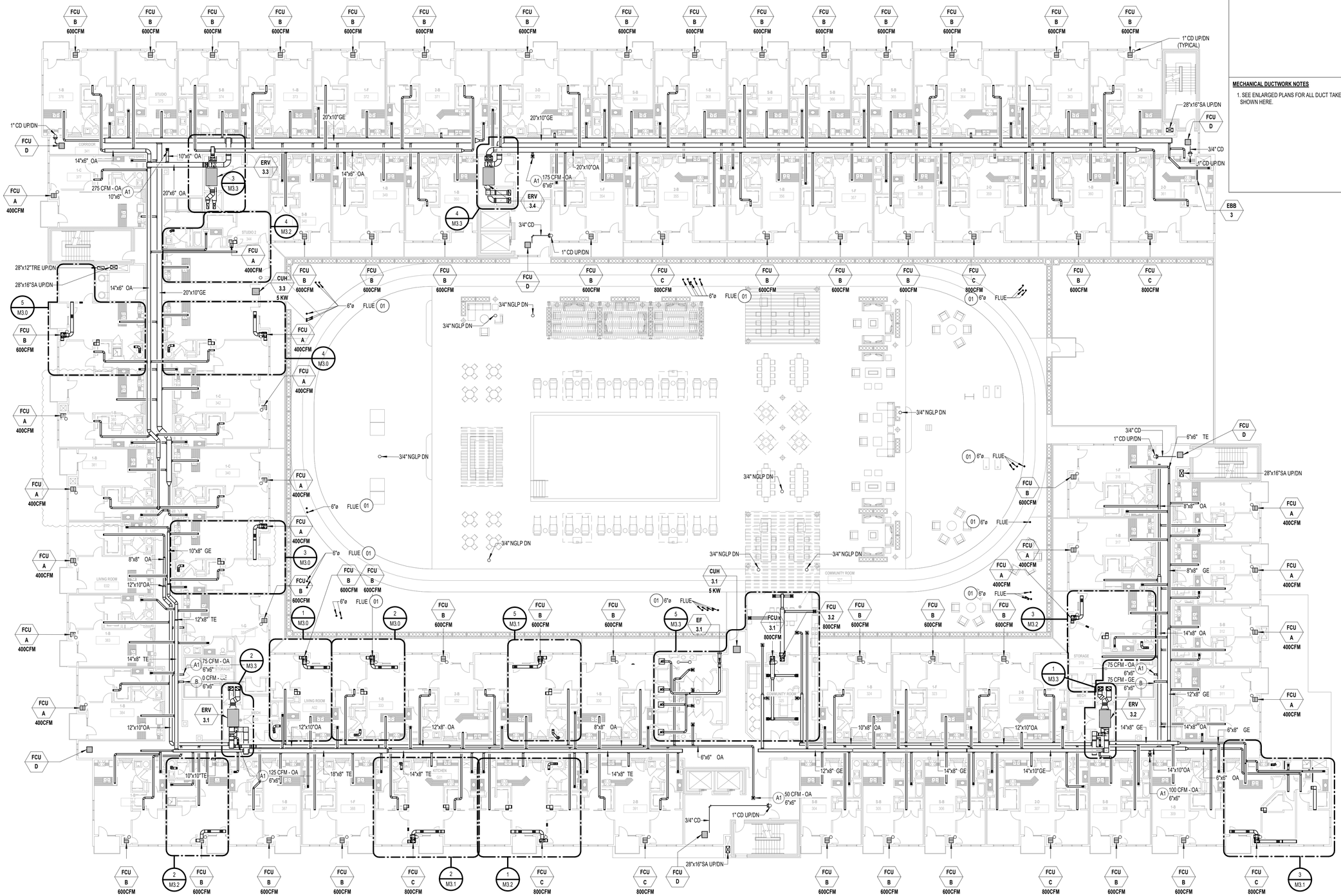
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M1.2


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **THIRD FLOOR-MECH_DUCT PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

**MECHANICAL DUCTWORK KEYNOTES**

01 TERMINATE FLUES WITH CONCENTRIC KIT

**MECHANICAL DUCTWORK NOTES**

1. SEE ENLARGED PLANS FOR ALL DUCT TAKEOFF SIZES NOT SHOWN HERE.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RESUBMIT | 06.02.2021 |


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

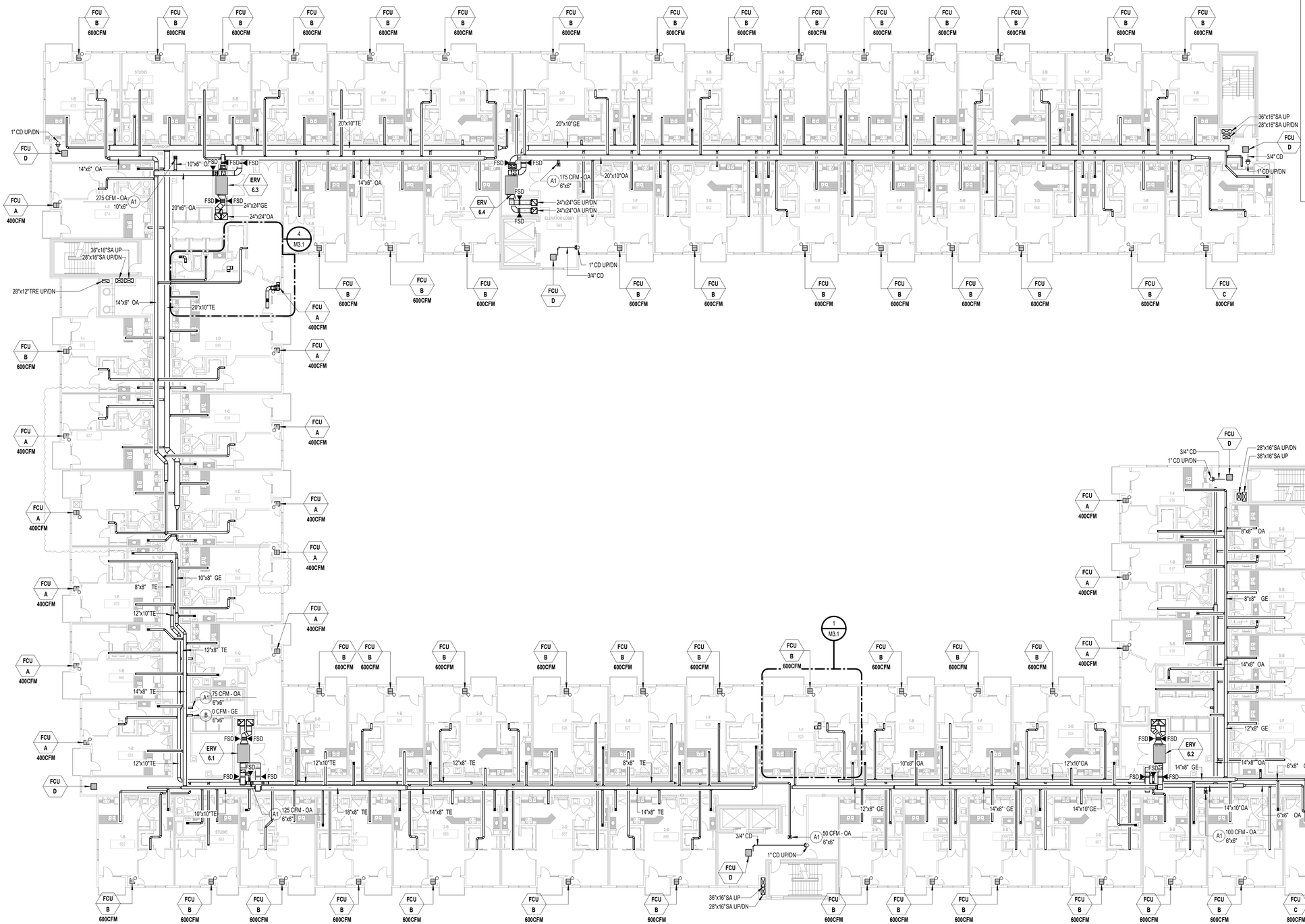
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M1.3


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 TYPICAL FOURTH THROUGH SIXTH FLOOR-MECH_ DUCT PLAN
1/16" = 1'-0"

0' 8' 16' 32' 64'

N

**MECHANICAL DUCTWORK NOTES**

00 --

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PC/SBC RECISIONS | 06.15.2021 |


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

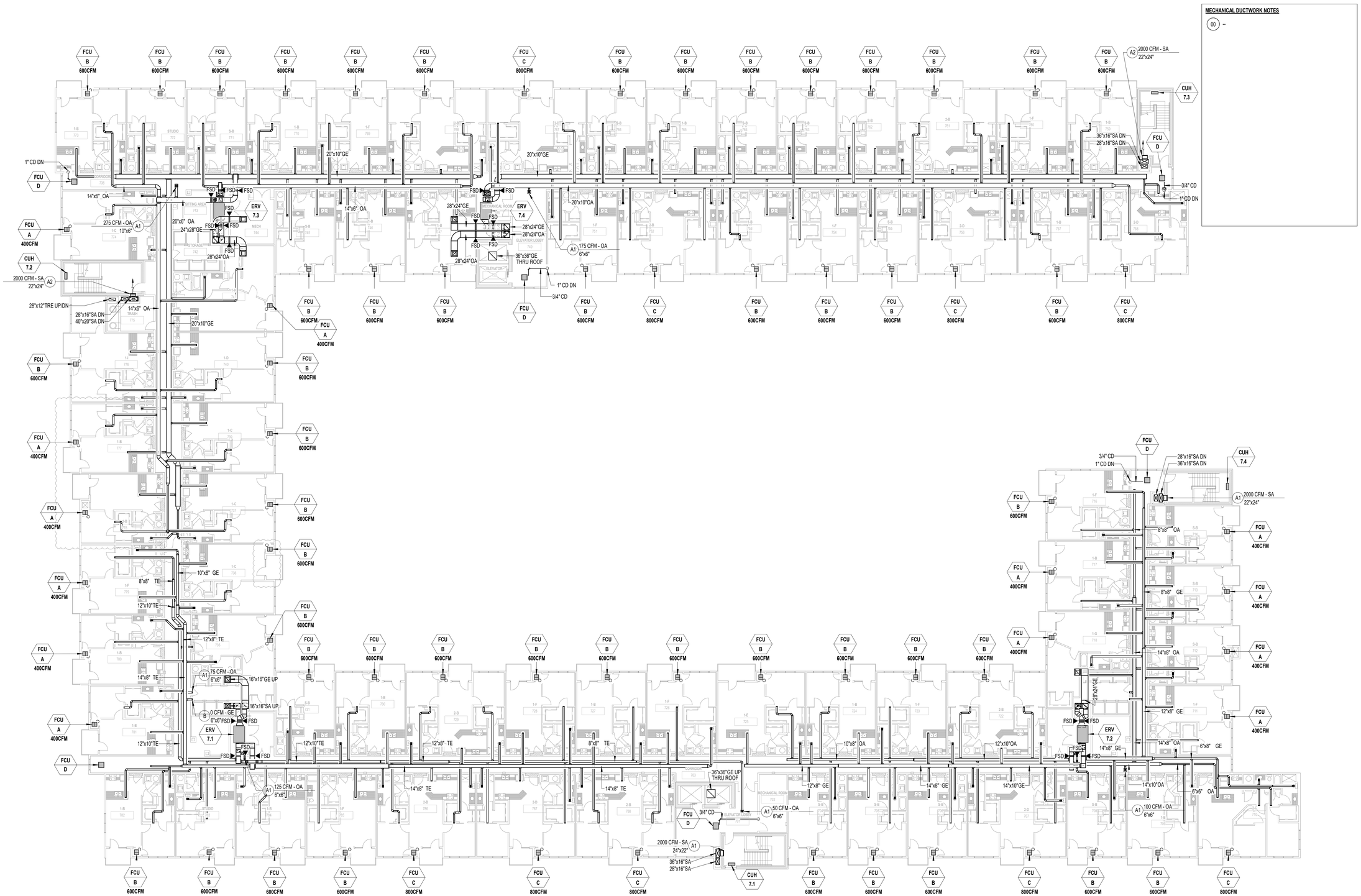
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M1.6


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **SEVENTH FLOOR-MECH_ DUCT PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

N

**MECHANICAL DUCTWORK NOTES**

00 --

REVISION DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT RESUBMIT 06.02.2021


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M1.7


JONES & JONES ASSOCIATES ARCHITECTS PC

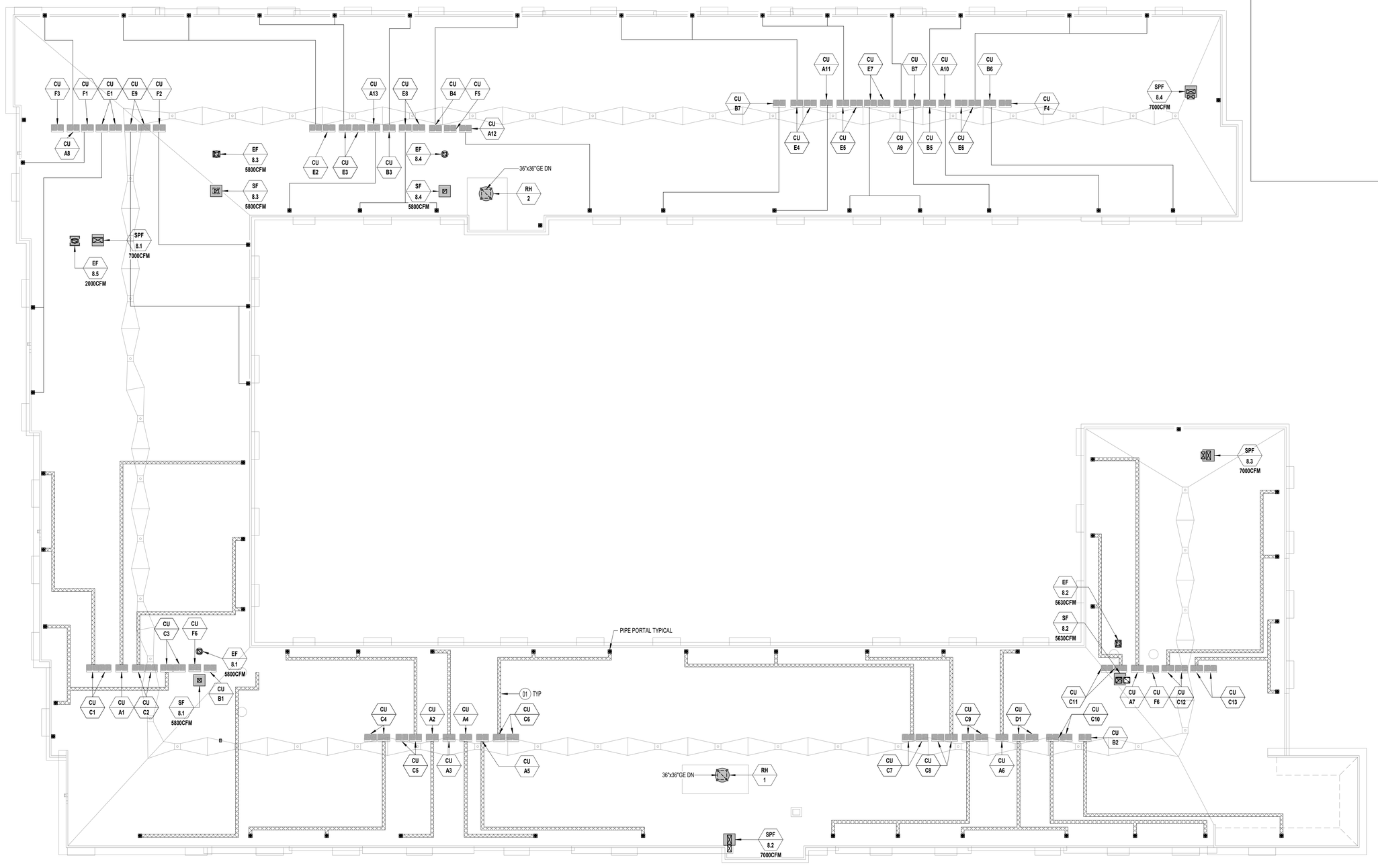


THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

**MECHANICAL DUCTWORK NOTES**

01 REFRIGERANT PIPE ROUTING. CONTRACTOR RESPONSIBLE TO COORDINATE w/ SOLAR PANEL LAYOUT PRIOR TO ANY DEVIATION. MAXIMIZE SOLAR PV AREA. OWNER APPROVAL REQUIRED PRIOR TO INSTALLING.




1 **ROOF-MECH_ DUCT PLAN**
1/16" = 1'-0"

0' 4' 8' 16' 32'

N

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RESUBMIT | 06.02.2021 |

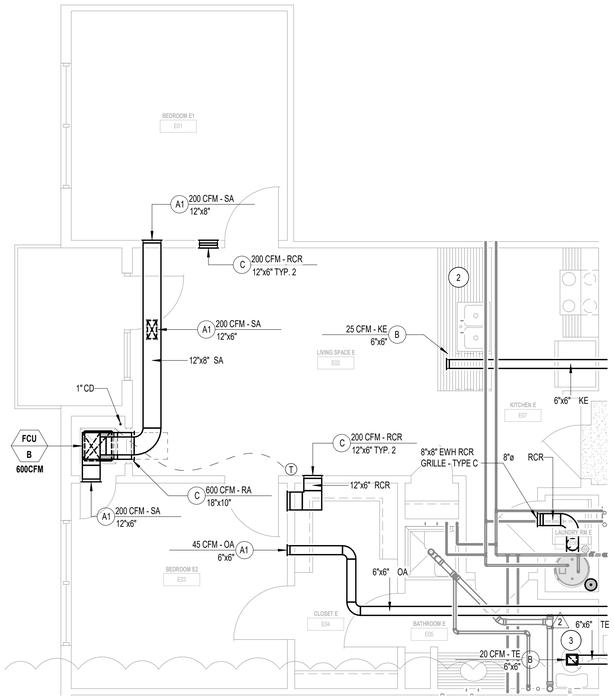
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

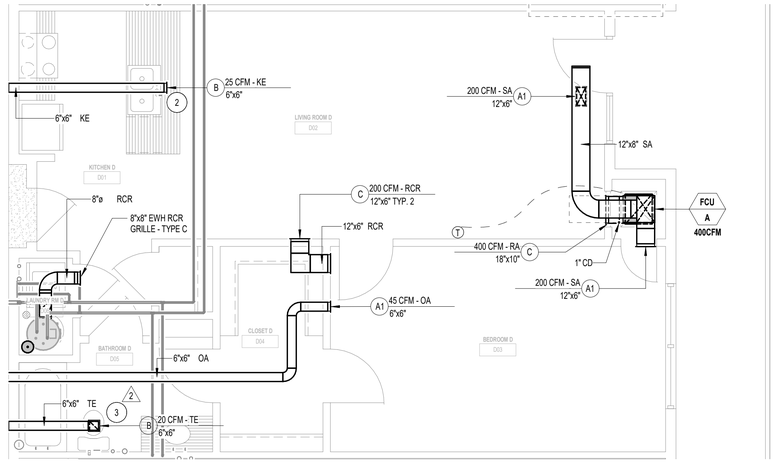
M1.8

JONES & JONES ASSOCIATES / ARCHITECTS PC



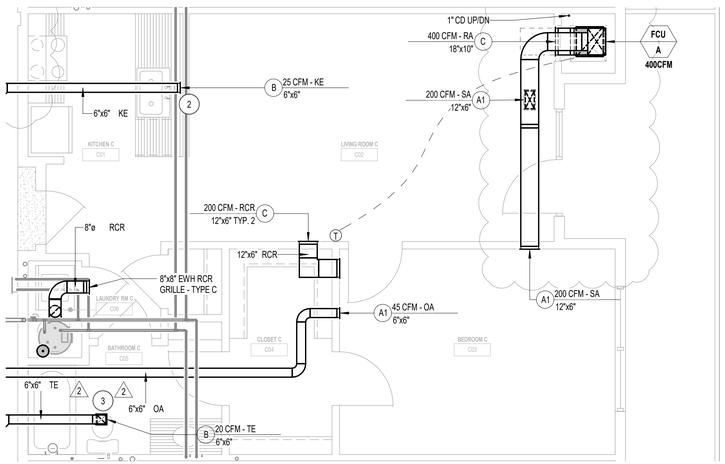

5 **ONE BEDROOM UNIT - TYPE E - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'



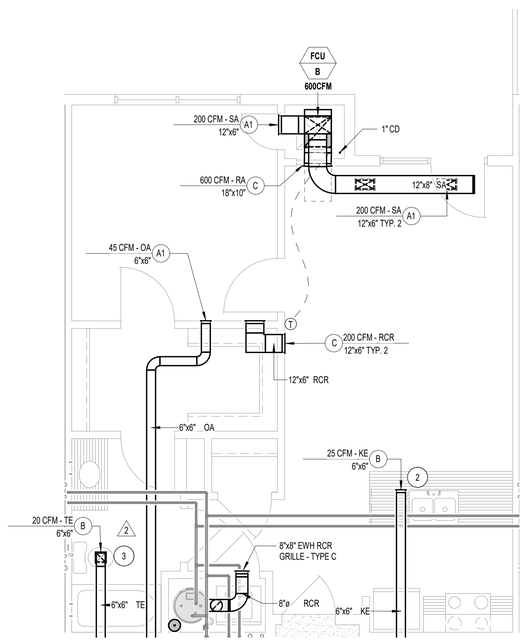

4 **ONE BEDROOM UNIT - TYPE D - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'



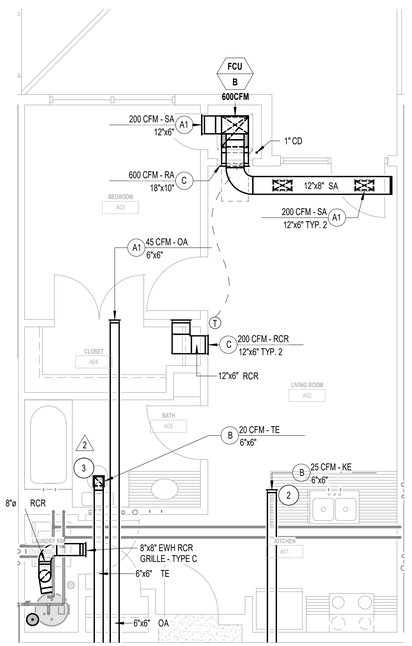

3 **ONE BEDROOM UNIT - TYPE C - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




2 **ONE BEDROOM UNIT - TYPE B - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




1 **ONE BEDROOM UNIT - TYPE A - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'

**MECHANICAL NOTES**

1. TRANSFER GRILLE MOUNTED HIGH AND LOW. TYPICAL FOR EACH RESIDENTIAL WATER HEATER
2. MOUNT KITCHEN EXHAUST GRILLE A MINIMUM OF 6' FROM RANGE. TYPICAL FOR EACH UNIT.
3. PROVIDE RADIATION DAMPER FOR CEILING MOUNTED GRILLE △2

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PC/ZBA RESUBMIT | 06.02.2021 |

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

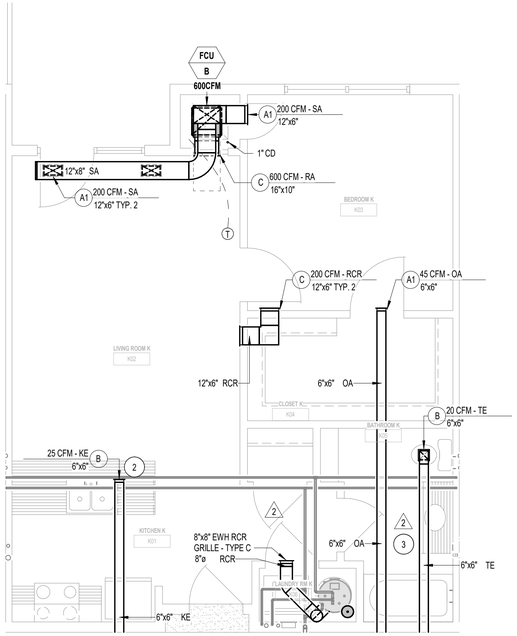
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

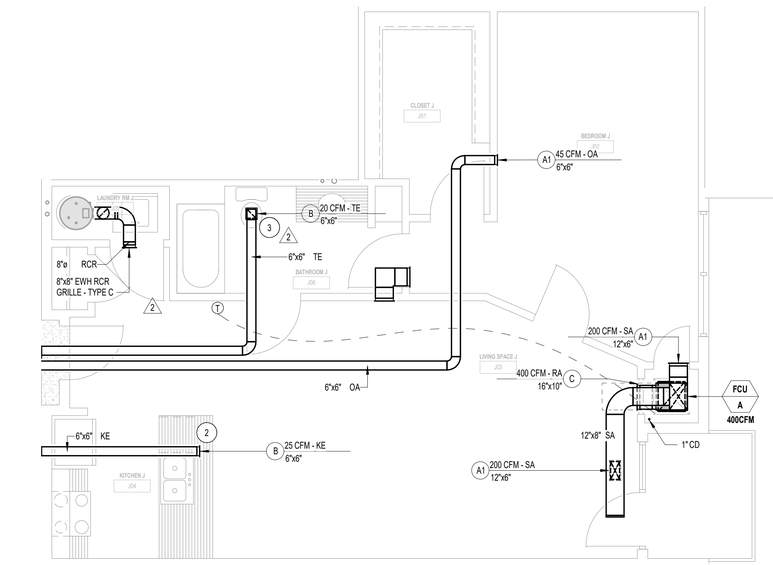
M3.0

JONES & JONES ASSOCIATES ARCHITECTS PC

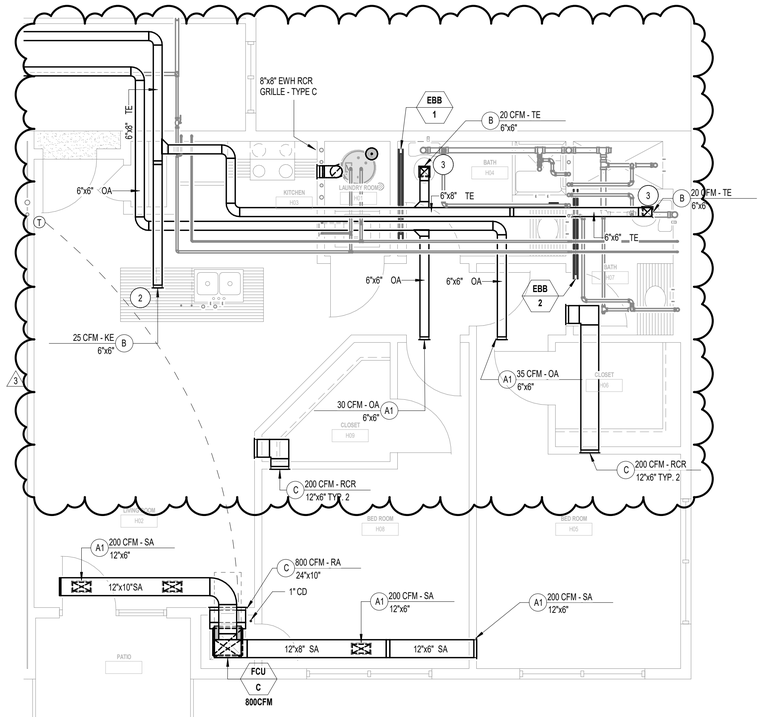
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



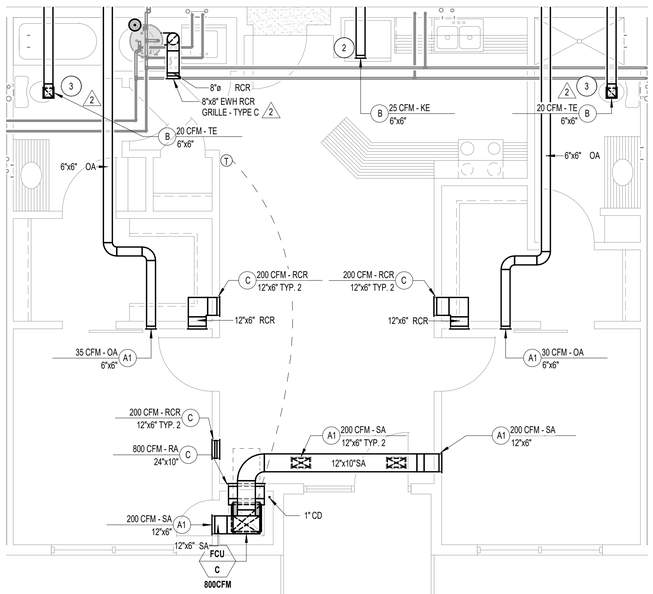

5 **ONE BEDROOM UNIT - TYPE K - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"



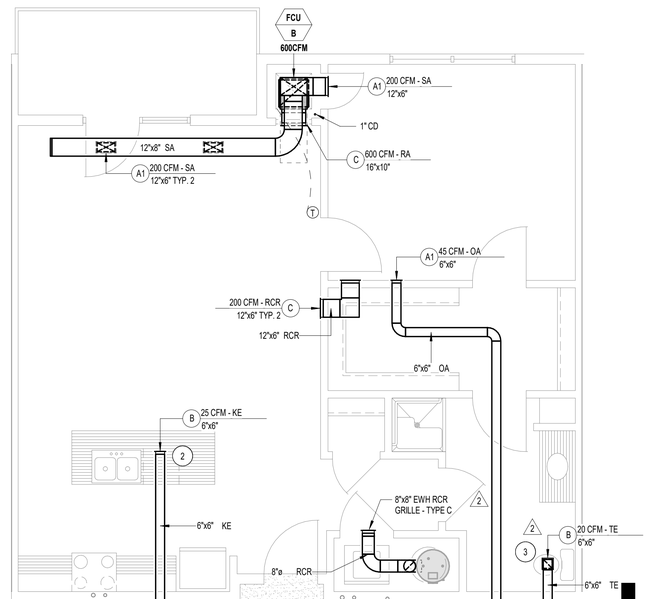

4 **ONE BEDROOM UNIT - TYPE J - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"




3 **TWO BEDROOM UNIT - TYPE H - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"




2 **TWO BEDROOM UNIT - TYPE G - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"




1 **ONE BEDROOM UNIT - TYPE F - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

**MECHANICAL NOTES**

1. TRANSFER GRILLE MOUNTED HIGH AND LOW. TYPICAL FOR EACH RESIDENTIAL WATER HEATER
2. MOUNT KITCHEN EXHAUST GRILLE A MINIMUM OF 6' FROM RANGE. TYPICAL FOR EACH UNIT.
3. PROVIDE RADIATION DAMPER FOR CEILING MOUNTED GRILLE 2

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT REVISIONS | 06.02.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |


dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

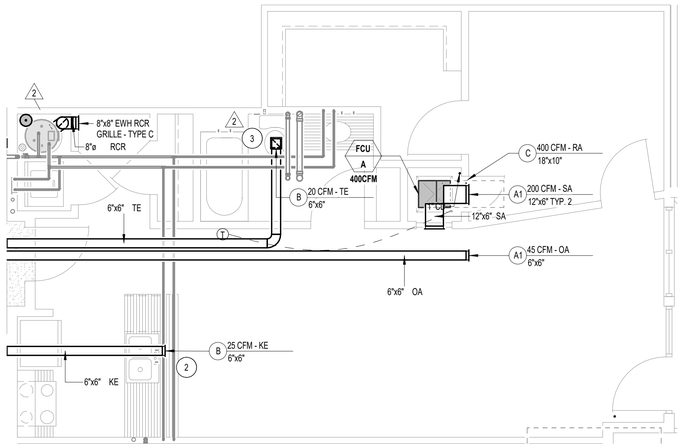
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M3.1

JONES & JONES ASSOCIATES ARCHITECTS PC


THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

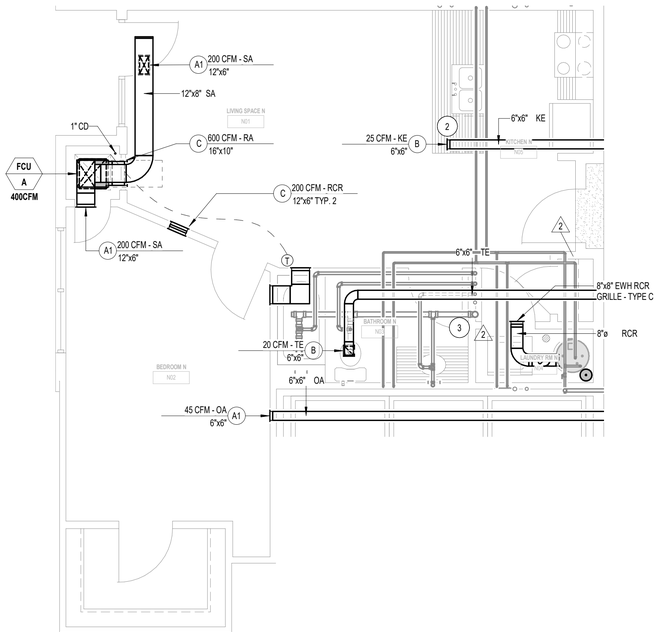



4 **STUDIO UNIT - TYPE O - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'

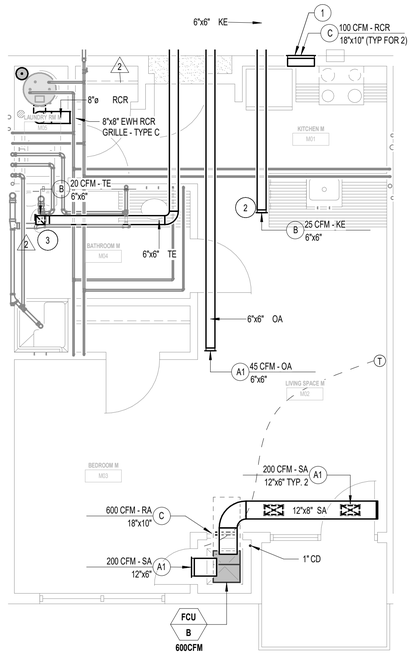
**MECHANICAL NOTES**

1. TRANSFER GRILLE MOUNTED HIGH AND LOW. TYPICAL FOR EACH RESIDENTIAL WATER HEATER
2. MOUNT KITCHEN EXHAUST GRILLE A MINIMUM OF 6' FROM RANGE. TYPICAL FOR EACH UNIT.
3. PROVIDE RADIATION DAMPER FOR CEILING MOUNTED GRILLE △2



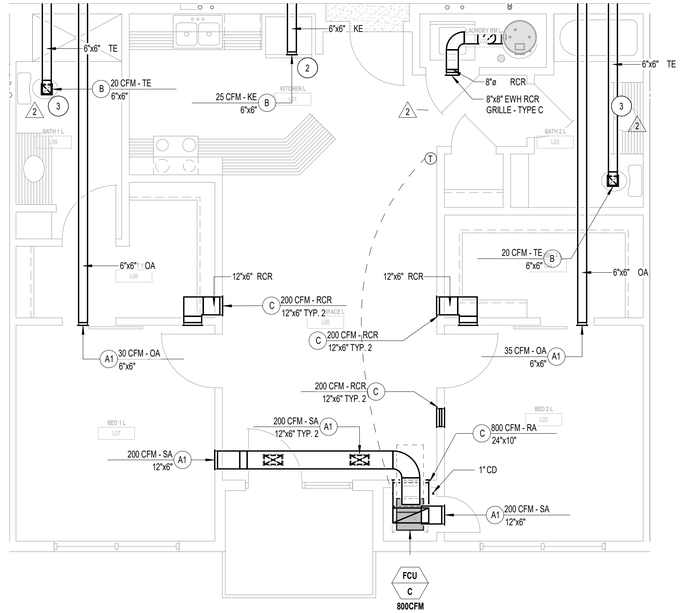

3 **ONE BEDROOM UNIT - TYPE N - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




2 **STUDIO UNIT - TYPE M - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




1 **TWO BEDROOM UNIT - TYPE L - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PC/ARC REVISIONS | 06.02.2021 |

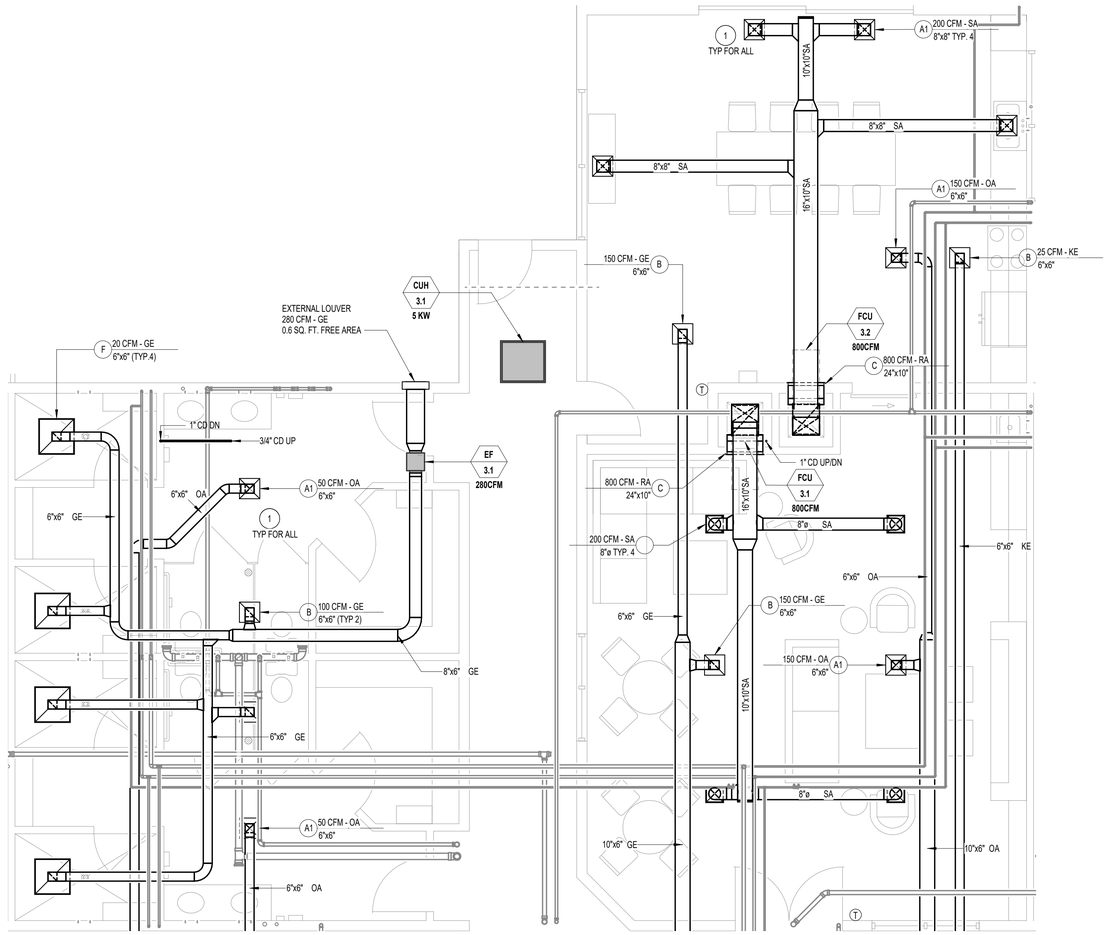
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

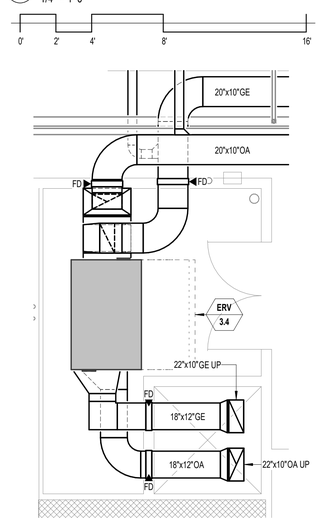
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

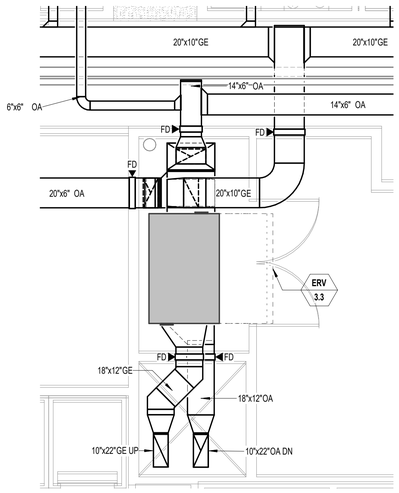
M3.2

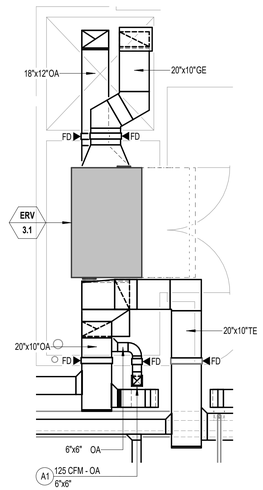
JONES & JONES ASSOCIATES ARCHITECTS PC

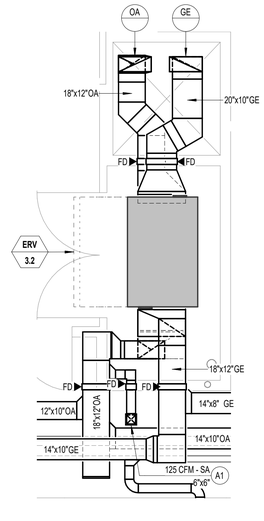



5 **THIRD FLOOR AMENITY SPACE - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"



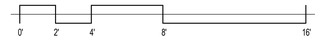




4 **THIRD FLOOR MECH ROOM EAST - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

3 **THIRD FLOOR MECH ROOM NORTHEAST - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

2 **THIRD FLOOR MECH ROOM NORTHWEST - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"

1 **THIRD FLOOR MECH ROOM SOUTH - ENLARGED MECH DUCT PLAN**
1/4" = 1'-0"




**MECHANICAL NOTES**

1 PROVIDE RADIATION DAMPER FOR CEILING MOUNTED GRILLE

REVISION DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT RECIVED 06.03.2021


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M3.3


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

1 **2-D MECHANICAL - AIRSIDE RISER**
NTS

2 **2-D MECHANICAL - AIRSIDE RISER - STAIRWAY PRESSURIZATION (TYP)**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT RECISIONS 06.10.2021

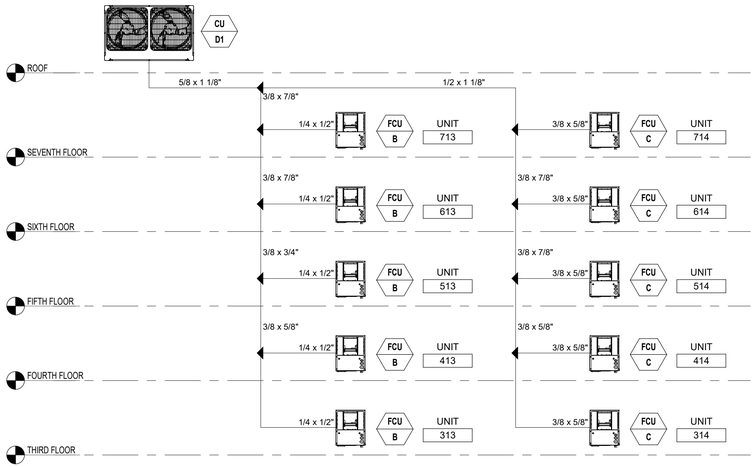
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

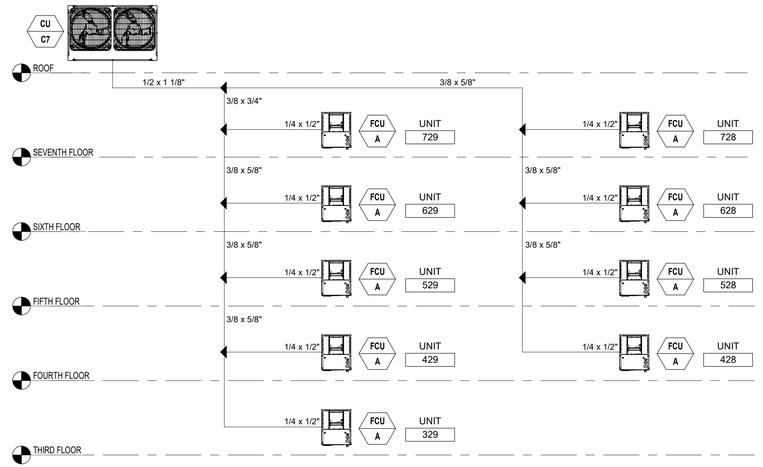
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M4.0

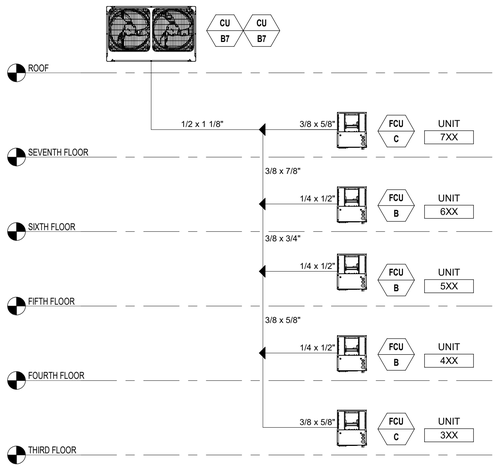
JONES & JONES ASSOCIATES / ARCHITECTS PC



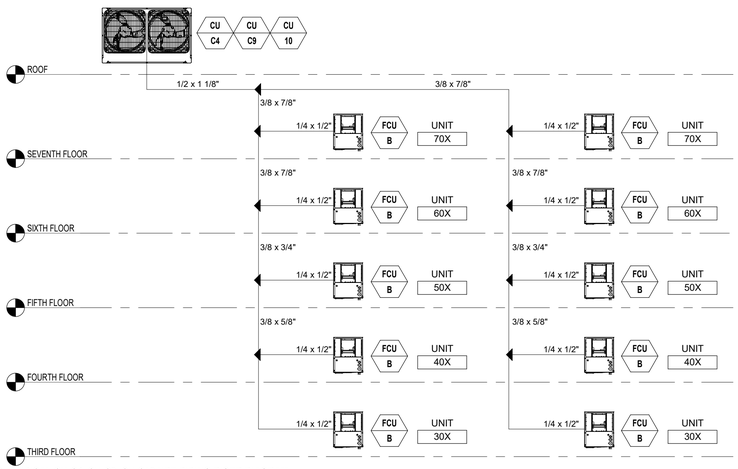

9 **CU-D1 VRF PIPING RISER DIAGRAM**
NTS



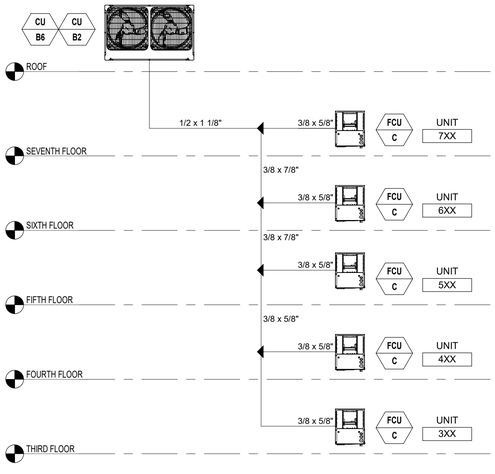

8 **CU-C7 VRF PIPING RISER DIAGRAM**
NTS



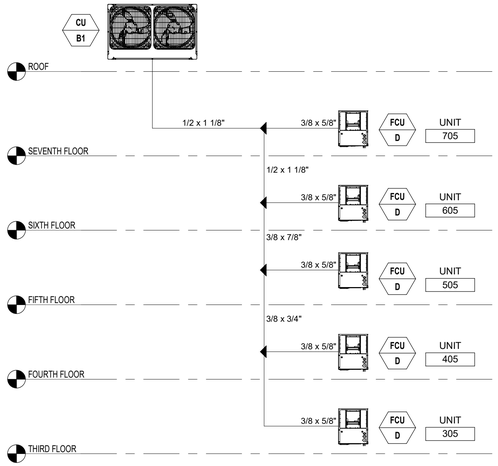

7 **CU-B7 VRF PIPING RISER DIAGRAM**
NTS



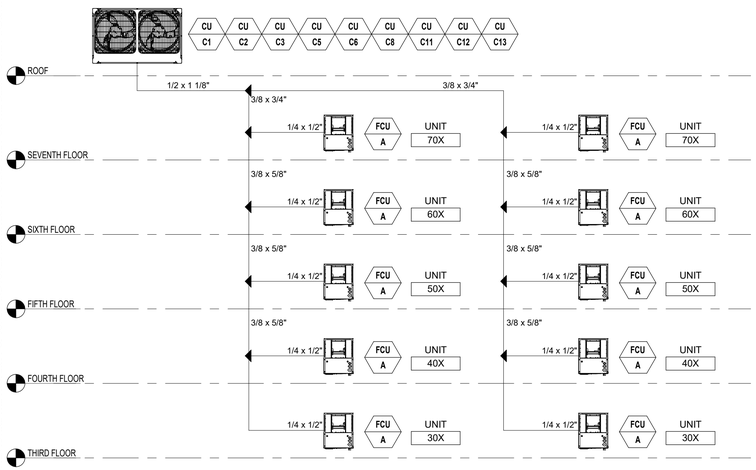

6 **TYPICAL CU-C4, CU-C9, CU-C10 VRF PIPING RISER DIAGRAM**
NTS



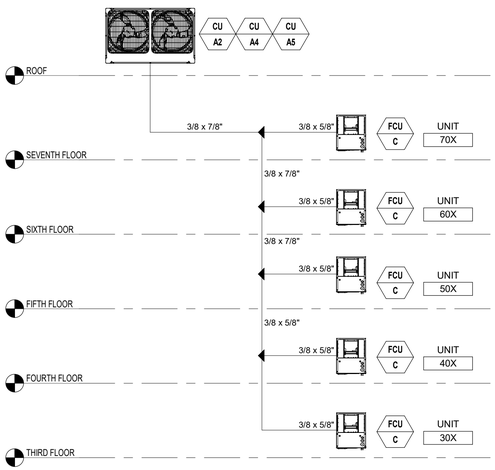

5 **CU-B2, CU-B6 VRF PIPING RISER DIAGRAM**
NTS



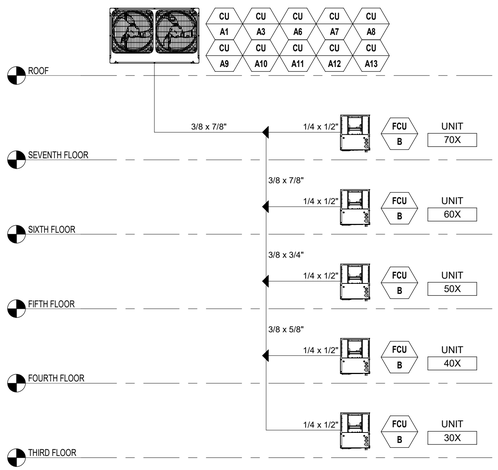

4 **CU-B1 VRF PIPING RISER DIAGRAM**
NTS




3 **TYPICAL CU-C1, CU-C2, CU-C3, CU-C5, CU-C6, CU-C8, CU-C11, CU-C12, CU-C13 VRF PIPING RISER DIAGRAM**
NTS




2 **TYPICAL CU-A2, CU-A4, CU-A5 VRF PIPING RISER DIAGRAM**
NTS




1 **TYPICAL CU-A1, CU-A3, CU-A6, CU-A7, CU-A8, CU-A9, CU-A10, CU-A11, CU-A12, CU-A13 VRF PIPING RISER DIAGRAM**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT RESUBMIT 06.03.2021

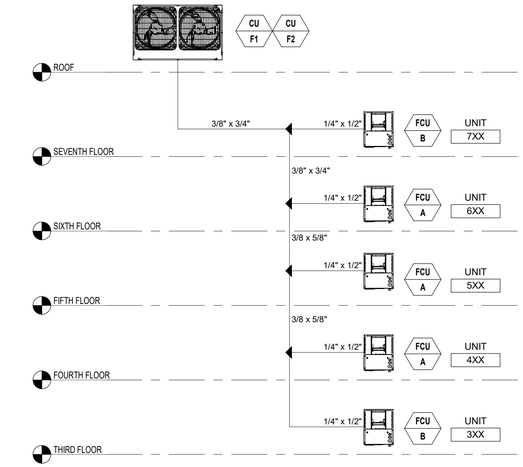
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

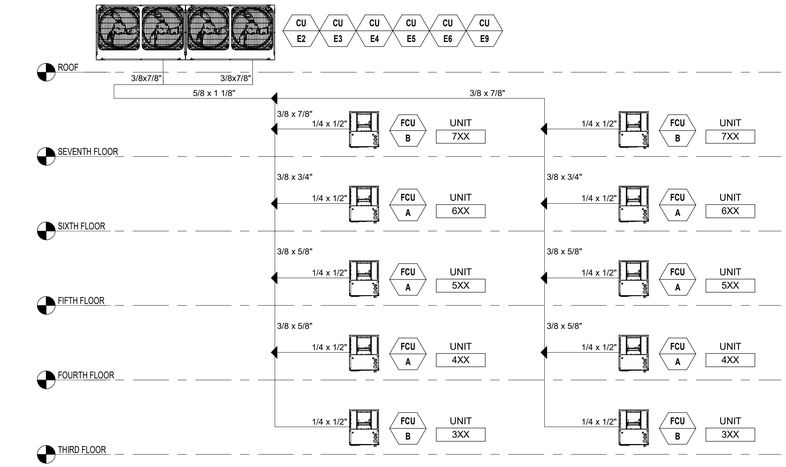
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M4.1

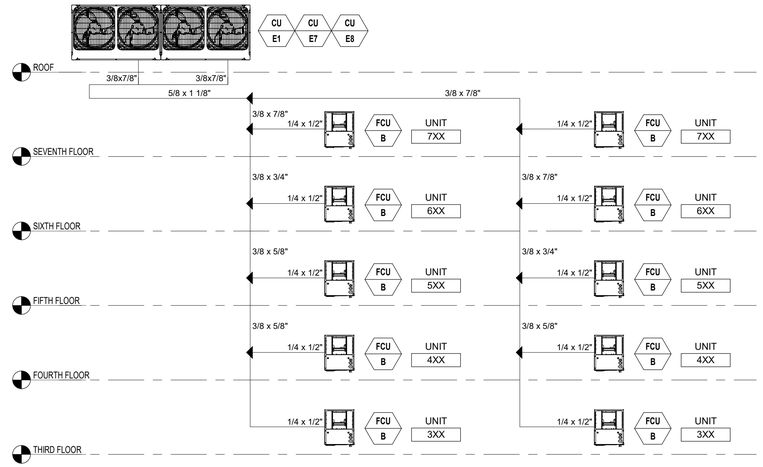
JONES & JONES ASSOCIATES / ARCHITECTS PC



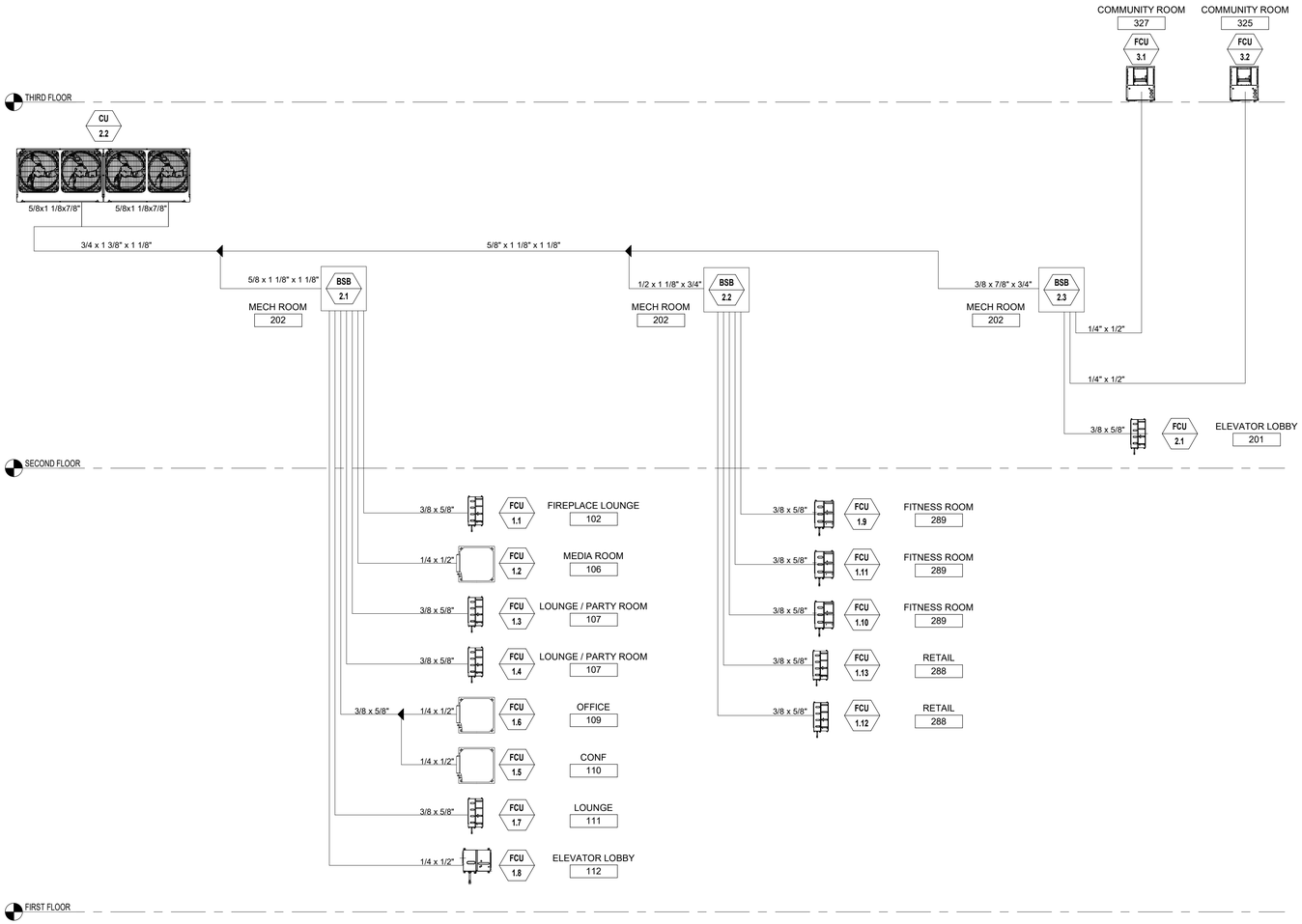

5 **CU-F1 & CU-F2 VRF PIPING RISER DIAGRAM**
NTS



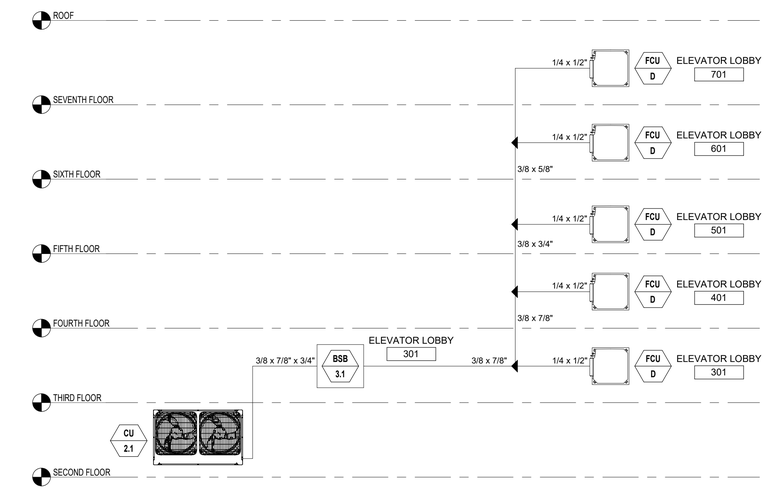

4 **CU-E2-6, E-9 VRF PIPING RISER DIAGRAM**
NTS




3 **CU-E1, E-7, E-8 VRF PIPING RISER DIAGRAM**
NTS




2 **CU-2.2 VRF PIPING RISER DIAGRAM**
NTS




1 **CU-2.1 VRF PIPING RISER DIAGRAM**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT RESUBMIT 09.03.2021

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

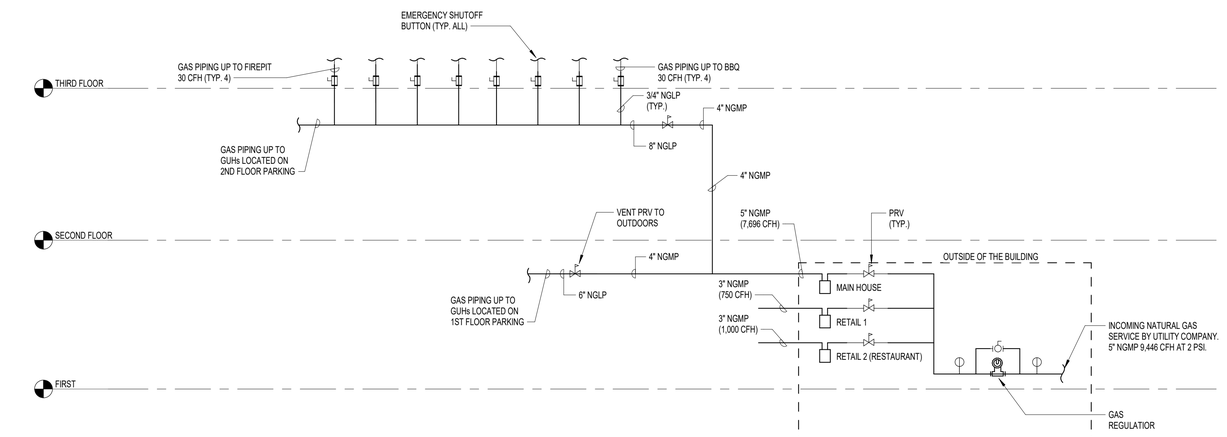
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M4.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **GAS PIPING RISER DIAGRAM**
NTS

REVISION DATE
ISSUE FOR PERMIT 04.02.2021
PLANS RECTIONS 06.02.2021

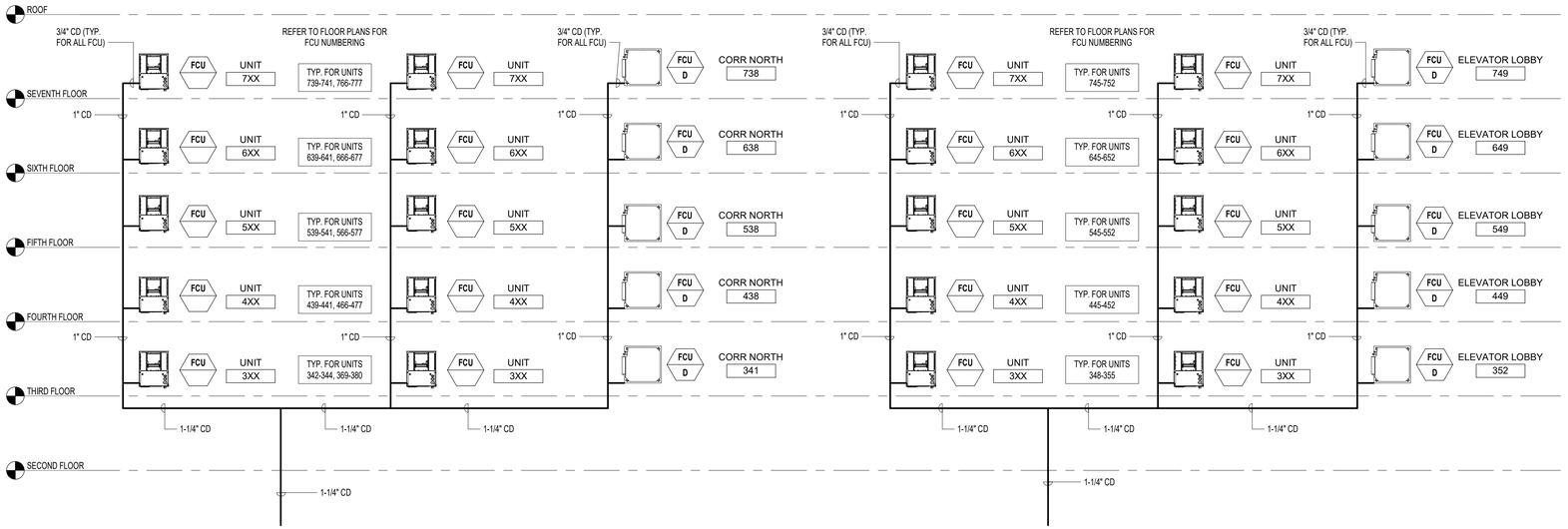
db HMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

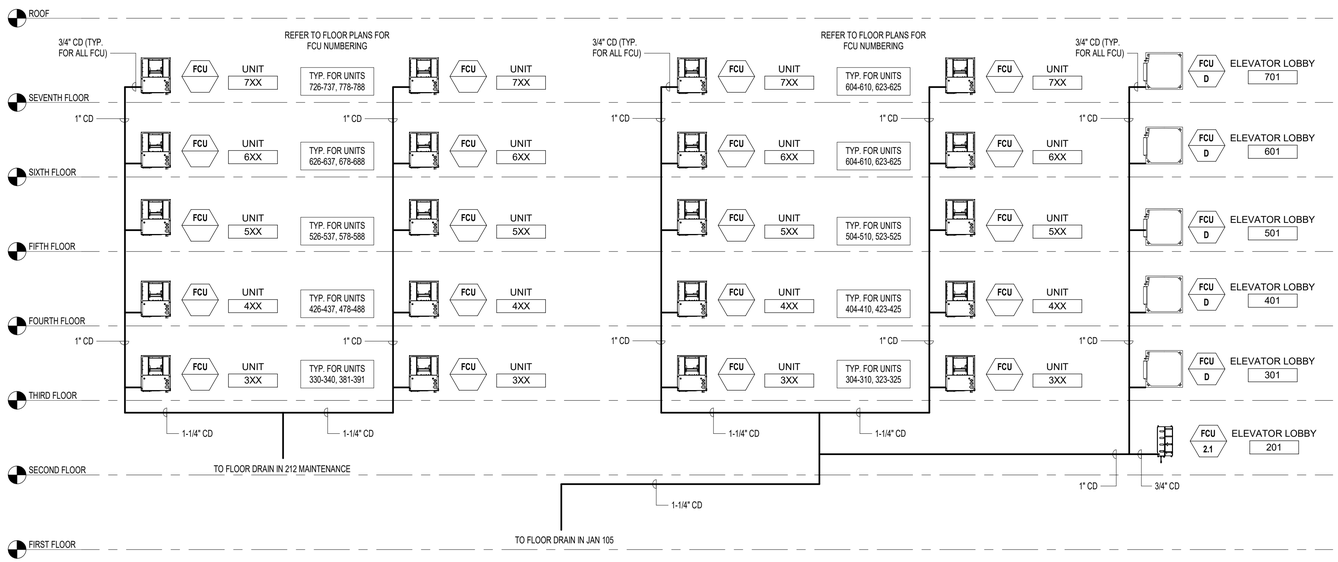
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M4.3

JONES & JONES ASSOCIATES / ARCHITECTS PC




2 **CONDENSATE DRAIN RISER DIAGRAM - EAST FCU**
NTS




1 **CONDENSATE DRAIN RISER DIAGRAM - WEST FCU**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| PERMIT REVISIONS | 06.30.2021 |

dbHMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

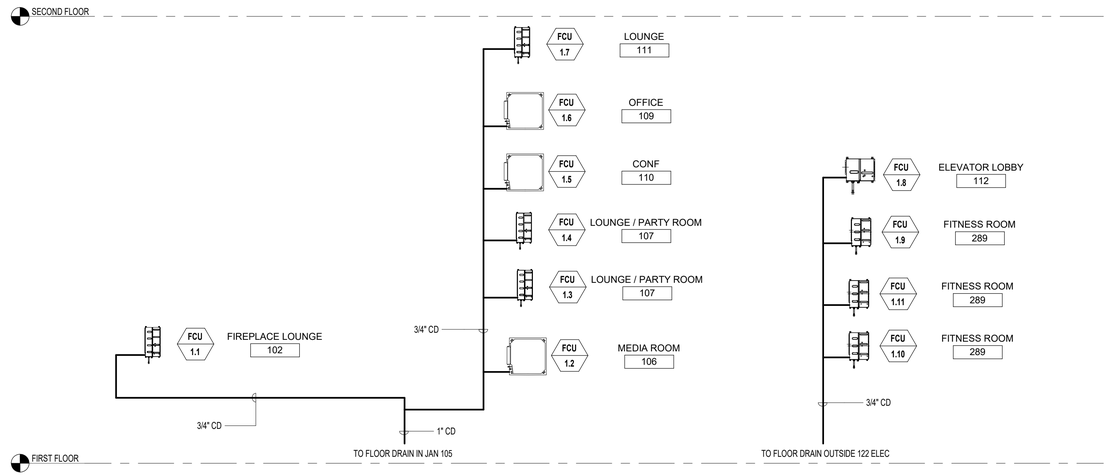
# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

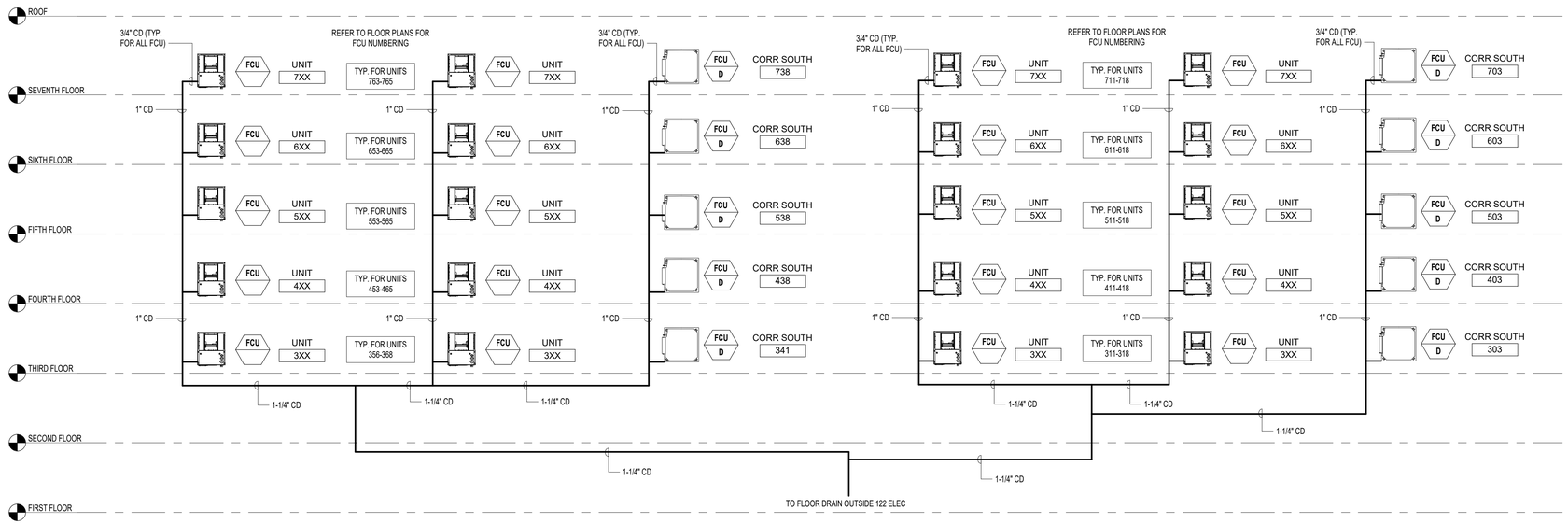
M4.4

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




2 **CONDENSATE DRAIN RISER DIAGRAM - FIRST FLOOR RETAIL**
NTS




1 **CONDENSATE DRAIN RISER DIAGRAM - SOUTH FCU**
NTS

REVISION
PERMIT REVISIONS
DATE
06.30.2021

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M4.5

JONES & JONES ASSOCIATES ARCHITECTS PC

## ENERGY RECOVERY VENTILATOR

| TAG | | | | | EXHAUST | | SUPPLY | | SUMMER OUTDOOR AIR | | | | WINTER OUTDOOR AIR | | | | RETURN AIR | | | | EFFECTIVENESS | | | | ELECTRICAL DATA | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | ENTERING | | LEAVING | | ENTERING | | LEAVING | | SUMMER ENTERING | | WINTER ENTERING | | SUMMER | | WINTER | | | | | | | | |
| ABBR. | # | LOCATION | AREA SERVED | TYPE | FLOW RATE (CFM) | ESP (IN. W.C.) | FLOW RATE (CFM) | ESP (IN. W.C.) | DB (°F) | WB (°F) | DB (°F) | WB (°F) | DB (°F) | WB (°F) | DB (°F) | WB (°F) | DB (°F) | WB (°F) | DB (°F) | WB (°F) | SENSIBLE | LATENT | SENSIBLE | LATENT | MCA | MOCP | VOLTS | PH | MANUFACTURER | MODEL | REMARKS |
| ERV | 2.1 | SECOND FLOOR | AMENITY & LOBBY | WHEEL | 1600 | | 1600 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | | | 75 | 62.9 | 70 | 50.6 | | | | | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD14ARX | 1-7 |
| ERV | 3.1 | THIRD FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 3.2 | MECH 321 | THIRD FLOOR SOUTHWEST | WHEEL | 1000 | | 1000 | | 95 | 72.9 | 77.7 | 65.8 | -10 | -12.4 | 59.1 | 44.9 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 3.3 | THIRD FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 3.4 | THIRD FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 4.1 | FOURTH FLOOR | FOURTH FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 4.2 | FOURTH FLOOR | FOURTH FLOOR | WHEEL | 1110 | | 1110 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.2 | 44.9 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 4.3 | FOURTH FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 4.4 | FOURTH FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 5.1 | FIFTH FLOOR | FIFTH FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 5.2 | FIFTH FLOOR | FIFTH FLOOR | WHEEL | 1110 | | 1110 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.2 | 44.9 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 5.3 | FIFTH FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 5.4 | FIFTH FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 6.1 | SIXTH FLOOR | SIXTH FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 6.2 | SIXTH FLOOR | SIXTH FLOOR | WHEEL | 1110 | | 1110 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.2 | 44.9 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 6.3 | SIXTH FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 6.4 | SIXTH FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 7.1 | SEVENTH FLOOR | SEVENTH FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 7.2 | SEVENTH FLOOR | SEVENTH FLOOR | WHEEL | 1110 | | 1110 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.2 | 44.9 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 7.3 | SEVENTH FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |
| ERV | 7.4 | SEVENTH FLOOR | THIRD FLOOR | WHEEL | 1160 | | 1160 | | 95 | 72.9 | 77.7 | 66.1 | -10 | -12.4 | 59.1 | 44.1 | 75 | 62.9 | 70 | 50.6 | 86.4% | 66% | 86.5% | 83.5% | 8.73 | 15 | 480 V | 3 | SWEGON | GOLD12ARX | 1-7 |

1 PROVIDE DISCONNECT
2 MOUNT ON NEOPRENE WAFFLE PAD
3 MERV 13 FINAL FILTER ON OA
4 WIFI CONNECTIVITY
5 UNIT MOUNTED CONTROL TOUCH SCREEN
6 PROVIDE MERV 3 OR WASHABLE MESH FILTER FOR TRAPPING GREASE ON EXHAUST AIR STREAM
7 CONSTANT VOLUME

## FANS

| TAG | | | | | F.S.P. | FAN DATA | | | | ELECTRICAL DATA | | | | | UNIT WEIGHT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | LOCATION | SYSTEM SERVED | CFM | IN WC | TYPE | CLASS | RPM | DRIVE | BHP | HP | VOLTS | PH | HZ | (LBS) | MANUFACTURER | MODEL | REMARKS |
| EF | 1.1 | GARAGE - L1 | GARAGE - L1 | 21800 | 0.25 | SIDEWALL DIRECT DRIVE | | 506 | DIRECT | 2.39 | 3 | 460 V | 3 | 60 | 429 | GREENHECK | AER-E48C-1225-C-VGD30 | 1,2,5 |
| EF | 1.2 | GARAGE - L1 | GARAGE - L1 | 21800 | 0.25 | SIDEWALL DIRECT DRIVE | | 506 | DIRECT | 2.39 | 3 | 460 V | 3 | 60 | 429 | GREENHECK | AER-E48C-1225-C-VGD30 | 1,2,5 |
| EF | 1.3 | GARAGE - L1 | GARAGE - L1 | 21800 | 0.25 | SIDEWALL DIRECT DRIVE | | 506 | DIRECT | 2.39 | 3 | 460 V | 3 | 60 | 429 | GREENHECK | AER-E48C-1225-C-VGD30 | 1,2,5 |
| EF | 2.1 | GARAGE - L2 | GARAGE - L2 | 25300 | 0.25 | SIDEWALL DIRECT DRIVE | | 554 | DIRECT | 3.15 | 3 | 460 V | 3 | 60 | 429 | GREENHECK | AER-E48C-1225-C-VGD30 | 1,2,5 |
| EF | 2.2 | GARAGE - L2 | GARAGE - L2 | 25300 | 0.25 | SIDEWALL DIRECT DRIVE | | 554 | DIRECT | 3.15 | 3 | 460 V | 3 | 60 | 429 | GREENHECK | AER-E48C-1225-C-VGD30 | 1,2,5 |
| EF | 2.3 | GARAGE - L2 | GARAGE - L2 | 25300 | 0.25 | SIDEWALL DIRECT DRIVE | | 554 | DIRECT | 3.15 | 3 | 460 V | 3 | 60 | 429 | GREENHECK | AER-E48C-1225-C-VGD30 | 1,2,5 |
| EF | 2.4 | BIKE STORAGE | BIKE STORAGE | 445 | 0.25 | CEILING | | 1070 | DIRECT | 0 | 224 W | 115 V | 1 | 60 | 31 | GREENHECK | SP-A510 | 1 |
| EF | 2.5 | DOG WASH | DOG WASH | 200 | 0.25 | CEILING | | 900 | DIRECT | 0 | 53 W | 115 V | 1 | 60 | 24 | GREENHECK | SP-A200 | 1 |
| EF | 2.6 | POOL EQUIP RM | POOL EQUIPMENT ROOM | 150 | 0.58 | INLINE | | 1040 | DIRECT | 0.03 | 179 W | 120 V | 1 | 60 | 11 | GREENHECK | CSP-B200 | 1 |
| EF | 3.1 | AMENITY SPACE | AMENITY SPACE | 280 | 0.8 | INLINE | | 1350 | DIRECT | 0.06 | 119 W | 120 V | 1 | 60 | 23 | GREENHECK | CSP-A390 | 1 |
| EF | 8.1 | ROOF | RESIDENTIAL FLOORS | 5800 | 1.25 | CENTRIFUGAL ROOF EXHAUST | | 943 | DIRECT | 2.2 | 5 | 480 V | 3 | 60 | 225 | GREENHECK | G-240-VG | 1,2,3 |
| EF | 8.2 | ROOF | RESIDENTIAL FLOORS | 5630 | 1.25 | CENTRIFUGAL ROOF EXHAUST | | 932 | DIRECT | 2.1 | 5 | 480 V | 3 | 60 | 225 | GREENHECK | G-240-VG | 1,2,3 |
| EF | 8.3 | ROOF | RESIDENTIAL FLOORS | 5800 | 1.25 | CENTRIFUGAL ROOF EXHAUST | | 943 | DIRECT | 2.2 | 5 | 480 V | 3 | 60 | 225 | GREENHECK | G-240-VG | 1,2,3 |
| EF | 8.4 | ROOF | RESIDENTIAL FLOORS | 5800 | 1.25 | CENTRIFUGAL ROOF EXHAUST | | 943 | DIRECT | 2.2 | 5 | 480 V | 3 | 60 | 225 | GREENHECK | G-240-VG | 1,2,3 |
| EF | 8.5 | ROOF | TRASH EXHAUST | 2000 | 1.25 | CENTRIFUGAL ROOF EXHAUST | | 1725 | DIRECT | 0.58 | 3/4 | 480 V | 3 | 60 | 63 | GREENHECK | G-133-A | 1,2,3 |
| SF | 8.1 | ROOF | RESIDENTIAL FLOORS | 5800 | 1.25 | LOUVERED ROOF SUPPLY | | 914 | BELT | 3.4 | 5 | 480 V | 3 | 60 | 338 | GREENHECK | RSFP-150-50 | 1,2,3 |
| SF | 8.2 | ROOF | RESIDENTIAL FLOORS | 5630 | 1.25 | LOUVERED ROOF SUPPLY | | 904 | BELT | 3.21 | 5 | 480 V | 3 | 60 | 392 | GREENHECK | RSFP-150-50 | 1,2,3 |
| SF | 8.3 | ROOF | RESIDENTIAL FLOORS | 5800 | 1.25 | LOUVERED ROOF SUPPLY | | 914 | BELT | 3.4 | 5 | 480 V | 3 | 60 | 338 | GREENHECK | RSFP-150-50 | 1,2,3 |
| SF | 8.4 | ROOF | RESIDENTIAL FLOORS | 5800 | 1.25 | LOUVERED ROOF SUPPLY | | 914 | BELT | 3.4 | 5 | 480 V | 3 | 60 | 338 | GREENHECK | RSFP-150-50 | 1,2,3 |
| SPF | 8.1 | ROOF | NORTH STAIR | 7000 | 1 | LOUVERED ROOF SUPPLY | | 932 | BELT | 4.53 | 5 | 480 V | 3 | 60 | 392 | GREENHECK | RSFP-150-50 | 1,4 |
| SPF | 8.2 | ROOF | WEST STAIR | 7000 | 1 | LOUVERED ROOF SUPPLY | | 932 | BELT | 4.53 | 5 | 480 V | 3 | 60 | 392 | GREENHECK | RSFP-150-50 | 1,4 |
| SPF | 8.3 | ROOF | SOUTH STAIR | 7000 | 1 | LOUVERED ROOF SUPPLY | | 932 | BELT | 4.53 | 5 | 480 V | 3 | 60 | 392 | GREENHECK | RSFP-150-50 | 1,4 |
| SPF | 8.4 | ROOF | SOUTH STAIR | 7000 | 1 | LOUVERED ROOF SUPPLY | | 932 | BELT | 4.53 | 5 | 480 V | 3 | 60 | 392 | GREENHECK | RSFP-150-50 | 1,4 |

1 PROVIDE ELECTRICAL DISCONNECT
2 PROVIDE GRAVITY BACKDRAFT DAMPER
3 PROVIDE 14" ROOF CURB
4 VFD
5 FAN HOUSING WITH OSHA GUARD

## ELECTRIC CABINET/UNIT HEATER

| TAG | | LOCATION | | MOUNTING | | | DISCHARGE | | THERMOSTAT | | FAN/MOTOR DATA | | | UNIT DATA | | HEATING ELEMENT | | ELECTRICAL DATA | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | RM. NAME | RM. NUMBER | SURFACE MOUNTED | RECESSED | SEMI-RECESSED | HORIZONTAL | VERTICAL | REMOTE | UNIT MOUNTED | CFM | QTY. | HP | DIMESIONS (L x W x H) | WEIGHT (LBS) | KW | ΔT (°F) | VOLTAGE | PH | MANUFACTURER | MODEL | REMARKS |
| CUH | 1.1 | STAIR | F20 | Yes | | | Yes | | | Yes | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1,3-6 |
| CUH | 1.2 | | | | Yes | | | Yes | Yes | | 500 | 1 | - | 48"x26"x10" | 146 | 8 | 51 | 480 V | 3 | INDEECO | 922U08000U | 1-5,7 |
| CUH | 1.3 | ELEVATOR LOBBY | 112 | Yes | | | Yes | | Yes | | 250 | 1 | - | 28"x10"x26" | 115 | 3 | 38 | 480 V | 3 | INDEECO | 922U03000U | 1-5,6 |
| CUH | 1.4 | | | Yes | | | Yes | | | Yes | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1,3-6 |
| CUH | 1.5 | STAIR #3 | | Yes | | | Yes | | | Yes | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1,3-6 |
| CUH | 1.6 | STAIR #3 | | Yes | | | Yes | | | Yes | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1,3-6 |
| CUH | 1.7 | | | | Yes | | | Yes | Yes | | 500 | 1 | - | 48"x26"x10" | 146 | 5 | 51 | 480 V | 3 | INDEECO | 922U05000U | 1-5,7 |
| CUH | 1.8 | STAIR | F20 | Yes | | | Yes | | | Yes | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1,3-6 |
| CUH | 1.9 | | | Yes | | | Yes | | | Yes | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1,3-6 |
| CUH | 2.1 | ELEVATOR LOBBY | 201 | Yes | | | Yes | | | Yes | 250 | 1 | - | 28"x10"x26" | 115 | 3 | 38 | 480 V | 3 | INDEECO | 922U03000U | 1,3-6 |
| CUH | 2.2 | | | Yes | | | Yes | | | Yes | 250 | 1 | - | 28"x10"x26" | 115 | 3 | 38 | 480 V | 3 | INDEECO | 922U03000U | 1,3-6 |
| CUH | 2.3 | Space | 317 | Yes | | | Yes | | | Yes | 250 | 1 | - | 28"x10"x26" | 115 | 3 | 38 | 208 V | 1 | INDEECO | 922U03000C | 1,3-6 |
| CUH | 3.1 | | | | Yes | | | Yes | Yes | | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1-5,7 |
| CUH | 3.3 | CORRIDOR | 341 | | Yes | | | Yes | Yes | | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1-5,7 |
| CUH | 7.1 | | | Yes | | | | | | | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1,3-6 |
| CUH | 7.2 | | | Yes | | | | | | | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1,3-6 |
| CUH | 7.3 | | | Yes | | | | | | | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1,3-6 |
| CUH | 7.4 | | | Yes | | | | | | | 250 | 1 | - | 28"x10"x26" | 115 | 5 | 64 | 480 V | 3 | INDEECO | 922U05000U | 1,3-6 |
| EUH | 1.1 | | | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 1.2 | | | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 1.3 | TRASH | 125 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 37.5 | 23 | 480 V | 3 | INDEECO | 240-U4375U | 1-4 |
| EUH | 1.4 | FITNESS ROOM | 289 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 1.5 | FITNESS ROOM | 289 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 1.6 | RETAIL | 288 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 1.7 | RESTAURANT | 287 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 1.8 | RESTAURANT | 287 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 1.9 | RESTAURANT | 287 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 1.10 | | | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 1.11 | FIRE SUPPRESSION | 124 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 2.1 | BIKE STOR / REPAIR | 204 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 2.2 | DOG WASH | 205 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 2.3 | STORAGE | 208 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 2.4 | STOR | 211 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 2.5 | POOL EQUIP | 209 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 2.6 | MAINTENANCE | 212 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 2.7 | | | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 2.8 | | | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |
| EUH | 2.X | RESTAURANT | 201 | Yes | | | Yes | | Yes | | 350 | 1 | - | 12.9"x7.6"x17.7" | 25 | 2.5 | 23 | 208 V | 1 | INDEECO | 240-U1025C | 1-4 |

1 DISCONNECT SWITCH
2 PROGRAMMABLE TSTAT w/TAMPER-PROOF GUARD
3 TWO-STAGE HEATING
4 COLOR TO BE SELECTED BY ARCHITECT
5 1" MERV 8 PLEATED FILTER
6 CABINET CONFIGURATION: FRONT INLET; FRONT OUTLET; WALL MOUNTED
7 CABINET CONFIGURATION: FRONT INLET; FRONT OUTLET; CEILING MOUNTED

## GAS-FIRED UNIT HEATER

| TAG | | LOCATION | | MBH | | GAS PRESSURE MIN./MAX. | AFUE % | (AIR FLOW) CFM | AIR TEMP. | | DISCHARGE | | FLUE DIA. (IN) | O.A. INTAKE DIA (IN) | ELECTRICAL DATA | | | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | RM. NAME | RM. NUMBER | INPUT | OUTPUT | | | | EAT (°F) | LAT (°F) | HORIZONTAL | VERTICAL | | | FLA | VOLTS | PH | | | |
| GUH | A | | | 310 | 288.3 | 6" / 7" | 93 | 5400 | 50 | 99 | Yes | | 6" | 6" | 5.45 | 208 V | 1 | MODINE | PTC310 | 1-9 |

1 DISCONNECT SWITCH
2 TWO STAGE GAS VALVE
3 FINGERPROOF FAN GUARD
4 REMOTE THERMOSTAT w/TAMPER-PROOF GUARD
5 CONCENTRIC VENT KIT
6 SUMMER FAN SWITCH
7 COLOR TO BE SELECTED BY ARCHITECT
8 CONDENSATE NEUTRALIZING KIT
9 PROVIDE 208V TO 115V TRANSFORMER

## BASEBOARD HEATER (ELECTRIC)

| TAG | | LOCATION | | ELEMENT DATA | | | | | COVER DATA | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | RM. NAME | RM. NUMBER | WATTS/FT | VOLT | PH | HZ | TOTAL WATTS | LENGTH | HEIGHT | WIDTH | MANUFACTURER | MODEL | REMARKS |
| EBB | 1 | BATH | H04 | 250 | 208 V | 1 | 60 | 1250 | 5'-0" | 4 1/2" | 3 1/8" | MARKEL | E 91 28 250 ITS PD | ALL |
| EBB | 2 | BATH | H07 | 250 | 208 V | 1 | 60 | 1250 | 5'-0" | 4 1/2" | 3 1/8" | MARKEL | E 91 28 250 ITS PD | ALL |
| EBB | 3 | 2-D | 361 | 250 | 208 V | 1 | 60 | 1250 | 5'-0" | 4 1/2" | 3 1/8" | MARKEL | E 91 28 250 ITS PD | ALL |

1 COLOR BY ARCHITECT
2 COORDINATE THERMOSTAT REQUIREMENTS AND UNIT CONTROL WITH 15958 SEQUENCE OF OPERATION SPECIFICATION.

## RELIEF HOOD

| TAG | | | CAPACITY (CFM) | MAX S.P. IN. WG | DIM SQ. FT. (SURFACE AREA) | THROAT | | | DAMPER | | OPENING THRU ROOF | MANUFACTURER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | LOCATION | | | | SIZE (IN) | VELOCITY | CURB CAP | MOTORIZED | BACKDRAFT | | | MODEL | REMARKS |
| RH | 1 | ROOF | | | 7 SF | 36" x 36" | | Yes | Yes | | 36" x 36" | GREENHECK | GSRR-36 | 1-4 |
| RH | 2 | ROOF | | | 7 SF | 36" x 36" | | Yes | Yes | | 36" x 36" | GREENHECK | GSRR-36 | 1-4 |

1 ALL MOTORIZED DAMPERS TO BE PROVIDED BT CONTROLS CONTRACTORS PER SPECIFICATIONS.
2 INSECT SCREEN
3 INSULATED
4 PROVIDE ROOF CURB

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT REVISIONS 06.03.2021
PERMIT REVISIONS #2 08.03.2021

dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M5.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

## VRF CONDENSING UNIT

| TAG | | | | EQUIPMENT TYPE | | COOLING | | | HEATING | | | | | ELECTRICAL DATA | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | MODULE A | | MODULE B | | MODULE C | | | | | | | |
| ABBR. | # | LOCATION | # OF MODULES | HEAT PUMP | HEAT RECOVERY | AMBIENT TEMP (°F) | CAPACITY (BTU/H) | EER | AMBIENT TEMP (°F) | CAPACITY (BTU/H) | COP @ 47°F | REFRIGERANT TYPE | # OF COMPRESSORS PER MODULE | MCA | MOCP | MCA | MOCP | MCA | MOCP | VOLTS | PH | WxHxD | WEIGHT PER MODULE (LBS) | MANUFACTURER | Model | REMARKS |
| CU | 1.1 | L1 PARKING GARAGE | 1 | Yes | | 92 | 48000 | | 50 | | | R-410A | 1 | 27 | 30 | | | | | 208 V | 1 | | | DAIKIN | RMXS48LVJU | 1-6 |
| CU | 2.1 | L2 PARKING GARAGE | 1 | | Yes | 95 | 76185 | 14.6 | 50 | 106185 | 4.23 | R-410A | 2 | 21.1 | 25 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 727 | DAIKIN | REYQ96XAYDA | 1-6 |
| CU | 2.2 | L2 PARKING GARAGE | 2 | | Yes | 95 | 327275 | 9.9/9.5 | 50 | 459261 | 3.5/3.2 | R-410A | 2 | 31.1 | 40 | 31.1 | 40 | | | 480 V | 3 | 48.9" x 66.7" x 30.2" / 48.9" x 66.7" x 30.2" | 793 | DAIKIN | REYQ336XAYDA | 1-6 |
| CU | A1 | ROOF | 1 | Yes | | 95 | 77,160 | 14.9 | -10 | 90,361 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A2 | ROOF | 1 | Yes | | 95 | 92,849 | 14.9 | -10 | 91,139 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A3 | ROOF | 1 | Yes | | 95 | 77,160 | 14.9 | -10 | 90,361 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A4 | ROOF | 1 | Yes | | 95 | 92,849 | 14.9 | -10 | 91,139 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A5 | ROOF | 1 | Yes | | 95 | 92,849 | 14.9 | -10 | 91,139 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A6 | ROOF | 1 | Yes | | 95 | 77,160 | 14.9 | -10 | 90,361 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A7 | ROOF | 1 | Yes | | 95 | 77,160 | 14.9 | -10 | 90,361 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A8 | ROOF | 1 | Yes | | 95 | 77,160 | 14.9 | -10 | 90,361 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A9 | ROOF | 1 | Yes | | 95 | 77,160 | 14.9 | -10 | 90,361 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A10 | ROOF | 1 | Yes | | 95 | 77,160 | 14.9 | -10 | 90,361 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A11 | ROOF | 1 | Yes | | 95 | 77,160 | 14.9 | -10 | 90,361 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A12 | ROOF | 1 | Yes | | 95 | 77,160 | 14.9 | -10 | 90,361 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | A13 | ROOF | 1 | Yes | | 95 | 77,160 | 14.9 | -10 | 90,361 | 4.29 | R-410A | 2 | 39.8 | 45 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ96XAYDA | 1-6 |
| CU | B1 | ROOF | 1 | Yes | | 95 | 116,049 | 13.5 | -10 | 108.794 | 4.05 | R-410A | 2 | 43.3 | 50 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ120XAYDA | 1-6 |
| CU | B2 | ROOF | 1 | Yes | | 95 | 96,389 | 13.5 | -10 | 107,960 | 4.05 | R-410A | 2 | 43.3 | 50 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ120XAYDA | 1-6 |
| CU | B3 | ROOF | 1 | Yes | | 95 | 116,049 | 13.5 | -10 | 108.794 | 4.05 | R-410A | 2 | 43.3 | 50 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ120XAYDA | 1-6 |
| CU | B4 | ROOF | 1 | Yes | | 95 | 116,049 | 13.5 | -10 | 108.794 | 4.05 | R-410A | 2 | 43.3 | 50 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ120XAYDA | 1-6 |
| CU | B5 | ROOF | 1 | Yes | | 95 | 116,049 | 13.5 | -10 | 108.794 | 4.05 | R-410A | 2 | 43.3 | 50 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ120XAYDA | 1-6 |
| CU | B6 | ROOF | 1 | Yes | | 95 | 116,049 | 13.5 | -10 | 108.794 | 4.05 | R-410A | 2 | 43.3 | 50 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ120XAYDA | 1-6 |
| CU | B7 | ROOF | 1 | Yes | | 95 | 116,049 | 13.5 | -10 | 108.794 | 4.05 | R-410A | 2 | 43.3 | 50 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ120XAYDA | 1-6 |
| CU | B7 | ROOF | 1 | Yes | | 95 | 116,049 | 13.5 | -10 | 108.794 | 4.05 | R-410A | 2 | 43.3 | 50 | | | | | 480 V | 3 | 48.9" x 66.7" x 30.2" | 794 | DAIKIN | RXYQ120XAYDA | 1-6 |
| CU | C1 | ROOF | 2 | Yes | | 95 | 114,493 | 12.7 | -10 | 133,466 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C2 | ROOF | 2 | Yes | | 95 | 114,567 | 12.7 | -10 | 133,466 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C3 | ROOF | 2 | Yes | | 95 | 114,493 | 12.7 | -10 | 133,466 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C4 | ROOF | 2 | Yes | | 95 | 137,865 | 12.7 | -10 | 134,575 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C5 | ROOF | 2 | Yes | | 95 | 114,567 | 12.7 | -10 | 133,466 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C6 | ROOF | 2 | Yes | | 95 | 115,262 | 12.7 | -10 | 134,649 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C7 | ROOF | 2 | Yes | | 95 | 115,068 | 12.7 | -10 | 134,317 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C8 | ROOF | 2 | Yes | | 95 | 114,567 | 12.7 | -10 | 133,466 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C9 | ROOF | 2 | Yes | | 95 | 139,715 | 12.7 | -10 | 137,228 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C10 | ROOF | 2 | Yes | | 95 | 137,865 | 12.7 | -10 | 134,575 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C11 | ROOF | 2 | Yes | | 95 | 114,567 | 12.7 | -10 | 133,466 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C12 | ROOF | 2 | Yes | | 95 | 114,567 | 12.7 | -10 | 133,466 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | C13 | ROOF | 2 | Yes | | 95 | 114,567 | 12.7 | -10 | 133,466 | 3.86 | R-410A | 2 | 28.1 | 35 | 28.1 | 35 | | | 480 V | 3 | 36.7 x 66.7 x 30.2 / 36.7 x 66.7 x 30.2 | 1456 | DAIKIN | RXYQ144XAYDA | 1-6 |
| CU | D1 | ROOF | 2 | Yes | | 95 | 168,016 | 12.3 | -10 | 183,830 | 3.9 | R-410A | 2 | 39.8 | 45 | 39.8 | 45 | | | 480 V | 3 | 48.9 X 66.7 x 30.2 / 48.9 x 66.7 30.2 | 710 | DAIKIN | RXYQ168XAYDA | 1-6 |
| CU | E1 | ROOF | 2 | Yes | | 95 | 152,159 | 12.3 | -10 | 181,656 | 3.9 | R-410A | 2 | 39.8 | 45 | 39.8 | 45 | | | 480 V | 3 | 48.9 X 66.7 x 30.2 / 48.9 x 66.7 30.2 | 794 | DAIKIN | RXYQ192TAYDA | 1-6 |
| CU | E2 | ROOF | 2 | Yes | | 95 | 152,159 | 12.3 | -10 | 181,656 | 3.9 | R-410A | 2 | 39.8 | 45 | 39.8 | 45 | | | 480 V | 3 | 48.9 X 66.7 x 30.2 / 48.9 x 66.7 30.2 | 794 | DAIKIN | RXYQ192TAYDA | 1-6 |
| CU | E3 | ROOF | 2 | Yes | | 95 | 152,159 | 12.3 | -10 | 181,656 | 3.9 | R-410A | 2 | 39.8 | 45 | 39.8 | 45 | | | 480 V | 3 | 48.9 X 66.7 x 30.2 / 48.9 x 66.7 30.2 | 794 | DAIKIN | RXYQ192TAYDA | 1-6 |
| CU | E4 | ROOF | 2 | Yes | | 95 | 152,159 | 12.3 | -10 | 181,656 | 3.9 | R-410A | 2 | 39.8 | 45 | 39.8 | 45 | | | 480 V | 3 | 48.9 X 66.7 x 30.2 / 48.9 x 66.7 30.2 | 794 | DAIKIN | RXYQ192TAYDA | 1-6 |
| CU | E5 | ROOF | 2 | Yes | | 95 | 152,159 | 12.3 | -10 | 181,656 | 3.9 | R-410A | 2 | 39.8 | 45 | 39.8 | 45 | | | 480 V | 3 | 48.9 X 66.7 x 30.2 / 48.9 x 66.7 30.2 | 794 | DAIKIN | RXYQ192TAYDA | 1-6 |
| CU | E6 | ROOF | 2 | Yes | | 95 | 152,159 | 12.3 | -10 | 181,656 | 3.9 | R-410A | 2 | 39.8 | 45 | 39.8 | 45 | | | 480 V | 3 | 48.9 X 66.7 x 30.2 / 48.9 x 66.7 30.2 | 794 | DAIKIN | RXYQ192TAYDA | 1-6 |
| CU | E7 | ROOF | 2 | Yes | | 95 | 152,159 | 12.3 | -10 | 181,656 | 3.9 | R-410A | 2 | 39.8 | 45 | 39.8 | 45 | | | 480 V | 3 | 48.9 X 66.7 x 30.2 / 48.9 x 66.7 30.2 | 794 | DAIKIN | RXYQ192TAYDA | 1-6 |
| CU | E8 | ROOF | 2 | Yes | | 95 | 152,159 | 12.3 | -10 | 181,656 | 3.9 | R-410A | 2 | 39.8 | 45 | 39.8 | 45 | | | 480 V | 3 | 48.9 X 66.7 x 30.2 / 48.9 x 66.7 30.2 | 794 | DAIKIN | RXYQ192TAYDA | 1-6 |
| CU | E9 | ROOF | 2 | Yes | | 95 | 152,159 | 12.3 | -10 | 181,656 | 3.9 | R-410A | 2 | 39.8 | 45 | 39.8 | 45 | | | 480 V | 3 | 48.9 X 66.7 x 30.2 / 48.9 x 66.7 30.2 | 794 | DAIKIN | RXYQ192TAYDA | 1-6 |
| CU | F1 | ROOF | 1 | Yes | | 95 | 66,475 | 15.1 | -10 | 68,132 | 4.37 | R-410A | 2 | 28.1 | 35 | | | | | 480 V | 3 | 36.7" x 66.7" x 30.2" | 730 | DAIKIN | RXYQ72TAYDA | 1-6 |
| CU | F2 | ROOF | 1 | Yes | | 95 | 66,475 | 15.1 | -10 | 68,132 | 4.37 | R-410A | 2 | 28.1 | 35 | | | | | 480 V | 3 | 36.7" x 66.7" x 30.2" | 730 | DAIKIN | RXYQ72TAYDA | 1-6 |
| CU | F3 | ROOF | 1 | Yes | | 95 | 66,475 | 15.1 | -10 | 68,132 | 4.37 | R-410A | 2 | 28.1 | 35 | | | | | 480 V | 3 | 36.7" x 66.7" x 30.2" | 730 | DAIKIN | RXYQ72TAYDA | 1-6 |
| CU | F4 | ROOF | 1 | Yes | | 95 | 66,475 | 15.1 | -10 | 68,132 | 4.37 | R-410A | 2 | 28.1 | 35 | | | | | 480 V | 3 | 36.7" x 66.7" x 30.2" | 730 | DAIKIN | RXYQ72TAYDA | 1-6 |
| CU | F5 | ROOF | 1 | Yes | | 95 | 66,475 | 15.1 | -10 | 68,132 | 4.37 | R-410A | 2 | 28.1 | 35 | | | | | 480 V | 3 | 36.7" x 66.7" x 30.2" | 730 | DAIKIN | RXYQ72TAYDA | 1-6 |
| CU | F6 | ROOF | 1 | Yes | | 95 | 66,475 | 15.1 | -10 | 68,132 | 4.37 | R-410A | 2 | 28.1 | 35 | | | | | 480 V | 3 | 36.7" x 66.7" x 30.2" | 730 | DAIKIN | RXYQ72TAYDA | 1-6 |
| CU | F6 | ROOF | 1 | Yes | | 95 | 66,475 | 15.1 | -10 | 68,132 | 4.37 | R-410A | 2 | 28.1 | 35 | | | | | 480 V | 3 | 36.7" x 66.7" x 30.2" | 730 | DAIKIN | RXYQ72TAYDA | 1-6 |

1 PROVIDE UNIT WITH LOW AMBIENT OPERATION DOWN TO -20F
2 MANUFACTURER TO ENSURE NO LOSS OF CAPACITY UNDER ALL OUTDOOR CONDITIONS DURNING DEFROST CYCLE
3 PRESSURE RELIEF VALVE ON HIGH SIDE OF SYSTEM
4 ISOLATION VALVES AT EACH UNIT
5 MOUNT ON EQUIPMENT RAILS
6 PROVIDE TOUCH SCREEN PANEL w/BACNET INTERFACE

## VRF FAN COIL UNIT

| TAG | | | | FED FROM | | | | SOUND PRESSURE LEVEL (dBA) | FAN MAX AIR FLOW (CFM) | ESP (IN) | COOLING MODE | | | | HEATING MODE | | | DIMENSIONS | | | ELECTRICAL DATA | | | UNIT WEIGHT (LBS) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | EAT | | CAPACITY (BTU/H) | | EAT | | | | | | | | | | | | |
| ABBR. | # | AREA SERVED | INDOOR UNIT TYPE | OUTDOOR UNIT | ZONE SELECTOR | CONDENSATE PUMP | FILTER | | | | DB (°F) | WB (°F) | (TOTAL) | (SENSIBLE) | DB (°F) | WB (°F) | CAPACITY (BTU/H) | HEIGHT | WIDTH | DEPTH | MCA | VOLTS | PH | | MANUFACTURER | MODEL | REMARKS |
| AC | 1 | MAIN ELECTRICAL ROOM | WALL MOUNTED CASSETTE | CU-1.1 | | | WASHABLE | | | | | | 24000 | | | | | | | | 0.7 | 208 V | 1 | | DAIKIN | FTXS24LVJU | 1,3-6 |
| AC | 2 | ATS ROOM | WALL MOUNTED CASSETTE | CU-1.1 | | | WASHABLE | | | | | | 24000 | | | | | | | | 0.7 | 208 V | 1 | | DAIKIN | FTXS24LVJU | 1,3-6 |
| FCU | 1.1 | WE WORK - 101 | HORIZONTAL DUCTED | CU-2.2 | BSB-2.1 | INTEGRAL | FIELD SUPPLIED | 42 | 1377 | 0.8 | 75 | 62.5 | 40432 | 31158 | 70 | - | 53978 | 11 3/4" | 4'-7 1/8" | 2'-3 5/8" | 3.4 | 208 V | 1 | 101.4 | DAIKIN | FXMQ48PBVJU | 1-3 |
| FCU | 1.2 | MEDIA ROOM - 106 | CASSETTE | CU-2.2 | BSB-2.1 | INTEGRAL | WASHABLE | 49 | 353 | | 75 | 62.5 | 10236 | 7083 | 70 | - | 13642 | 1'-10 5/8" | 1'-10 5/8" | 10 1/4" | 0.4 | 208 V | 1 | 36.4 | DAIKIN | FXZQ12TAVJU | |
| FCU | 1.3 | LOUNGE/PARTY ROOM - 107 | HORIZONTAL DUCTED | CU-2.2 | BSB-2.1 | INTEGRAL | FIELD SUPPLIED | 42 | 1377 | 0.8 | 75 | 62.5 | 40432 | 31158 | 70 | - | 53978 | 11 3/4" | 4'-7 1/8" | 2'-3 5/8" | 3.4 | 208 V | 1 | 101.4 | DAIKIN | FXMQ48PBVJU | 1-3 |
| FCU | 1.4 | LOUNGE/PARTY ROOM - 107 | HORIZONTAL DUCTED | CU-2.2 | BSB-2.1 | INTEGRAL | FIELD SUPPLIED | 42 | 1377 | 0.8 | 75 | 62.5 | 40432 | 31158 | 70 | - | 53978 | 11 3/4" | 4'-7 1/8" | 2'-3 5/8" | 3.4 | 208 V | 1 | 101.4 | DAIKIN | FXMQ48PBVJU | 1-3 |
| FCU | 1.5 | CONF - 110 | CASSETTE | CU-2.2 | BSB-2.1 | INTEGRAL | WASHABLE | 51 | 300 | | 75 | 62.5 | 4947 | 4391 | 70 | - | 6483 | 1'-10 5/8" | 1'-10 5/8" | 10 1/4" | 0.3 | 208 V | 1 | 35.3 | DAIKIN | FXZQ05TAVJU | 1-3 |
| FCU | 1.6 | OFFICE - 109 | CASSETTE | CU-2.2 | BSB-2.1 | INTEGRAL | WASHABLE | 51 | 300 | | 75 | 62.5 | 4947 | 4391 | 70 | - | 6483 | 1'-10 5/8" | 1'-10 5/8" | 10 1/4" | 0.3 | 208 V | 1 | 35.3 | DAIKIN | FXZQ05TAVJU | 1-3 |
| FCU | 1.7 | LOUNGE - 111 | HORIZONTAL DUCTED | CU-2.2 | BSB-2.1 | INTEGRAL | FIELD SUPPLIED | 65 | 1094 | 0.8 | 75 | 62.5 | 25266 | 20641 | 70 | - | 33984 | 11 3/4" | 4'-7 1/8" | 2'-3 5/8" | 2.8 | 208 V | 1 | 101.4 | DAIKIN | FXMQ30PBVJU | 1-3 |
| FCU | 1.8 | ELEVATOR LOBBY - 112 | HORIZONTAL DUCTED | CU-2.2 | BSB-2.1 | INTEGRAL | FIELD SUPPLIED | 56 | 317 | 0.4 | 75 | 62.5 | 6312 | 5652 | 70 | - | 8496 | 11 3/4" | 1'-9 3/4" | 2'-3 5/8" | 0.6 | 208 V | 1 | 55.1 | DAIKIN | FXMQ07PBVJU | 1-3 |
| FCU | 1.9 | FITNESS ROOM - 289 | HORIZONTAL DUCTED | CU-2.2 | BSB-2.2 | INTEGRAL | FIELD SUPPLIED | 64 | 688 | 0.8 | 75 | 62.5 | 20233 | 16404 | 70 | - | 26989 | 11 3/4" | 3'-3 3/8" | 2'-3 5/8" | 1.8 | 208 V | 1 | 79.4 | DAIKIN | FXMQ24PBVJU | 1-3 |
| FCU | 1.10 | FITNESS ROOM - 289 | HORIZONTAL DUCTED | CU-2.2 | BSB-2.2 | INTEGRAL | FIELD SUPPLIED | 64 | 688 | 0.8 | 75 | 62.5 | 20233 | 16404 | 70 | - | 26989 | 11 3/4" | 3'-3 3/8" | 2'-3 5/8" | 1.8 | 208 V | 1 | 79.4 | DAIKIN | FXMQ24PBVJU | 1-3 |
| FCU | 1.11 | FITNESS ROOM - 289 | HORIZONTAL DUCTED | CU-2.2 | BSB-2.2 | INTEGRAL | FIELD SUPPLIED | 64 | 688 | 0.8 | 75 | 62.5 | 20233 | 16404 | 70 | - | 26989 | 11 3/4" | 3'-3 3/8" | 2'-3 5/8" | 1.8 | 208 V | 1 | 79.4 | DAIKIN | FXMQ24PBVJU | 1-3 |
| FCU | 2.1 | ELEVATOR LOBBY - 201 | HORIZONTAL DUCTED | CU-2.2 | BSB-2.3 | INTEGRAL | FIELD SUPPLIED | 65 | 1130 | 0.8 | 75 | 62.5 | 30316 | 24862 | 70 | - | 39989 | 11 3/4" | 4'-7 1/8" | 2'-3 5/8" | 2.9 | 208 V | 1 | 101.4 | DAIKIN | FXMQ36PBVJU | 1-3 |
| FCU | 3.1 | COMMUNITY ROOM 327 | VERTICAL AHU | CU-2.2 | BSB-2.3 | | FIELD SUPPLIED | | 800 | 0.9 | 75 | 62.5 | 15149 | 13650 | 70 | - | 19994 | 3'-9" | 1'-5 1/2" | 1'-9" | 4.9 | 208 V | 1 | 115 | DAIKIN | FXTQ18TAVJUA | 1-3 |
| FCU | 3.2 | COMMUNITY ROOM 325 | VERTICAL AHU | CU-2.2 | BSB-2.3 | | FIELD SUPPLIED | | 800 | 0.9 | 75 | 62.5 | 15149 | 13650 | 70 | - | 19994 | 3'-9" | 1'-5 1/2" | 1'-9" | 4.9 | 208 V | 1 | 115 | DAIKIN | FXTQ18TAVJUA | 1-3 |
| FCU | A | RESIDENCES | VERTICAL AHU | REFER TO M4.1 | - | | FIELD SUPPLIED | | 400 | 0.9 | 75 | 62.5 | 10100 | 8697 | 70 | - | 13499 | 3'-9" | 1'-5 1/2" | 1'-9" | 4.9 | 208 V | 1 | 115 | DAIKIN | FXTQ12AVJUA | 1-3 |
| FCU | B | RESIDENCES | VERTICAL AHU | REFER TO M4.1 | - | | FIELD SUPPLIED | | 600 | 0.9 | 75 | 62.5 | 15149 | 11085 | 70 | - | 19999 | 3'-9" | 1'-5 1/2" | 1'-9" | 4.9 | 208 V | 1 | 115 | DAIKIN | FXTQ18TAVJUA | 1-3 |
| FCU | C | RESIDENCES | VERTICAL AHU | REFER TO M4.1 | - | | FIELD SUPPLIED | | 800 | 0.9 | 75 | 62.5 | 20249 | 15265 | 70 | - | 26999 | 3'-9" | 1'-5 1/2" | 1'-9" | 4.9 | 208 V | 1 | 115 | DAIKIN | FXTQ24TAVJUA | 1-3 |
| FCU | D | CORRIDOR & LOBBY | 2'x2' CEILING CASSETTE | REFER TO M4.1 | - | INTEGRAL | WASHABLE | 43 | 511 | 0 | 75 | 62.5 | 15183 | 11471 | 70 | - | 20121 | 10 1/4" | 1'-10 5/8" | 1'-10 5/8" | 0.6 | 208 V | 1 | 41.9 | DAIKIN | FXZQ18TAVJU | 1-3 |

1 PRESSURE RELIEF VALVE ON HIGH SIDE OF SYSTEM.
2 PROVIDE EACH FAN COIL UNIT WITH WALL MOUNTED REMOTE CONTROLLER COMPATIBLE w/VIRTUAL ASSISTANT DEVICES AND WEB-APP CAPABILITY
3 PROVIDE INTEGRAL DISCONNECT SWTICH
4 PROVIDE PROGRAMMABLE WALL MOUNTED CONTROLLER
5 COOLING ONLY
6 PIPING CONNECTIONS FROM BACK OF UNIT

## DIFFUSERS, REGISTERS AND GRILLES

| TAG | SYSTEM TYPE | DESCRIPTION | SIZE | DAMPER | MATERIAL/FINISH | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|
| A1 | SUPPLY | STEEL AEROBLADE DOUBLE DEFLECTION SUPPLY GRILLE, 3/4" BLADE SPACING, FRONT BLADES PARALLEL TO LONG DIMENSION | SEE PLANS | OBD | STEEL | TITUS | 272RL | 1,3 |
| A2 | SUPPLY | ALUMINUM AEROBLADE DOUBLE DEFLECTION SUPPLY GRILLE, 3/4" BLADE SPACING, FRONT BLADES PARALLEL TO LONG DIMENSION | SEE PLANS | OBD | ALUMINUM | TITUS | 272FL | 1 |
| B | EXHAUST | STEEL RETURN GRILLE, 3/4" BLADE SPACING, 35 DEGREE DEFLECTION, BLADES PARALLEL TO LONG DIMENSION | SEE PLANS | OBD | STEEL | TITUS | 350RL | 1,3,4 |
| C | RETURN / RECIR | STEEL RETURN GRILLE, 3/4" BLADE SPACING, 35 DEGREE DEFLECTION, BLADES PARALLEL TO LONG DIMENSION | SEE PLANS | OBD | STEEL | TITUS | 350RL | 1 |
| E | SUPPLY | 2'x2' STEEL PLAQUE FACE DIFFUSER | SEE PLANS | | STEEL | TITUS | OMNI | 1, 2 |
| F | EXHAUST | 2'x2' STEEL PERFORATED RETURN DIFFUSER | SEE PLANS | OBD | STEEL | TITUS | PAR | 1,3 |

1 ARCHITECT TO SPECIFY FINISH AND FINAL CEILING LOCATIONS
2 PROVIDE VOLUME DAMPERS AT BRANCH TAKEOFFS
3 PROVIDE RADIATION DAMPER FOR CEILING MOUNTED APPLICATIONS
4 PROVIDE MERV 3 OR WASHABLE MESH FILTER FOR TRAPPING GREASE ON KITCHEN EXHAUST AIR STREAM

## VRF ZONE SELECTOR

| TAG | | NUMBER OF PORTS | ELECTRICAL DATA | | | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|
| ABBR. | # | | FLA | VOLTS | PH | | | |
| BSB | 2.1 | 8 | 0.64 | 208 | 1 | DAIKIN | BSF8Q54TVJ | |
| BSB | 2.2 | 6 | 0.48 | 208 | 1 | DAIKIN | BSF6Q54TVJU | |
| BSB | 2.3 | 6 | 0.48 | 208 | 1 | DAIKIN | BSF6Q54TVJU | |

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION / DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT REVISIONS 06.02.2021
PERMIT REVISIONS #2 08.03.2021

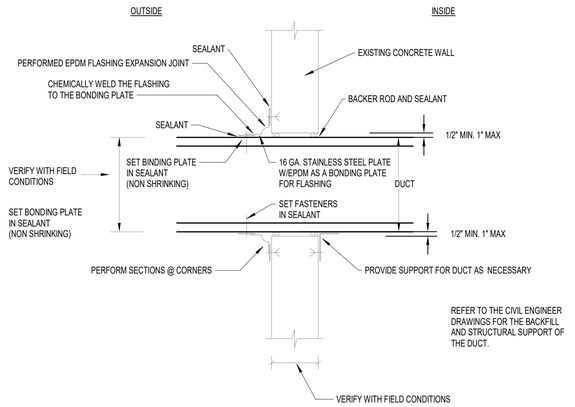
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

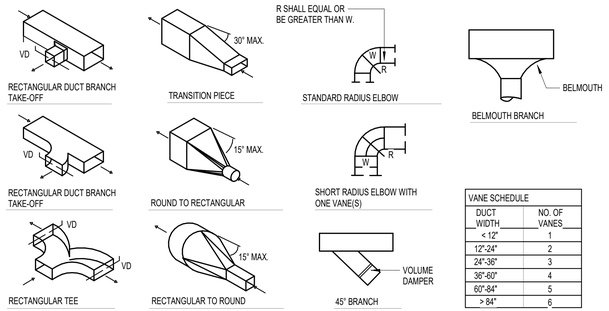
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M5.1

JONES & JONES ASSOCIATES / ARCHITECTS PC




10 WALL PENETRATION
NTS




| VANE SCHEDULE | |
|---|---|
| DUCT WIDTH | NO. OF VANES |
| < 12" | 1 |
| 12"-24" | 2 |
| 24"-36" | 3 |
| 36"-60" | 4 |
| 60"-84" | 5 |
| > 84" | 6 |

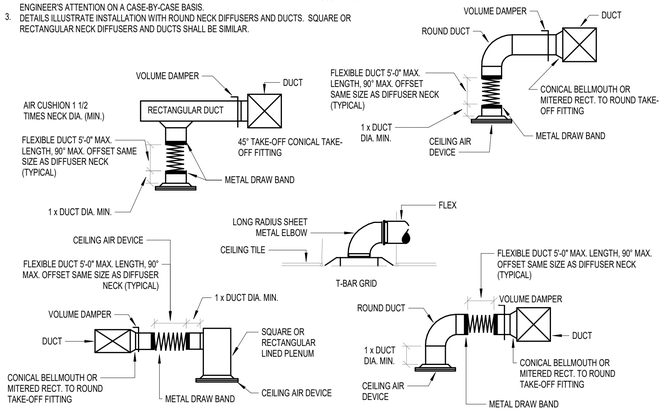
**NOTES:**

1. PROVIDE STANDARD RADIUS ELBOWS WHEN POSSIBLE - SHORT RADIUS WHERE REQUIRED.
2. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES SHALL BE CONSTRUCTED, SUPPORTED, & FASTENED AS RECOMMENDED BY SMACNA.
3. NO SQUARE OR RECTANGULAR HEEL ELBOWS SHALL BE ALLOWED, WITHOUT TURNING VANES.
4. NO SPIN-IN CONNECTIONS SHALL BE ALLOWED.
5. FOR RADIUS ELBOWS, IF R IS LESS THAN W, THEN FULL ARC TURNING VANE(S) SHALL BE PROVIDED, SEE THE VANE SCHEDULE. THE INSIDE BEND MAY BE SQUARE FOR W > 12",

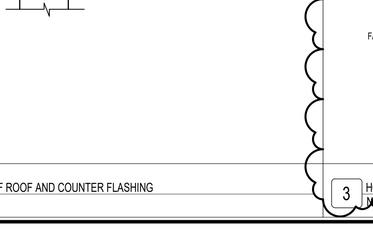
9 TYPICAL DUCT
NTS

**NOTES:**

1. SPIN COLLARS SHALL NOT BE PERMITTED.
2. SPECIAL CONDITIONS THAT CANNOT MEET ONE OF THESE STANDARDS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION ON A CASE-BY-CASE BASIS.
3. DETAILS ILLUSTRATE INSTALLATION WITH ROUND NECK DIFFUSERS AND DUCTS. SQUARE OR RECTANGULAR NECK DIFFUSERS AND DUCTS SHALL BE SIMILAR.




8 TYPICAL AIR SERVICE DEVICE (INLET/OUTLET) INSTALLATION
NTS




**NOTES:**

1. THIS DETAIL SHALL ONLY BE USED WHEN LOW PROFILE HOODS ARE NOT FEASIBLE.

7 TYPICAL GOOSENECK DETAIL
NTS

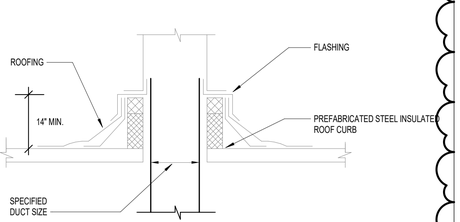



6 ROOF CURB
NTS




**NOTES:**
1. SEE SPECIFICATIONS FOR DUCTWORK INSULATION, LINING, AND JACKET REQUIREMENTS.

5 ACOUSTICAL CAULKING OF DUCT PENETRATION
NTS




4 DUCT PENETRATING OF ROOF AND COUNTER FLASHING
NTS




3 HORIZONTAL AND VERTICAL FIRE DAMPER
NTS




2 INTERIOR DUCTWORK SUPPORT
NTS




1 LOW VELOCITY DUCT LAYOUT
NTS

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT REVISIONS | 06.03.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |

dbHMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

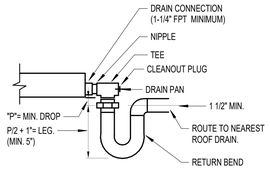
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M6.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

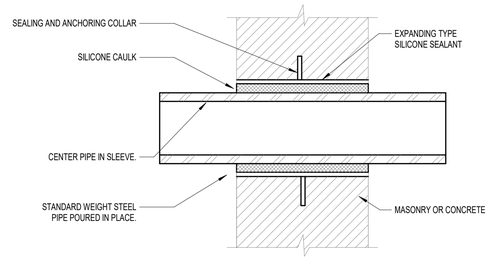
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY, OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



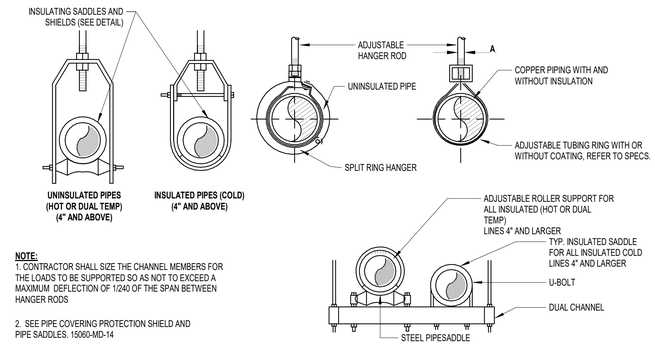

P= NEGATIVE INTERNAL STATIC PRESSURE AT FAN INLET
P= 4"

1. PIPING TO BE SCHEDULE 40 GALVANIZED

9 ROOF MOUNTED AHU CONDENSATE DRIP PAN SEALENT PIPING
NTS



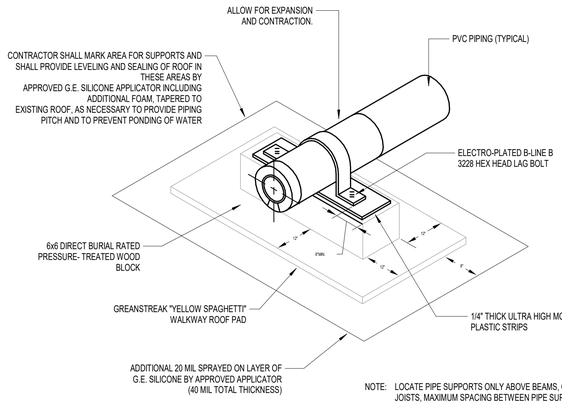

8 PIPE THRU EXTERIOR WALL ABOVE GRADE
NTS




**NOTE:**
1. CONTRACTOR SHALL SIZE THE CHANNEL MEMBERS FOR THE LOADS TO BE SUPPORTED SO AS NOT TO EXCEED A MAXIMUM DEFLECTION OF 1/240 OF THE SPAN BETWEEN HANGER RODS

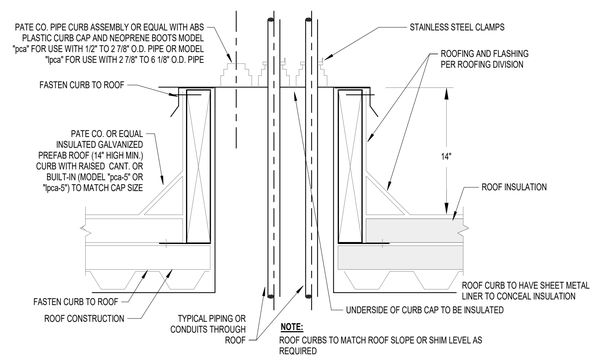
2. SEE PIPE COVERING PROTECTION SHIELD AND PIPE SADDLES. 15060-MD-14

7 PIPE SUPPORT AND HANGER
NTS



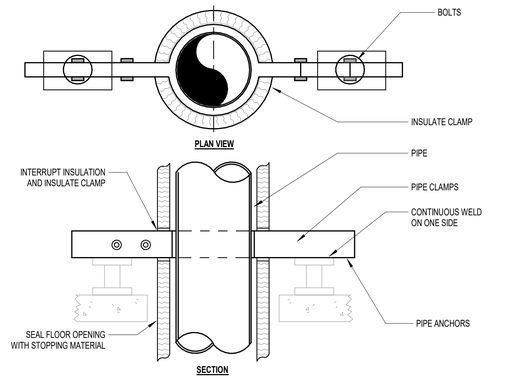

NOTE: LOCATE PIPE SUPPORTS ONLY ABOVE BEAMS, GRIDERS, AND BAR JOISTS, MAXIMUM SPACING BETWEEN PIPE SUPPORTS SHALL BE 12'-0".

6 PIPE SUPPORT
NTS



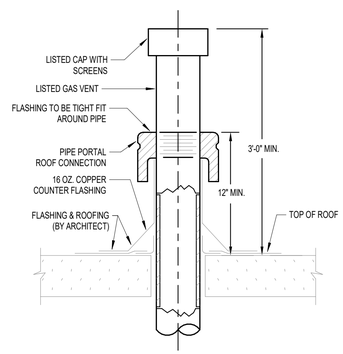

**NOTE:**
ROOF CURBS TO MATCH ROOF SLOPE OR SHIM LEVEL AS REQUIRED

5 PIPE PORTAL DETAIL
NTS

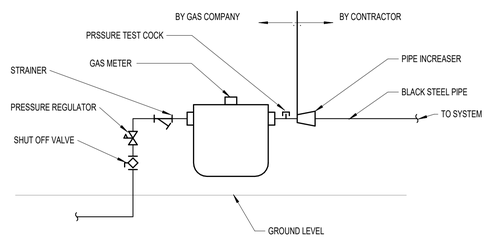



**NOTES:**
1. FOR FLOOR SUPPORT APPLICATION DO NOT ANCHOR PIPE.
2. SIMILAR FOR NON-INSULATED PIPES.

4 PIPE ANCHOR/FLOOR SUPPORT
NTS

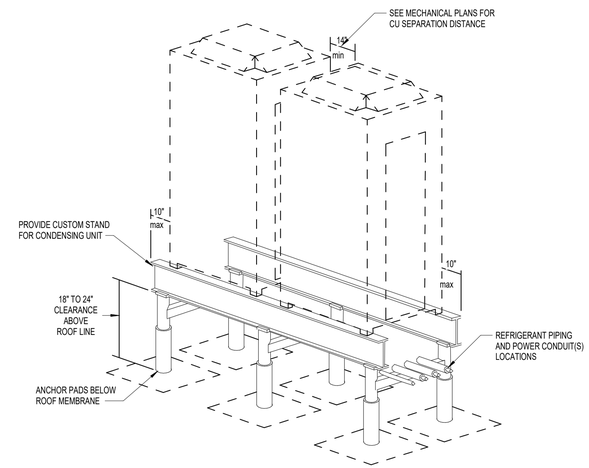



3 NATURAL GAS THRU ROOF
NTS




**NOTE:**
VERIFY REQUIREMENTS FOR METERING AND PIPING WITH GAS COMPANY. GAS COMPANY SHALL EXCAVATE, BACKFILL, AND REPAIR PAVING AND SOD FOR GAS SERVICE LINE FROM MAIN TO BUILDING. CONTRACTOR TO PAY ALL GAS COMPANY FEES FOR THIS INSTALLATION. USE WELDED OR SCREWED PIPE AND FITTINGS PER SPECIFICATIONS. PAINT EXPOSED METAL GAS PIPE, FITTINGS AND ITEMS LIGHT GREEN.

2 GAS SERVICE
NTS




1 CONDENSING UNIT - ROOF TOP
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.02.2021
PC/BBC RECISIONS 06.02.2021

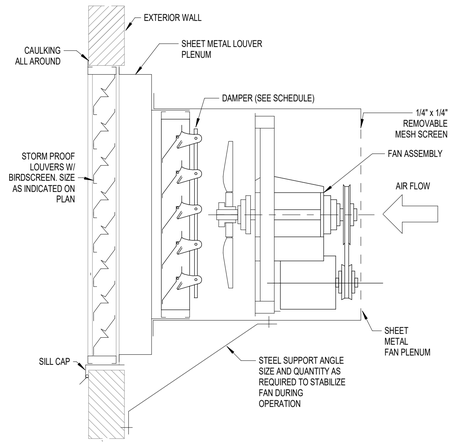
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

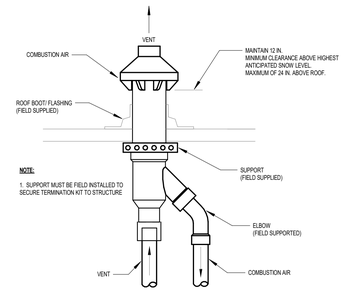
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M6.1

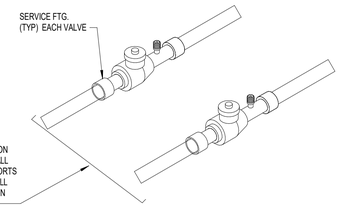
JONES & JONES ASSOCIATES ARCHITECTS PC




6 TYPICAL SIDEWALL FAN DETAIL
NTS



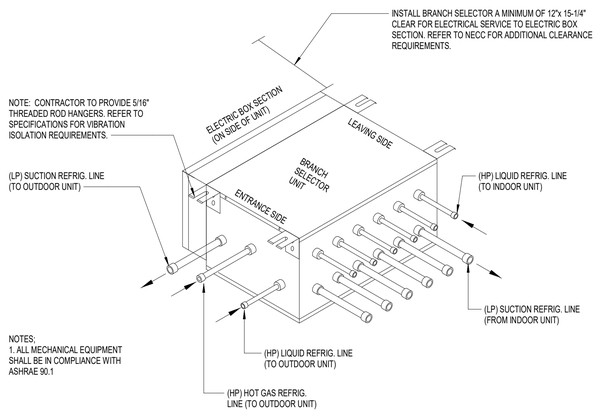

5 CONCENTRIC VENT ROOF INSTALLATION
NTS



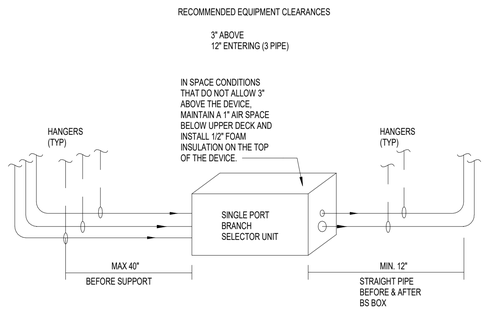

CONTRACTOR TO INSTALL LINE SIZE REFRIGERANT SHUT-OFF VALVES WITH ACCESS FITTING. ALL VALVES SHALL INCORPORATE DUAL STEM SEAL DESIGN W/TEFLON PACKING INTERNAL PRIMARY SEAL. VALVE SHALL PERMIT OPERATION WITHOUT REMOVAL OF SEALS OR TEFLON GASKETS. PROVIDE W/INTERNAL BALL TYPE RELIEF PORT FOR DUAL DIRECTIONAL SHUT-OFF. PROVIDE FULL FLOW PORTS ON ALL SIZES. (NOTE: SHUT-OFF VALVES SHALL BE ZERO-CLEARANCE TYPE, ALL BRONZE, BRAZED CONNECTIONS WITH 1/4" SCHRADER TYPE SERVICE FITTING IN VALVE. TYPICAL FOR EACH LINE).

NOTES:
1. ISOLATION VALVE TO BE RATED TO A MINIMUM OF 550 PSI.
2. ISOLATION VALVES TO BE INCLUDED ON SUCTION AND LIQUID LINE OF EACH INDOOR UNIT.

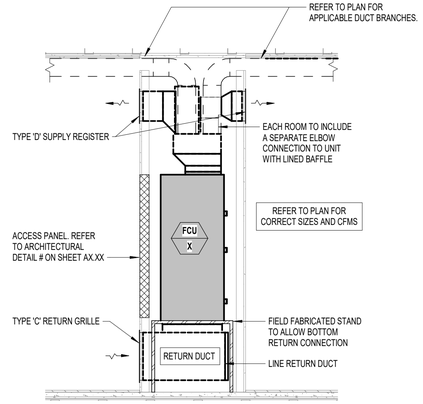
4 TYPICAL REFRIGERANT ISOLATION VALVE DETAIL
NTS




3 TYPICAL MULTI-PORT BRANCH SELECTOR PIPING
NTS




2 RECOMMENDED PIPE CLEARANCES FOR BRANCH SELECTOR UNITS
NTS




1 FAN COIL UNIT CONNECTION DETAIL
NTS

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PLANS RECHECKING | 06.02.2021 |

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M6.2

JONES & JONES ASSOCIATES ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY, OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

## GENERAL BAS NOTES

1. ALL M.700 SERIES DRAWINGS ARE BUILDING AUTOMATION SYSTEM/ TEMPERATURE CONTROLS. REFER TO M.000 FOR ADDITIONAL SYMBOLS AND ABBREVIATIONS. CONTROL DRAWING DETAILS ARE NOT TO SCALE.
2. THE CONTROLS CONTRACTOR SHALL THOROUGHLY REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS (E.G. PLANS, SPECIFICATIONS, ETC.) AS A WHOLE. CONSULTANT DRAWINGS INCLUDING BUT NOT LIMITED TO STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, REFRIGERATION, FIRE PROTECTION, AND CIVIL ARE SUPPLEMENTARY TO THE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY AND ALL DISCREPANCIES IDENTIFIED BETWEEN THE CONSULTANTS DRAWINGS WITH A WRITTEN REQUEST FOR CLARIFICATION. WORK INSTALLED IN CONFLICT WITH THE DRAWINGS AND PROJECT MANUAL SHALL BE CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
3. MOTOR STARTERS MAY NOT BE ADJACENT TO EQUIPMENT SERVED. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ACTUAL LOCATION.
4. PROVIDE DEDICATED BAS FLOOR PLAN SHOP DRAWINGS OF ALL DEVICES WHERE LOCATION IS CRITICAL FOR PROPER FUNCTIONALITY. THIS IS INCLUDING BUT NOT LIMITED TO SMOKE DETECTORS, OA SENSORS, PRESSURE SENSORS, IMMERSION TEMP SENSORS, METERS, ETC. SUBMIT FOR FINAL LOCATION APPROVAL BY EOR, AOR, AND/OR OWNER REPRESENTATIVE.
5. IF SHOP DRAWINGS ARE NOT PROVIDED OR DID NOT RECEIVE THE APPROVAL OF THE ARCHITECT AND ENGINEER, IT IS THE RESPONSIBILITY OF THE CONTROLS CONTRACTOR TO MAKE MODIFICATIONS IN THE WORK, INCLUDING REROUTING AS REQUIRED BY INTERFERENCE WITH STRUCTURAL, GENERAL, AND WORK OF OTHER TRADES FOR PROPER EXECUTION OF THE WORK, WITHOUT ADDITIONAL COST TO THE OWNER.
6. CONTRACTORS PERFORMING WORK WITHOUT REVIEWED SUBMITTALS DO SO AT THEIR OWN RISK. IN THE ABSENCE OF REVIEWED SHOP DRAWINGS, SHOULD ANY PORTION OF THE CONTROLS INSTALLATION CONFLICT WITH WORK OF OTHER TRADES, THE CONTRACTOR WILL MAKE ANY MODIFICATIONS NECESSARY TO PROVIDE PROPER EXECUTION OF THE WORK AT NO ADDITIONAL COST TO THE OWNER.
7. CONTROLS CONTRACTOR SHALL WORK CLOSELY WITH BALANCING CONTRACTOR TO MEET FACILITY REQUIREMENTS, PRIOR TO SUBSTANTIAL COMPLETION.
8. ALL CONTROLS CONDUIT AND WIRE SHALL NOT BE INSTALLED IN A WAY THAT PROHIBITS OR LIMITS MECHANICAL MAINTENANCE.
9. CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CONDUIT, WIRE, AND TRANSFORMERS TO PROPERLY POWER CONTROLLERS, VALVES, ACTUATORS, AND SENSORS (I.E. HUMIDITY, CO2, PRESSURE, ETC.) UNLESS OTHERWISE NOTED.
10. WHERE A DISCREPANCY AMONG SPECIFICATION, SEQUENCE, AND SCHEMATICS OCCURS, THE MOST STRINGENT SHALL APPLY.

## AIR DISTRIBUTION SYSTEM GENERAL NOTES

1. CONTROL DRAWINGS DO NOT INCLUDE ALL SHEET METAL DEVICES. REFER TO SYSTEM SCHEMATICS FOR SHEET METAL LAYOUT.
2. DUCT MOUNTED REMOTE DIFFERENTIAL PRESSURE SENSORS SHALL BE LOCATED 2/3 DOWN THE MOST SIGNIFICANT DUCT RUN. IF ANY VAV BOX IS 50 FEET OR GREATER FROM THE SENSOR, A SECOND SENSOR SHALL BE ADDED.
3. PROVIDE LOW LIMIT SENSING LENGTH AS SHOWN IN THE DETAIL PAGE.
4. PROVIDE DAMPER ACTUATORS FOR PROPER TORQUE-TO-SQUARE FEET OPERATION.
5. CONTROLS CONTRACTOR SHALL PROPERLY COORDINATE DAMPER FITMENT AND INSTALLATIONS WITH OTHER TRADES.
6. CONTROLS CONTRACTOR SHALL PROPERLY COORDINATE AFMS FITMENT AND INSTALLATION WITH OTHER TRADES.
7. CONTROLS CONTRACTOR SHALL WORK CLOSELY WITH VFD START-UP PERSONNEL TO MEET FACILITY REQUIREMENTS, PRIOR TO SUBSTANTIAL COMPLETION.

## POINTS LIST KEY

POINTS LIST

| POINT NAME | BAS HW | INTEGRATION | | POINT TYPE | | | | GRAPHICS | TREND | ALARM | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | VP | FIELD INST | DI | AI | DO | AO | | | | |

- HARDWIRED DEVICE TO A BAS CONTROLLER
- VIRTUAL (INTEGRATION) POINT TO THE BAS.
- HARDWIRE DEVICE TO EQUIPMENT DIRECTLY. DEVICES ARE EITHER SHIPPED LOOSE WITH THE EQUIPMENT OR PROVIDED BY THE BAS TO INTERLOCK WITH AN EQUIPMENT.
- INPUT AND OUTPUT AS READ/GENERATED BY THE BAS CONTROLLER.

## POINTS LIST KEY: EXAMPLES ONLY

POINTS LIST

| POINT NAME | BAS HW | INTEGRATION | | POINT TYPE | | | | GRAPHICS | TREND | ALARM | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | VP | FIELD INST | DI | AI | DO | AO | | | | |
| START/STOP | ● | | | | | ● | | ● | ● | | 1 |
| STATUS (CURRENT SENSOR) | ● | | | ● | | | | ● | ● | ● | 2 |
| TEMP SETPOINT | | ● | | | | | ● | ● | ● | | 3 |
| DA TEMP TO EQUIPMENT | | ● | ● | | ● | | | ● | ● | | 4 |
| OA INTAKE DAMPER | | | ● | ● | | ● | | | | | 5 |

NOTE: (EXAMPLE SCENARIOS)
1. ENABLE/DISABLE SIGNAL FROM THE BAS.
2. MONITOR A STATUS WITH AN ANALOG INPUT TO THE BAS.
3. OUTPUT AN ANALOG SIGNAL THROUGH INTEGRATION FROM THE BAS TO EQUIPMENT WITH FACTORY CONTROLS.
4. READ AN ANALOG SIGNAL THROUGH INTEGRATION FROM EQUIPMENT WITH A FACTORY- PROVIDED / FIELD-INSTALLED SENSOR TO THE BAS.
5. INTERLOCK HARDWIRES (BINARY INPUT AND BINARY OUTPUT) BETWEEN AN ACTUATOR TO EQUIPMENT WITHOUT ANY BAS CONTROL OR MONITORING.

## SHEET REFERENCING KEY

WHERE SPECIFIC DETAILS APPLY FOR DEVICES, NOTE TAGS ARE PROVIDED FOR REFERENCE AS SUCH:

607.1 — SHEET PAGE / DETAIL NUMBER ON SHEET PAGE

## CABLE REFERENCING KEY

- 26 — RACEWAY & CABLING BY DIVISION 26 CONTRACTOR
- 23B — RACEWAY & CABLING BY BAS CONTRACTOR

## TYPICAL REFERENCE FLAG / NAME REPRESENTATIONS *

| | |
|---|---|
| A | ADJUSTABLE (BY OWNER) |
| FA | FIELD ADJUSTABLE (BY FIELD PROGRAMMER) |
| ACT | ACTUATOR |
| AFMS | AIR FLOW MEASURING STATION |
| AHU | AIR HANDLING UNIT |
| ALRM | ALARM |
| BAS | BUILDING AUTOMATION SYSTEM |
| BDD | BACK-DRAFT DAMPER |
| BLR | BOILER |
| CFM | CUBIC FEET PER MINUTE |
| CHLR | CHILLER |
| CHWR | CHILLED WATER RETURN |
| CHWS | CHILLED WATER SUPPLY |
| CT | COOLING TOWER |
| CWS | CONDENSER WATER SUPPLY |
| CWR | CONDENSER WATER RETURN |
| CO | CARBON MONOXIDE |
| CO2 | CARBON DIOXIDE |
| CV | CONSTANT VOLUME |
| DOAS | DEDICATED OUTSIDE AIR SYSTEM |
| DPS | DIFFERENTIAL PRESSURE SWITCH |
| DPT | DIFFERENTIAL PRESSURE TRANSMITTER |
| DTWS | DUAL TEMPERATURE WATER SUPPLY |
| DTWR | DUAL TEMPERATURE WATER RETURN |
| DX | DIRECT EXPANSION |
| EA | EXHAUST AIR |
| ECM | ELECTRONICALLY COMMUTATED MOTOR |
| ERW | ENERGY RECOVERY WHEEL (ALSO ERV) |
| ES | END SWITCH |
| FM | FLOW METER |
| FT | FIN TUBE RADIATION |
| F.O. | FAIL OPEN VIA SPRING |
| F.C. | FAIL CLOSE VIA SPRING |
| F.I.P. | FAIL IN POSITION |
| FZ | FREEZE STAT (LOW-LIMIT) TEMPERATURE |
| GEOS | GEO-THERMAL WATER SUPPLY |
| GEOR | GEO-THERMAL WATER RETURN |
| GSWS | GLYCOL STATION WATER SUPPLY |
| GSWR | GLYCOL STATION WATER RETURN |
| HG-CHW | HIGH-GRADE CHILLED WATER |
| HG-HW | HIGH-GRADE HOT WATER |
| HOA | HAND-OFF-AUTO SWITCH |
| HWR | HOT WATER RETURN |
| HWS | HOT WATER SUPPLY |
| HX | HEAT EXCHANGER |
| LG-CHW | LOW-GRADE CHILLED WATER |
| LG-HW | LOW-GRADE HOT WATER |
| MAU | MAKE-UP AIR UNIT |
| NO2 | NITROGEN DIOXIDE SENSOR |
| N.O. | NORMAL OPEN POSITION |
| N.C. | NORMAL CLOSE POSITION |
| OA | OUTSIDE AIR |
| OCC | OCCUPANCY |
| O2 | OXYGEN SENSOR |
| PWR | POWER |
| RA | RETURN AIR |
| RH | RELATIVE HUMIDITY |
| SA | SUPPLY AIR |
| SD | SMOKE DETECTOR |
| TC | TEMPERATURE CONTROLS |
| VAV | VARIABLE AIR VOLUME |
| VFD | VARIABLE FREQUENCY DRIVE (ALSO VSD) |
| WS | WATER SENSOR/DETECTION SWITCH |

*NOTE: THIS IS A LIST OF TYPICAL REPRESENTATIONS. THIS LIST IS NOT NOT INTENDED TO BE INCLUSIVE OR DEFINITIVE. REFER TO ACTUAL LOGIC DIAGRAM TO ENSURE ACTUAL REFERENCE TAG REPRESENTATION.

## CONTROL SYMBOLS

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|---|---|---|---|
| XX POINT NAME | DDC POINT DESCRIPTOR WITH NAME:<br>AI ANALOG INPUT<br>DI DIGITAL INPUT<br>AO ANALOG OUTPUT<br>DO DIGITAL OUTPUT | AFS | AIR FLOW SWITCH |
| | WIRING DESIGNATION | | CONTROL DAMPER (OPPOSED-BLADE) |
| T | ZONE TEMPERATURE SENSOR | | CONTROL DAMPER (PARALLEL-BLADE) |
| T — ADJ | ZONE/SPACE TEMPERATURE SENSOR WITH ADJUSTMENT SLIDE BAR | ACT | DAMPER ACTUATOR WITH ELECTRIC ACTUATOR |
| T — OVR — ADJ | ZONE/SPACE TEMPERATURE SENSOR WITH ADJUSTMENT SLIDE BAR + OVERRIDE BUTTON | ES | DAMPER END-SWITCH |
| CO2 | ZONE/SPACE CO2 SENSOR | N.O. | CONTROL VALVE WITH ELECTRIC ACTUATOR TWO-WAY |
| H | ZONE/SPACE HUMIDITY SENSOR | C. N.C. N.O. | CONTROL VALVE WITH ELECTRIC ACTUATOR THREE-WAY |
| OS | OCCUPANCY SENSOR (CEILING MOUNTED) BAS CONTRACTOR TO PROVIDE DEDICATED TO BAS ONLY | N.O. | SOLENOID VALVE WITH ELECTRIC ACTUATOR TWO-WAY, ISOLATION ACTUATION |
| TS1 | TEMPERATURE SENSOR WITH SINGLE POINT ELEMENT DUCT-MOUNTED | CS | CURRENT SWITCH / SENSOR (ON/OFF OR VFD SENSOR) |
| TS2 | TEMPERATURE SENSOR WITH AVERAGING ELEMENT DUCT-MOUNTED | TS | LOW-VOLTAGE THERMOSTAT |
| TS3 | IMMERSION TEMPERATURE SENSOR WITH PIPE WELL | | REFRIGERANT DETECTOR |
| HS | HUMIDITY SENSOR DUCT-MOUNTED | | EMERGENCY KILL SWITCH (WALL-MOUNTED) |
| HLH | HIGH LIMIT HUMIDISTAT | 480V 120V | CONTROL TRANSFORMER |
| IAQ | AIR QUALITY SENSOR (DUCT-MOUNTED) | | NORMALLY OPEN AND NORMALLY CLOSED CONTACTS |
| FZ | LOW LIMIT TEMPERATURE SWITCH (FREEZESTAT) | HAND AUTO OFF | HAND-OFF-AUTO SELECTOR SWITCH |
| HLT | HIGH LIMIT TEMPERATURE SWITCH (FIRESTAT) | FAR | FIRE ALARM RELAY |
| SD | SMOKE DETECTOR | R | PILOT LIGHT (WITH LENS COLOR) |
| HI DPT1 LO | DIFFERENTIAL PRESSURE TRANSMITTER/SENSOR (AIR-SIDE) | ON-OFF | ON-OFF SELECTOR SWITCH |
| LO DPT2 HI | DIFFERENTIAL PRESSURE TRANSMITTER/SENSOR (WATER-SIDE) | TCP | TEMPERATURE CONTROL PANEL |
| HI DPS LO | DIFFERENTIAL PRESSURE SWITCH | EIC | EQUIPMENT INTEGRAL CONTROLLER |
| AFMS | AIR FLOW MONITORING STATION | AAC | APPLICATION ADVANCE CONTROLLER |
| FM | FLOW METER (WATER-SIDE) | ASC | APPLICATION SPECIFIC CONTROLLER |

REVISION / DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT RECIVIONS 06.02.2021


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

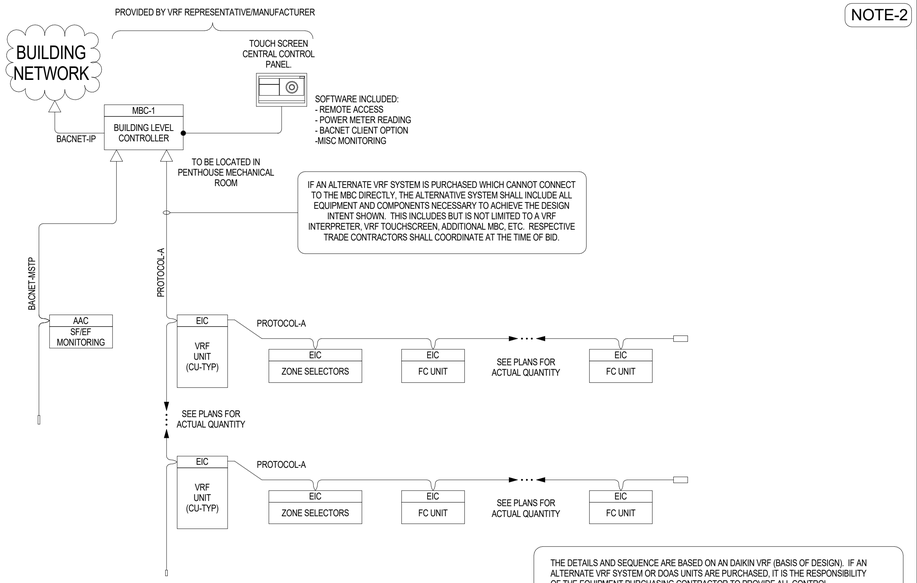
M7.0


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

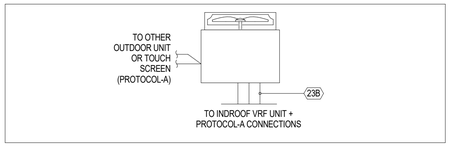
BUILDING LEVEL CONTROLLERS

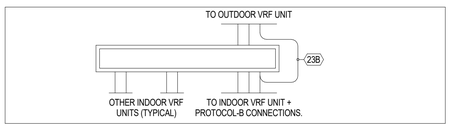


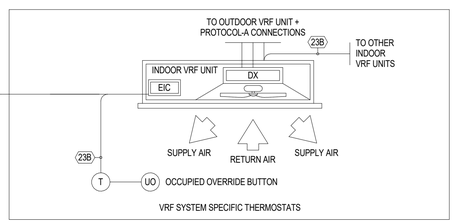

NOTE-2

## VRF SYSTEM DEDICATED NETWORK LAYOUT DIAGRAM

NOTE-1 NOTE-3




ELECTRIC BASEBOARD

SELECT ZONES HAVE ELECTRIC BASEBOARD. REFER TO MECHANICAL SHEETS FOR LOCATIONS.

TYPICAL PER ZONE SERVED BY A SINGLE AIR TERMINAL

PROVIDE LOCKABLE PLASTIC PROTECTIVE COVERS FOR EACH THERMOSTAT IN COMMON AREAS.

INITIAL OPERATIONAL SCHEDULE (RESIDENTIAL):

OCCUPIED: 6:00AM TO 5:59AM (24 HOUR), MONDAY THROUGH FRIDAY, 6:00AM TO 5:59AM (24 HOUR), SATURDAY THROUGH SUNDAY.
SPACE TEMP: OCCUPIED SETPOINT: COOLING: 74°F (FA) / HEATING: 70°F (FA)
SPACE TEMP: UNOCCUPIED SETPOINT: COOLING: 85°F (FA) / HEATING: 65°F (FA)
SPACE SETPOINT ADJUSTMENT: TOTAL OF 2°F ( ±1°F) (WHERE APPLICABLE)

INITIAL OPERATIONAL SCHEDULE (COMMON AREAS):

OCCUPIED: 6:00AM TO 5:59AM (24 HOUR), MONDAY THROUGH FRIDAY, 6:00AM TO 5:59AM (24 HOUR), SATURDAY THROUGH SUNDAY.
SPACE TEMP: OCCUPIED SETPOINT: COOLING: 72°F (FA) / HEATING: 70°F (FA)
SPACE TEMP: UNOCCUPIED SETPOINT: COOLING: 80°F (FA) / HEATING: 65°F (FA)
SPACE SETPOINT ADJUSTMENT: TOTAL OF 2°F ( ±1°F) (WHERE APPLICABLE)

UNOCCUPIED OVERRIDE TIME LIMIT: 30-MINUTES PER ACTIVATION.

APPLICABLE CONDENSING UNIT(S): CU TYP.

APPLICABLE INDOOR UNIT(S): FCU TYP. SEE MECHANICAL LAYOUT FOR QUANTITIES.

SEQUENCE:

1. CONTROLS PROVIDER SHALL INSTALL AND WIRE A MANUFACTURE-PROVIDED THERMOSTAT AND INTERLOCK ASSOCIATED CONTROL/LOW-VOLTAGE WIRING WITH THE FAN COIL UNIT. THE THERMOSTAT SHALL BE SMART IN THE RESIDENTIAL UNITS AND 7-DAY PROGRAMMABLE IN THE COMMON AREAS.
2. WHERE APPLICABLE, CONTROLS PROVIDER SHALL INTERLOCK ASSOCIATED CONTROL/LOW-VOLTAGE WIRING WITH THE ELECTRIC BASEBOARD. THE ELECTRIC BASEBOARD SHALL ENGAGE AS THE FIRST SOURCE OF HEATING. IF THE SPACE TEMPERATURE SETPOINT IS NOT SATISFIED FOR 15-MINUTES (A), THE ELECTRIC BASEBOARD SHALL REMAIN ENABLED, AND THE VRF FCU SHALL MODULATE TO MAINTAIN THE SPACE TEMPERATURE.

FCU ZONES DETAIL

## VRF SYSTEM
## MIDDLEWARE / NETWORK CONTROLLER / BUILDING CONTROLLER (MBC) OPTIONS

### BAS NETWORK LEGEND

| | DESCRIPTION |
|---|---|
| MBC-yy-xx | MIDDLEWARE / BUILDING CONTROLLER (yy = FLOOR, xx = PANEL DESIGNATION ON THE FLOOR LEVEL) |
| ETH-OP | ETHERNET CONNECTIVITY - OWNER PROVIDED |
| TS-GUI | TOUCH-SCREEN GRAPHICAL USER INTERFACE |

### NOTE-1 BAS NETWORK LAYOUT GENERAL NOTES

1. BAS INSTALLER SHALL PROVIDE AND INSTALL CONDUIT/WIRE PER DIVISION 26 GUIDELINES (INCLUDING COMPRESSION FITTINGS ONLY) AND PER CONTROLLER MANUFACTURER'S RECOMMENDATION.
2. WEB-BASED SUPERVISOR SOFTWARE SHALL BE PROVIDED AND INSTALLED BY THE BAS INSTALLER.
3. APPLICATION OF OPEN SYSTEM (PROTOCOL AND LICENSING): SUBJECT TO THE DETAILED REQUIREMENTS PROVIDED THROUGHOUT THE SPECIFICATION, THE BAS AND DIGITAL CONTROL AND COMMUNICATIONS COMPONENTS INSTALLED, AS WORK OF THIS CONTRACT, SHALL BE AN INTEGRATED DISTRIBUTED PROCESSING SYSTEM UTILIZING THE FOLLOWING STANDARDS:

   a. PROTOCOL: BACNET- MS/TP
      I. SYSTEM COMPONENTS SHALL COMMUNICATE USING NATIVE BACNET IN ACCORDANCE WITH ASHRAE STANDARD 135 AND CURRENT ADDENDA AND ANNEXES, INCLUDING ALL WORKSTATIONS, ALL BACNET BUILDING CONTROLLERS (BC), ADVANCED APPLICATION CONTROLLERS (AAC) AND ALL APPLICATION SPECIFIC CONTROLLERS (ASC). GATEWAYS FROM OTHER COMMUNICATION PROTOCOLS ARE NOT ACCEPTABLE. ALL CONTROLLERS MUST BE BACNET TESTING LABS LISTED FOR THEIR REQUIRED PROFILE (BC, AAC OR ASC).
      II. ALTERNATIVE SOLUTIONS: IF A PROTOCOL OTHER THAN BACNET-MS/TP IS PROVIDED, THE BAS INSTALLER SHALL PROVIDE DETAILED ADVANTAGES, DISADVANTAGES, AND COMPETITIVE SERVICE PROVIDERS IN THE AREA (WITHIN A 50 MILE RADIUS OF THE BUILDING) FOR EOR AND OWNER APPROVAL.

   b. PROTOCOL-A:
      I. A PROTOCOL BY THE MANUFACTURER FOR THEIR RESPECTIVE VARIABLE REFRIGERANT FLOW SYSTEM. (PROTOCOL-A EXAMPLES: DIII-NET, M-NET, AND V-NET).

### NOTE-2 BUILDING-LEVEL NETWORK GENERAL NOTES

1. ALL 'NETWORK LAYOUT GENERAL NOTES' APPLY.
2. A DEDICATED VRF CONTROL PANEL SHALL BE PROVIDED AS SHOWN. EACH MIDDLEWARE/BC CONTROLLER PACKAGE SHALL PROVIDE NETWORK MANAGEMENT, DATA TRANSFER, AND DATA STORAGE TO BE SERVED TO A BAS SERVER FOR LONG TERM DATA COLLECTION AND ANALYSIS.
3. THE BAS INSTALLER SHALL PROVIDE DRIVERS AND LICENSES TO ACCOUNT FOR NODE REQUIREMENT WITH AN ADDITIONAL 20% CAPACITY FOR FUTURE EXPANDABILITY.
4. PROVIDE THE TECHNOLOGY/DATA INSTALLER THE BAS REQUIREMENTS DURING THE SUBMITTAL DOCUMENTATION PHASE FOR PROPER COORDINATION.
5. BAS TRUNK(S): THE MBC SHALL HAVE TWO RS485 PORTS FOR BACNET-MSTP EXPANDABILITY.
6. GRAPHICAL USER INTERFACE: THE BAS INSTALLER SHALL INCLUDE SOFTWARE AND LICENSES TO PROVIDE THE OWNER A COMPLETE SINGLE POINT ACCESS AND SINGLE USER INTERFACE. THE GRAPHICS SHALL BE CUSTOMIZED FOR BUILDING SPECIFIC OPERATIONS AND MUST BE USER FRIENDLY.
7. BUILDING CONTROLLER SHALL HAVE BACNET OVER ETHERNET.
8. PROVIDE ENCLOSURE WITH A MASTER BAS PANEL KEY.
7. THE BAS INSTALLER SHALL PROVIDE AND PROGRAM AN MBC WITH 36-MONTHS SOFTWARE MAINTENANCE AGREEMENT.

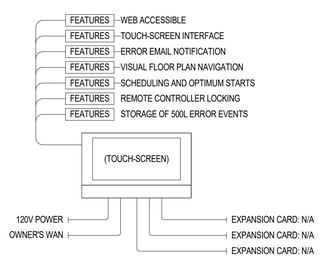
### NOTE-3 CONTRACTOR GENERAL NOTES

1. THE TERM "BAS INSTALLER" OR "INSTALLER" USED THROUGHOUT THE M7.0 SERIES SHEETS REFERS TO A QUALIFIED ELECTRICIAN THAT CAN INSTALL BAS NETWORKS AND EQUIPMENT. BAS INSTALLER IS NOT IN REFERENCE TO A BAS CONTROLS CONTRACTOR.
2. APPROVED BAS BUILDING LEVEL HARDWARE INSTALLER:
   a. BAS INSTALLER SHALL INSTALL ALL CONDUIT/WIRE AND LOOSE SHIPPED CONTROL DEVICES AS SHOWN ON M7.0 SHEETS
3. AT THE TIME OF BID SUBMISSION, THE BAS INSTALLER SHALL PROVIDE THE FOLLOWING:
   a. COMPLETE INFORMATION ON THEIR BAS (E.G. NETWORK ARCHITECTURE TO FIELD LEVEL CAPABILITIES)
   c. ORGANIZATION CHART FOR ACCOUNT (E.G. ACCOUNT MANAGER, PROJECT MANAGER, LEAD ENGINEER)
   d. PRELIMINARY BILL-OF-MATERIAL
4. AT THE TIME OF SUBMISSION, THE BAS INSTALLER SHALL PROVIDE, AT A MINIMUM:
   a. SHOP DRAWINGS AND SCHEDULES
   b. FLOOR PLAN LOCATIONS OF CONTROL DEVICES
   c. PRODUCT DATA SHEETS
   d. ORGANIZATION CHART FOR ACCOUNT (E.G. ACCOUNT MANAGER, PROJECT MANAGER, LEAD ENGINEER)
   e. POINT-TO-POINT CHECKOUT FORMS
   f. PRE-FUNCTIONAL CHECKOUT FORMS
   g. FUNCTIONAL PERFORMANCE FORMS
   h. TESTING PLAN
   i. TRAINING AGENDA

THE TERM "BAS INSTALLER" OR "INSTALLER" USED THROUGHOUT THE M7.0 SERIES SHEETS REFERS TO A QUALIFIED ELECTRICIAN THAT CAN INSTALL BAS NETWORKS AND EQUIPMENT. BAS INSTALLER IS NOT IN REFERENCE TO A BAS CONTROLS CONTRACTOR.

### VRF: NETWORK SMART / TOUCH-SCREEN CONTROLLER

1. ALL 'NETWORK LAYOUT' GENERAL NOTES APPLY. A BAS INSTALLER SHALL PROVIDE AND INSTALL CONDUIT/WIRE PER DIVISION 26 GUIDELINES FOR THE VRF COMMUNICATION NETWORK BETWEEN FCU, CU, AND TOUCHSCREEN EQUIPMENT.
2. PROTOCOL-A: A PROTOCOL BY THE MANUFACTURER FOR THEIR RESPECTIVE VARIABLE REFRIGERANT FLOW SYSTEM. (PROTOCOL-A EXAMPLES: DIII-NET, M-NET, AND V-NET).
3. THE TOUCHSCREEN CONTROLLER SHALL REQUIRE A STATIC IP ADDRESS.
4. THE BAS INSTALLER SHALL BE PRESENT AT THE TIME OF EQUIPMENT START-UP AND AOR/EOR FUNCTIONAL WALK-THROUGH.




### POINTS LIST

| POINT NAME | BAS HW | INTEGRATION VP | INTEGRATION FIELD INST | POINT TYPE DI | POINT TYPE AI | POINT TYPE DO | POINT TYPE AO | GRAPHICS | TREND | ALARM | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FCU | | | | | | | | | | | |
| SPACE TEMP | | • | | | • | | | • | • | • | 1 |
| SPACE SETPOINT | | • | | | • | | | • | • | | 1 |
| SPACE OCCUPANCY | | • | | • | | | | • | • | | 1 |
| SPACE UNOCCUPANCY | | • | | • | | | | • | • | | 1 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| UNIT ENABLE | | • | | | | • | | • | • | | 2 |
| UNIT STATUS | | • | | • | | | | • | • | • | 2 |
| UNIT FAULT ALARM | | • | | • | | | | • | • | • | 2 |
| UNIT TOTAL RUNTIME | | • | | | • | | | • | • | | 2 |
| UNIT % UTILIZATION | | • | | | • | | | • | • | | 2 |
| UNIT % IN CLG | | • | | | • | | | • | • | | 2 |
| UNIT % IN HTG | | • | | | • | | | • | • | | 2 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

NOTE:
1. PER INDOOR UNIT
2. PER CONDENSING UNIT

## GENERAL POINTS LIST

GENERAL NOTES:

1. PILOT RELAYS SHALL BE USED FOR ALL DIGITAL OUTPUT AND DIGITAL INPUT POINTS.

VRF NETWORK LAYOUT NOTES:

1. SPLICING OF COMMUNICATION CABLE BETWEEN DEVICES IS NOT ALLOWED.
2. VRF EQUIPMENT INTEGRAL CONTROLS SHALL BE PROVIDED BY THE EQUIPMENT PROVIDER. THE NETWORK WIRING AND LOOSE DEVICES SHALL BE INSTALLED BY THE BAS INSTALLER.
3. PROVIDE AND INSTALL ALL REQUIRED NETWORK WIRING, HUBS, ROUTERS, SWITCHES, AND INSTALLATION HARDWARE FOR THE VRF CONTROL SYSTEM.
4. CATEGORY 5E NETWORK CABLE SHALL BE UTILIZED FOR ALL PRIMARY AND SUPERVISORY LAN NETWORK WIRING.
5. ONE IP ADDRESS IS REQUIRED FOR THE VRF INTERFACE MODULE.
6. QUANTITIES ON MECHANICAL OR ELECTRICAL DRAWINGS SHALL SUPERCEDE THIS SCHEMATIC.
7. A BAS INSTALLER SHALL PROVIDE AND INSTALL CONDUIT/WIRE PER DIVISION 26 GUIDELINES FOR THE VRF COMMUNICATION NETWORK BETWEEN FCUS, CUS, HRUS, AND VRF INTEGRATOR EQUIPMENT.
8. THE BAS INSTALLER SHALL BE PRESENT AT THE TIME OF EQUIPMENT START-UP AND AOR/EOR FUNCTIONAL WALK-THROUGH.
9. THE DESIGN INTENT OF THE SYSTEM IS TO HAVE ALL CONTROL DEVICES REPRESENTED ON THE TOUCH SCREEN CENTRAL CONTROL PANEL AND WEB INTERFACE. INCLUDING BUT NOT LIMITED TO THE VRF CUs, FCUs, EFs AND SFs UNITS.

GENERAL NOTES

NOT FOR CONSTRUCTION

REVISION DATE
dbHMS

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

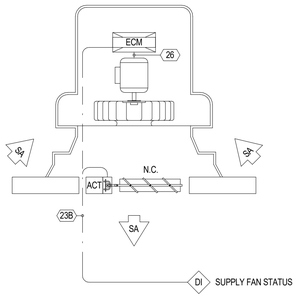
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M7.1

JONES & JONES ASSOCIATES ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

NOTE: BAS INSTALLER SHALL PROVIDE CURRENT TRANSDUCERS, AND RELAYS TO ACHIEVE SEQUENCE.



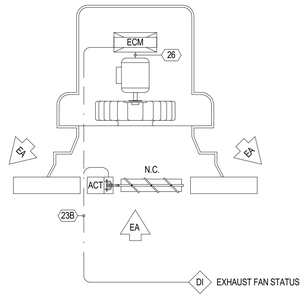

APPLICABLE FOR: SF 8.1, SF 8.2, SF 8.3, SF 8.4

SEQUENCE:

1. GENERAL: BAS SHALL MONITOR THE FAN'S ACTIVATION.
2. BAS WORKSTATION SHALL PRESENT FAN OPERATION AND USE THE STATUS INDICATION TO ACCUMULATE AND DISPLAY RUNTIME.

## 01 SUPPLY FAN MONITORING

NOTE: BAS INSTALLER SHALL PROVIDE CURRENT TRANSDUCERS, AND RELAYS TO ACHIEVE SEQUENCE.

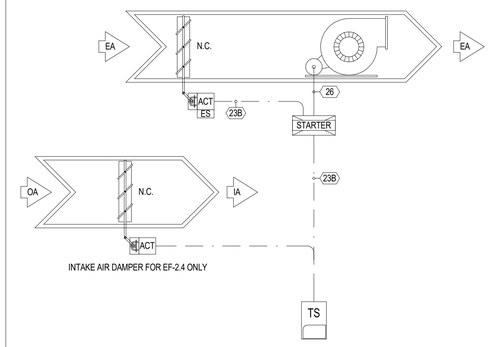



APPLICABLE FOR: EF 8.1, EF 8.2, EF 8.3, EF 8.4

SEQUENCE:

1. GENERAL: BAS SHALL MONITOR THE FAN'S ACTIVATION.
2. BAS WORKSTATION SHALL PRESENT FAN OPERATION AND USE THE STATUS INDICATION TO ACCUMULATE AND DISPLAY RUNTIME.

## 02 EXHAUST FAN MONITORING




INTAKE AIR DAMPER FOR EF-2.4 ONLY

APPLICABLE FOR: EF 2.4, EF 2.6

INITIAL OPERATIONAL SCHEDULE:

SPACE TEMP SETPOINT: 85°F ADJUSTABLE AT THERMOSTAT

SEQUENCE:

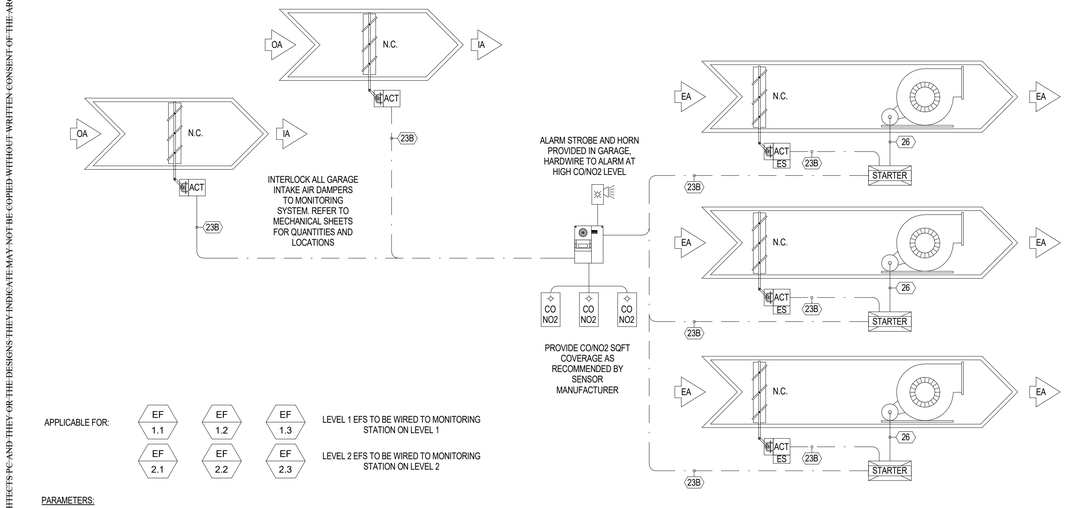
1. A WALL MOUNTED THERMOSTAT SHALL ENABLE THE FAN.
2. THE IA DAMPER SHALL OPEN WHEN THE FAN IS ENABLED.
3. WHEN THE FAN IS DISABLED, THE IA DAMPER SHALL CLOSE.

## 03 EXHAUST FAN W/ THERMOSTAT

### POINTS LIST

| POINT NAME | BAS HW | INTEGRATION | | POINT TYPE | | | | GRAPHICS | TREND | ALARM | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | VP | FIELD INST | DI | AI | DO | AO | | | | |
| **SUPPLY FAN MONITORING** | | | | | | | | | | | |
| FAN STATUS | ● | | | ● | | | | ● | | | 1 |
| | | | | | | | | | | | |
| **EXHAUST FAN MONITORING** | | | | | | | | | | | |
| FAN STATUS | ● | | | ● | | | | ● | | | 1 |
| | | | | | | | | | | | |

NOTE:
1. POINTS PROVIDED AS A MINIMUM TO BE DISPLAYED AT VRF TOUCH SCREEN.




APPLICABLE FOR: EF 1.1, EF 1.2, EF 1.3 — LEVEL 1 EFS TO BE WIRED TO MONITORING STATION ON LEVEL 1

EF 2.1, EF 2.2, EF 2.3 — LEVEL 2 EFS TO BE WIRED TO MONITORING STATION ON LEVEL 2

PARAMETERS:

SPACE CO SETPOINT: 25 PPM
SPACE CO LOW ALARM SETPOINT: 75 PPM
SPACE CO HIGH ALARM SETPOINT: 100 PPM

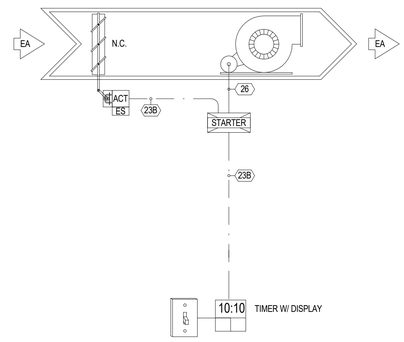
SPACE NO2 SETPOINT: 0.7 PPM
SPACE NO2 LOW ALARM SETPOINT: 1 PPM
SPACE NO2 HIGH ALARM SETPOINT: 1.2 PPM

SEQUENCE:

1. THE FANS SHALL RUN CONTINUOUSLY AT A LOW CFM SET BY THE BALANCER.
1. A WALL MOUNTED MONITORING STATION SHALL SWITCH THE EXHAUST FANS TO MAX CFM WHEN ANY SENSOR READS ABOVE THE SPACE CO OR NO2 SETPOINT
2. THE IA DAMPER SHALL OPEN WHEN THE FANS ARE SWITCHED TO HIGH CFM.
3. THE WALL MOUNTED MONITORING STATION SHALL SWITCH THE EXHAUST FANS TO LOW CFM WHEN ALL SENSORS READ BELOW THE SPACE CO OR NO2 SETPOINT.
4. THE IA DAMPER SHALL CLOSE WHEN THE FANS ARE SWITCHED TO LOW CFM.

4. LOW ALARM: WHEN THE CO OR NO2 LEVEL EXCEEDS THE LOW ALARM SETPOINT, THE STROBE SHALL BE ENABLED.
5. HIGH ALARM: WHEN THE CO OR NO2 LEVEL EXCEEDS THE HIGH ALARM SETPOINT, THE STROBE AND HORN SHALL BE ENABLED.

## 04 EXHAUST FANS W/ CO & NO2 MONITORING




APPLICABLE FOR: EF 2.5

SEQUENCE:

1. THE EXHAUST FAN SHALL HARDWIRED TO THE LIGHT SWITCH TO ENABLE WHENEVER THE LIGHT SWITCH IS TURNED ON.
2. CONTROLS INSTALLER SHALL PROVIDE AND INSTALL TIME DELAY CLOCK TO ALLOW THE EXHAUST FAN TO OPERATE 20 MIN (A) AFTER LIGHT SWITCH IS TURNED OFF.

## 05 EXHAUST FAN W/ THERMOSTAT

### GENERAL POINTS LIST

GENERAL NOTES:

1. PILOT RELAYS SHALL BE USED FOR ALL DIGITAL OUTPUT AND DIGITAL INPUT POINTS.

DRAWING NOTES:

NOTE 1 - NOT USED

## GENERAL NOTES

NOT FOR CONSTRUCTION

REVISION DATE
DbHMS


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

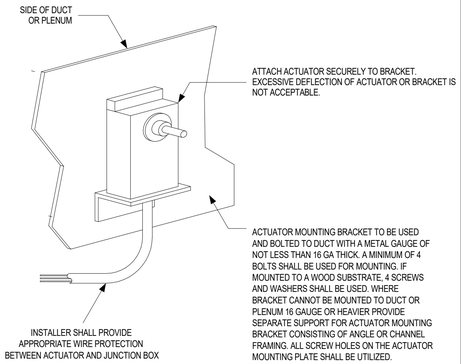
M7.2


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

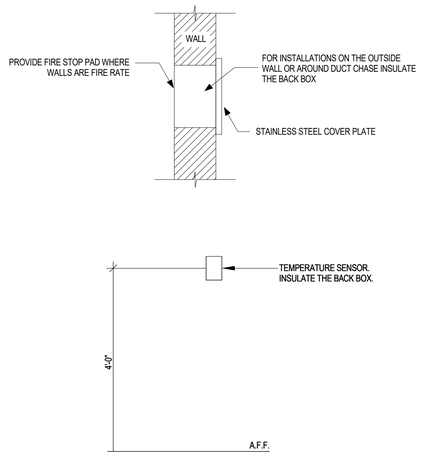
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




NOTES:

1. PROVIDE A MINIMUM OF 1 ACTUATOR FOR EVERY 25 SQUARE FEET OF DAMPER AREA. DAMPER ACTUATORS SHALL BE SELECTED WITH A MINIMUM SAFETY FACTOR OF 30% RELATIVE TO THE CALCULATED TORQUE REQUIRED TO OPERATE THE DAMPERS. BAS PROVIDER SHALL FURNISH THE REQUIRED QUANTITIES OF ACTUATORS TO DELIVER A FULLY FUNCTIONAL SYSTEM.
2. COORDINATE WITH ASSOCIATED CONTRACTOR WELL IN ADVANCE FOR SIZE AND PLACEMENT. PROVIDE WRITTEN DOCUMENTATION OF ACTUATOR LOCATIONS AND COORDINATION, INCLUDING SIGN OFFS WITH ASSOCIATED CONTRACTORS DURING THE SUBMITTAL PHASE
3. PROVIDE A MINIMUM OF 8" CLEARANCE OF ACTUATOR BODY AND SHAFT END.

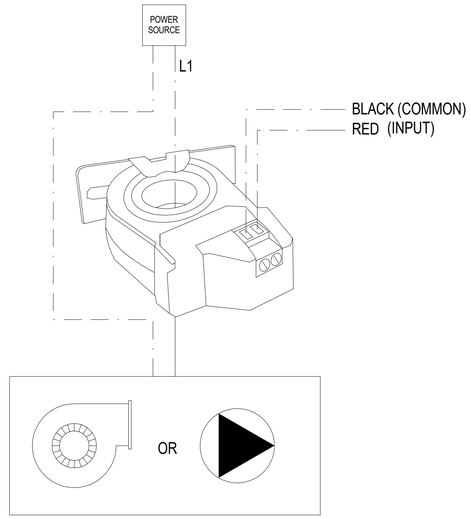
01 DAMPER ACTUATOR DETAIL



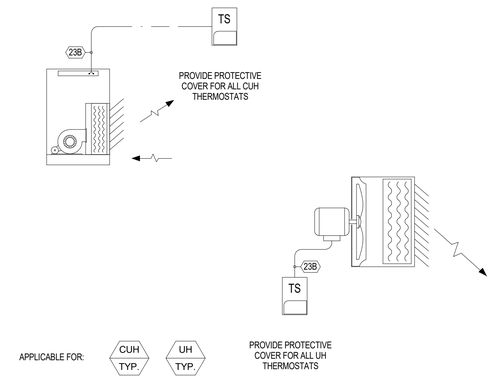

NOTES:

1. SEE FLOOR PLANS FOR SENSOR LOCATION.
2. OWNER, AOR AND/OR EOR SHALL RESERVE THE RIGHT FOR FINAL LOCATIONS. THE BAS PROVIDER SHALL INCLUDE FLOOR PLAN LAYOUTS OF ROOM SENSORS DURING THE SUBMITTAL PHASE.
3. SENSOR HEIGHTS SHALL BE INSTALLED AS SHOWN, UNLESS DIRECTED BY THE AOR AND/OR THE OWNER.
4. COMBINATION SENSORS SHALL BE UTILIZED UNLESS DIRECTED BY THE OWNER.

02 ZONE LEVEL TEMP SENSOR ELEVATIONS




03 CURRENT TRANSDUCER WIRING DETAIL (FAN OR PUMP)




INITIAL OPERATIONAL SCHEDULE:

SPACE TEMP SETPOINT: 65°F (A)

SEQUENCE:

1. A REMOTE MOUNTED THERMOSTAT SHALL OPERATE THE HEATER TO MAINTAIN THE SPACE TEMP. SETPOINT.

04 UNIT HEATER AND CABINET UNIT HEATER: ELECTRIC

05

06

07

08

NOT FOR CONSTRUCTION

| REVISION | DATE |
|---|---|
| 00-HMS | |

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

M7.3

JONES & JONES ASSOCIATES / ARCHITECTS PC

## SYSTEMS ABBREVIATIONS

| ABBREVIATION | SYSTEM NAME |
|---|---|
| DCW | DOMESTIC COLD WATER |
| DHW | DOMESTIC HOT WATER |
| DHWR | DOMESTIC HOT WATER RETURN |
| KW | KITCHEN WASTE |
| OW | OIL WASTE |
| OWV | OIL WASTE VENT |
| PW | PRESSURIZED WASTE |
| SAN | SANITARY |
| ST | STORM |
| STO | STORM OVERFLOW |
| V | VENT |

## SYMBOLS LIST

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|---|---|---|---|
| | ANGLE GATE VALVE | | NON-FREEZE WALL HYDRANT |
| | ALARM CHECK VALVE | | OS&Y VALVE |
| | BALANCING COCK | TS | OS&Y WITH TAMPER SWITCH |
| | BALANCING VALVE | | P-TRAP |
| | BALL VALVE / ISOLATION VALVE | | PRESSURE GAUGE |
| | CHECK VALVE | | PIPE CAP |
| | DETECTOR CHECK VALVE WITH BY-PASS METER | | PUMP (TYPICAL) |
| | DRY PIPE VALVE | | ROOF/YARD HYDRANT |
| | ELBOW DOWN | | SHUT-OFF VALVE |
| | ELBOW UP | | STRAINER |
| | FIRE ALARM BELL | | SIAMESE FIRE DEPT. CONNECTION |
| | FIRE DEPARTMENT VALVE | TS | TAMPER SWITCH |
| FEC-R/S | FIRE EXTINGUISHER RECESSED OR SURFACE | | TEE DN |
| | FLOOR CLEAN OUT | | TEE UP |
| | FLOW ARROW | | THERMOMETER |
| FS | FLOW SWITCH | | UNION |
| | GLOBE VALVE | | WALL FIRE PUMP TEST HEADER |
| | HOSE BIB | | WALL/PIPE CLEAN OUT |
| BF | INLINE BACK FLOW PREVENTER | | WALL SLEEVE |
| | MIXING VALVE | | |
| NS | NON SPRINKLED AREA | | |
| | NEW CONNECTION | | |

## PLUMBING ABBREVIATIONS

| KEY NAME | COMMENT |
|---|---|
| AFF | ABOVE FINISH FLOOR |
| AHU | AIR HANDLING UNIT |
| ARCH | ARCHITECTURAL |
| BFP | BACKFLOW PREVENTER |
| BLD | BUILDING |
| BOP | BOTTOM OF PIPE |
| CD | CONDENSATE DRAIN |
| CFH | CUBIC FEET PER HOUR |
| CI | CAST IRON |
| CL | CENTER LINE |
| CLG | CEILING |
| CM | COFFEE MAKER |
| CO | CLEANOUT |
| CSW | COLD SOFT WATER |
| CV | CHECK VALVE |
| D | DRAIN |
| DET | DETAIL |
| DFU | DRAINAGE FIXTURE UNITS |
| DIA, Ø | DIAMETER |
| DN | DOWN |
| DT | FOUNDATION DRAIN TILE |
| DV | DRAIN VALVE |
| DWG | DRAWING |
| DWS | DOMESTIC WATER SERVICE |
| EC | ELECTRICAL CONTRACTOR |
| EL | ELEVATION |
| ELEC | ELECTRICAL |
| EP | ELEVATOR PUMP |
| EQUIP | EQUIPMENT |
| ETR | EXISTING TO REMAIN |
| EWC | ELECTRIC WATER COOLER |
| EWH | ELECTRC WATER HEATER |
| FCO | FLOOR CLEANOUT |
| FD | FLOOR DRAIN |
| FF ELEV | FINISH FLOOR ELEVATION |
| FPC | FIRE PROTECTION CONTRACTOR |
| FT | FEET |
| GF | GLYCOL FILL STATION |
| GPM | GALLON PER MINUTE |
| HD | HUB DRAIN |
| ICW | INDUSTRIAL COLD WATER |
| KW | KILOWATT |
| LAV | LAVATORY |
| MAX | MAXIMUM |
| MB | MOP BASIN |
| MC | MECHANICAL CONTRACTOR |
| MECH | MECHANICAL |
| MIN | MINIMUM |
| MISC | MISCELLANEOUS |
| NC | NORMALLY CLOSED |
| NFWH | NON FREEZE WALL HYDRANT |
| NO | NORMALLY OPEN |
| NTS | NOT TO SCALE |
| P | PUMP |
| PC | PLUMBING CONTRACTOR |
| PCP | PUMP CONTROL PANEL |
| PG | PRESSURE GAUGE |
| PRV | PRESSURE REDUCING VALVE |
| PSI | POUNDS PER SQUARE INCH |
| PSIG | POUNDS PER SQUARE INCH GAUGE |
| PVC | POLYVINYL CHLORIDE |
| PW | PRESSURIZED WASTE |
| REX | REMOVE EXISTING |
| RP | RECIRCULATION PUMP |
| SAIN | SANITARY WASTE |
| SK | SINK |
| SP | SUMP PUMP |
| SPEC | SPECIFICATION |
| ST | STORM, PUMP DISCHARGE TO MEET PRESSURIZED WASTE PIPING REQUIREMENTS |
| T&P | TEMPERATURE & PRESSURE RELIEF VALVE |
| TBD | TO BE DETERMINED |
| TDH | TOTAL DYNAMIC HEAD |
| TEMP or T | TEMPERATURE |
| THX | THERMAL EXPANSION TANK |
| TMV | THERMOSTATIC MIXING VALVE |
| TP | TRAP PRIMER |
| TYP | TYPICAL |
| UNO | UNLESS NOTED OTHERWISE |
| V | VENT |
| VTR | VENT THRU ROOF |
| W/ | WITH |
| WC | WATER CLOSET |
| WCO | WALL CLEANOUT |
| WCO | YARD CLEANOUT |
| WHA | WATER HAMMER ARRESTER |
| WS | WATER SOFTENER |
| ° | DEGREE |
| °F | DEGREES FAHRENHEIT |
| ø | DIAMETER |

## GENERAL PLUMBING NOTES:

*APPLICABLE TO ALL PLUMBING DRAWINGS*

**1. DEFINITIONS**

A. "FURNISH" MEANS TO "SUPPLY" AND USUALLY REFERS TO DELIVERY OF AN ITEM OF EQUIPMENT TO THE PROJECT SITE, READY FOR INSTALLATION. EQUIPMENT TO THE PROJECT SITE, READY FOR INSTALLATION.

B. "INSTALL" MEANS TO SET IN PLACE, CONNECT AND PLACE IN FULL OPERATIONAL ORDER.

C. PROVIDE" MEANS TO "FURNISH" AND "INSTALL".

D. "FUTURE", "BY OTHERS", "REFER (DISCIPLINE) DIVISION" AND SIMILAR EXPRESSIONS INDICATE WORK THAT MAY BE PERFORMED UNDER THE CONTRACT DOCUMENTS BUT, NOT NECESSARILY UNDER THE DIVISION OR DISCIPLINE ON WHICH THE NOTE APPEARS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK WITH SUPPLIERS, SUBCONTRACTORS, EMPLOYEES, ETC. SHOULD CLARIFICATION OF ANY PORTION OF THE WORK BE REQUIRED, CONTACT THE ARCHITECT/ENGINEER PRIOR TO SUBMITTING BID.

**2. CODES**

A. THE WORK SHALL COMPLY WITH LATEST LOCAL BUILDING CODE. THIS WOULD INCLUDE, BUT IS NOT LIMITED TO, THE CURRENT CITY BUILDING CODE, AMENDMENTS, NFPA, ANSI, OSHA, AND ALL OTHER LOCAL OR MUNICIPAL BUREAUS AND DEPARTMENTS WHICH HAVE AUTHORITY OVER THE PROJECT; ANYTHING IN THESE CONTRACT DOCUMENTS NOT WITHSTANDING. THIS SHALL NOT BE CONSTRUED AS WAIVING COMPLIANCE WITH ANY REQUIREMENTS OF THE PLANS AND SPECIFICATIONS WHICH MAY BE IN EXCESS OF ANY REQUIREMENTS OF THESE CODES.

**3. INTERPRETATION OF THE DOCUMENTS**

A. THE PLUMBING CONTRACTOR SHALL CAREFULLY COMPARE THE DRAWINGS AND SPECIFICATIONS, CHECKING THE MEASUREMENTS AND CONDITIONS UNDER WHICH CONSTRUCTION IS TO BE IMPLEMENTED. FOR CLARIFICATION BETWEEN VARIOUS DRAWINGS AND/OR SPECIFICATIONS, THE DISPUTED ISSUE SHALL BE REFERRED TO THE ENGINEER BEFORE ANY WORK IS EXECUTED. THE PLUMBING CONTRACTOR SHALL STATE IN THEIR PROPOSAL ANY EXCEPTIONS NECESSARY TO MAKE THIS WORK A COMPLETE AND READY-TO-USE INSTALLATION. IF NOT SO-STATED IN THE PLUMBING CONTRACTOR'S PROPOSAL, ANY SUCH WORK WILL NOT BE CONSIDERED ADDITIONAL.

**4. COORDINATION**

A. THE PLUMBING DRAWINGS ARE DIAGRAMMATIC IN NATURE AND SHALL NOT BE SCALED. ROUTING OF PIPING, DUCTWORK, CONDUITS, RACEWAYS, ETC. AS SHOWN ON THE DRAWINGS DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING NOR EVERY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK. TO THIS EXTENT, DATA GIVEN ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED.

B. THE PLUMBING CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL EXISTING AND NEW REQUIRED WORK AND EQUIPMENT WITH THAT OF THE OTHER TRADES. WHERE THERE ARE POTENTIAL CONFLICTS, THE PLUMBING CONTRACTOR SHALL OBTAIN AND VERIFY EXACT LOCATIONS, MEASUREMENTS, LEVELS, SPACE REQUIREMENTS, ETC. AT THE SITE AND SHALL SATISFACTORILY ADAPT HIS WORK TO ACTUAL FIELD CONDITIONS. ALL CHANGES TO EXISTING OR NEW PLUMBING EQUIPMENT, PIPES, FITTINGS, ETC. SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY IN THE COMPLETION DATE OF THE PROJECT.

C. REFER TO ARCHITECTURAL/MECHANICAL DRAWINGS FOR PLANS, ELEVATIONS AND DETAILS INDICATING THE LOCATIONS OF CEILING ELEMENTS (E.G., LIGHTS, SPRINKLERS, DIFFUSERS, ETC.) AND WALL ELEMENTS. CEILING MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL CEILING TYPES IN ALL AREAS.

D. THE PLUMBING CONTRACTOR SHALL SUBMIT SKETCHES TO ARCHITECT FOR APPROVAL, PRIOR TO MAKING ANY BEAM PENETRATIONS.

E. COORDINATE & VERIFY WITH GENERAL CONTRACTOR AND RELATED DISCIPLINES PRIOR TO START OF ANY WORK, ALL WORK TO BE PERFORMED INSIDE OF THE 5'-0" BUILDING PERIMETER LIMITS OF CONSTRUCTION AND COORDINATED WITH OTHER TRADES TO MATCH WORK OUTSIDE.

F. ALL FLOOR MOUNTED EQUIPMENT NOT PROVIDED ON A SKID IS TO BE INSTALLED ON 4" THICK CONCRETE HOUSEKEEPING PAD.

G. THE PLUMBING CONTRACTOR SHALL GIVE ALL LOCATIONS AND DIMENSIONS OF ALL REQUIRED ACCESS PANELS TO THE GENERAL CONTRACTOR. GENERAL CONTRACTOR WILL SUBMIT TO THE ARCHITECT/ENGINEER FOR APPROVAL ALL FINISH REQUIREMENTS PRIOR TO INSTALLATION. THE PLUMBING CONTRACTOR SHALL FURNISH THE ACCESS PANELS. THE GENERAL CONTRACTOR SHALL INSTALL THE ACCESS PANELS.

H. ALL PIPING, VALVES AND DEVICES SHALL BE INSTALLED SO AS NOT TO OBSTRUCT ANY PORTION OF A WINDOW, DOORWAY, STAIRWAY OR PASSAGEWAY OR ANY PIECE OF MECHANICAL OR ELECTRICAL EQUIPMENT.

**5. SITE EXAMINATION**

A. THE PLUMBING CONTRACTOR SHALL CAREFULLY EXAMINE THE CONTRACT DOCUMENTS, VISIT THE SITE, EXAMINE THE PREMISES, AND MAKE A THOROUGH SURVEY OF THE CONDITIONS UNDER WHICH CONSTRUCTION WILL BE IMPLEMENTED. THE PLUMBING CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL CONDITIONS. THE SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. FAILURE TO DO SO SHALL NOT RELIEVE THE PLUMBING CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT. ANY LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE, WILL NOT BE RECOGNIZED.

B. WATER PRESSURE AND SUPPLY INFORMATION: FIELD VERIFY ALL PRESSURES AND CAPACITIES. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR FLOW TEST INFORMATION.

C. CATCH BASINS AND MANHOLES ARE THE RESPONSIBILITY OF THE SITE CONTRACTOR.

**6. PERMITS**

A. THE PLUMBING CONTRACTOR SHALL SECURE, OBTAIN AND PAY FOR ALL PERMITS, INSPECTIONS, TAXES, LICENSES, AND FEES TO ALL GOVERNMENT AGENCIES REQUIRED FOR THE EXECUTION AND COMPLETION OF THE PLUMBING WORK. SCHEDULING OF ALL REQUIRED INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR. THE PLUMBING CONTRACTOR SHALL PREPARE AND SUBMIT ALL SHOP DRAWINGS AS REQUIRED TO THE GOVERNMENTAL AGENCIES AND UTILITY COMPANIES FOR THEIR APPROVAL.

**7. SAFETY**

A. THE PLUMBING CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE SAFETY OF THE CLIENT'S EMPLOYEES, BUILDING EMPLOYEES AND GUESTS AS WELL AS THEIR OWN FORCES, BY ADEQUATELY PROTECTING ANY EXPOSED LIVE CABLE, EQUIPMENT, OR DEVICES THROUGHOUT THE COURSE OF THIS WORK.

B. ALL PLUMBING ELEMENTS THAT ARE IN CONTACT WITH POTABLE / DRINKING WATER SHALL BE NSF 61 CERTIFIED.

**8. CONTRACTOR'S DRAWING REVIEW**

A. ALL CONTRACTORS/BIDDERS SHALL HAVE RECEIVED A COMPLETE SET OF CONSTRUCTION DOCUMENTS FOR REVIEW AND REFERENCE TO WORK INDICATED. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR FINISHED CEILING HEIGHTS, AND LOCATION OF WALL, ROOF, AND FLOOR OPENINGS. PIPE LOCATE SERVICES SHALL BE REQUESTED AND COMPLETED BEFORE DISTURBANCE OF ANY EXISTING GRADE OR ON-GRADE CONSTRUCTION, SLAB DEMOLITION, OR OTHER ACTIVITIES THAT MAY IMPACT BURIED UTILITIES OR COMMUNICATION CONDUITS.

B. THE PLUMBING CONTRACTOR SHALL CONFIRM THAT PIPE LOCATE SERVICES HAVE BEEN COMPLETED AND THAT NO POTENTIAL CONFLICTS EXIST BEFORE EXISTING GRADE IS EXCAVATED OR EXISTING FLOORING DEMOLISHED, REGARDLESS OF THE LOCATION ON THE PROPERTY. THIS SHALL BE REVIEWED WITH THE OWNER'S PROJECT REPRESENTATIVE.

**9. STATEMENT OF WORK**

A. THE PLUMBING CONTRACTOR SHALL PROVIDE THE COMPLETE PLUMBING INSTALLATION OF WORK AS INDICATED IN THE CONSTRUCTION DOCUMENTS.

B. PRIOR TO COMMENCEMENT OF WORK, THE PLUMBING CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL, ANY SEQUENCE OF WORK, MOP'S (METHOD OF PROCEDURE) AND/OR COORDINATION SHOP DRAWINGS FOR THE INTENDED WORK.

C. THE PLUMBING CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY MATERIALS OR APPARATUS BELIEVED TO BE INADEQUATE, UNSUITABLE, VIOLATION OF LAWS, ORDINANCES, RULES OR REGULATIONS OF AUTHORITIES HAVING JURISDICTION; FAILURE TO DO SO BEFORE CONDUCTING WORK WILL NOT CONSTITUTE LACK OF RESPONSIBILITY ON THE PART OF THE CONTRACTOR, AND ANY LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE, WILL NOT BE RECOGNIZED.

D. DISRUPTION OF ANY EXISTING SERVICES SHALL BE COORDINATED WITH THE OWNER, AND SHALL BE PERFORMED AT A TIME AND MANOR SO AS TO CAUSE THE OWNER A MINIMUM OF INCONVENIENCE.

**10. WORK PERFORMANCE REQUIREMENTS**

A. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL CODES. THESE CODES SHALL BE FOLLOWED AS A MINIMUM PROVIDING HIGHER GRADES OF MATERIAL AND WORKMANSHIP WHERE REQUIRED BY THESE DOCUMENTS. PROVIDE ALL TESTS REQUIRED BY CODE.

B. ANY PENETRATIONS OR OPENINGS IN FIRE-RATED PARTITIONS (WALLS OR FLOORS) SHALL BE CLOSED AT THE END OF EACH WORK DAY, OR WHENEVER IT IS ANTICIPATED THAT NO FURTHER WORK WILL OCCUR IN THAT OPENING DURING THE DAY. THIS INCLUDES ALL TEMPORARY OPENINGS. CLOSURE SHALL BE IN COMPLIANCE WITH 3M FIREPROOFING TEMPORARY OPENINGS. CLOSURE SHALL BE IN COMPLIANCE WITH 3M FIREPROOFING END OF EACH WORK DAY.

C. ALL PIPING PASSING THRU FLOORS, WALLS, CEILINGS OR ROOF SHALL HAVE A DUCTILE IRON PIPE SLEEVE INSTALLED AROUND THE PIPE AND/OR INSULATION. SLEEVES THROUGH FOUNDATION WALLS SHALL BE AT LEAST 2 PIPE SIZES LARGER THAN THE SERVICE PIPE.

D. PROVIDE AN ESCUTCHEON PLATE AROUND PENETRATIONS EXPOSED TO VIEW. ESCUTCHEON PLATES SHALL BE LARGE ENOUGH TO COVER THE ENTIRE HOLE. ALL PENETRATIONS SHALL BE SEALED TO MAINTAIN THE WALL/FLOOR/ROOF FIRE & INSULATION RATINGS.

E. ALL TEMPORARY WALL AND FLOOR OPENINGS SHALL BE PROTECTED AND MARKED AT ALL TIMES.

F. PAINTING SHALL BE SCHEDULED SUCH THAT DRYING TIME OCCURS DURING NON-WORKING HOURS FOR OPERATIONS PERSONNEL COMFORT.

G. NO WELDING SHALL TAKE PLACE INSIDE OF OPERATING FACILITY WITHOUT THE WRITTEN AUTHORIZATION OF THE OWNER'S PROJECT REPRESENTATIVE. WELDING SHALL NOT TAKE PLACE WITHIN 5 FEET OF ANY TELECOM EQUIPMENT RACK WITHOUT ADEQUATE PROTECTIVE MEASURES, AS DEEMED APPROPRIATE BY THE OWNER'S PROJECT REPRESENTATIVE.

H. TRENCHING, EXCAVATION, AND BACKFILL OPERATIONS SHALL BE IN ACCORDANCE WITH ARTICLE 3, SECTION 306 OF THE CHICAGO BUILDING CODE.

**11. CUTTING AND PATCHING**

A. ALL CUTTING, DRILLING AND PATCHING OF MASONRY STEEL OR IRON WORK BELONGING TO THE BUILDING MUST BE DONE BY THE PLUMBING CONTRACTOR IN ORDER THAT HIS WORK MAY BE PROPERLY INSTALLED, BUT UNDER NO CONDITIONS MAY STRUCTURAL WORK BE CUT, EXCEPT AT THE DIRECTIONS OF THE ARCHITECT/ENGINEER OR THEIR REPRESENTATIVE. PATCH ALL DISTURBED WALLS, CEILINGS AND FLOORS TO MATCH ADJACENT SURFACES AS NECESSARY.

**12. FIRESTOPPING**

A. ALL PENETRATIONS IN WALLS, FLOORS, OR CEILINGS SHALL BE SUITABLY CLOSED UP AND SEALED WITH A FIRE-STOPPING COMPOUND LISTED IN THE MOST RECENT FACTORY MUTUAL RESEARCH CORPORATION (FMRC) APPROVAL GUIDE. ONLY PRODUCTS MANUFACTURED BY HILTI SHALL BE PREFERRED (NO SUBSTITUTIONS).

B. PIPES WHICH PASS THROUGH EXISTING AND NEW FIRE-RESISTIVE BARRIERS, INCLUDING FLOOR SLABS AND WALLS, SHALL BE FIRE SEALED TO MAINTAIN THE INTEGRITY OF THE FIRE RESISTIVE BARRIER. ALL EXPOSED PIPES PASSING THROUGH A WALL, CEILING OR FLOOR SHALL HAVE CHROME ESCUTCHEON PLATES.

**13. TEMPORARY PROVISIONS**

A. THE PLUMBING CONTRACTOR SHALL PROVIDE TEMPORARY WATER SUPPLY MEANS DURING CONSTRUCTION. THE PLUMBING CONTRACTOR SHALL COORDINATE TEMPORARY POWER PROVISIONS WITH THE ELECTRICAL CONTRACTOR. THE PLUMBING CONTRACTOR SHALL PERFORM ALL COORDINATION WITH THE OWNER AND/OR LANDLORD AND UTILITY COMPANY.

B. THE PLUMBING CONTRACTOR SHALL PROVIDE TEMPORARY DRAINAGE PROVISIONS BETWEEN THE START OF CONSTRUCTION UNTIL SUCH TIME THAT THE BUILDING CAN DRAIN, AS INDICATED IN THE CONSTRUCTION DOCUMENTS PLUMBING CONTRACTOR SHALL COORDINATE ALL TEMPORARY POWER PROVISIONS WITH THE ELECTRICAL CONTRACTOR. THE PLUMBING CONTRACTOR SHALL PERFORM ALL COORDINATION WITH THE OWNER AND/OR LANDLORD AND UTILITY COMPANY.

**14. EQUIPMENT**

A. THE PLUMBING CONTRACTOR SHAL PROVIDE PROPER WORKING CLEARANCE IN FRONT AND AROUND EQUIPMENT PER THE MANUFACTURERS RECOMMENDATIONS.

**15. DOMESTIC WATER**

A. ALL WATER SUPPLIED TO EQUIPMENT BY OTHER TRADES SHALL HAVE AN ISOLATION VALVE AND AN APPROVED BACKFLOW PREVENTER WHICH SHALL BE SUPPLIED AND INSTALLED BY THE PLUMBING CONTRACTOR.

B. ALL DOMESTIC WATER SUPPLIES TO FIXTURES AND EQUIPMENT SHALL HAVE AIR CHAMBERS OR MANUFACTURED WATER HAMMER ARRESTORS.

C. ALL WATER SUPPLY AND RETURN PIPING SHALL BE INSULATED, INCLUDING ALL PIPING ABOVE CEILINGS, IN PIPE CHASES, AND IN WALLS. REFER TO SPECIFICATIONS FOR TYPE AND THICKNESS OF INSULATION. PROVIDE VALVE HANDLE EXTENSIONS ON ALL INSULATED PIPING.

D. ALL HOT WATER SUPPLY PIPING SHALL BE INSTALLED TO COMPENSATE FOR EXPANSION OF THE PIPE BY INSTALLING PIPE ANCHORS, GUIDES, EXPANSION JOINTS, PIPE OFFSETS, OR LOOPS. EXPANSION JOINTS ARE TO ACCOMMODATE THREE AXIS OF MOVEMENT.

E. ALL INTERIOR AND EXTERIOR HOSE BIBS / WALL HYDRANTS, ROOF HYDRANTS, ETC. SHALL RECEIVE WATER SUPPLY DOWNSTREAM OF A STRAINER AND DOUBLE CHECK VALVE TYPE BACKFLOW PREVENTER INSTALLED INSIDE THE BUILDING AT NO MORE THAN 48" ABOVE THE FLOOR AND ACCESSIBLE TO MAINTENANCE.

F. MOP SINKS / SERVICE SINKS WITH HOSE THREADED FAUCETS SHALL HAVE A VACUUM BREAKER ON THE SUPPLY AFTER THE VALVES, LOCATED 7'-6" ABOVE FINISHED FLOOR

G. PROVIDE DUAL CHECK VALVE FOR ALL FEEDS TO ICE MAKERS, COFFEE MAKERS, AND DISHWASHERS.

H. PROVIDE A REDUCED PRESSURE ZONE BACKFLOW PREVENTER FOR ALL CHEMICAL DISPENSING SYSTEMS AT MOP/SERVICE SINKS AND THREE COMPARTMENT SINKS.

I. EACH GROUP OF FIXTURES SUPPLIED WITH A BRANCH FROM THE MAIN SHALL HAVE AN ISOLATION VALVE NEAR THE POINT OF CONNECTION TO THE MAIN. ALL EQUIPMENT SUPPLIED BY COLD AND/OR HOT WATER SHALL HAVE AN ISOLATION VALVE ON THE WATER SUPPLY.

J. PITCH ALL SUPPLY AND RETURN LINES TO DRAIN COMPLETELY THROUGH LOWER EQUIPMENT, FIXTURES, UNIONS, AND DRAIN VALVES.

K. PROVIDE MANUAL AIR VENTS AIR A THE TOP OF ALL COLD AND/OR HOT WATER MAINS.

L. INSTALL A 1/2" DRAIN VALVE WITH 3/4" HOSE THREAD AND VACUUM BREAKER OUTLET IN ALL MAIN PIPING RUNS WHICH WOULD NOT BE ABLE TO DRAIN THRU A LOWER PIECE OF EQUIPMENT.

M. ALL WATER DISTRIBUTION SYSTEMS, POTABLE AND NON-POTABLE, SHALL BE IDENTIFIED BY COLOR MARKING OR METAL TAGS AS REQUIRED BY ASME A13.1.

N. COPPER PIPE ABOVE GROUND SHALL BE (TYPE L) MINIMUM, SWEAT WITH WROUGHT FITTINGS.

O. PROVIDE UNIONS AND/OR FLANGES TO DISCONNECT ALL PERTINENT EQUIPMENT INCLUDING BUT NOT LIMITED TO PUMPS, WATER HEATERS, TANKS, FILTERS AND VALVE TRAINS.

P. ALL TESTABLE BACKFLOW DEVICES SHALL BE LOCATED NO MORE THAN 5' ABOVE THE FLOOR.

Q. ALL EXPANSION JOINTS ARE TO BE MSDE ACCESSIBLE AND MAY BE USED WHERE NECESSARY TO PROVIDE FOR EXPANSION OR CONTRACTION OF THE PIPING.

**16. INSULATION**

A. ALL DOMESTIC HOT & COLD WATER-PIPING SHALL BE INSULATED WITH HEAVY DENSITY, FIBERGLASS PIPE INSULATION 1" THICK, WITH FLAME RETARDANT VAPOR BARRIER JACKET, AS MANUFACTURED BY OWENS-CORNING OR JOHNS-MANVILLE.

B. STORM DRAIN-SUSPENDED PIPING: HEAVY DENSITY, FIBERGLASS PIPE INSULATION 1/2" THICK, WITH FLAME RETARDANT VAPOR BARRIER JACKET, AS MANUFACTURED BY OWENS-CORNING OR JOHNS-MANVILLE. INSULATE ALL INTERIOR HORIZONTAL & VERTICAL LEADERS FROM ROOF DRAINS, AS WELL AS ROOF DRAIN BODY, TO PREVENT CONDENSATION.

**17. SANITARY, STORM & VENT**

A. ALL SANITARY AND STORM PIPING SHALL SLOPE AT 1/4" PER FOOT FOR 2-1/2" AND SMALLER, AT 1/8" PER FOOT FOR 3" TO 6", AND 1/16" FOR 8" AND LARGER PIPING UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

B. ALL HORIZONTAL DRAINS SHALL BE PROVIDED WITH CLEANOUTS LOCATED NO MORE THAN 50 FEET APART FOR DRAINS 4" OR LESS, 100 FEET FOR DRAINS 6" & 8", AND 150 FEET FOR DRAINS 10" OR LARGER. CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE OF DIRECTION OF THE DRAINAGE PIPE GREATER THAN 45 DEGREES.

C. ALL SOIL STACKS SHALL RUN FULL SIZE THROUGH THE ROOF.

D. THE DIAMETER OF ALL VENTS SHALL BE AT LEAST ONE-HALF THE DIAMETER OF THE DRAIN LINE SERVED BUT NOT LESS THAN 1-1/2".

E. RUN NEW WASTE PIPES AS CLOSE AS POSSIBLE TO UNDERSIDE OF FLOOR SLAB AND VENT PIPING AS CLOSE AS POSSIBLE TO SLAB ABOVE.

F. IN AREAS SUCH AS MECHANICAL/ELECTRICAL ROOMS, WHERE A TRAP SEAL IS SUBJECT TO LOSS BY EVAPORATION, PROVIDE A DEEP SEAL TRAP (CONSISTING OF A 4-INCH SEAL), A TRAP FILLED WITH MINERAL OIL, OR A TRAP PRIMER PER MANUFACTURERS REQUIREMENTS

G. ELEVATOR PIT PUMP DISCHARGE SHALL BE PIPED TO AN OPEN SITE DRAIN IN A JANITORS CLOSE OR A MECHANICAL ROOM.

H. THE PLUMBING CONTRACTOR SHALL PROVIDE OPEN SITE DRAINS JANITORS CLOSETS OR MECHANICAL ROOMS FOR DRAINING DOWN THE MAIN SPRINKLER RISERS, AND/OR COMBINATION RISERS. COORDINATE THE DISCHARGE RATE OF THE FIRE WATER RISERS WITH THE FIRE PROTECTIONS CONTRACTOR.

I. ALL HORIZONTAL DRY VENTS ARE TO BE INSTALLED AT ANGLE NO LESS THAN 45° FROM THE VERTICAL.

J. DRAINAGE AND VENT SYSTEMS SHALL BE PRESSURE TESTED USING WATER OR AIR.

K. THE PLUMBING CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL FLOOR DRAINS SUBJECT TO EVAPORATION TO PREVENT THE LOSS OF THE TRAP SEAL.

L. ALL VERTICAL PIPING SHALL BE SECURED AT INTERVALS AND MAINTAINED IN ALIGNMENT WITH SUPPORS AT INTERVALS OF 10' TO CARRY THE WEIGHT OF THE PIPE AT MAXIMUM CAPACITY. TRAP ARMS IN EXCESS OF 3' SHALL BE SUPPORTED AS CLOSE AS POSSIBLE TO THE TRAP.

M. ALL STACKS SHALL BE SUPPORTED AT THEIR BASE AND EACH FLOOR BY FLOOR CLAMPS. PLASTIC WASTE STACKS WITH HANGERS AND CLMAPS SHALL NOT COMPRESS, DISTORT, CUT, OR ABRADE THE PIPE. WIRE PIPE HOOKS SHALL NOT BE USED TO SUPPORT PLASTIC PIPE.

**18. MATERIALS**

A. UNDERGROUND STORM, DRAINAGE, AND VENT PIPE SHALL BE: CAST-IRON PIPE, HUB SPIGOT: ASTM A-74; ASTM A-888; CISPI 301

B. ABOVE-GROUND STORM, DRAINAGE AND VENT PIPE SHALL BE: CAST-IRON PIPE, HUB & SPIGOT: ASTM A-74; CISPI 301; ASTM A888 COPPER OR COPPER-ALLOY PIPE: ASTM B-42; ASTM B-302 COPPER OR COPPER-ALLOY TUBING (TYPE K OR L): ASTM 75; ASTM B-88; ASTM B-251; ASTM B-306 GALVANIZED STEEL PIPE: ASTM A-53

C. UNDERGROUND WATER SERVICE PIPE SHALL BE: COPPER OR COPPER-ALLOY TUBING (TYPE K); ASTM B-74; ASTM B-88; ASTM B-251; ASTM B-447 DUCTILE IRON WATER PIPE (CEMENT LINED); AWWA C-151; AWWA C-115

D. ABOVE-GROUND WATER DISTRIBUTION PIPE SHALL BE: ALL SIZES - COPPER OR COPPER-ALLOY TUBING (TYPE K OR L); ASTM B-74; ASTM B-88; ASTM B-251; ASTM B-4476" AND LARGER - GALVANIZED STEEL PIPE: ASTM A-53

E. ABOVE-GROUND SOLAR PIPE SHALL BE: ALL SIZES - BRAZED COPPER OR COPPER- ALLOY PIPING (TYPE K OR L).

F. GASKETED BELL AND SPIGOT C.I. PIPING IS RESERVED FOR UNDERGROUND USE. ABOVE GROUND SHALL BE CAULKED JOINTS.

G. COMMON UNDERGROUND WATER SERVICE PIPING TO DOMESTIC AND FIRE PROTECTION WATER SUPPLY SHALL BE DUCTILE IRON PIP AND PIPE FITTINGS: AWWA C-151; AWWA C-110; POLYETHYLENE PE PIPE AND FITTING: AWWA C-906; OR POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS: AWWA C-900.

H. EXPANSION JOINT MATERIAL SHALL CONFORM TO THE TYPE OF THE PIPING ON WHICH IT IS INSTALLED.

**19. ADDITIONAL REQUIREMENTS**

A. FOR EXACT LOCATION OF PLUMBING FIXTURES, REFER TO ARCHITECTURAL PLANS AND ELEVATIONS.

B. PROVIDE HANGERS AND SUPPLEMENTAL SUPPORT STEEL FOR ALL EQUIPMENT AND PIPING. ALL WATER SUPPLY PIPING SHALL BE SUSPENDED WITH CLEVIS AND/OR TRAPEZE PIPE HANGERS WITH PIPE COVERING PROTECTION SADDLES OR SHEET METAL INSULATION SHIELDS.

C. PIPE HANGARS ON INSULATED PIPING SHALL HAVE BLOCKING OR OTHER MEANS TO SUPPORT THE PIPE WITHOUT COMPRESSING THE INSULATION OR COMPROMISING THE VAPOR BARRIER.

D. PROVIDE ACCESS TO ALL VALVES AND SYSTEM COMPONENTS REQUIRING ACCESS. ALL PIPING ACCESSORIES AND EQUIPMENT IN MECHANICAL ROOMS SUCH AS ISOLATION VALVES, RECIRCULATION PUMPS, ETC. SHALL BE INSTALLED AT A REASONABLE HEIGHT IN ORDER TO FACILITATE MAINTENANCE.

E. EXCEPT FOR PIPING ASSOCIATED WITH THE SUMP PUMPS, PLUMBING PIPING SHALL NOT BE ROUTED THROUGH OR OVER ANY ELEVATOR SHAFTS, ELEVATOR EQUIPMENT AREAS, ELECTRICAL ROOMS/EQUIPMENT AREAS, OR COMMUNICATIONS AREAS.

F. IN ANY CASE WHERE NEW EQUIPMENT IS INSTALLED AND HAS TO BE CONNECTED TO EXISTING SYSTEMS, THE PLUMBING CONTRACTOR SHALL VERIFY THE CAPACITIES AT THE INDICATED POINT OF CONNECTION. SHOULD THE EXISTING CONDITION REQUIRE THE NEW BRANCH TO BE ROUTED TO ANOTHER LOCATION, THE PLUMBING CONTRACTOR SHALL PERFORM THIS WORK AS PART OF THEIR CONTRACT.

G. FACTORY MUTUAL RESEARCH CORPORATION APPROVED EQUIPMENT SHALL BE PROVIDED WHERE APPLICABLE AND DETAILS OF THE INSTALLATIONS SHALL CONFORM TO FACTORY MUTUAL' S RECOMMENDED PRACTICES

H. CONTRACTOR TO PROVIDE THRUST FORCE CALCULATIONS. THRUST BLOCK TO BE SIZED AND INSTALLED ACCORDING TO NFPA 24 STANDARDS.

I. UNDERGROUND PIPING, THRUST BLOCKS, AND RESTRAINTS SHALL BE VISUALLY INSPECTED PRIOR TO BEING COVERED. THE LOCAL AUTHORITY HAVING JURISDICTION SHALL BE CONSULTED ON WHAT RELEVANT DEPARTMENT SHALL COMPLETE THE INSPECTION. A COPY OF THE INSPECTION SHALL BE PROVIDED TO THE LOCAL FIRE OFFICIAL PRIOR TO THE FLUSHING AND HYDROSTATIC TEST

J. UNDERGROUND FLUSHING TO BE COMPLETED PRIOR TO THE FIRE SERVICE MAIN BEFORE THE BACKFLOW ASSEMBLY IS INSTALLED AND PUT INTO SERVICE. THE UNDERGROUND PIPING FLUSHING FLOW RATE SHALL BE NOT LESS THAN ONE OF THE OPTIONS LISTED IN NFPA 24. A COPY OF THE TESTING DOCUMENTS IS TO BE PRESENTED TO THE LOCAL FIRE OFFICIAL AT THE COMPLETION OF THE TEST

K. UNDERGROUND HYDROSTATIC TO BE COMPLETED PRIOR TO THE FIRE SERVICE MAIN FROM BEING COVERED. THE PIPING SHALL BE HYDROSTATICALLY TESTED AT TWO HUNDRED (200) PSI AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR TWO (2) HOURS.

L. ALL PUMP INSTALLATION PLANS TO BE APPROVED BY LOCAL WATER SERVICE DEPARTMENT PRIOR TO INSTALLATION.

**20. ACCESSIBILITY**

A. PER ILLINOIS ACCESSIBILITY CODE, CURBS IN ACCESSIBLE SHOWER STALLS SHALL BE NO HIGHER THAN 1/2 INCH. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING A RECESSED FLOOR, IF REQUIRED, IN ORDER TO MEET THIS REQUIREMENT. COORDINATE FLOOR/SHOWER BASE HEIGHT WITH ARCHITECTURAL.

B. THE HOT WATER SUPPLY FOR EACH LAVATORY AND SINK IS TO BE INSULATED. THE P-TRAP AND WASTE DRAIN PIPE FOR EACH ADA ACCESSIBLE LAVATORY AND SINK IS TO BE INSULATED.

**21. AS-BUILT DRAWINGS**

A. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL "AS-BUILT" DRAWINGS SCALED 1/4" MINIMUM AND SUBMIT FOR APPROVAL TO THE ARCHITECT/ENGINEER.

B. SUBMIT ASSEMBLED PRINTED INSTRUCTIONS FOR THE OPERATION AND MAINTENANCE OF EACH ITEM INSTALLED ALONG WITH EQUIPMENT CUTS AND CONTROL WIRING DIAGRAMS.

**GENERAL NOTE: NOT ALL SYMBOLS, NOTES AND ABBREVIATIONS ARE APPLICABLE TO THIS PROJECT**

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISIONS | 06.30.2021 |

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

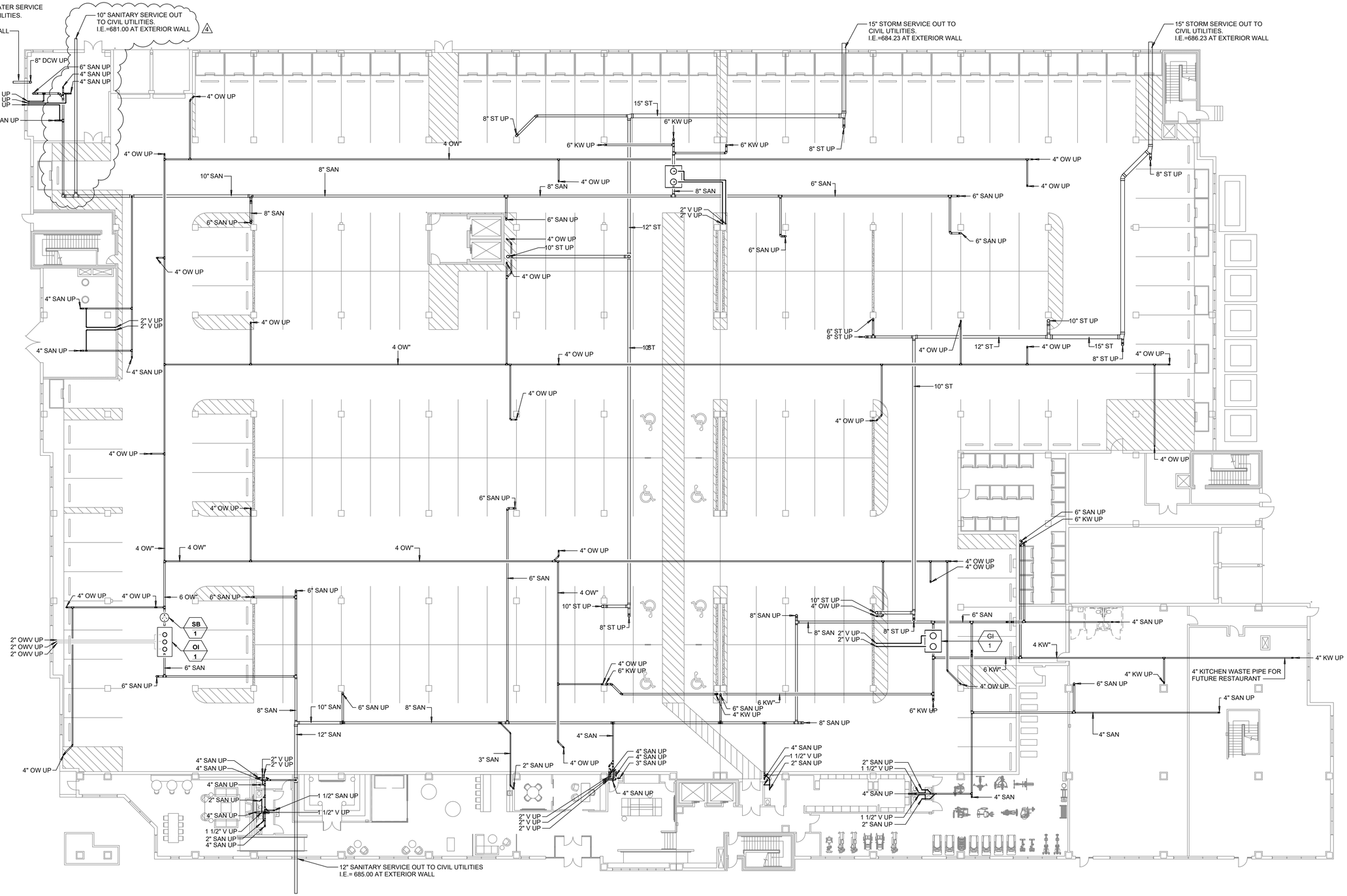
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P0.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **UNDERGROUND PLUMBING PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
PERMIT REVISIONS 12.20.2021
PERMIT REVISIONS 06.30.2021
SANITARY LINE REVISIONS 12.24.2024

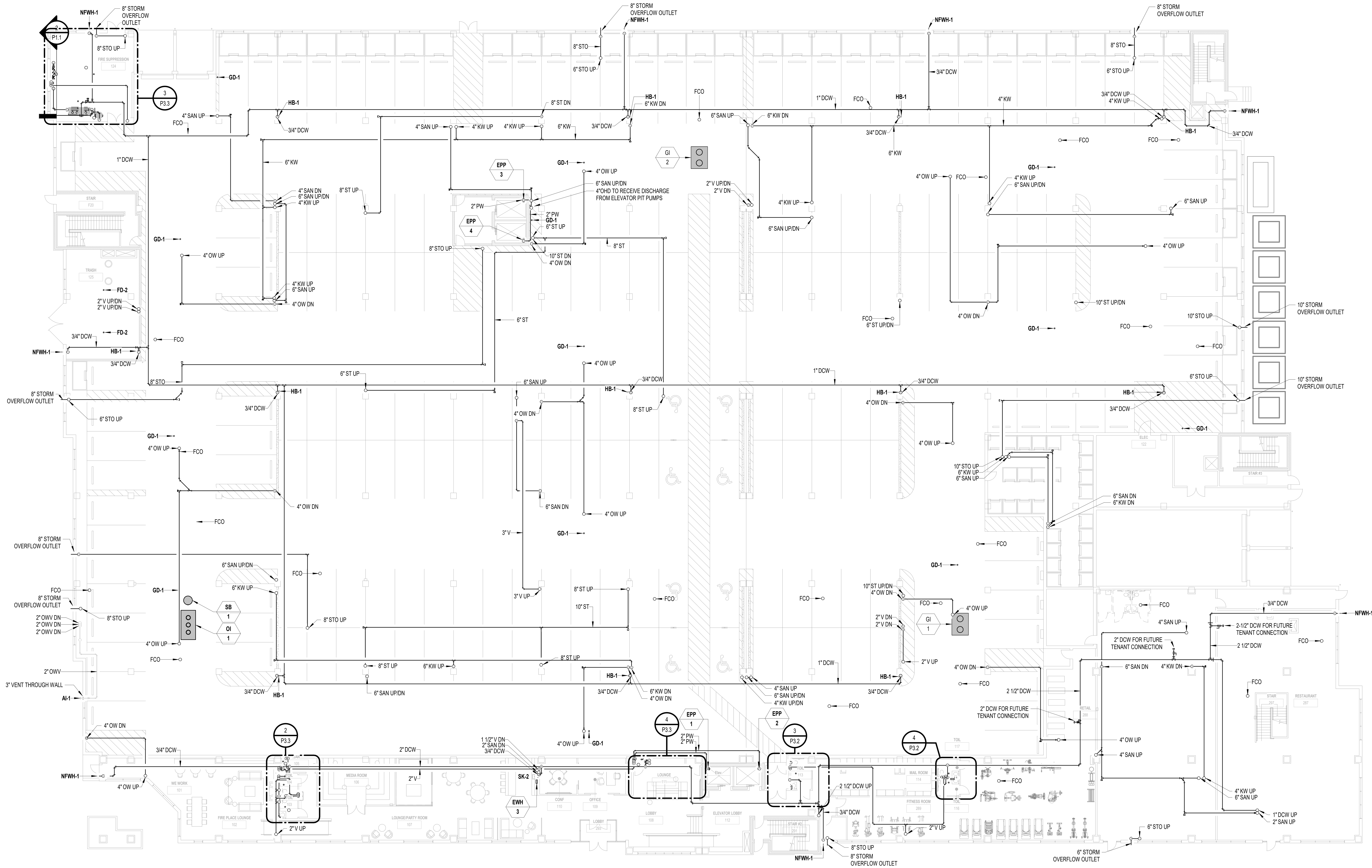
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCH ITECT
RLJ JR
TEC NH I CI ANS
JMB
COMMI SSION NUMBER
2793
D ATE
15 APR 2021

P1.0

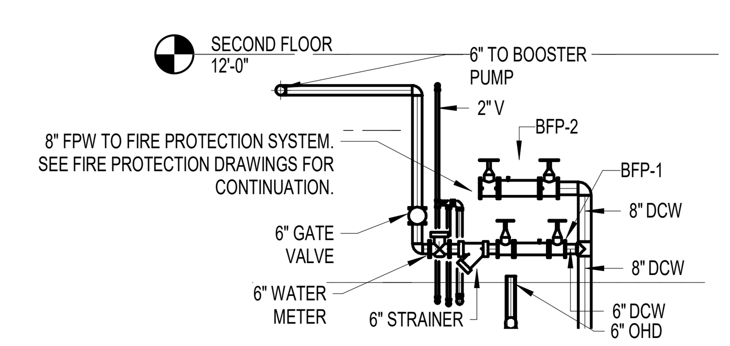
JONES & JONES ASSOCIATES ARCHITECTS PC




1 **FIRST FLOOR - PLUMBING PLAN**

1/16" = 1'-0"

0' 4' 8' 16' 32'




2 **WATER SERVICE**

NTS

N

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISIONS | 06.30.2021 |

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

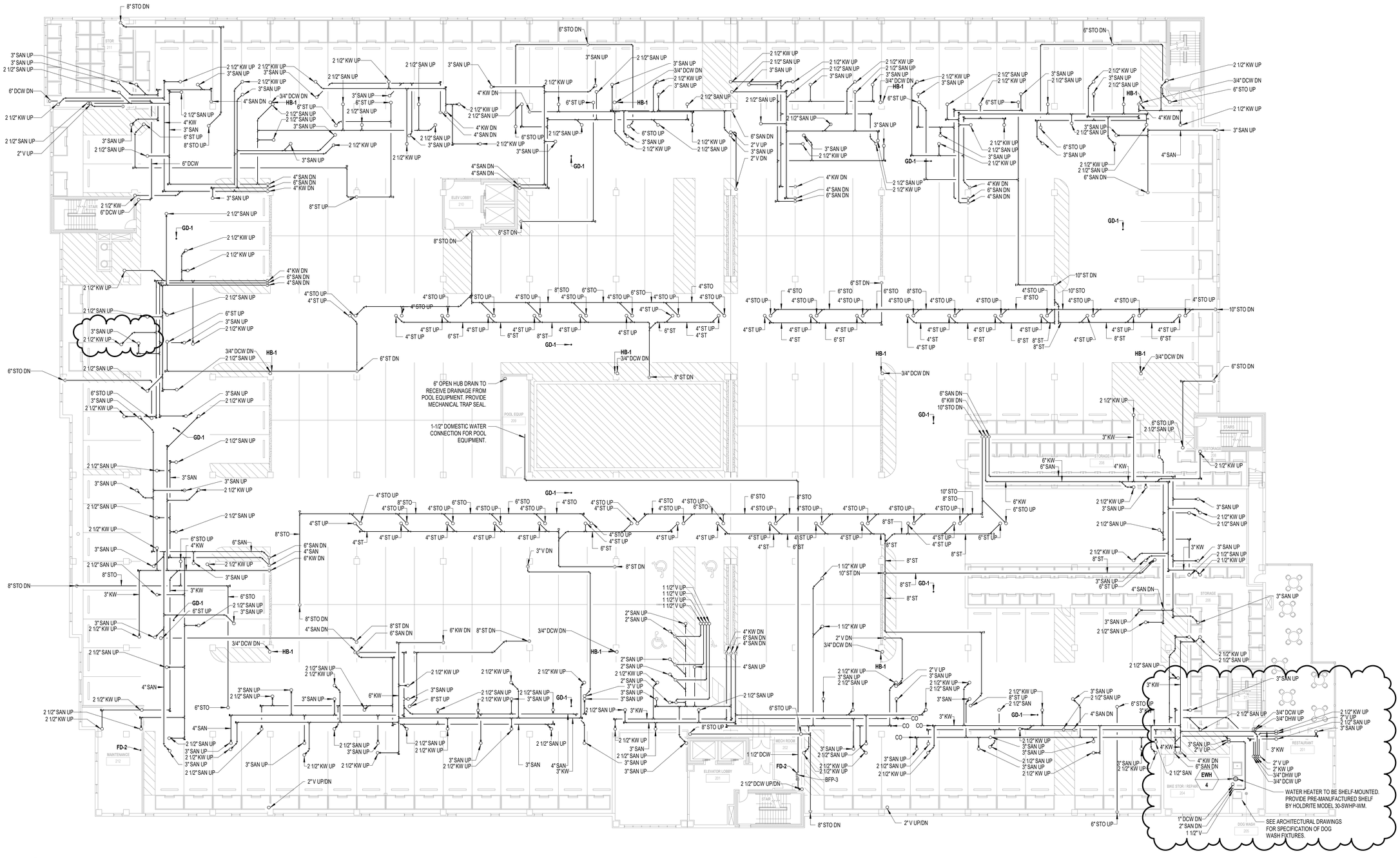
# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

# P1.1

JONES & JONES ASSOCIATES ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **SECOND FLOOR-PLUMBING_ PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| REVISED PER COMMENTS | 06.02.2021 |
| IFC | 08.23.2021 |

dbHMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P1.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

8" STO UP/DN
6" DCW DN
NFWH-1
1 1/2" V
3/4" DCW
2" V DN
6" STO UP/DN
3/4" DCW
NFWH-1
6" STO UP/DN
2" V DN
NFWH-1

RD-2 ORD-2 1650 S.F.
RD-2 ORD-2 1615 S.F.

1 THIRD FLOOR-PLUMBING_ PLAN
1/16" = 1'-0"

0' 8' 16' 32' 64'

N

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| REVISED PER COMMENTS | 06.02.2021 |
| IPC | 08.23.2021 |

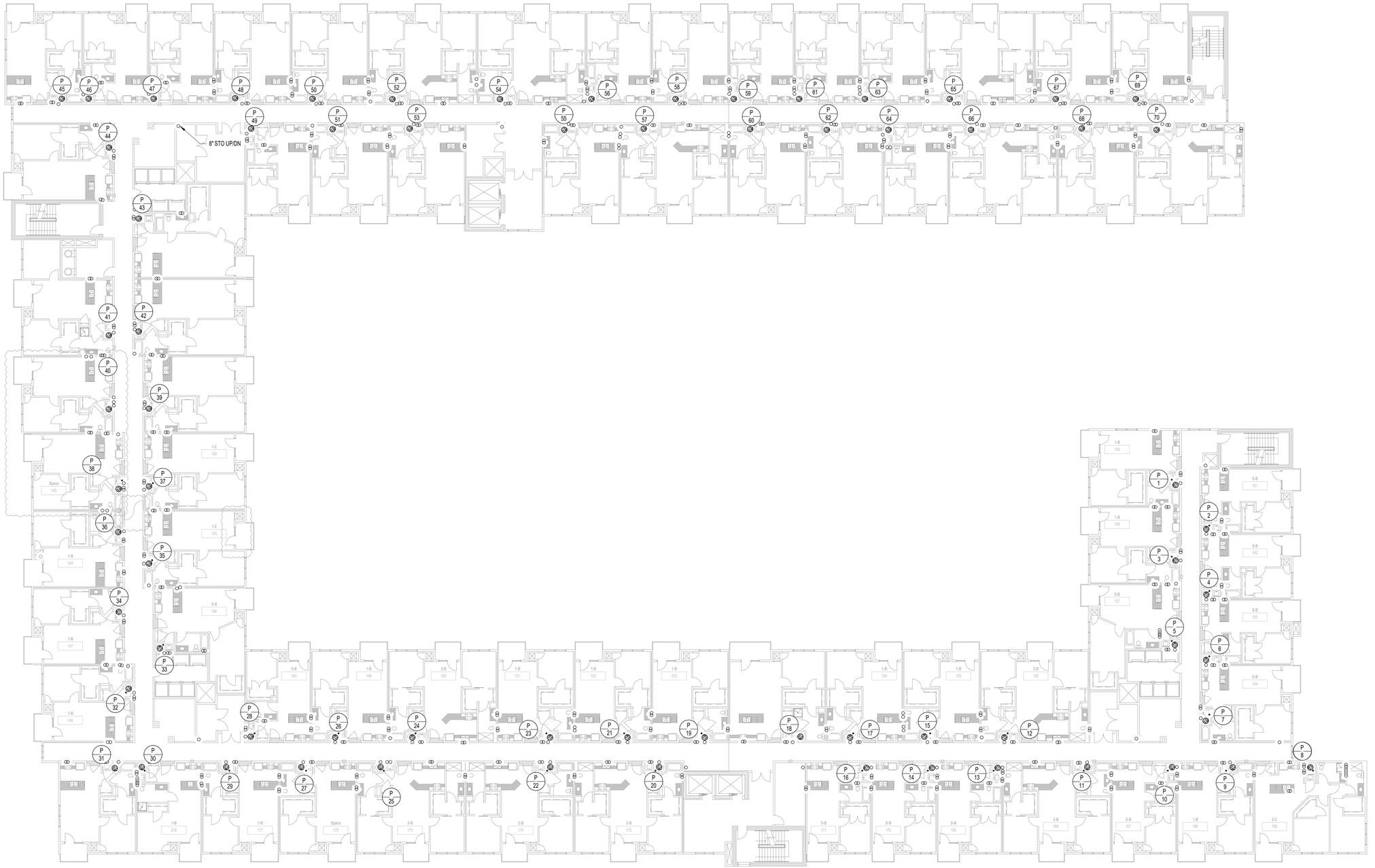
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P1.3

JONES & JONES ASSOCIATES ARCHITECTS PC




1 **TYPICAL FOURTH THROUGH SIXTH FLOOR-PLUMBING PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

N

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RESUBMIT | 09.10.2021 |


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

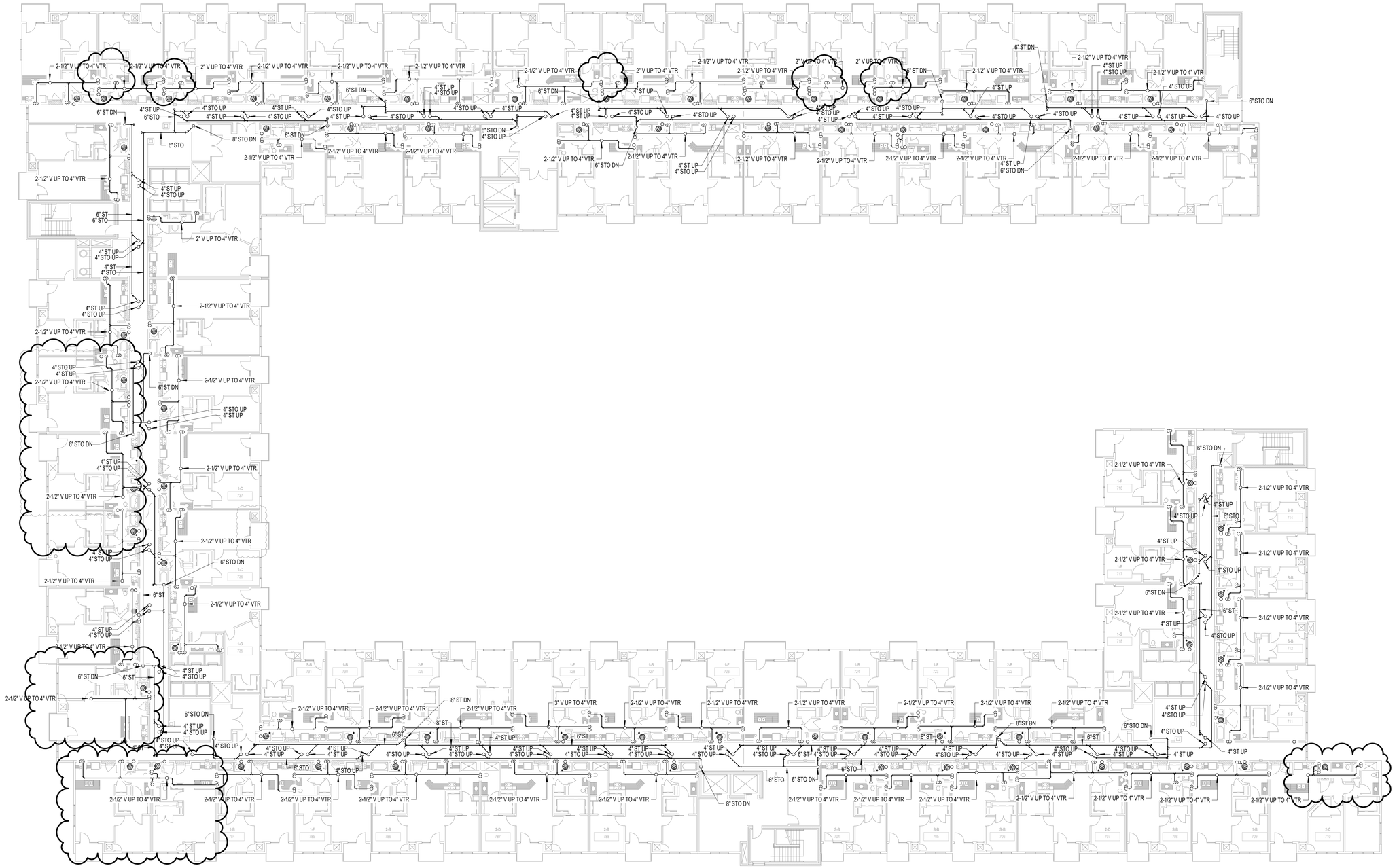
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P1.4


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **SEVENTH FLOOR-PLUMBING PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

N

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RESUBMIT | 06.23.2021 |
| PC | 08.23.2021 |

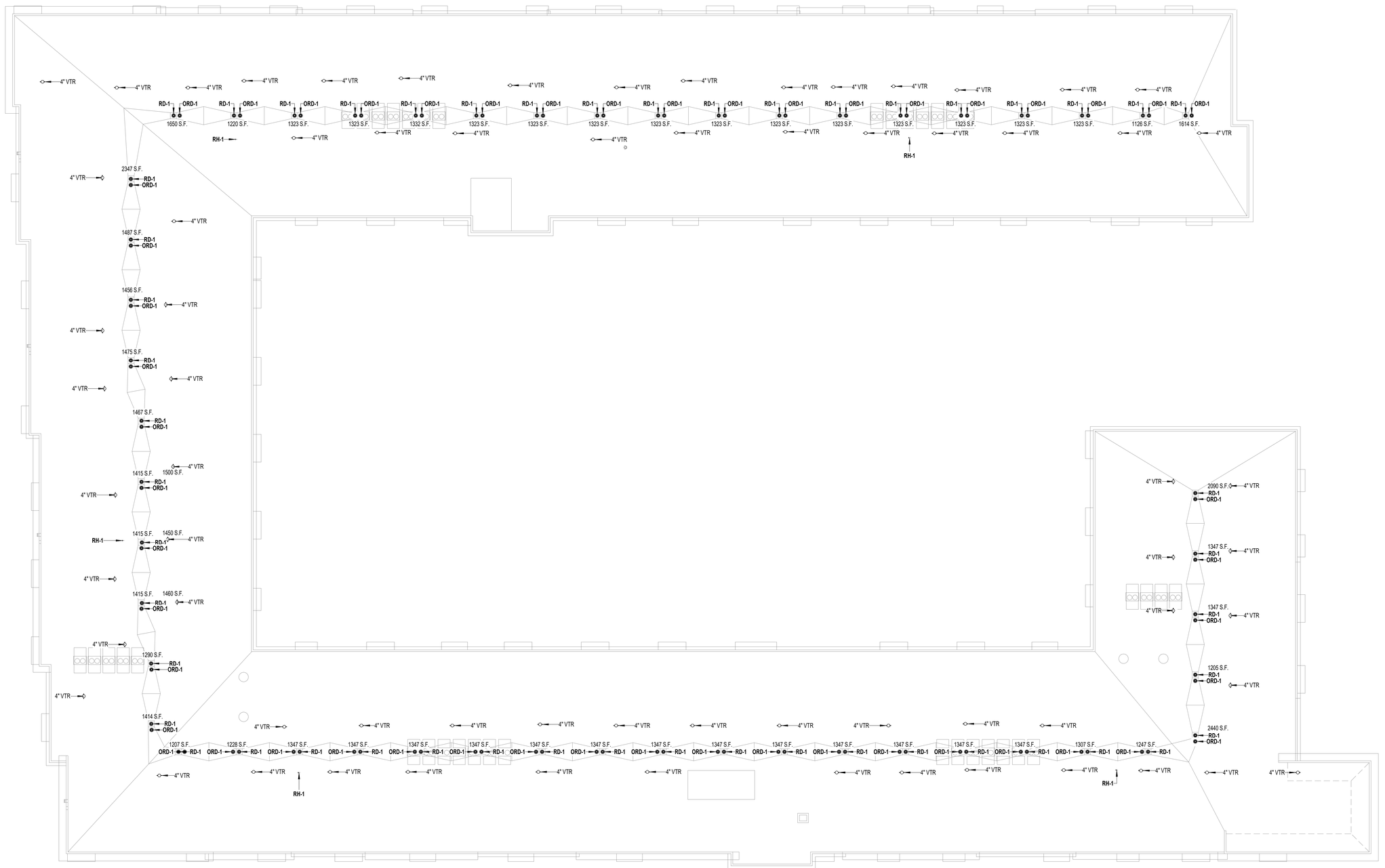
dbHMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P1.7

JONES & JONES ASSOCIATES / ARCHITECTS PC




1 ROOF-PLUMBING_ PLAN
1/16" = 1'-0"

0' 4' 8' 16' 32'

N

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RESUBMIT | 06.30.2021 |

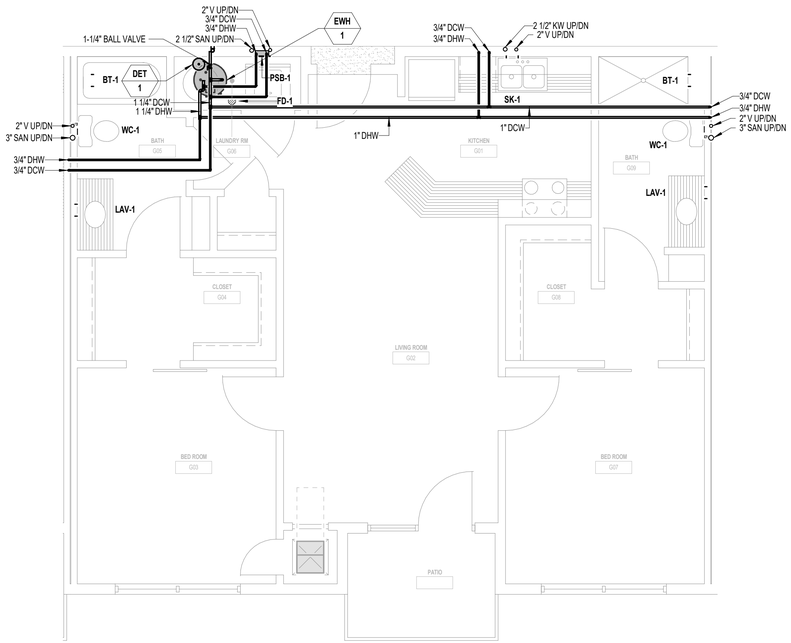
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

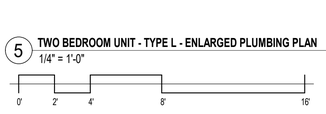
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

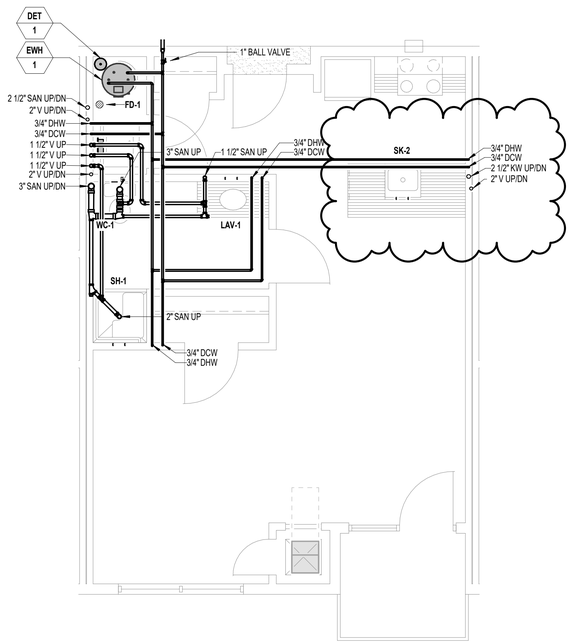
P1.8

JONES & JONES ASSOCIATES / ARCHITECTS PC

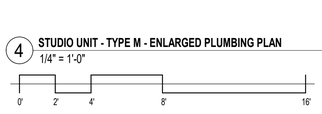


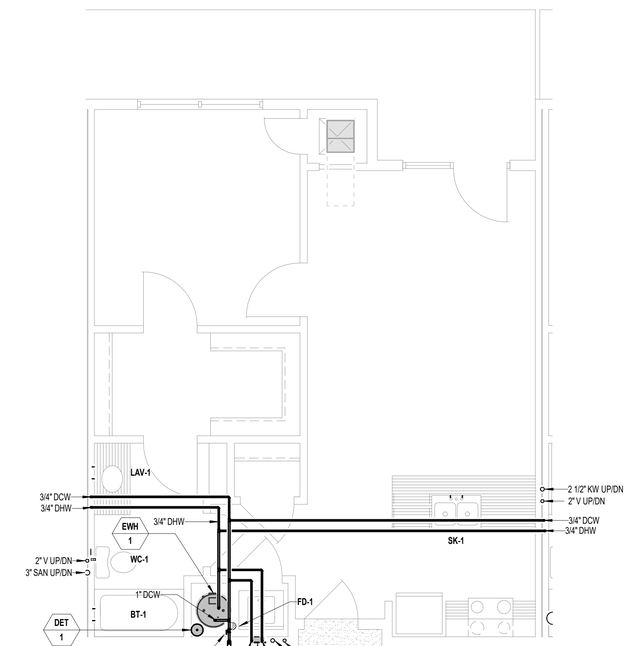

5 **TWO BEDROOM UNIT - TYPE L - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"



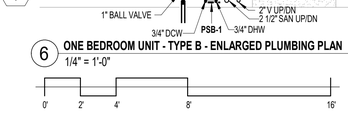



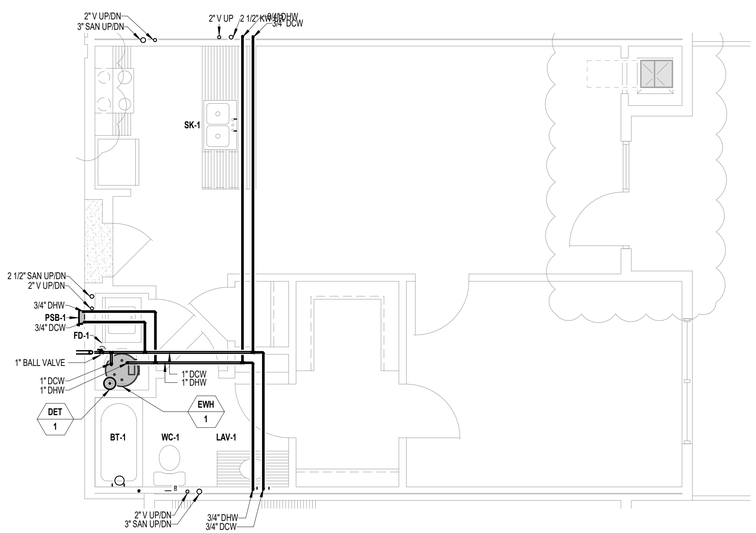

4 **STUDIO UNIT - TYPE M - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"



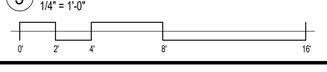



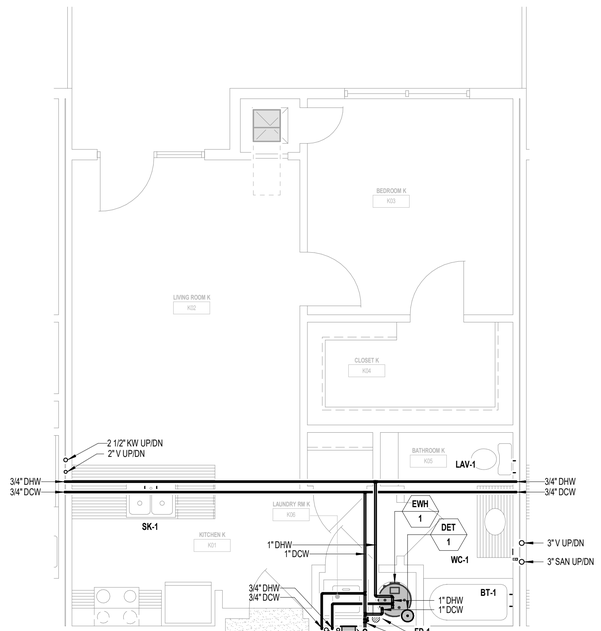

6 **ONE BEDROOM UNIT - TYPE B - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"



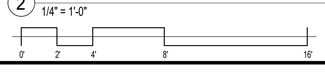



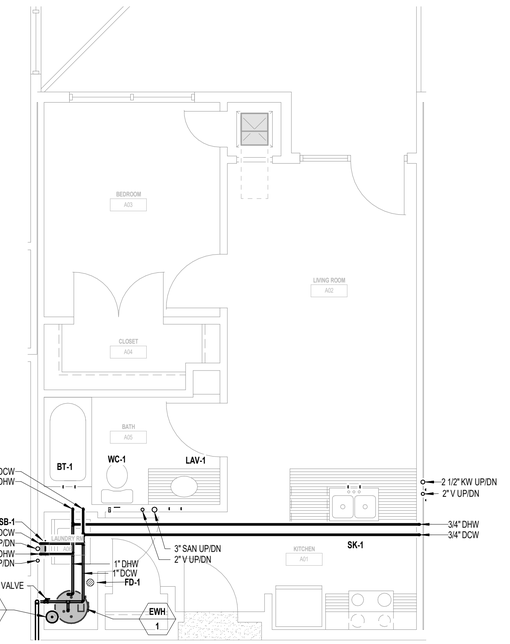

3 **ONE BEDROOM UNIT - TYPE C - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"



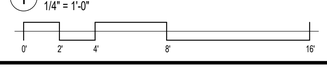




2 **ONE BEDROOM UNIT - TYPE K - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"




1 **ONE BEDROOM UNIT - TYPE A - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"




THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| REVISED PER COMMENTS | 06.02.2021 |
| IPC | 08.23.2021 |

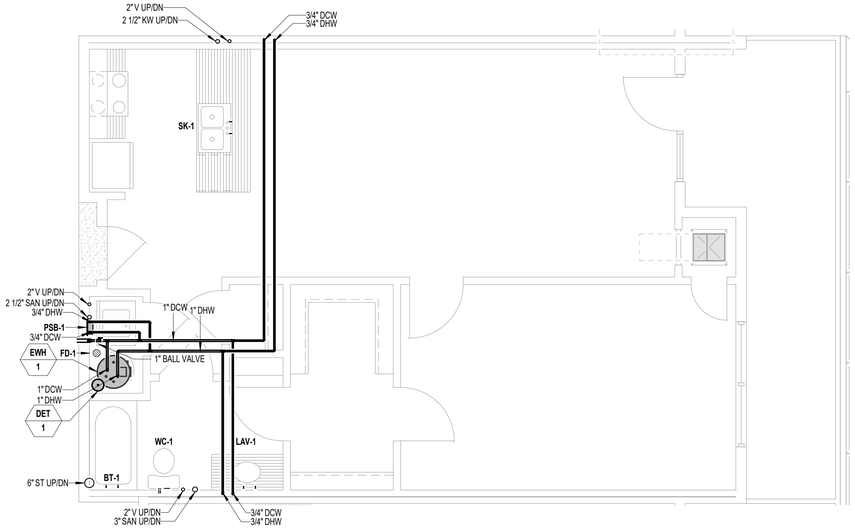
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

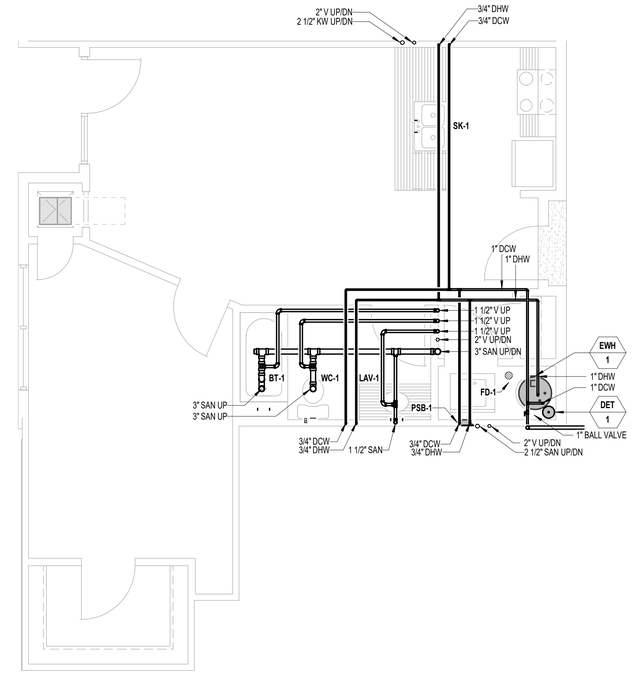
P3.0

JONES & JONES ASSOCIATES ARCHITECTS PC



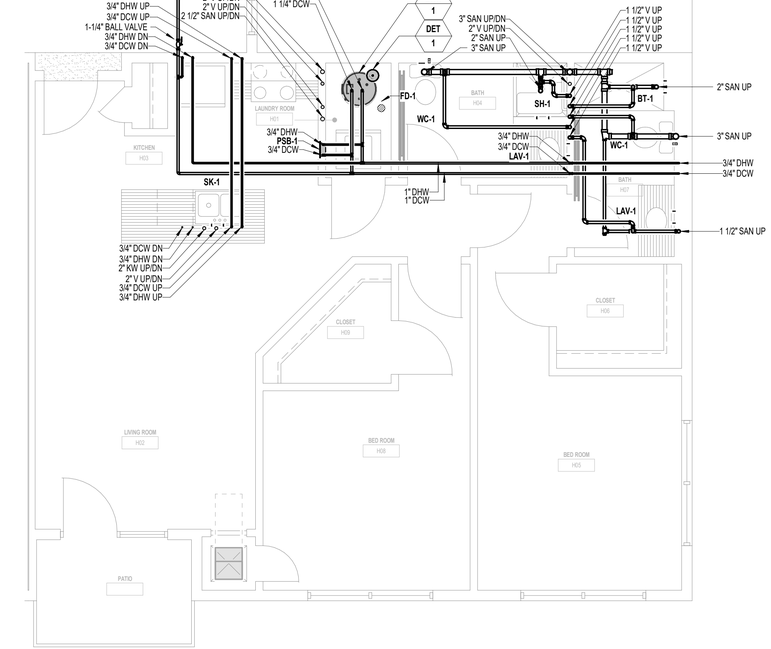

4 **ONE BEDROOM UNIT - TYPE D - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'



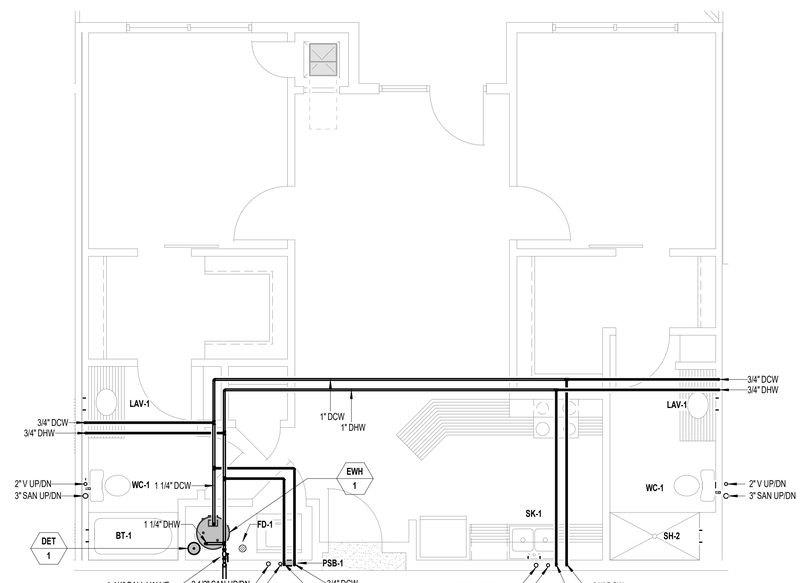

3 **ONE BEDROOM UNIT - TYPE N - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




2 **TWO BEDROOM UNIT - TYPE H - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




1 **TWO BEDROOM UNIT - TYPE G - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RESUBMIT | 06.02.2021 |
| PC | 08.23.2021 |


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

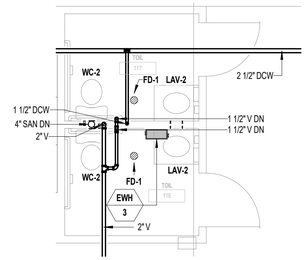
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P3.1

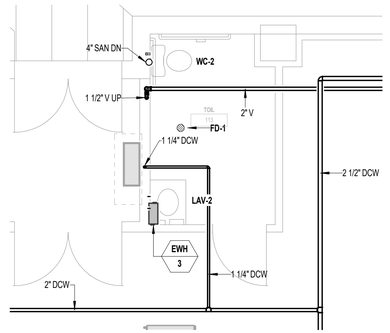
JONES & JONES ASSOCIATES / ARCHITECTS PC


THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

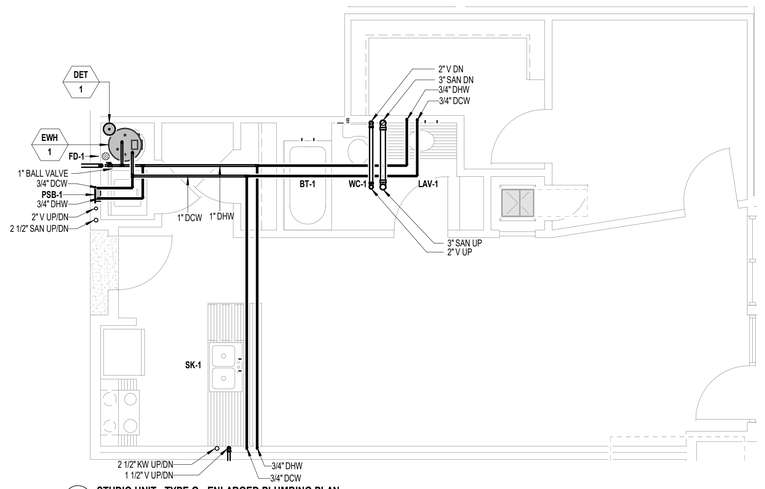
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



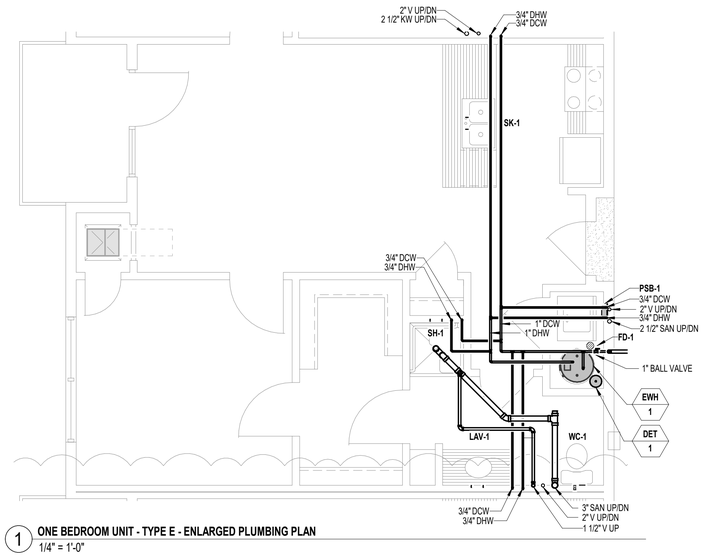

4 FIRST FLOOR BACK TO BACK RESTROOM - ENLARGED PLUMBING PLAN
1/4" = 1'-0"




3 FIRST FLOOR SINGLE RESTROOM - ENLARGED PLUMBING PLAN
1/4" = 1'-0"




2 STUDIO UNIT - TYPE O - ENLARGED PLUMBING PLAN
1/4" = 1'-0"




1 ONE BEDROOM UNIT - TYPE E - ENLARGED PLUMBING PLAN
1/4" = 1'-0"

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PC/ZBA RECTIONS | 06.02.2021 |

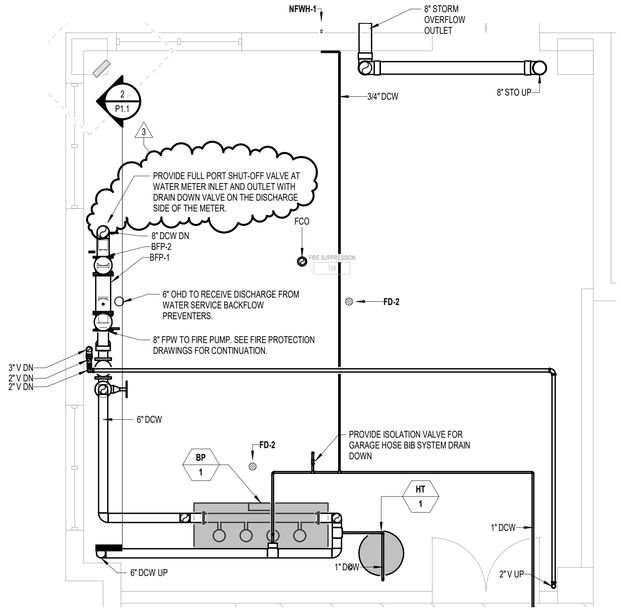
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

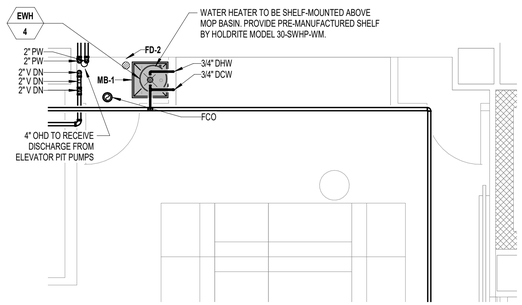
P3.2

JONES & JONES ASSOCIATES / ARCHITECTS PC



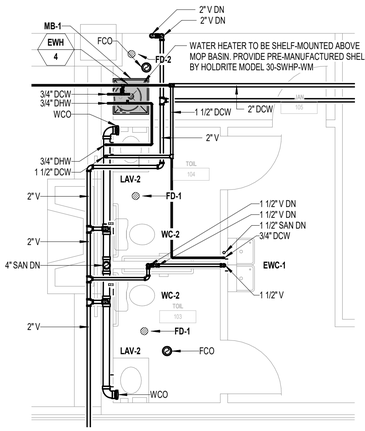

3 **FIRST FLOOR WATER SERVICE AND PUMP ROOM - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"



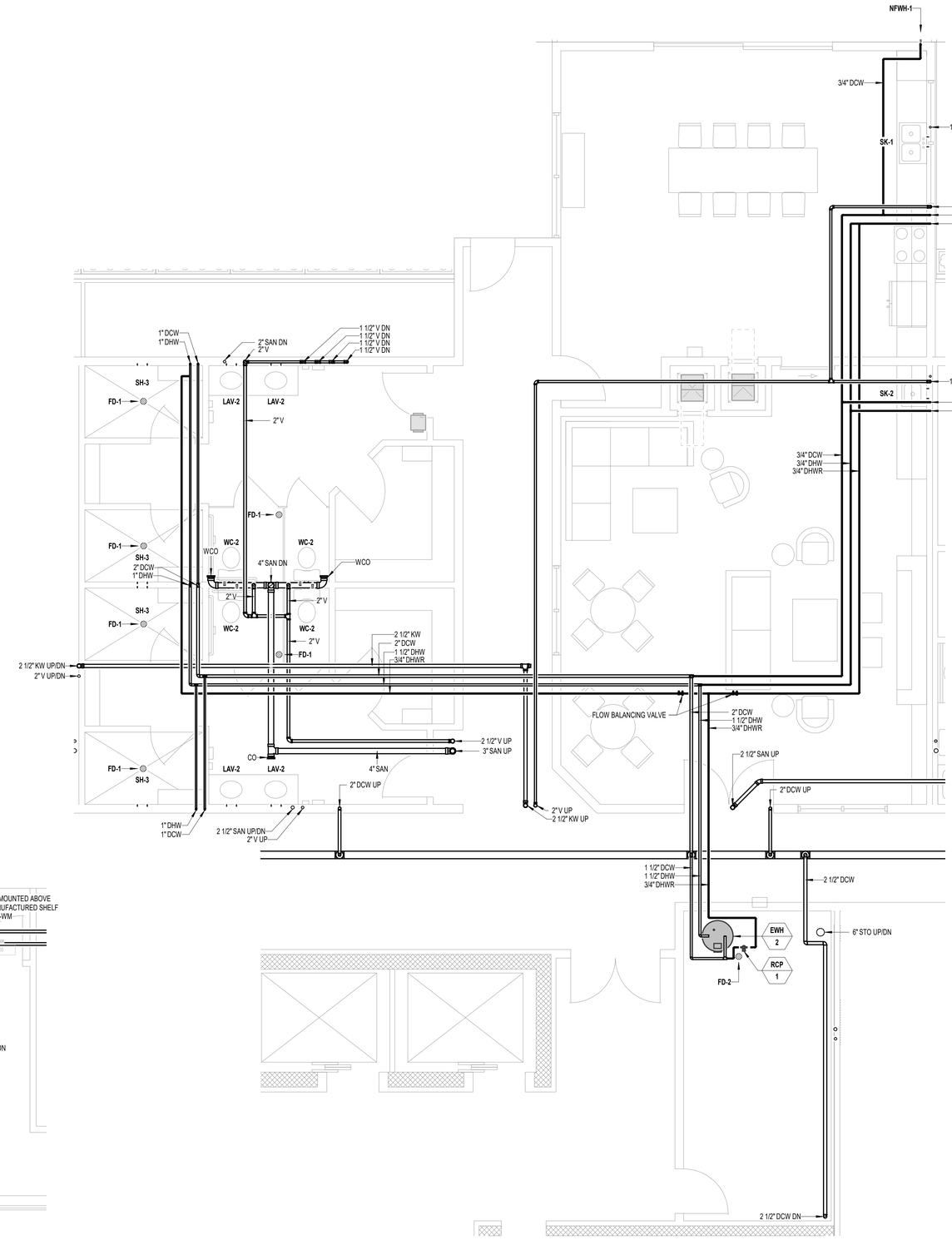

4 **LOUNGE AND JANITORS CLOSET - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"




2 **FIRST FLOOR RESTROOM AND JANITORS CLOSET - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"




1 **THIRD FLOOR RESTROOM AND COMMON AREA - ENLARGED PLUMBING PLAN**
1/4" = 1'-0"




| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| REVISIONS/ADDENDUM | 05.03.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |


dbHMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

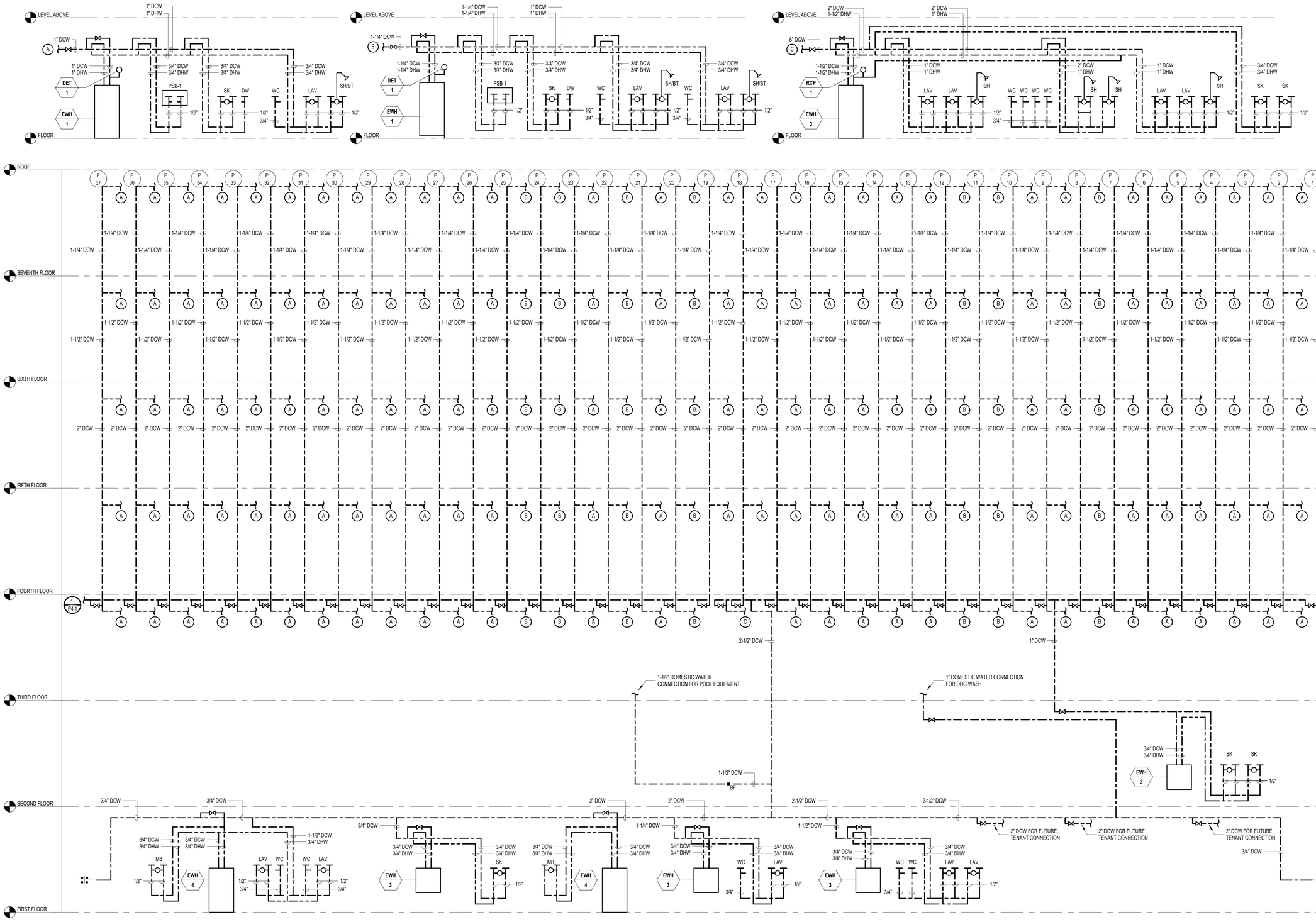

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P3.3

JONES & JONES ASSOCIATES ARCHITECTS PC


THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **PLUMBING RISER - SUPPLY - A**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.02.2021
PC/DRT REVISIONS 06.02.2021

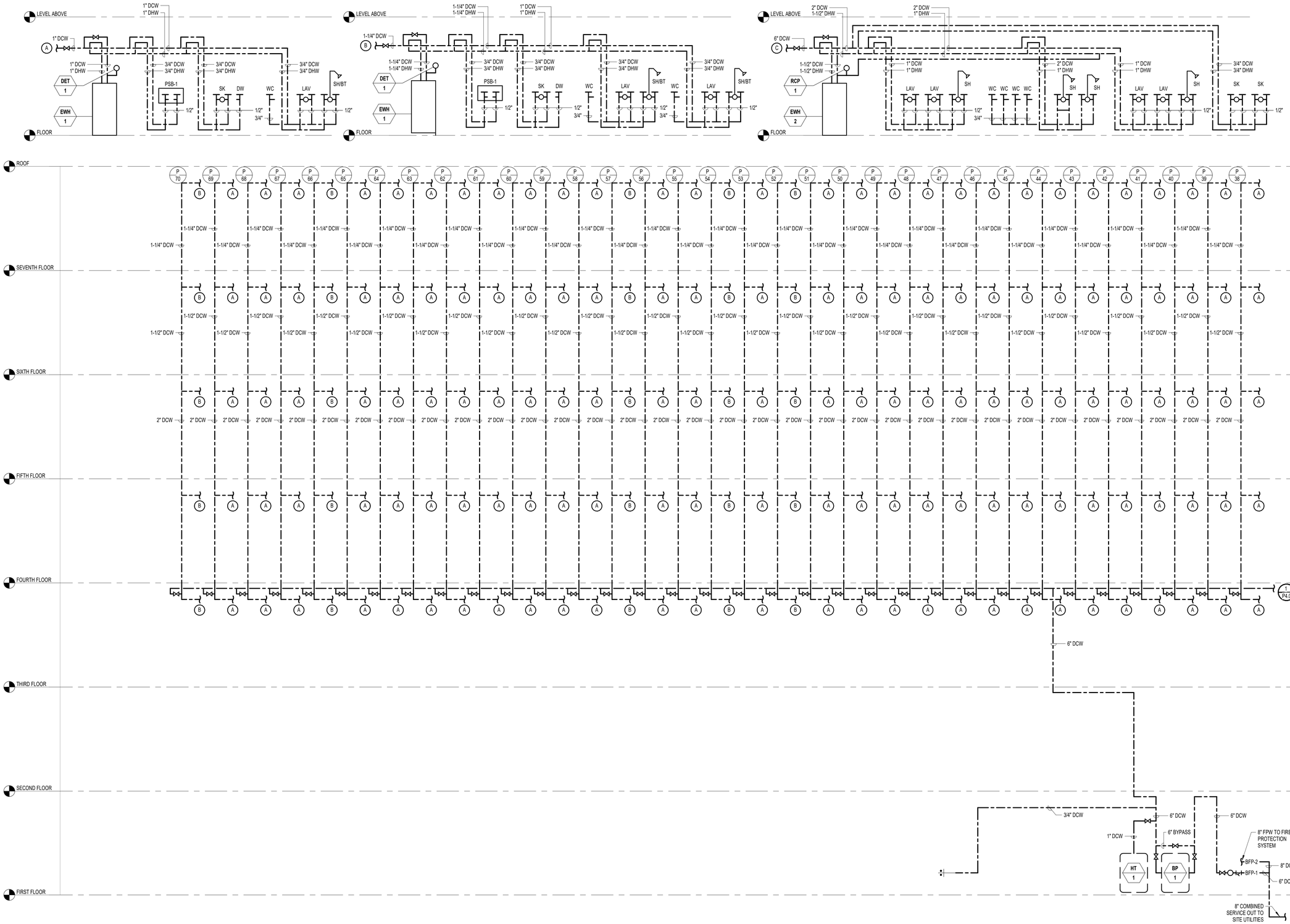
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P4.0

JONES & JONES ASSOCIATES ARCHITECTS PC




1 **PLUMBING RISER - SUPPLY - B**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RECTIONS | 06.02.2021 |

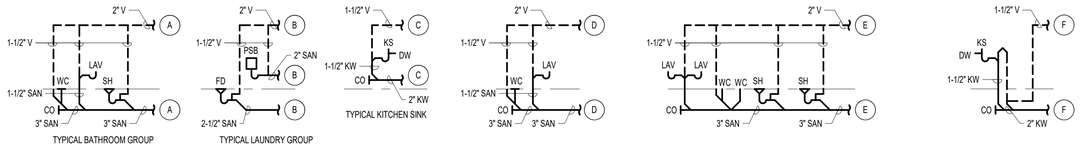
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

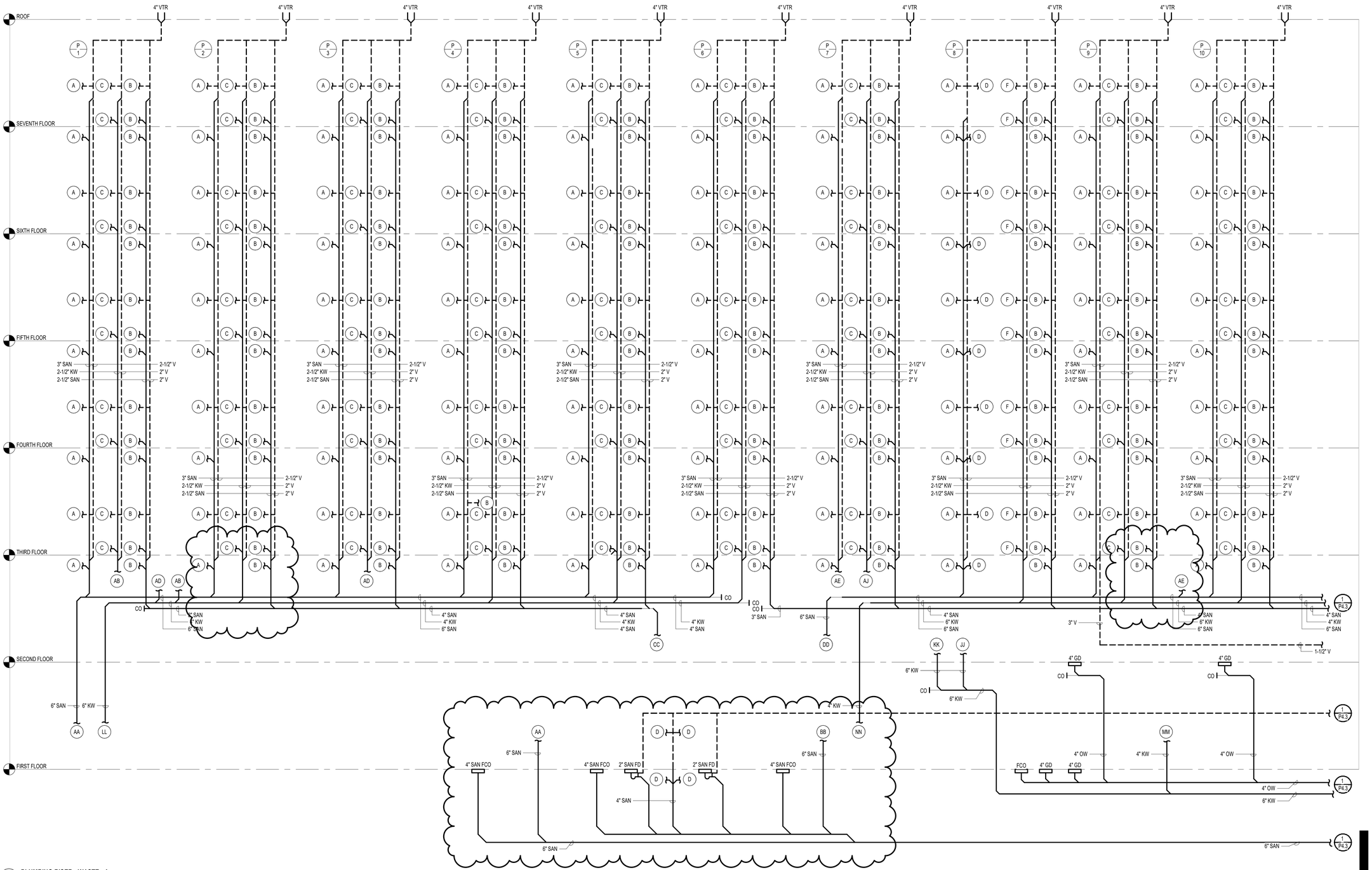
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P4.1

JONES & JONES ASSOCIATES / ARCHITECTS PC




1 **PLUMBING RISER - WASTE - A**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| REVISED PER COMMENTS | 06.03.2021 |
| PC | 08.23.2021 |

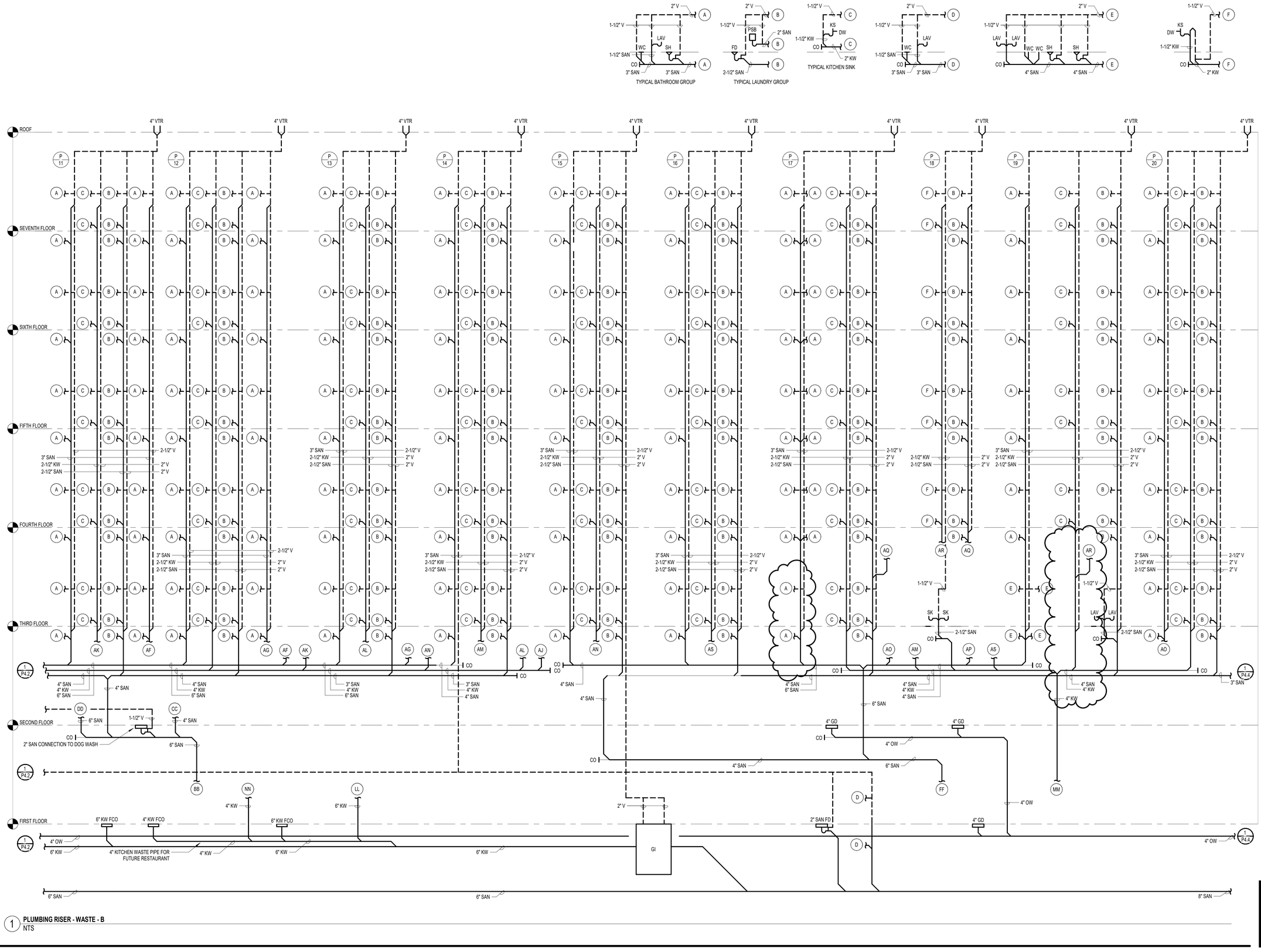
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P4.2

JONES & JONES ASSOCIATES ARCHITECTS PC




1 **PLUMBING RISER - WASTE - B**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| REVISED PER COMMENTS | 06.03.2021 |
| IPC | 08.23.2021 |

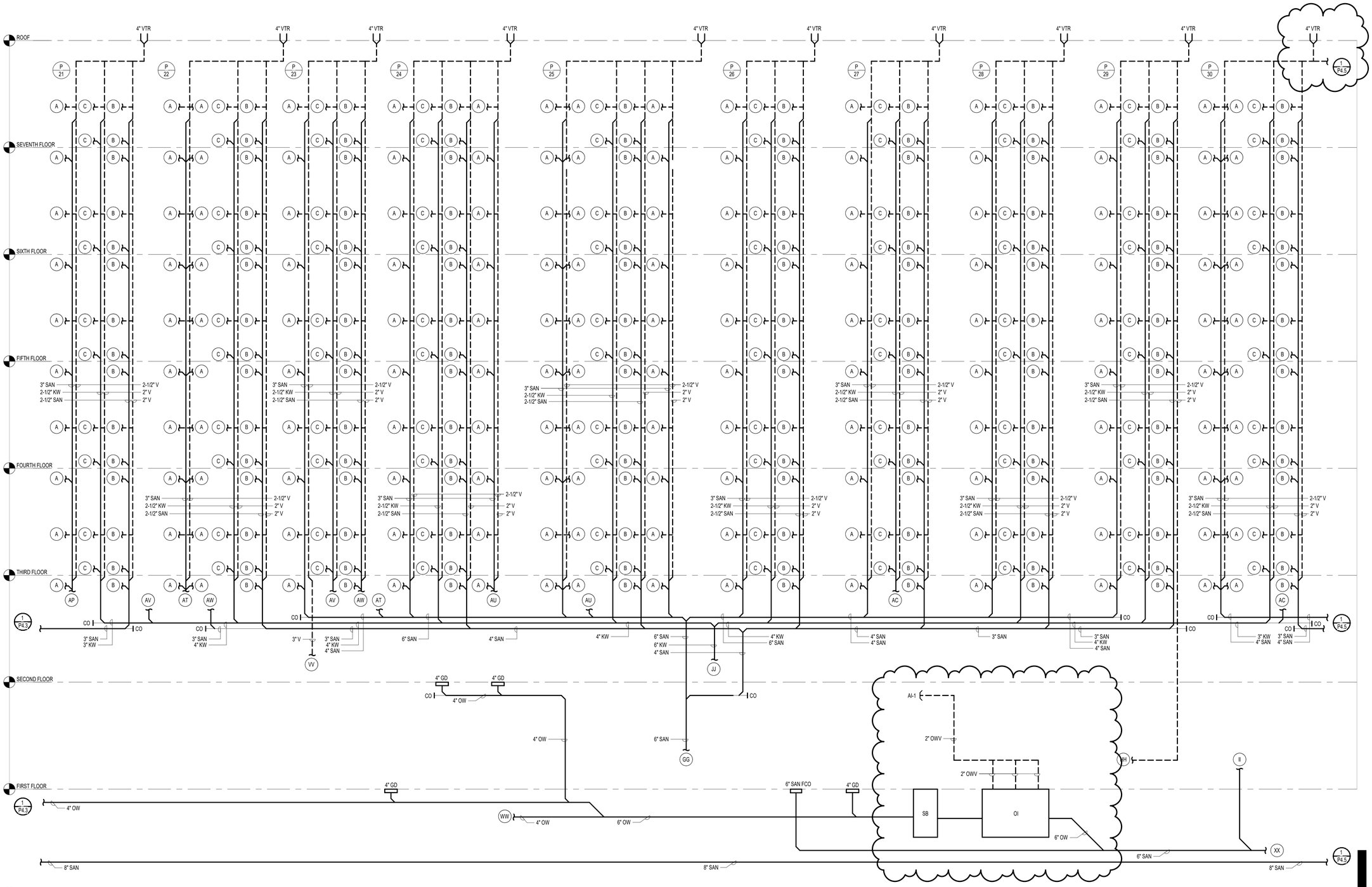
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P4.3

JONES & JONES ASSOCIATES / ARCHITECTS PC




1 **PLUMBING RISER - WASTE - C**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECTS

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RESPONSE | 06.02.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |
| PC | 08.25.2021 |

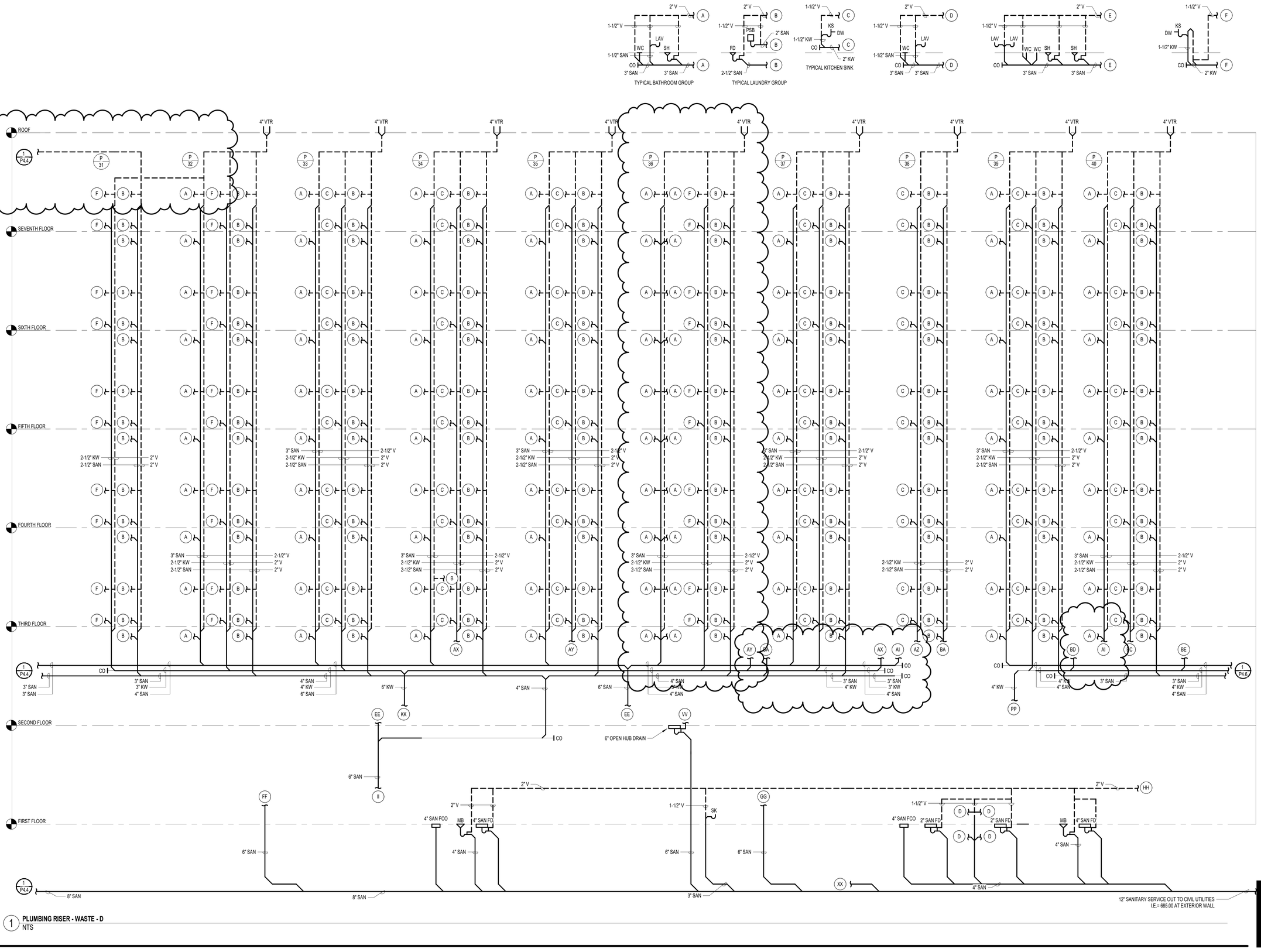
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P4.4

JONES & JONES ASSOCIATES ARCHITECTS PC




1 PLUMBING RISER - WASTE - D
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RESUBMIT | 06.02.2021 |
| PC | 08.23.2021 |

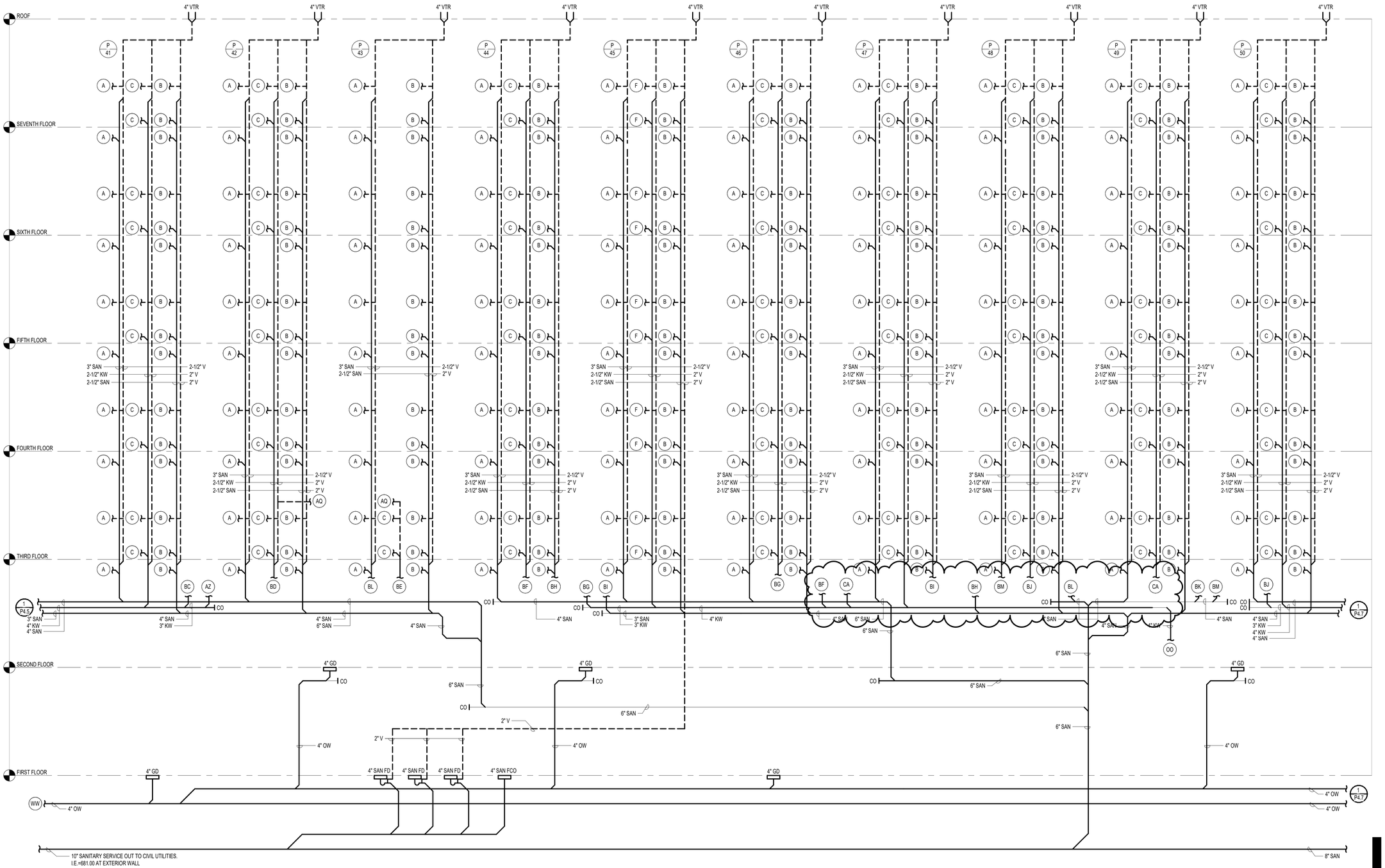
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P4.5

JONES & JONES ASSOCIATES ARCHITECTS PC




1 **PLUMBING RISER - WASTE - E**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RECIEVED | 06.02.2021 |
| PC | 08.23.2021 |

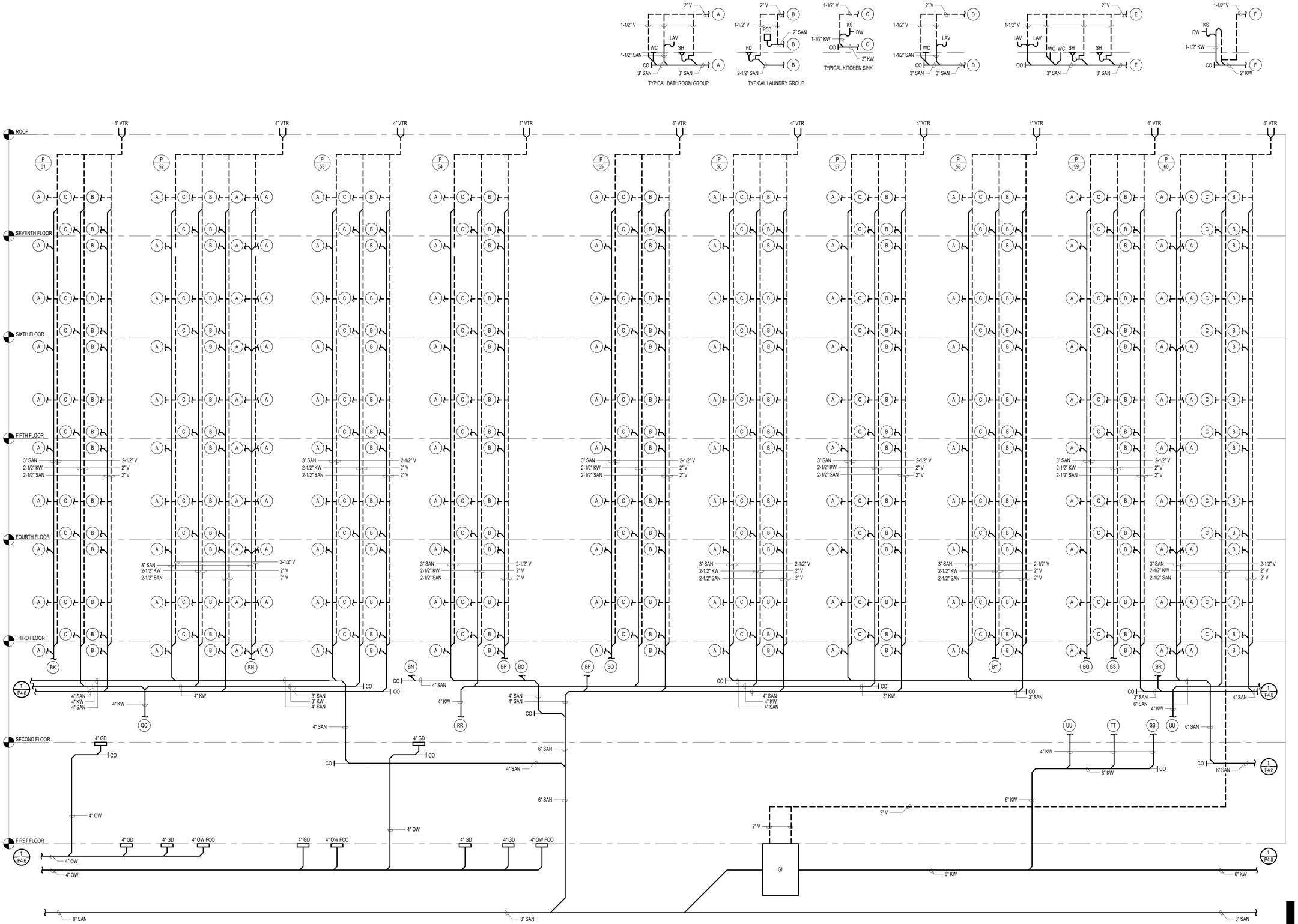
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P4.6

JONES & JONES ASSOCIATES ARCHITECTS PC




1 **PLUMBING RISER - WASTE - F**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT RECIVED 06.02.2021

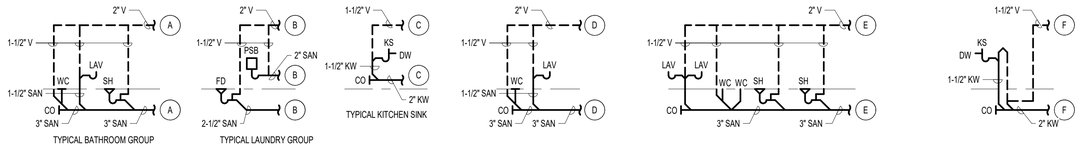
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

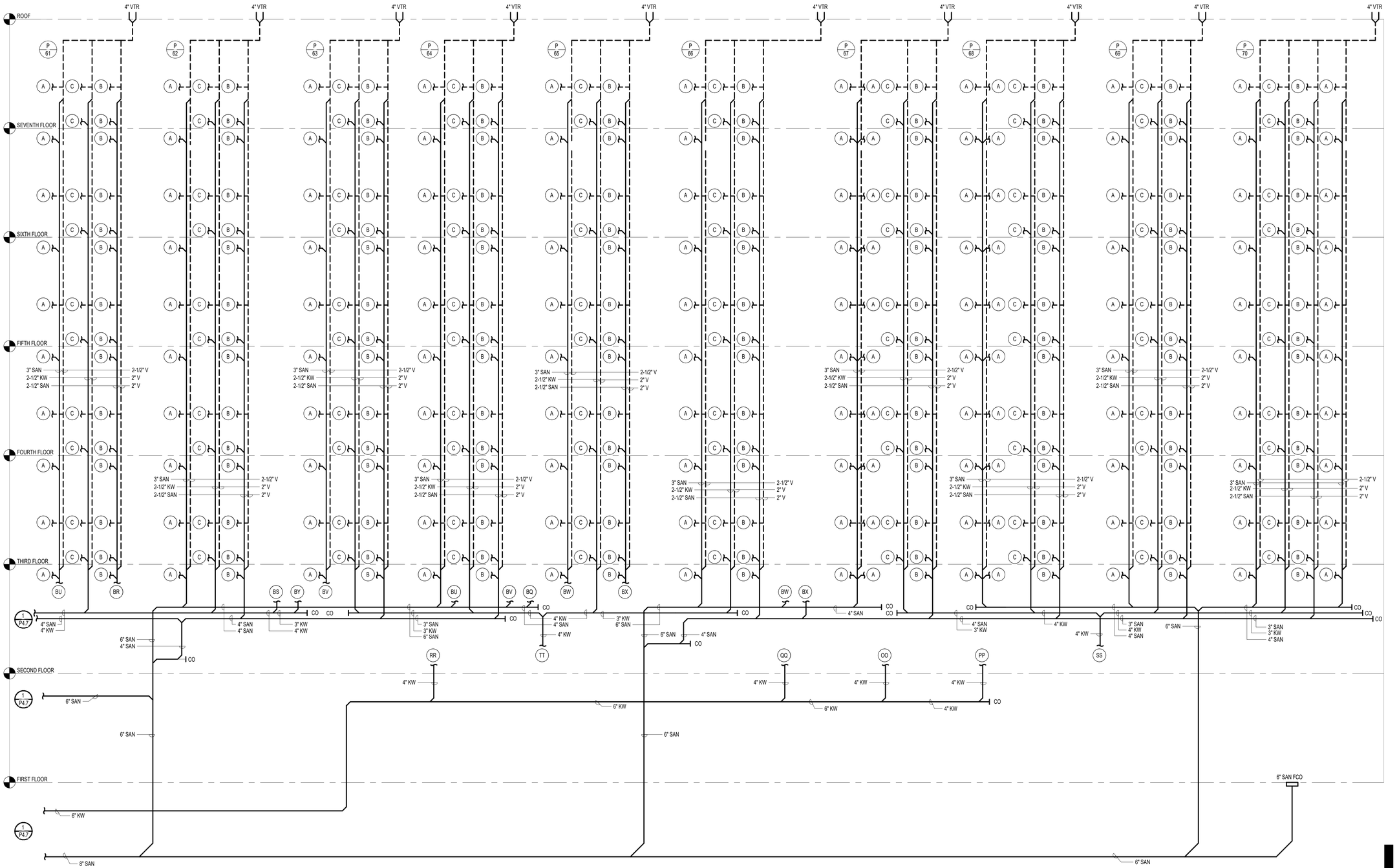
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P4.7

JONES & JONES ASSOCIATES ARCHITECTS PC




1 **PLUMBING RISER - WASTE - G**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RECISIONS | 08.02.2021 |

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P4.8

JONES & JONES ASSOCIATES ARCHITECTS PC

## PLUMBING FIXTURES

| TAG | GPM/GPF | FIXTURE | | | | FAUCET/VALVE | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | TYPE | FINISH | MANUFACTURER | MODEL | TYPE | MANUFACTURER | MODEL | |
| BT-1 | 1.5 | BATH TUB | ENAMELED STEEL | AMERICAN STANDARD | 0255.112 | HANDHELD SHOWER SYSTEM W/ TUB DIVERTER | MOEN | 52710EP15 | 1,2,3,4,7,8 |
| LAV-1 | 1.2 | UNDERMOUNT LAVATORY | VITREOUS CHINA | AMERICAN STANDARD | 9482.000 | SINGLE HOLE MANUAL | MOEN | 40051 | 8 |
| LAV-2 | 0.5 | UNDERMOUNT LAVATORY | VITREOUS CHINA | AMERICAN STANDARD | 9482.000 | SINGLE HOLE BATTERY POWERED AUTOMATIC | MOEN | CA8301 | 5,6 |
| MB-1 | UNRESTRICTED | MOP BASIN | TERRAZZO | FIAT | TSB-200 | WALL-MOUNTED MANUAL | MOEN | 8230 | |
| SH-1 | 1.5 | SHOWER BASIN | CAST ACRYLIC | AQUATIC | 1363BFRF | SHOWER VALVE W/ HANDHELD SHOWER SYSTEM | AQUATIC | -- | 2,3,8 |
| SH-2 | 1.5 | SHOWER BASIN | CAST ACRYLIC | AQUATIC | F6032APAN | SHOWER VALVE W/ SHOWER TRIM | MOEN | 8375EP15 | 2,3,8 |
| SH-3 | 1.5 | SEE ARCHITECTURAL DRAWINGS FOR BASIN DESIGN | -- | -- | -- | SHOWER VALVE W/ SHOWER SHOWER VALVE W/ HANDHELD SHOWER SYSTEMTRIM | MOEN | 8342 | 2,3 |
| SK-1 | 1.5 | DROP-IN DOUBLE BASIN | STIANLESS STEEL | AMERICAN STANDARD | 22DB.6332283C.075 | 3-HOLE SINGLE HANDLE MANUAL | MOEN | 87017 | |
| SK-2 | 1.5 | DROP-IN SINGLE BASIN | STAINLESS STEEL | AMERICAN STANDARD | 22SB.6252283S.075 | 3-HOLE SINGLE HANDLE MANUAL | MOEN | 87017 | |
| WC-1 | 1.0 | FLOOR MOUNTED WATER CLOSET | VITREOUS CHINA | AMERICAN STANDARD | 238AA.115.020 | FLUSH TANK | -- | -- | 8 |
| WC-2 | 1.1 | FLOOR MOUNTED FLUSH VALVE | VITREOUS CHINA | AMERICAN STANDARD | 3043.001 | BATTERY POWERED AUTOMATIC | AMERICAN STANDARD | 6066.111.002 | |

1. SHOWER-BATH COMBINATION VALVES TO BE ADJUSTED TO A MAXIMUM SETTING OF 115°F AT TIME OF INSTALLATION.
2. PROVIDE SHOWER SPRAY UNITS WITH HOSE 59" MINIMUM IN LENGTH FOR USE AS FIXED POSITION AND HAND HELD SHOWER HEAD. ALL ADJUSTABLE HEIGHT SHOWER HEADS TO BE INSTALLED SO AS NOT TO OBSTRUCT THE USE OF GRAB BARS.
3. ALL HAND HELD SHOWER SPRAY UNITS TO BE INSTALLED WITH ATMOSPHERIC VACUUM BREAKER ON THE HOSE SUPPLY FITTING.
4. BATHTUB SHOWER SPRAY UNITS SHALL DELIVER WATER THAT DOES NOT EXCEED MAXIMUM TEMPERATURE 120°F.
5. PROVIDE POINT OF USE THERMOSTATIC MIXING VALVE BY LEONARD VALVE MODEL 270-LF OR SIMILAR. SET TEMPERATURE TO 110°F AT TIME OF INSTALLATION.
6. LAVATORIES TO BE COVERED WITH PROTECTIVE GUARDS AND SHALL NOT HAVE EXPOSED WATER OR WASTE PIPE, OR ANY ABRASIVE SURFACES.
7. PROVIDE VALVE AND TUB DIVERTER BY MOEN MODEL TL183NH.
8. FIXTURE TO BE WATERSENSE CERTIFIED.

## DOMESTIC WATER HEATER

| TAG | | | UNIFORM ENERGY FACTOR (UEF) | STORAGE CAPACITY (GAL) | DOMESTIC WATER INLET TEMP. (F) | DOMESTIC WATER OUTLET TEMP. (F) | ELECTRICAL DATA | | | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | QTY. | | | | | KW | VOLTS | PH | | | |
| EWH | 1 | 348 | 3.42 | 50 | 40 | 120 | 4.5 | 208 V | 1 | AO SMITH | FPTU-50 | -- |
| EWH | 2 | 1 | -- | 66 | 40 | 140 | 6 | 480 V | 3 | AO SMITH | DEN-66 | -- |
| EWH | 3 | 2 | -- | -- | 40 | 105 | 3.5 | 120 V | 1 | EEMAX | SPEX3512T | -- |
| EWH | 4 | 3 | -- | 10 | 40 | 140 | 3 | 120 V | 1 | AO SMITH | DEL-15 | -- |

## DOMESTIC BOOSTER PUMP

| TAG | | TOTAL CAPACITY (GPM) | MIN. SUCTION (PSI) | DISCHARGE PRESSURE (PSI) | PUMP QUANITY | EACH PUMP CAPACITY (%) | ELECTRICAL DATA | | | | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | | | | | | HP (EACH PUMP) | HP (TOTAL) | VOLTS | PH | | | |
| BP | 1 | 450 | 28 | 75 | 4 | 25 | 5 | 20 | 480 V | 3 | BELL & GOSSETT | TECHNOFORCE E-MT | 1. |

1. PROVIDE MANUFACTURER RECOMMENDED HYDROPNEUMATIC TANK.

## ELEVATOR PIT PUMP

| TAG | | DISCHARGE SIZE (IN) | CAPACITY (GPM) | ELECTRICAL DATA | | | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | | | HP | VOLTS | PH | | | |
| EPP | 1 | 2 | 50 | 0.5 | 120 V | 1 | ZOELLER | 940-0014 | 1. |
| EPP | 2 | 2 | 50 | 0.5 | 120 V | 1 | ZOELLER | 940-0014 | 1. |
| EPP | 4 | 2 | 50 | 0.5 | 120 V | 1 | ZOELLER | 940-0014 | 1. |
| EPP | 3 | 2 | 50 | 0.5 | 120 V | 1 | ZOELLER | 940-0014 | 1. |

1. PROVIDE OIL SMART SWITCH AND ALARM PANEL.

## HOT WATER RECIRCULATION PUMP

| TAG | | FLOW RATE (GPM) | TOTAL DYNAMIC HEAD (PSI) | ELECTRICAL DATA | | | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | | | HP | VOLTS | PH | | | |
| RCP | 1 | 5 | 8 | 0.125 | 120 V | 1 | BELL & GOSSETT | ECOCIRC 19-16 | -- |

## DRAINS

| TAG | FIXTURE | MATERIAL | STRAINER DIAMETER (IN) | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|
| FD-1 | FINISHED FLOOR DRAIN | CAST IRON | 5" | WADE | 1000-DC | -- |
| FD-2 | MECHANICAL ROOM DRAIN | CAST IRON | 8" | WADE | 1100-A | -- |
| GD-1 | GARAGE DRAIN | CAST IRON | 12" | WADE | 1217 | -- |
| ORD-1 | ROOF DRAIN W/ INTEGRAL DAM | CAST IRON | 16" | WADE | 3000-D | -- |
| ORD-2 | LOW PROFILE STRAINER ROOF DRAIN W/ INTEGRAL DAM | CAST IRON | 16" | WADE | 3000-48-D | -- |
| RD-1 | ROOF DRAIN | CAST IRON | 16" | WADE | 3000 | -- |
| RD-2 | LOW PROFILE STRAINER ROOF DRAIN | CAST IRON | 16" | WADE | 3000-48 | -- |

## WASTE INTERCEPTORS

| TAG | | FLOW (GPM) | LIQUID CAPACITY (GAL.) | SOLIDS CAPACITY (GAL.) | DIMENSIONS (IN) | | | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | | | | WIDTH | HEIGHT | LENGTH | | | |
| GI | 1 | 200 | 1500 | 150 | 5'-8" | 6'-5" | 10'-0" | SCHIER PRODUCTS | GGI-1500 | -- |
| OI | 1 | 100 | 500 | 95 | 2'-9" | 4'-3" | 5'-8" | STRIEM | OS-500 | -- |
| SB | 1 | 100 | 57 | 25 | 2'-4" | 2'-4" | 3'-1" | STRIEM | CB-50-S | -- |
| GI | 2 | 100 | 1010 | 103 | 5'-8" | 6'-5" | 7'-6" | SCHIER PRODUCTS | GGI-1000 | -- |

## PLUMBING SPECIALTIES

| TAG | | FIXTURE | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|
| ABBR. | # | | | | |
| AI | 1 | AIR INLET | ZURN | Z1471 | -- |
| HB | 1 | HOSE BIBB | WOODFORD | 26 | 1. |
| NFWH | 1 | NON-FREEZE WALL HYDRANT | WOODFORD | B65 | -- |
| PSB | 1 | WASHING MACHINE OUTLET BOX | GUY GRAY | FR-12 | -- |
| RH | 1 | DRAINLESS ROOF HYDRANT | WOODFORD | SRH | -- |

1. PROVIDE STEM LOCK KIT SL-24.

## BACKFLOW PREVENTER

| TAG | | FIXTURE | SYSTEM | SIZE | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|
| ABBR. | # | | | | | | |
| BFP | 1 | REDUCED PRESSURE BACKFLOW PREVENTOR ASSEMBLY | DOMESTIC WATER | 6" | WATTS | 994 | 1 |
| BFP | 2 | REDUCED PRESSURE DETECTOR ASSEMBLY | FIRE PROTECTION | 8" | WATTS | 909RPDA | 1 |
| BFP | 3 | REDUCED PRESSURE BACKFLOW PREVENTOR ASSEMBLY | POOL WATER MAKE-UP | 1-1/2" | WATTS | LF009 | 1 |

1. BACKFLOW DEVICES SHALL BE TESTED AND APPROVED BY A CROSS CONNECTION CONTROL DEVICE INSPECTOR (CCCDI) PRIOR TO INITIAL OPERATION.

## DOMESTIC EXPANSION TANK

| TAG | | TANK TYPE | CAPACITY (GAL) | ACCEPTANCE VOLUME (GAL) | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|
| ABBR. | # | | | | | | |
| DET | 1 | DIAPHRAGM | 2 | 1 | AMTROL | THERM-X-TROL ST-5C-DD | -- |
| HT | 1 | DIAPHRAGM | | | -- | -- | 1. |

1. PROVIDE BOOSTER PUMP MANUFACTURERS RECOMMENDED HYDROPNEUMATIC TANK.

## ELECTRIC WATER COOLER

| TAG | FIXTURE | MATERIAL | DIMENSIONS | ELECTRICAL DATA | | MANUFACTURER | MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | | | | WATTS | VOLTAGE | | | |
| EWC-1 | BI-LEVEL ELECTRIC WATER COOLER W/ BOTTLE FILL STATION | STAINLESS STEEL | 36-3/4" x 19" x 39-1/16" | 370 | 120 V | ELKAY | LZSTL8WSLK | -- |

REVISION / DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT REVISIONS #1 06.02.2021
PERMIT REVISIONS #2 08.03.2021

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

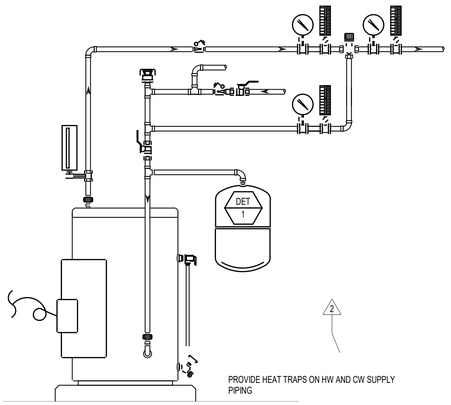
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P5.0

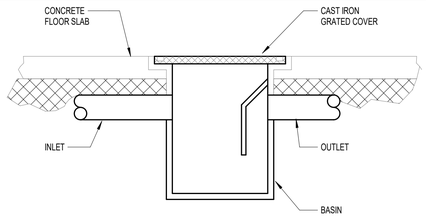
JONES & JONES ASSOCIATES ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



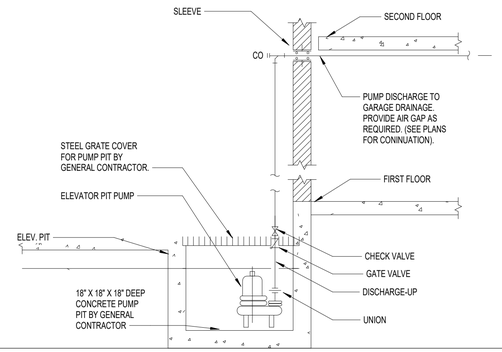

PROVIDE HEAT TRAPS ON HW AND CW SUPPLY PIPING

10 WATER HEATER
NTS

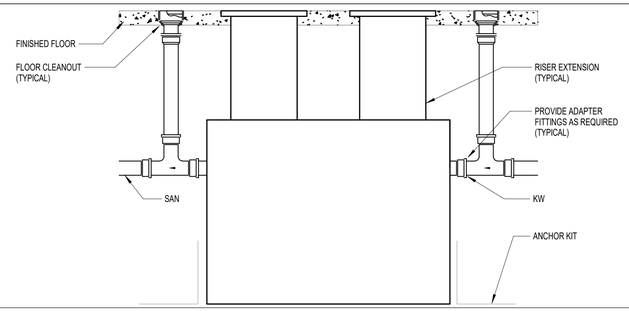



**GENERAL NOTES:**
REFER TO FLOOR PLANS AND SCHEDULES FOR INVERT ELEVATIONS AND ADDITIONAL INFORMATION.

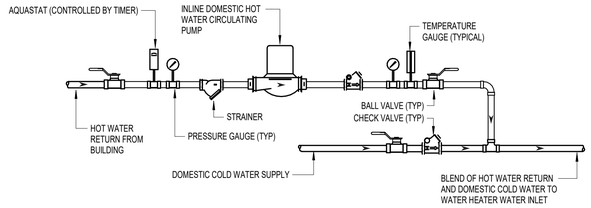
8 BELOW GRADE SEDIMENT BASIN
NTS




9 ELEVATOR SUMP PUMP
NTS

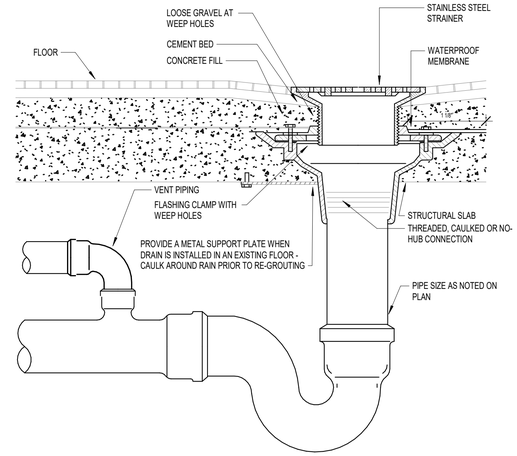



7 GREASE INTERCEPTOR
NTS

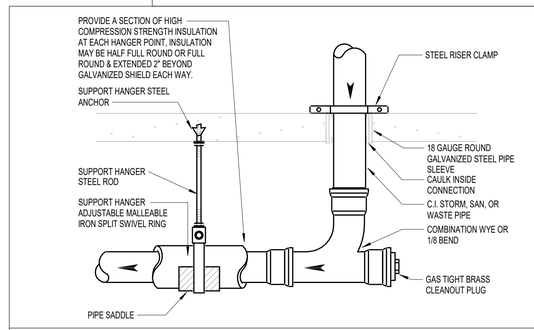



**NOTES:** ALL VALVE AND STRAINERS SHALL BE EQUAL TO LINE SIZE AS SHOWN ON PLANS. PUMP CONNECTIONS MAY DEVIATE FROM LINE SIZE.

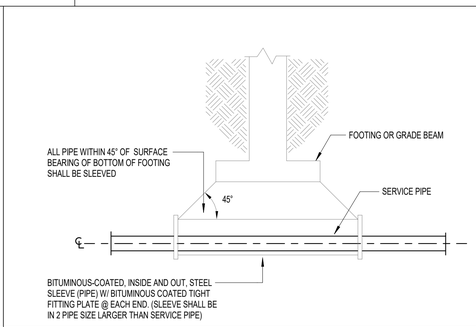
11 DOMESTIC HOT WATER RECIRCULATION PUMP
NTS



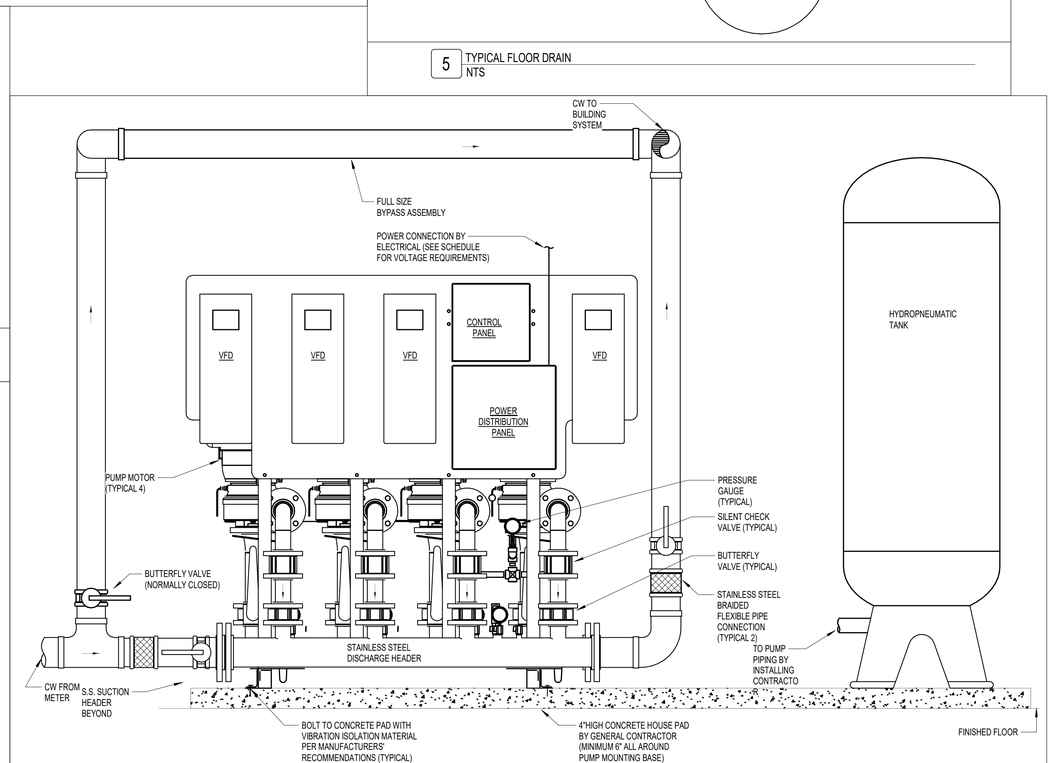

5 TYPICAL FLOOR DRAIN
NTS



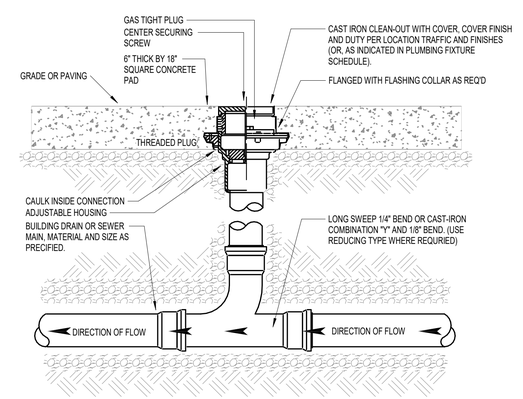

6 TYPICAL SUSPENDED CLEAN-OUT
NTS



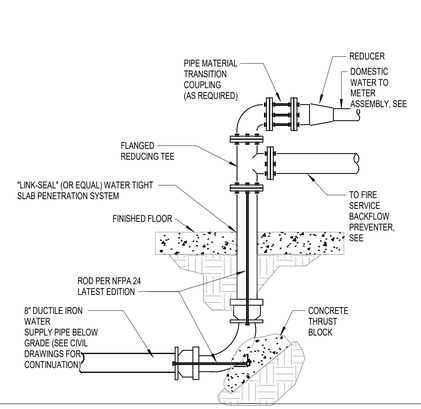

3 BELOW FOOTING OR GRADE, PIPE SLEEVE
NTS




1 DOMESTIC BOOSTER PUMP
NTS




4 TYPICAL FLOOR CLEAN-OUT
NTS




2 BELOW FOOTING OR GRADE, PIPE SLEEVE
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT RESUBMIT | 06.02.2021 |

db HMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

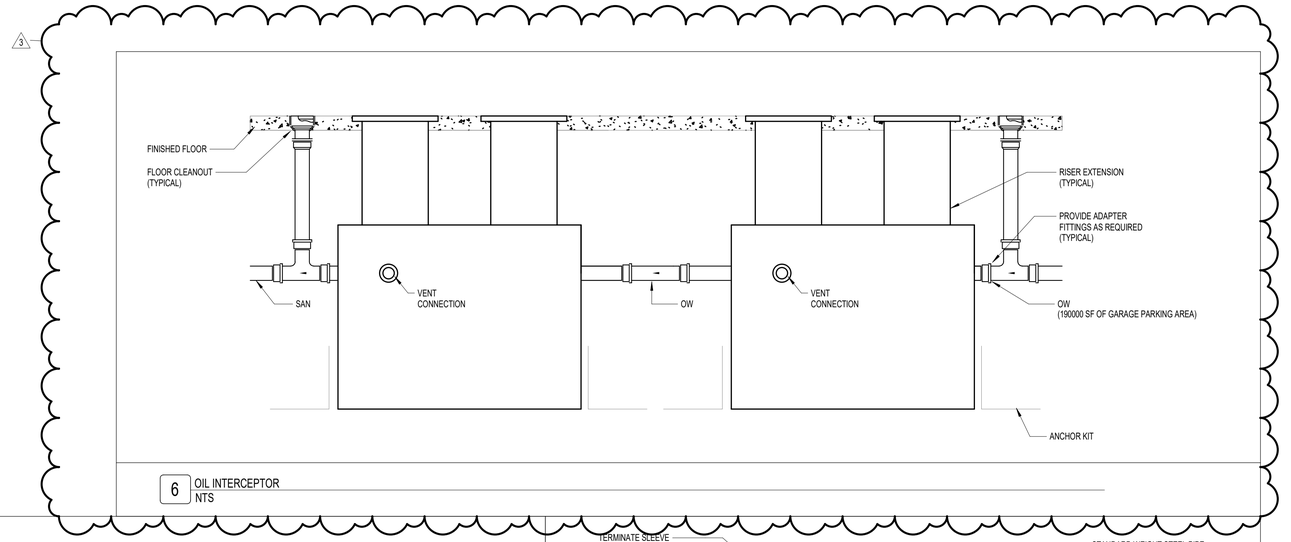
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

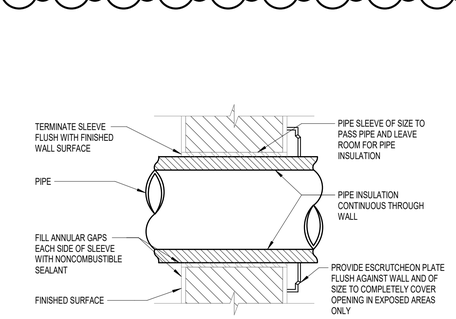
P6.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

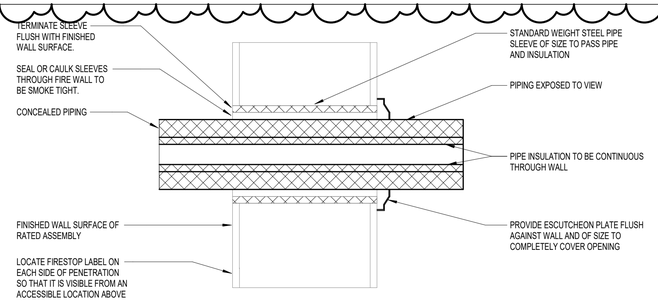
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




6 OIL INTERCEPTOR
NTS



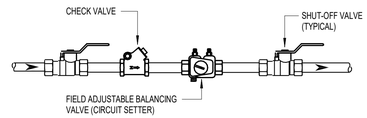

5 INSULATED PIPE THROUGH INTERIOR NON-RATED WALLS OR SMOKE-RESISTANT CORRIDOR WALL
NTS




**GENERAL NOTES:**

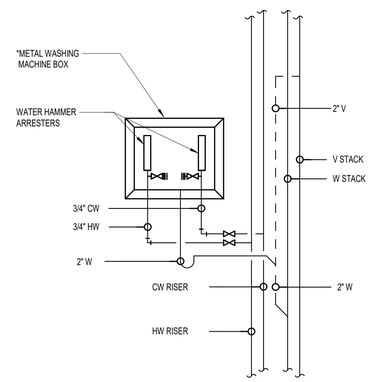
1. PIPE AND INSULATION TO BE CENTERED IN SLEEVE. DO NOT SUPPORT PIPE FROM SLEEVE.
2. INCLUDES FIRE WALLS, FIRE BARRIERS, SMOKE BARRIERS, AND FIRE PARTITIONS.

4 INSULATED PIPE THROUGH INTERIOR FIRE RATED WALL
NTS

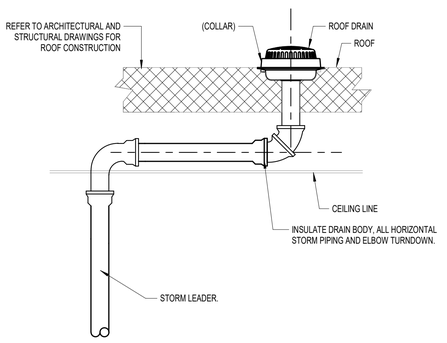



**NOTE:** BALANCING VALVES TO BE SET TO 0.5 GPM, UNLESS OTHERWISE NOTED ON PLAN OR RISER.

3 ZONE DOMESTIC HOT WATER RETURN
NTS




2 WASHING MACHINE BOX
NTS




1 ROOF DRAIN AND OVERFLOW DRAIN
NTS

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| REVISIONS PER PERMIT | 06.02.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

P6.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

## ELECTRICAL OPTIONS AND MOUNTING CODES

CONNECTION AND ROUTING

| ABBRV | DESCRIPTION |
|---|---|
| CDR | CEILING DROP DOWN ON TO RACK |
| CPC | CORD AND PLUG CONNECTION POINT |
| FSR | FLOOR STUB UP ONTO RACK |
| PDC | PULL DOWN DROP CORD |
| HWC | HARD WIRE CONNECTION |
| FWC | FLEXIBLE WHIP CONNECTION |

DEVICE OPTIONS

| ABBREV | DESCRIPTION |
|---|---|
| TP | TAMPER PROOF TYPE DEVICE AND COVER |
| WP | WEATHER PROOF TYPE DEVICE AND COVER |
| WG | WIRE GUARD DEVICE AND COVER |
| VR | VANDAL RESISTANT DEVICE AND COVER |
| AFI | ARC FAULT INTERRUPTION AND PROTECTION |
| GFI | GROUND FAULT INTERRUPTION AND PROTECTION |
| STI | SHUNT TRIP INTERRUPTION AND PROTECTION |
| XXX | ARCHITECTURAL EQUIPMENT REFER TO SCHEDULE DWGS FOR EQUIPMENT SCHEDULES FOR CIRCUIT INFORMATION |

## LIGHTING LUMINAIRES

F1 — 3A,B

LED LIGHTING FIXTURE

"F1" INDICATES FIXTURE TYPE REFER TO LIGHTING FIXTURE SCHEDULE FOR DESCRIPTION AND MOUNTING.

"3" INDICATES BRANCH CIRCUIT NUMBER

F21 — 3A

"A" INDICATES SWITCH CONTROL LETTER CODE

"B" INDICATES SWITCH CONTROL LETTER CODE

F32 3A — LED RECESSED MOUNTED LIGHTING FIXTURE, REFER TO LIGHTING FIXTURE SCHEDULE FOR DESCRIPTION AND LINEAR SURFACE, UNISTRUT MOUNTED OR PENDANT DIRECT LIGHTING FIXTURE

F44 3A

F14 3A — LINEAR SURFACE, UNISTRUT MOUNTED OR PENDANT DIRECT LIGHTING FIXTURE

LED EMERGENCY LIGHTING FIXTURE

F1EM 3 — LED LIGHTING FIXTURE ON THE EMERGENCY "LIFE SAFETY" SYSTEM. "EM" INDICATES FIXTURE ON EMERGENCY SYSTEM.

BATTERY BACK UP UNIT

REMOTE BATTERY BACK UP UNIT

## RISER ELECTRICAL DIAGRAM/SYMBOLS

- POLY PHASE TRANSFORMER
- POTENTIAL TRANSFORMER
- CURRENT TRANSFORMER
- GROUND
- CONTACTOR
- CIRCUIT BREAKER
- SINGLE THROW SWITCH
- FUSE

## EXIT SIGNS

EXIT-STAIR-FIRE ESCAPE LIGHTING FIXTURE:

EXIT-STAIR-FIRE ESCAPE DIRECTIONAL SIGN NO. INDICATE INSCRIPTION, ARROWS AND SINGLE OR DOUBLE FACED AS SHOWN IN THE FOLLOWING SCHEDULE:

SYMBOLS

CEILING MOUNTED - SINGLE FACE | CEILING MOUNTED - DOUBLE FACE | WALL MOUNTED

REMARKS:

1. ALL WORK AND EQUIPMENT SHALL BE NEW.
2. ALL CONDUIT SHALL BE 3/4" MINIMUM. ALL CONDUCTORS SHALL NE #12 THHN, MINIMUM.
3. PROVIDE #10 THHN CONDUCTORS FOR CIRCUITS INSTALLED 150FT AND ABOVE.

## LIGHT FIXTURE MOTOR, LISTED-EQUIPMENT, SWITCHES-OPERATORS

3 $ A K

| | |
|---|---|
| "A-Z" | SWITCH LEG CONTROL LETTER CODE(S) |
| "D" | DIMMER 1,000W CONTROL SWITCH |
| "2" | DOUBLE-POLE TOGGLE SWITCH |
| "3" | TRIPPLE POLE TOGGLE SWITCH |
| "3W" | THREE WAY SWITCH |
| "4W" | FOUR WAY SWITCH |
| "LCD" | LIQUID CRYSTAL DISPLAY PANEL |
| "KP" | KEY PAD |
| "KY" | KEY OPERATED SWITCH |
| "P" | TOGGLE SWITCH WITH PILOT LIGHT |
| "T" | THERMAL SWITCH |
| "TS" | TOUCH SCREEN |
| "WS" | WALL SWITCH |
| "T/S" | TEMP/SENSOR SWITCH |
| "VS" | VACANCY SENSOR |
| "W-STAT" | WALL LINE VOLTAGE STAT |

$ SINGLE POLE TWO-POSITION 20A TOGGLE SWITCH U.N.O. ON THE DWGS WITH SUBSCRIPT CODE(S)

WALL SWITCH MOUNTED PASSIVE INFRARED 180° OCCUPANCY SENSOR

OS CEILING MOUNTED DUAL TECHNOLOGY 360° OCCUPANCY SENSOR, UNLESS NOTED OTHERWISE

VS CEILING MOUNTED DUAL TECHNOLOGY 360° VACANCY SENSOR, UNLESS NOTED OTHERWISE

DS CEILING MOUNTED DUAL TECHNOLOGY 360° DAYLIGHT SAVINGS SENSOR, UNLESS NOTED OTHERWISE

FL JUNCTION BOXES FOR FLUSH SENSORS. CONTRACTOR TO PROVIDE CIRCUIT SHOWN AND ALL ASSOCIATED CONDUIT AND WIRING FOR A COMPLETE AND OPERATING SYSTEM. TYPICAL FOR EVERY LAVATORY, URINAL AND TOILET FLUSH LOCATION. MULTIPLE LAVATORIES AT TOILETS REQUIRED A SINGLE CONNECTION. PROVIDE TRANSFORMERS ABOVE CEILING W/ ACCESS PANELS AND PROVIDE GFI CKT BREAKER AT CORRESPONDING BREAKER.

NOTE:
LIGHTING CONTROL SWITCHES SHOWN ON LIGHTING PLAN VIEWS, EQUIPMENT MOTOR CONTROL SWITCHES SHOWN ON POWER PLAN VIEWS

## MOTORS & LISTED EQUIPMENT CONTROLLERS

- XXX X — MOTOR-LISTED EQUIPMENT REFER TO SCHEDULE DWGS FOR EQUIPMENT SCHEDULES FOR CIRCUIT INFORMATION
- X — MOTOR CONNECTION
- ENCLOSED MAGNETIC MOTOR STARTER
- STR — COMBO MAGNETIC MOTOR STARTER W/ OCPD & LOCK-OUT TAG-OUT DISCONNECT SWITCH
- VFC — COMBINATION VARIABLE FREQUENCY CONTROLLER W/OCPD & LOCK-OUT TAG-OUT DISCONNECT SWITCH
- NON-FUSED DISCONNECT SWITCH & LOCK-OUT TAG-OUT
- FUSED DISCONNECT SWITCH & LOCK-OUT TAG-OUT

## PANELBOARDS AND CONTROLLERS

- FLUSH MOUNTED PANEL - SEE DESCRIPTION FOR TYPE
- SURFACE MOUNTED PANEL - SEE DESCRIPTION FOR TYPE
- FREE STANDING SWITCHBOARD / RACK / CABINET / HOUSING

## CONDUITS RACEWAYS WIREWAYS & J-BOXES

- TWO CHANNEL MULTI-OUTLET RACEWAY FOR SURFACE MOUNT POWER & TECH OPENINGS
- J — JUNCTION BOX
- J — JUNCTION BOX - WALL MOUNTED

## RECEPTACLES

- WALL MOUNTED UNIPLEX RECEPTACLE
- WALL MOUNTED DUPLEX RECEPTACLE
- WALL MOUNTED QUAD RECEPTACLE
- WALL MOUNTED SWITCHED DUPLEX RECEPTACLE
- WALL MOUNTED SWITCHED QUAD RECEPTACLE
- WALL MOUNTED ISOLATED GROUND DUPLEX RECEPTACLE
- WALL MOUNTED ISOLATED GROUND QUAD RECEPTACLE
- FLOOR MOUNTED UNIPLEX RECEPTACLE
- CEILING MOUNTED DUPLEX RECEPTACLE
- CEILING MOUNTED QUAD RECEPTACLE
- CEILING MOUNTED SWITCHED DUPLEX RECEPTACLE
- CEILING MOUNTED SWITCHED QUAD RECEPTACLE
- CEILING MOUNTED ISOLATED GROUND DUPLEX RECEPTACLE
- CEILING MOUNTED ISOLATED GROUND QUAD RECEPTACLE
- RECESSED FLOOR BOX MOUNTED DUPLEX REC
- RECESSED FLOOR BOX MOUNTED QUAD REC
- RECESSED FLOOR BOX SWITCHED MOUNTED DUPLEX REC
- RECESSED FLOOR BOX SWITCHED MOUNTED QUAD REC
- RECESSED FLOOR BOX ISOLATED GROUND MOUNTED DUPLEX REC
- RECESSED FLOOR BOX ISOLATED GROUND MOUNTED QUAD REC
- PEDESTAL MOUNTED POKE-THRU DUPLEX REC
- PEDESTAL MOUNTED POKE-THRU QUAD REC
- WALL MOUNTED NEMA RECEPTACLE
- RECESSED FLOOR BOX MOUNTED NEMA REC
- FLUSH MOUNTED POKE-THRU NEMA REC
- PEDESTAL MOUNTED POKE-THRU NEMA REC
- ABOVE COUNTER MOUNTED DUPLEX RECEPTACLE 48" AFF
- ABOVE COUNTER MOUNTED DUPLEX SWITCHED RECEPTACLE 48" AFF
- PP — PUSH PLATE FOR DOORS

## GENERAL NOTE FOR ALL NON-CIRCUITED ITEMS:

ELECTRICAL CONTRACTOR SHALL CONNECT ALL NORMAL 120V, SINGLE-PHASE LIGHTING FIXTURES TO DEDICATED 120/208V, 3-PHASE, 4W LIGHTING BRANCH CIRCUIT PANELBOARDS AND SHALL NOT EXCEED A TOTAL OF 1,900 VA OF LIGHTING LOAD PER 20 AMP CIRCUIT.

ELECTRICAL CONTRACTOR SHALL CONNECT ALL EMERGENCY LIFE SAFETY 120V, SINGLE-PHASE LIGHTING FIXTURES AND EXIT SIGNS TO DEDICATED 120/208V, 3-PHASE, 4W. LIFE SAFETY LIGHTING BRANCH CIRCUIT PANELBOARDS AND SHALL NOT EXCEED A TOTAL OF 1,000 VA OF LIGHTING LOAD PER 20 AMP CIRCUIT.

## ELECTRICAL REFERENCE NOTES:

1. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE LOCATIONS OF THE FOLLOWING:

A. ALL CEILING MOUNTED LIGHTING FIXTURES AND DEVICES.
B. ALL FIRE RATED PARTITIONS AND BUILDING EXPANSION JOINTS.
C. MOUNTING HEIGHTS OF EQUIPMENT AND DEVICES.

2. REFER TO THE "M" SERIES MECHANICAL DRAWINGS FOR THE LOCATIONS OF THE FOLLOWING:

A. MECHANICAL EQUIPMENT, CONTROL PANELS AND MOTORS.
B. AUTOMATIC TEMPERATURE CONTROL SYSTEM PANELS AND DEVICES.
C. DUCT MOUNTED SMOKE DETECTORS.
D. MOTORIZED DAMPERS AND CONTROL VALVES.
E. ELECTRIC HEAT TRACING OF MECHANICAL PIPING.

3. REFER TO THE "P" SERIES PLUMBING DRAWINGS FOR THE LOCATIONS OF THE FOLLOWING:

A. ELECTRIC WATER HEATERS.
B. ELECTRIC FLUSH VALVES.
C. ELECTRIC HEAT TRACING OF PLUMBING AND DRAINAGE PIPING.

4. REFER TO THE "FP" SERIES FIRE PROTECTION / SPRINKLER DRAWINGS FOR THE LOCATIONS OF THE FOLLOWING:

A. WATER FLOW AND TAMPER SWITCHES.
B. PRE-ACTION AND / OR DELUGE SYSTEM CONTROL PANELS.
C. ELECTRIC HEAT TRACING FOR SPRINKLER PIPING.

5. REFER TO THE APPRORIATE VENDORS APPROVED DIMENSIONED LAYOUT DRAWINGS FOR THE LOCATIONS OF THE FOLLOWING:

A. CONDUIT CONNECTIONS TO FURNITURE AND PREFABRICATED MILLWORK.
B. ELEVATOR AND ESCALATOR RELATED POWER, LIGHTING AND EMPTY CONDUIT PROVISIONS.
C. POWER AND CONTROL WIRING FOR ELECTRICALLY OPERATED DOORS.

# GENERAL ELECTRICAL NOTES

APPLICABLE TO ALL ELECTRICAL DRAWINGS

### 1. DEFINITIONS

"FURNISH" MEANS TO "SUPPLY" AND USUALLY REFERS TO DELIVERY OF AN ITEM OF EQUIPMENT TO THE PROJECT SITE, READY FOR INSTALLATION. EQUIPMENT TO THE PROJECT SITE, READY FOR INSTALLATION. "INSTALL" MEANS TO SET IN PLACE, CONNECT AND PLACE IN FULL OPERATIONAL ORDER. PROVIDE" MEANS TO "FURNISH" AND "INSTALL". "FUTURE", "BY OTHERS", "REFER (DISCIPLINE) DIVISION" AND SIMILAR EXPRESSIONS INDICATE WORK THAT MAY BE PERFORMED UNDER THE CONTRACT DOCUMENTS BUT, NOT NECESSARILY UNDER THE DIVISION OR DISCIPLINE ON WHICH THE NOTE APPEARS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK WITH SUPPLIERS, SUBCONTRACTORS, EMPLOYEES, ETC. SHOULD CLARIFICATION OF ANY PORTION OF THE WORK BE REQUIRED, CONTACT THE ARCHITECT/ENGINEER PRIOR TO SUBMITTING BID.

### 2. CODES

THE WORK SHALL COMPLY WITH LATEST NATIONAL ELECTRIC CODE. THIS WOULD INCLUDE, BUT IS NOT LIMITED TO, THE CURRENT CITY BUILDING CODE. AMENDMENTS, NFPA, ANSI, OSHA, AND ALL OTHER LOCAL OR MUNICIPAL BUREAUS AND DEPARTMENTS WHICH HAVE AUTHORITY OVER THE PROJECT; ANYTHING IN THESE CONTRACT DOCUMENTS NOT WITHSTANDING. THIS SHALL NOT BE CONSTRUED AS WAIVING COMPLIANCE WITH ANY REQUIREMENTS OF THE PLANS AND SPECIFICATIONS WHICH MAY BE IN EXCESS OF ANY REQUIREMENTS OF THESE CODES.

### 3. INTERPRETATION OF THE DOCUMENTS

THE CONTRACTOR SHALL CAREFULLY COMPARE THE DRAWINGS AND SPECIFICATIONS, CHECKING THE MEASUREMENTS AND CONDITIONS UNDER WHICH CONSTRUCTION IS TO BE IMPLEMENTED. FOR CLARIFICATION BETWEEN VARIOUS DRAWINGS AND/OR SPECIFICATIONS, THE DISPUTED ISSUE SHALL BE REFERRED TO THE ENGINEER BEFORE ANY WORK IS EXECUTED. THE CONTRACTOR SHALL STATE IN THEIR PROPOSAL ANY EXCEPTIONS NECESSARY TO MAKE THIS WORK A COMPLETE AND READY-TO-USE INSTALLATION. IF NOT SO-STATED IN THE CONTRACTOR'S PROPOSAL, ANY SUCH WORK WILL NOT BE CONSIDERED ADDITIONAL.

### 4. COORDINATION

THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND SHALL NOT BE SCALED. TO THIS EXTENT, DATA GIVEN ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL REQUIRED WORK AND EQUIPMENT WITH THAT OF THE OTHER TRADES. WHERE THERE ARE POTENTIAL CONFLICTS, THE CONTRACTOR SHALL OBTAIN AND VERIFY EXACT LOCATIONS, MEASUREMENTS, LEVELS, SPACE REQUIREMENTS, ETC. AT THE SITE AND SHALL SATISFACTORILY ADAPT HIS WORK TO ACTUAL FIELD CONDITIONS. REFER TO ARCHITECTURAL/MECHANICAL DRAWINGS FOR PLANS, ELEVATIONS AND DETAILS INDICATING THE LOCATIONS OF CEILING ELEMENTS (E.G., LIGHTS, SPRINKLERS, DIFFUSERS, ETC.) AND WALL ELEMENTS. CEILING MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL CEILING TYPES IN ALL AREAS.

### 5. SITE EXAMINATION

THE CONTRACTOR SHALL CAREFULLY EXAMINE THE CONTRACT DOCUMENTS, VISIT THE SITE, EXAMINE THE PREMISES, AND MAKE A THOROUGH SURVEY OF THE CONDITIONS UNDER WHICH CONSTRUCTION WILL BE IMPLEMENTED. THE SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT. ANY LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE, WILL NOT BE RECOGNIZED.

### 6. PERMITS

THE CONTRACTOR SHALL SECURE, OBTAIN AND PAY FOR ALL PERMITS, INSPECTIONS, TAXES, LICENSES, AND FEES TO ALL GOVERNMENT AGENCIES REQUIRED FOR THE EXECUTION AND COMPLETION OF THE ELECTRICAL WORK. SCHEDULING OF ALL REQUIRED INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL PREPARE AND SUBMIT ALL SHOP DRAWINGS AS REQUIRED TO THE GOVERNMENTAL AGENCIES AND UTILITY COMPANIES FOR THEIR APPROVAL.

### 7. SAFETY

THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE SAFETY OF THE CLIENT'S EMPLOYEES, BUILDING EMPLOYEES AND GUESTS AS WELL AS THEIR OWN FORCES, BY ADEQUATELY PROTECTING ANY EXPOSED LIVE CABLE, EQUIPMENT, OR DEVICES THROUGHOUT THE COURSE OF THIS WORK.

### 8. CONTRACTOR'S DRAWING REVIEW

ALL CONTRACTORS/BIDDERS SHALL HAVE RECEIVED A COMPLETE SET OF CONSTRUCTION DOCUMENTS FOR REVIEW AND REFERENCE TO WORK INDICATED. CONDUIT LOCATE SERVICES SHALL BE REQUESTED AND COMPLETED BEFORE DISTURBANCE OF ANY EXISTING GRADE OR ON-GRADE CONSTRUCTION, SLAB DEMOLITION, OR OTHER ACTIVITIES THAT MAY IMPACT BURIED UTILITIES OR COMMUNICATION CONDUITS. THE CONTRACTOR SHALL CONFIRM THAT CONDUIT LOCATE SERVICES HAVE BEEN COMPLETED AND THAT NO POTENTIAL CONFLICTS EXIST BEFORE EXISTING GRADE IS EXCAVATED OR EXISTING FLOORING DEMOLISHED, REGARDLESS OF THE LOCATION ON THE PROPERTY. THIS SHALL BE REVIEWED WITH THE OWNER'S PROJECT REPRESENTATIVE.

### 9. STATEMENT OF WORK

THE CONTRACTOR SHALL PROVIDE THE COMPLETE ELECTRICAL INSTALLATION OF WORK AS INDICATED IN THE CONSTRUCTION DOCUMENTS. PRIOR TO COMMENCEMENT, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL, ANY SEQUENCE OF WORK, MOP'S (METHOD OF PROCEDURE) AND/OR COORDINATION SHOP DRAWINGS FOR THE INTENDED WORK. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY MATERIALS OR APPARATUS BELIEVED TO BE INADEQUATE, UNSUITABLE, VIOLATION OF LAWS, ORDINANCES, RULES OR REGULATIONS OF AUTHORITIES HAVING JURISDICTION.

### 10. WORK PERFORMANCE REQUIREMENTS

ANY PENETRATIONS OR OPENINGS IN FIRE-RATED PARTITIONS (WALLS OR FLOORS) SHALL BE CLOSED AT THE END OF EACH WORK DAY, OR WHENEVER IT IS ANTICIPATED THAT NO FURTHER WORK WILL OCCUR IN THAT OPENING DURING THE DAY. THIS INCLUDES ALL TEMPORARY OPENINGS. CLOSURE SHALL BE IN COMPLIANCE WITH 3M FIREPROOFING TEMPORARY OPENINGS. CLOSURE SHALL BE IN COMPLIANCE WITH 3M FIREPROOFING END OF EACH WORK DAY. ALL TEMPORARY WALL AND FLOOR OPENINGS SHALL BE PROTECTED AND MARKED AT ALL TIMES. PAINTING SHALL BE SCHEDULED SUCH THAT DRYING TIME OCCURS DURING NON-WORKING HOURS FOR OPERATIONS PERSONNEL COMFORT. NO WELDING SHALL TAKE PLACE INSIDE OF OPERATING FACILITY WITHOUT THE WRITTEN AUTHORIZATION OF THE OWNER'S PROJECT REPRESENTATIVE. WELDING SHALL NOT TAKE PLACE WITHIN 5 FEET OF ANY TELECOM EQUIPMENT RACK WITHOUT ADEQUATE PROTECTIVE MEASURES, AS DEEMED APPROPRIATE BY THE OWNER'S PROJECT REPRESENTATIVE. THE CONTRACTOR SHALL CHECK, VERIFY AND LABEL PHASE ROTATION ANY TIME LEADS ARE CONNECTED TO A NEW OR EXISTING AC SERVICE, GENSET, RECTIFIER OR ANY MOTOR-EQUIPPED, 3-PHASE EQUIPMENT. ALL THREE-PHASE PANELS SERVING SINGLE-PHASE LOADS SHALL BE BALANCED WITHIN 10 PERCENT, USING AMMETER READINGS. MEASUREMENTS SHALL BE TAKEN AT THE END OF CONSTRUCTION AND AGAIN AFTER 30 DAYS IN SERVICE.

### 11. CUTTING AND PATCHING

ALL CUTTING, DRILLING AND PATCHING OF MASONRY STEEL OR IRON WORK BELONGING TO THE BUILDING MUST BE DONE BY THIS CONTRACTOR IN ORDER THAT HIS WORK MAY BE PROPERLY INSTALLED, BUT UNDER NO CONDITIONS MAY STRUCTURAL WORK BE CUT, EXCEPT AT THE DIRECTIONS OF THE ARCHITECT/ENGINEER OR THEIR REPRESENTATIVE.

### 12. AS-BUILT DRAWINGS

THE CONTRACTOR SHALL PROVIDE ALL "AS-BUILT" DRAWINGS SCALED 1/4" MINIMUM AND SUBMIT FOR APPROVAL TO THE ARCHITECT/ENGINEER.

### 13. FIRESTOPPING

ALL PENETRATIONS IN WALLS, FLOORS, OR CEILINGS SHALL BE SUITABLY CLOSED UP AND SEALED WITH A FIRE-STOPPING COMPOUND LISTED IN THE MOST RECENT FACTORY MUTUAL RESEARCH CORPORATION (FMRC) APPROVAL GUIDE. ONLY PRODUCTS MANUFACTURED BY HILTI SHALL BE PREFERRED (NO SUBSTITUTIONS).

### 14. TEMPORARY POWER AND LIGHTING

THE CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING FOR THIS WORK DURING CONSTRUCTION. TEMPORARY LIGHTING SHALL AT LEAST BE THE EQUAL OF (1)100-WATT FIXTURE EVERY 100 SQUARE FEET, WITH A MINIMUM ONE FIXTURE PER ROOM. TEMPORARY LIGHTING SHALL BE LEFT IN PLACE UNTIL PERMANENT LIGHTING IS COMPLETELY OPERATIONAL. COORDINATE TEMPORARY POWER REQUIREMENTS WITH THE OTHER TRADES AND PROVIDE ADEQUATE PROVISIONS. THE CONTRACTOR SHALL PERFORM ALL COORDINATION WITH THE OWNER AND/OR LANDLORD AND UTILITY COMPANY.

### 15. SWITCH AND RECEPTACLE IDENTIFICATION

PROVIDE MACHINE-PRINTED, PRESSURE SENSITIVE, ABRASION RESISTANT LABEL TAPE ON FACE OF ALL DEVICE PLATES TO IDENTIFY THE PANELBOARD AND CIRCUIT NUMBER FROM WHICH EACH DEVICE IS SERVED.

### 17. PANELBOARDS

ALL PANELBOARDS IN WHICH WORK OCCURS PER THESE DOCUMENTS, SHALL BE PROVIDED WITH UPDATED-TYPEWRITTEN DIRECTORIES. GIVEN ONLY FOR CLARITY AND QUANTITY, CIRCUIT NUMBERS SHOWN IN THE PLANS MAY NOT NECESSARILY REPRESENT ACTUAL CIRCUIT NUMBERS IN PANELBOARD. FROM FLUSH-MOUNTED PANELBOARDS, STUB-OUT ONE 3/4" CONDUIT INTO THE CEILING CAVITY FOR EACH SET OF 3 SPARES AND/OR SPACES OR FRACTION THEREOF.

### 18. WIRING

UNLESS NOTED OTHERWISE, ALL WIRE AND CABLE SHALL BE 600-VOLT COPPER CONDUCTORS WITH TYPE "THHN/THWN" INSULATION. MINIMUM WIRE SIZE SHALL BE #12 AWG FOR LIGHTING AND POWER CIRCUITS AND #14 AWG FOR CONTROL CIRCUITS. PROVIDE GROUNDING FOR CIRCUITS PER NATIONAL ELECTRIC CODE. UNLESS SPECIFICALLY NOTED OTHERWISE IN THE PLANS, ALL CABLING SHALL BE (2) #12 AND (1) #12 G IN 3/4" C. (NO SHARED NEUTRALS).

### 19. CONDUIT/RACEWAY SYSTEMS

THE CONDUIT ROUTINGS INDICATED ARE ONLY DIAGRAMMATIC IN NATURE. FIELD CONDITIONS SHALL DICTATE THE CONTRACTOR'S EXACT CONDUIT ROUTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING AND LOCATING PULL BOXES PER THE NEC AND FOR COORDINATION WITH OTHER DISCIPLINES. ALL EXPOSED RACEWAYS SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO WALLS OR STRUCTURAL MEMBERS, SUCH AS TO FOLLOW STRUCTURAL SURFACE CONTOURS AND NOT OBSTRUCT PASSAGEWAYS. MULTIPLE RACEWAYS SHALL BE RUN TOGETHER, IN GROUPING. ALL EXPOSED CONDUIT SHALL BE ROUTED PERPENDICULAR, PARALLEL AND TIGHT TO COLUMNS AND BEAMS. ALL EXPOSED CONDUIT SHALL BE COORDINATED WITH THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION. EXTRA TIME SHOULD BE ALLOWED FOR THIS REVIEW AND APPROVAL. NO ADDITIONAL COST TO OWNER WILL BE ALLOWED DUE TO LACK OF COORDINATION. ALL CONDUIT SHALL BE ELECTRICAL METALLIC TUBING (EMT) AND MINIMUM SIZE SHALL BE 3/4" UNLESS NOTED OTHERWISE. CONNECTORS AND COUPLINGS SHALL BE INSULATED-THROAT COMPRESSION TYPE ONLY. RIGID GALVANIZED-STEEL (RGS) CONDUIT SHALL BE USED WHEN CONDUIT IS INSTALLED IN OUTDOOR AREAS OR WHERE OTHERWISE EXPOSED TO PHYSICAL HARM. EMERGENCY SYSTEMS SHALL BE RUN IN SEPARATE RACEWAY/CONDUIT SYSTEM(S). A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE PULLED WITH THE CIRCUIT CONDUCTORS, WHETHER OR NOT INDICATED ON THE DRAWINGS. METAL RACEWAY OR CABLE ARMOR/SHEATH SHALL NOT BE USED AS THE PRIMARY EQUIPMENT GROUNDING CONDUCTOR. RACEWAY SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONTINUOUS AND SHALL BE BONDED AT ALL POINTS TO THE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ACCORDANCE WITH THE APPLICABLE PROVISIONS IN ARTICLE 250 OF NATIONAL ELECTRIC CODE.

### 20. EQUIPMENT

ALL MATERIALS AND EQUIPMENT PROVIDED IN THIS WORK SHALL BE NEW AND SHALL HAVE THE APPROPRIATE UL LISTING AND/OR FM APPROVAL. UNLESS NOTED OTHERWISE, DISCONNECT/SAFETY SWITCHES SHALL BE NON-FUSED HEAVY-DUTY 600-VOLT TYPE. INDOOR ENCLOSURES SHALL BE NEMA 1 AND OUTDOOR ENCLOSURES SHALL BE NEMA 3R.

### 21. MECHANICAL EQUIPMENT

ALL MECHANICAL EQUIPMENT WILL BE INSTALLED BY THE DIVISION 22 & 23 CONTRACTOR. COORDINATE THE EXACT LOCATION AND NATURE OF ANY REQUIRED ELECTRICAL CONNECTION TO BE PROVIDED FOR MECHANICAL EQUIPMENT PRIOR TO ROUGH-IN. VERIFY THE ELECTRICAL SERVICE REQUIRED FOR EACH ITEM OF MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO FURNISHING SUCH POWER. REFER TO MECHANICAL DRAWING FOR MECHANICAL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS. MAKE CONNECTION AND PROVIDE APPROPRIATE WIRE, CONDUIT AND OVER CURRENT PROTECTION FOR EQUIPMENT. THE DISCONNECTING MEANS FOR ALL MECHANICAL EQUIPMENT SHALL BE ACCESSIBLE AND HAVE CLEARANCES AS REQUIRED BY THE APPLICABLE BUILDING CODES. MOTORS SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 22 & 23 WORK, WITH POWER CONNECTED UNDER DIVISION 16 WORK. FINAL CONNECTION SHALL BE MADE WITH SUITABLE LENGTH OF LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT. ALL MOTOR BRANCH CIRCUITS, ETC., SHALL BE FIELD-VERIFIED FOR PROPER SEQUENCE AND MOTOR ROTATION. PHASE SEQUENCE SHALL BE A-B-C (VIEWED FROM FRONT: LEFT TO RIGHT, TOP TO BOTTOM, FRONT TO REAR). REFER TO MECHANICAL DRAWINGS FOR MOTORS THAT ARE TO BE INTERLOCKED.

### 22. MISCELLANEOUS SUPPORTING MEMBERS

ALL ANGLES, CHANNELS, AND OTHER MISCELLANEOUS STEEL, BOLTS, THREADED RODS, ETC., REQUIRED TO SUPPORT LIGHT FIXTURES, LADDER TRAY OR OTHER ELECTRICAL EQUIPMENT OR DEVICES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. ALL THREADED RODS SHALL BE A MINIMUM OF 3/8" IN DIAMETER. ALL LIGHTING FIXTURES AT SUSPENDED CEILINGS SHALL BE PROPERLY SUPPORTED.

### 23. LIGHTING REFERENCES

ELECTRICAL CONTRACTOR SHALL REFERENCE THE "E2.X" SERIES DRAWINGS ALONG WITH THE ARCHITECTURAL DRAWINGS FOR ALL LIGHTING FIXTURE TYPES, QUANTITIES AND LOCATIONS. ELECTRICAL CONTRACTOR SHALL CIRCUIT ALL LIGHTING FIXTURES TO RESPECTIVE BRANCH CIRCUIT LIGHTING PANELBOARDS AND ASSOCIATED CONTROLS WHETHER OR NOT A CIRCUIT NUMBER DESIGNATION AND PANEL SOURCE IS SHOWN ON THE ELECTRICAL DRAWINGS.

### 24. SWITCHED CONTROLLED RECEPTACLES

AUTOMATIC RECEPTACLE CONTROL: 50% OF ALL 125 VOLT 15- AND 20-AMPERE RECEPTACLES IN PRIVATE OFFICES, CONFERENCE ROOMS, PRINTING/COPYING ROOMS, BREAK ROOMS, CLASSROOMS, AND INDIVIDUAL WORKSTATIONS SHALL BE AUTOMATICALLY SWITCHED OFF WHEN THE SPACE IN WHICH THEY ARE LOCATED IS NOT OCCUPIED. ALL INDIVIDUAL WORKSTATIONS CREATED WITH MODULAR FURNITURE SHALL BE REQUIRED TO HAVE AT LEAST 50% OF THE RECEPTACLES IN EACH WORKSTATION AUTOMATICALLY CONTROLLED.

ALL CONTROLLED RECEPTACLES SHALL BE VISUALLY DISTINCT FROM NON-CONTROLLED RECEPTACLES. SWITCHED RECEPTACLES SHALL BE IDENTIFIED BY RECEPTACLE COLOR, INDICATION LIGHTS INTEGRAL TO THE RECEPTACLE, PERMANENTLY MARKED/ENGRAVED RECEPTACLE LABELING, ETC. REGARDLESS OF THE MEANS OF IDENTIFICATION, MAINTAINING CLEAR, UNIFORM IDENTIFICATION THROUGHOUT A BUILDING WILL INCREASE OCCUPANT UNDERSTANDING AND REDUCE CONFUSION.

ALL CONTROLLED RECEPTACLES SHALL BE CONTROLLED VIA RELAY PANEL(S) OR LOCAL STAND-ALONE CEILING MOUNTED OCCUPANCY/VACANCY SENSORS. PROVIDE ALL REQUIRED CONDUIT, WIRING, RELAYS, ETC. FOR A COMPLETE AND FUNCTIONAL CONTROLLED RECEPTACLE SYSTEM.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| AC | ABOVE COUNTER | MCB | MAIN CIRCUIT BREAKER |
| AFF | ABOVE FINISHED FLOOR | MMD | MULTI-METERING DEVICE |
| ATS | AUTOMATIC TRANSFER SWITCH | MLO | MAIN LUGS ONLY |
| CB | CIRCUIT BREAKER | MS | MOTORIZED SCREEN OR SHADES |
| CCT | CIRCUIT | MV | MEDIUM VOLTAGE |
| CM | COFFEE MAKER | MW | MICROWAVE |
| CO | CONDUIT ONLY | N | NORMAL POWER |
| CP | CONTROL PANEL | NC | NORMALLY CLOSED (CONTACTS) |
| DISC | DISCONNECT | NIC | NOT IN CONTRACT |
| DN | DOWN | NO | NORMALLY OPEN (CONTACTS) |
| DM | DISPLAY MONITOR | NTS | NOT TO SCALE |
| DW | DISH WASHER | OHD | OVERHEAD GARAGE DOOR |
| E | EXISTING TO REMAIN | P | PROJECTOR |
| ECD | ELECTRIC CLOTHES DRYER | PNL | PANEL |
| EHD | ELECTRIC HAND DRYER | PRI | PRIMARY |
| EM | EMERGENCY | PT | POTENTIAL TRANSFORMER |
| ER | ELECTRIC RANGE | PV | PHOTOVOLTAIC SYSTEM |
| ESP | ELEVATOR STATUS PANEL | R | EXISTING TO BE REMOVED |
| EWC | ELECTRIC WATER COOLER | RCP | REFLECTED CEILING PLAN |
| FCU | FAN COIL UNIT | REF | REFRIGERATOR |
| FPB | FAN POWERED BOX | SEC | SECONDARY |
| GD | GARBAGE DISPOSAL | SM | SNOW MELT SYSTEM |
| GFI | GROUND FAULT INTERRUPTER | SPDT | SINGLE POLE DOUBLE THROW |
| GRD | GROUND | SW | SWITCH |
| HOA | HAND OFF AUTOMATIC | TP | TAMPER PROOF |
| HP | HORSEPOWER | UC | UNDER COUNTER REFRIGERATOR |
| HT | HEAT TRACE | UH | UNIT HEATER |
| IS | IRRIGATION SYSTEM | USB | RECEPTACLES WITH 2 INTEGRAL USB PORTS |
| JB | JUNCTION BOX | VCP | VOICE COMMAND PANEL |
| KV | KILOVOLT | W | WASHER |
| KW | KILOWATT | WG | WIRE GUARD |
| LEG. REQ. | LEGALLY REQUIRED | WP | WEATHERPROOF |
| LTG | LIGHTING | WT | WATERTIGHT |

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.15.2021 |
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| --- | --- |

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

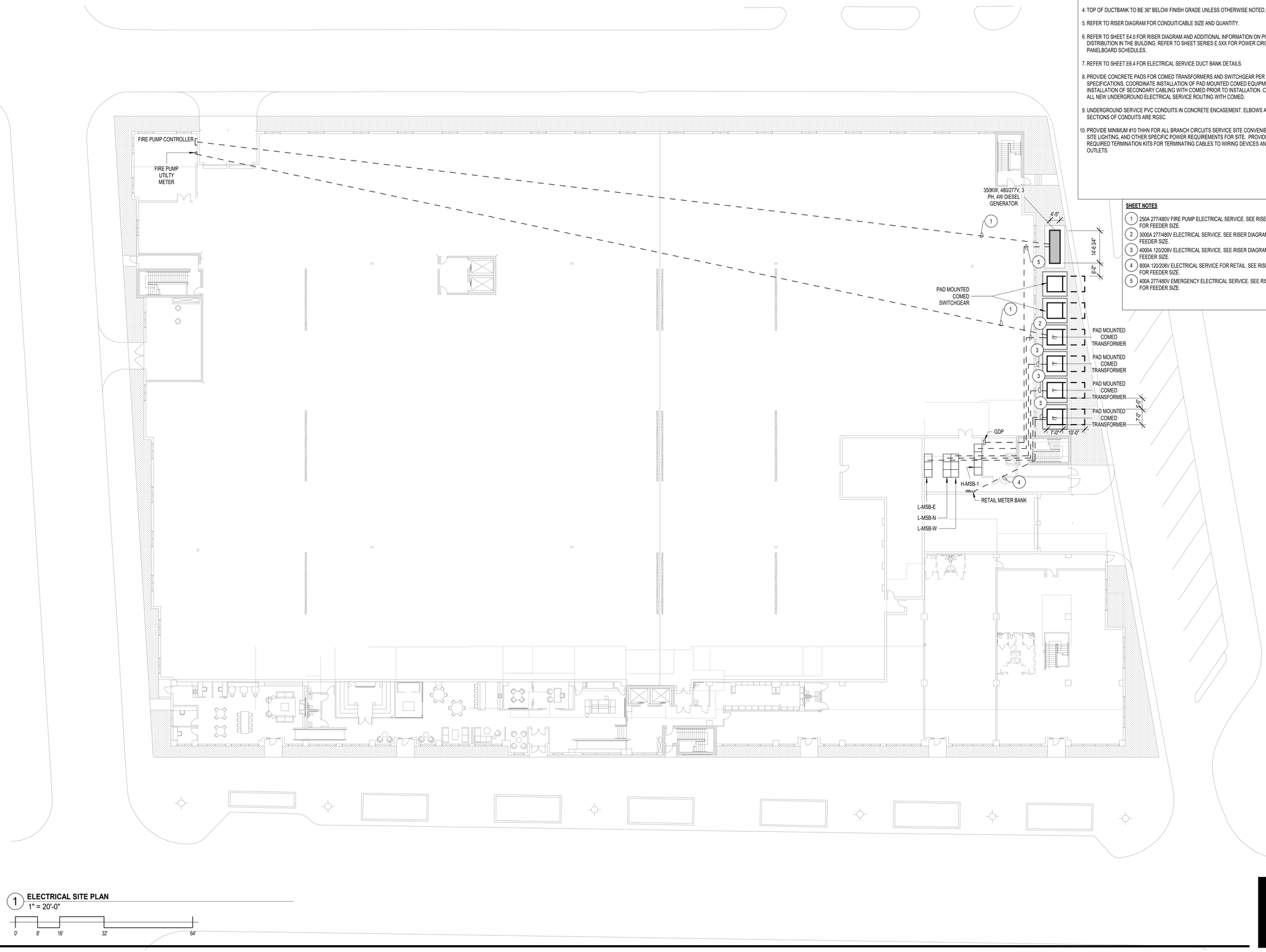
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E0.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **ELECTRICAL SITE PLAN**
1" = 20'-0"

0' 8' 16' 32' 64'

**GENERAL NOTES**

1. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF EXISTING UTILITY POLES AND ComEd MANHOLES.
2. COORDINATE ALL NEW UNDERGROUND ELECTRICAL SERVICE ROUTING AND EXACT REQUIREMENTS WITH CIVIL DRAWINGS AND COMED PRIOR TO INSTALLATION.
3. A SINGLE CONDUIT RUN SHALL NOT HAVE MORE THAN (3) 90 DEGREE BENDS. PROVIDE PRECAST CONCRETE OPEN BOTTOM HANDHOLES AS REQUIRED.
4. TOP OF DUCTBANK TO BE 36" BELOW FINISH GRADE UNLESS OTHERWISE NOTED.
5. REFER TO RISER DIAGRAM FOR CONDUIT/CABLE SIZE AND QUANTITY.
6. REFER TO SHEET E4.0 FOR RISER DIAGRAM AND ADDITIONAL INFORMATION ON POWER DISTRIBUTION IN THE BUILDING. REFER TO SHEET SERIES E.5XX FOR POWER CIRCUITRY AND PANELBOARD SCHEDULES.
7. REFER TO SHEET E6.4 FOR ELECTRICAL SERVICE DUCT BANK DETAILS.
8. PROVIDE CONCRETE PADS FOR COMED TRANSFORMERS AND SWITCHGEAR PER COMED SPECIFICATIONS. COORDINATE INSTALLATION OF PAD MOUNTED COMED EQUIPMENT AND INSTALLATION OF SECONDARY CABLING WITH COMED PRIOR TO INSTALLATION. COORDINATE ALL NEW UNDERGROUND ELECTRICAL SERVICE ROUTING WITH COMED.
9. UNDERGROUND SERVICE PVC CONDUITS IN CONCRETE ENCASEMENT. ELBOWS AND VERTICAL SECTIONS OF CONDUITS ARE RGSC.
10. PROVIDE MINIMUM #10 THHN FOR ALL BRANCH CIRCUITS SERVICE SITE CONVENIENCE POWER, SITE LIGHTING, AND OTHER SPECIFIC POWER REQUIREMENTS FOR SITE. PROVIDE ALL REQUIRED TERMINATION KITS FOR TERMINATING CABLES TO WIRING DEVICES AND LIGHTING OUTLETS.

**SHEET NOTES**

1. 250A 277/480V FIRE PUMP ELECTRICAL SERVICE. SEE RISER DIAGRAM FOR FEEDER SIZE.
2. 3000A 277/480V ELECTRICAL SERVICE. SEE RISER DIAGRAM FOR FEEDER SIZE.
3. 4000A 120/208V ELECTRICAL SERVICE. SEE RISER DIAGRAM FOR FEEDER SIZE.
4. 800A 120/208V ELECTRICAL SERVICE FOR RETAIL. SEE RISER DIAGRAM FOR FEEDER SIZE.
5. 400A 277/480V EMERGENCY ELECTRICAL SERVICE. SEE RISER DIAGRAM FOR FEEDER SIZE.

| REVISION | DATE |
|---|---|
| 1 | 04.15.2021 |
| ISSUE FOR PERMIT | 04.15.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

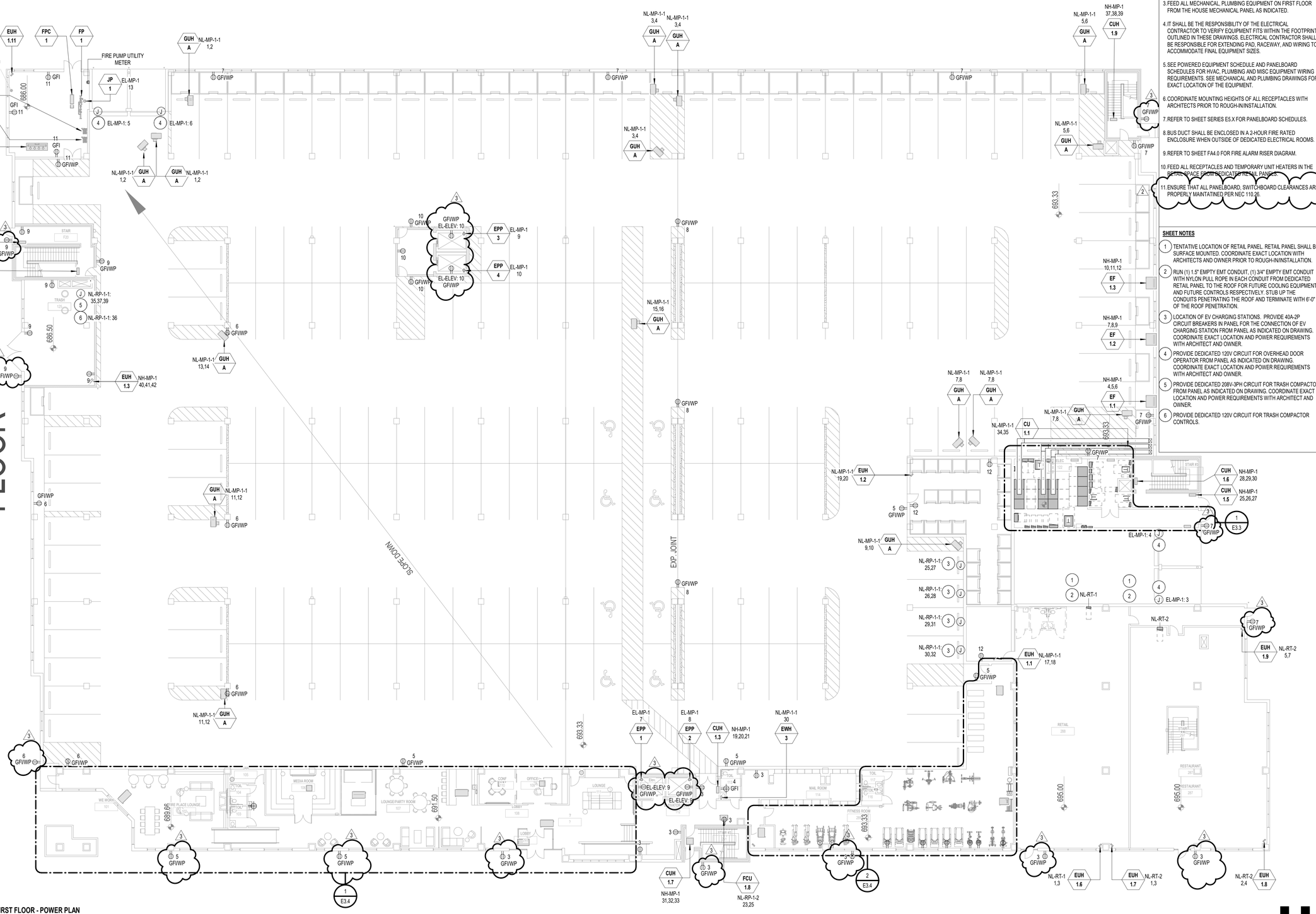
E0.1


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

# FIRST FLOOR




1 **FIRST FLOOR - POWER PLAN**
1/16" = 1'-0"

0' 4' 8' 16' 32'

## GENERAL NOTES

1. REFER TO SHEET E4.0 FOR RISER DIAGRAM AND ADDITIONAL INFORMATION ON POWER DISTRIBUTION IN THE BUILDING.
2. FEED ALL RECEPTACLES ON THE FIRST FLOOR FROM HOUSE RECEPTACLE PANEL NL-RP-1-1 UNLESS OTHERWISE NOTED.
3. FEED ALL MECHANICAL, PLUMBING EQUIPMENT ON FIRST FLOOR FROM THE HOUSE MECHANICAL PANEL AS INDICATED.
4. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY EQUIPMENT FITS WITHIN THE FOOTPRINT OUTLINED IN THESE DRAWINGS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXTENDING PAD, RACEWAY, AND WIRING TO ACCOMMODATE FINAL EQUIPMENT SIZES.
5. SEE POWERED EQUIPMENT SCHEDULE AND PANELBOARD SCHEDULES FOR HVAC, PLUMBING AND MISC EQUIPMENT WIRING REQUIREMENTS. SEE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION OF THE EQUIPMENT.
6. COORDINATE MOUNTING HEIGHTS OF ALL RECEPTACLES WITH ARCHITECTS PRIOR TO ROUGH-IN/INSTALLATION.
7. REFER TO SHEET SERIES E5.X FOR PANELBOARD SCHEDULES.
8. BUS DUCT SHALL BE ENCLOSED IN A 2-HOUR FIRE RATED ENCLOSURE WHEN OUTSIDE OF DEDICATED ELECTRICAL ROOMS.
9. REFER TO SHEET FA4.0 FOR FIRE ALARM RISER DIAGRAM.
10. FEED ALL RECEPTACLES AND TEMPORARY UNIT HEATERS IN THE RETAIL SPACE FROM DEDICATED RETAIL PANELS.
11. ENSURE THAT ALL PANELBOARD, SWITCHBOARD CLEARANCES ARE PROPERLY MAINTAINED PER NEC 110.26.

## SHEET NOTES

1. TENTATIVE LOCATION OF RETAIL PANEL. RETAIL PANEL SHALL BE SURFACE MOUNTED. COORDINATE EXACT LOCATION WITH ARCHITECTS AND OWNER PRIOR TO ROUGH-IN/INSTALLATION.
2. RUN (1) 1.5" EMPTY EMT CONDUIT, (1) 3/4" EMPTY EMT CONDUIT WITH NYLON PULL ROPE IN EACH CONDUIT FROM DEDICATED RETAIL PANEL TO THE ROOF FOR FUTURE COOLING EQUIPMENT AND FUTURE CONTROLS RESPECTIVELY. STUB UP THE CONDUITS PENETRATING THE ROOF AND TERMINATE WITH 6'-0" OF THE ROOF PENETRATION.
3. LOCATION OF EV CHARGING STATIONS. PROVIDE 40A-2P CIRCUIT BREAKERS IN PANEL FOR THE CONNECTION OF EV CHARGING STATION FROM PANEL AS INDICATED ON DRAWING. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS WITH ARCHITECT AND OWNER.
4. PROVIDE DEDICATED 120V CIRCUIT FOR OVERHEAD DOOR OPERATOR FROM PANEL AS INDICATED ON DRAWING. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS WITH ARCHITECT AND OWNER.
5. PROVIDE DEDICATED 208V-3PH CIRCUIT FOR TRASH COMPACTOR FROM PANEL AS INDICATED ON DRAWING. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS WITH ARCHITECT AND OWNER.
6. PROVIDE DEDICATED 120V CIRCUIT FOR TRASH COMPACTOR CONTROLS.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |


db HMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

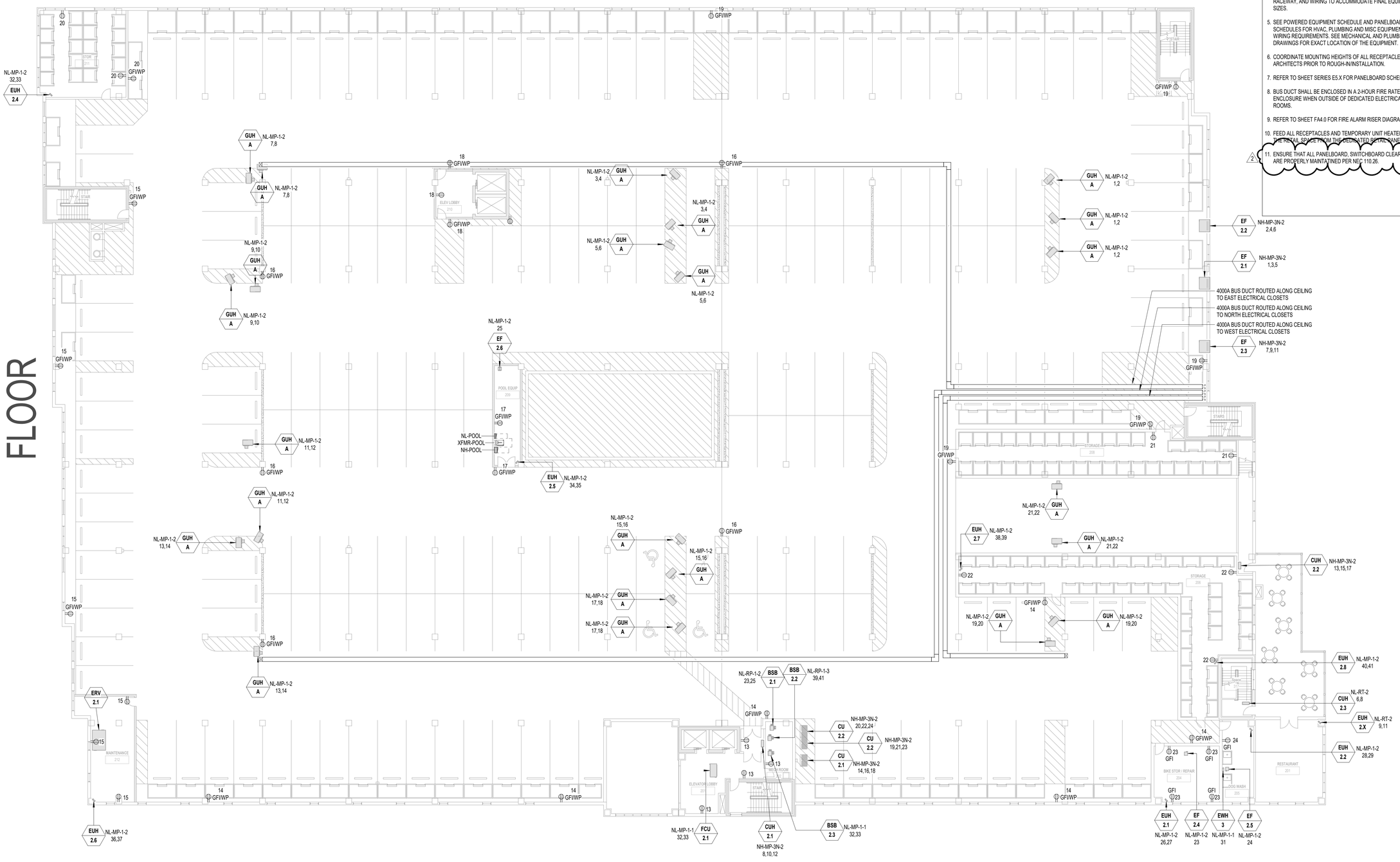
E1.1


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

# FLOOR




1 **SECOND FLOOR - POWER PLAN**
1/16" = 1'-0"

0' 4' 8' 16' 32'

N

**GENERAL NOTES**

1. REFER TO SHEET E4.0 FOR RISER DIAGRAM AND ADDITIONAL INFORMATION ON POWER DISTRIBUTION IN THE BUILDING.
2. FEED ALL RECEPTACLES ON THE SECOND FLOOR FROM HOUSE RECEPTACLE PANEL NL-RP-1-1 UNLESS OTHERWISE NOTED.
3. FEED ALL MECHANICAL, PLUMBING EQUIPMENT ON SECOND FLOOR FROM THE HOUSE MECHANICAL PANEL AS INDICATED.
4. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY EQUIPMENT FITS WITHIN THE FOOTPRINT OUTLINED IN THESE DRAWINGS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXTENDING PAD, RACEWAY, AND WIRING TO ACCOMMODATE FINAL EQUIPMENT SIZES.
5. SEE POWERED EQUIPMENT SCHEDULE AND PANELBOARD SCHEDULES FOR HVAC, PLUMBING AND MISC EQUIPMENT WIRING REQUIREMENTS. SEE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION OF THE EQUIPMENT.
6. COORDINATE MOUNTING HEIGHTS OF ALL RECEPTACLES WITH ARCHITECTS PRIOR TO ROUGH-IN/INSTALLATION.
7. REFER TO SHEET SERIES E5.X FOR PANELBOARD SCHEDULES.
8. BUS DUCT SHALL BE ENCLOSED IN A 2-HOUR FIRE RATED ENCLOSURE WHEN OUTSIDE OF DEDICATED ELECTRICAL ROOMS.
9. REFER TO SHEET FA4.0 FOR FIRE ALARM RISER DIAGRAM.
10. FEED ALL RECEPTACLES AND TEMPORARY UNIT HEATERS IN THE RETAIL SPACE FROM THE DEDICATED RETAIL PANELS
11. ENSURE THAT ALL PANELBOARD, SWITCHBOARD CLEARANCES ARE PROPERLY MAINTAINED PER NEC 110.26.

2

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |


dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

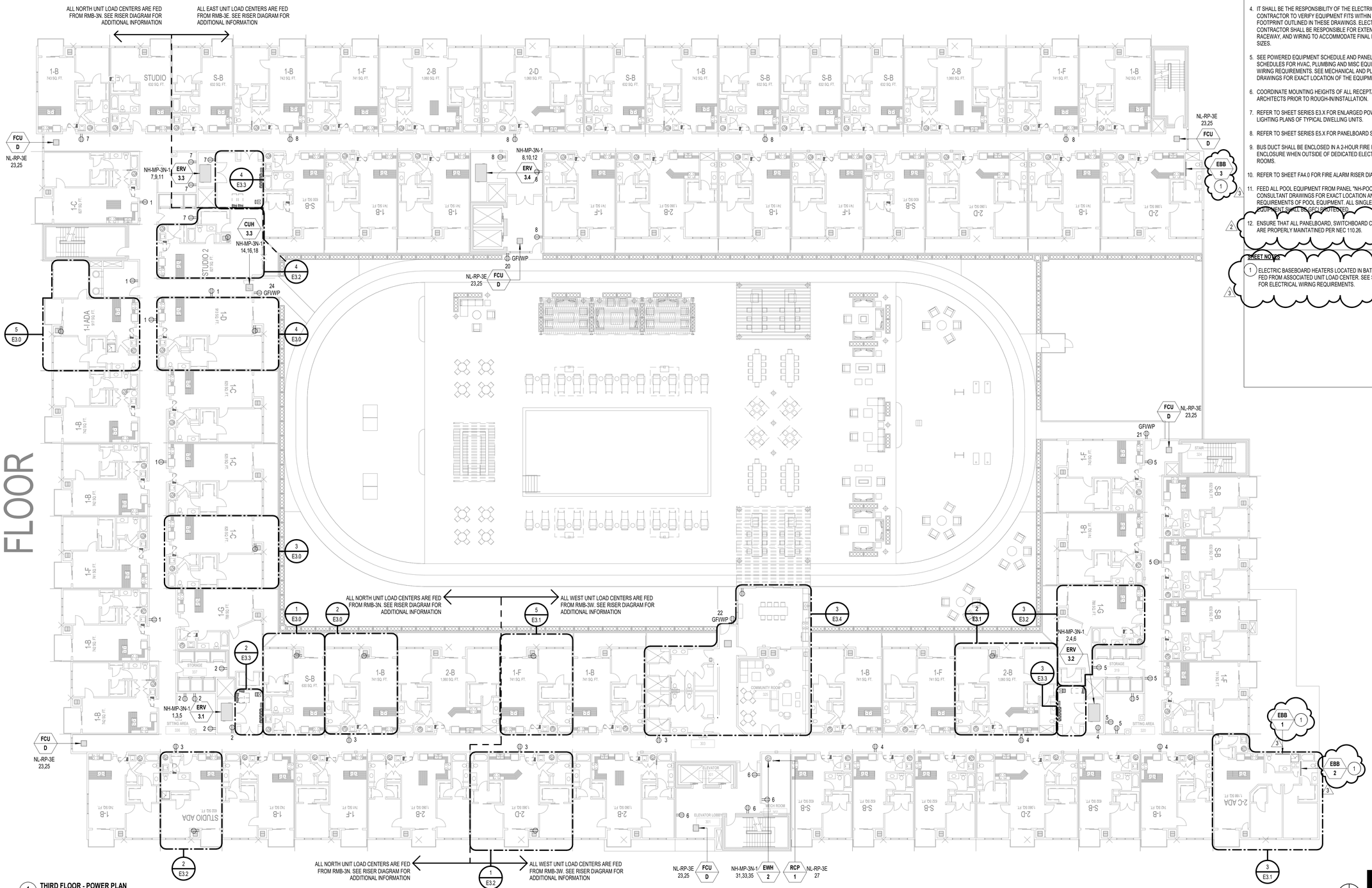
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E1.2


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 THIRD FLOOR - POWER PLAN
1/16" = 1'-0"

0' 4' 8' 16' 32'

## GENERAL NOTES

1. REFER TO SHEET E4.0 FOR RISER DIAGRAM AND ADDITIONAL INFORMATION ON POWER DISTRIBUTION IN THE BUILDING. REFER TO SHEET E4.1 FOR EMERGENCY RISER DIAGRAM AND ADDITIONAL INFORMATION ON EMERGENCY POWER DISTRIBUTION IN THE BUILDING.
2. FEED ALL RECEPTACLES IN THE THIRD FLOOR CORRIDORS, ELECTRICAL CLOSETS, AMENITY SPACES, AND BACK OF HOUSE SPACES FROM HOUSE RECEPTACLE PANEL NL-RP-3E UNLESS OTHERWISE NOTED.
3. FEED ALL MECHANICAL, PLUMBING EQUIPMENT ON THIRD FLOOR FROM THE HOUSE MECHANICAL PANEL AS INDICATED.
4. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY EQUIPMENT FITS WITHIN THE FOOTPRINT OUTLINED IN THESE DRAWINGS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXTENDING PAD, RACEWAY, AND WIRING TO ACCOMMODATE FINAL EQUIPMENT SIZES.
5. SEE POWERED EQUIPMENT SCHEDULE AND PANELBOARD SCHEDULES FOR HVAC, PLUMBING AND MISC EQUIPMENT WIRING REQUIREMENTS. SEE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION OF THE EQUIPMENT.
6. COORDINATE MOUNTING HEIGHTS OF ALL RECEPTACLES WITH ARCHITECTS PRIOR TO ROUGH-IN/INSTALLATION.
7. REFER TO SHEET SERIES E3.X FOR ENLARGED POWER AND LIGHTING PLANS OF TYPICAL DWELLING UNITS.
8. REFER TO SHEET SERIES E5.X FOR PANELBOARD SCHEDULES.
9. BUS DUCT SHALL BE ENCLOSED IN A 2-HOUR FIRE RATED ENCLOSURE WHEN OUTSIDE OF DEDICATED ELECTRICAL ROOMS.
10. REFER TO SHEET FA4.0 FOR FIRE ALARM RISER DIAGRAM.
11. FEED ALL POOL EQUIPMENT FROM PANEL "NH-POOL". SEE POOL CONSULTANT DRAWINGS FOR EXACT LOCATION AND POWER REQUIREMENTS OF POOL EQUIPMENT. ALL SINGLE PHASE POOL EQUIPMENT SHALL BE GFCI PROTECTED.
12. ENSURE THAT ALL PANELBOARD, SWITCHBOARD CLEARANCES ARE PROPERLY MAINTATINED PER NEC 110.26.

## SHEET NOTES

1. ELECTRIC BASEBOARD HEATERS LOCATED IN BATHROOMS TO BE FED FROM ASSOCIATED UNIT LOAD CENTER. SEE SHEET E5.3 FOR ELECTRICAL WIRING REQUIREMENTS.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |
| 3 | |


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

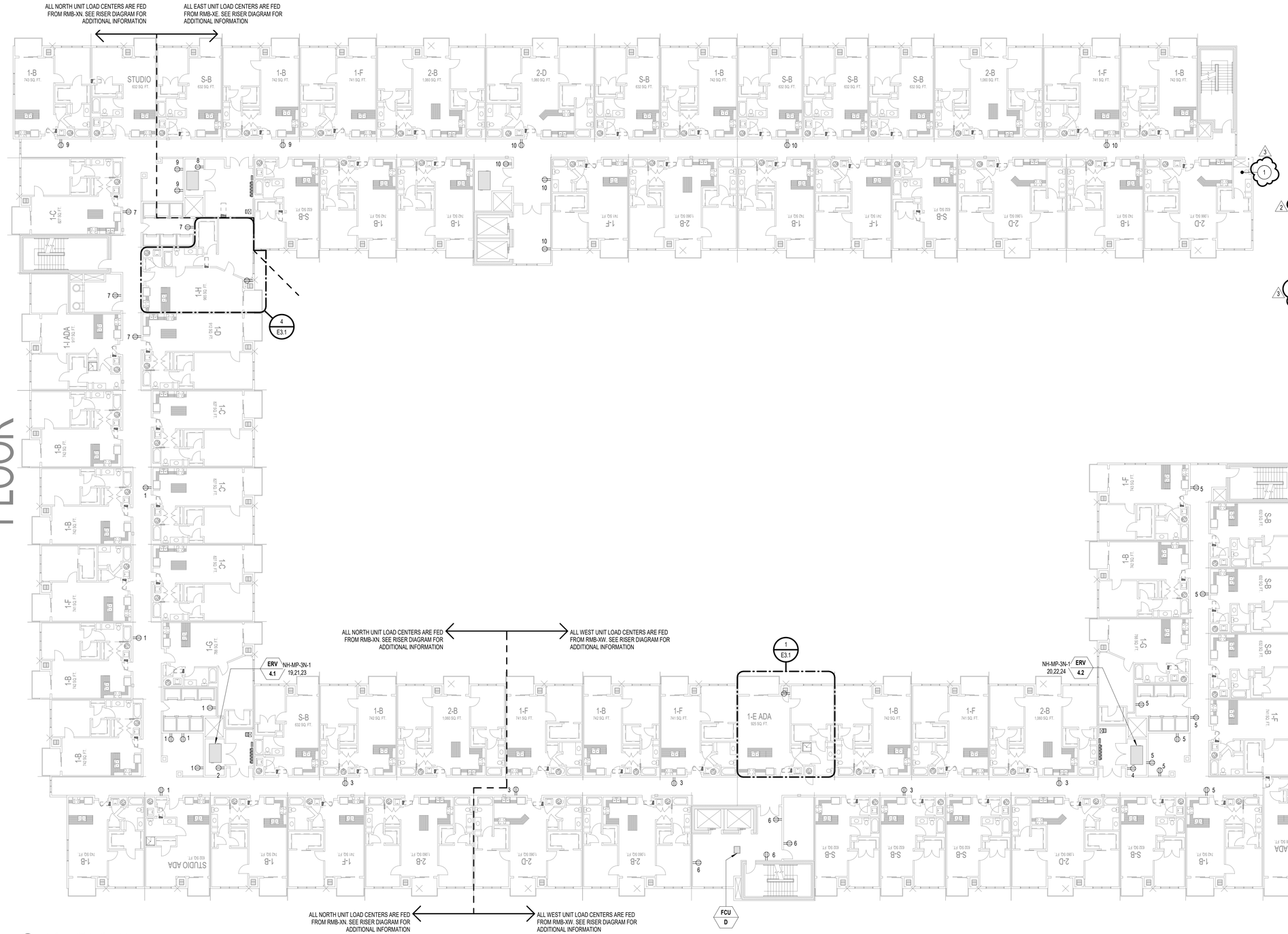
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E1.3


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 TYPICAL FLOOR - POWER PLAN
1/16" = 1'-0"

0' 4' 8' 16' 32'

**GENERAL NOTES**

1. REFER TO SHEET E4.0 FOR RISER DIAGRAM AND ADDITIONAL INFORMATION ON POWER DISTRIBUTION IN THE BUILDING. REFER TO SHEET E4.1 FOR EMERGENCY RISER DIAGRAM AND ADDITIONAL INFORMATION ON EMERGENCY POWER DISTRIBUTION IN THE BUILDING.
2. FEED ALL RECEPTACLES IN THE FOURTH AND FIFTH FLOOR CORRIDORS, ELECTRICAL CLOSETS, AMENITY SPACES, AND BACK OF HOUSE SPACES FROM HOUSE RECEPTACLE PANEL NL-RP-5E UNLESS OTHERWISE NOTED.
3. FEED ALL RECEPTACLES IN THE SIXTH AND SEVENTH FLOOR CORRIDORS, ELECTRICAL CLOSETS, AMENITY SPACES, AND BACK OF HOUSE SPACES FROM HOUSE RECEPTACLE PANEL NL-RP-7E UNLESS OTHERWISE NOTED.
4. FEED ALL MECHANICAL, PLUMBING EQUIPMENT ON THIRD FLOOR FROM THE HOUSE MECHANICAL PANEL AS INDICATED.
5. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY EQUIPMENT FITS WITHIN THE FOOTPRINT OUTLINED IN THESE DRAWINGS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXTENDING PAD, RACEWAY, AND WIRING TO ACCOMMODATE FINAL EQUIPMENT SIZES.
6. SEE POWERED EQUIPMENT SCHEDULE AND PANELBOARD SCHEDULES FOR HVAC, PLUMBING AND MISC EQUIPMENT WIRING REQUIREMENTS. SEE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION OF THE EQUIPMENT.
7. COORDINATE MOUNTING HEIGHTS OF ALL RECEPTACLES WITH ARCHITECTS PRIOR TO ROUGH-IN/INSTALLATION.
8. REFER TO SHEET SERIES E3.X FOR ENLARGED POWER AND LIGHTING PLANS OF TYPICAL DWELLING UNITS.
9. REFER TO SHEET SERIES E5.X FOR PANELBOARD SCHEDULES.
10. BUS DUCT SHALL BE ENCLOSED IN A 2-HOUR FIRE RATED ENCLOSURE WHEN OUTSIDE OF DEDICATED ELECTRICAL ROOMS.
11. REFER TO SHEET E4.0 FOR FIRE ALARM RISER DIAGRAM.
12. ENSURE THAT ALL PANELBOARD, SWITCHBOARD CLEARANCES ARE PROPERLY MAINTAINED PER NEC 110.26.

**SHEET NOTES**

1. ELECTRIC BASEBOARD HEATERS LOCATED IN BATHROOMS TO BE FED FROM ASSOCIATED UNIT LOAD CENTER. SEE SHEET E5.3 FOR ELECTRICAL WIRING REQUIREMENTS.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |
| 3 | |


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

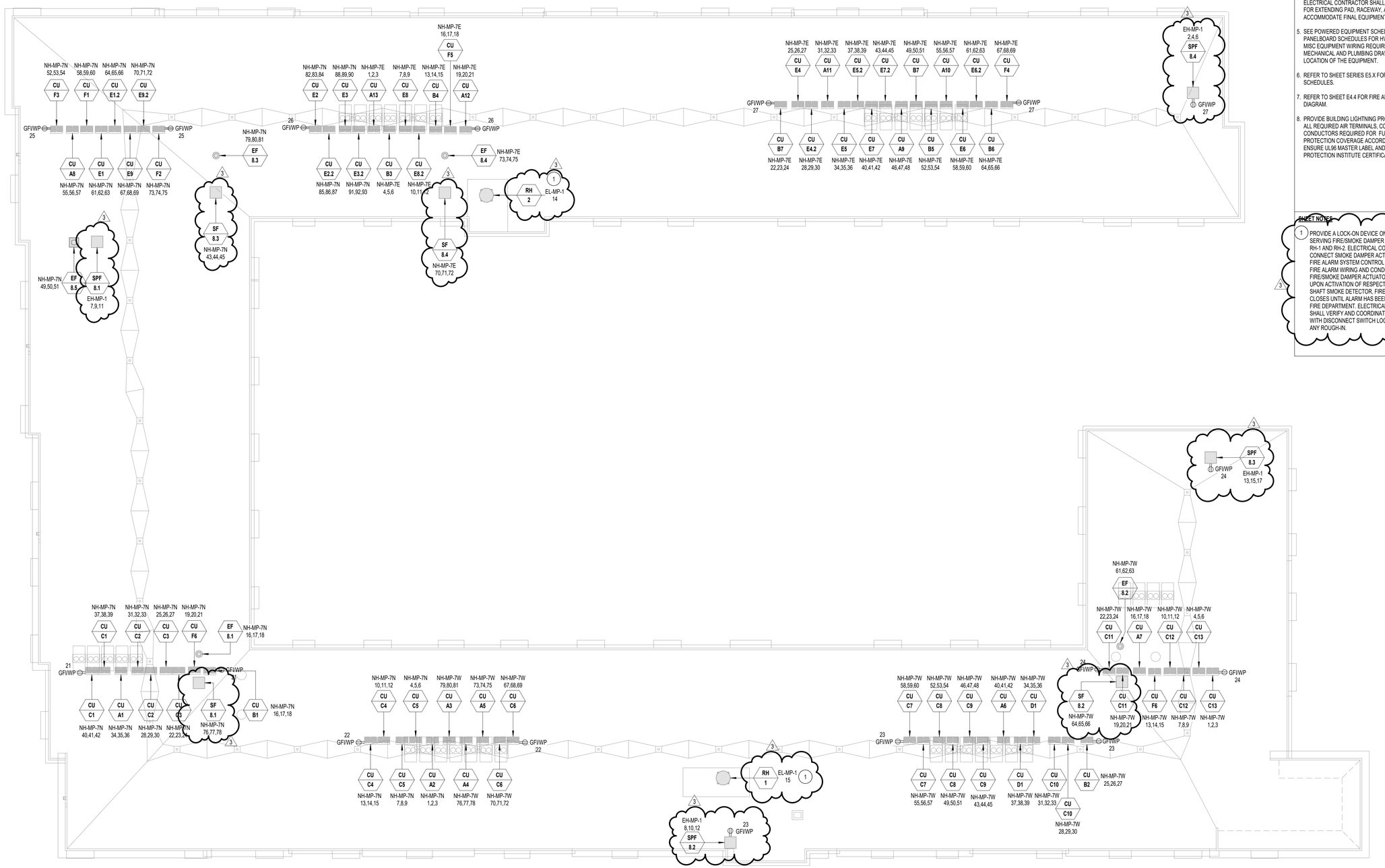
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E1.4


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **ROOF - POWER PLAN**
1/16" = 1'-0"

0' 4' 8' 16' 32'

N

**GENERAL NOTES**

1. REFER TO SHEET E4.0 FOR RISER DIAGRAM AND ADDITIONAL INFORMATION ON POWER DISTRIBUTION IN THE BUILDING.
2. FEED ALL RECEPTACLES ON ROOF FROM HOUSE RECEPTACLE PANEL NL-RP-7E UNLESS OTHERWISE NOTED.
3. FEED ALL MECHANICAL, PLUMBING EQUIPMENT ON ROOF FROM THE HOUSE MECHANICAL PANEL AS INDICATED.
4. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY EQUIPMENT FITS WITHIN THE FOOTPRINT OUTLINED IN THESE DRAWINGS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXTENDING PAD, RACEWAY, AND WIRING TO ACCOMMODATE FINAL EQUIPMENT SIZES.
5. SEE POWERED EQUIPMENT SCHEDULE AND PANELBOARD SCHEDULES FOR HVAC, PLUMBING AND MISC EQUIPMENT WIRING REQUIREMENTS. SEE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION OF THE EQUIPMENT.
6. REFER TO SHEET SERIES E5.X FOR PANELBOARD SCHEDULES.
7. REFER TO SHEET E4.4 FOR FIRE ALARM RISER DIAGRAM.
8. PROVIDE BUILDING LIGHTNING PROTECTION. PROVIDE ALL REQUIRED AIR TERMINALS, CONNECTIONS, DOWN CONDUCTORS REQUIRED FOR FULL LIGHTNING PROTECTION COVERAGE ACCORDING TO NFPA 780. ENSURE UL96 MASTER LABEL AND LIGHTING PROTECTION INSTITUTE CERTIFICATION.

**SHEET NOTES**

1. PROVIDE A LOCK-ON DEVICE ON CIRCUIT BREAKER SERVING FIRE/SMOKE DAMPER ACTUATOR ON RH-1 AND RH-2. ELECTRICAL CONTRACTOR SHALL CONNECT SMOKE DAMPER ACTUATOR TO THE FIRE ALARM SYSTEM CONTROL PANEL WITH NEW FIRE ALARM WIRING AND CONDUIT. PROGRAM FIRE/SMOKE DAMPER ACTUATOR SUCH THAT UPON ACTIVATION OF RESPECTIVE ELEVATOR SHAFT SMOKE DETECTOR, FIRE/SMOKE ACTUATOR CLOSES UNTIL ALARM HAS BEEN CLEARED BY THE FIRE DEPARTMENT. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE JUNCTION BOX WITH DISCONNECT SWITCH LOCATION PRIOR TO ANY ROUGH-IN.

REVISION DATE
ISSUE FOR PERMIT 04.05.2021
PERMIT REVISION 06.30.2021
1
2


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

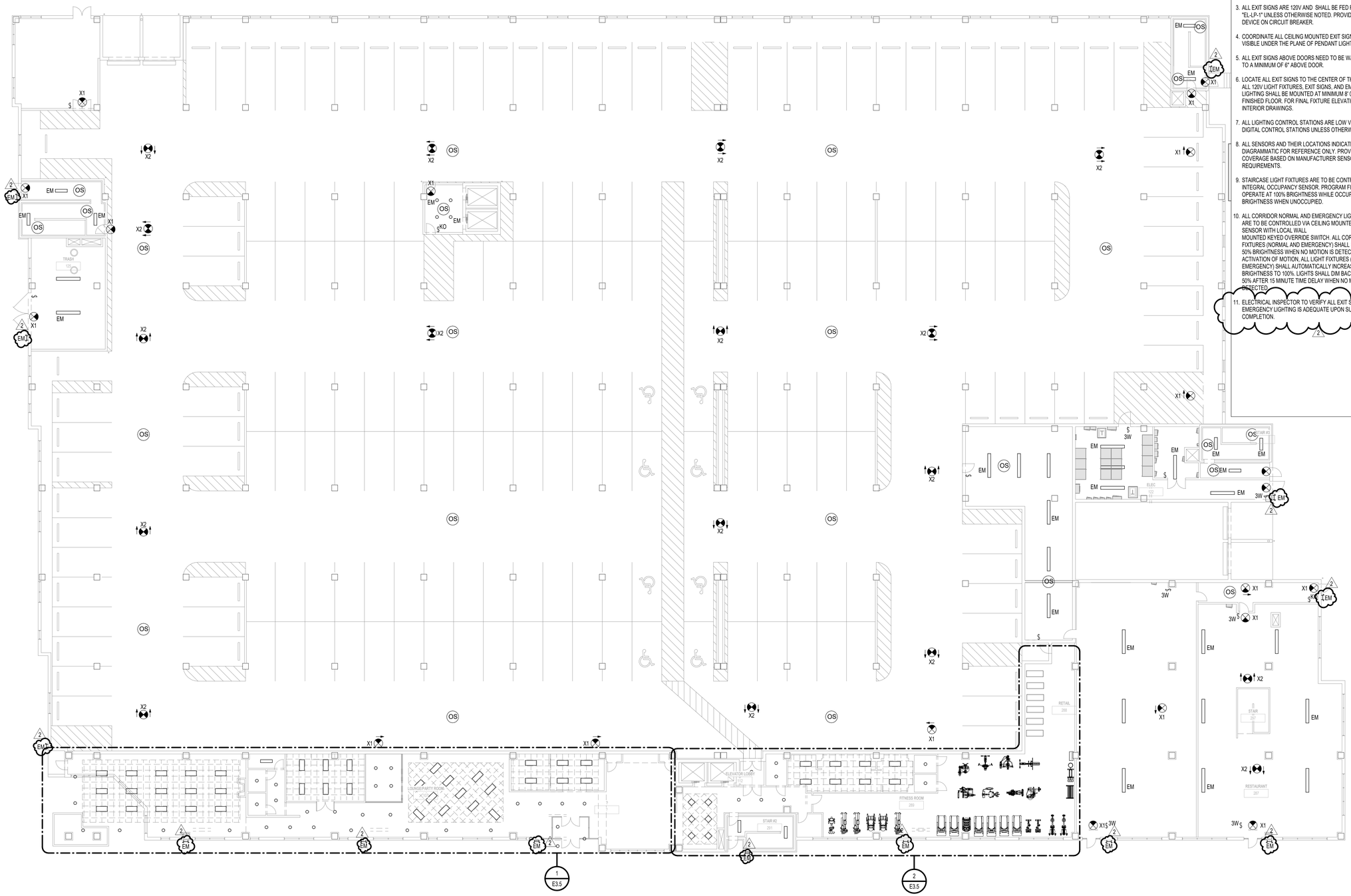
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E1.8


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **FIRST FLOOR - LIGHTING RCP**
1/16" = 1'-0"

0' 4' 8' 16' 32'

**GENERAL NOTES**

1. ALL NON-EMERGENCY LIGHTING SHALL BE FED FROM PANEL "NL-LP-1" UNLESS OTHERWISE NOTED.
2. ALL EMERGENCY LIGHTING SHALL BE FED FROM PANEL "EL-LP-1" UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS ARE 120V AND SHALL BE FED FROM PANEL "EL-LP-1" UNLESS OTHERWISE NOTED. PROVIDE A LOCK-ON DEVICE ON CIRCUIT BREAKER.
4. COORDINATE ALL CEILING MOUNTED EXIT SIGNS TO BE VISIBLE UNDER THE PLANE OF PENDANT LIGHTS.
5. ALL EXIT SIGNS ABOVE DOORS NEED TO BE WALL MOUNTED TO A MINIMUM OF 6" ABOVE DOOR.
6. LOCATE ALL EXIT SIGNS TO THE CENTER OF THE AISLES. ALL 120V LIGHT FIXTURES, EXIT SIGNS, AND EMERGENCY LIGHTING SHALL BE MOUNTED AT MINIMUM 8' 0" ABOVE FINISHED FLOOR. FOR FINAL FIXTURE ELEVATION, REFER TO INTERIOR DRAWINGS.
7. ALL LIGHTING CONTROL STATIONS ARE LOW VOLTAGE DIGITAL CONTROL STATIONS UNLESS OTHERWISE NOTED.
8. ALL SENSORS AND THEIR LOCATIONS INDICATED ARE DIAGRAMMATIC FOR REFERENCE ONLY. PROVIDE 100% COVERAGE BASED ON MANUFACTURER SENSOR REQUIREMENTS.
9. STAIRCASE LIGHT FIXTURES ARE TO BE CONTROLLED BY INTEGRAL OCCUPANCY SENSOR. PROGRAM FIXTURES TO OPERATE AT 100% BRIGHTNESS WHILE OCCUPIED AND 50% BRIGHTNESS WHEN UNOCCUPIED.
10. ALL CORRIDOR NORMAL AND EMERGENCY LIGHT FIXTURES ARE TO BE CONTROLLED VIA CEILING MOUNTED OCCUPANCY SENSOR WITH LOCAL WALL MOUNTED KEYED OVERRIDE SWITCH. ALL CORRIDOR LIGHT FIXTURES (NORMAL AND EMERGENCY) SHALL BE DIMMED TO 50% BRIGHTNESS WHEN NO MOTION IS DETECTED. UPON ACTIVATION OF MOTION, ALL LIGHT FIXTURES (NORMAL AND EMERGENCY) SHALL AUTOMATICALLY INCREASE BRIGHTNESS TO 100%. LIGHTS SHALL DIM BACK DOWN TO 50% AFTER 15 MINUTE TIME DELAY WHEN NO MOTION IS DETECTED.
11. ELECTRICAL INSPECTOR TO VERIFY ALL EXIT SIGNS AND EMERGENCY LIGHTING IS ADEQUATE UPON SUBSTANTIAL COMPLETION.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| : | : |


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

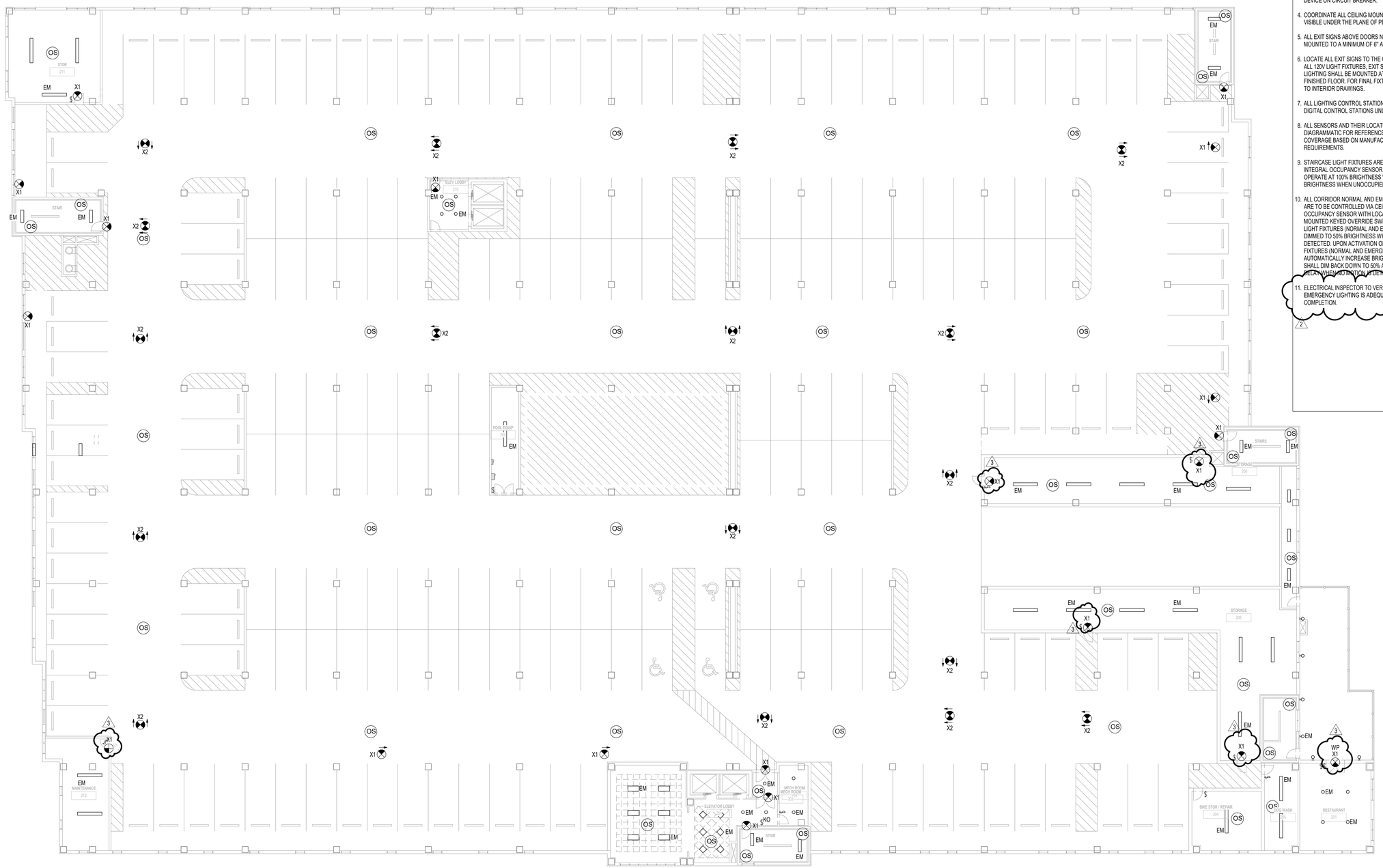
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E2.0


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **SECOND FLOOR - LIGHTING RCP**
1/16" = 1'-0"

0' 4' 8' 16' 32'

**GENERAL NOTES**

1. ALL NON-EMERGENCY LIGHTING SHALL BE FED FROM PANEL "NL-LP-1" UNLESS OTHERWISE NOTED.
2. ALL EMERGENCY LIGHTING SHALL BE FED FROM PANEL "EL-LP-1" UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS ARE 120V AND SHALL BE FED FROM PANEL "EL-LP-1" UNLESS OTHERWISE NOTED PROVIDE A LOCK-ON DEVICE ON CIRCUIT BREAKER.
4. COORDINATE ALL CEILING MOUNTED EXIT SIGNS TO BE VISIBLE UNDER THE PLANE OF PENDANT LIGHTS.
5. ALL EXIT SIGNS ABOVE DOORS NEED TO BE WALL MOUNTED TO A MINIMUM OF 6" ABOVE DOOR.
6. LOCATE ALL EXIT SIGNS TO THE CENTER OF THE AISLES. ALL 120V LIGHT FIXTURES, EXIT SIGNS, AND EMERGENCY LIGHTING SHALL BE MOUNTED AT MINIMUM 8' 0" ABOVE FINISHED FLOOR. FOR FINAL FIXTURE ELEVATION, REFER TO INTERIOR DRAWINGS.
7. ALL LIGHTING CONTROL STATIONS ARE LOW VOLTAGE DIGITAL CONTROL STATIONS UNLESS OTHERWISE NOTED.
8. ALL SENSORS AND THEIR LOCATIONS INDICATED ARE DIAGRAMMATIC FOR REFERENCE ONLY. PROVIDE 100% COVERAGE BASED ON MANUFACTURER SENSOR REQUIREMENTS.
9. STAIRCASE LIGHT FIXTURES ARE TO BE CONTROLLED BY INTEGRAL OCCUPANCY SENSOR. PROGRAM FIXTURES TO OPERATE AT 100% BRIGHTNESS WHILE OCCUPIED AND 50% BRIGHTNESS WHEN UNOCCUPIED.
10. ALL CORRIDOR NORMAL AND EMERGENCY LIGHT FIXTURES ARE TO BE CONTROLLED VIA CEILING MOUNTED OCCUPANCY SENSOR WITH LOCAL WALL MOUNTED KEYED OVERRIDE SWITCH. ALL CORRIDOR LIGHT FIXTURES (NORMAL AND EMERGENCY) SHALL BE DIMMED TO 50% BRIGHTNESS WHEN NO MOTION IS DETECTED. UPON ACTIVATION OF MOTION, ALL LIGHT FIXTURES (NORMAL AND EMERGENCY) SHALL AUTOMATICALLY INCREASE BRIGHTNESS TO 100%. LIGHTS SHALL DIM BACK DOWN TO 50% AFTER 15 MINUTE TIME DELAY WHEN NO MOTION IS DETECTED.
11. ELECTRICAL INSPECTOR TO VERIFY ALL EXIT SIGNS AND EMERGENCY LIGHTING IS ADEQUATE UPON SUBSTANTIAL COMPLETION.

2

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |


db HMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E2.2


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

ALL EAST EMERGENCY LIGHTING IS FED FROM PANEL "EL-LP-3E"

ALL WEST EMERGENCY LIGHTING IS FED FROM PANEL "EL-LP-3W"

1 THIRD FLOOR - LIGHTING RCP
1/16" = 1'-0"

0' 4' 8' 16' 32'

**GENERAL NOTES**

1. ALL NON-EMERGENCY LIGHTING SHALL BE FED FROM PANEL "NL-LP-3" UNLESS OTHERWISE NOTED.
2. ALL EMERGENCY LIGHTING SHALL BE FED FROM PANEL "EL-LP-3" UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS ARE 120V AND SHALL BE FED FROM PANEL AS INDICATED IN DRAWING. PROVIDE LOCK-ON DEVICE ON CIRCUIT BREAKER.
4. COORDINATE ALL CEILING MOUNTED EXIT SIGNS TO BE VISIBLE UNDER THE PLANE OF PENDANT LIGHTS.
5. ALL EXIT SIGNS ABOVE DOORS NEED TO BE WALL MOUNTED TO A MINIMUM OF 6" ABOVE DOOR.
6. LOCATE ALL EXIT SIGNS TO THE CENTER OF THE CORRIDORS.ALL 120V LIGHT FIXTURES, EXIT SIGNS, AND EMERGENCY LIGHTING SHALL BE MOUNTED AT MINIMUM 8' 0" ABOVE FINISHED FLOOR. FOR FINAL FIXTURE ELEVATION, REFER TO INTERIOR DRAWINGS.
7. ALL LIGHTING CONTROL STATIONS ARE LOW VOLTAGE DIGITAL CONTROL STATIONS UNLESS OTHERWISE NOTED.
8. ALL SENSORS AND THEIR LOCATIONS INDICATED ARE DIAGRAMMATIC FOR REFERENCE ONLY. PROVIDE 100% COVERAGE BASED ON MANUFACTURER SENSOR REQUIREMENTS.
9. STAIRCASE LIGHT FIXTURES ARE TO BE CONTROLLED BY INTEGRAL OCCUPANCY SENSOR. PROGRAM FIXTURES TO OPERATE AT 100% BRIGHTNESS WHILE OCCUPIED AND 50% BRIGHTNESS WHEN UNOCCUPIED.
10. ALL CORRIDOR NORMAL AND EMERGENCY LIGHT FIXTURES ARE TO BE CONTROLLED VIA CEILING MOUNTED OCCUPANCY SENSOR WITH LOCAL WALL MOUNTED KEYED OVERRIDE SWITCH. ALL CORRIDOR LIGHT FIXTURES (NORMAL AND EMERGENCY) SHALL BE DIMMED TO 50% BRIGHTNESS WHEN NO MOTION IS DETECTED. UPON ACTIVATION OF MOTION, ALL LIGHT FIXTURES (NORMAL AND EMERGENCY) SHALL AUTOMATICALLY INCREASE BRIGHTNESS TO 100%. LIGHTS SHALL DIM BACK DOWN TO 50% AFTER 15 MINUTE TIME DELAY WHEN NO MOTION IS DETECTED.
11. ELECTRICAL INSPECTOR TO VERIFY ALL EXIT SIGNS AND EMERGENCY LIGHTING IS ADEQUATE UPON SUBSTANTIAL COMPLETION.

2

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |

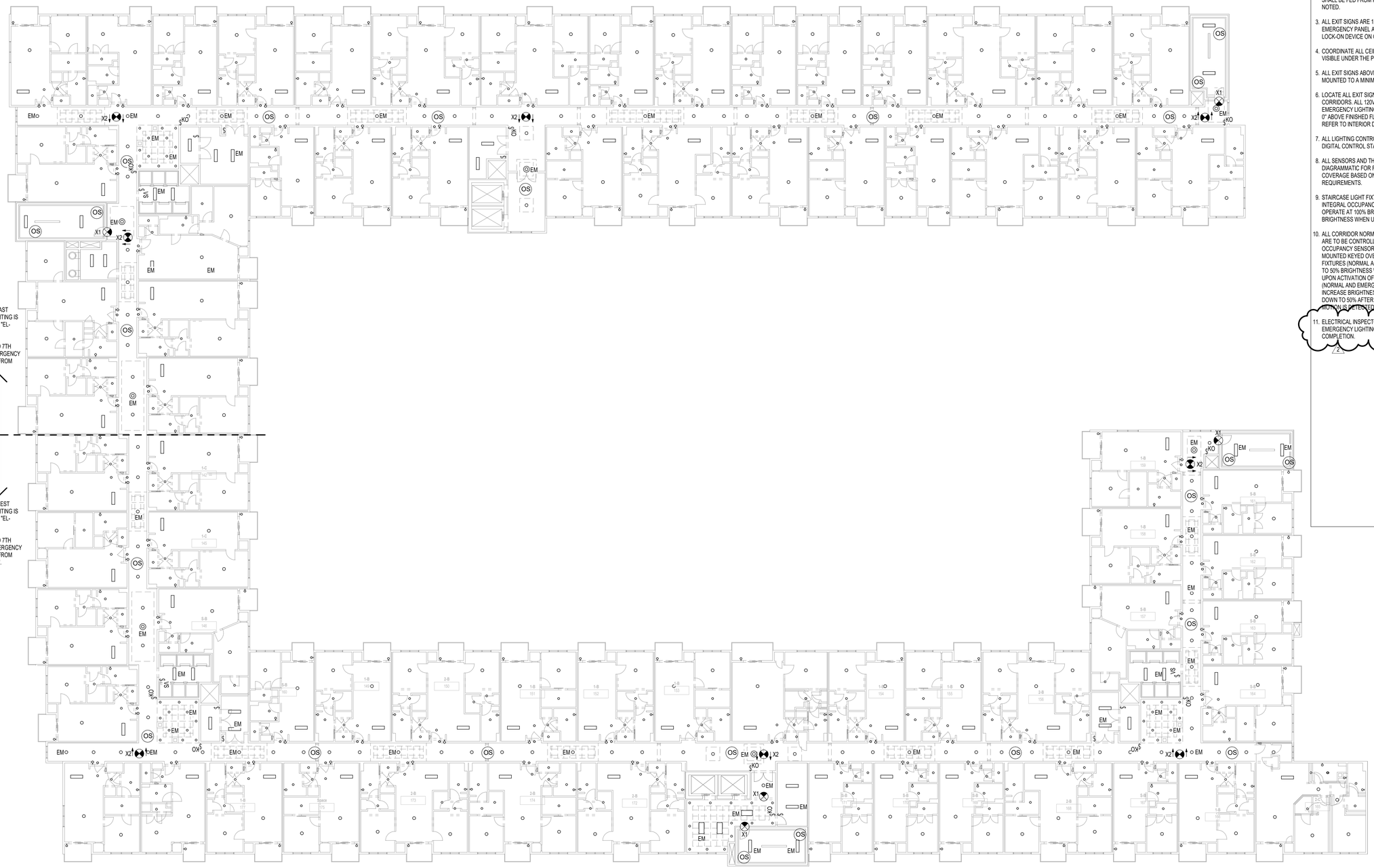
dbHMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E2.3

JONES & JONES ASSOCIATES / ARCHITECTS PC




1 **TYPICAL FLOOR - LIGHTING RCP**
1/16" = 1'-0"

0' 4' 8' 16' 32'

**GENERAL NOTES**

1. ALL NON-EMERGENCY LIGHTING ON 4TH AND 5TH FLOORS SHALL BE FED FROM PANEL "NL-LP-5" UNLESS OTHERWISE NOTED.
2. ALL NON-EMERGENCY LIGHTING ON 6TH AND 7TH FLOORS SHALL BE FED FROM PANEL "NL-LP-7" UNLESS OTHERWISE NOTED.
3. ALL EXIT SIGNS ARE 120V AND SHALL BE FED FROM EMERGENCY PANEL AS INDICATED ON PLAN. PROVIDE A LOCK-ON DEVICE ON CIRCUIT BREAKER.
4. COORDINATE ALL CEILING MOUNTED EXIT SIGNS TO BE VISIBLE UNDER THE PLANE OF PENDANT LIGHTS.
5. ALL EXIT SIGNS ABOVE DOORS NEED TO BE WALL MOUNTED TO A MINIMUM OF 6" ABOVE DOOR.
6. LOCATE ALL EXIT SIGNS TO THE CENTER OF THE CORRIDORS. ALL 120V LIGHT FIXTURES, EXIT SIGNS, AND EMERGENCY LIGHTING SHALL BE MOUNTED AT MINIMUM 8' 0" ABOVE FINISHED FLOOR. FOR FINAL FIXTURE ELEVATION, REFER TO INTERIOR DRAWINGS.
7. ALL LIGHTING CONTROL STATIONS ARE LOW VOLTAGE DIGITAL CONTROL STATIONS UNLESS OTHERWISE NOTED.
8. ALL SENSORS AND THEIR LOCATIONS INDICATED ARE DIAGRAMMATIC FOR REFERENCE ONLY. PROVIDE 100% COVERAGE BASED ON MANUFACTURER SENSOR REQUIREMENTS.
9. STAIRCASE LIGHT FIXTURES ARE TO BE CONTROLLED BY INTEGRAL OCCUPANCY SENSOR. PROGRAM FIXTURES TO OPERATE AT 100% BRIGHTNESS WHILE OCCUPIED AND 50% BRIGHTNESS WHEN UNOCCUPIED.
10. ALL CORRIDOR NORMAL AND EMERGENCY LIGHT FIXTURES ARE TO BE CONTROLLED VIA CEILING MOUNTED OCCUPANCY SENSOR WITH LOCAL WALL MOUNTED KEYED OVERRIDE SWITCH. ALL CORRIDOR LIGHT FIXTURES (NORMAL AND EMERGENCY) SHALL BE DIMMED TO 50% BRIGHTNESS WHEN NO MOTION IS DETECTED. UPON ACTIVATION OF MOTION, ALL LIGHT FIXTURES (NORMAL AND EMERGENCY) SHALL AUTOMATICALLY INCREASE BRIGHTNESS TO 100%. LIGHTS SHALL DIM BACK DOWN TO 50% AFTER 15 MINUTE TIME DELAY WHEN NO MOTION IS DETECTED.
11. ELECTRICAL INSPECTOR TO VERIFY ALL EXIT SIGNS AND EMERGENCY LIGHTING IS ADEQUATE UPON SUBSTANTIAL COMPLETION.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |

db HMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

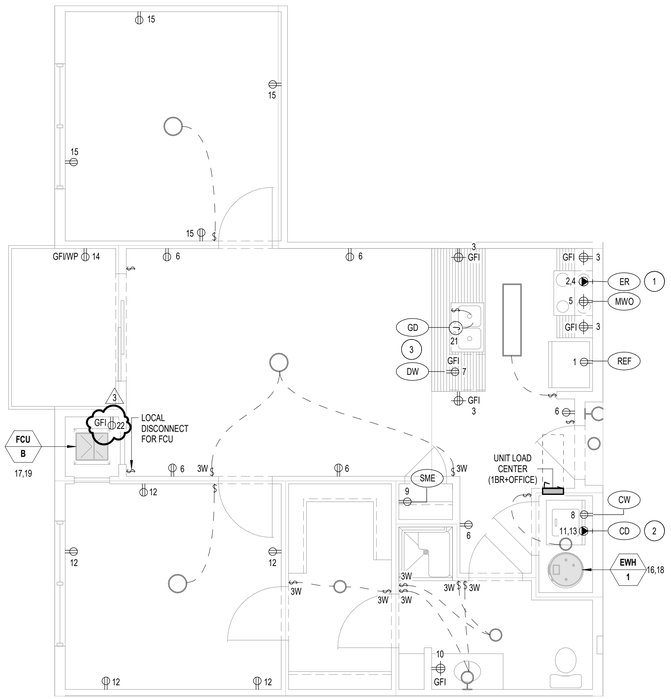
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E2.4

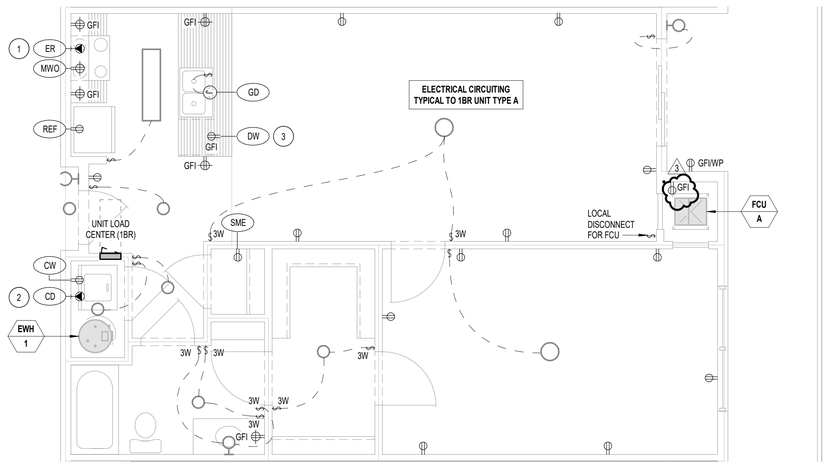
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




5 **ONE BEDROOM UNIT - TYPE E - ELECTRICAL POWER PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




4 **ONE BEDROOM UNIT - TYPE D - ELECTRICAL POWER PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'

**LEGEND**

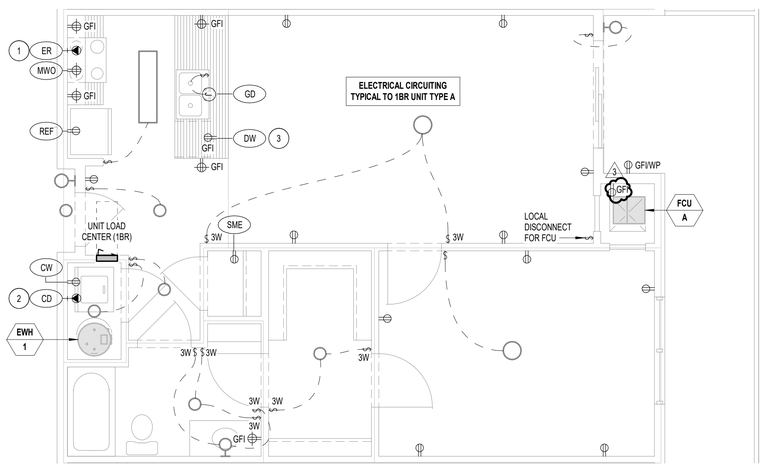
- ER — ELECTRIC RANGE
- REF — REFRIGERATOR
- CW — CLOTHES WASHER
- CD — CLOTHES DRYER
- SA — SMALL APPLIANCE
- MWO — MICROWAVE OVEN
- DW — DISHWASHER
- SME — STRUCTURED MEDIA CABINET
- GD — GARBAGE DISPOSAL

**GENERAL NOTES**

1. PROVIDE EACH BATHROOM WITH TWO SWITCHES - ONE SWITCH TO CONTROL LIGHTS AND ONE SWITCH TO CONTROL EXHAUST FAN.
2. INSTALL BATHROOM GFCI RECEPTACLES WITHIN 36 INCHES FROM THE OUTSIDE EDGE OF THE ADJACENT BASIN.
3. FOR EACH ADA UNIT, INSTALL ALL WALL MOUNTED OPERABLE DEVICES (RECEPTACLES, LIGHT SWITCHES, THERMOSTATS, ETC.) AS PER ADA STANDARDS AND GUIDELINES. REFER TO ARCHITECTURAL SHEETS AND ACCESSIBILITY MATRIX FOR ADA UNIT DESIGNATION AND ADDITIONAL DETAILS.
4. PROVIDE TAMPER-RESISTANT TYPE RECEPTACLES (GFCI AND NON-GFCI) IN RESIDENTIAL DWELLING UNITS.
5. RECEPTACLES TO BE MOUNTED HORIZONTALLY AND LOCATED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
6. CONCEAL ALL CONDUIT RACEWAYS WITHIN WALLS, FLOORS AND CEILINGS EXCEPT WHERE EXPLICITLY NOTED.
7. INSTALL ALL DEVICE BACK BOXES FULLY RECESSED IN WALLS UNLESS NOTED OTHERWISE.
8. COORDINATE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION. REFER TO ARCHITECTURAL ELEVATIONS FOR ADDITIONAL INFORMATION.
9. PROVIDE COMMERCIAL HEAVY DUTY SPECIFICATION GRADE WIRING DEVICES (RECEPTACLES, TOGGLE SWITCHES, TELE/CATV DEVICES, ETC.).
10. PROVIDE GFCI, TAMPER RESISTANT TYPE RECEPTACLES FOR ALL RECEPTACLES LOCATED IN BATHROOMS, IN KITCHENS OR WITHIN 6'-0" FROM SINKS.
11. INSTALL RECEPTACLES SO THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE OF ANY WALL SPACE IS MORE THAN 6'-0" FROM A RECEPTACLE.
12. PROVIDE A LIGHT FIXTURE AND LIGHT SWITCH IN ALL CLOSETS MEASURING MORE THAN 5 SQUARE FEET.
13. PROVIDE ARC-FAULT CIRCUIT INTERUPTOR (AFCI) BREAKERS FOR ALL RECETPACLES LOCATED IN DWELLING UNITS.

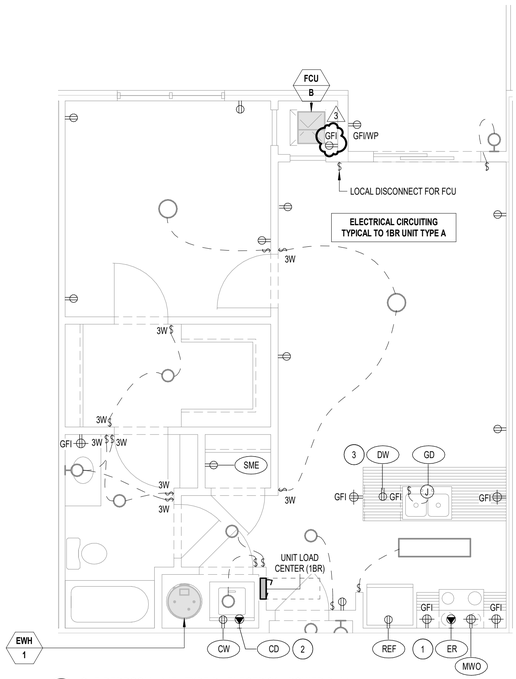
**SHEET NOTES**

1. PROVIDE DEDICATED 208V-1PHASE CIRCUIT WITH 3 #8 AWG CU AND 1 #8 AWG CU GRD. IN 3/4" CONDUIT FOR ELECTRIC RANGE. PROVIDE 50A CIRCUIT BREAKER IN UNIT LOAD CENTER AND NEMA 14-50R UNIPLEX OUTLET MOUNTED BELOW THE COUNTER. COORDINATE AND VERIFY MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS FOR ELECTRICAL OUTLET LOCATION PRIOR TO ROUGH-IN/INSTALLATION.
2. PROVIDE DEDICATED 208V-1PHASE CIRCUIT WITH 2 #10 AWG CU AND 1 #10 AWG CU GRD. IN 3/4" CONDUIT FOR CLOTHES DRYER. PROVIDE 30A GFI PROTECTED CIRCUIT BREAKER IN UNIT LOAD CENTER AND NEMA 14-30R RECEPTACLE. PROVIDE CORD CAP FOR EQUIPMENT TO MATCH RECEPTACLE. COORDINATE EXACT THE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION.
3. PROVIDE A DEDICATED 20A GFI RECEPTACLE MOUNTED BELOW THE COUNTER FOR DISHWASHER. PROVIDE POWER CORD KIT FOR EQUIPMENT TO MATCH RECEPTACLE. COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT OF THE RECEPTACLE WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION.



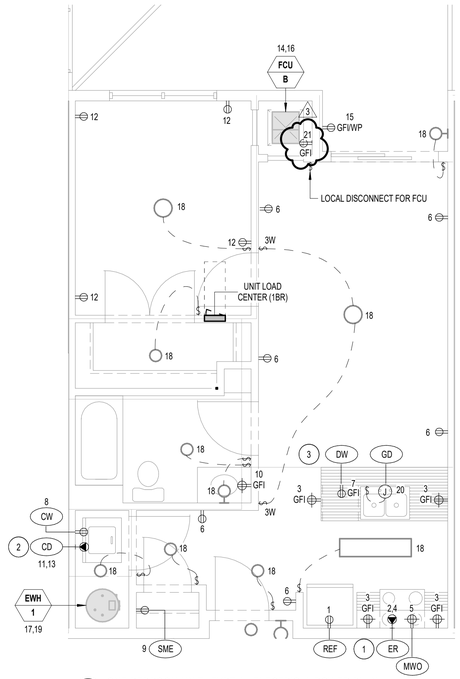

3 **ONE BEDROOM UNIT - TYPE C - ELECTRICAL POWER PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




2 **ONE BEDROOM UNIT - TYPE B - ELECTRICAL POWER PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




1 **ONE BEDROOM UNIT - TYPE A - ELECTRICAL POWER PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |


db HMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

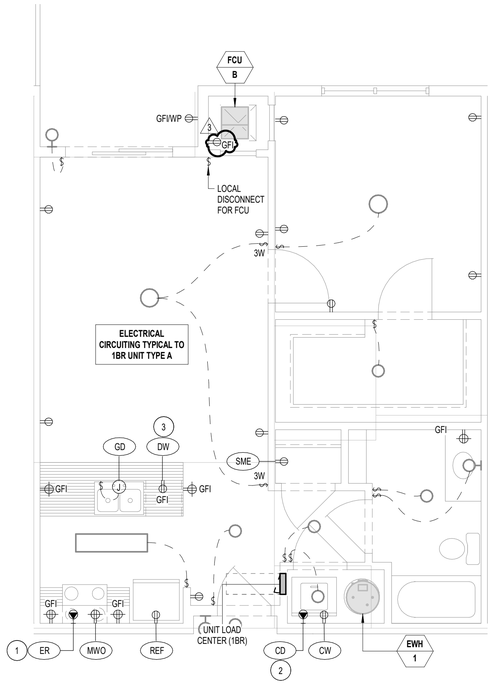
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E3.0


JONES & JONES ASSOCIATES ARCHITECTS PC

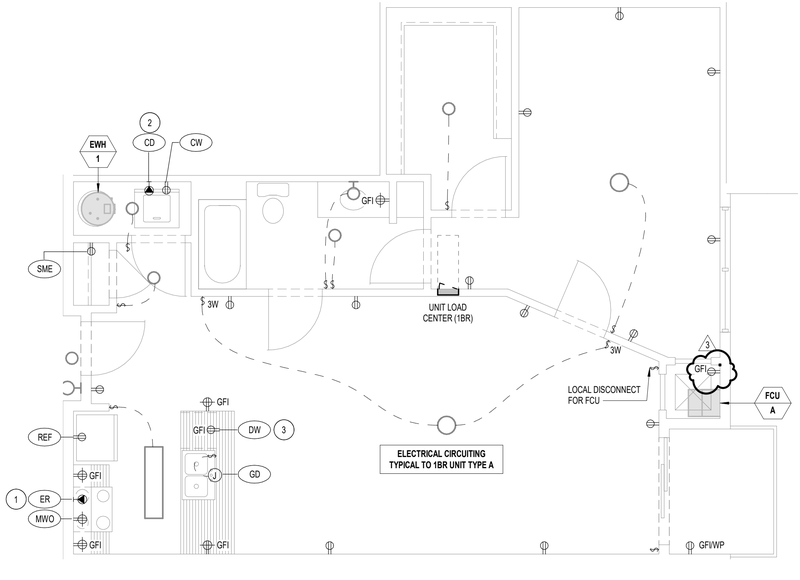


THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



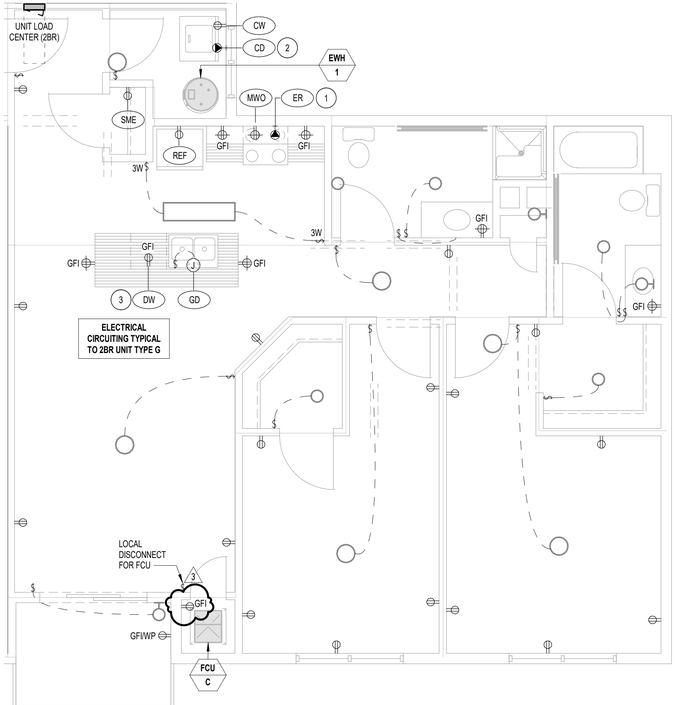

5 **ONE BEDROOM UNIT - TYPE K - ELECTRICAL POWER PLAN**
1/4" = 1'-0"



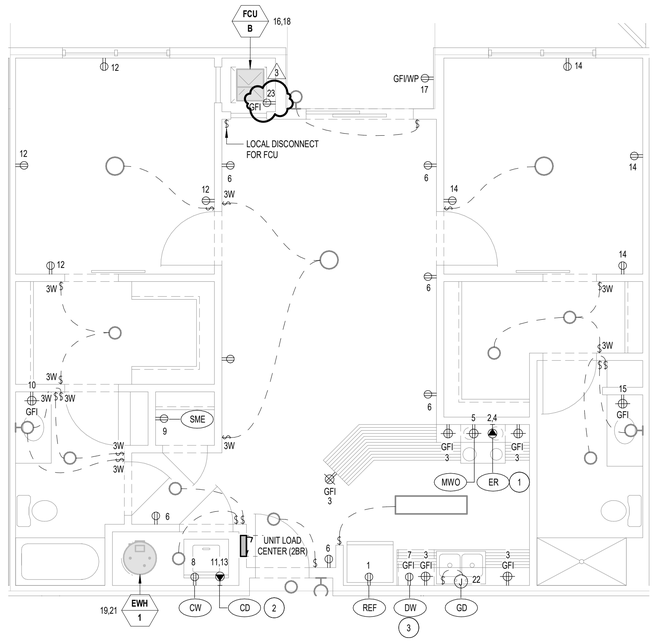

4 **ONE BEDROOM UNIT - TYPE J - ELECTRICAL POWER PLAN**
1/4" = 1'-0"



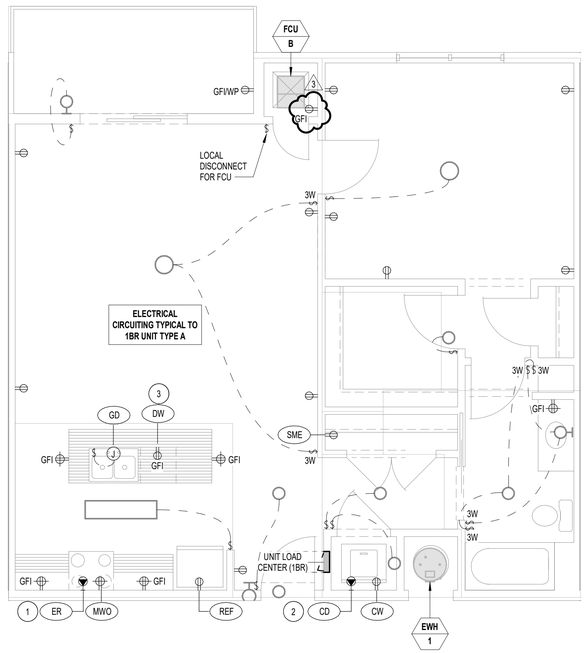

3 **TWO BEDROOM UNIT - TYPE H - ELECTRICAL POWER PLAN**
1/4" = 1'-0"




2 **TWO BEDROOM UNIT - TYPE G - ELECTRICAL POWER PLAN**
1/4" = 1'-0"




1 **ONE BEDROOM UNIT - TYPE F - ELECTRICAL POWER PLAN**
1/4" = 1'-0"




**LEGEND**

| | |
|---|---|
| ER | ELECTRIC RANGE |
| REF | REFRIGERATOR |
| CW | CLOTHES WASHER |
| CD | CLOTHES DRYER |
| SA | SMALL APPLIANCE |
| DW | DISHWASHER |
| SME | STRUCTURED MEDIA CABINET |
| RH | RANGE HOOD |

**GENERAL NOTES**

1. PROVIDE EACH BATHROOM WITH TWO SWITCHES - ONE SWITCH TO CONTROL LIGHTS AND ONE SWITCH TO CONTROL EXHAUST FAN.
2. INSTALL BATHROOM GFCI RECEPTACLES WITHIN 36 INCHES FROM THE OUTSIDE EDGE OF THE ADJACENT BASIN.
3. FOR EACH ADA UNIT, INSTALL ALL WALL MOUNTED OPERABLE DEVICES (RECEPTACLES, LIGHT SWITCHES, THERMOSTATS, ETC.) AS PER ADA STANDARDS AND GUIDELINES. REFER TO ARCHITECTURAL SHEETS AND ACCESSIBILITY MATRIX FOR ADA UNIT DESIGNATION AND ADDITIONAL DETAILS.
4. PROVIDE TAMPER-RESISTANT TYPE RECEPTACLES (GFCI AND NON-GFCI) IN RESIDENTIAL DWELLING UNITS.
5. RECEPTACLES TO BE MOUNTED HORIZONTALLY AND LOCATED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
6. CONCEAL ALL CONDUIT RACEWAYS WITHIN WALLS, FLOORS AND CEILINGS EXCEPT WHERE EXPLICITLY NOTED.
7. INSTALL ALL DEVICE BACK BOXES FULLY RECESSED IN WALLS UNLESS NOTED OTHERWISE.
8. COORDINATE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION. REFER TO ARCHITECTURAL ELEVATIONS FOR ADDITIONAL INFORMATION.
9. PROVIDE COMMERCIAL HEAVY DUTY SPECIFICATION GRADE WIRING DEVICES (RECEPTACLES, TOGGLE SWITCHES, TELE/CATV DEVICES, ETC.).
10. PROVIDE GFCI, TAMPER RESISTANT TYPE RECEPTACLES FOR ALL RECEPTACLES LOCATED IN BATHROOMS, IN KITCHENS OR WITHIN 6'-0" FROM SINKS.
11. INSTALL RECEPTACLES SO THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE OF ANY WALL SPACE IS MORE THAN 6'-0" FROM A RECEPTACLE.
12. PROVIDE A LIGHT FIXTURE AND LIGHT SWITCH IN ALL CLOSETS MEASURING MORE THAN 5 SQUARE FEET.
13. PROVIDE ARC-FAULT CIRCUIT INTERUPTOR (AFCI) BREAKERS FOR ALL RECETPACLES LOCATED IN DWELLING UNITS.

**SHEET NOTES**

1. PROVIDE DEDICATED 208V-1PHASE CIRCUIT WITH 3 #8 AWG CU AND 1 #8 AWG CU GRD. IN 3/4" CONDUIT FOR ELECTRIC RANGE. PROVIDE 50A CIRCUIT BREAKER IN UNIT LOAD CENTER AND NEMA 14-50R UNIPLEX OUTLET MOUNTED BELOW THE COUNTER. COORDINATE AND VERIFY MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS FOR ELECTRICAL OUTLET LOCATION PRIOR TO ROUGH-IN/INSTALLATION.
2. PROVIDE DEDICATED 208V-1PHASE CIRCUIT WITH 2 #10 AWG CU AND 1 #10 AWG CU GRD. IN 3/4" CONDUIT FOR CLOTHES DRYER. PROVIDE 30A GFI PROTECTED CIRCUIT BREAKER IN UNIT LOAD CENTER AND NEMA 14-30R RECEPTACLE. PROVIDE CORD CAP FOR EQUIPMENT TO MATCH RECEPTACLE. COORDINATE EXACT THE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION.
3. PROVIDE A DEDICATED 20A GFI RECEPTACLE MOUNTED BELOW THE COUNTER FOR DISHWASHER. PROVIDE POWER CORD KIT FOR EQUIPMENT TO MATCH RECEPTACLE. COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT OF THE RECEPTACLE WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |


dbHMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

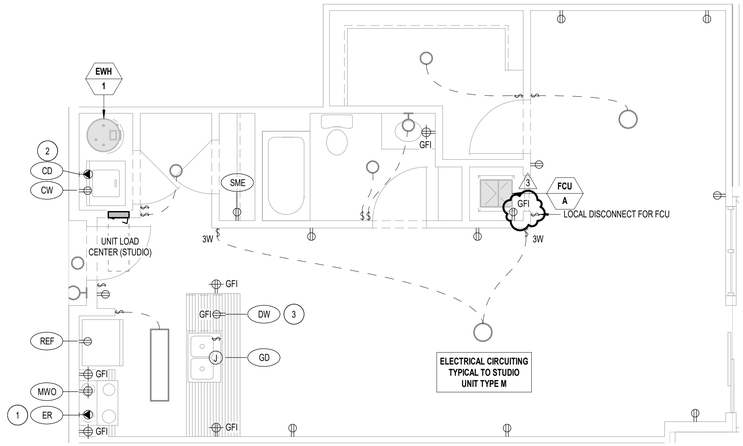

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E3.1

JONES & JONES ASSOCIATES ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




4 **STUDIO UNIT - TYPE O - ELECTRICAL POWER PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'

**LEGEND**

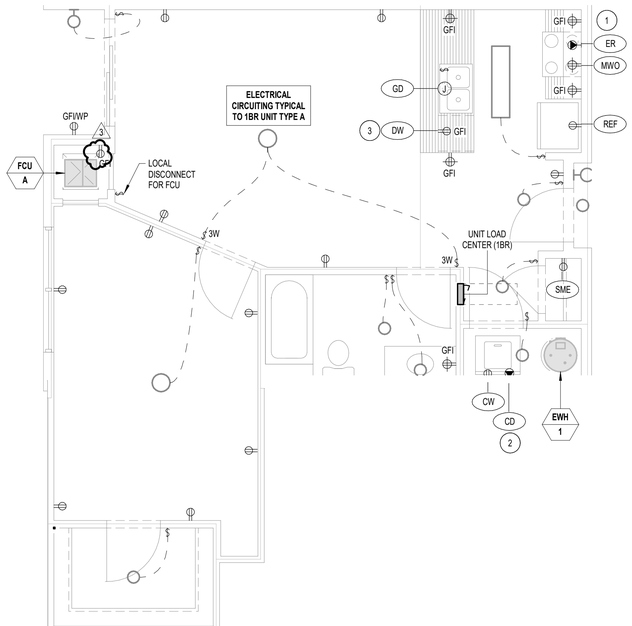
- ER — ELECTRIC RANGE
- REF — REFRIGERATOR
- CW — CLOTHES WASHER
- CD — CLOTHES DRYER
- SA — SMALL APPLIANCE
- DW — DISHWASHER
- SME — STRUCTURED MEDIA CABINET
- RH — RANGE HOOD

**GENERAL NOTES**

1. PROVIDE EACH BATHROOM WITH TWO SWITCHES - ONE SWITCH TO CONTROL LIGHTS AND ONE SWITCH TO CONTROL EXHAUST FAN.
2. INSTALL BATHROOM GFCI RECEPTACLES WITHIN 36 INCHES FROM THE OUTSIDE EDGE OF THE ADJACENT BASIN.
3. FOR EACH ADA UNIT, INSTALL ALL WALL MOUNTED OPERABLE DEVICES (RECEPTACLES, LIGHT SWITCHES, THERMOSTATS, ETC.) AS PER ADA STANDARDS AND GUIDELINES. REFER TO ARCHITECTURAL SHEETS AND ACCESSIBILITY MATRIX FOR ADA UNIT DESIGNATION AND ADDITIONAL DETAILS.
4. PROVIDE TAMPER-RESISTANT TYPE RECEPTACLES (GFCI AND NON-GFCI) IN RESIDENTIAL DWELLING UNITS.
5. RECEPTACLES TO BE MOUNTED HORIZONTALLY AND LOCATED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
6. CONCEAL ALL CONDUIT RACEWAYS WITHIN WALLS, FLOORS AND CEILINGS EXCEPT WHERE EXPLICITLY NOTED.
7. INSTALL ALL DEVICE BACK BOXES FULLY RECESSED IN WALLS UNLESS NOTED OTHERWISE.
8. COORDINATE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION. REFER TO ARCHITECTURAL ELEVATIONS FOR ADDITIONAL INFORMATION.
9. PROVIDE COMMERCIAL HEAVY DUTY SPECIFICATION GRADE WIRING DEVICES (RECEPTACLES, TOGGLE SWITCHES, TELE/CATV DEVICES, ETC.).
10. PROVIDE GFCI, TAMPER RESISTANT TYPE RECEPTACLES FOR ALL RECEPTACLES LOCATED IN BATHROOMS, IN KITCHENS OR WITHIN 6'-0" FROM SINKS.
11. INSTALL RECEPTACLES SO THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE OF ANY WALL SPACE IS MORE THAN 6'-0" FROM A RECEPTACLE.
12. PROVIDE A LIGHT FIXTURE AND LIGHT SWITCH IN ALL CLOSETS MEASURING MORE THAN 5 SQUARE FEET.
13. PROVIDE ARC-FAULT CIRCUIT INTERUPTOR (AFCI) BREAKERS FOR ALL RECETPACLES LOCATED IN DWELLING UNITS.

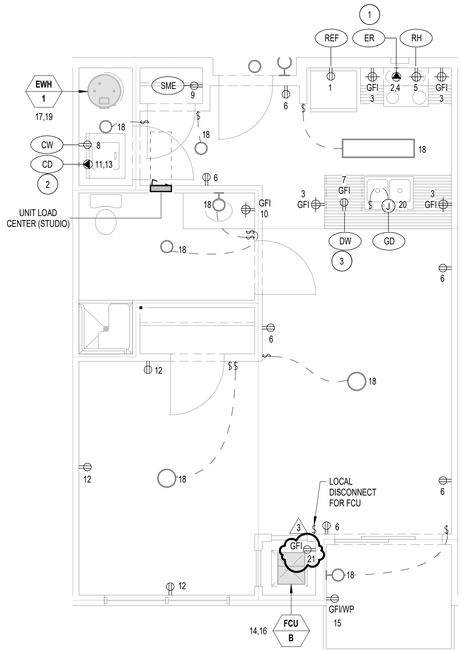
**SHEET NOTES**

1. PROVIDE DEDICATED 208V-1PHASE CIRCUIT WITH 3 #8 AWG CU AND 1 #8 AWG CU GRD. IN 3/4" CONDUIT FOR ELECTRIC RANGE. PROVIDE 50A CIRCUIT BREAKER IN UNIT LOAD CENTER AND NEMA 14-50R UNIPLEX OUTLET MOUNTED BELOW THE COUNTER. COORDINATE AND VERIFY MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS FOR ELECTRICAL OUTLET LOCATION PRIOR TO ROUGH-IN/INSTALLATION.
2. PROVIDE DEDICATED 208V-1PHASE CIRCUIT WITH 2 #10 AWG CU AND 1 #10 AWG CU GRD. IN 3/4" CONDUIT FOR CLOTHES DRYER. PROVIDE 30A GFI PROTECTED CIRCUIT BREAKER IN UNIT LOAD CENTER AND NEMA 14-30R RECEPTACLE. PROVIDE CORD CAP FOR EQUIPMENT TO MATCH RECEPTACLE. COORDINATE EXACT THE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION.
3. PROVIDE A DEDICATED 20A GFI RECEPTACLE MOUNTED BELOW THE COUNTER FOR DISHWASHER. PROVIDE POWER CORD KIT FOR EQUIPMENT TO MATCH RECEPTACLE. COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT OF THE RECEPTACLE WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION.



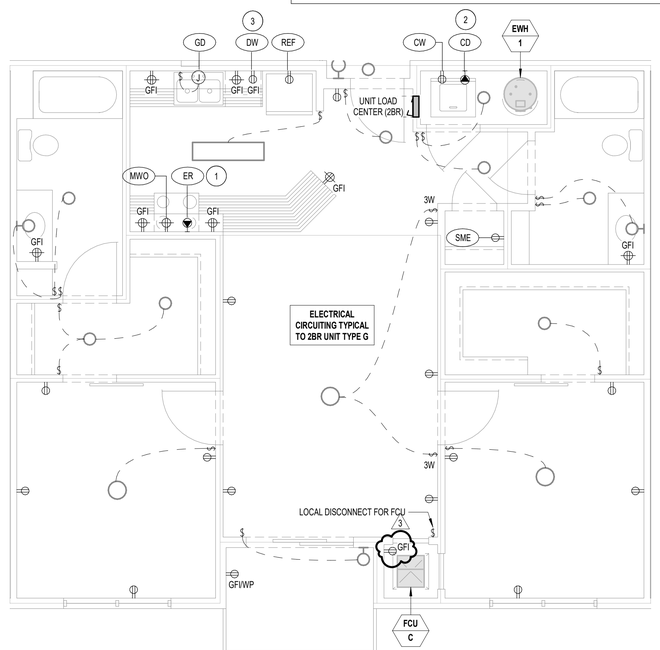

3 **ONE BEDROOM UNIT - TYPE N - ELECTRICAL POWER PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




2 **STUDIO UNIT - TYPE M - ELECTRICAL POWER PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




1 **TWO BEDROOM UNIT - TYPE L - ELECTRICAL POWER PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |
| 3 | |


dbHMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

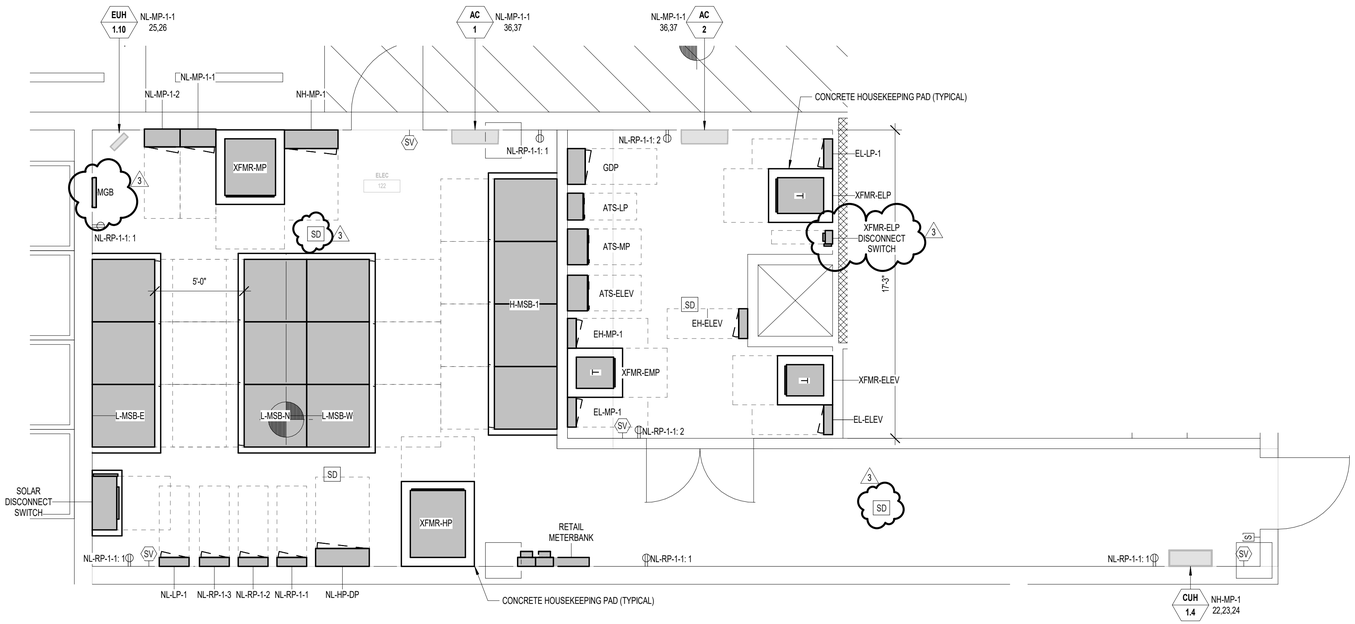
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E3.2


JONES & JONES ASSOCIATES ARCHITECTS PC



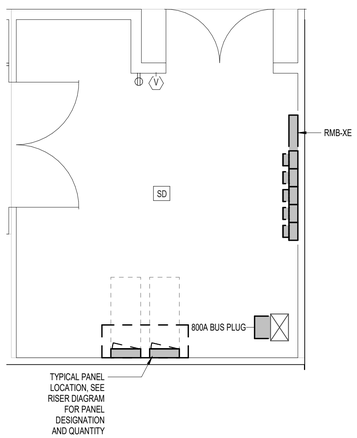
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## 1 FIRST FLOOR - MAIN ELECTRICAL ROOM - POWER PLAN

1/4" = 1'-0"

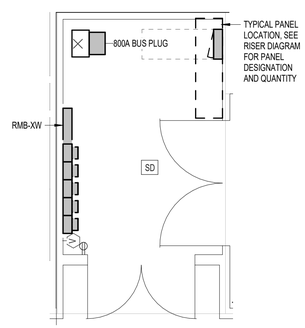
0' 2' 4' 8' 16'




## 4 TYPICAL FLOOR - EAST ELECTRICAL CLOSET - POWER PLAN

1/4" = 1'-0"

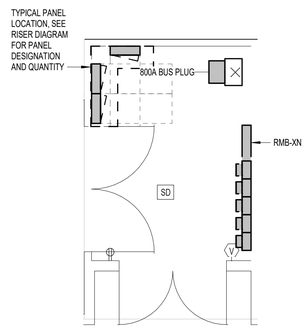
0' 2' 4' 8' 16'




## 3 TYPICAL FLOOR - WEST ELECTRICAL CLOSET - POWER PLAN

1/4" = 1'-0"

0' 2' 4' 8' 16'




## 2 TYPICAL FLOOR - NORTH ELECTRICAL CLOSET - POWER PLAN

1/4" = 1'-0"

0' 2' 4' 8' 16'

**GENERAL NOTES**

1. REFER TO SHEET E4.0 FOR RISER DIAGRAM AND ADDITIONAL INFORMATION ON POWER DISTRIBUTION IN THE BUILDING.
2. FEED ALL RECEPTACLES ON THE FIRST FLOOR FROM HOUSE RECEPTACLE PANEL NL-RP-1-1 UNLESS OTHERWISE NOTED.
3. FEED ALL MECHANICAL, PLUMBING EQUIPMENT ON FIRST FLOOR FROM THE HOUSE MECHANICAL PANEL AS INDICATED.
4. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY EQUIPMENT FITS WITHIN THE FOOTPRINT OUTLINED IN THESE DRAWINGS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXTENDING PAD, RACEWAY, AND WIRING TO ACCOMMODATE FINAL EQUIPMENT SIZES.
5. SEE POWERED EQUIPMENT SCHEDULE AND PANELBOARD SCHEDULES FOR HVAC, PLUMBING AND MISC EQUIPMENT WIRING REQUIREMENTS. SEE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION OF THE EQUIPMENT.
6. COORDINATE MOUNTING HEIGHTS OF ALL RECEPTACLES WITH ARCHITECTS PRIOR TO ROUGH-IN/INSTALLATION.
7. REFER TO SHEET SERIES E5.X FOR PANELBOARD SCHEDULES.
8. REFER TO SHEET FA0.0 FOR FIRE ALARM RISER DIAGRAM
9. ENSURE THAT ALL PANELBOARD, SWITCHBOARD CLEARANCES ARE PROPERLY MAINTATINED PER NEC 110.26
10. ALL DOORS IN ELECTRICAL CLOSETS TO SWING IN THE DIRECTION OF EGRESS AND SHALL BE EQUIPPED WITH PANIC HARDWARE.

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | ISSUE FOR PERMIT | 04.05.2021 |
| 2 | PERMIT REVISION | 06.30.2021 |


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E3.3


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

**LEGEND**

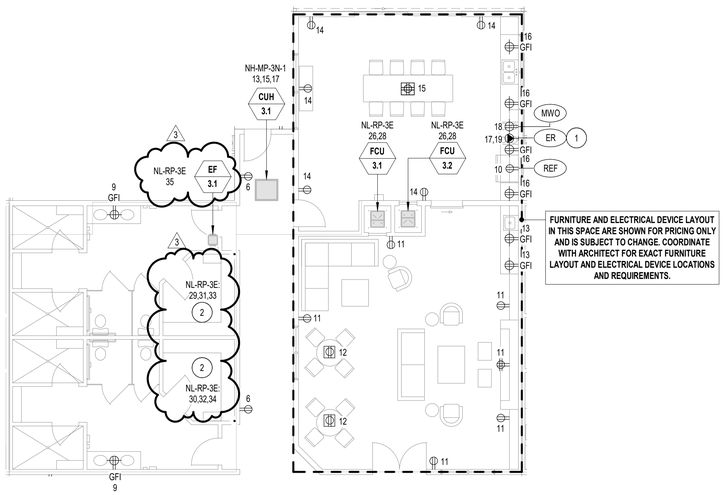
- ER — ELECTRIC RANGE
- REF — REFRIGERATOR
- MWO — MICROWAVE OVEN

**GENERAL NOTES**

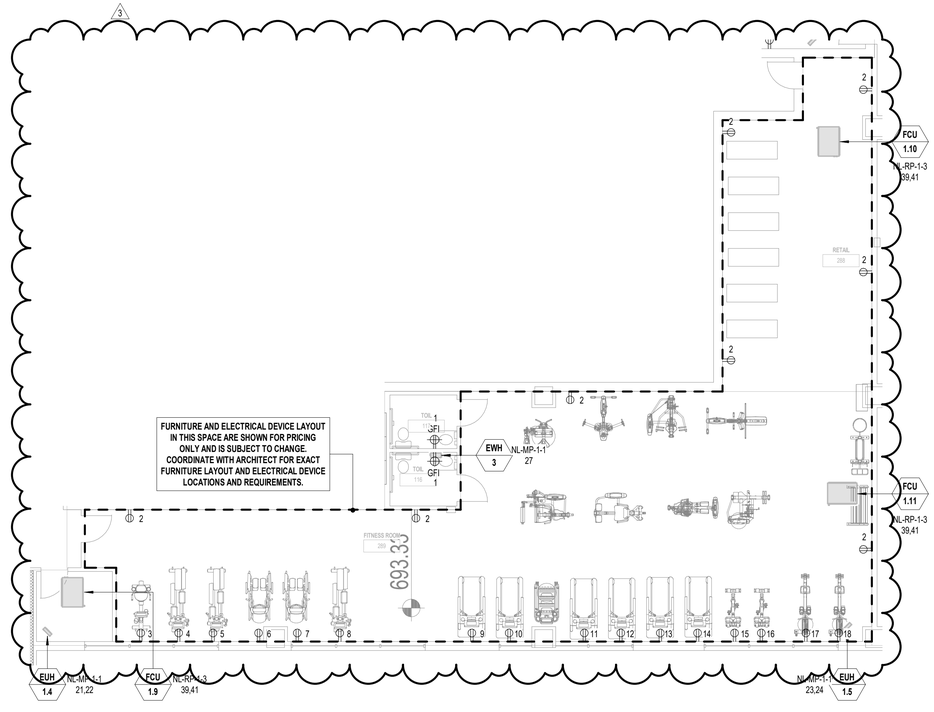
1. REFER TO SHEET E4.0 FOR RISER DIAGRAM AND ADDITIONAL INFORMATION ON POWER DISTRIBUTION IN THE BUILDING.
2. FEED ALL RECEPTACLES IN THE FIRST FLOOR AMENITY SPACE FROM HOUSE RECEPTACLE PANEL NL-RP-1-2 UNLESS OTHERWISE NOTED.
3. FEED ALL RECEPTACLES IN THE FIRST FLOOR FITNESS SPACE FROM HOUSE RECEPTACLE PANEL NL-RP-1-3 UNLESS OTHERWISE NOTED.
4. FEED ALL RECEPTACLES IN THE THIRD FLOOR AMENITY SPACE FROM HOUSE RECEPTACLE PANEL NL-RP-3E UNLESS OTHERWISE NOTED.
5. FEED ALL MECHANICAL, PLUMBING EQUIPMENT FROM THE HOUSE MECHANICAL PANEL AS INDICATED.
6. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY EQUIPMENT FITS WITHIN THE FOOTPRINT OUTLINED IN THESE DRAWINGS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXTENDING PAD, RACEWAY, AND WIRING TO ACCOMMODATE FINAL EQUIPMENT SIZES.
7. SEE POWERED EQUIPMENT SCHEDULE AND PANELBOARD SCHEDULES FOR HVAC, PLUMBING AND MISC EQUIPMENT WIRING REQUIREMENTS. SEE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION OF THE EQUIPMENT.
8. COORDINATE MOUNTING HEIGHTS OF ALL RECEPTACLES WITH ARCHITECTS PRIOR TO ROUGH-IN/INSTALLATION.
9. REFER TO SHEET SERIES E5.X FOR PANELBOARD SCHEDULES.
10. REFER TO SHEET E4.4 FOR FIRE ALARM RISER DIAGRAM.

**SHEET NOTES**

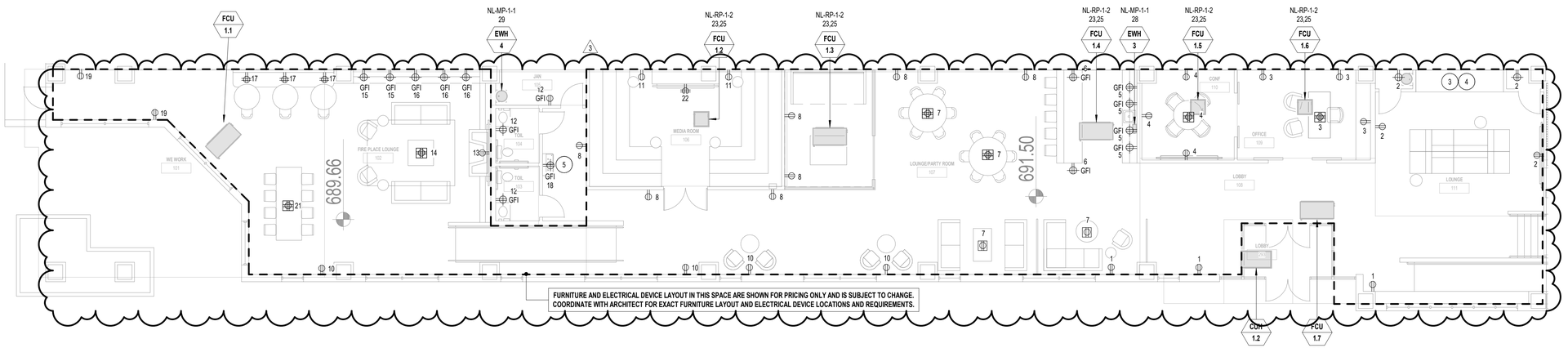
1. PROVIDE DEDICATED 208V-1PHASE CIRCUIT WITH 3 #8 AWG CU AND 1 #8 AWG CU GRD. IN 3/4" CONDUIT FOR ELECTRIC RANGE. PROVIDE 50A CIRCUIT BREAKER IN UNIT LOAD CENTER AND NEMA 14-50R UNIPLEX OUTLET MOUNTED BELOW THE COUNTER. COORDINATE AND VERIFY MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS FOR ELECTRICAL OUTLET LOCATION PRIOR TO ROUGH-IN/INSTALLATION.
2. PROVIDE DEDICATED 208V-3PHASE CIRCUIT FOR PRE-FABRICATED SAUNA . COORDINATE EXACT REQUIREMENTS WITH ARCHITECT AND MANUFACTURER PRIOR TO ROUGH-IN/INSTALLATION.
3. PROVIDE (2) DEDICATED 208V-1PHASE CIRCUITS FOR FISH TANK CIRCUITED TO PANEL "NL-RP-1-3" . COORDINATE EXACT REQUIREMENTS WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION.
4. PROVIDE (10) DEDICATED 120V-1PHASE CIRCUITS FOR FISH TANK CIRCUITED TO PANEL "NL-RP-1-3" COORDINATE EXACT REQUIREMENTS WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION.
5. PROVIDE DEDICATED 120V-1PHASE CIRCUIT FOR ELECTRIC WATER COOLER CIRCUITED TO PANEL "NL-RP-1-2".




3 THIRD FLOOR - POWER PLAN - AMENITY SPACE
1/8" = 1'-0"




2 FIRST FLOOR - POWER PLAN - FITNESS CENTER
1/8" = 1'-0"




1 FIRST FLOOR - POWER PLAN - AMENITY SPACE
1/8" = 1'-0"

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |
| 3 | |

db HMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

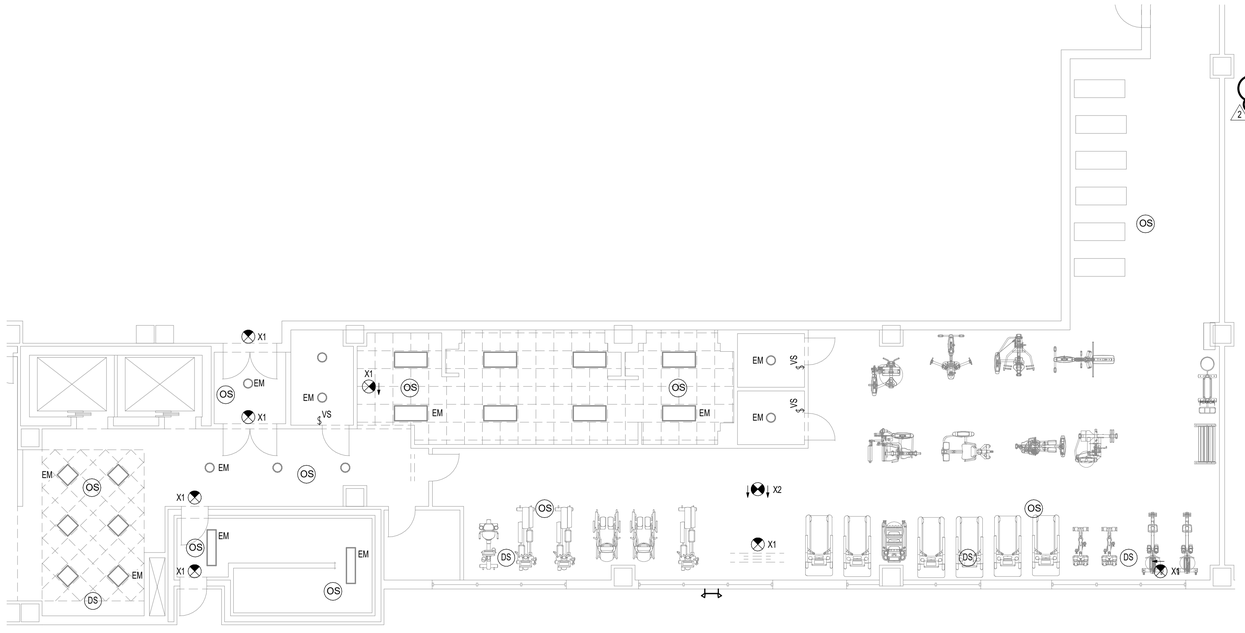
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E3.4

JONES & JONES ASSOCIATES / ARCHITECTS PC

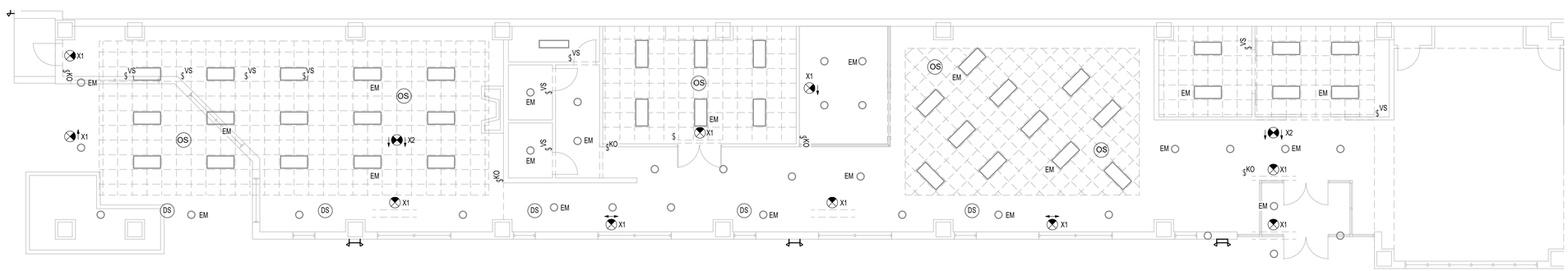
3 THIRD FLOOR - LIGHTING RCP - AMENITY SPACE
1/8" = 1'-0"

0' 4' 8' 16' 32'




2 FIRST FLOOR - LIGHTING RCP - FITNESS CENTER
1/8" = 1'-0"

0' 4' 8' 16' 32'




1 FIRST FLOOR - LIGHTING RCP - AMENITY SPACE
1/8" = 1'-0"

0' 4' 8' 16' 32'

**GENERAL NOTES**

1. ALL NON-EMERGENCY LIGHTING IN 1ST FLOOR AMENITY SPACES SHALL BE FED FROM PANEL "NL-LP-1" UNLESS OTHERWISE NOTED.
2. ALL EMERGENCY LIGHTING IN 1ST FLOOR AMENITY SPACES SHALL BE FED FROM PANEL "EL-LP-1" UNLESS OTHERWISE NOTED.
3. ALL NON-EMERGENCY LIGHTING IN 3RD FLOOR AMENITY SPACES SHALL BE FED SHALL BE FED FROM PANEL "NL-LP-3N" UNLESS OTHERWISE NOTED.
4. ALL EMERGENCY LIGHTING IN 3RD FLOOR AMENITY SPACES SHALL BE FED FROM PANEL "EL-LP-3W" UNLESS OTHERWISE NOTED.
5. ALL EXIT SIGNS ARE 120V AND SHALL BE FED FROM PANEL "EL-LP-1"/"EL-LP-3W" UNLESS OTHERWISE NOTED. PROVIDE A LOCK-ON DEVICE ON CIRCUIT BREAKER.
6. COORDINATE ALL CEILING MOUNTED EXIT SIGNS TO BE VISIBLE UNDER THE PLANE OF PENDANT LIGHTS.
7. ALL EXIT SIGNS ABOVE DOORS NEED TO BE WALL MOUNTED TO A MINIMUM OF 6" ABOVE DOOR.
8. LOCATE ALL EXIT SIGNS TO THE CENTER OF THE AISLES. ALL 120V LIGHT FIXTURES, EXIT SIGNS, AND EMERGENCY LIGHTING SHALL BE MOUNTED AT MINIMUM 8' 0" ABOVE FINISHED FLOOR. FOR FINAL FIXTURE ELEVATION, REFER TO INTERIOR DRAWINGS.
9. ALL LIGHTING CONTROL STATIONS ARE LOW VOLTAGE DIGITAL CONTROL STATIONS UNLESS OTHERWISE NOTED.
10. ALL SENSORS AND THEIR LOCATIONS INDICATED ARE DIAGRAMMATIC FOR REFERENCE ONLY. PROVIDE 100% COVERAGE BASED ON MANUFACTURER SENSOR REQUIREMENTS.
11. ELECTRICAL INSPECTOR TO VERIFY ALL EXIT SIGNS AND EMERGENCY LIGHTING IS ADEQUATE UPON SUBSTANTIAL COMPLETION.

2

REVISION DATE
ISSUE FOR PERMIT 04.05.2021
PERMIT REVISION 06.30.2021
1
2

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E3.5

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

**LEGEND**

(SM) MULTIPOINT SUB-METERING

L ♦ CURRENT SENSOR FOR LIGHTING LOAD

R ♦ CURRENT SENSOR FOR RECEPTACLE LOAD

M ♦ CURRENT SENSOR FOR MOTOR LOAD

**SHEET NOTES**

1. PROVIDE 125A, 120/208V, 1PH, 3W LOAD CENTER WITH 32 CIRCUIT BREAKERS. SEE TYPICAL LOAD CENTER SCHEDULES FOR ADDITIONAL DETAILS AND CIRCUITING.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE AN ENERGY MONITORING AND MANAGEMENT SYSTEM IN COMPLIANCE WITH ASHRAE 90.1 2013 / 2016, SECTION 8.4.3. PROVIDE ALL ENERGY METERING COMPLETE WITH METERS, CURRENT SENSORS, LINE AND LOW VOLTAGE WIRING, CONDUIT, BOXES, COMMUNICATIONS BOARDS, SOFTWARE, HARDWARE, FUSE KITS BONDING KITS AND ALL RELATED EQUIPMENT FOR A FULLY FUNCTIONAL, STAND-ALONE, TURN-KEY ENERGY MONITORING SYSTEM. INCLUDE ALL INTERFACE WITH BUILDING BAS SYSTEM AND PROVIDE REQUIRED SOFTWARE, PROGRAMMING, TESTING AND OWNER TRAINING. REFER TO SPECIFICATION SECTION 26 27 14 - ELECTRICITY SUB-METERING.
3. PROVIDE (2) EMPTY 4" CONDUITS AND (2) EMPTY 1" CONDUITS FOR FUTURE CONNECTION TO PV SYSTEM.
4. TENANT UNIT FEEDERS BASED ON LENGTH:

   1' UP TO 180' = 3 #1, 1 #6 EG - 1 1/2" C
   181' UP TO 220' = 3 #1/0, 1 #4 EG - 1 1/2" C
   221' UP TO 260' = 3 #2/0, 1 #4 EG - 1 1/2" C
   261' UP TO 330' = 3 #3/0, 1 #3 EG - 2" C
   VERIFY THAT LUGS AT METER CENTERS AND TENANT PANELS ARE ABLE TO ACCOMMODATE FEEDER CABLE SIZES THAT ARE BEING UPSIZED TO ACCOMMODATE VOLTAGE DROP.

**GENERAL NOTES**

1. REFER SHEET E4.2 FOR FEEDER SCHEDULE.
2. PROVIDE MINIMUM OF 10% SPARES FOR PANELBOARDS AND SWITCHBOARD.
3. PROVIDE ALL REQUIRED CONTROL MODULES, HARDWARE, SOFTWARE, PROGRAMMING, CONDUIT, LINE AND LOW VOLTAGE WIRING, ETC. AT ELEVATOR CONTROLLER FOR A COMPLETE OPERATIONAL ELEVATOR CONTROL SYSTEM. REFER TO DETAIL #4 ON SHEET E6.1 FOR ADDITIONAL INFORMATION.
4. REFER TO DETAIL #1 ON SHEET E6_1 FOR ADDITIONAL INFORMATION REGARDING BUSWAY PENETRATION.
5. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING COORDINATION STUDIES. SEE ELECTRICAL SPECIFICATION SECTION 260573 FOR FURTHER DETAILS ON ALL REQUIREMENTS.

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECTS

NEMA 3R PULL BOX FOR CONNECTION TO SOLAR - COORDINATE EXACT LOCATION WITH PV PROVIDER

METERBANK "RMB-7E" SERVES 7TH FLOOR RESIDENTIAL LOAD CENTERS — (24) 125A METERS WITH 125A-2P MAIN BREAKERS
EAST ELECTRICAL CLOSET — 3 — 23B — 12B — NL-RP-7E 225A 120/208V 3PH,4W — NH-MP-7E 800A 277/480V 3PH,4W
TOTAL OF 24 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
METERBANK "RMB-7N" SERVES 7TH FLOOR RESIDENTIAL LOAD CENTERS — (23) 125A METERS WITH 125A-2P MAIN BREAKERS
23B — 9B — NL-LP-7N 150A 120/208V 3PH,4W — NH-MP-7N 800A 277/480V 3PH,4W
NORTH ELECTRICAL CLOSET — TOTAL OF 23 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
METERBANK "RMB-7W" SERVES 7TH FLOOR RESIDENTIAL LOAD CENTERS — (23) 125A METERS WITH 125A-2P MAIN BREAKERS
23B — NH-MP-7W 800A 277/480V 3PH,4W
WEST ELECTRICAL CLOSET — TOTAL OF 23 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
LEVEL 7

METERBANK "RMB-6E" SERVES 6TH FLOOR RESIDENTIAL LOAD CENTERS — (24) 125A METERS WITH 125A-2P MAIN BREAKERS
EAST ELECTRICAL CLOSET — TOTAL OF 24 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
METERBANK "RMB-6N" SERVES 6TH FLOOR RESIDENTIAL LOAD CENTERS — (23) 125A METERS WITH 125A-2P MAIN BREAKERS
12B — NH-MP-6N 225A 277/480V 3PH,4W
NORTH ELECTRICAL CLOSET — TOTAL OF 23 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
METERBANK "RMB-6W" SERVES 6TH FLOOR RESIDENTIAL LOAD CENTERS — (23) 125A METERS WITH 125A-2P MAIN BREAKERS
WEST ELECTRICAL CLOSET — TOTAL OF 23 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
LEVEL 6

METERBANK "RMB-5E" SERVES 5TH FLOOR RESIDENTIAL LOAD CENTERS — (24) 125A METERS WITH 125A-2P MAIN BREAKERS
EAST ELECTRICAL CLOSET — 12B — NL-RP-5E 225A 120/208V 3PH,4W — TOTAL OF 24 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
METERBANK "RMB-5N" SERVES 5TH FLOOR RESIDENTIAL LOAD CENTERS — (23) 125A METERS WITH 125A-2P MAIN BREAKERS
9B — NL-LP-5N 150A 120/208V 3PH,4W
NORTH ELECTRICAL CLOSET — TOTAL OF 23 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
METERBANK "RMB-5W" SERVES 5TH FLOOR RESIDENTIAL LOAD CENTERS — (23) 125A METERS WITH 125A-2P MAIN BREAKERS
WEST ELECTRICAL CLOSET — TOTAL OF 23 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
LEVEL 5

METERBANK "RMB-4E" SERVES 4TH FLOOR RESIDENTIAL LOAD CENTERS — (24) 125A METERS WITH 125A-2P MAIN BREAKERS
EAST ELECTRICAL CLOSET — TOTAL OF 24 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
METERBANK "RMB-4N" SERVES 4TH FLOOR RESIDENTIAL LOAD CENTERS — (23) 125A METERS WITH 125A-2P MAIN BREAKERS
NORTH ELECTRICAL CLOSET — TOTAL OF 23 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
METERBANK "RMB-4W" SERVES 4TH FLOOR RESIDENTIAL LOAD CENTERS — (23) 125A METERS WITH 125A-2P MAIN BREAKERS
WEST ELECTRICAL CLOSET — TOTAL OF 23 UNIT LOAD CENTERS — UNIT LOAD CENTER 125A 120/208V 1PH,3W
LEVEL 4

METERBANK "RMB-3E" SERVES 3RD FLOOR RESIDENTIAL LOAD CENTERS — (24) 125A METERS WITH 125A-2P MAIN BREAKERS
EAST ELECTRICAL CLOSET — 12B — NL-RP-3E 225A 120/208V 3PH,4W — TOTAL OF 24 UNIT LOAD CENTERS — 3 — 1 — 4 — (TYPICAL) — TO TENANT METERBANK (TYPICAL) — UNIT LOAD CENTER 125A 120/208V 1PH,3W
METERBANK "RMB-3N" SERVES 3RD FLOOR RESIDENTIAL LOAD CENTERS — (23) 125A METERS WITH 125A-2P MAIN BREAKERS
12B — 9B — NL-LP-3N 150A 120/208V 3PH,4W — NH-MP-3N-1 225A 277/480V 3PH,4W — NH-MP-3N-2 225A 277/480V 3PH,4W
NORTH ELECTRICAL CLOSET — TOTAL OF 23 UNIT LOAD CENTERS — 1 — 4 — (TYPICAL) — UNIT LOAD CENTER 125A 120/208V 1PH,3W
METERBANK "RMB-3W" SERVES 3RD FLOOR RESIDENTIAL LOAD CENTERS — (21) 125A METERS WITH 125A-2P MAIN BREAKERS
WEST ELECTRICAL CLOSET — TOTAL OF 21 UNIT LOAD CENTERS — 1 — 4 — (TYPICAL) — UNIT LOAD CENTER 125A 120/208V 1PH,3W
LEVEL 3

800A-3P PLUG -IN BUS TAP (TYPICAL) — 4000A,208/120V, 3PH, 4W CU WEATHERPROOF PLUG-IN BUSWAY
800A-3P PLUG -IN BUS TAP (TYPICAL) — 4000A,208/120V, 3PH, 4W CU WEATHERPROOF PLUG-IN BUSWAY
800A-3P PLUG -IN BUS TAP (TYPICAL) — 4000A,208/120V, 3PH, 4W CU WEATHERPROOF PLUG-IN BUSWAY
17B — NH-POOL 400A 277/480V 3PH,4W
5A — XFMR-POOL 45KVA 480V DELTA 120/208V WYE
10B — NL-POOL 175A 120/208V 3PH,4W
LEVEL 2

RETAIL — RESTAURANT FIRE PUMP ROOM

SEE DRAWING E 4_1 FOR CONTINUATION
EMERGENCY ATS ROOM — ATS-ELEV — ATS-MP — ATS-LP
12B — 8B — SERVICE SWITCHBOARD "H-MSB-1" 3000A 277/480V, 3PH, 4W, 65KAIC — 3000A — GF — SPD — 2 — SM — 225A — 800A — 400A — 350A — 70A — 225A — 23B
PV SYSTEM DISCONNECT 800A-3P NONFUSED DISCONNECT — 16A — 23B — XFMR-HP 225KVA 480V DELTA 120/208V WYE
R R R L L L L R R R — NL-HP-DP 800A 120/208V 3PH,4W — 2 — SM
9B — NL-RP-1-1 150A 120/208V 3PH,4W
9B — NL-RP-1-2 150A 120/208V 3PH,4W
9B — NL-RP-1-3 150A 120/208V 3PH,4W
9B — NL-LP-1 150A 120/208V 3PH,4W
17B — 10A — NH-MP-1 400A 277/480V 3PH,4W — XFMR-MP 112.5KVA 480V DELTA 120/208V WYE
17B — NL-MP-1-1 400A 120/208V 3PH,4W
NL-MP-1-2 400A 120/208V 3PH,4W
SERVICE SWITCHBOARD "L-MSB-E" 4000A 120/208V, 3PH, 4W 100 KAIC — 4000A 3P — SPD
SERVICE SWITCHBOARD "L-MSB-N" 4000A 120/208V, 3PH, 4W 100 KAIC — 4000A 3P — SPD
SERVICE SWITCHBOARD "L-MSB-W" 4000A 120/208V, 3PH, 4W 100 KAIC — 4000A 3P — SPD
RETAIL METER BANK 800A, 120/208V 3PH, 4W — 800A 3P — 400A — 225A
12B — NL-RT-1 225A 120/208V 3PH,4W
17B — NL-RT-2 400A 120/208V 3PH,4W
SEE DRAWING E 4_1 FOR CONTINUATION

PAD MOUNTED COMED 4-BAY DEADFRONT SWITCHGEAR
PAD MOUNTED COMED 4-BAY DEADFRONT SWITCHGEAR
PAD MOUNTED COMED XFMR 120/208V SEC
PAD MOUNTED COMED XFMR 120/208V SEC
PAD MOUNTED COMED XFMR 120/208V SEC
PAD MOUNTED COMED XFMR 277/480V SEC

5" EMPTY PVC SCHEDULE 40 UNDERGROUND CONCRETE ENCASED CONDUITS TO PROPERTY LINE (CABLING PROVIDED BY COMED)
(2) 5" EMPTY PVC SCHEDULE 40 UNDERGROUND CONCRETE ENCASED CONDUITS (CABLING PROVIDED BY COMED)
(8) SETS 4 #500 KCMIL CU IN 3-1/2" CONDUITS (CONCRETE ENCASED)
(10) SETS 4 #600 KCMIL CU IN 4" CONDUIT (CONCRETE ENCASED)
(10) SETS 4 #600 KCMIL CU IN 4" CONDUIT (CONCRETE ENCASED)
(10) SETS 4 #600 KCMIL CU IN 4" CONDUIT (CONCRETE ENCASED)
(2) SETS 4 #600 KCMIL CU IN 3 1/2" CONDUIT (CONCRETE ENCASED)
4 #350 KCMIL CU IN 3" CONDUIT (CONCRETE ENCASED) TO FIRE PUMP CONTROLLER

REVISION | DATE
ISSUE FOR PERMIT | 04.06.2021
PERMIT REVISION | 06.30.2021
1
2

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E4.0

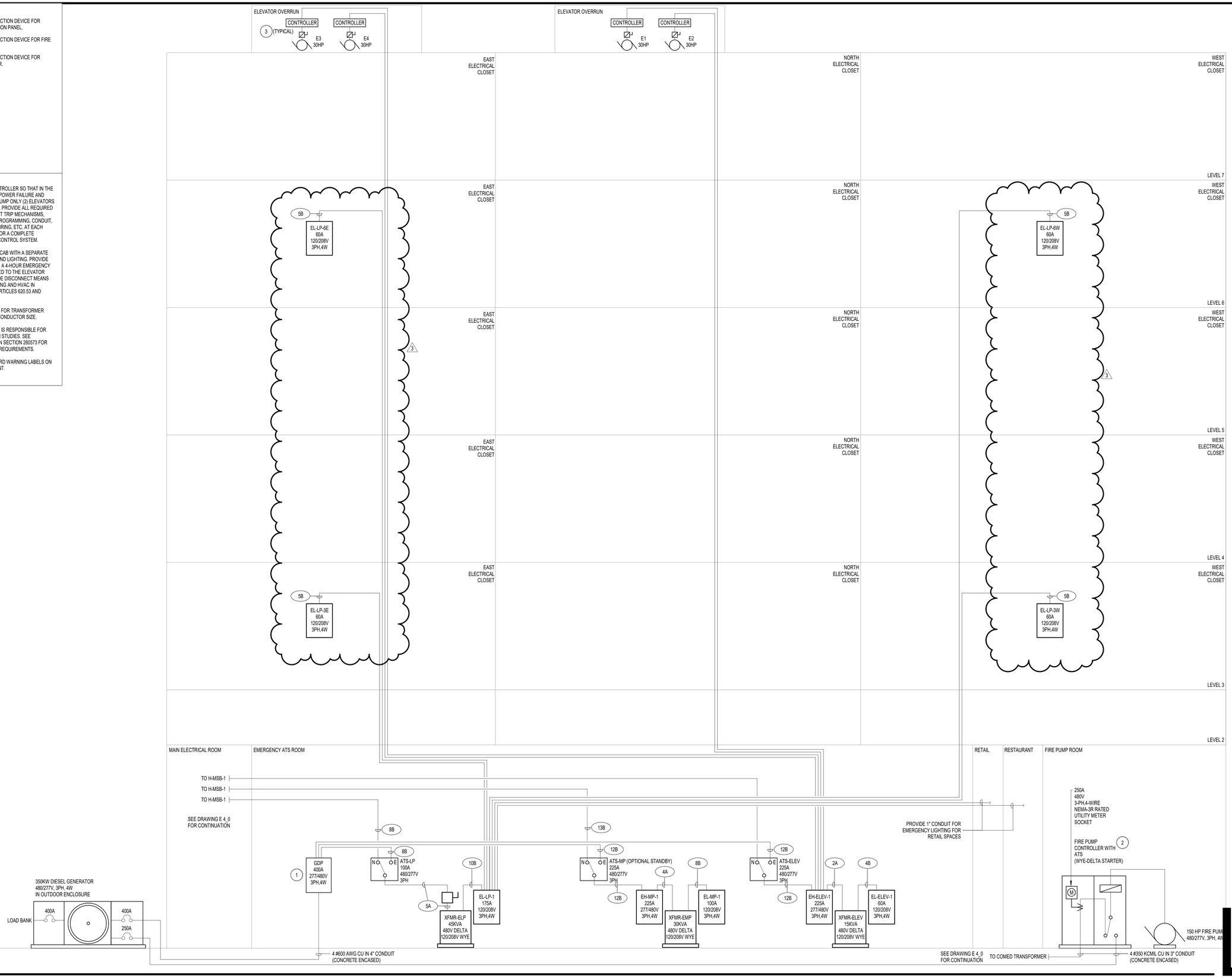
JONES & JONES ASSOCIATES / ARCHITECTS PC

**SHEET NOTES**

1. PROVIDE SURGE PROTECTION DEVICE FOR GENERATOR DISTRIBUTION PANEL.
2. PROVIDE SURGE PROTECTION DEVICE FOR FIRE PUMP CONTROLLER.
3. PROVIDE SURGE PROTECTION DEVICE FOR ELEVATOR CONTROLLER.

**GENERAL NOTES**

1. PROGRAM ELEVATOR CONTROLLER SO THAT IN THE EVENT OF A COMMERCIAL POWER FAILURE AND ACTIVATION OF THE FIRE PUMP ONLY (2) ELEVATORS SHALL OPERATE AT A TIME. PROVIDE ALL REQUIRED CONTROL MODULES, SHUNT TRIP MECHANISMS, HARDWARE, SOFTWARE, PROGRAMMING, CONDUIT, LINE AND LOW VOLTAGE WIRING, ETC. AT EACH ELEVATOR CONTROLLER FOR A COMPLETE OPERATIONAL ELEVATOR CONTROL SYSTEM.
2. PROVIDE EACH ELEVATOR CAB WITH A SEPARATE CIRCUIT FOR EACH HVAC AND LIGHTING. PROVIDE EACH ELEVATOR CAB WITH A 4-HOUR EMERGENCY BATTERY PACK, CONNECTED TO THE ELEVATOR LIGHTING CIRCUIT. PROVIDE DISCONNECT MEANS FOR ELEVATOR CAB LIGHTING AND HVAC IN ACCORDANCE WITH NEC ARTICLES 620.53 AND 620.54.
3. SEE GROUNDING DIAGRAM FOR TRANSFORMER GROUNDING ELECTRODE CONDUCTOR SIZE.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING COORDINATION STUDIES. SEE ELECTRICAL SPECIFICATION SECTION 260573 FOR FURTHER DETAILS ON ALL REQUIREMENTS.
5. PROVIDE ARC FLASH HAZARD WARNING LABELS ON ALL ELECTRICAL EQUIPMENT.




| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| 1 | |
| 2 | |


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

# E4.1


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| 1Ø 120V - 277V BRANCH CIRCUIT SCHEDULES | | | | | | |
|---|---|---|---|---|---|---|
| TABLE G: BRANCH CIRCUITS 1Ø WITH GC "NEUTRAL" & WITH GRD EGC | | | | TABLE H: BRANCH CIRCUITS 1Ø GC "NEUTRAL & ISO GRD IG & GRD EGC | | | |
| CKT AMPS | PWR TAG | STR Cu THWN-2 AWG - Kcmil | COND SIZE | PWR TAG | STR Cu THWN-2 AWG - Kcmil | COND SIZE |
| 20 | 1G | 2 #12 & 1 #12 EGC | 3/4" | 1H | 2 #12 & 2 #12 IG & EGC | 3/4" |
| 30 | 2G | 2 #10 & 1 #10 EGC | 3/4" | 2H | 2 #10 & 2 #10 IG & EGC | 3/4" |
| 40 | 3G | 2 #8 & 1 #10 EGC | 1" | 3H | 2 #8 & 2 #8 IG & EGC | 1" |
| 55 | 4G | 2 #6 & #10 EGC | 1" | 4H | 2 #6 & 2 #6 IG & EGC | 1" |
| 70 | 5G | 2 #4 & 1 #8 EGC | 1" | 5H | 2 #4 & 2 #4 IG & EGC | 1" |
| 85 | 6G | 2 #3 & #8 EGC | 1.5" | 6H | 2 #3 & 2 #3 IG & EGC | 1.5" |
| 95 | 7G | 2 #2 & 1 #8 EGC | 1.5" | 7H | 2 #2 & 2 #2 IG & EGC | 1.5" |
| 130 | 8G | 2 #1 & 1 #6 EGC | 1.5" | 8H | 2 #1 & 2 #1 IG & EGC | 1.5" |
| 150 | 9G | 2 #1/O & 1 #6 EGC | 2" | 9H | 2 #1/O & 2 #1/O IG & EGC | 2" |
| 175 | 10G | 2 #2/O & 1 #6 EGC | 2" | 10H | 2 #2/O & 2 #2/O IG & EGC | 2" |
| 200 | 11G | 2 #3/O & 1 #6 EGC | 2" | 11H | 2 #3/O & 2 #3/O IG & EGC | 2" |
| 230 | 12G | 4 #4/O & 1 #4 EGC | 2.5" | 12H | NA | NA |
| 255 | 13G | 4 #250 & 1 #4 EGC | 2.5" | 13H | NA | NA |
| 310 | 14G | 4 #350 & 1 #4 EGC | 3" | 14H | NA | NA |
| 335 | 15G | 4 #400 & 1 #4 EGC | 3" | 15H | NA | NA |
| 380 | 16G | 4 #500 & 1 #3 EGC | 4" | 16H | NA | NA |

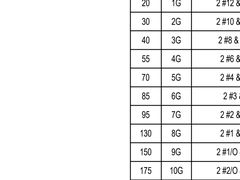
| THREE PHASE (Ø) AND SINGLE PHASE (Ø) POWER FEEDERS - BRANCH CIRCUITS - SERVICE ENTRANCE SCHEDULE UPTO 3,000A | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TABLE A: FEEDER-BRANCH CIRCUITS 3Ø 3W NO GC "NEUTRAL" AND WITH "GROUND" EGC | | | | TABLE B: FEEDER-BRANCH CIRCUITS 3Ø 4W WITH GC "NEUTRAL" & "GROUND" EGC | | | | TABLE C: FEEDER-BRANCH CIRCUITS 1Ø 2W NO GC "NEUTRAL" AND WITH GRD EGC | | | | TABLE D: FEEDER-BRANCH CIRCUITS 1Ø 3W WITH GC "NEUTRAL" AND WITH GRD EGC | | | | TABLE N: SERVICE ENTRANCE 3Ø 4W WITH GC "NEUTRAL" | | | |
| CKT AMPS | PWR TAG | STR Cu THWN-2 OR XHHW-2 AWG - Kcmil | COND SIZE | PWR TAG | STR Cu THWN-2 OR XHHW-2 AWG - Kcmil | COND SIZE | PWR TAG | STR Cu THWN-2 OR XHHW-2 AWG - Kcmil | COND SIZE | PWR TAG | STR Cu THWN-2 OR XHHW-2 AWG - Kcmil | COND SIZE | PWR TAG | STR Cu THWN-2 OR XHHW-2 AWG - Kcmil | COND SIZE | PWR TAG | STR Cu XHHW-2 AWG - Kcmil | COND SIZE |
| 20 | 1A | 3 #12 & 1 #12 EGC | 3/4" | 1B | 4 #12 & 1 #12 EGC | 3/4" | 1C | 2 #12 & 1 #12 EGC | 3/4" | 1D | 3 #12 & 1 #12 EGC | 3/4" | 1N | NA | NA |
| 30 | 2A | 3 #10 & 1 #10 EGC | 3/4" | 2B | 4 #10 & 1#10 EGC | 3/4" | 2C | 2 #10 & 1 #10 EGC | 3/4" | 2D | 3 #10 & 1#10 EGC | 3/4" | 2N | NA | NA |
| 40 | 3A | 3 #8 & 1 #8 EGC | 3/4" | 3B | 4 #8 & 1 #8 EGC | 3/4" | 3C | 2 #8 & 1 #8 EGC | 3/4" | 3D | 3 #8 & 1 #8 EGC | 3/4" | 3N | NA | NA |
| 55 | 4A | 3 #6 & 1 #8 EGC | 3/4" | 4B | 4 #6 & 1 #8 EGC | 1" | 4C | 2 #6 & 1 #8 EGC | 3/4" | 4D | 3 #6 & 1 #8 EGC | 1" | 4N | NA | NA |
| 70 | 5A | 3 #4 & 1 #6 EGC | 1" | 5B | 4 #4 & 1 #8 EGC | 1.5" | 5C | 2 #4 & 1 #8 EGC | 1" | 5D | 3 #4 & 1 #6 EGC | 1" | 5N | NA | NA |
| 85 | 6A | 3 #3 & 1 #6 EGC | 1" | 6B | 4 #3 & 1 #8 EGC | 1.5" | 6C | 2 #3 & 1 #8 EGC | 1" | 6D | 3 #3 & 1 #8 EGC | 1.5" | 6N | 4 #3 | 1.5" |
| 95 | 7A | 3 #2 & 1 #6 EGC | 1" | 7B | 4 #2 & 1 #8 EGC | 1.5" | 7C | 2 #2 & 1 #6 EGC | 1.5" | 7D | 3 #2 & 1 #6 EGC | 1.5" | 7N | 4 #2 | 1.5" |
| 130 | 8A | 3 #1 & 1 #6 EGC | 1.5" | 8B | 4 #1 & 1 #6 EGC | 1.5" | 8C | 2 #1 & 1 #6 EGC | 1.5" | 8D | 3 #1 & 1 #6 EGC | 1.5" | 8N | 4 #1 | 1.5" |
| 150 | 9A | 3 #1/O & 1 #6 EGC | 1.5" | 9B | 4 #1/O & 1 #6 EGC | 2" | 9C | 2 #1/O & 1 #6 EGC | 1.5" | 9D | 3 #1/O & 1 #6 EGC | 1.5" | 9N | 4 #1/O | 2" |
| 175 | 10A | 3 #2/O & 1 #4 EGC | 1.5" | 10B | 4 #2/O & 1 #4 EGC | 2" | 10C | 2 #2/O & 1 #6 EGC | 1.5" | 10D | 3 #2/O & 1 #6 EGC | 2" | 10N | 4 #2/O | 2" |
| 200 | 11A | 3 #3/O & 1 #4 EGC | 1.5" | 11B | 4 #3/O & 1 #6 EGC | 2" | 11C | #2/O & 1 #6 EGC | 1.5" | 11D | 3 #3/O & 1 #6 EGC | 2" | 11N | 4 #3/O | 2" |
| 230 | 12A | 3 #4/O & 1 #4 EGC | 2" | 12B | 4 #4/O & 1 #4 EGC | 2.5" | 12C | 2 #4/O & 1 #4 EGC | 2" | 12D | 3 #4/O & 1 #4 EGC | 2" | 12N | 4 #4/O | 2.5" |
| 255 | 13A | 3 #250 & 1 #4 EGC | 2.5" | 13B | 4 #250 & 1 #4 EGC | 2.5" | 13C | 2 #250 & 1 #4 EGC | 2" | 13D | 3 #250 & 1 #4 EGC | 2.5" | 13N | 4 #250 | 2.5" |
| 310 | 14A | 3 #350 & 1 #4 EGC | 3" | 14B | 4 #350 & 1 #4 EGC | 3" | 14C | 2 #250 & 1 #4 EGC | 2.5" | 14D | 3 #350 & 1 #4 EGC | 2.5" | 14N | 4 #350 | 3" |
| 335 | 15A | 3 #400 & 1 #3 EGC | 3" | 15B | 4 #400 & 1 #4 EGC | 3" | 15C | 2 #400 & 1 #3 EGC | 3" | 15D | 3 #400 & 1 #4 EGC | 3" | 15N | 4 #400 | 3" |
| 380 | 16A | 3 #500 & 1 #3 EGC | 3.5" | 16B | 4 #500 & 1 #3 EGC | 4" | 16C | 2 #500 & 1 #3 EGC | 3" | 16D | 3 #500 & 1 #3 EGC | 3.5" | 16N | 4 #500 | 3.5" |
| 420 | 17A | 3 #600 & 1 #3 EGC | 4" | 17B | 4 #600 & 1 #1/O EGC | 4" | 17C | 2 #600 & 1 #3 EGC | 4" | 17D | 3 #600 & 1 #3 EGC | 4" | 17N | 4 #600 | 4" |
| 460 | 18A | 2 Sets 3 #4/O & 1 #2 EGC | 2" EA | 18B | 2 Sets 4 #4/O & 1 #2 EGC | 2.5" EA | 18C | 2 Sets 2 #4/O & 1 #2 EGC | 2" EA | 18D | 2 Sets 3 #4/O & 1 #2 EGC | 2" EA | 18N | 2 Sets 4 #4/O | 2.5" EA |
| 510 | 19A | 2 Sets 3 #250 & 1 #2 EGC | 2.5" EA | 19B | 2 Sets 4 #250 & 1 #2 EGC | 2.5" EA | 19C | 2 Sets 2 #250 & 1 #2 EGC | 2" EA | 19D | 2 Sets 3 #250 & 1 #2 EGC | 2.5" EA | 19N | 2 Sets 4 #250 | 2.5" EA |
| 620 | 20A | 2 Sets 3 #350 & 1 #1 EGC | 3" EA | 20B | 2 Sets 4 #350 & 1 #1 EGC | 3" EA | 20C | 2 Sets 2 #350 & 1 #1 EGC | 2.5" EA | 20D | 2 Sets 3 #350 & 1 #1 EGC | 2.5" EA | 20N | 2 Sets 4 #350 | 3" EA |
| 670 | 21A | 2 Sets 3 #400 & 1 #1/O EGC | 3" EA | 21B | 2 Sets 4 #400 & 1 #1/O EGC | 3" EA | 21C | 2 Sets 2 #400 & 1 #1/O EGC | 3" EA | 21D | 2 Sets 3 #400 & 1 #1/O EGC | 3" EA | 21N | 2 Sets 4 #400 | 3" EA |
| 690 | 22A | 3 Sets 3 #4/O & 1 #1/O EGC | 3" EA | 22B | 3 Sets 4 #4/O & 1 #1/O EGC | 2.5" EA | 22C | 3 Sets 2 #4/O & 1 #1/O EGC | 2" EA | 22D | 3 Sets 3 #4/O & 1 #1/O EGC | 2" EA | 22N | 3 Sets 4 #4/O | 2.5" EA |
| 840 | 23A | 2 Sets 3 #600 & 1 #1/O EGC | 3.5" EA | 23B | 2 Sets 4 #600 & 1 #1/O EGC | 4" EA | 23C | 2 Sets 2 #600 & 1 #1/O EGC | 3.5" EA | 23D | 2 Sets 3 #600 & 1 #1/O EGC | 3.5" EA | 23N | 2 Sets 4 #600 | 4" EA |
| 1005 | 24A | 3 Sets 3 #400 & 1 #2/O EGC | 3" EA | 24B | 3 Sets 4 #400 & 1 #2/O EGC | 3" EA | 24C | 3 Sets 2 #400 & 1 #2/O EGC | 3" EA | 24D | 3 Sets 3 #400 & 1 #2/O EGC | 3" EA | 24N | 3 Sets 4 #400 | 3" EA |
| 1020 | 25A | 4 Sets 3 #250 & 1 #2/O EGC | 3" EA | 25B | 4 Sets 4 #250 & 1 #2/O EGC | 2.5" EA | 25C | 4 Sets 2 #250 & 1 #2/O EGC | 2" EA | 25D | 4 Sets 3 #250 & 1 #2/O EGC | 2.5" EA | 25N | 4 Sets 4 #250 | 2.5" EA |
| 1140 | 26A | 3 Sets 3 #500 & 1 #3/O EGC | 3" EA | 26B | 3 Sets 4 #500 & 1 #3/O EGC | 3.5" EA | 26C | 3 Sets 2 #500 & 1 #3/O EGC | 3" EA | 26D | 3 Sets 3 #500 & 1 #3/O EGC | 3.5" EA | 26N | 3 Sets 4 #500 | 3.5" EA |
| 1240 | 27A | 4 Sets 3 #350 & 1 #3/O EGC | 3" EA | 27B | 4 Sets 4 #350 & 1 #4/O EGC | 3" EA | 27C | 4 Sets 2 #350 & 1 #3/O EGC | 2.5" EA | 27D | 4 Sets 3 #350 & 1 #4/O EGC | 2.5" EA | 27N | 4 Sets 4 #350 | 3" EA |
| 1340 | 28A | 4 Sets 3 #400 & 1 #4/O EGC | 3" EA | 28B | 4 Sets 4 #400 & 1 #4/O EGC | 3" EA | 28C | 4 Sets 2 #400 & 1 #4/O EGC | 3" EA | 28D | 4 Sets 3 #400 & 1 #4/O EGC | 3" EA | 28N | 4 Sets 4 #400 | 3" EA |
| 1550 | 29A | 5 Sets 3 #350 & 1 #4/O EGC | 3" EA | 29B | 5 Sets 4 #350 & 1 #4/O EGC | 3" EA | 29C | 5 Sets 2 #350 & 1 #4/O EGC | 2.5" EA | 29D | 5 Sets 3 #350 & 1 #4/O EGC | 2.5" EA | 29N | 5 Sets 4 #350 | 3" EA |
| 1675 | 30A | 5 Sets 3 #400 & 1 #4/O EGC | 3" EA | 30B | 5 Sets 4 #400 & 1 #4/O EGC | 3" EA | 30C | 5 Sets 2 #400 & 1 #4/O EGC | 3" EA | 30D | 5 Sets 3 #400 & 1 #4/O EGC | 3" EA | 30N | 5 Sets 4 #400 | 3" EA |
| 1860 | 31A | 6 Sets 3 #350 & 1 #250 EGC | 3" EA | 31B | 6 Sets 4 #350 & 1 #250 EGC | 3" EA | 31C | 6 Sets 2 #350 & 1 #250 EGC | 2.5" EA | 31D | 6 Sets 3 #350 & 1 #250 EGC | 2.5" EA | 31N | 6 Sets 4 #350 | 3" EA |
| 1900 | 32A | 5 Sets 3 #500 & 1 #250 EGC | 3" EA | 32B | 5 Sets 4 #500 & 1 #250 EGC | 3.5" EA | 32C | 5 Sets 2 #500 & 1 #250 EGC | 3" EA | 32D | 5 Sets 3 #500 & 1 #250 EGC | 3.5" EA | 32N | 5 Sets 4 #500 | 3.5" EA |
| 2010 | 33A | 6 Sets 3 #400 & 1 #250 EGC | 3" EA | 33B | 6 Sets 4 #400 & 1 #250 EGC | 3" EA | 33C | 6 Sets 2 #400 & 1 #250 EGC | 3" EA | 33D | 6 Sets 3 #400 & 1 #250 EGC | 3" EA | 33N | 6 Sets 4 #400 | 3" EA |
| 2170 | 34A | 7 Sets 3 #350 & 1 #250 EGC | 3" EA | 34B | 7 Sets 4 #350 & 1 #250 EGC | 3" EA | 34C | 7 Sets 2 #350 & 1 #250 EGC | 2.5" EA | 34D | 7 Sets 3 #350 & 1 #250 EGC | 2.5" EA | 34N | 7 Sets 4 #350 | 3" EA |
| 2280 | 35A | 6 Sets 3 #500 & 1 #350 EGC | 3" EA | 35B | 6 Sets 4 #500 & 1 #450 EGC | 3.5" EA | 35C | 6 Sets 2 #500 & 1 #350 EGC | 3" EA | 35D | 6 Sets 3 #500 & 1 #450 EGC | 3.5" EA | 35N | 6 Sets 4 #500 | 3.5" EA |
| 2660 | 36A | 7 Sets 3 #500 & 1 #350 EGC | 3" EA | 36B | 7 Sets 4 #500 & 1 #450 EGC | 3.5" EA | 36C | 7 Sets 2 #500 & 1 #350 EGC | 3" EA | 36D | 7 Sets 3 #500 & 1 #450 EGC | 3.5" EA | 36N | 7 Sets 4 #500 | 3.5" EA |
| 3040 | 37A | 8 Sets 3 #500 & 1 #400 EGC | 3.5" EA | 37B | 8 Sets 4 #500 & 1 #400 EGC | 4" EA | 37C | 8 Sets 2 #500 & 1 #400 EGC | 3" EA | 37D | 8 Sets 3 #500 & 1 #400 EGC | 3.5" EA | 37N | 8 Sets 4 #500 | 3.5" EA |

## RECEPTACLE/LIGHTING BRANCH WIRE SIZING SCHEDULE

TABLES ARE BASED ON EVENLY DISTRIBUTIED LOAD ALLOWING A 3% VOLTAGE AT LAST OUTLET (APPLY ACCORDINGLY)

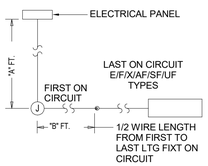
FOR 120V-20A BRANCH TYPE "GU" GENERAL USE RECEPTACLES CIRCUITS ONLY

| IF DISTANCE (A+B) IN FT IS: (SEE DIAGRAM AT RIGHT) | BRANCH CONDUIT & WIRE SCHEDULE TAG |
|---|---|
| 0' TO 100' | 1G |
| 100' TO 175' | 2G |
| 175' TO 300' | 3G |
| 300' TO 450' | 4G |




FOR 277V-20A OR 120V-20A LIGHTING BRANCH CIRCUITS ONLY (UNLESS NOTED OTHERWISE)

| IF DISTANCE (A+B) IN FT IS: (SEE DIAGRAM AT RIGHT) | BRANCH CONDUIT & WIRE SCHEDULE TAG |
|---|---|
| 0' TO 100' | 1G |
| 100' TO 175' | 2G |
| 175' TO 300' | 3G |
| 300' TO 450' | 4G |



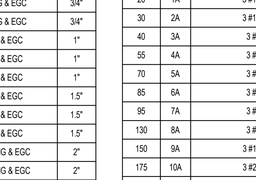

NOTE: MAXIMUM CURRENT CARRYING CONDUCTORS PER RACEWAY SHALL BE NINE. ELECTRICAL CONTRACTOR SHALL INCREASE CONDUIT AND BRANCH CIRCUIT WIRE SIZE AS REQUIRED PER AHJ CODES PER NUMBER OF CONDUCTORS IN A RACEWAY AND AMBIENT TEMPERATURE ABOVE 30°C SURROUNDING THE RACEWAY.

## RECEPTACLE/FRACTIONAL MOTOR BRANCH WIRE SIZING SCHEDULE

TABLES ARE BASED ON EVENLY DISTRIBUTIED LOAD ALLOWING A 3% VOLTAGE AT LAST OUTLET (APPLY ACCORDINGLY)

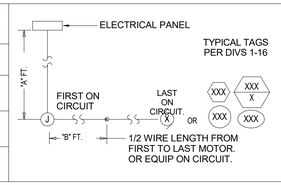
FOR 120V-20A BRANCH RECEPTACLES IG INDIVIDUAL DEDICATED (NON-SHARED) NEUTRAL CIRCUITS ONLY

| IF DISTANCE (A+B) IN FT IS: (SEE DIAGRAM AT RIGHT) | BRANCH CONDUIT & WIRE SCHEDULE TAG |
|---|---|
| 0' TO 100' | 1H |
| 100' TO 175' | 2H |
| 175' TO 300' | 3H |
| 300' TO 450' | 4H |




277V-20A & 120V-20A MOTOR BRANCH CIRCUITS SEE DRWGS FOR MECHANICAL EQUIP DIV 13 & 15 ARCH BLDG EQUIP DIVS 1-12 & 14 & OWNER PURCHASED BLDG EQUIP SCHEDULES

| IF DISTANCE (A+B) IN FT IS: (SEE DIAGRAM AT RIGHT) | BRANCH CONDUIT & WIRE SCHEDULE TAG |
|---|---|
| 0' TO 100' | 1G |
| 100' TO 175' | 2G |
| 175' TO 300' | 3G |
| 300' TO 450' | 4G |



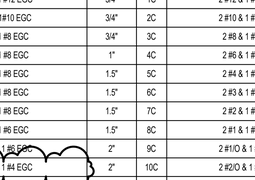

NOTE: MAXIMUM CURRENT CARRYING CONDUCTORS PER RACEWAY SHALL BE NINE. ELECTRICAL CONTRACTOR SHALL INCREASE CONDUIT AND BRANCH CIRCUIT WIRE SIZE AS REQUIRED PER AHJ CODES PER NUMBER OF CONDUCTORS IN A RACEWAY AND AMBIENT TEMPERATURE ABOVE 30°C SURROUNDING THE RACEWAY.

## RECEPT/UL LISTED EQUIPMENT BRANCH WIRE SIZING SCHEDULE

TABLES ARE BASED ON EVENLY DISTRIBUTIED LOAD ALLOWING A 3% VOLTAGE AT LAST OUTLET (APPLY ACCORDINGLY)

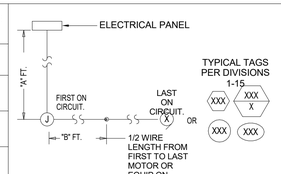
FOR 120V-20A BRANCH TYPE "CR" COMPUTER USE RECEPTACLES DEDICATED (NON-SHARED) NEUTRAL CIRCUITS ONLY

| IF DISTANCE (A+B) IN FT IS: (SEE DIAGRAM AT RIGHT) | BRANCH CONDUIT & WIRE SCHEDULE TAG |
|---|---|
| 0' TO 100' | 1H |
| 100' TO 175' | 2H |
| 175' TO 300' | 3H |
| 300' TO 450' | 4H |




277V-20A & 120V-20A MOTOR BRANCH CIRCUITS SEE DRWGS FOR MECHANICAL EQUIP DIV 13 & 15 ARCH BLDG EQUIP DIVS 1-12 & 14 & OWNER PURCHASED BLDG EQUIP SCHEDULES

| IF DISTANCE (A+B) IN FT IS: (SEE DIAGRAM AT RIGHT) | BRANCH CONDUIT & WIRE SCHEDULE TAG |
|---|---|
| 0' TO 100' | 1G |
| 100' TO 175' | 2G |
| 175' TO 300' | 3G |
| 300' TO 450' | 4G |



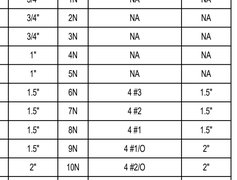

NOTE: MAXIMUM CURRENT CARRYING CONDUCTORS PER RACEWAY SHALL BE NINE. ELECTRICAL CONTRACTOR SHALL INCREASE CONDUIT AND BRANCH CIRCUIT WIRE SIZE AS REQUIRED PER AHJ CODES PER NUMBER OF CONDUCTORS IN A RACEWAY AND AMBIENT TEMPERATURE ABOVE 30°C SURROUNDING THE RACEWAY.

## REC/HARD WIRED SYSTEMS EQUIP BRANCH WIRE SIZING SCHEDULE

TABLES ARE BASED ON EVENLY DISTRIBUTIED LOAD ALLOWING A 3% VOLTAGE AT LAST OUTLET (APPLY ACCORDINGLY)

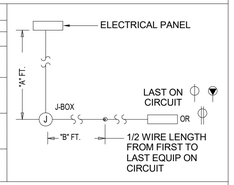
FOR 120V-20A-30A / 208V 1PH-20A-30A SYSTEMS EQUIPMENT HWC/CPC BRANCH CIRCUITS ONLY SEE SCHEDULE DRAWINGS SYSTEMS EQUIPMENT DIVISION 16 SCHEDULE

| IF DISTANCE (A+B) IN FT IS: (SEE DIAGRAM AT RIGHT) | BRANCH CONDUIT & WIRE SCHEDULE | | | |
|---|---|---|---|---|
| | 120V | | 208V 1PH | |
| | 20A | 30A | 20A | 30A |
| 0' TO 100' | 1G | 2G | 1D | 2D |
| 100' TO 175' | 2G | 3G | 2D | 3D |
| 175' TO 300' | 3G | 4G | 3D | 4D |
| 300' TO 450' | 4G | 5G | 4D | 5D |




FOR 120V-20A-30A / 208V 1PH-20A-30A SYSTEMS EQUIPMENT HWC/CPC BRANCH CIRCUITS ONLY SEE SCHEDULE DRAWINGS SYSTEMS EQUIPMENT DIVISION 16 SCHEDULE

| IF DISTANCE (A+B) IN FT IS: (SEE DIAGRAM AT RIGHT) | BRANCH CONDUIT & WIRE SCHEDULE | | | |
|---|---|---|---|---|
| | 120V | | 208V 1PH | |
| | 20A | 30A | 20A | 30A |
| 0' TO 100' | 1G | 2G | 1D | 2D |
| 100' TO 175' | 2G | 3G | 2D | 3D |
| 175' TO 300' | 3G | 4G | 3D | 4D |
| 300' TO 450' | 4G | 5G | 4D | 5D |




NOTE: MAXIMUM CURRENT CARRYING CONDUCTORS PER RACEWAY SHALL BE NINE. ELECTRICAL CONTRACTOR SHALL INCREASE CONDUIT AND BRANCH CIRCUIT WIRE SIZE AS REQUIRED PER AHJ CODES PER NUMBER OF CONDUCTORS IN A RACEWAY AND AMBIENT TEMPERATURE ABOVE 30°C SURROUNDING THE RACEWAY.

3 **ELECTRICAL VOLTAGE DROP SCHEDULE**
NTS

REVISION DATE
ISSUE FOR PERMIT 04.05.2021
PERMIT REVISION 06.30.2021
...


db HMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

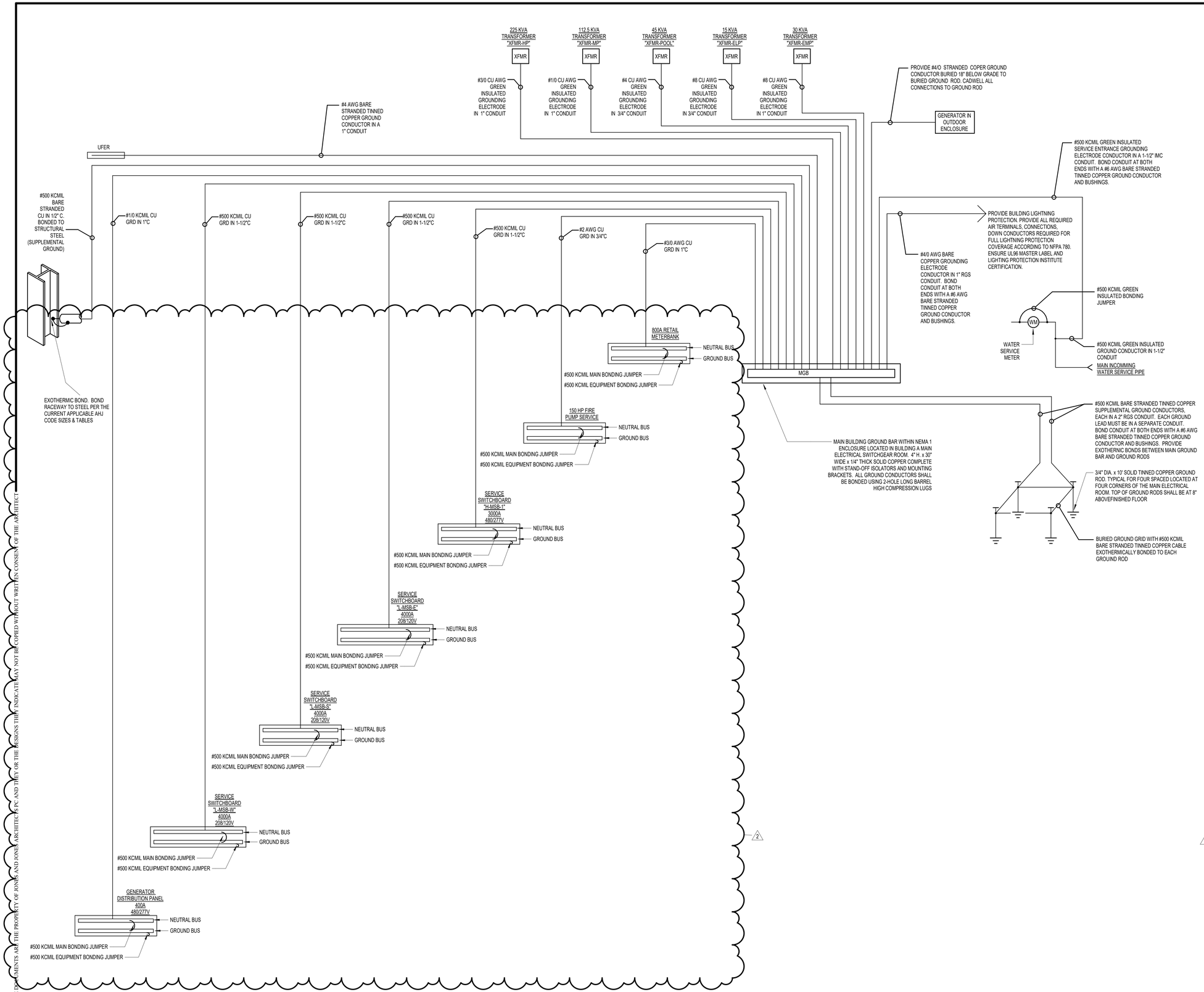

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E4.2

JONES & JONES ASSOCIATES ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




**GENERAL NOTES**

1. TWO-HOLE LONG BARREL (DOUBLE INDENT) BOLTED-TYPE HYDRAULIC COPPER COMPRESSION CONNECTORS SHALL BE USED FOR CONDUCTORS LARGER THAN #8 AWG. ALL COMPRESSION CONNECTORS FOR CABLE SIZES #1/0 AWG AND LARGER SHALL EMPLOY HEX OR CIRCUMFERENTIAL TYPE CRIMPS, AND SHALL HAVE AN INSPECTION HOLE BETWEEN THE TONGUE AND BARREL. THE CABLE SHALL BE COMPLETELY INSERTED INTO THE CONNECTOR BEFORE THE CRIMPS ARE MADE. CONNECTORS SHALL BE AS MANUFACTURED BY BURNDY, TYPE YA "HYLUG", AND ONLY ON STRANDED WIRE. ALL SOLID WIRE GROUND CONNECTIONS MUST BE EXOTHERMICALLY WELDED OR, IF RUN IN THE INTERIOR, SOLDERED.
2. USE HYDRAULIC COPPER COMPRESSION H-TAP CONNECTORS AS MANUFACTURED BY BURNDY, TYPE YH "H COPPER CRIMPIT". PROVIDE FLAME RETARDANT INSULATING COVERS. PROVIDE THOMAS AND BETTS HARD COVER TYPE "HTC".
3. ALL COMPRESSION AND MECHANICAL CONNECTIONS SHALL BE COATED WITH THE CORROSION PREVENTATIVE COMPOUND NO-OX-ID "A", AS MANUFACTURED BY DEARBORN CHEMICAL COMPANY.
4. ALL GROUND CONDUCTORS SHALL BE COPPER WITH GREEN (COLOR) INSULATION. GREEN-INSULATED GROUND WIRE FOR ALL SIZES IS AVAILABLE THROUGH QUAD CABLCON (TROY, MI (800) 969-9220) OR RELTEC SERVICES (800-927-2780). GROUND CONDUCTORS LARGER THAN #1 SWG SHALL BE TYPE RHH/RHW (BRAIDED-CLOTH JACKET, SYNTHETIC RUBBER INSULATION).
5. ALL GROUNDING CONDUCTORS SHALL BE IN GREEN METALLIC CONDUIT, UNLESS OTHERWISE NOTED. GROUND CONDUCTORS SHALL NOT BE RUN CONCEALED IN SLABS, COLUMNS, OR WALLS. USE RIGID GALVANIZED STEEL CONDUIT SLEEVES WHERE GROUND CONDUCTORS PENETRATE WALLS OR FLOOR SLABS.
6. METALLIC STRAPS SHALL BE USED TO SECURE GROUND CONDUCTOR CONDUITS EVERY 18" HORIZONTALLY AND EVERY 9" VERTICALLY TO THE BUILDING COLUMNS OR WALLS. IF METALLIC STRAPS ARE USED, THEY SHALL BE OF THE TYPE WHICH DO NOT COMPLETELY ENCIRCLE THE CONDUCTOR. PLASTIC "CLIC" CONNECTORS BY LITCHFIELD INTERNATIONAL COMPANY (800-345-CLIC) ARE ACCEPTABLE FOR USE AS CONDUIT AND CONDUCTOR SUPPORTS. DO NOT USE CONDUIT, CABLE TRAY, MECHANICAL DUCT, OR PLASTIC TIE WRAPS TO SECURE GROUND CONDUCTORS.
7. THE MINIMUM BEND RADII ON GROUND CONDUCTORS SHALL BE AS FOLLOWS:
   #12 - #6 6"
   #4 - #4/0 12"
   #250 - #750 KCMIL 24"
8. PACK OPENINGS AROUND GROUND CONDUCTOR ENETRATIONS OF FLOOR SLABS OR WALLS WITH FIRE RETARDANT MATERIAL. APPROVED FIRE RETARDANT MATERIAL SHALL BE HILTI FIRE BARRIER CAULK (NO SUBSTITUTIONS).
9. TAG ALL GROUND CONDUCTOR TERMINATIONS AT GROUND BAR WITH GRAY OVAL FIBER "FAR-END DESTINATION" 145P TAGS AS MANUFACTURED BY ONE OF THE FOLLOWING:

   A. ANIXTER (BLOOMINGTON, ILLINOIS) TEL. #309/662-5162 OR 800/ANIXTER PART #847755246

   B. MARCONI (OHIO) TEL. # 800/927-2780 PART #84775524 GROUND SERVICES MAY BE STAMPED, ENGRAVED, OR LEGIBLY/NEATLY HANDWRITTEN ON FIBER TAG. AT GROUND BAR TERMINATIONS ALSO PROVIDE ENGRAVED BRASS "DO NOT DISCONNECT" TAGS MANUFACTURED BY.

   C. ANIXTER (MANUFACTURED BY FLEXTRONICS AND SOLD BY ANIXTER) PART # P0411719

   D. GUS BERTHOLD ELECTRIC COMPANY (CHICAGO, ILLINOIS) TEL. # 312/243-5767 (BLANK TAGS PURCHASED BY GBE CO. AND STAMPED)
10. ALL TAGS AT GROUND BAR TERMINATIONS SHALL BE SECURED WITH 9-PLY OR 12-PLY TWINE/CORD MANUFACTURED BY ANIXTER. TIE WRAPS SHALL NOT BE USED. 9-PLY PART # 095017, 12-PLY PART # 224758.
11. THE MAIN BUILDING GROUND BAR (MGB) SHALL BE THE EXTENSION OF THE BUILDING GROUNDING SYSTEM AND SHALL SERVE AS THE MAIN POINT OF BONDING WITHIN THE FACILITY AND SHALL COMPLY WITH APPLICABLE BUILDING CODE. THE MGB SHALL BE THE COMMON GROUND POINT TO WHICH ALL GROUND POINTS FOR THE FACILITY ARE BONDED.
12. THE ROUTE OF THE BONDING CONDUCTORS FROM THE MGB TO THE FACILITY GROUND RING SHALL BE AS SHORT AND STRAIGHT AS PRACTICALLY POSSIBLE.
13. THE MGB WILL SHALL BE CONFIGURED TO MAINTAIN PEPARATION BETWEEN SURGE PRODUCERS, ABSORBERS, NON-ISOLATED AND ISOLATED GROUNDS. THE MGB SHALL BE PERMANENTLY AND APPROPRIATELY LABELED AND IDENTIFY WITH "P", "A", "N", AND "I" SECTIONS OF THE MGB.
14. BONDING CONDUCTORS BETWEEN THE MGB AND OTHER ANCILLARY GROUND BARS OR EQUIPMENT BAYS SHALL RUN IN THE STRAIGHTEST ROUTE MINIMIZING THE TOTAL LENGTH OF THE CONDUCTOR.
15. ALL GROUNDING SYSTEM CABLE RUNS THAT ARE ROUTED THROUGH WALLS, CEILINGS OR FLOORS SHALL BE PROTECTED BY METALLIC CONDUITS OR SLEEVES.
16. CONNECTIONS TO THE BURIED DELTA GROUND RING SHALL BE EXOTHERMICALLY WELDED BY TECHNICIANS CERTIFIED ON THE PROCESS. CONNECTIONS OTHER THAN EXOTHERMIC WELD SHALL BE LOCATED SO AS TO FACILITATE PERIODIC INSPECTION AND MAINTENANCE.
17. ALL BURIED CONNECTIONS SHALL BE EXOTHERMIC WELDS. ALL EXPOSED MECHANICAL AND/OR HIGH COMPRESSION CONNECTIONS SHALL BE TREATED WITH A PROTECTIVE, ANTI-OXIDANT COATING. ALL EXOTHERMIC WELDS TO GALVANIZING SURFACES SHALL BE SPRAYED WITH GALVANIZING PAINT.
18. ALL GROUNDING SYSTEM CONDUIT RACEWAYS SHALL BE FACTORY PAINTED GREEN UNLESS OTHERWISE NOTED.
19. PROVIDE CONCRETE ENCASED GROUNDING ELECTRODE TO BUILDING FOOTING AND CONNECT TO MAIN GROUND BAR IN MAIN ELECTRICAL ROOM. COORDINATE WORK WITH INSTALLATION OF THE FOOTINGS.
20. ANY CIRCUIT CONDUCTORS WHICH ARE SPLICED IN JUNCTION BOX SHALL BE BONDED TO THE BOX IN ACCORDANCE WITH NEC ARTICLE 250.148.
21. ALL WATER HEATERS SHALL BE JUMPERED BETWEEN THE COLD AND HOT WATER PIPES WITH JUMPER SIZED ACCORDING TO NEC TABLE 250.166.

2

REVISION DATE
ISSUE FOR PERMIT 04.05.2021
PERMIT REVISION 06.30.2021
1
1


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E4.3


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

# EQUIPMENT SCHEDULE

NA

STEP 1 CONFIRM FINAL LOCATION OF EQUIP. WITH THE MECH. DRAWINGS & OEM'S SHOPS PRIOR TO INSTALLING CONDUIT. SEE PWR. DWGS. FOR EQUIP. TAG LOCATIONS

STEP 2 REVIEW ARCH, KIT, MECH, PLBG, FIRE PROT. SUBMITTALS-SHOP DRAWINGS. FINAL EQUIP. LOCATION, ELEVATION, & PWR. REQUIREMENTS PRIOR TO INSTALLING CONDUIT.

STEP 3 CONFIRM LOAD REQUIREMENTS WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT SEE SCHDLE DWGS. FOR PANELBOARD FEEDER-BRANCH CIRCUIT NUMBERS.

STEP 4 CONFIRM IN THE FIELD PNLBD-SWBD RATINGS WITH MECH'S OEM PRIOR TO INSTALLING CONDUITS. SEE PWR. DWGS. FOR PNLBD-SWBD LOCATIONS.

STEP 5 CONFIRM IN THE FIELD OCPD REQUIREMENTS WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT. OCPD RATINGS DERIVED FROM MECH'S OEM'S SPECS OR MOTOR SIZING PER CODE.

STEP 6 CONFIRM IN THE FIELD FEEDER-BRANCH CIRCUIT SIZING WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT.

STEP 7 SEE FEEDER-BRANCH CIRCUIT SCHEDULE FOR TAG-WIRE SIZE.

STEP 8 CONFIRM IN THE FIELD CONTACTOR-STARTER-VFC-PRMS-DS SW RATINGS WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT. ALL FULL VOLTAGE MAGNETIC STARTERS SHALL BE PROVIDED WITH HAND-OFF-AUTO SELECTOR SWITCH AND PILOT LIGHTS.

STEP 9 CONFIRM IN THE FIELD THERMAL OVERLOAD RATINGS WITH OEM PROVIDE OVERLOADS PER OEM SPECS.

STEP 10 CONFIRM IN THE FIELD WITH OEM PRIOR TO INSTALLING CONDUIT LOCATE DISC SW SWITCH WITHIN 5FT & WITHIN SIGHT OF THE MOTOR-LISTED EQUIPMENT.

STEP 11 PROVIDE CONN. TO MOTOR-LISTED EQUIP PROVIDE A Cu EQUIP GROUND (EGC) FROM DISC SW SWITCH TO MOTOR ELECT.-EQUIP CONNECTION POINT-JUNCTION BOX.

| | |
|---|---|
| FVNR | FULL VOLT NON-REVERSING MAGNETIC STARTER WITH HAND-OFF-AUTO SELECTOR SWITCH AND PILOT LIGHTS |
| FVR | FULL VOLT REVERSING MAGNETIC STARTER |
| VFC | VARIABLE FREQUENCY CONTROLLER |
| PRMS | PWR RELAY-MANUAL STARTER W- OVERLOADS |
| 2SP1W | TWO-SPEED SINGLE WINDING FVNR MAG STRTR |
| 2SP2W | TWO-SPEED TWO WINDING FVNR MAG STRTR |
| CPT | CONTROL POWER TRANSFORMER |
| IMUC | INTERNAL MOUNTED UNIT CONTROLLER |
| RMUC | REMOTE MOUNTED UNIT CONTROLLER |

| | | | | | |
|---|---|---|---|---|---|
| PR | POWER RELAY | EM | EMERGENCY POWER | FPC | FIRE PROTECTION CONTRACTOR |
| TC | TIME CLOCK CNTRLER | NML | NORMAL POWER | OWN | OWNER |
| T-S | TEMP-SENSOR SW | SBY | STANDBY POWER | CPC | CORD-PLUG CONNECTION |
| W-STAT | WALL LINE VOLT STAT | NA | NOT APPLICABLE | FWC | FLEXIBLE WHIP CONDUIT |
| WS | WALL LINE VOLT SW | BRNCH | BRANCH CIRCUIT | HWC | HARD WIRED CONN |
| FB | FURNISHED BY | GC | GENERAL CONTRACTOR | ENC | NEMA ENCLOSURE |
| IB | INSTALLED BY | KC | KITCHEN CONTRACTOR | LOC | LOCKING |
| PB | PROVIDED BY | MC | MECHANICAL CONTRACTOR | REC | RECEPTACLE |
| FDR | FEEDER CIRCUIT | PC | PLUMBING CONTRACTOR | OCPD | OVERCURRENT PROTECT DEVICE |
| | | | | OEM | ORIGINAL EQP MANUFACTURER |

**NOTES:**

1. PROVIDE RACKING FOR STRTR TYPES (FVNR, FVR, PRMS, 2SP1W, & 2SP2W) PROVIDE THERMAL OVERLOADS PER OEM-FIELD VERIFICATION PROVIDE TWO SETS FORM "C" AUX CONTACTS WITH STARTER PROVIDE 24Vac CONTROL COIL FOR POWER RELAYS-MANUAL STRTR "PRMS"

2 PROVIDE RACKING FOR VARIABLE FEQUENCY CONTROLLER "VFC" CALIBRATE OVERLOADS PER OEM-FIELD VERIFICATION RESULTS PROVIDE FOUR SETS FORM "C" CONTACTS WITH VFC PROVIDE OEM START-UP & COMMISSIONING PRIOR TO PUNCHLIST PROVIDE WRITTEN VFC FIELD PROGRAMMED SETTINGS

3 DISC SW SHALL BE IN SIGHT OF MOTOR-EQP AND SHALL NOT EXCEED MAX DIST OF 5FT FROM MOTOR-EQUIP MAX HEIGHT OF DISCONNECT SWITCH HANDLE SHALL NOT EXCEED 6'-3" PROVIDE SIX POLE DISC SW FOR TWO SPEED AND ONE-TWO WINDING MOTORS.

4 CONFIRM MOTOR ROTATION-OPERATION WITH OEM REP PRIOR TO ENERGIZING MOTOR EQUIP. PROVIDE GROUNDING PER OEM SPECS. FLEX CONDUIT SHALL NOT EXCEED 72" MAXIMUM LENGTH.

5 PROVIDE A DEDICATED 120VAC CIRCUIT TO EACH MECHANICAL EQUIPMENT (AHU,RTU, ERV, MAU, ETC.) FOR INTERNAL FAN HOUSING LIGHTING AND RECEPTACLE DEVICE CIRCUIT.

6 CONTRACTOR MAY CONNECT MULTIPLE PIECES OF EQUIPMENT ON A SINGLE BRANCH CIRCUIT.

**GENERAL NOTE:**

PROVIDE A DUCT SMOKE DETECTOR COMPLETE WITH AIR SAMPLING TUBES AND REMOTE KEYED TEST STATION FOR ALL HVAC EQUIPMENT MAIN HEADER DUCTS AS FOLLOWS: RETURN HEADER DUCT RATED 2,000 CFM OR GREATER SUPPLY HEADER DUCT RATED 15,000 CFM OR GREATER. PROVIDE INTERFACE MODULES AND CONNECT TO FIRE ALARM CONTROL PANEL.

| STEPS | 1 | | | 2 | 3 | | | | | | | | | | 4A | 4B | 5 | | | 6 & 7 | 8 & 9 | | | | | | | | | | | 10 | | | | 11 | | | | | | | | | | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM | EQUIPMENT LOCATION - TAG - QTY. | | | EQUIPMENT UNIT NAME | EQUIPMENT POWER CHARACTERISTICS & LOAD SPECIFICATIONS | | | | | | | | | | FEED PWR | FEED FROM | OCPD: FRAME AND TRIP CIRCUIT BREAKER | | | FDR BRNCH | MOTOR-LISTED EQP - CONTROLLER-STARTER TYPES & LOCATIONS MTR CONTROLLER - SWITCH RATING - OCPD TRIP SIZE | | | | | | | | | | | LOCAL DISC. SW. PROVIDED BY ELECTRICAL CONTRACTOR | | | | MOTOR-LISTED EQUIP CONN & OEM REQUIREMENTS PROVIDED BY E.C. CORD & PLUG REC OR FLEX WHIP FOR MOTOR OR SINGLE POINT CONN | | | | | | | | | | REMARKS |
| No. | LOCATION | TAG | No. | NAME AND AREA | V | Ø | N | G | PIN | W | HP | MCA | FLA | KW | SYS | PANEL | CB FR | CB TR | POLES | TAG | PB | FB | IB | ROOM | SIZE | TYPE | ENC | DS-SW | OCPD | P | NOTE | SIZE | ENC | P | NOTE | PB | REC | LOC | NEMA | GFI | REC No | CPC | HWC | FWC | NOTE | |
| 1 | SEE PLANS | ERV | 2.1 | ENERGY RECOVERY VENTILATOR ERV-2.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 1 | SEE PLANS | ERV | 3.1 | ENERGY RECOVERY VENTILATOR ERV-3.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 2 | SEE PLANS | ERV | 3.2 | ENERGY RECOVERY VENTILATOR ERV-3.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 3 | SEE PLANS | ERV | 3.3 | ENERGY RECOVERY VENTILATOR ERV-3.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 4 | SEE PLANS | ERV | 3.4 | ENERGY RECOVERY VENTILATOR ERV-3.4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 5 | SEE PLANS | ERV | 4.1 | ENERGY RECOVERY VENTILATOR ERV-4.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 6 | SEE PLANS | ERV | 4.2 | ENERGY RECOVERY VENTILATOR ERV-4.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 7 | SEE PLANS | ERV | 4.3 | ENERGY RECOVERY VENTILATOR ERV-4.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 8 | SEE PLANS | ERV | 4.4 | ENERGY RECOVERY VENTILATOR ERV-4.4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 9 | SEE PLANS | ERV | 5.1 | ENERGY RECOVERY VENTILATOR ERV-5.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 10 | SEE PLANS | ERV | 5.2 | ENERGY RECOVERY VENTILATOR ERV-5.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 11 | SEE PLANS | ERV | 5.3 | ENERGY RECOVERY VENTILATOR ERV-5.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 12 | SEE PLANS | ERV | 5.4 | ENERGY RECOVERY VENTILATOR ERV-5.4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 13 | SEE PLANS | ERV | 6.1 | ENERGY RECOVERY VENTILATOR ERV-6.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 14 | SEE PLANS | ERV | 6.2 | ENERGY RECOVERY VENTILATOR ERV-6.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 15 | SEE PLANS | ERV | 6.3 | ENERGY RECOVERY VENTILATOR ERV-6.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 16 | SEE PLANS | ERV | 6.4 | ENERGY RECOVERY VENTILATOR ERV-6.4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 17 | SEE PLANS | ERV | 7.1 | ENERGY RECOVERY VENTILATOR ERV-7.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 18 | SEE PLANS | ERV | 7.2 | ENERGY RECOVERY VENTILATOR ERV-7.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 19 | SEE PLANS | ERV | 7.3 | ENERGY RECOVERY VENTILATOR ERV-7.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 20 | SEE PLANS | ERV | 7.4 | ENERGY RECOVERY VENTILATOR ERV-7.4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.8 | - | 6.51 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 18 | SEE PLANS | CU | 2.1 | CONDENSING UNIT CU -2.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 21.1 | - | 17.52 | NML | SEE PLANS | 30 | 25 | 3 | 2B | - | MC | EC | SEE PLANS | NA | RMUC | 1 | 30 | 25 | 3 | 1 | 30 | - | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 19 | SEE PLANS | CU | 2.2A | CONDENSING UNIT CU -2.2A SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 31.1 | - | 25.83 | NML | SEE PLANS | 60 | 40 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 1 | 60 | 40 | 3 | 1 | 60 | - | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 20 | SEE PLANS | CU | 2.2B | CONDENSING UNIT CU -2.2B SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 31.1 | - | 25.83 | NML | SEE PLANS | 60 | 40 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 1 | 60 | 40 | 3 | 1 | 60 | - | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 21 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 22 | SEE PLANS | CU | A1 | CONDENSING UNIT CU -A1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 23 | SEE PLANS | CU | A2 | CONDENSING UNIT CU -A2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 24 | SEE PLANS | CU | A3 | CONDENSING UNIT CU -A3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 25 | SEE PLANS | CU | A4 | CONDENSING UNIT CU -A4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 26 | SEE PLANS | CU | A5 | CONDENSING UNIT CU -A5 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 27 | SEE PLANS | CU | A6 | CONDENSING UNIT CU -A6 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 28 | SEE PLANS | CU | A7 | CONDENSING UNIT CU -A7 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 29 | SEE PLANS | CU | A8 | CONDENSING UNIT CU -A8 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 30 | SEE PLANS | CU | A9 | CONDENSING UNIT CU -A9 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 31 | SEE PLANS | CU | A10 | CONDENSING UNIT CU -A10 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 32 | SEE PLANS | CU | A11 | CONDENSING UNIT CU -A11 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 33 | SEE PLANS | CU | A12 | CONDENSING UNIT CU -A12 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 34 | SEE PLANS | CU | A13 | CONDENSING UNIT CU -A13 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 35 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 36 | SEE PLANS | CU | B1 | CONDENSING UNIT CU -B1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 43.3 | - | 35.96 | NML | SEE PLANS | 60 | 50 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 50 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 37 | SEE PLANS | CU | B2 | CONDENSING UNIT CU -B2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 43.3 | - | 35.96 | NML | SEE PLANS | 60 | 50 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 50 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 38 | SEE PLANS | CU | B3 | CONDENSING UNIT CU -B3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 43.3 | - | 35.96 | NML | SEE PLANS | 60 | 50 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 50 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 39 | SEE PLANS | CU | B4 | CONDENSING UNIT CU -B4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 43.3 | - | 35.96 | NML | SEE PLANS | 60 | 50 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 50 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 40 | SEE PLANS | CU | B5 | CONDENSING UNIT CU -B5 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 43.3 | - | 35.96 | NML | SEE PLANS | 60 | 50 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 50 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 41 | SEE PLANS | CU | B6 | CONDENSING UNIT CU -B6 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 43.3 | - | 35.96 | NML | SEE PLANS | 60 | 50 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 50 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 42 | SEE PLANS | CU | B7 | CONDENSING UNIT CU -B7 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 43.3 | - | 35.96 | NML | SEE PLANS | 60 | 50 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 50 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 43 | SEE PLANS | CU | B7 | CONDENSING UNIT CU -B7 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 43.3 | - | 35.96 | NML | SEE PLANS | 60 | 50 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 50 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 44 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 45 | SEE PLANS | CU | C1 | CONDENSING UNIT CU -C1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 46 | SEE PLANS | CU | C1.2 | CONDENSING UNIT CU -C1.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 47 | SEE PLANS | CU | C2 | CONDENSING UNIT CU -C2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 48 | SEE PLANS | CU | C2.2 | CONDENSING UNIT CU -C2.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 49 | SEE PLANS | CU | C3 | CONDENSING UNIT CU -C3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 50 | SEE PLANS | CU | C3.2 | CONDENSING UNIT CU -C3.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 51 | SEE PLANS | CU | C4 | CONDENSING UNIT CU -C4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 52 | SEE PLANS | CU | C4.2 | CONDENSING UNIT CU -C4.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 53 | SEE PLANS | CU | C5 | CONDENSING UNIT CU -C5 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 54 | SEE PLANS | CU | C5.2 | CONDENSING UNIT CU -C5.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 55 | SEE PLANS | CU | C6 | CONDENSING UNIT CU -C6 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 56 | SEE PLANS | CU | C6.2 | CONDENSING UNIT CU -C6.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 57 | SEE PLANS | CU | C7 | CONDENSING UNIT CU -C7 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 58 | SEE PLANS | CU | C7.2 | CONDENSING UNIT CU -C7.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 59 | SEE PLANS | CU | C8 | CONDENSING UNIT CU -C8 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 60 | SEE PLANS | CU | C8.2 | CONDENSING UNIT CU -C8.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 61 | SEE PLANS | CU | C9 | CONDENSING UNIT CU -C9 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 62 | SEE PLANS | CU | C9.2 | CONDENSING UNIT CU -C9.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 63 | SEE PLANS | CU | C10 | CONDENSING UNIT CU -C10 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 64 | SEE PLANS | CU | C10.2 | CONDENSING UNIT CU -C10.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 65 | SEE PLANS | CU | C11 | CONDENSING UNIT CU -C11 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 66 | SEE PLANS | CU | C11.2 | CONDENSING UNIT CU -C11.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 67 | SEE PLANS | CU | C12 | CONDENSING UNIT CU -C12 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 68 | SEE PLANS | CU | C12.2 | CONDENSING UNIT CU -C12.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 69 | SEE PLANS | CU | C13 | CONDENSING UNIT CU -C13 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 70 | SEE PLANS | CU | C13.2 | CONDENSING UNIT CU -C13.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 71 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 72 | SEE PLANS | CU | D1 | CONDENSING UNIT CU -D1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 73 | SEE PLANS | CU | D1.2 | CONDENSING UNIT CU -D1.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 67 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 68 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 69 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 70 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 71 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 72 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 73 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 74 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.15.2021 |
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| --- | --- |

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E5.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

# EQUIPMENT SCHEDULE

NA

STEP 1 CONFIRM FINAL LOCATION OF EQUIP. WITH THE MECH. DRAWINGS & OEM'S SHOPS PRIOR TO INSTALLING CONDUIT. SEE PWR. DWGS. FOR EQUIP. TAG LOCATIONS

STEP 2 REVIEW ARCH, KIT, MECH, PLBG, FIRE PROT. SUBMITTALS-SHOP DRAWINGS. FINAL EQUIP. LOCATION, ELEVATION, & PWR. REQUIREMENTS PRIOR TO INSTALLING CONDUIT.

STEP 3 CONFIRM LOAD REQUIREMENTS WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT SEE SCHDLE DWGS. FOR PANELBOARD FEEDER-BRANCH CIRCUIT NUMBERS.

STEP 4 CONFIRM IN THE FIELD PNLBD-SWBD RATINGS WITH MECH'S OEM PRIOR TO INSTALLING CONDUITS. SEE PWR. DWGS. FOR PNLBD-SWBD LOCATIONS.

STEP 5 CONFIRM IN THE FIELD OCPD REQUIREMENTS WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT. OCPD RATINGS DERIVED FROM MECH'S OEM'S SPECS OR MOTOR SIZING PER CODE.

STEP 6 CONFIRM IN THE FIELD FEEDER-BRANCH CIRCUIT SIZING WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT.

STEP 7 SEE FEEDER-BRANCH CIRCUIT SCHEDULE FOR TAG-WIRE SIZE.

STEP 8 CONFIRM IN THE FIELD CONTACTOR-STARTER-VFC-PRMS-DS SW RATINGS WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT. ALL FULL VOLTAGE MAGNETIC STARTERS SHALL BE PROVIDED WITH HAND-OFF-AUTO SELECTOR SWITCH AND PILOT LIGHTS.

STEP 9 CONFIRM IN THE FIELD THERMAL OVERLOAD RATINGS WITH OEM PROVIDE OVERLOADS PER OEM SPECS.

STEP 10 CONFIRM IN THE FIELD WITH OEM PRIOR TO INSTALLING CONDUIT LOCATE DISC SW SWITCH WITHIN 5FT & WITHIN SIGHT OF THE MOTOR-LISTED EQUIPMENT.

STEP 11 PROVIDE CONN. TO MOTOR-LISTED EQUIP PROVIDE A Cu EQUIP GROUND (EGC) FROM DISC SW SWITCH TO MOTOR ELECT.-EQUIP CONNECTION POINT-JUNCTION BOX.

| | |
|---|---|
| FVNR | FULL VOLT NON-REVERSING MAGNETIC STARTER WITH HAND-OFF-AUTO SELECTOR SWITCH AND PILOT LIGHTS |
| FVR | FULL VOLT REVERSING MAGNETIC STARTER |
| VFC | VARIABLE FREQUENCY CONTROLLER |
| PRMS | PWR RELAY-MANUAL STARTER W- OVERLOADS |
| 2SP1W | TWO-SPEED SINGLE WINDING FVNR MAG STRTR |
| 2SP2W | TWO-SPEED TWO WINDING FVNR MAG STRTR |
| CPT | CONTROL POWER TRANSFORMER |
| IMUC | INTERNAL MOUNTED UNIT CONTROLLER |
| RMUC | REMOTE MOUNTED UNIT CONTROLLER |

| | | | | | |
|---|---|---|---|---|---|
| PR | POWER RELAY | EM | EMERGENCY POWER | FPC | FIRE PROTECTION CONTRACTOR |
| TC | TIME CLOCK CNTRLER | NML | NORMAL POWER | OWN | OWNER |
| T-S | TEMP-SENSOR SW | SBY | STANDBY POWER | CPC | CORD-PLUG CONNECTION |
| W-STAT | WALL LINE VOLT STAT | NA | NOT APPLICABLE | FWC | FLEXIBLE WHIP CONDUIT |
| WS | WALL LINE VOLT SW | BRNCH | BRANCH CIRCUIT | HWC | HARD WIRED CONN |
| FB | FURNISHED BY | GC | GENERAL CONTRACTOR | ENC | NEMA ENCLOSURE |
| IB | INSTALLED BY | KC | KITCHEN CONTRACTOR | LOC | LOCKING |
| PB | PROVIDED BY | MC | MECHANICAL CONTRACTOR | REC | RECEPTACLE |
| FDR | FEEDER CIRCUIT | PC | PLUMBING CONTRACTOR | OCPD | OVERCURRENT PROTECT DEVICE |
| | | | | OEM | ORIGINAL EQP MANUFACTURER |

**NOTES:**

1. PROVIDE RACKING FOR STRTR TYPES (FVNR, FVR, PRMS, 2SP1W, & 2SP2W) PROVIDE THERMAL OVERLOADS PER OEM-FIELD VERIFICATION PROVIDE TWO SETS FORM "C" AUX CONTACTS WITH STARTER PROVIDE 24Vac CONTROL COIL FOR POWER RELAYS-MANUAL STRTR "PRMS"

2 PROVIDE RACKING FOR VARIABLE FEQUENCY CONTROLLER "VFC" CALIBRATE OVERLOADS PER OEM-FIELD VERIFICATION RESULTS PROVIDE FOUR SETS FORM "C" CONTACTS WITH VFC PROVIDE OEM START-UP & COMMISSIONING PRIOR TO PUNCHLIST PROVIDE WRITTEN VFC FIELD PROGRAMMED SETTINGS

3 DISC SW SHALL BE IN SIGHT OF MOTOR-EQP AND SHALL NOT EXCEED MAX DIST OF 5FT FROM MOTOR-EQUIP MAX HEIGHT OF DISCONNECT SWITCH HANDLE SHALL NOT EXCEED 6'-3" PROVIDE SIX POLE DISC SW FOR TWO SPEED AND ONE-TWO WINDING MOTORS.

4 CONFIRM MOTOR ROTATION-OPERATION WITH OEM REP PRIOR TO ENERGIZING MOTOR EQUIP. PROVIDE GROUNDING PER OEM SPECS. FLEX CONDUIT SHALL NOT EXCEED 72" MAXIMUM LENGTH.

5 PROVIDE A DEDICATED 120VAC CIRCUIT TO EACH MECHANICAL EQUIPMENT (AHU,RTU, ERV, MAU, ETC.) FOR INTERNAL FAN HOUSING LIGHTING AND RECEPTACLE DEVICE CIRCUIT.

6 CONTRACTOR MAY CONNECT MULTIPLE PIECES OF EQUIPMENT ON A SINGLE BRANCH CIRCUIT.

**GENERAL NOTE:**

PROVIDE A DUCT SMOKE DETECTOR COMPLETE WITH AIR SAMPLING TUBES AND REMOTE KEYED TEST STATION FOR ALL HVAC EQUIPMENT MAIN HEADER DUCTS AS FOLLOWS: RETURN HEADER DUCT RATED 2,000 CFM OR GREATER SUPPLY HEADER DUCT RATED 15,000 CFM OR GREATER. PROVIDE INTERFACE MODULES AND CONNECT TO FIRE ALARM CONTROL PANEL.

| STEPS | 1 | | | 2 | 3 | | | | | | | | | | 4A | 4B | 5 | | | 6 & 7 | 8 & 9 | | | | | | | | | | | 10 | | | | 11 | | | | | | | | | | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM | EQUIPMENT LOCATION - TAG - QTY. | | | EQUIPMENT UNIT NAME | EQUIPMENT POWER CHARACTERISTICS & LOAD SPECIFICATIONS | | | | | | | | | | FEED PWR | FEED FROM | OCPD: FRAME AND TRIP CIRCUIT BREAKER | | | FDR BRNCH | MOTOR-LISTED EQP - CONTROLLER-STARTER TYPES & LOCATIONS MTR CONTROLLER - SWITCH RATING - OCPD TRIP SIZE | | | | | | | | | | | LOCAL DISC. SW. PROVIDED BY ELECTRICAL CONTRACTOR | | | | MOTOR-LISTED EQUIP CONN & OEM REQUIREMENTS PROVIDED BY E.C. CORD & PLUG REC OR FLEX WHIP FOR MOTOR OR SINGLE POINT CONN | | | | | | | | | | REMARKS |
| No. | LOCATION | TAG | No. | NAME AND AREA | V | Ø | N | G | PIN | W | HP | MCA | FLA | KW | SYS | PANEL | CB FR | CB TR | POLES | TAG | PB | FB | IB | ROOM | SIZE | TYPE | ENC | DS-SW | OCPD | P | NOTE | SIZE | ENC | P | NOTE | PB | REC | LOC | NEMA | GFI | REC No | CPC | HWC | FWC | NOTE | |
| 1 | SEE PLANS | CU | E1 | CONDENSING UNIT CU -E1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 2 | SEE PLANS | CU | E1.2 | CONDENSING UNIT CU -E1.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 3 | SEE PLANS | CU | E2 | CONDENSING UNIT CU -E2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 4 | SEE PLANS | CU | E2.2 | CONDENSING UNIT CU -E2.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 5 | SEE PLANS | CU | E3 | CONDENSING UNIT CU -E3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 6 | SEE PLANS | CU | E3.2 | CONDENSING UNIT CU -E3.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 7 | SEE PLANS | CU | E4 | CONDENSING UNIT CU -E4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 8 | SEE PLANS | CU | E4.2 | CONDENSING UNIT CU -E4.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 9 | SEE PLANS | CU | E5 | CONDENSING UNIT CU -E5 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 10 | SEE PLANS | CU | E5.2 | CONDENSING UNIT CU -E5.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 11 | SEE PLANS | CU | E6 | CONDENSING UNIT CU -E6 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 12 | SEE PLANS | CU | E6.2 | CONDENSING UNIT CU -E6.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 13 | SEE PLANS | CU | E7 | CONDENSING UNIT CU -E7 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 14 | SEE PLANS | CU | E7.2 | CONDENSING UNIT CU -E7.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 15 | SEE PLANS | CU | E8 | CONDENSING UNIT CU -E8 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 16 | SEE PLANS | CU | E8.2 | CONDENSING UNIT CU -E8.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 17 | SEE PLANS | CU | E9 | CONDENSING UNIT CU -E9 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 18 | SEE PLANS | CU | E9.2 | CONDENSING UNIT CU -E9.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 39.8 | - | 33.05 | NML | SEE PLANS | 60 | 45 | 3 | 4B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 45 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 20 | SEE PLANS | CU | F1 | CONDENSING UNIT CU -F1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 21 | SEE PLANS | CU | F2 | CONDENSING UNIT CU -F2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 22 | SEE PLANS | CU | F3 | CONDENSING UNIT CU -F3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 23 | SEE PLANS | CU | F4 | CONDENSING UNIT CU -F4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 24 | SEE PLANS | CU | F5 | CONDENSING UNIT CU -F5 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 25 | SEE PLANS | CU | F6 | CONDENSING UNIT CU -F6 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 26 | SEE PLANS | CU | F6 | CONDENSING UNIT CU -F6 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 28.1 | - | 23.33 | NML | SEE PLANS | 60 | 35 | 3 | 3B | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 60 | 35 | 3 | 1 | 60 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 27 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 28 | SEE PLANS | CU | 1.1 | CONDENSING UNIT CU -1.1 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 27.0 | - | 5.62 | NML | SEE PLANS | 30 | 30 | 2 | 2D | - | MC | EC | SEE PLANS | NA | RMUC | 1 | 30 | 30 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 29 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 30 | SEE PLANS | AC | 1 | AIR COND UNIT AC-1 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 0.7 | - | 0.15 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 31 | SEE PLANS | AC | 2 | AIR COND UNIT AC-2 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 0.7 | - | 0.15 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 32 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 33 | SEE PLANS | FCU | 1.1 | FAN COIL UNIT FCU-1.1 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 3.4 | - | 0.71 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 34 | SEE PLANS | FCU | 1.2 | FAN COIL UNIT FCU-1.2 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 0.4 | - | 0.08 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 35 | SEE PLANS | FCU | 1.3 | FAN COIL UNIT FCU-1.3 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 3.4 | - | 0.71 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 36 | SEE PLANS | FCU | 1.4 | FAN COIL UNIT FCU-1.4 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 3.4 | - | 0.71 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 37 | SEE PLANS | FCU | 1.5 | FAN COIL UNIT FCU-1.5 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 0.3 | - | 0.06 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 38 | SEE PLANS | FCU | 1.6 | FAN COIL UNIT FCU-1.6 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 0.3 | - | 0.06 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 39 | SEE PLANS | FCU | 1.7 | FAN COIL UNIT FCU-1.7 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 2.8 | - | 0.58 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 40 | SEE PLANS | FCU | 1.8 | FAN COIL UNIT FCU-1.8 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 0.6 | - | 0.12 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 41 | SEE PLANS | FCU | 1.9 | FAN COIL UNIT FCU-1.9 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 1.8 | - | 0.37 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 42 | SEE PLANS | FCU | 1.10 | FAN COIL UNIT FCU-1.1 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 1.8 | - | 0.37 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 43 | SEE PLANS | FCU | 1.11 | FAN COIL UNIT FCU-1.11 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 1.8 | - | 0.37 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 44 | SEE PLANS | FCU | 1.12 | FAN COIL UNIT FCU-1.12 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 2.8 | - | 0.58 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 45 | SEE PLANS | FCU | 1.13 | FAN COIL UNIT FCU-1.13 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 2.8 | - | 0.58 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 46 | SEE PLANS | FCU | 2.1 | FAN COIL UNIT FCU-2.1 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 2.9 | - | 0.60 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 47 | SEE PLANS | FCU | 3.1 | FAN COIL UNIT FCU-3.1 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 4.9 | - | 1.02 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 48 | SEE PLANS | FCU | 3.2 | FAN COIL UNIT FCU-3.2 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 4.9 | - | 1.02 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 49 | SEE PLANS | FCU | D | FAN COIL UNIT FCU-D SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 0.6 | - | 0.12 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 51 | DWELLING UNITS | FCU | A | FAN COIL UNIT FCU-A DWELLING UNITS | 208 | 1 | 1 | 1 | 3 | 4 | - | 4.9 | - | 1.02 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 52 | DWELLING UNITS | FCU | B | FAN COIL UNIT FCU-B DWELLING UNITS | 208 | 1 | 1 | 1 | 3 | 4 | - | 4.9 | - | 1.02 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 53 | DWELLING UNITS | FCU | C | FAN COIL UNIT FCU-C DWELLING UNITS | 208 | 1 | 1 | 1 | 3 | 4 | - | 4.9 | - | 1.02 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 54 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 55 | SEE PLANS | BSB | 2.1 | VRF ZONE SELECTOR BSB-2.1 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 0.6 | - | 0.13 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | RMUC | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 56 | SEE PLANS | BSB | 2.2 | VRF ZONE SELECTOR BSB-2.2 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 0.5 | - | 0.10 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | RMUC | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 57 | SEE PLANS | BSB | 2.3 | VRF ZONE SELECTOR BSB-2.3 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 0.5 | - | 0.10 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | RMUC | 1 | 30 | 15 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 58 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 59 | SEE PLANS | EF | 1.1 | EXHAUST FAN EF-1.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 3 | - | 4.8 | 3.99 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 1 | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 60 | SEE PLANS | EF | 1.2 | EXHAUST FAN EF-1.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 3 | - | 4.8 | 3.99 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 1 | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 61 | SEE PLANS | EF | 1.3 | EXHAUST FAN EF-1.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 3 | - | 4.8 | 3.99 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 1 | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 62 | SEE PLANS | EF | 2.1 | EXHAUST FAN EF-2.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 3 | - | 4.8 | 3.99 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 1 | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 63 | SEE PLANS | EF | 2.2 | EXHAUST FAN EF-2.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 3 | - | 4.8 | 3.99 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 1 | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 64 | SEE PLANS | EF | 2.3 | EXHAUST FAN EF-2.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 3 | - | 4.8 | 3.99 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 1 | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 65 | SEE PLANS | EF | 2.4 | EXHAUST FAN EF-2.4 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1/12 | - | 3.3 | 0.40 | NML | SEE PLANS | 30 | 15 | 1 | 2G | - | MC | EC | SEE PLANS | 1 | WS | 1 | 30 | 15 | 1 | 1 | 30 | 3R | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 66 | SEE PLANS | EF | 2.5 | EXHAUST FAN EF-2.5 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1/12 | - | 3.3 | 0.40 | NML | SEE PLANS | 30 | 15 | 1 | 2G | - | MC | EC | SEE PLANS | 1 | WS | 1 | 30 | 15 | 1 | 1 | 30 | 3R | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 66 | SEE PLANS | EF | 2.6 | EXHAUST FAN EF-2.6 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1/12 | - | 3.3 | 0.40 | NML | SEE PLANS | 30 | 15 | 1 | 2G | - | MC | EC | SEE PLANS | 1 | WS | 1 | 30 | 15 | 1 | 1 | 30 | 3R | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 67 | SEE PLANS | EF | 3.1 | EXHAUST FAN EF-3.1 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1/12 | - | 3.3 | 0.40 | NML | SEE PLANS | 30 | 15 | 1 | 2G | - | MC | EC | SEE PLANS | 1 | WS | 1 | 30 | 15 | 1 | 1 | 30 | 3R | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 68 | SEE PLANS | EF | 8.1 | EXHAUST FAN EF-8.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 69 | SEE PLANS | EF | 8.2 | EXHAUST FAN EF-8.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 70 | SEE PLANS | EF | 8.3 | EXHAUST FAN EF-8.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 71 | SEE PLANS | EF | 8.4 | EXHAUST FAN EF-8.4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 72 | SEE PLANS | EF | 8.5 | EXHAUST FAN EF-8.5 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 3/4 | - | 1.6 | 1.33 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 73 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 74 | SEE PLANS | SF | 8.1 | SUPPLY FAN SF-8.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 75 | SEE PLANS | SF | 8.2 | SUPPLY FAN SF-8.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 76 | SEE PLANS | SF | 8.3 | SUPPLY FAN SF-8.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 77 | SEE PLANS | SF | 8.4 | SUPPLY FAN SF-8.4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 78 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 79 | SEE PLANS | SPF | 8.1 | STAIR PRESSURIZATION FAN SPF-8.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | EM | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 80 | SEE PLANS | SPF | 8.2 | STAIR PRESSURIZATION FAN SPF-8.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | EM | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 81 | SEE PLANS | SPF | 8.3 | STAIR PRESSURIZATION FAN SPF-8.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | EM | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 82 | SEE PLANS | SPF | 8.4 | STAIR PRESSURIZATION FAN SPF-8.4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 5 | - | 7.6 | 6.31 | EM | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 3 | 1 | 30 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 83 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 84 | SEE PLANS | RH | 1 | RELIEF HOOD RH-1 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | - | 1.8 | - | 0.22 | EM | SEE PLANS | 30 | 15 | 1 | 2G | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 30 | 15 | 1 | 1 | 30 | 3R | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 85 | SEE PLANS | RH | 2 | RELIEF HOOD RH-2 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | - | 1.8 | - | 0.22 | EM | SEE PLANS | 30 | 15 | 1 | 2G | - | MC | EC | SEE PLANS | NA | RMUC | 3R | 30 | 15 | 1 | 1 | 30 | 3R | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 86 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

3

3

3

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| --- | --- |

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR

TECHNICIANS
JMB

COMMISSION NUMBER
2793

DATE
15 APR 2021

E5.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

NA

# EQUIPMENT SCHEDULE

STEP 1 CONFIRM FINAL LOCATION OF EQUIP. WITH THE MECH. DRAWINGS & OEM'S SHOPS PRIOR TO INSTALLING CONDUIT. SEE PWR. DWGS. FOR EQUIP. TAG LOCATIONS

STEP 2 REVIEW ARCH, KIT, MECH, PLBG, FIRE PROT. SUBMITTALS-SHOP DRAWINGS. FINAL EQUIP. LOCATION, ELEVATION, & PWR. REQUIREMENTS PRIOR TO INSTALLING CONDUIT.

STEP 3 CONFIRM LOAD REQUIREMENTS WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT SEE SCHDLE DWGS. FOR PANELBOARD FEEDER-BRANCH CIRCUIT NUMBERS.

STEP 4 CONFIRM IN THE FIELD PNLBD-SWBD RATINGS WITH MECH'S OEM PRIOR TO INSTALLING CONDUITS. SEE PWR. DWGS. FOR PNLBD-SWBD LOCATIONS.

STEP 5 CONFIRM IN THE FIELD OCPD REQUIREMENTS WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT. OCPD RATINGS DERIVED FROM MECH'S OEM'S SPECS OR MOTOR SIZING PER CODE.

STEP 6 CONFIRM IN THE FIELD FEEDER-BRANCH CIRCUIT SIZING WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT.

STEP 7 SEE FEEDER-BRANCH CIRCUIT SCHEDULE FOR TAG-WIRE SIZE.

STEP 8 CONFIRM IN THE FIELD CONTACTOR-STARTER-VFC-PRMS-DS SW RATINGS WITH MECH'S OEM PRIOR TO INSTALLING CONDUIT. ALL FULL VOLTAGE MAGNETIC STARTERS SHALL BE PROVIDED WITH HAND-OFF-AUTO SELECTOR SWITCH AND PILOT LIGHTS.

STEP 9 CONFIRM IN THE FIELD THERMAL OVERLOAD RATINGS WITH OEM PROVIDE OVERLOADS PER OEM SPECS.

STEP 10 CONFIRM IN THE FIELD WITH OEM PRIOR TO INSTALLING CONDUIT LOCATE DISC SW SWITCH WITHIN 5FT & WITHIN SIGHT OF THE MOTOR-LISTED EQUIPMENT.

STEP 11 PROVIDE CONN. TO MOTOR-LISTED EQUIP PROVIDE A Cu EQUIP GROUND (EGC) FROM DISC SW SWITCH TO MOTOR ELECT.-EQUIP CONNECTION POINT-JUNCTION BOX.

| | |
|---|---|
| FVNR | FULL VOLT NON-REVERSING MAGNETIC STARTER WITH HAND-OFF-AUTO SELECTOR SWITCH AND PILOT LIGHTS |
| FVR | FULL VOLT REVERSING MAGNETIC STARTER |
| VFC | VARIABLE FREQUENCY CONTROLLER |
| PRMS | PWR RELAY-MANUAL STARTER W- OVERLOADS |
| 2SP1W | TWO-SPEED SINGLE WINDING FVNR MAG STRTR |
| 2SP2W | TWO-SPEED TWO WINDING FVNR MAG STRTR |
| CPT | CONTROL POWER TRANSFORMER |
| IMUC | INTERNAL MOUNTED UNIT CONTROLLER |
| RMUC | REMOTE MOUNTED UNIT CONTROLLER |

| | | | | | |
|---|---|---|---|---|---|
| PR | POWER RELAY | EM | EMERGENCY POWER | FPC | FIRE PROTECTION CONTRACTOR |
| TC | TIME CLOCK CNTRLER | NML | NORMAL POWER | OWN | OWNER |
| T-S | TEMP-SENSOR SW | SBY | STANDBY POWER | CPC | CORD-PLUG CONNECTION |
| W-STAT | WALL LINE VOLT STAT | NA | NOT APPLICABLE | FWC | FLEXIBLE WHIP CONDUIT |
| WS | WALL LINE VOLT SW | BRNCH | BRANCH CIRCUIT | HWC | HARD WIRED CONN |
| FB | FURNISHED BY | GC | GENERAL CONTRACTOR | ENC | NEMA ENCLOSURE |
| IB | INSTALLED BY | KC | KITCHEN CONTRACTOR | LOC | LOCKING |
| PB | PROVIDED BY | MC | MECHANICAL CONTRACTOR | REC | RECEPTACLE |
| FDR | FEEDER CIRCUIT | PC | PLUMBING CONTRACTOR | OCPD | OVERCURRENT PROTECT DEVICE |
| | | | | OEM | ORIGINAL EQP MANUFACTURER |

**NOTES:**

1. PROVIDE RACKING FOR STRTR TYPES (FVNR, FVR, PRMS, 2SP1W, & 2SP2W) PROVIDE THERMAL OVERLOADS PER OEM-FIELD VERIFICATION PROVIDE TWO SETS FORM "C" AUX CONTACTS WITH STARTER PROVIDE 24Vac CONTROL COIL FOR POWER RELAYS-MANUAL STRTR "PRMS"
2. PROVIDE RACKING FOR VARIABLE FEQUENCY CONTROLLER "VFC" CALIBRATE OVERLOADS PER OEM-FIELD VERIFICATION RESULTS PROVIDE FOUR SETS FORM "C" CONTACTS WITH VFC PROVIDE OEM START-UP & COMMISSIONING PRIOR TO PUNCHLIST PROVIDE WRITTEN VFC FIELD PROGRAMMED SETTINGS
3. DISC SW SHALL BE IN SIGHT OF MOTOR-EQP AND SHALL NOT EXCEED MAX DIST OF 5FT FROM MOTOR-EQUIP MAX HEIGHT OF DISCONNECT SWITCH HANDLE SHALL NOT EXCEED 6'-3" PROVIDE SIX POLE DISC SW FOR TWO SPEED AND ONE-TWO WINDING MOTORS.
4. CONFIRM MOTOR ROTATION-OPERATION WITH OEM REP PRIOR TO ENERGIZING MOTOR EQUIP. PROVIDE GROUNDING PER OEM SPECS. FLEX CONDUIT SHALL NOT EXCEED 72" MAXIMUM LENGTH.
5. PROVIDE A DEDICATED 120VAC CIRCUIT TO EACH MECHANICAL EQUIPMENT (AHU,RTU, ERV, MAU, ETC.) FOR INTERNAL FAN HOUSING LIGHTING AND RECEPTACLE DEVICE CIRCUIT.
6. CONTRACTOR MAY CONNECT MULTIPLE PIECES OF EQUIPMENT ON A SINGLE BRANCH CIRCUIT.

**GENERAL NOTE:**

PROVIDE A DUCT SMOKE DETECTOR COMPLETE WITH AIR SAMPLING TUBES AND REMOTE KEYED TEST STATION FOR ALL HVAC EQUIPMENT MAIN HEADER DUCTS AS FOLLOWS: RETURN HEADER DUCT RATED 2,000 CFM OR GREATER SUPPLY HEADER DUCT RATED 15,000 CFM OR GREATER. PROVIDE INTERFACE MODULES AND CONNECT TO FIRE ALARM CONTROL PANEL.

| STEPS | 1 | | | 2 | 3 | | | | | | | | | | 4A | 4B | 5 | | | 6 & 7 | 8 & 9 | | | | | | | | | | | 10 | | | | 11 | | | | | | | | | | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM | EQUIPMENT LOCATION - TAG - QTY. | | | EQUIPMENT UNIT NAME | EQUIPMENT POWER CHARACTERISTICS & LOAD SPECIFICATIONS | | | | | | | | | | FEED PWR | FEED FROM | OCPD: FRAME AND TRIP CIRCUIT BREAKER | | | FDR BRNCH | MOTOR-LISTED EQP - CONTROLLER-STARTER TYPES & LOCATIONS MTR CONTROLLER - SWITCH RATING - OCPD TRIP SIZE | | | | | | | | | | | LOCAL DISC. SW. PROVIDED BY ELECTRICAL CONTRACTOR | | | | MOTOR-LISTED EQUIP CONN & OEM REQUIREMENTS PROVIDED BY E.C. CORD & PLUG REC OR FLEX WHIP FOR MOTOR OR SINGLE POINT CONN | | | | | | | | | | REMARKS |
| No. | LOCATION | TAG | No. | NAME AND AREA | V | Ø | N | G | PIN | W | HP | MCA | FLA | KW | SYS | PANEL | CB FR | CB TR | POLES | TAG | PB | FB | IB | ROOM | SIZE | TYPE | ENC | DS-SW | OCPD | P | NOTE | SIZE | ENC | P | NOTE | PB | REC | LOC | NEMA | GFI | REC No | CPC | HWC | FWC | NOTE | |
| 1 | SEE PLANS | CUH | 1.1 | CABINET UNIT HEATER CUH-1.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 2 | SEE PLANS | CUH | 1.2 | CABINET UNIT HEATER CUH-1.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 9.6 | - | 8.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 3 | SEE PLANS | CUH | 1.3 | CABINET UNIT HEATER CUH-1.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 3.6 | - | 3.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 4 | SEE PLANS | CUH | 1.4 | CABINET UNIT HEATER CUH-1.4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 5 | SEE PLANS | CUH | 1.5 | CABINET UNIT HEATER CUH-1.5 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 6 | SEE PLANS | CUH | 1.6 | CABINET UNIT HEATER CUH-1.6 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 7 | SEE PLANS | CUH | 1.7 | CABINET UNIT HEATER CUH-1.7 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 8 | SEE PLANS | CUH | 1.8 | CABINET UNIT HEATER CUH-1.8 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 9 | SEE PLANS | CUH | 1.9 | CABINET UNIT HEATER CUH-1.9 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 10 | SEE PLANS | CUH | 2.1 | CABINET UNIT HEATER CUH-2.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 3.6 | - | 3.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 11 | SEE PLANS | CUH | 2.2 | CABINET UNIT HEATER CUH-2.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 3.6 | - | 3.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 12 | SEE PLANS | CUH | 2.3 | CABINET UNIT HEATER CUH-2.3 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 14.4 | - | 3.00 | NML | SEE PLANS | 30 | 25 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 25 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 13 | SEE PLANS | CUH | 3.1 | CABINET UNIT HEATER CUH-3.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 14 | SEE PLANS | CUH | 3.3 | CABINET UNIT HEATER CUH-3.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 15 | SEE PLANS | CUH | 7.1 | CABINET UNIT HEATER CUH-7.1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 16 | SEE PLANS | CUH | 7.2 | CABINET UNIT HEATER CUH-7.2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 17 | SEE PLANS | CUH | 7.3 | CABINET UNIT HEATER CUH-7.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 18 | SEE PLANS | CUH | 7.4 | CABINET UNIT HEATER CUH-7.4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 6.0 | - | 5.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 3 | 1 | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 20 | SEE PLANS | EUH | 1.1 | ELECTRIC UNIT HEATER EUH-1.1 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 21 | SEE PLANS | EUH | 1.2 | ELECTRIC UNIT HEATER EUH-1.2 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 22 | SEE PLANS | EUH | 1.3 | ELECTRIC UNIT HEATER EUH-1.3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 45.2 | - | 37.50 | NML | SEE PLANS | 100 | 70 | 3 | 5B | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 100 | 70 | 3 | 1 | 100 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 23 | SEE PLANS | EUH | 1.4 | ELECTRIC UNIT HEATER EUH-1.4 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 24 | SEE PLANS | EUH | 1.5 | ELECTRIC UNIT HEATER EUH-1.5 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 25 | SEE PLANS | EUH | 1.6 | ELECTRIC UNIT HEATER EUH-1.6 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 26 | SEE PLANS | EUH | 1.7 | ELECTRIC UNIT HEATER EUH-1.7 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 27 | SEE PLANS | EUH | 1.8 | ELECTRIC UNIT HEATER EUH-1.8 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 28 | SEE PLANS | EUH | 1.9 | ELECTRIC UNIT HEATER EUH-1.9 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 29 | SEE PLANS | EUH | 1.10 | ELECTRIC UNIT HEATER EUH-1.1 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 30 | SEE PLANS | EUH | 2.1 | ELECTRIC UNIT HEATER EUH-2.1 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 31 | SEE PLANS | EUH | 2.2 | ELECTRIC UNIT HEATER EUH-2.2 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 32 | SEE PLANS | EUH | 2.3 | ELECTRIC UNIT HEATER EUH-2.3 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 33 | SEE PLANS | EUH | 2.4 | ELECTRIC UNIT HEATER EUH-2.4 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 34 | SEE PLANS | EUH | 2.5 | ELECTRIC UNIT HEATER EUH-2.5 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 35 | SEE PLANS | EUH | 2.6 | ELECTRIC UNIT HEATER EUH-2.6 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 36 | SEE PLANS | EUH | 2.7 | ELECTRIC UNIT HEATER EUH-2.7 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 37 | SEE PLANS | EUH | 2.8 | ELECTRIC UNIT HEATER EUH-2.8 SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 38 | SEE PLANS | EUH | 2.X | ELECTRIC UNIT HEATER EUH-2.X SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 12.0 | - | 2.50 | NML | SEE PLANS | 30 | 20 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 20 | 2 | 1 | 30 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 39 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 38 | SEE PLANS | GUH | A | GAS-FIRED UNIT HEATER GUH-A SEE PLANS | 208 | 1 | 1 | 1 | 3 | 4 | - | 5.5 | - | 1.13 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 3R | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | NOTE 6 |
| 39 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 38 | DWELLING UNITS | EBB | 1 | ELECTRIC BASEBOARD HEATER EBB-1 DWELLING UNITS | 208 | 1 | 1 | 1 | 3 | 4 | - | 6.0 | - | 1.25 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 3R | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 39 | DWELLING UNITS | EBB | 2 | ELECTRIC BASEBOARD HEATER EBB-2 DWELLING UNITS | 208 | 1 | 1 | 1 | 3 | 4 | - | 6.0 | - | 1.25 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 3R | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 40 | DWELLING UNITS | EBB | 3 | ELECTRIC BASEBOARD HEATER EBB-3 DWELLING UNITS | 208 | 1 | 1 | 1 | 3 | 4 | - | 6.0 | - | 1.25 | NML | SEE PLANS | 30 | 15 | 2 | 2D | - | MC | EC | SEE PLANS | NA | W-STAT | 1 | 30 | 15 | 2 | 1 | 30 | 3R | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 41 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 42 | DWELLING UNITS | EWH | 1 | ELECT WATER HEATER EWH-1 DWELLING UNITS | 208 | 1 | 1 | 1 | 3 | 4 | - | 21.6 | - | 4.50 | NML | SEE PLANS | 60 | 35 | 2 | 3D | - | PC | EC | SEE PLANS | NA | IMUC | 1 | 60 | 35 | 2 | - | 60 | 1 | 2 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 43 | SEE PLANS | EWH | 2 | ELECT WATER HEATER EWH-2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | - | 7.2 | - | 6.00 | NML | SEE PLANS | 30 | 15 | 3 | 2B | - | PC | EC | SEE PLANS | NA | IMUC | 1 | 30 | 15 | 3 | - | 30 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 44 | SEE PLANS | EWH | 3 | ELECT WATER HEATER EWH-3 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | - | 29.2 | - | 3.50 | NML | SEE PLANS | 60 | 45 | 1 | 4G | - | PC | EC | SEE PLANS | NA | IMUC | 1 | 60 | 45 | 1 | - | 60 | 1 | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 45 | SEE PLANS | EWH | 4 | ELECT WATER HEATER EWH-4 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | - | 25.0 | - | 3.00 | NML | SEE PLANS | 60 | 40 | 1 | 3G | - | PC | EC | SEE PLANS | NA | IMUC | 1 | 60 | 40 | 1 | - | 60 | 1 | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 46 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 47 | SEE PLANS | BP | 1 | BOOSTER PUMP BP-1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 20 | - | 27.0 | 22.42 | EM | SEE PLANS | 60 | 45 | 3 | 4B | - | PC | EC | SEE PLANS | 2 | FVNR | 3R | 60 | 45 | 3 | 1 | 60 | 1 | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 48 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 49 | SEE PLANS | EPP | 1 | ELEVATOR PIT PUMP EPP-1 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1/2 | - | 9.8 | 1.18 | EM | SEE PLANS | 30 | 15 | 1 | 2G | - | PC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 1 | 1 | 30 | 1 | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 50 | SEE PLANS | EPP | 2 | ELEVATOR PIT PUMP EPP-2 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1/2 | - | 9.8 | 1.18 | EM | SEE PLANS | 30 | 15 | 1 | 2G | - | PC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 1 | 1 | 30 | 1 | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 51 | SEE PLANS | EPP | 3 | ELEVATOR PIT PUMP EPP-3 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1/2 | - | 9.8 | 1.18 | EM | SEE PLANS | 30 | 15 | 1 | 2G | - | PC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 1 | 1 | 30 | 1 | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 52 | SEE PLANS | EPP | 4 | ELEVATOR PIT PUMP EPP-4 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1/2 | - | 9.8 | 1.18 | EM | SEE PLANS | 30 | 15 | 1 | 2G | - | PC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 1 | 1 | 30 | 1 | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 53 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 54 | SEE PLANS | RCP | 1 | HOT WATER RECIRCULATION PUMP RCP-1 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1/12 | - | 3.3 | 0.40 | NML | SEE PLANS | 30 | 15 | 1 | 2G | - | PC | EC | SEE PLANS | 1 | WS | 3R | 30 | 15 | 1 | 1 | 30 | 1 | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 55 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 56 | SEE PLANS | DV | 1 | DRY VALVE DV-1 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1 | - | 16.0 | 1.92 | EM | SEE PLANS | 30 | 25 | 1 | 2G | - | FPC | EC | SEE PLANS | 1 | WS | 1 | 30 | 25 | 1 | 1 | 30 | 1 | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 57 | SEE PLANS | DV | 2 | DRY VALVE DV-2 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1 | - | 16.0 | 1.92 | EM | SEE PLANS | 30 | 25 | 1 | 2G | - | FPC | EC | SEE PLANS | 1 | WS | 1 | 30 | 25 | 1 | 1 | 30 | 1 | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 58 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 59 | SEE PLANS | FP | 1 | FIRE PUMP FP-1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 150 | - | 180.0 | 149.47 | EM | SEE PLANS | 400 | 300 | 3 | SEE RISER DAIGRAM | FPC | - | - | SEE PLANS | - | FVNR | 3R | 400 | 300 | 3 | 1 | 400 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 60 | SEE PLANS | JP | 1 | JOCKEY PUMP JP-1 SEE PLANS | 120 | 1 | 1 | 1 | 2 | 3 | 1 | - | 16.0 | 1.92 | NML | SEE PLANS | 30 | 25 | 1 | 2G | FPC | - | - | SEE PLANS | - | FVNR | 3R | 30 | 25 | 1 | 1 | 30 | 1 | 1 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 61 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 62 | SEE PLANS | ELEV | 1 | ELEVATOR ELEV-1 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 30 | - | 40.0 | 33.22 | EM | SEE PLANS | 100 | 70 | 3 | 5B | - | GC | EC | SEE PLANS | 3 | FVNR | 3R | 100 | 70 | 3 | 1 | 100 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 63 | SEE PLANS | ELEV | 2 | ELEVATOR ELEV-2 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 30 | - | 40.0 | 33.22 | EM | SEE PLANS | 100 | 70 | 3 | 5B | - | GC | EC | SEE PLANS | 3 | FVNR | 3R | 100 | 70 | 3 | 1 | 100 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 64 | SEE PLANS | ELEV | 3 | ELEVATOR ELEV-3 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 30 | - | 40.0 | 33.22 | EM | SEE PLANS | 100 | 70 | 3 | 5B | - | GC | EC | SEE PLANS | 3 | FVNR | 3R | 100 | 70 | 3 | 1 | 100 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 65 | SEE PLANS | ELEV | 4 | ELEVATOR ELEV-4 SEE PLANS | 480 | 3 | 1 | 1 | 4 | 5 | 30 | - | 40.0 | 33.22 | EM | SEE PLANS | 100 | 70 | 3 | 5B | - | GC | EC | SEE PLANS | 3 | FVNR | 3R | 100 | 70 | 3 | 1 | 100 | 3R | 3 | 3 | EC | NA | - | NA | NA | NA | NA | YES | YES | 4 | |
| 66 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 67 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 68 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 69 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 70 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

3

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.05.2021 |
| PERMIT REVISION | 06.30.2021 |
| --- | --- |

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E5.2

JONES & JONES ASSOCIATES ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

## PANEL BOARD: NH-MP-1

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | MAIN ELEC ROOM | **Volts:** | 480/277 Wye | **Mains Type:** | MCB |
| **Supply From:** | H-MSB-1 | **Phases:** | 3 | **Mains Rating:** | 400 A |
| **Mounting:** | SURFACE | **Wires:** | 4 | **MCB Rating:** | 400 A |
| **Enclosure:** | NEMA 1 | | | | |

| CKT | Circuit Description | Trip | Poles | A | B | C |
|---|---|---|---|---|---|---|
| 1,2,3 | XFMR-MP | 175 A | 3 | 36715 VA | 33750 VA | 30865 VA |
| 4,5,6 | EF-1.1 | 15 A | 3 | 1330 VA | 1330 VA | 1330 VA |
| 7,8,9 | EF-1.2 | 15 A | 3 | 1330 VA | 1330 VA | 1330 VA |
| 10,11,12 | EF-1.3 | 15 A | 3 | 1330 VA | 1330 VA | 1330 VA |
| 13,14,15 | CUH-1.1 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 16,17,18 | CUH-1.2 | 15 A | 3 | 2667 VA | 2667 VA | 2667 VA |
| 19,20,21 | CUH-1.3 | 15 A | 3 | 1000 VA | 1000 VA | 1000 VA |
| 22,23,24 | CUH-1.4 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 25,26,27 | CUH-1.5 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 28,29,30 | CUH-1.5 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 31,32,33 | CUH-1.7 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 34,35,36 | CUH-1.8 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 37,38,39 | CUH-1.9 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 40,41,42 | EUH-1.3 | 70 A | 3 | 12500 VA | 12500 VA | 12500 VA |
| 43,44,45 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| 46,47,48 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| 49,50,51 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| 52,53,54 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| | | | **Total Load:** | 68538 VA | 65573 VA | 62688 VA |
| | | | **Total Amps:** | 249 A | 238 A | 226 A |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 78500 VA | 100.00% | 78500 VA | **Total Conn. Load:** | 196800 VA |
| MOTOR/EQUIPT. | 118300 VA | 70.00% | 82810 VA | **Total Est. Demand:** | 161310 VA |
| | | | | **Total Conn. Current:** | 237 A |
| | | | | **Total Est. Demand...** | 194 A |

## SWITCHBOARD: L-MSB-E

| | | | | | |
|---|---|---|---|---|---|
| **LOCATION:** | | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | 4000 A COPPER BUS |
| **FED FROM:** | PAD MOUNTED COMED... | **PHASES:** | 3 | **MAINS RATING:** | 4000 A |
| **MOUNTING TYPE:** | PAD MOUNTED | **WIRES:** | 4 | **MAIN CIRCUT...** | 4000 A |
| **ENCLOSURE:** | NEMA 1 | **A.I.C....** | 100,000 AIC | **NEUTRAL BUS:** | 100% RATED FULL COPPER WITH BUS... |
| **OTHER:** | PROVIDE 4" HIGH CONCRETE... | | | **GROUND BUS:** | 100% RATED FULL COPPER |

| CCT NO. | DESCRIPTION | Load | FRAME SIZE | TRIP RATING | POLES | BREAKER TYPE | BREAKER RATING | NOTES |
|---|---|---|---|---|---|---|---|---|
| 1 | 4000A BUS DUCT EAST | 3418150... | 4000 A | 4000 A | 3 | MCCB | 80% | |
| 2 | SURGE PROTECTION DEVICE | 0 VA | -- | 60 A | 3 | MCCB | 80% | |
| 3 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 4 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 5 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 6 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 7 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 8 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 9 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 10 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 11 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 12 | SPACE | 0 VA | -- | -- | -- | | | -- |
| | | **TOTAL LOAD** | **ESTIMATED LOAD** | | | | | |
| | **TOTAL CONN. LOAD:** | 3418 kVA | 1374 kVA | | | | | |
| | **TOTAL AMPS:** | 9488 A | 3813 A | | | | | |

**Notes:**

## SWITCHBOARD: H-MSB-1

| | | | | | |
|---|---|---|---|---|---|
| **LOCATION:** | | **VOLTS:** | 480/277 Wye | **MAINS TYPE:** | 3000 A COPPER BUS |
| **FED FROM:** | PAD MOUNTED COMED... | **PHASES:** | 3 | **MAINS RATING:** | 3000 A |
| **MOUNTING TYPE:** | PAD MOUNTED | **WIRES:** | 4 | **MAIN CIRCUT...** | 3000 A |
| **ENCLOSURE:** | NEMA 1 | **A.I.C....** | 65,000 AIC | **NEUTRAL BUS:** | 100% RATED FULL COPPER WITH BUS... |
| **OTHER:** | PROVIDE 4" HIGH CONCRETE... | | | **GROUND BUS:** | 100% RATED FULL COPPER |

| CCT NO. | DESCRIPTION | Load | FRAME SIZE | TRIP RATING | POLES | BREAKER TYPE | BREAKER RATING | NOTES |
|---|---|---|---|---|---|---|---|---|
| 1 | NH-MP-1 | 196800 VA | 400 A | 400 A | 3 | MCCB | 80% | |
| 2 | XFMR-HP | 193250 VA | 400 A | 350 A | 3 | MCCB | 80% | |
| 3 | NH-POOL | 0 VA | 400 A | 400 A | 3 | MCCB | 80% | |
| 4 | NH-MP-7N | 752700 VA | 800 A | 800 A | 3 | MCCB | 80% | |
| 5 | NH-MP-7W | 686540 VA | 800 A | 800 A | 3 | MCCB | 80% | |
| 6 | NH-MP-7E | 780790 VA | 800 A | 800 A | 3 | MCCB | 80% | |
| 7 | SOLAR DISCONNECT... | 0 VA | 800 A | 800 A | 3 | MCCB | 80% | |
| 8 | ATS-LP | 0 VA | 100 A | 70 A | 3 | MCCB | 80% | |
| 9 | ATS-MP | 62500 VA | 225 A | 225 A | 3 | MCCB | 80% | |
| 10 | ATS-ELEV | 138120 VA | 225 A | 225 A | 3 | MCCB | 80% | |
| 11 | NH-MP-3N | 155230 VA | 225 A | 225 A | 3 | MCCB | 80% | |
| 12 | NH-MP-6N | 78120 VA | 225 A | 225 A | 3 | MCCB | 80% | |
| 13 | SURGE PROTECTION DEVICE | 0 VA | -- | 60 A | 3 | MCCB | 80% | |
| 14 | SPARE | 0 VA | -- | 225 A | 3 | | | |
| 15 | SPARE | 0 VA | -- | 225 A | 3 | | | |
| 16 | SPARE | 0 VA | -- | 225 A | 3 | | | |
| | | **TOTAL LOAD** | **ESTIMATED LOAD** | | | | | |
| | **TOTAL CONN. LOAD:** | 3044 kVA | 2142 kVA | | | | | |
| | **TOTAL AMPS:** | 3661 A | 2577 A | | | | | |

**Notes:**

## PANEL BOARD: NL-MP-1-2

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | MAIN ELEC ROOM | **Volts:** | 120/208 Wye | **Mains Type:** | MLO |
| **Supply From:** | NL-MP-1-1 | **Phases:** | 3 | **Mains Rating:** | 400 A |
| **Mounting:** | SURFACE | **Wires:** | 4 | | |
| **Enclosure:** | NEMA 1 | | | | |

| CKT | Circuit Description | Trip | Poles | A | B | C |
|---|---|---|---|---|---|---|
| 1,2 | GUH-A | 20 A | 2 | 1695 VA | 1695 VA | |
| 3,4 | GUH-A | 20 A | 2 | 1130 VA | | 1130 VA |
| 5,6 | GUH-A | 20 A | 2 | | 1130 VA | 1130 VA |
| 7,8 | GUH-A | 20 A | 2 | 1130 VA | 1130 VA | |
| 9,10 | GUH-A | 20 A | 2 | 1130 VA | | 1130 VA |
| 11,12 | GUH-A | 20 A | 2 | | 1130 VA | 1130 VA |
| 13,14 | GUH-A | 20 A | 2 | 1130 VA | 1130 VA | |
| 15,16 | GUH-A | 20 A | 2 | 1130 VA | | 1130 VA |
| 17,18 | GUH-A | 20 A | 2 | | 1130 VA | 1130 VA |
| 19,20 | GUH-A | 20 A | 2 | 1130 VA | 1130 VA | |
| 21,22 | GUH-A | 20 A | 2 | 1130 VA | | 1130 VA |
| 23 | EF-2.4 | 15 A | 1 | | 400 VA | |
| 24 | EF-2.5 | 15 A | 1 | | | 400 VA |
| 25 | OTHER POOL EQUIP 209 | 20 A | 1 | 400 VA | | |
| 26,27 | EUH-2.1 | 20 A | 2 | | 1250 VA | 1250 VA |
| 28,29 | EUH-2.2 | 20 A | 2 | 1250 VA | 1250 VA | |
| 30,31 | EUH-2.3 | 20 A | 2 | 1250 VA | | 1250 VA |
| 32,33 | EUH-2.4 | 20 A | 2 | | 1250 VA | 1250 VA |
| 34,35 | EUH-2.5 | 20 A | 2 | 1250 VA | 1250 VA | |
| 36,37 | EUH-2.6 | 20 A | 2 | 1250 VA | | 1250 VA |
| 38,39 | EUH-2.7 | 20 A | 2 | | 1250 VA | 1250 VA |
| 40,41 | EUH-2.8 | 20 A | 2 | 1250 VA | 1250 VA | |
| 42 | SPARE | 20 A | 1 | | | 0 VA |
| | | | **Total Load:** | 16255 VA | 16375 VA | 14560 VA |
| | | | **Total Amps:** | 138 A | 139 A | 121 A |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 20000 VA | 100.00% | 20000 VA | **Total Conn. Load:** | 47190 VA |
| MOTOR/EQUIPT. | 27190 VA | 70.00% | 19033 VA | **Total Est. Demand:** | 39033 VA |
| | | | | **Total Conn. Current:** | 131 A |
| | | | | **Total Est. Demand...** | 108 A |

## PANEL BOARD: NL-MP-1-1

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | MAIN ELEC ROOM | **Volts:** | 120/208 Wye | **Mains Type:** | MCB |
| **Supply From:** | XFMR-MP | **Phases:** | 3 | **Mains Rating:** | 400 A |
| **Mounting:** | SURFACE | **Wires:** | 4 | **MCB Rating:** | 400 A |
| **Enclosure:** | NEMA 1 | | | | |

| CKT | Circuit Description | Trip | Poles | A | B | C |
|---|---|---|---|---|---|---|
| 1,2 | GUH-A | 20 A | 2 | 1695 VA | 1695 VA | |
| 3,4 | GUH-A | 20 A | 2 | 1695 VA | | 1695 VA |
| 5,6 | GUH-A | 20 A | 2 | | 1130 VA | 1130 VA |
| 7,8 | GUH-A | 20 A | 2 | 1695 VA | 1695 VA | |
| 9,10 | GUH-A | 20 A | 2 | 565 VA | | 565 VA |
| 11,12 | GUH-A | 20 A | 2 | | 1130 VA | 1130 VA |
| 13,14 | GUH-A | 20 A | 2 | 565 VA | 565 VA | |
| 15,16 | GUH-A | 20 A | 2 | 565 VA | | 565 VA |
| 17,18 | EUH-1.1 | 20 A | 2 | | 1250 VA | 1250 VA |
| 19,20 | EUH-1.2 | 20 A | 2 | 1250 VA | 1250 VA | |
| 21,22 | EUH-1.4 | 20 A | 2 | 1250 VA | | 1250 VA |
| 23,24 | EUH-1.5 | 20 A | 2 | | 1250 VA | 1250 VA |
| 25,26 | EUH-1.10 | 20 A | 2 | 1250 VA | 1250 VA | |
| 27 | EWH-3 | 45 A | 1 | | | 3500 VA |
| 28 | EWH-3 | 45 A | 1 | 3500 VA | | |
| 29 | EWH-4 | 40 A | 1 | | 3000 VA | |
| 30 | EWH-3 | 45 A | 1 | | | 3500 VA |
| 31 | EWH-3 | 45 A | 1 | 3500 VA | | |
| 32,33 | BSB-2.3, FCU-2.1 | 20 A | 2 | | 350 VA | 350 VA |
| 34,35 | CU-1.1 | 30 A | 2 | 2810 VA | 2810 VA | |
| 36,37 | AC-1, AC-2 | 20 A | 2 | 150 VA | | 150 VA |
| 38,39 | SPARE | 20 A | 2 | | 0 VA | 0 VA |
| 40,41 | SPARE | 20 A | 2 | 0 VA | 0 VA | |
| 42 | SPARE | 20 A | 1 | | | 0 VA |
| | | | **Total Load:** | 36715 VA | 33750 VA | 30865 VA |
| | | | **Total Amps:** | 310 A | 285 A | 257 A |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 32500 VA | 100.00% | 32500 VA | **Total Conn. Load:** | 101330 VA |
| MOTOR/EQUIPT. | 68830 VA | 70.00% | 48181 VA | **Total Est. Demand:** | 80681 VA |
| | | | | **Total Conn. Current:** | 281 A |
| | | | | **Total Est. Demand...** | 224 A |

PROVIDE FEED-THRU LUGS FOR PANEL NL-MP-1-2

## SWITCHBOARD: L-MSB-N

| | | | | | |
|---|---|---|---|---|---|
| **LOCATION:** | | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | 4000 A COPPER BUS |
| **FED FROM:** | PAD MOUNTED COMED... | **PHASES:** | 3 | **MAINS RATING:** | 4000 A |
| **MOUNTING TYPE:** | PAD MOUNTED | **WIRES:** | 4 | **MAIN CIRCUT...** | 4000 A |
| **ENCLOSURE:** | NEMA 1 | **A.I.C....** | 100,000 AIC | **NEUTRAL BUS:** | 100% RATED FULL COPPER WITH BUS... |
| **OTHER:** | PROVIDE 4" HIGH CONCRETE... | | | **GROUND BUS:** | 100% RATED FULL COPPER |

| CCT NO. | DESCRIPTION | Load | FRAME SIZE | TRIP RATING | POLES | BREAKER TYPE | BREAKER RATING | NOTES |
|---|---|---|---|---|---|---|---|---|
| 1 | 4000 A BUS DUCT NORTH | 3238490... | 4000 A | 4000 A | 3 | MCCB | 80% | |
| 2 | SURGE PROTECTION DEVICE | 0 VA | -- | 60 A | 3 | MCCB | 80% | |
| 3 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 4 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 5 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 6 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 7 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 8 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 9 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 10 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 11 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 12 | SPACE | 0 VA | -- | -- | -- | | | -- |
| | | **TOTAL LOAD** | **DEMAND LOAD** | | | | | |
| | **TOTAL CONN. LOAD:** | 3238 kVA | 1293 kVA | | | | | |
| | **TOTAL AMPS:** | 8989 A | 3588 A | | | | | |

**Notes:**

## SWITCHBOARD: L-MSB-W

| | | | | | |
|---|---|---|---|---|---|
| **LOCATION:** | | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | 4000 A COPPER BUS |
| **FED FROM:** | PAD MOUNTED COMED... | **PHASES:** | 3 | **MAINS RATING:** | 4000 A |
| **MOUNTING TYPE:** | PAD MOUNTED | **WIRES:** | 4 | **MAIN CIRCUT...** | 4000 A |
| **ENCLOSURE:** | NEMA 1 | **A.I.C....** | 100,000 AIC | **NEUTRAL BUS:** | 100% RATED FULL COPPER WITH BUS... |
| **OTHER:** | PROVIDE 4" HIGH CONCRETE... | | | **GROUND BUS:** | 100% RATED FULL COPPER |

| CCT NO. | DESCRIPTION | Load | FRAME SIZE | TRIP RATING | POLES | BREAKER TYPE | BREAKER RATING | NOTES |
|---|---|---|---|---|---|---|---|---|
| 1 | 4000A BUS DUCT WEST | 3220650... | 4000 A | 4000 A | 3 | MCCB | 80% | |
| 2 | SURGE PROTECTION DEVICE | 0 VA | -- | 60 A | 3 | MCCB | 80% | |
| 3 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 4 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 5 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 6 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 7 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 8 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 9 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 10 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 11 | SPACE | 0 VA | -- | -- | -- | | | -- |
| 12 | SPACE | 0 VA | -- | -- | -- | | | -- |
| | | **TOTAL LOAD** | **ESTIMATED LOAD** | | | | | |
| | **TOTAL CONN. LOAD:** | 3221 kVA | 1297 kVA | | | | | |
| | **TOTAL AMPS:** | 8940 A | 3601 A | | | | | |

**Notes:**

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

DATE
04.5.2021
05.05.2021
06.30.2021
...
...

REVISION
RISER DIAGRAM
PERMIT SUBMITTAL
PERMIT REVISION
...
...

db HMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E5.3

JONES & JONES ASSOCIATES / ARCHITECTS PC

## PANEL BOARD: NH-MP-3N-2

| | | | | | |
|---|---|---|---|---|---|
| **LOCATION:** | ELEC NORTH - 3 | **VOLTS:** | 480/277 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD_CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 225 A | **GROUND BUS:** | STANDARD_CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | | | | |
| **FED FROM:** | NH-MP-3N-1 | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EF-2.1 | 15 A | 3 | 1330 VA | 1330 VA | | 3 | 15 A | EF-2.2 | 2 |
| 3 | -- | -- | -- | | 1330 VA | 1330 VA | -- | -- | -- | 4 |
| 5 | -- | -- | -- | | | 1330 VA | 1330 VA | -- | -- | 6 |
| 7 | EF-2.3 | 15 A | 3 | 1330 VA | 1000 VA | | 3 | 15 A | CUH-2.1 | 8 |
| 9 | -- | -- | -- | | 1330 VA | 1000 VA | -- | -- | -- | 10 |
| 11 | -- | -- | -- | | | 1330 VA | 1000 VA | -- | -- | 12 |
| 13 | CUH-2.2 | 15 A | 3 | 1000 VA | 5840 VA | | 3 | 25 A | CU-2.1 | 14 |
| 15 | -- | -- | -- | | 1000 VA | 5840 VA | -- | -- | -- | 16 |
| 17 | -- | -- | -- | | | 1000 VA | 5840 VA | -- | -- | 18 |
| 19 | CU-2.2 | 40 A | 3 | 8610 VA | 8610 VA | | 3 | 40 A | CU-2.2 | 20 |
| 21 | -- | -- | -- | | 8610 VA | 8610 VA | -- | -- | -- | 22 |
| 23 | -- | -- | -- | | | 8610 VA | 8610 VA | -- | -- | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 29050 VA | 29050 VA | 29050 VA | | | | |
| | | | **TOTAL AMPS:** | 105 A | 105 A | 105 A | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 6000 VA | 100.00% | 6000 VA | **TOTAL CONNECTED...** | 87150 VA |
| MOTOR/EQUIPT. | 81150 VA | 70.00% | 56805 VA | **TOTAL EST. DEMAND:** | 62805 VA |
| | | | | **TOTAL CONN.:** | 105 A |
| | | | | **TOTAL EST. DEMAND:** | 76 A |

## PANEL BOARD: NH-MP-3N-1

| | | | | | |
|---|---|---|---|---|---|
| **LOCATION:** | ELEC NORTH - 3 | **VOLTS:** | 480/277 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD_CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 225 A | **GROUND BUS:** | STANDARD_CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 225 A | | |
| **FED FROM:** | H-MSB-1 | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ERV-3.1 | 15 A | 3 | 2170 VA | 2170 VA | | 3 | 15 A | ERV-3.2 | 2 |
| 3 | -- | -- | -- | | 2170 VA | 2170 VA | -- | -- | -- | 4 |
| 5 | -- | -- | -- | | | 2170 VA | 2170 VA | -- | -- | 6 |
| 7 | ERV-3.3 | 15 A | 3 | 2170 VA | 2170 VA | | 3 | 15 A | ERV-3.4 | 8 |
| 9 | -- | -- | -- | | 2170 VA | 2170 VA | -- | -- | -- | 10 |
| 11 | -- | -- | -- | | | 2170 VA | 2170 VA | -- | -- | 12 |
| 13 | CUH-3.1 | 15 A | 3 | 1667 VA | 1667 VA | | 3 | 15 A | CUH-3.3 | 14 |
| 15 | -- | -- | -- | | 1667 VA | 1667 VA | -- | -- | -- | 16 |
| 17 | -- | -- | -- | | | 1667 VA | 1667 VA | -- | -- | 18 |
| 19 | ERV-4.1 | 15 A | 3 | 2170 VA | 2170 VA | | 3 | 15 A | ERV-4.2 | 20 |
| 21 | -- | -- | -- | | 2170 VA | 2170 VA | -- | -- | -- | 22 |
| 23 | -- | -- | -- | | | 2170 VA | 2170 VA | -- | -- | 24 |
| 25 | ERV-4.3 | 15 A | 3 | 2170 VA | 2170 VA | | 3 | 15 A | ERV-4.4 | 26 |
| 27 | -- | -- | -- | | 2170 VA | 2170 VA | -- | -- | -- | 28 |
| 29 | -- | -- | -- | | | 2170 VA | 2170 VA | -- | -- | 30 |
| 31 | EWH-2 | 15 A | 3 | 2000 VA | 0 VA | | 1 | 20 A | SPARE | 32 |
| 33 | -- | -- | -- | | 2000 VA | 0 VA | 1 | 20 A | SPARE | 34 |
| 35 | -- | -- | -- | | | 2000 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 51743 VA | 51743 VA | 51743 VA | | | | |
| | | | **TOTAL AMPS:** | 187 A | 187 A | 187 A | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 16000 VA | 100.00% | 16000 VA | **TOTAL CONNECTED...** | 155230 VA |
| MOTOR/EQUIPT. | 139230 VA | 70.00% | 97461 VA | **TOTAL EST. DEMAND:** | 113461 VA |
| | | | | **TOTAL CONN.:** | 187 A |
| | | | | **TOTAL EST. DEMAND:** | 136 A |

PROVIDE FEED-THRU LUGS FOR PANEL NH-MP-3N-2

## PANEL BOARD: NH-POOL

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | POOL EQUIPMENT ROOM | **Volts:** | 480/277 Wye | **Mains Type:** | MCB |
| **Supply From:** | H-MSB-1 | **Phases:** | 3 | **Mains Rating:** | 400 A |
| **Mounting:** | SURFACE | **Wires:** | 4 | **MCB Rating:** | 400 A |
| **Enclosure:** | NEMA 1 | | | | |

| CKT | Circuit Description | Trip | Poles | A | B | C |
|---|---|---|---|---|---|---|
| 1,2,3 | XFMR-POOL | 70 A | 3 | 0 VA | 0 VA | 0 VA |
| 4 | SPARE | 20 A | 1 | 0 VA | | |
| 5 | SPARE | 20 A | 1 | | 0 VA | |
| 6 | SPARE | 20 A | 1 | | | 0 VA |
| 7 | SPARE | 20 A | 1 | 0 VA | | |
| 8 | SPARE | 20 A | 1 | | 0 VA | |
| 9 | SPARE | 20 A | 1 | | | 0 VA |
| 10 | SPARE | 20 A | 1 | 0 VA | | |
| 11 | SPARE | 20 A | 1 | | 0 VA | |
| 12 | SPARE | 20 A | 1 | | | 0 VA |
| 13 | SPARE | 20 A | 1 | 0 VA | | |
| 14 | SPARE | 20 A | 1 | | 0 VA | |
| 15 | SPARE | 20 A | 1 | | | 0 VA |
| 16 | SPARE | 20 A | 1 | 0 VA | | |
| 17 | SPARE | 20 A | 1 | | 0 VA | |
| 18 | SPARE | 20 A | 1 | | | 0 VA |
| 19 | SPARE | 20 A | 1 | 0 VA | | |
| 20 | SPARE | 20 A | 1 | | 0 VA | |
| 21 | SPARE | 20 A | 1 | | | 0 VA |
| | | **Total Load:** | | 0 VA | 0 VA | 0 VA |
| | | **Total Amps:** | | 0 A | 0 A | 0 A |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|
| | | | | **Total Conn. Load:** | 0 VA |
| | | | | **Total Est. Demand:** | 0 VA |
| | | | | **Total Conn. Current:** | 0 A |
| | | | | **Total Est. Demand...** | 0 A |

## PANEL BOARD: NH-MP-6N

| | | | | | |
|---|---|---|---|---|---|
| **LOCATION:** | ELEC NORTH - 6 | **VOLTS:** | 480/277 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD_CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 225 A | **GROUND BUS:** | STANDARD_CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 225 A | | |
| **FED FROM:** | H-MSB-1 | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ERV-5.1 | 15 A | 3 | 2170 VA | 2170 VA | | 3 | 15 A | ERV-5.2 | 2 |
| 3 | -- | -- | -- | | 2170 VA | 2170 VA | -- | -- | -- | 4 |
| 5 | -- | -- | -- | | | 2170 VA | 2170 VA | -- | -- | 6 |
| 7 | ERV-5.3 | 15 A | 3 | 2170 VA | 2170 VA | | 3 | 15 A | ERV-5.4 | 8 |
| 9 | -- | -- | -- | | 2170 VA | 2170 VA | -- | -- | -- | 10 |
| 11 | -- | -- | -- | | | 2170 VA | 2170 VA | -- | -- | 12 |
| 13 | ERV-6.1 | 15 A | 3 | 2170 VA | 2170 VA | | 3 | 15 A | ERV-6.2 | 14 |
| 15 | -- | -- | -- | | 2170 VA | 2170 VA | -- | -- | -- | 16 |
| 17 | -- | -- | -- | | | 2170 VA | 2170 VA | -- | -- | 18 |
| 19 | ERV-6.3 | 15 A | 3 | 2170 VA | 2170 VA | | 3 | 15 A | ERV-6.4 | 20 |
| 21 | -- | -- | -- | | 2170 VA | 2170 VA | -- | -- | -- | 22 |
| 23 | -- | -- | -- | | | 2170 VA | 2170 VA | -- | -- | 24 |
| 25 | ERV-7.1 | 15 A | 3 | 2170 VA | 2170 VA | | 3 | 15 A | ERV-7.2 | 26 |
| 27 | -- | -- | -- | | 2170 VA | 2170 VA | -- | -- | -- | 28 |
| 29 | -- | -- | -- | | | 2170 VA | 2170 VA | -- | -- | 30 |
| 31 | ERV-7.3 | 15 A | 3 | 2170 VA | 2170 VA | | 3 | 15 A | ERV-7.4 | 32 |
| 33 | -- | -- | -- | | 2170 VA | 2170 VA | -- | -- | -- | 34 |
| 35 | -- | -- | -- | | | 2170 VA | 2170 VA | -- | -- | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 26040 VA | 26040 VA | 26040 VA | | | | |
| | | | **TOTAL AMPS:** | 94 A | 94 A | 94 A | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| MOTOR/EQUIPT. | 78120 VA | 70.00% | 54684 VA | **TOTAL CONNECTED...** | 78120 VA |
| | | | | **TOTAL EST. DEMAND:** | 54684 VA |
| | | | | **TOTAL CONN.:** | 94 A |
| | | | | **TOTAL EST. DEMAND:** | 66 A |

## PANEL BOARD: NL-POOL

| | | | | | |
|---|---|---|---|---|---|
| **LOCATION:** | POOL... | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD_CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 175 A | **GROUND BUS:** | STANDARD_CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 175 A | | |
| **FED FROM:** | XFMR-POOL | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 2 |
| 3 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 4 |
| 5 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 6 |
| 7 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 8 |
| 9 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 10 |
| 11 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 0 VA | 0 VA | 0 VA | | | | |
| | | | **TOTAL AMPS:** | 0 A | 0 A | 0 A | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| | | | | **TOTAL CONNECTED...** | 0 VA |
| | | | | **TOTAL EST. DEMAND:** | 0 VA |
| | | | | **TOTAL CONN.:** | 0 A |
| | | | | **TOTAL EST. DEMAND:** | 0 A |

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 ADDENDUM 04.15.2021
RISER, DIAGRAM, PANEL SCHEDULES 05.14.2021
PERMIT REVISION 06.30.2021
1
2

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E5.4

JONES & JONES ASSOCIATES / ARCHITECTS PC

## PANEL BOARD: NH-MP-7N

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | ELEC NORTH - LEVEL 7 | **Volts:** | 480/277 Wye | **Mains Type:** | MCB |
| **Supply From:** | H-MSB-1 | **Phases:** | 3 | **Mains Rating:** | 800 A |
| **Mounting:** | SURFACE | **Wires:** | 4 | **MCB Rating:** | 800 A |
| **Enclosure:** | NEMA 1 | | | | |

| CKT | Circuit Description | Trip | Poles | A | B | C |
|---|---|---|---|---|---|---|
| 1,2,3 | CU-A2 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 4,5,6 | CU-C5 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 7,8,9 | CU-C5 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 10,11,12 | CU-C4 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 13,14,15 | CU-C4 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 16,17,18 | CU-B1 | 50 A | 3 | 11987 VA | 11987 VA | 11987 VA |
| 19,20,21 | CU-F6 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 22,23,24 | CU-C3 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 25,26,27 | CU-C3 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 28,29,30 | CU-C2 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 31,32,33 | CU-C2 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 34,35,36 | CU-A1 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 37,38,39 | CU-C1 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 40,41,42 | CU-C1 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 43,44,45 | SF-8.3 | 15 A | 3 | 2103 VA | 2103 VA | 2103 VA |
| 46,47,48 | EF-8.1 | 15 A | 3 | 2103 VA | 2103 VA | 2103 VA |
| 49,50,51 | EF-8.5 | 15 A | 3 | 443 VA | 443 VA | 443 VA |
| 52,53,54 | CU-F3 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 55,56,57 | CU-A8 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 58,59,60 | CU-F1 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 61,62,63 | CU-E1 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 64,65,66 | CU-E1.2 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 67,68,69 | CU-E9 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 70,71,72 | CU-E9.2 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 73,74,75 | CU-F2 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 76,77,78 | SF-8.1 | 15 A | 3 | 2103 VA | 2103 VA | 2103 VA |
| 79,80,81 | EF-8.3 | 15 A | 3 | 2103 VA | 2103 VA | 2103 VA |
| 82,83,84 | CU-E2 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 85,86,87 | CU-E2 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 88,89,90 | CU-E3 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 91,92,93 | CU-E3 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 94,95,96 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| | | | **Total Load:** | 250900 VA | 250900 VA | 250900 VA |
| | | | **Total Amps:** | 906 A | 906 A | 906 A |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|
| MOTOR/EQUIPT. | 752700 VA | 70.00% | 526890 VA | **Total Conn. Load:** | 752700 VA |
| | | | | **Total Est. Demand:** | 526890 VA |
| | | | | **Total Conn. Current:** | 905 A |
| | | | | **Total Est. Demand...** | 634 A |

## PANEL BOARD: NH-MP-7E

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | ELEC EAST - LEVEL 7 | **Volts:** | 480/277 Wye | **Mains Type:** | MCB |
| **Supply From:** | H-MSB-1 | **Phases:** | 3 | **Mains Rating:** | 800 A |
| **Mounting:** | SURFACE | **Wires:** | 4 | **MCB Rating:** | 800 A |
| **Enclosure:** | NEMA 1 | | | | |

| CKT | Circuit Description | Trip | Poles | A | B | C |
|---|---|---|---|---|---|---|
| 1,2,3 | CU-A13 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 4,5,6 | CU-B3 | 50 A | 3 | 11987 VA | 11987 VA | 11987 VA |
| 7,8,9 | CU-E8 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 10,11,12 | CU-E8 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 13,14,15 | CU-B4 | 50 A | 3 | 11987 VA | 11987 VA | 11987 VA |
| 16,17,18 | CU-F5 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 19,20,21 | CU-A12 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 22,23,24 | CU-B7 | 50 A | 3 | 11987 VA | 11987 VA | 11987 VA |
| 25,26,27 | CU-E4 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 28,29,30 | CU-E4 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 31,32,33 | CU-A11 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 34,35,36 | CU-E5 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 37,38,39 | CU-E5 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 40,41,42 | CU-E7 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 43,44,45 | CU-E7 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 46,47,48 | CU-A9 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 49,50,51 | CU-B7 | 50 A | 3 | 11987 VA | 11987 VA | 11987 VA |
| 52,53,54 | CU-B5 | 50 A | 3 | 11987 VA | 11987 VA | 11987 VA |
| 55,56,57 | CU-A10 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 58,59,60 | CU-E6 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 61,62,63 | CU-E6 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 64,65,66 | CU-B6 | 45 A | 3 | 11987 VA | 11987 VA | 11987 VA |
| 67,68,69 | CU-F4 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 70,71,72 | SF-8.4 | 15 A | 3 | 2103 VA | 2103 VA | 2103 VA |
| 73,74,75 | EF-8.4 | 15 A | 3 | 2103 VA | 2103 VA | 2103 VA |
| 76,77,78 | CUH-7.2 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 79,80,81 | CUH-7.3 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 82,83,84 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| 85,86,87 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| 88,89,90 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| 91,92,93 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| 94,95,96 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| | | | **Total Load:** | 260263 VA | 260263 VA | 260263 VA |
| | | | **Total Amps:** | 940 A | 940 A | 940 A |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 10000 VA | 100.00% | 10000 VA | **Total Conn. Load:** | 780790 VA |
| MOTOR/EQUIPT. | 770790 VA | 70.00% | 539553 VA | **Total Est. Demand:** | 549553 VA |
| | | | | **Total Conn. Current:** | 939 A |
| | | | | **Total Est. Demand...** | 661 A |

## PANEL BOARD: NH-MP-7W

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | ELEC WEST - LEVEL 7 | **Volts:** | 480/277 Wye | **Mains Type:** | MCB |
| **Supply From:** | H-MSB-1 | **Phases:** | 3 | **Mains Rating:** | 800 A |
| **Mounting:** | SURFACE | **Wires:** | 4 | **MCB Rating:** | 800 A |
| **Enclosure:** | NEMA 1 | | | | |

| CKT | Circuit Description | Trip | Poles | A | B | C |
|---|---|---|---|---|---|---|
| 1,2,3 | CU-C13 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 4,5,6 | CU-C13 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 7,8,9 | CU-C12 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 10,11,12 | CU-C12 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 13,14,15 | CU-F6 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 16,17,18 | CU-A7 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 19,20,21 | CU-C11 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 22,23,24 | CU-C11 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 25,26,27 | CU-B2 | 50 A | 3 | 11987 VA | 11987 VA | 11987 VA |
| 28,29,30 | CU-C10 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 31,32,33 | CU-C10 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 34,35,36 | CU-D1 | 35 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 37,38,39 | CU-D1 | 35 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 40,41,42 | CU-A6 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 43,44,45 | CU-C9 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 46,47,48 | CU-C9 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 49,50,51 | CU-C8 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 52,53,54 | CU-C8 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 55,56,57 | CU-C7 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 58,59,60 | CU-C7 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 61,62,63 | EF-8.2 | 15 A | 3 | 2103 VA | 2103 VA | 2103 VA |
| 64,65,66 | SF-8.2 | 15 A | 3 | 2103 VA | 2103 VA | 2103 VA |
| 67,68,69 | CU-C6 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 70,71,72 | CU-C6 | 35 A | 3 | 7777 VA | 7777 VA | 7777 VA |
| 73,74,75 | CU-A5 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 76,77,78 | CU-A4 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 79,80,81 | CU-A3 | 45 A | 3 | 11017 VA | 11017 VA | 11017 VA |
| 82,83,84 | CUH-7.4 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 85,86,87 | CUH-7.1 | 15 A | 3 | 1667 VA | 1667 VA | 1667 VA |
| 88,89,90 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| 91,92,93 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| 94,95,96 | SPARE | 20 A | 3 | 0 VA | 0 VA | 0 VA |
| | | | **Total Load:** | 228847 VA | 228847 VA | 228847 VA |
| | | | **Total Amps:** | 826 A | 826 A | 826 A |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 10000 VA | 100.00% | 10000 VA | **Total Conn. Load:** | 686540 VA |
| MOTOR/EQUIPT. | 676540 VA | 70.00% | 473578 VA | **Total Est. Demand:** | 483578 VA |
| | | | | **Total Conn. Current:** | 826 A |
| | | | | **Total Est. Demand...** | 582 A |

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.5.2021
RISER, DPE PERMIT 05.28.2021
PERMIT REVISION 06.30.2021
_ _
_ _

db HMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E5.5

JONES & JONES ASSOCIATES / ARCHITECTS PC

## PANEL BOARD: NL-HP-DP

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | | **Volts:** | 120/208 Wye | **Mains Type:** | MCB |
| **Supply From:** | XFMR-HP | **Phases:** | 3 | **Mains Rating:** | 800 A |
| **Mounting:** | SURFACE | **Wires:** | 4 | **MCB Rating:** | 800 A |
| **Enclosure:** | NEMA 1 | | | | |

| CKT | Circuit Description | Trip | Poles | A | B | C |
|---|---|---|---|---|---|---|
| 1,2,3 | NL-RP-1-1 | 150 A | 3 | 23160 VA | 15960 VA | 15020 VA |
| 4,5,6 | NL-RP-1-2 | 150 A | 3 | 6080 VA | 4140 VA | 4820 VA |
| 7,8,9 | NL-RP-1-3 | 150 A | 3 | 12440 VA | 13645 VA | 13805 VA |
| 10,11,12 | NL-RP-3E | 225 A | 3 | 18053 VA | 11553 VA | 17133 VA |
| 13,14,15 | NL-RP-5E | 225 A | 3 | 6120 VA | 5400 VA | 5760 VA |
| 16,17,18 | NL-RP-7E | 225 A | 3 | 7380 VA | 6660 VA | 6120 VA |
| 19,20,21 | NL-LP-1 | 150 A | 3 | 0 VA | 0 VA | 0 VA |
| 22,23,24 | NL-LP-3N | 150 A | 3 | 0 VA | 0 VA | 0 VA |
| 25,26,27 | NL-LP-5N | 150 A | 3 | 0 VA | 0 VA | 0 VA |
| 28,29,30 | NL-LP-7N | 150 A | 3 | 0 VA | 0 VA | 0 VA |
| 31,32,33 | SPARE | 225 A | 3 | 0 VA | 0 VA | 0 VA |
| 34,35,36 | SPARE | 225 A | 3 | 0 VA | 0 VA | 0 VA |
| 37 | SPACE | -- | -- | 0 VA | | |
| 38 | SPACE | -- | -- | | 0 VA | |
| 39 | SPACE | -- | -- | | | 0 VA |
| 40 | SPACE | -- | -- | 0 VA | | |
| 41 | SPACE | -- | -- | | 0 VA | |
| 42 | SPACE | -- | -- | | | 0 VA |
| | | | **Total Load:** | 73233 VA | 57358 VA | 62658 VA |
| | | | **Total Amps:** | 617 A | 478 A | 529 A |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 19600 VA | 100.00% | 19600 VA | **Total Conn. Load:** | 193250 VA |
| RECEPTACLE | 147640 VA | 50.00% | 73820 VA | **Total Est. Demand:** | 112467 VA |
| MOTOR/EQUIPT. | 17610 VA | 70.00% | 12327 VA | **Total Conn. Current:** | 536 A |
| ELECTRIC RANGE | 8400 VA | 80.00% | 6720 VA | **Total Est. Demand...** | 312 A |

## PANEL BOARD: NL-RP-5E

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ELEC EAST - 5 | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 225 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 225 A | | |
| **FED FROM:** | NL-HP-DP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RECEPTACLE CORRIDOR - 4 | 20 A | 1 | 1260 VA | 360 VA | | 1 | 20 A | RECEPTACLE CORRIDOR - 4 | 2 |
| 3 | RECEPTACLE CORRIDOR - 4 | 20 A | 1 | | 900 VA | 360 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 4 | 4 |
| 5 | RECEPTACLE CORRIDOR - 4 | 20 A | 1 | | | 1440 VA | 720 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 4 | 6 |
| 7 | RECEPTACLE CORRIDOR - 4 | 20 A | 1 | 720 VA | 360 VA | | 1 | 20 A | RECEPTACLE CORRIDOR - 4 | 8 |
| 9 | RECEPTACLE CORRIDOR - 4 | 20 A | 1 | | 720 VA | 1080 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 4 | 10 |
| 11 | RECEPTACLE CORRIDOR - 5 | 20 A | 1 | | | 900 VA | 900 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 5 | 12 |
| 13 | RECEPTACLE CORRIDOR - 5 | 20 A | 1 | 900 VA | 720 VA | | 1 | 20 A | RECEPTACLE CORRIDOR - 5 | 14 |
| 15 | RECEPTACLE CORRIDOR - 5 | 20 A | 1 | | 900 VA | 720 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 5 | 16 |
| 17 | RECEPTACLE CORRIDOR - 5 | 20 A | 1 | | | 720 VA | 360 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 5 | 18 |
| 19 | RECEPTACLE CORRIDOR - 5 | 20 A | 1 | 1080 VA | 720 VA | | 1 | 20 A | RECEPTACLE CORRIDOR - 5 | 20 |
| 21 | FCU-D - FLOOR 4 | 20 A | 2 | | 360 VA | 360 VA | 2 | 20 A | FCU-D - FLOOR 5 | 22 |
| 23 | -- | -- | -- | | | 360 VA | 360 VA | -- | -- | -- | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | **TOTAL LOAD:** | | 6120 VA | 5400 VA | 5760 VA | | | | |
| | | **TOTAL AMPS:** | | 51 A | 45 A | 48 A | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| MOTOR/EQUIPT. | 1440 VA | 70.00% | 1008 VA | **TOTAL CONNECTED...** | 17280 VA |
| RECEPTACLE | 15840 VA | 50.00% | 7920 VA | **TOTAL EST. DEMAND:** | 8928 VA |
| | | | | **TOTAL CONN.:** | 48 A |
| | | | | **TOTAL EST. DEMAND:** | 25 A |

## PANEL BOARD: NL-RP-1-3

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | MAIN ELEC ROOM | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MLO | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 150 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | | | | |
| **FED FROM:** | NL-HP-DP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RECEPTACLE TOILET | 20 A | 1 | 360 VA | 1440 VA | | 1 | 20 A | RECEPTACLE FITNESS... | 2 |
| 3 | FITNESS EQUIPMENT | 20 A | 1 | | 1800 VA | 1800 VA | 1 | 20 A | FITNESS EQUIPMENT | 4 |
| 5 | FITNESS EQUIPMENT | 20 A | 1 | | | 1800 VA | 1800 VA | 1 | 20 A | FITNESS EQUIPMENT | 6 |
| 7 | FITNESS EQUIPMENT | 20 A | 1 | 1800 VA | 1800 VA | | 1 | 20 A | FITNESS EQUIPMENT | 8 |
| 9 | FITNESS EQUIPMENT | 20 A | 1 | | 1800 VA | 1800 VA | 1 | 20 A | FITNESS EQUIPMENT | 10 |
| 11 | FITNESS EQUIPMENT | 20 A | 1 | | | 1800 VA | 1800 VA | 1 | 20 A | FITNESS EQUIPMENT | 12 |
| 13 | FITNESS EQUIPMENT | 20 A | 1 | 1800 VA | 1800 VA | | 1 | 20 A | FITNESS EQUIPMENT | 14 |
| 15 | FITNESS EQUIPMENT | 20 A | 1 | | 1800 VA | 1800 VA | 1 | 20 A | FITNESS EQUIPMENT | 16 |
| 17 | FITNESS EQUIPMENT | 20 A | 1 | | | 1800 VA | 1800 VA | 1 | 20 A | FITNESS EQUIPMENT | 18 |
| 19 | FISH TANK | 20 A | 2 | 520 VA | 520 VA | | 2 | 20 A | FISH TANK | 20 |
| 21 | -- | -- | -- | | 520 VA | 520 VA | -- | -- | -- | 22 |
| 23 | FISH TANK | 20 A | 1 | | | 600 VA | 600 VA | 1 | 20 A | FISH TANK | 24 |
| 25 | FISH TANK | 20 A | 1 | 600 VA | 600 VA | | 1 | 20 A | FISH TANK | 26 |
| 27 | FISH TANK | 20 A | 1 | | 600 VA | 600 VA | 1 | 20 A | FISH TANK | 28 |
| 29 | FISH TANK | 20 A | 1 | | | 600 VA | 600 VA | 1 | 20 A | FISH TANK | 30 |
| 31 | FISH TANK | 20 A | 1 | 600 VA | 600 VA | | 1 | 20 A | FISH TANK | 32 |
| 33 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 38 |
| 39 | BSB-2.2, FCU-1.9, 1.10, 1.11,... | 20 A | 2 | | 605 VA | 0 VA | 1 | 20 A | SPARE | 40 |
| 41 | -- | -- | -- | | | 605 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | **TOTAL LOAD:** | | 12440 VA | 13645 VA | 13805 VA | | | | |
| | | **TOTAL AMPS:** | | 104 A | 115 A | 117 A | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| MOTOR/EQUIPT. | 1210 VA | 70.00% | 847 VA | **TOTAL CONNECTED...** | 39890 VA |
| RECEPTACLE | 38680 VA | 50.00% | 19340 VA | **TOTAL EST. DEMAND:** | 20187 VA |
| | | | | **TOTAL CONN.:** | 111 A |
| | | | | **TOTAL EST. DEMAND:** | 56 A |

## PANEL BOARD: NL-RP-1-1

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | MAIN ELEC ROOM | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MLO | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 150 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | | | | |
| **FED FROM:** | NL-HP-DP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RECEPTACLE ELEC | 20 A | 1 | 900 VA | 360 VA | | 1 | 20 A | RECEPTACLE MECH/ELEC 298 | 2 |
| 3 | RECEPTACLE ELEV... | 20 A | 1 | | | 1800 VA | 180 VA | 1 | 20 A | RECEPTACLE TOILET | 4 |
| 5 | RECEPTACLE GARAGE | 20 A | 1 | | | | 1080 VA | 1080 VA | 1 | 20 A | RECEPTACLE GARAGE | 6 |
| 7 | RECEPTACLE GARAGE | 20 A | 1 | 1620 VA | 540 VA | | 1 | 20 A | RECEPTACLE GARAGE | 8 |
| 9 | RECEPTACLE TRASH | 20 A | 1 | | | 1260 VA | 540 VA | 1 | 20 A | RECEPTACLE ELEV LOBBY | 10 |
| 11 | RECEPTACLE FIRE PUMP... | 20 A | 1 | | | | 720 VA | 540 VA | 1 | 20 A | RECEPTACLE STORAGE | 12 |
| 13 | RECEPTACLE ELEVATOR... | 20 A | 1 | 720 VA | 1080 VA | | 1 | 20 A | RECEPTACLE GARAGE -... | 14 |
| 15 | RECEPTACLE MAINTAINENCE | 20 A | 1 | | | 1080 VA | 900 VA | 1 | 20 A | RECEPTACLE GARAGE -... | 16 |
| 17 | RECEPTACLE POOL | 20 A | 1 | | | | 360 VA | 540 VA | 1 | 20 A | RECEPTACLE ELEV LOBBY | 18 |
| 19 | RECEPTACLE GARAGE -... | 20 A | 1 | 900 VA | 540 VA | | 1 | 20 A | RECEPTACLE STORAGE | 20 |
| 21 | RECEPTACLE STORAGE | 20 A | 1 | | 360 VA | 540 VA | 1 | 20 A | RECEPTACLE STORAGE | 22 |
| 23 | RECEPTACLE DOG WASH | 20 A | 1 | | | 720 VA | 180 VA | 1 | 20 A | RECEPTACLE BIKE STORAGE... | 24 |
| 25 | EV CHARGER | 40 A | 2 | 3600 VA | 3600 VA | | 2 | 40 A | EV CHARGER | 26 |
| 27 | -- | -- | -- | | | 3600 VA | 3600 VA | -- | -- | -- | 28 |
| 29 | EV CHARGER | 40 A | 2 | | | | 3600 VA | 3600 VA | 2 | 40 A | EV CHARGER | 30 |
| 31 | -- | -- | -- | 3600 VA | 3600 VA | | | | -- | -- | -- | 32 |
| 33 | | | | | | | | | | | | 34 |
| 35 | TRASH COMPACTOR | 25 A | 3 | | | | 2100 VA | 500 VA | 1 | 20 A | TRASH COMPACTOR... | 36 |
| 37 | -- | -- | -- | 2100 VA | 0 VA | | | | 1 | 20 A | SPARE | 38 |
| 39 | -- | -- | -- | | | 2100 VA | 0 VA | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | **TOTAL LOAD:** | | 23160 VA | 15960 VA | 15020 VA | | | | |
| | | **TOTAL AMPS:** | | 194 A | 134 A | 125 A | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| MOTOR/EQUIPT. | 6800 VA | 70.00% | 4760 VA | **TOTAL CONNECTED...** | 54140 VA |
| RECEPTACLE | 47340 VA | 50.00% | 23670 VA | **TOTAL EST. DEMAND:** | 28430 VA |
| | | | | **TOTAL CONN.:** | 150 A |
| | | | | **TOTAL EST. DEMAND:** | 79 A |

## PANEL BOARD: NL-RP-7E

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ELEC EAST - 7 | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 225 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 225 A | | |
| **FED FROM:** | NL-HP-DP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RECEPTACLE CORRIDOR - 6 | 20 A | 1 | 720 VA | 900 VA | | 1 | 20 A | RECEPTACLE CORRIDOR - 6 | 2 |
| 3 | RECEPTACLE CORRIDOR - 6 | 20 A | 1 | | 900 VA | 900 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 6 | 4 |
| 5 | RECEPTACLE CORRIDOR - 6 | 20 A | 1 | | | 900 VA | 720 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 6 | 6 |
| 7 | RECEPTACLE CORRIDOR - 6 | 20 A | 1 | 720 VA | 360 VA | | 1 | 20 A | RECEPTACLE CORRIDOR - 6 | 8 |
| 9 | RECEPTACLE CORRIDOR - 6 | 20 A | 1 | | 720 VA | 1080 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 6 | 10 |
| 11 | RECEPTACLE CORRIDOR - 7 | 20 A | 1 | | | 720 VA | 900 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 7 | 12 |
| 13 | RECEPTACLE CORRIDOR - 7 | 20 A | 1 | 900 VA | 900 VA | | 1 | 20 A | RECEPTACLE CORRIDOR - 7 | 14 |
| 15 | RECEPTACLE CORRIDOR - 7 | 20 A | 1 | | 720 VA | 720 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 7 | 16 |
| 17 | RECEPTACLE CORRIDOR - 7 | 20 A | 1 | | | 720 VA | 360 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 7 | 18 |
| 19 | RECEPTACLE CORRIDOR - 7 | 20 A | 1 | 720 VA | 1080 VA | | 1 | 20 A | RECEPTACLE CORRIDOR - 7 | 20 |
| 21 | RECEPTACLE ROOF | 20 A | 1 | | 360 VA | 360 VA | 1 | 20 A | RECEPTACLE ROOF | 22 |
| 23 | RECEPTACLE ROOF | 20 A | 1 | | | 540 VA | 540 VA | 1 | 20 A | RECEPTACLE ROOF | 24 |
| 25 | RECEPTACLE ROOF | 20 A | 1 | 360 VA | 360 VA | | 1 | 20 A | RECEPTACLE ROOF | 26 |
| 27 | RECEPTACLE ROOF | 20 A | 1 | | 540 VA | 360 VA | 2 | 20 A | FCU-D - FLOOR 6 | 28 |
| 29 | FCU-D FLOOR 7 | 20 A | 2 | | | 360 VA | 360 VA | -- | -- | -- | 30 |
| 31 | -- | -- | -- | 360 VA | 0 VA | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | **TOTAL LOAD:** | | 7380 VA | 6660 VA | 6120 VA | | | | |
| | | **TOTAL AMPS:** | | 62 A | 56 A | 51 A | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| MOTOR/EQUIPT. | 1440 VA | 70.00% | 1008 VA | **TOTAL CONNECTED...** | 20160 VA |
| RECEPTACLE | 18720 VA | 50.00% | 9360 VA | **TOTAL EST. DEMAND:** | 10368 VA |
| | | | | **TOTAL CONN.:** | 56 A |
| | | | | **TOTAL EST. DEMAND:** | 29 A |

## PANEL BOARD: NL-RP-3E

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ELEC EAST - 3 | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 225 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 225 A | | |
| **FED FROM:** | NL-HP-DP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RECEPTACLE CORRIDOR - 3 | 20 A | 1 | 1080 VA | 1080 VA | | 1 | 20 A | RECEPTACLE CORRIDOR - 3 | 2 |
| 3 | RECEPTACLE CORRIDOR - 3 | 20 A | 1 | | 720 VA | 900 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 3 | 4 |
| 5 | RECEPTACLE CORRIDOR - 3 | 20 A | 1 | | | 1260 VA | 1080 VA | 1 | 20 A | RECEPTACLE CORRIDOR - 3 | 6 |
| 7 | RECEPTACLE CORRIDOR - 3 | 20 A | 1 | 1080 VA | 1260 VA | | 1 | 20 A | RECEPTACLE CORRIDOR - 3 | 8 |
| 9 | RECEPTACLE TOILET | 20 A | 1 | | 360 VA | 180 VA | 1 | 20 A | REF | 10 |
| 11 | RECEPTACLE COMMUNITY... | 20 A | 1 | | | 1260 VA | 360 VA | 1 | 20 A | RECEPTACLE COMMUNITY... | 12 |
| 13 | RECEPTACLE COMMUNITY... | 20 A | 1 | 360 VA | 900 VA | | 1 | 20 A | RECEPTACLE COMMUNITY... | 14 |
| 15 | RECEPTACLE COMMUNITY... | 20 A | 1 | | 360 VA | 720 VA | 1 | 20 A | RECEPTACLE COMMUNITY... | 16 |
| 17 | ELECTRIC RANGE | 50 A | 2 | | | 4200 VA | 1500 VA | 1 | 20 A | MICROWAVE OVEN | 18 |
| 19 | -- | -- | -- | 4200 VA | 180 VA | | 1 | 20 A | RECEPTACLE EXTERIOR | 20 |
| 21 | RECEPTACLE EXTERIOR | 20 A | 1 | | 180 VA | 180 VA | 1 | 20 A | RECEPTACLE EXTERIOR | 22 |
| 23 | FCU-D - FLOOR 3 | 20 A | 2 | | | 360 VA | 180 VA | 1 | 20 A | RECEPTACLE EXTERIOR | 24 |
| 25 | -- | -- | -- | 360 VA | 1020 VA | | 2 | 15 A | FCU-3.1/FCU-3.2 | 26 |
| 27 | RCP-1 | 15 A | 1 | | 400 VA | 1020 VA | -- | -- | -- | 28 |
| 29 | SAUNA | 40 A | 3 | | | 3267 VA | 3267 VA | 3 | 40 A | SAUNA | 30 |
| 31 | -- | -- | -- | 3267 VA | 3267 VA | | | | -- | -- | -- | 32 |
| 33 | -- | -- | -- | | 3267 VA | 3267 VA | | | -- | -- | -- | 34 |
| 35 | EF-3.1 | 20 A | 1 | | | 400 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | 0 VA | 0 VA | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | **TOTAL LOAD:** | | 18053 VA | 11553 VA | 17133 VA | | | | |
| | | **TOTAL AMPS:** | | 158 A | 96 A | 150 A | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 19600 VA | 100.00% | 19600 VA | **TOTAL CONNECTED...** | 46740 VA |
| MOTOR/EQUIPT. | 3560 VA | 70.00% | 2492 VA | **TOTAL EST. DEMAND:** | 36402 VA |
| RECEPTACLE | 15180 VA | 50.00% | 7590 VA | **TOTAL CONN.:** | 130 A |
| ELECTRIC RANGE | 8400 VA | 80.00% | 6720 VA | **TOTAL EST. DEMAND:** | 101 A |

## PANEL BOARD: NL-RP-1-2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | MAIN ELEC ROOM | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MLO | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 150 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | | | | |
| **FED FROM:** | NL-HP-DP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RECEPTACLE LOUNGE | 20 A | 1 | 540 VA | 720 VA | | 1 | 20 A | RECEPTACLE LOUNGE | 2 |
| 3 | RECEPTACLE OFFICE | 20 A | 1 | | | 900 VA | 900 VA | 1 | 20 A | RECEPTACLE CONFERENCE | 4 |
| 5 | RECEPTACLE LOUNGE/PART... | 20 A | 1 | | | | 720 VA | 360 VA | 1 | 20 A | RECEPTACLE LOUNGE/PART... | 6 |
| 7 | RECEPTACLE LOUNGE/PART... | 20 A | 1 | 1080 VA | 1260 VA | | 1 | 20 A | RECEPTACLE LOUNGE/PART... | 8 |
| 9 | SPARE | 20 A | 1 | | | 0 VA | 720 VA | 1 | 20 A | RECEPTACLE AMENITY SPACE | 10 |
| 11 | RECEPTACLE MEDIA ROOM | 20 A | 1 | | | | 360 VA | 540 VA | 1 | 20 A | RECEPTACLE TOILET/JANITOR | 12 |
| 13 | RECEPTACLE FIRE PLACE... | 20 A | 1 | 180 VA | 360 VA | | 1 | 20 A | RECEPTACLE FIRE PLACE... | 14 |
| 15 | RECEPTACLE FIRE PLACE... | 20 A | 1 | | | 360 VA | 540 VA | 1 | 20 A | RECEPTACLE FIRE PLACE... | 16 |
| 17 | RECEPTACLE WE WORK... | 20 A | 1 | | | | 1080 VA | 180 VA | 1 | 20 A | ELECTRIC WATER COOLERR | 18 |
| 19 | RECEPTACLE WE WORK... | 20 A | 1 | 360 VA | 0 VA | | 1 | 20 A | SPARE | 20 |
| 21 | RECEPTACLE WE WORK... | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | RECEPTACLE MEDIA ROOM | 22 |
| 23 | BSB-2.1, FCU-1.1, 1.2, 1.3, 1.4,... | 20 A | 2 | | | | 1580 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | -- | -- | -- | 1580 VA | 0 VA | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | **TOTAL LOAD:** | | 6080 VA | 4140 VA | 4820 VA | | | | |
| | | **TOTAL AMPS:** | | 52 A | 35 A | 41 A | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| MOTOR/EQUIPT. | 3160 VA | 70.00% | 2212 VA | **TOTAL CONNECTED...** | 15040 VA |
| RECEPTACLE | 11880 VA | 50.00% | 5940 VA | **TOTAL EST. DEMAND:** | 8152 VA |
| | | | | **TOTAL CONN.:** | 42 A |
| | | | | **TOTAL EST. DEMAND:** | 23 A |

REVISION DATE
ISSUE FOR PERMIT 04.15.2021
ISSUE FOR PERMIT 06.30.2021
PERMIT REVISION ...
... ...


db HMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E5.6


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

## PANEL BOARD: NL-LP-5N

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ELEC NORTH - 5 | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 150 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 150 A | | |
| **FED FROM:** | NL-HP-DP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | C | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 2 |
| 3 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 4 |
| 5 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 6 |
| 7 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 8 |
| 9 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 10 |
| 11 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 0 VA | | 0 VA | | 0 VA | | | | | |
| | | | **TOTAL AMPS:** | 0 A | | 0 A | | 0 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| | | | | **TOTAL CONNECTED...** | 0 VA |
| | | | | **TOTAL EST. DEMAND:** | 0 VA |
| | | | | **TOTAL CONN.:** | 0 A |
| | | | | **TOTAL EST. DEMAND:** | 0 A |

## PANEL BOARD: NL-LP-1

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | MAIN ELEC ROOM | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MLO | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 150 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | | | |
| **FED FROM:** | NL-HP-DP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | C | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 2 |
| 3 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 4 |
| 5 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 6 |
| 7 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 8 |
| 9 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 10 |
| 11 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 0 VA | | 0 VA | | 0 VA | | | | | |
| | | | **TOTAL AMPS:** | 0 A | | 0 A | | 0 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| | | | | **TOTAL CONNECTED...** | 0 VA |
| | | | | **TOTAL EST. DEMAND:** | 0 VA |
| | | | | **TOTAL CONN.:** | 0 A |
| | | | | **TOTAL EST. DEMAND:** | 0 A |

## PANEL BOARD: NL-LP-7N

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ELEC NORTH - 7 | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 150 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 150 A | | |
| **FED FROM:** | NL-HP-DP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | C | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 2 |
| 3 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 4 |
| 5 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 6 |
| 7 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 8 |
| 9 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 10 |
| 11 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 0 VA | | 0 VA | | 0 VA | | | | | |
| | | | **TOTAL AMPS:** | 0 A | | 0 A | | 0 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| | | | | **TOTAL CONNECTED...** | 0 VA |
| | | | | **TOTAL EST. DEMAND:** | 0 VA |
| | | | | **TOTAL CONN.:** | 0 A |
| | | | | **TOTAL EST. DEMAND:** | 0 A |

## PANEL BOARD: NL-LP-3N

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ELEC NORTH - 3 | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 150 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 150 A | | |
| **FED FROM:** | NL-HP-DP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | C | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 2 |
| 3 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 4 |
| 5 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 6 |
| 7 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 8 |
| 9 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 10 |
| 11 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 0 VA | | 0 VA | | 0 VA | | | | | |
| | | | **TOTAL AMPS:** | 0 A | | 0 A | | 0 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| | | | | **TOTAL CONNECTED...** | 0 VA |
| | | | | **TOTAL EST. DEMAND:** | 0 VA |
| | | | | **TOTAL CONN.:** | 0 A |
| | | | | **TOTAL EST. DEMAND:** | 0 A |

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.30.2021
PERMIT REVISION 06.30.2021
PERMIT REVISION ...

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E5.7

JONES & JONES ASSOCIATES / ARCHITECTS PC

## PANEL BOARD: UNIT LOAD CENTER (STUDIO)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | STUDIO UNIT | **VOLTS:** | 120/208 Single | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | RECECSSED | **PHASES:** | 1 | **MAINS...** | 125 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 3 | **MCB RATING:** | 125 A | | |
| **FED FROM:** | RMB-3N | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REF | 20 A | 1 | 180 VA | 4200 VA | | | 2 | 50 A | ELECTRIC RANGE | 2 |
| 3 | KITCHEN RECEPTACLES | 20 A | 1 | | | 720 VA | 4200 VA | -- | -- | -- | 4 |
| 5 | MICROWAVE OVEN | 20 A | 1 | 1500 VA | 1080 VA | | | 1 | 20 A | LIVING ROOM RECEPTACLES | 6 |
| 7 | DISHWASHER | 20 A | 1 | | | 1100 VA | 1000 VA | 1 | 20 A | CLOTHES WASHER | 8 |
| 9 | STRUCTURED MEDIA ENCLOSURE | 20 A | 1 | 180 VA | 180 VA | | | 1 | 20 A | BATHROOM RECEPTACLE | 10 |
| 11 | CLOTHES DRYER (NOTE 1) | 30 A | 2 | | | 2700 VA | 540 VA | 1 | 20 A | BEDROOM RECEPTACLE | 12 |
| 13 | -- | -- | -- | 2700 VA | 510 VA | | | 2 | 15 A | FCU | 14 |
| 15 | BALCONY RECEPTACLE | 20 A | 1 | | | 180 VA | 510 VA | -- | -- | -- | 16 |
| 17 | EWH-1 | 30 A | 2 | 2250 VA | 500 VA | | | 1 | 20 A | LIGHTING | 18 |
| 19 | -- | -- | -- | | | 2250 VA | 1200 VA | 1 | 20 A | GARABGE DISPOSAL | 20 |
| 21 | RECEPTACLE LIVING SPACE M M02 | 20 A | 1 | 180 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPACE | -- | -- | 0 VA | 0 VA | | | -- | -- | SPACE | 26 |
| 27 | SPACE | -- | -- | | | 0 VA | 0 VA | -- | -- | SPACE | 28 |
| 29 | SPACE | -- | -- | 0 VA | 0 VA | | | -- | -- | SPACE | 30 |
| 31 | SPACE | -- | -- | | | 0 VA | 0 VA | -- | -- | SPACE | 32 |
| | | | **TOTAL LOAD:** | 13460 VA | | 14400 VA | | | | | |
| | | | **TOTAL AMPS:** | 129 A | | 137 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED LOAD | DEMAND FACTOR | ESTIMATED DEMAND | PANEL TOTALS | |
|---|---|---|---|---|---|
| LIGHTING | 500 VA | 100.00% | 500 VA | **TOTAL CONNECTED LOAD:** | 27860 VA |
| MOTOR/EQUIPT. | 5520 VA | 70.00% | 3864 VA | **TOTAL EST. DEMAND:** | 20504 VA |
| RECEPTACLE | 8040 VA | 50.00% | 4020 VA | **TOTAL CONN.:** | 134 A |
| ELECTRIC RANGE | 8400 VA | 80.00% | 6720 VA | **TOTAL EST. DEMAND:** | 99 A |
| ELECTRIC DRYER | 5400 VA | 100.00% | 5400 VA | | |

NOTE 1: PROVIDE GFI PROTECTED CIRCUIT BREAKER

## PANEL BOARD: UNIT LOAD CENTER (1BR)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | 1 BR UNIT | **VOLTS:** | 120/208 Single | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | RECESSED | **PHASES:** | 1 | **MAINS...** | 125 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 3 | **MCB RATING:** | 125 A | | |
| **FED FROM:** | RMB-3N | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REF | 20 A | 1 | 180 VA | 4200 VA | | | 2 | 50 A | ELECTRIC RANGE | 2 |
| 3 | KITCHEN RECEPTACLES | 20 A | 1 | | | 720 VA | 4200 VA | -- | -- | -- | 4 |
| 5 | MICROWAVE OVEN | 20 A | 1 | 1500 VA | 1080 VA | | | 1 | 20 A | LIVING ROOM RECEPTACLES | 6 |
| 7 | DISHWASHER | 20 A | 1 | | | 1100 VA | 1000 VA | 1 | 20 A | CLOTHES WASHER | 8 |
| 9 | STRUCTURED MEDIA ENCLOSURE | 20 A | 1 | 180 VA | 180 VA | | | 1 | 20 A | BATHROOM RECEPTACLE | 10 |
| 11 | CLOTHES DRYER (NOTE 1) | 30 A | 2 | | | 2700 VA | 720 VA | 1 | 20 A | BEDROOM RECEPTACLE | 12 |
| 13 | -- | -- | -- | 2700 VA | 510 VA | | | 2 | 15 A | FCU | 14 |
| 15 | BALCONY RECEPTACLE | 20 A | 1 | | | 180 VA | 510 VA | -- | -- | -- | 16 |
| 17 | EWH-1 | 30 A | 2 | 2250 VA | 500 VA | | | 1 | 20 A | LIGHTING | 18 |
| 19 | -- | -- | -- | | | 2250 VA | 1200 VA | 1 | 20 A | GARABGE DISPOSAL | 20 |
| 21 | FCU RECEPTACLE | 20 A | 1 | 180 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPACE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPACE | -- | -- | 0 VA | 0 VA | | | -- | -- | SPACE | 26 |
| 27 | SPACE | -- | -- | | | 0 VA | 0 VA | -- | -- | SPACE | 28 |
| 29 | SPACE | -- | -- | 0 VA | 0 VA | | | -- | -- | SPACE | 30 |
| 31 | SPACE | -- | -- | | | 0 VA | 0 VA | -- | -- | SPACE | 32 |
| | | | **TOTAL LOAD:** | 13460 VA | | 14580 VA | | | | | |
| | | | **TOTAL AMPS:** | 129 A | | 139 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED LOAD | DEMAND FACTOR | ESTIMATED DEMAND | PANEL TOTALS | |
|---|---|---|---|---|---|
| LIGHTING | 500 VA | 100.00% | 500 VA | **TOTAL CONNECTED LOAD:** | 28040 VA |
| MOTOR/EQUIPT. | 5520 VA | 70.00% | 3864 VA | **TOTAL EST. DEMAND:** | 20594 VA |
| RECEPTACLE | 8220 VA | 50.00% | 4110 VA | **TOTAL CONN.:** | 135 A |
| ELECTRIC RANGE | 8400 VA | 80.00% | 6720 VA | **TOTAL EST. DEMAND:** | 99 A |
| ELECTRIC DRYER | 5400 VA | 100.00% | 5400 VA | | |

NOTE 1: PROVIDE GFI PROTECTED CIRCUIT BREAKER

## PANEL BOARD: UNIT LOAD CENTER (1BR+OFFICE)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | 1 BR + OFFICE UNIT | **VOLTS:** | 120/208 Single | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | RECESSED | **PHASES:** | 1 | **MAINS...** | 125 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 3 | **MCB RATING:** | 125 A | | |
| **FED FROM:** | RMB-3N | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REF | 20 A | 1 | 180 VA | 4200 VA | | | 2 | 50 A | ELECTRIC RANGE | 2 |
| 3 | KITCHEN RECEPTACLES | 20 A | 1 | | | 720 VA | 4200 VA | -- | -- | -- | 4 |
| 5 | MICROWAVE OVEN | 20 A | 1 | 1500 VA | 1080 VA | | | 1 | 20 A | LIVING ROOM RECEPTACLES | 6 |
| 7 | DISHWASHER | 20 A | 1 | | | 1100 VA | 1000 VA | 1 | 20 A | CLOTHES WASHER | 8 |
| 9 | STRUCTURED MEDIA ENCLOSURE | 20 A | 1 | 180 VA | 180 VA | | | 1 | 20 A | BATHROOM RECEPTACLE | 10 |
| 11 | CLOTHES DRYER (NOTE 1) | 30 A | 2 | | | 2700 VA | 900 VA | 1 | 20 A | BEDROOM RECEPTACLE | 12 |
| 13 | -- | -- | -- | 2700 VA | 180 VA | | | 1 | 20 A | RECEPTACLE | 14 |
| 15 | OFFICE RECEPTACLE | 20 A | 1 | | | 720 VA | 2250 VA | 2 | 30 A | EWH-1 | 16 |
| 17 | FCU | 15 A | 2 | 510 VA | 2250 VA | | | -- | -- | -- | 18 |
| 19 | -- | -- | -- | | | 510 VA | 500 VA | 1 | 20 A | LIGHTING | 20 |
| 21 | GARABGE DISPOSAL | 20 A | 1 | 1200 VA | 180 VA | | | 1 | 20 A | FCU RECEPTACLE | 22 |
| 23 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPACE | -- | -- | 0 VA | 0 VA | | | -- | -- | SPACE | 26 |
| 27 | SPACE | -- | -- | | | 0 VA | 0 VA | -- | -- | SPACE | 28 |
| 29 | SPACE | -- | -- | 0 VA | 0 VA | | | -- | -- | SPACE | 30 |
| 31 | SPACE | -- | -- | | | 0 VA | 0 VA | -- | -- | SPACE | 32 |
| | | | **TOTAL LOAD:** | 14340 VA | | 14600 VA | | | | | |
| | | | **TOTAL AMPS:** | 138 A | | 140 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED LOAD | DEMAND FACTOR | ESTIMATED DEMAND | PANEL TOTALS | |
|---|---|---|---|---|---|
| LIGHTING | 500 VA | 100.00% | 500 VA | **TOTAL CONNECTED LOAD:** | 28940 VA |
| MOTOR/EQUIPT. | 5520 VA | 70.00% | 3864 VA | **TOTAL EST. DEMAND:** | 21044 VA |
| RECEPTACLE | 9120 VA | 50.00% | 4560 VA | **TOTAL CONN.:** | 139 A |
| ELECTRIC RANGE | 8400 VA | 80.00% | 6720 VA | **TOTAL EST. DEMAND:** | 101 A |
| ELECTRIC DRYER | 5400 VA | 100.00% | 5400 VA | | |

NOTE 1: PROVIDE GFI PROTECTED CIRCUIT BREAKER

## PANEL BOARD: UNIT LOAD CENTER (2BR)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | 2 BR UNIT | **VOLTS:** | 120/208 Single | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | RECESSED | **PHASES:** | 1 | **MAINS...** | 125 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 3 | **MCB RATING:** | 125 A | | |
| **FED FROM:** | RMB-3W | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REF | 20 A | 1 | 180 VA | 4200 VA | | | 2 | 50 A | ELECTRIC RANGE | 2 |
| 3 | KITCHEN RECEPTACLES | 20 A | 1 | | | 900 VA | 4200 VA | -- | -- | -- | 4 |
| 5 | MICROWAVE OVEN | 20 A | 1 | 1500 VA | 1260 VA | | | 1 | 20 A | LIVING ROOM RECEPTACLES | 6 |
| 7 | DISHWASHER | 20 A | 1 | | | 1100 VA | 1000 VA | 1 | 20 A | CLOTHES WASHER | 8 |
| 9 | STRUCTURED MEDIA ENCLOSURE | 20 A | 1 | 180 VA | 180 VA | | | 1 | 20 A | BATHROOM RECEPTACLE | 10 |
| 11 | CLOTHES DRYER (NOTE 1) | 30 A | 2 | | | 2700 VA | 720 VA | 1 | 20 A | BEDROOM RECEPTACLE | 12 |
| 13 | -- | -- | -- | 2700 VA | 720 VA | | | 1 | 20 A | BEDROOM RECEPTACLE | 14 |
| 15 | BATHROOM RECEPTACLE | 20 A | 1 | | | 180 VA | 510 VA | 2 | 15 A | FCU | 16 |
| 17 | BALCONY RECEPTACLE | 20 A | 1 | 180 VA | 510 VA | | | -- | -- | -- | 18 |
| 19 | EWH-1 | 30 A | 2 | | | 2250 VA | 750 VA | 1 | 20 A | LIGHTING | 20 |
| 21 | -- | -- | -- | 2250 VA | 1200 VA | | | 1 | 20 A | GARABGE DISPOSAL | 22 |
| 23 | FCU RECEPTACLE | 20 A | 1 | | | 180 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 26 |
| 27 | SPACE | -- | -- | | | 0 VA | 0 VA | -- | -- | SPACE | 28 |
| 29 | SPACE | -- | -- | 0 VA | 0 VA | | | -- | -- | SPACE | 30 |
| 31 | SPACE | -- | -- | | | 0 VA | 0 VA | -- | -- | SPACE | 32 |
| | | | **TOTAL LOAD:** | 15060 VA | | 14490 VA | | | | | |
| | | | **TOTAL AMPS:** | 144 A | | 139 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED LOAD | DEMAND FACTOR | ESTIMATED DEMAND | PANEL TOTALS | |
|---|---|---|---|---|---|
| LIGHTING | 750 VA | 100.00% | 750 VA | **TOTAL CONNECTED LOAD:** | 29550 VA |
| MOTOR/EQUIPT. | 5520 VA | 70.00% | 3864 VA | **TOTAL EST. DEMAND:** | 21474 VA |
| RECEPTACLE | 9480 VA | 50.00% | 4740 VA | **TOTAL CONN.:** | 142 A |
| ELECTRIC RANGE | 8400 VA | 80.00% | 6720 VA | **TOTAL EST. DEMAND:** | 103 A |
| ELECTRIC DRYER | 5400 VA | 100.00% | 5400 VA | | |

NOTE 1: PROVIDE GFI PROTECTED CIRCUIT BREAKER

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 ADDENDUM 04.5.2021
RISER, DPS PERMIT 05.14.2021
PERMIT REVISION 06.30.2021
-- --

db HMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E5.8

JONES & JONES ASSOCIATES / ARCHITECTS PC

## PANEL BOARD: GDP

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | ATS ROOM | **Volts:** | 480/277 Wye | **Mains Type:** | MCB |
| **Supply From:** | EM GENERATOR | **Phases:** | 3 | **Mains Rating:** | 400 A |
| **Mounting:** | SURFACE | **Wires:** | 4 | **MCB Rating:** | 400 A |
| **Enclosure:** | NEMA 1 | | | | |

| CKT | Circuit Description | Trip | Poles | A | B | C |
|---|---|---|---|---|---|---|
| 1,2,3 | ATS-LP | 70 A | 3 | 0 VA | 0 VA | 0 VA |
| 4,5,6 | ATS-MP | 225 A | 3 | 19965 VA | 20444 VA | 22127 VA |
| 7,8,9 | ATS-ELEV | 225 A | 3 | 46533 VA | 46153 VA | 45433 VA |
| 10,11,12 | SURGE PROTECTION DEVICE | 60 A | 3 | 0 VA | 0 VA | 0 VA |
| 13,14,15 | SPARE | 225 A | 3 | 0 VA | 0 VA | 0 VA |
| 16 | SPACE | -- | -- | 0 VA | | |
| 17 | SPACE | -- | -- | | 0 VA | |
| 18 | SPACE | -- | -- | | | 0 VA |
| 19 | SPACE | -- | -- | 0 VA | | |
| 20 | SPACE | -- | -- | | 0 VA | |
| 21 | SPACE | -- | -- | | | 0 VA |
| | | | **Total Load:** | 66463 VA | 66563 VA | 67560 VA |
| | | | **Total Amps:** | 240 A | 240 A | 244 A |

| Load Classification | Connected Load | Demand Factor | Estimated Demand |
|---|---|---|---|
| LIGHTING | 400 VA | 100.00% | 400 VA |
| RECEPTACLE | 720 VA | 50.00% | 360 VA |
| MOTOR/EQUIPT. | 199456 VA | 70.00% | 139619 VA |

| Panel Totals | |
|---|---|
| **Total Conn. Load:** | 200576 VA |
| **Total Est. Demand:** | 140379 VA |
| **Total Conn. Current:** | 241 A |
| **Total Est. Demand...** | 169 A |

## PANEL BOARD: EL-LP-6E

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ELEC EAST - 6 | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 60 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 60 A | | |
| **FED FROM:** | EL-LP-1 | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | NAC - LEVEL 5 | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | NAC - LEVEL 6 | 2 |
| 3 | NAC - LEVEL 7 | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 4 |
| 5 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 6 |
| 7 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 8 |
| 9 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 10 |
| 11 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 0 VA | | 0 VA | | 0 VA | | | | | |
| | | | **TOTAL AMPS:** | 0 A | | 0 A | | 0 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| | | | | **TOTAL CONNECTED...** | 0 VA |
| | | | | **TOTAL EST. DEMAND:** | 0 VA |
| | | | | **TOTAL CONN.:** | 0 A |
| | | | | **TOTAL EST. DEMAND:** | 0 A |

## PANEL BOARD: EL-LP-3E

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ELEC EAST - 3 | **VOLTS:** | 3 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 60 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 60 A | | |
| **FED FROM:** | EL-LP-1 | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | NAC - LEVEL 3 | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | NAC - LEVEL 4 | 2 |
| 3 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 4 |
| 5 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 6 |
| 7 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 8 |
| 9 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 10 |
| 11 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 0 VA | | 0 VA | | 0 VA | | | | | |
| | | | **TOTAL AMPS:** | 0 A | | 0 A | | 0 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| | | | | **TOTAL CONNECTED...** | 0 VA |
| | | | | **TOTAL EST. DEMAND:** | 0 VA |
| | | | | **TOTAL CONN.:** | 0 A |
| | | | | **TOTAL EST. DEMAND:** | 0 A |

## PANEL BOARD: EL-LP-1

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ATS ROOM | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 100 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 100 A | | |
| **FED FROM:** | XFMR-ELP | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EL-LP-3W | 60 A | 3 | 0 VA | 0 VA | | | | 3 | 60 A | EL-LP-3E | 2 |
| 3 | -- | -- | -- | | | 0 VA | 0 VA | | -- | -- | -- | 4 |
| 5 | -- | -- | -- | | | | | 0 VA | 0 VA | -- | -- | -- | 6 |
| 7 | EL-LP-6W | 60 A | 3 | 0 VA | 0 VA | | | | 3 | 60 A | EL-LP-6E | 8 |
| 9 | -- | -- | -- | | | 0 VA | 0 VA | | -- | -- | -- | 10 |
| 11 | -- | -- | -- | | | | | 0 VA | 0 VA | -- | -- | -- | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 0 VA | | 0 VA | | 0 VA | | | | | |
| | | | **TOTAL AMPS:** | 0 A | | 0 A | | 0 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| | | | | **TOTAL CONNECTED...** | 0 VA |
| | | | | **TOTAL EST. DEMAND:** | 0 VA |
| | | | | **TOTAL CONN.:** | 0 A |
| | | | | **TOTAL EST. DEMAND:** | 0 A |

## PANEL BOARD: EL-LP-6W

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ELEC WEST - 6 | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 60 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 60 A | | |
| **FED FROM:** | EL-LP-1 | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 2 |
| 3 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 4 |
| 5 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 6 |
| 7 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 8 |
| 9 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 10 |
| 11 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 0 VA | | 0 VA | | 0 VA | | | | | |
| | | | **TOTAL AMPS:** | 0 A | | 0 A | | 0 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| | | | | **TOTAL CONNECTED...** | 0 VA |
| | | | | **TOTAL EST. DEMAND:** | 0 VA |
| | | | | **TOTAL CONN.:** | 0 A |
| | | | | **TOTAL EST. DEMAND:** | 0 A |

## PANEL BOARD: EL-LP-3W

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **LOCATION:** | ELEC WEST - 3 | **VOLTS:** | 120/208 Wye | **MAINS TYPE:** | MCB | **NEUTRAL BUS:** | STANDARD, CU |
| **MOUNTING TYPE:** | SURFACE | **PHASES:** | 3 | **MAINS RATING:** | 60 A | **GROUND BUS:** | STANDARD, CU |
| **ENCLOSURE:** | NEMA 1 | **WIRES:** | 4 | **MCB RATING:** | 60 A | | |
| **FED FROM:** | EL-LP-1 | **MCB TYPE:** | COPPER | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | B | C | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SPARE | 20 A | 1 | 0 VA | 0 VA | | 1 | 20 A | SPARE | 2 |
| 3 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 4 |
| 5 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 6 |
| 7 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 8 |
| 9 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 10 |
| 11 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 0 VA | | 0 VA | | 0 VA | | | | | |
| | | | **TOTAL AMPS:** | 0 A | | 0 A | | 0 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| | | | | **TOTAL CONNECTED...** | 0 VA |
| | | | | **TOTAL EST. DEMAND:** | 0 VA |
| | | | | **TOTAL CONN.:** | 0 A |
| | | | | **TOTAL EST. DEMAND:** | 0 A |

REVISION DATE
ISSUE FOR PERMIT 04.06.2021
PERMIT REVISION 06.30.2021
1 -
2 -

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E5.9

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DRAWINGS AND DESIGNS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS AND LANDSCAPE ARCHITECTS AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY PROJECT OTHER THAN THE ONE FOR WHICH THEY ARE SPECIFICALLY PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECTS.

## PANEL BOARD: NL-RT-1

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LOCATION:** | RETAIL 5 | | **VOLTS:** | 120/208 Wye | | **MAINS TYPE:** | MCB | | **NEUTRAL BUS:** | STANDARD, CU | | |
| **MOUNTING TYPE:** | SURFACE | | **PHASES:** | 3 | | **MAINS RATING:** | 225 A | | **GROUND BUS:** | STANDARD, CU | | |
| **ENCLOSURE:** | NEMA 1 | | **WIRES:** | 4 | | **MCB RATING:** | 225 A | | | | | |
| **FED FROM:** | RETAIL... | | **MCB TYPE:** | COPPER | | | | | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | C | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EUH-1.6 | 20 A | 2 | 1250 VA | 0 VA | | | | | 1 | 20 A | SPARE | 2 |
| 3 | -- | -- | -- | | | 1250 VA | 0 VA | | | 1 | 20 A | SPARE | 4 |
| 5 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 6 |
| 7 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 8 |
| 9 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 10 |
| 11 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 1250 VA | | 1250 VA | | 0 VA | | | | | |
| | | | **TOTAL AMPS:** | 12 A | | 12 A | | 0 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 2500 VA | 100.00% | 2500 VA | **TOTAL CONNECTED...** | 2500 VA |
| | | | | **TOTAL EST. DEMAND:** | 2500 VA |
| | | | | **TOTAL CONN.:** | 7 A |
| | | | | **TOTAL EST. DEMAND:** | 7 A |

## PANEL BOARD: EH-MP-1

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LOCATION:** | ATS ROOM | | **VOLTS:** | 480/277 Wye | | **MAINS TYPE:** | MCB | | **NEUTRAL BUS:** | STANDARD, CU | | |
| **MOUNTING TYPE:** | SURFACE | | **PHASES:** | 3 | | **MAINS RATING:** | 225 A | | **GROUND BUS:** | STANDARD, CU | | |
| **ENCLOSURE:** | NEMA 1 | | **WIRES:** | 4 | | **MCB RATING:** | 225 A | | | | | |
| **FED FROM:** | ATS-MP | | **MCB TYPE:** | COPPER | | | | | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | C | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BP-1 | 45 A | 3 | 7473 VA | 2103 VA | | | | | 3 | 15 A | SPF-8.4 | 2 |
| 3 | -- | -- | -- | | | 7473 VA | 2103 VA | | | -- | -- | -- | 4 |
| 5 | -- | -- | -- | | | | | 7473 VA | 2103 VA | -- | -- | -- | 6 |
| 7 | SPF-8.1 | 15 A | 3 | 2103 VA | 2103 VA | | | | | 3 | 15 A | SPF-8.2 | 8 |
| 9 | -- | -- | -- | | | 2103 VA | 2103 VA | | | -- | -- | -- | 10 |
| 11 | -- | -- | -- | | | | | 2103 VA | 2103 VA | -- | -- | -- | 12 |
| 13 | SPF-8.3 | 15 A | 3 | 2103 VA | 0 VA | | | | | 3 | 20 A | SPARE | 14 |
| 15 | -- | -- | -- | | | 2103 VA | 0 VA | | | -- | -- | -- | 16 |
| 17 | -- | -- | -- | | | | | 2103 VA | 0 VA | -- | -- | -- | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 26 |
| 27 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 28 |
| 29 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 30 |
| 31 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 32 |
| 33 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 34 |
| 35 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 36 |
| 37 | SPACE | -- | -- | 0 VA | 4270 VA | | | | | 3 | 50 A | XFMR-EMP | 38 |
| 39 | SPACE | -- | -- | | | 0 VA | 4725 VA | | | -- | -- | -- | 40 |
| 41 | SPACE | -- | -- | | | | | 0 VA | 6240 VA | -- | -- | -- | 42 |
| | | | **TOTAL LOAD:** | 19965 VA | | 20444 VA | | 22127 VA | | | | | |
| | | | **TOTAL AMPS:** | 72 A | | 74 A | | 80 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| MOTOR/EQUIPT. | 62500 VA | 70.00% | 43750 VA | **TOTAL CONNECTED...** | 62500 VA |
| | | | | **TOTAL EST. DEMAND:** | 43750 VA |
| | | | | **TOTAL CONN.:** | 75 A |
| | | | | **TOTAL EST. DEMAND:** | 53 A |

## PANEL BOARD: EH-ELEV

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LOCATION:** | ATS ROOM | | **VOLTS:** | 480/277 Wye | | **MAINS TYPE:** | MCB | | **NEUTRAL BUS:** | STANDARD, CU | | |
| **MOUNTING TYPE:** | SURFACE | | **PHASES:** | 3 | | **MAINS RATING:** | 225 A | | **GROUND BUS:** | STANDARD, CU | | |
| **ENCLOSURE:** | NEMA 1 | | **WIRES:** | 4 | | **MCB RATING:** | 225 A | | | | | |
| **FED FROM:** | ATS-ELEV | | **MCB TYPE:** | COPPER | | | | | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | C | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ELEV-1 | 80 A | 3 | 11083... | 11083... | | | | | 3 | 80 A | ELEV-2 | 2 |
| 3 | -- | -- | -- | | | 11083... | 11083... | | | -- | -- | -- | 4 |
| 5 | -- | -- | -- | | | | | 11083... | 11083... | -- | -- | -- | 6 |
| 7 | ELEV-3 | 80 A | 3 | 11083... | 11083... | | | | | 3 | 80 A | ELEV-4 | 8 |
| 9 | -- | -- | -- | | | 11083... | 11083... | | | -- | -- | -- | 10 |
| 11 | -- | -- | -- | | | | | 11083... | 11083... | -- | -- | -- | 12 |
| 13 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 14 |
| 15 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 16 |
| 17 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 18 |
| 19 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 20 |
| 21 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 22 |
| 23 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 24 |
| 25 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 26 |
| 27 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 28 |
| 29 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 30 |
| 31 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 32 |
| 33 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 34 |
| 35 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 36 |
| 37 | SPACE | -- | -- | 0 VA | 2200 VA | | | | | 3 | 25 A | XFMR-ELEV | 38 |
| 39 | SPACE | -- | -- | | | 0 VA | 1820 VA | | | -- | -- | -- | 40 |
| 41 | SPACE | -- | -- | | | | | 0 VA | 1100 VA | -- | -- | -- | 42 |
| | | | **TOTAL LOAD:** | 46533 VA | | 46153 VA | | 45433 VA | | | | | |
| | | | **TOTAL AMPS:** | 168 A | | 167 A | | 164 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| LIGHTING | 400 VA | 100.00% | 400 VA | **TOTAL CONNECTED...** | 138120 VA |
| MOTOR/EQUIPT. | 137000 VA | 70.00% | 95900 VA | **TOTAL EST. DEMAND:** | 96660 VA |
| RECEPTACLE | 720 VA | 50.00% | 360 VA | **TOTAL CONN.:** | 166 A |
| | | | | **TOTAL EST. DEMAND:** | 116 A |

## PANEL BOARD: NL-RT-2

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LOCATION:** | RESTAURANT | | **VOLTS:** | 120/208 Wye | | **MAINS TYPE:** | MCB | | **NEUTRAL BUS:** | STANDARD, CU | | |
| **MOUNTING TYPE:** | SURFACE | | **PHASES:** | 3 | | **MAINS RATING:** | 400 A | | **GROUND BUS:** | STANDARD, CU | | |
| **ENCLOSURE:** | NEMA 1 | | **WIRES:** | 4 | | **MCB RATING:** | 400 A | | | | | |
| **FED FROM:** | RETAIL... | | **MCB TYPE:** | COPPER | | | | | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | C | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EUH-1.7 | 20 A | 2 | 1250 VA | 1250 VA | | | | | 2 | 20 A | EUH-1.8 | 2 |
| 3 | -- | -- | -- | | | 1250 VA | 1250 VA | | | -- | -- | -- | 4 |
| 5 | EUH-1.9 | 20 A | 2 | | | | | 1250 VA | 1500 VA | 2 | 25 A | CUH-2.3 | 6 |
| 7 | -- | -- | -- | 1250 VA | 1500 VA | | | | | -- | -- | -- | 8 |
| 9 | EUH-2.X | 20 A | 2 | | | 1250 VA | 0 VA | | | 1 | 20 A | SPARE | 10 |
| 11 | -- | -- | -- | | | | | 1250 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 30 |
| 31 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 32 |
| 33 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 34 |
| 35 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 36 |
| 37 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 38 |
| 39 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 40 |
| 41 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 42 |
| | | | **TOTAL LOAD:** | 5250 VA | | 3750 VA | | 4000 VA | | | | | |
| | | | **TOTAL AMPS:** | 44 A | | 31 A | | 34 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| ELECTRICAL HEATING | 13000 VA | 100.00% | 13000 VA | **TOTAL CONNECTED...** | 13000 VA |
| | | | | **TOTAL EST. DEMAND:** | 13000 VA |
| | | | | **TOTAL CONN.:** | 36 A |
| | | | | **TOTAL EST. DEMAND:** | 36 A |

## PANEL BOARD: EL-MP-1

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LOCATION:** | ATS ROOM | | **VOLTS:** | 120/208 Wye | | **MAINS TYPE:** | MCB | | **NEUTRAL BUS:** | STANDARD, CU | | |
| **MOUNTING TYPE:** | SURFACE | | **PHASES:** | 3 | | **MAINS RATING:** | 100 A | | **GROUND BUS:** | STANDARD, CU | | |
| **ENCLOSURE:** | NEMA 1 | | **WIRES:** | 4 | | **MCB RATING:** | 100 A | | | | | |
| **FED FROM:** | XFMR-EMP | | **MCB TYPE:** | COPPER | | | | | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | C | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FACP | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | ERP | 2 |
| 3 | GARAGE DOOR MOTOR | 20 A | 1 | | | 1200 VA | 1200 VA | | | 1 | 20 A | GARAGE DOOR MOTOR | 4 |
| 5 | GARAGE DOOR MOTOR | 20 A | 1 | | | | | 1200 VA | 1200 VA | 1 | 20 A | GARAGE DOOR MOTOR | 6 |
| 7 | EPP-1 | 15 A | 1 | 1180 VA | 1180 VA | | | | | 1 | 15 A | EPP-2 | 8 |
| 9 | EPP-3 | 15 A | 1 | | | 1180 VA | 1180 VA | | | 1 | 15 A | EPP-4 | 10 |
| 11 | DV-1 | 20 A | 1 | | | | | 1920 VA | 1920 VA | 1 | 20 A | DV-2 | 12 |
| 13 | JP-1 | 20 A | 1 | 1920 VA | 220 VA | | | | | 1 | 15 A | RH-2 | 14 |
| 15 | RH-1 | 15 A | 1 | | | 220 VA | 0 VA | | | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 26 |
| 27 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 28 |
| 29 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 30 |
| 31 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 32 |
| 33 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 34 |
| 35 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 36 |
| 37 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 38 |
| 39 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 40 |
| 41 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 42 |
| | | | **TOTAL LOAD:** | 4270 VA | | 4725 VA | | 6240 VA | | | | | |
| | | | **TOTAL AMPS:** | 36 A | | 40 A | | 53 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| MOTOR/EQUIPT. | 15045 VA | 70.00% | 10531 VA | **TOTAL CONNECTED...** | 15045 VA |
| | | | | **TOTAL EST. DEMAND:** | 10531 VA |
| | | | | **TOTAL CONN.:** | 42 A |
| | | | | **TOTAL EST. DEMAND:** | 29 A |

## PANEL BOARD: EL-ELEV

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LOCATION:** | ATS ROOM | | **VOLTS:** | 120/208 Wye | | **MAINS TYPE:** | MCB | | **NEUTRAL BUS:** | STANDARD, CU | | |
| **MOUNTING TYPE:** | SURFACE | | **PHASES:** | 3 | | **MAINS RATING:** | 60 A | | **GROUND BUS:** | STANDARD, CU | | |
| **ENCLOSURE:** | NEMA 1 | | **WIRES:** | 4 | | **MCB RATING:** | 60 A | | | | | |
| **FED FROM:** | XFMR-ELEV | | **MCB TYPE:** | COPPER | | | | | | | | |

| CCT NO. | Load Name | TRIP | POLES | A | | B | | C | | POLES | TRIP | Load Name | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LIGHTING ELEV | 20 A | 1 | 100 VA | 1000 VA | | | | | 1 | 20 A | HVAC ELEV | 2 |
| 3 | LIGHTING ELEV | 20 A | 1 | | | 100 VA | 1000 VA | | | 1 | 20 A | HVAC ELEV | 4 |
| 5 | LIGHTING ELEV | 20 A | 1 | | | | | 100 VA | 1000 VA | 1 | 20 A | HVAC ELEV | 6 |
| 7 | LIGHTING ELEV | 20 A | 1 | 100 VA | 1000 VA | | | | | 1 | 20 A | HVAC ELEV | 8 |
| 9 | RECEPTACLE ELEV. | 20 A | 1 | | | 360 VA | 360 VA | | | 1 | 20 A | RECEPTACLE ELEVATOR PIT | 10 |
| 11 | SPARE | 20 A | 1 | | | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | | | 1 | 20 A | SPARE | 14 |
| 15 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 16 |
| 17 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 18 |
| 19 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 20 |
| 21 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 22 |
| 23 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 24 |
| 25 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 26 |
| 27 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 28 |
| 29 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 30 |
| 31 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 32 |
| 33 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 34 |
| 35 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 36 |
| 37 | SPACE | -- | -- | 0 VA | 0 VA | | | | | -- | -- | SPACE | 38 |
| 39 | SPACE | -- | -- | | | 0 VA | 0 VA | | | -- | -- | SPACE | 40 |
| 41 | SPACE | -- | -- | | | | | 0 VA | 0 VA | -- | -- | SPACE | 42 |
| | | | **TOTAL LOAD:** | 2200 VA | | 1820 VA | | 1100 VA | | | | | |
| | | | **TOTAL AMPS:** | 19 A | | 16 A | | 9 A | | | | | |

| LOAD CLASSIFICATIONS: | CONNECTED... | DEMAND FACTOR | ESTIMATED... | PANEL TOTALS | |
|---|---|---|---|---|---|
| LIGHTING | 400 VA | 100.00% | 400 VA | **TOTAL CONNECTED...** | 5120 VA |
| MOTOR/EQUIPT. | 4000 VA | 70.00% | 2800 VA | **TOTAL EST. DEMAND:** | 3560 VA |
| RECEPTACLE | 720 VA | 50.00% | 360 VA | **TOTAL CONN.:** | 14 A |
| | | | | **TOTAL EST. DEMAND:** | 10 A |

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.15.2021
PERMIT REVISION 06.30.2021

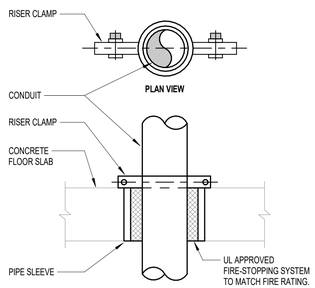
db HMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

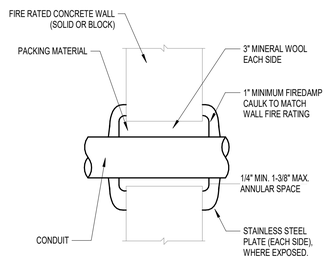
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E5.10

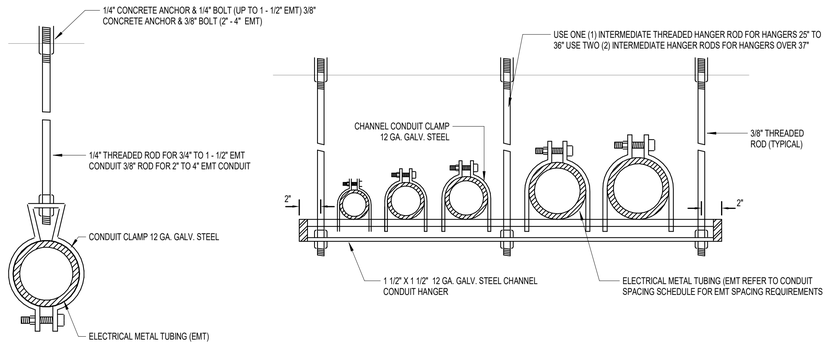
JONES & JONES ASSOCIATES / ARCHITECTS PC



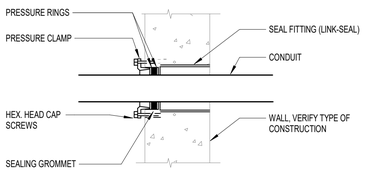

3 CONDUIT INTERIOR FLOOR PENETRATION
NTS



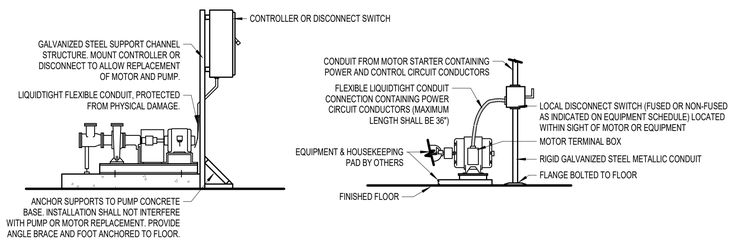

2 CONDUIT INTERIOR CONCRETE WALL PENETRATION
NTS



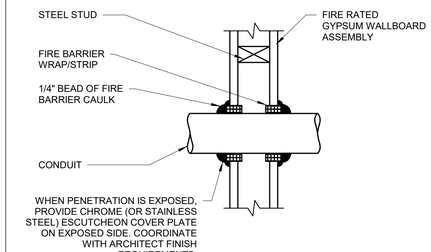

1 TYPICAL SINGLE & MULTIPLE SINGLE ROW CONDUIT HANGER
NTS



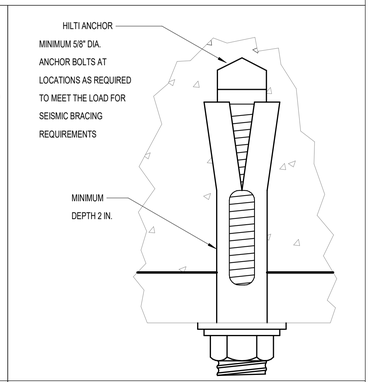

7 FOUNDATION CONDUIT PENETRATION
NTS



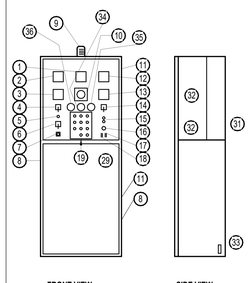

6 PUMP MOTOR CONNECTION DETAILS1
NTS




5 CONDUIT INTERIOR GYP BOARD FIRE RATED WALL PENETRATION
NTS




4 CONCRETE INSERT
NTS




**GENERAL NOTES**

1. FREQUENCY METER
2. A.C. VOLT METER 0-600V
3. ELAPSED TIME INDICATOR
4. VOLT METER SELECTOR SWITCH L-L, 30 L-N, 30
5. AMBER LIGHT-FLASHING WHEN SELECTOR SWITCH IS IN MANUAL POSITION
6. MODE SELECTOR SWITCH MANUAL -OFF-AUTOMATIC
7. VOLTAGE LEVEL RHEOSTAT
8. REMOVABLE SIDE PANELS
9. AUDIBLE ALARM - SEE SPECS
10. K.W. METER
11. PIANO HINGE
12. A.C. AMMETER
13. TACHOMETER 0-2500 RPM
14. AMMETER SELECTOR SWITCH
15. MANUAL START-STOP PUSH BUTTONS
16. EMERGENCY STOP-MUSH HEAD
17. TEST SWITCH
18. SILENCING SWITCH
19. ENGINE OVER CRANK
20. PRE-ALARM HIGH COOLANT TEMP
21. HIGH COOLANT TEMP.
22. PRE-ALARM-LOW LUBE OIL PRESSURE
23. LOW LUBE OIL PRESSURE
24. LOW COOLANT TEMP.
25. ENGINE OVER SPEED
26. LOW LEVEL DAY TANK
27. LOW LEVEL MAIN TANK
28. LOW COOLANT LEVEL-AT REST
29. GREEN LIGHT-FLASHING WHEN GENERATOR BREAKER IS IN THE TRIPPED OR OPEN POSITION
31. FIXED REAR PANEL
32. STEEL BARRIER
33. GROUND BUS
34. COOLANT TEMPERATURE GAUGE
35. LUBE OIL PRESSURE GAUGE
36. FUEL PRESSURE GAUGE

11 GENERATOR CONTROL PANEL
NTS

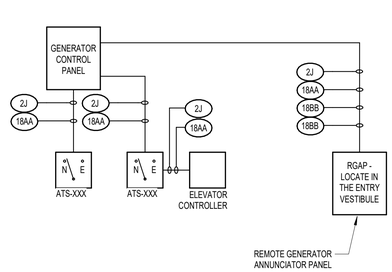



**TABLE-AA CLASS 1 CONTROL**

| SYS TAG | SOLID Cu THHN - THWN | COND SIZE |
|---|---|---|
| 18AA | 18 #12 | 1" |

**TABLE-BB COMM & CLASS 2-3 CONTROL**

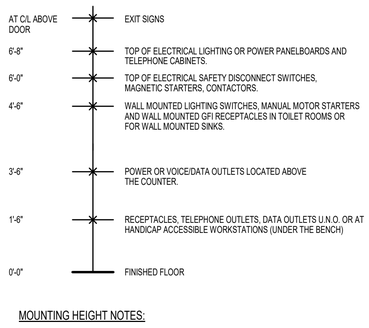
| SYS TAG | SOLID Cu CMP - MPP AWG | COND SIZE |
|---|---|---|
| 18BB | 6C #16 STP CABLE | 3/4" |

**EMPTY CONDUIT**

**TABLE-J**

| TAG | SETS | SIZE |
|---|---|---|
| 1J | 1 | 3/4" |
| 2J | 1 | 1" |

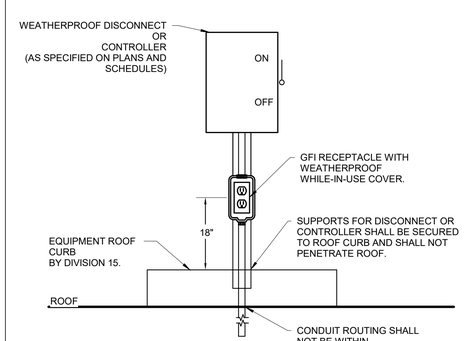
10 GENERATOR TO ATS CONTROL WIRING
NTS




MOUNTING HEIGHT NOTES:

1. MOUNTING HEIGHT IS INDICATED TO CENTER OF OUTLETS UNLESS OTHERWISE NOTED.
2. COORDINATE WITH OWNER, ARCHITECTURAL DETAILS AND CASEWORK DRAWINGS EXACT MOUNTING HEIGHTS AND LOCATION OF ALL THE OUTLETS PRIOR TO ROUGH-IN.

9 DEVICE MOUNTING HEIGHT DIAGRAM
NTS




8 ROOFTOP RECEPTACLE MOUNTING DETAIL
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 ADDENDUM 1 04.15.2021
ISSUE FOR PERMIT 04.30.2021
PERMIT REVISION 06.30.2021
1

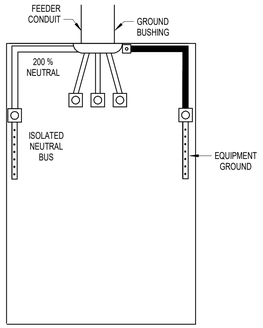
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E6.0

JONES & JONES ASSOCIATES ARCHITECTS PC




**FEEDER WIRE SIZE**

1. 100A = # 2
2. 200A = 3/0
3. 200A = 4/0 (OVER 100')

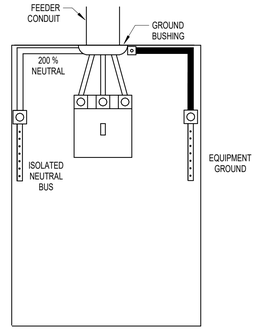
**BRANCH WIRE SIZE**

1. 20A = # 12
2. 20A = # 10 (OVER 100')
3. 30A = # 10
4. 30A = # 8 (OVER 100')

**NOTES:**

1. PER **XXX** SPECIFICATIONS, ALL WIRE WILL HAVE THHN INSULATION.
2. WIRE GAUGE SIZE WILL BE DETERMINED BY THE CITY OF **XXX** CODE.
3. MAXIMUM OF (4) DEVICES PER CIRCUIT.
4. CIRCUITS ARE FOR COMPUTERS, PRINTERS, AND ACTIVE COMPONENTS ONLY.
5. 200% NEUTRALS CAN BE SHARED PER THE CITY OF **XXX** ELECTRICAL CODE FOR CIRCUITS.

3 TYPICAL SUB-PANEL MAIN LUGS ONLY
NTS




**FEEDER WIRE SIZE**

1. 100A = # 2
2. 200A = 3/0
3. 200A = 4/0 (OVER 100')

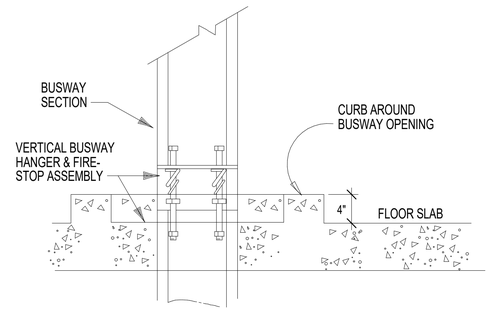
**BRANCH WIRE SIZE**

1. 20A = # 12
2. 20A = # 10 (OVER 100')
3. 30A = # 10
4. 30A = # 8 (OVER 100')

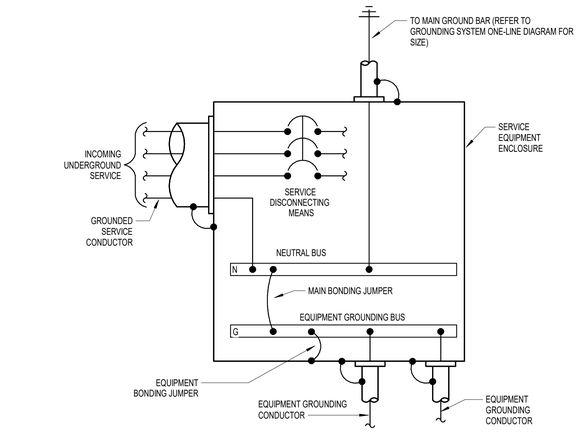
**NOTES:**

1. PER **XXX** SPECIFICATIONS, ALL WIRE WILL HAVE THHN INSULATION.
2. WIRE GAUGE SIZE WILL BE DETERMINED BY THE CITY OF **XXX** CODE.
3. MAXIMUM OF (4) DEVICES PER CIRCUIT.
4. CIRCUITS ARE FOR COMPUTERS, PRINTERS, AND ACTIVE COMPONENTS ONLY.
5. 200% NEUTRALS CAN BE SHARED PER THE CITY OF **XXX** ELECTRICAL CODE FOR CIRCUITS.
6. IT/MDF ROOM SHALL BE PROVIDED WITH A 150A 42-CIRCUIT COMPUTER PANELBOARD.
7. ALL MDF CIRCUITS SHALL HAVE A 200% NEUTRAL PER CIRCUIT.

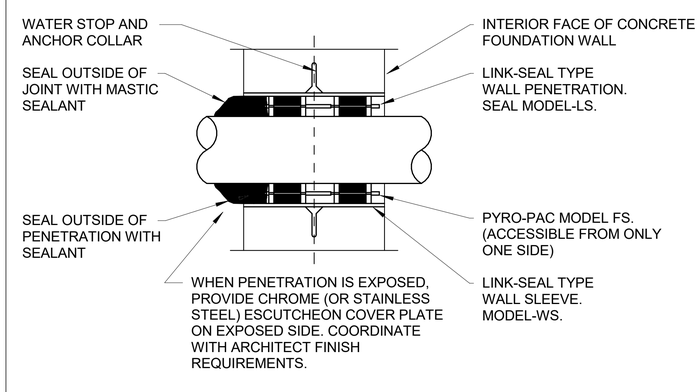
2 TYPICAL SUB-PANEL MAIN CIRCUIT BREAKER
NTS



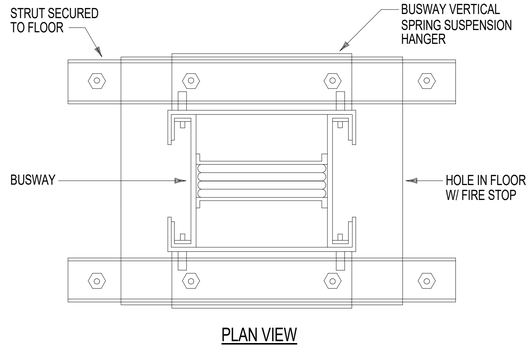

TYPICAL VERTICAL BUSWAY INSTALLATION DETAIL




5 TYPICAL ELECTRICAL SERVICE EQUIPMENT GROUNDING1
NTS

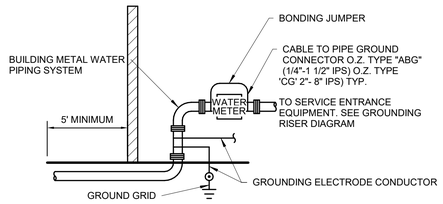



4 CONDUIT EXTERIOR WALL PENETRATION
NTS

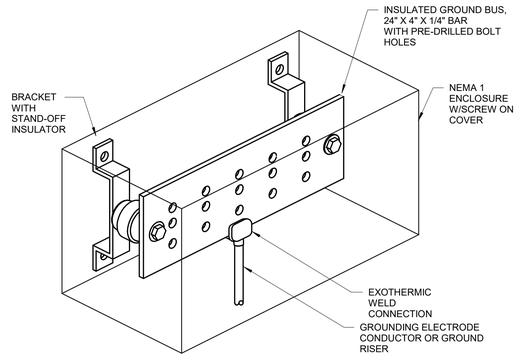



PLAN VIEW

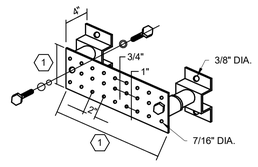
1 BUS DUCT PENETRATION DETAIL
NTS




8 GROUNDING OF METAL WATER PIPING SYSTEM
NTS




7 GROUND BUS DETAIL (MGB)
NTS




SOLID COPPER GROUND BUS-BARS 1/4" THICK FOR WALL AND BACKBOARD MOUNTING. PROVIDES 4" STANDOFF FROM BACKBOARD. KIT CONSISTS OF:

1- EACH BUS-BAR
2- EACH INSULATORS
3- EACH STANDOFF BRACKETS AND ASSEMBLY SCREWS.

KEYED NOTES:

1. REFER TO SPECIFIC DETAILS FOR BUSBAR DIMENSIONS.

6 GROUND BUS BAR KIT - WALL MOUNTED
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION / DATE
ISSUE FOR PERMIT / 04.5.2021
PERMIT REVISION / 05.20.2021
PERMIT REVISION / 06.30.2021

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

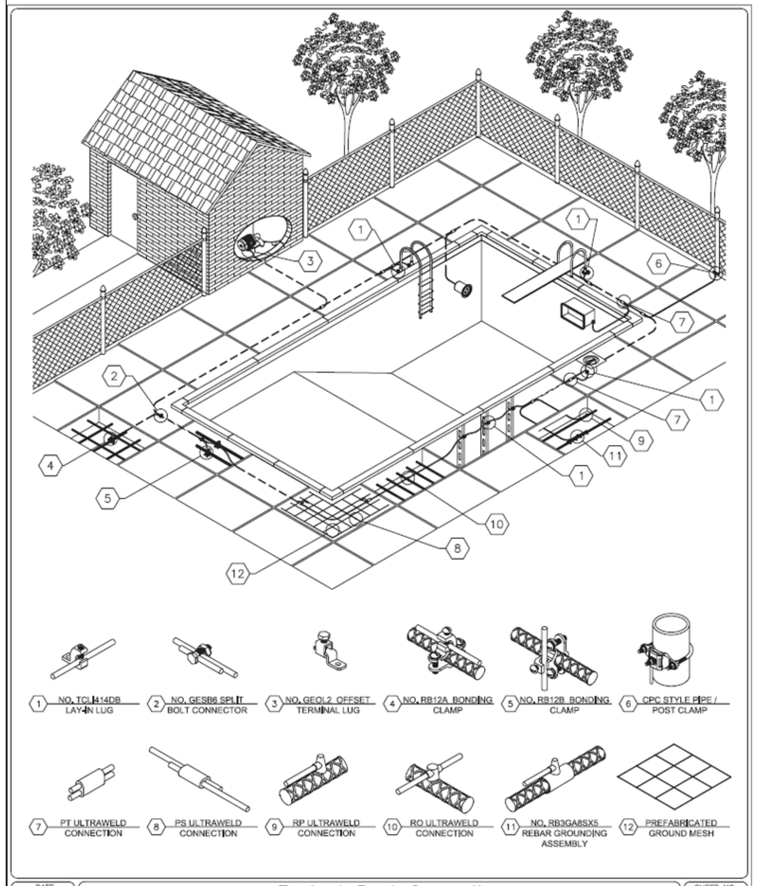
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E6.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

# Typical Pool Grounding Layout




DATE © 2009 | Typical Pool Grounding | SHEET NO. 1 OF 1

EQUIPOTENTIAL BONDING GRID:

PROVIDE BONDING OF ALL PARTS SPECIFIED IN 680.26(B) SHALL BE CONNECTED TO AN EQUIPOTENTIAL BONDING GRID WITH A SOLID COPPER CONDUCTOR, INSULATED, COVERED, OR BARE, NOT SMALLER THAN #8 AWG OR RIGID METAL CONDUIT OF BRASS OR OTHER IDENTIFIED CORROSION-RESISTANT METAL CONDUIT. CONNECTION SHALL BE MADE BY EXOTHERMIC WELDING OR BY LISTED PRESSURE CONNECTORS OR CLAMPS THAT ARE LABELED AS BEING SUITABLE FOR THE PURPOSE AND ARE OF STAINLESS STEEL, BRASS, COPPER, OR COPPER ALLOY. THE EQUIPOTENTIAL BONDING GRID SHALL CONFORM TO THE CONTOURS OF THE POOL AND SHALL EXTEND WITHIN OR UNDER PAVED WALKING SURFACES FOR 1 M (3 FT) HORIZONTALLY BEYOND THE INSIDE WALLS OF THE POOL AND SHALL BE PERMITTED TO BE ANY OF THE FOLLOWING:
EXCEPTION: THE EQUIPOTENTIAL BONDING GRID SHALL NOT BE REQUIRED TO BE INSTALLED UNDER THE BOTTOM OF OR VERTICALLY ALONG THE WALLS OF VINYL LINED POLYMER WALL, FIBERGLASS COMPOSITE, OR OTHER POOLS CONSTRUCTED OF NONCONDUCTIVE MATERIALS. ANY METAL PARTS OF THE POOL, INCLUDING METAL STRUCTURAL SUPPORTS, SHALL BE BONDED IN ACCORDANCE WITH 680.26(B). FOR THE PURPOSES OF THIS SECTION, POURED CONCRETE, PNEUMATICALLY APPLIED (SPRAYED) CONCRETE, AND CONCRETE BLOCK, WITH PAINTED OR PLASTERED COATINGS, SHALL BE CONSIDERED CONDUCTIVE MATERIAL.

STRUCTURAL REINFORCING STEEL:

THE STRUCTURAL REINFORCING STEEL OF A CONCRETE POOL OR DECK WHERE THE REINFORCING RODS ARE BONDED TOGETHER BY THE USUAL STEEL TIE WIRES OR THE EQUIVALENT. WHERE DECK REINFORCING STEEL IS NOT AN INTEGRAL PART OF THE POOL, THE DECK REINFORCING STEEL SHALL BE BONDED TO OTHER PARTS OF THE BONDING GRID USING A MINIMUM #8 AWG SOLID COPPER CONDUCTOR. CONNECTION SHALL BE PER 680.26(D).

EQUIPOTENTIAL BONDING GRID (EBG).

CONDUCTIVE POOL SHELL BONDING. POOLS THAT HAVE A CONDUCTIVE POOL SHELL (CONCRETE OR METAL) ARE REQUIRED TO BE BONDED WITH #8 BARE SOLID COPPER (BSC) WIRE.

PERIMETER SURFACE BONDING. THE PERIMETER SURFACE FROM THE POOL WALL OUT 3 FOOT SHALL BE BONDED. THIS BONDING IS REQUIRED IF PAVED OR UNPAVED. IF PAVED WITH POURED CONCRETE, STEEL IS REQUIRED TO BE EMBEDDED IN THE CONCRETE. IF PAVED WITH STEPPING STONES OR IF UNPAVED, A #8 BARE SOLID COPPER WIRE IS REQUIRED TO BE BURIED AROUND THE POOL 18"- 24" FROM THE POOL WALLS. THIS #8 IS BURIED 4'- 6" DEEP AND CONNECTED TO EQUIPOTENTIAL BONDING GRID. IF A CONCRETE WALKWAY IS BEING INSTALLED, A #8 COPPER SHALL BE RUN CONTINUOUSLY AROUND THE POOL IN THE POUR AND BONDED TO EACH PIECE OF REINFORCING STEEL. 6 X 6 STEEL REINFORCING WIRE MAY BE REQUIRED TO BE INSTALLED. ALL BONDING WIRES ARE CONNECTED TO EQUIPOTENTIAL BONDING GRID.

LISTED CONNECTORS. CONNECTORS FOR THE #8 BSC WIRE ARE REQUIRED TO BE LABELED AS APPROVED FOR DIRECT BURIAL IF BURIED OR IMMERSED IN CONCRETE. THESE ARE STAMPED DB OR DB. BRASS SPLIT BOLT CONNECTORS LABELED DB ARE ACCEPTABLE. WATER BONDING. FOR PERMANENTLY INSTALLED POOLS THE WATER IS BONDED TO THE EBG BY CONNECTING SOMETHING METAL WITH MORE THAN 9 SQUARE INCHES SURFACE AREA IN CONTACT WITH THE WATER VIA A #8 WIRE TO THE EBG. IF NO METAL IS IN THE WATER (LADDER, WET NICHE LIGHT CAN), THIS CAN BE ACCOMPLISHED WITH A BRASS NIPPLE IN THE WATER PIPING SYSTEM AT THE PUMP LOCATION. THIS NIPPLE IS BONDED VIA A WATER PIPE GROUND CLAMP TO THE EQUIPOTENTIAL BONDING GRID.

1 POOL GROUNDING
NTS

REVISION DATE
1 04.5.2021
RISER, CPC DETAILS 04.15.2021
PERMIT SET PERMIT 06.30.2021
PERMIT REVISION —
—

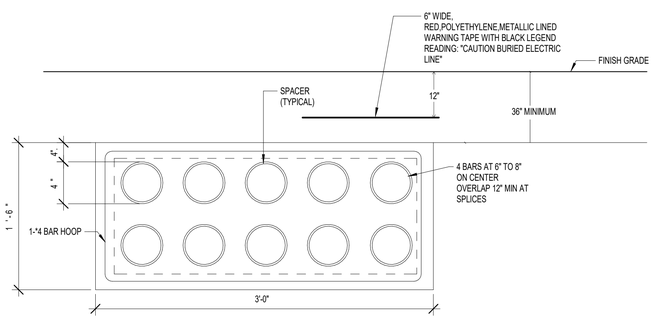
db HMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

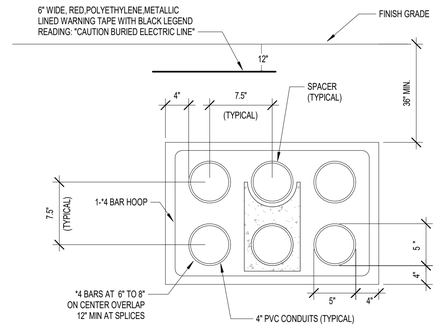
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E6.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

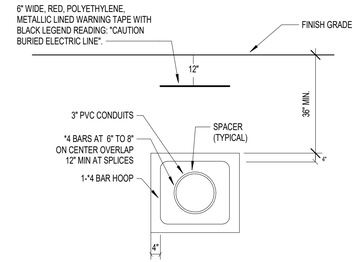



3 SECONDARY ELECTRICAL SERVICE DUCT BANK - 120/208V SERVICE
NTS



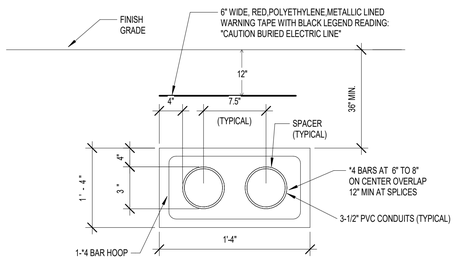

**NOTES:**
CONDUIT SHALL BE PVC SCHEDULE 40 U.O.N.

2 PRIMARY ELECTRICAL SERVICE DUCT BANK - 6 CONDUITS
NTS

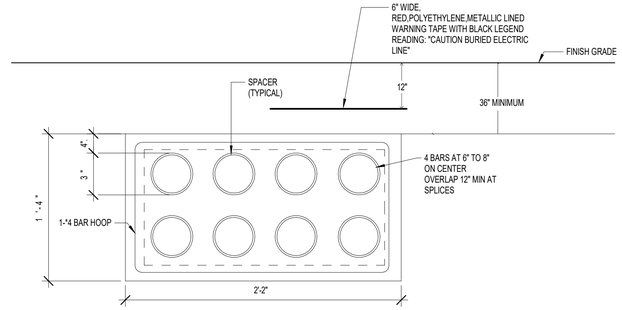



**NOTES:**
CONDUIT SHALL BE PVC SCHEDULE 40 U.O.N.

1 FIRE PUMP DUCTBANK
NTS




5 SECONDARY ELECTRICAL SERVICE DUCT BANK - 4 CONDUITS
NTS




4 SECONDARY ELECTRICAL SERVICE DUCT BANK - 277/480V SERVICE
NTS

REVISION DATE
RISER, DPE PERMIT 04.15.2021
RISER, DPE PERMIT 06.30.2021
PERMIT REVISION 1
PERMIT REVISION 2

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

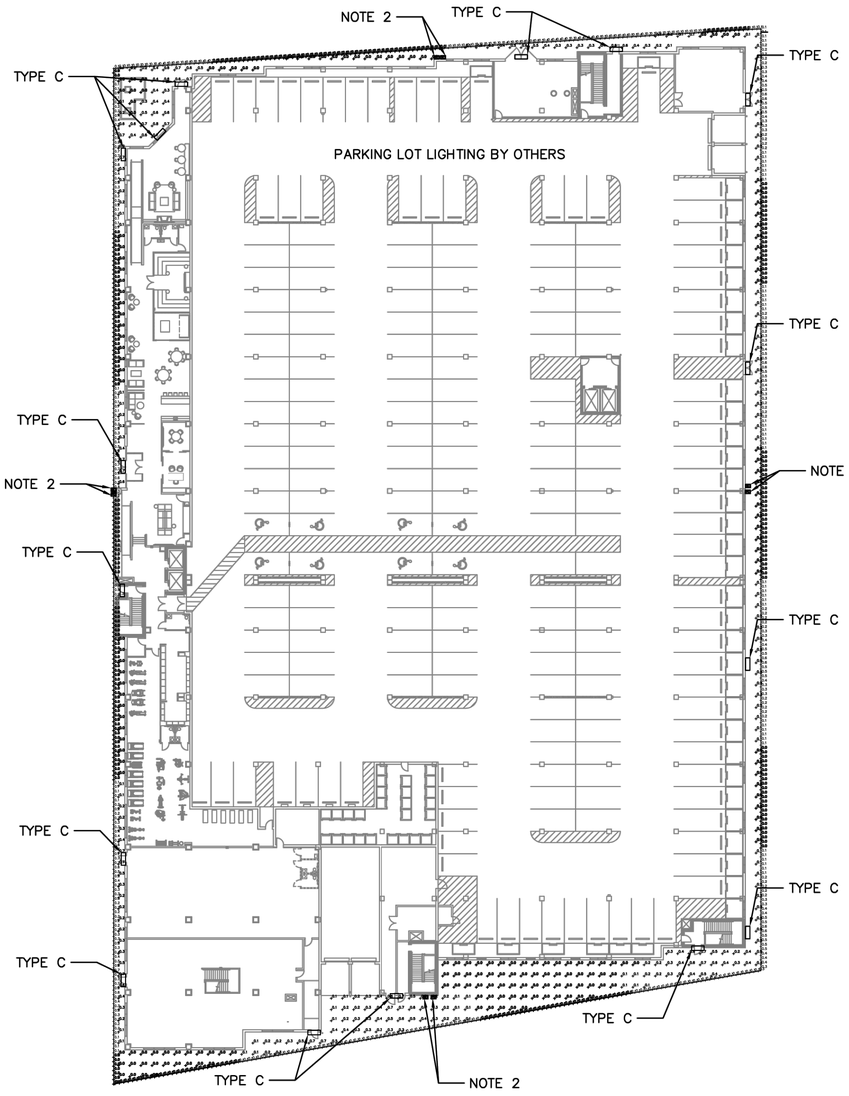
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

E6.3

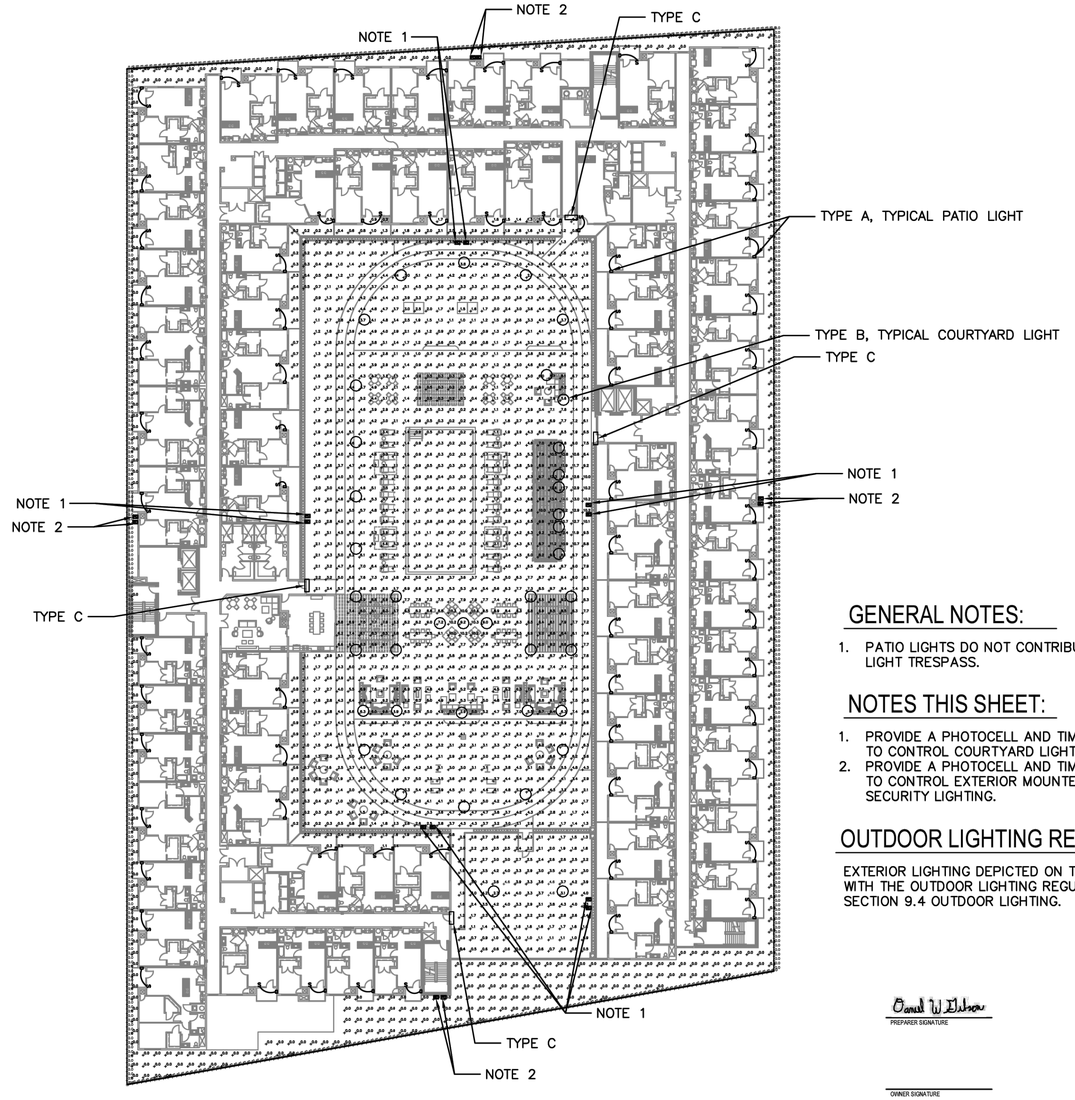
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




## SITE PHOTOMETRICS: FIRST FLOOR

SCALE 1/32" = 1'-0"




## SITE PHOTOMETRICS: THIRD FLOOR

SCALE 1/32" = 1'-0"

## GENERAL NOTES:

1. PATIO LIGHTS DO NOT CONTRIBUTE TO LIGHT TRESPASS.

## NOTES THIS SHEET:

1. PROVIDE A PHOTOCELL AND TIME CLOCK TO CONTROL COURTYARD LIGHTING.
2. PROVIDE A PHOTOCELL AND TIME CLOCK TO CONTROL EXTERIOR MOUNTED SECURITY LIGHTING.

## OUTDOOR LIGHTING REGULATIONS:

EXTERIOR LIGHTING DEPICTED ON THE PLAN COMPLIES WITH THE OUTDOOR LIGHTING REGULATIONS OF SECTION 9.4 OUTDOOR LIGHTING.

Donald W. Elshaw
PREPARER SIGNATURE

OWNER SIGNATURE

## SITE LIGHTING FIXTURE SCHEDULE

| MARK | MANUFACTURER | MODEL NUMBER | INPUT VOLTAGE | LAMPS TYPE | TOTAL WATTS | MT. HEIGHT | LIGHT LOSS FACTOR (LFF) |
|---|---|---|---|---|---|---|---|
| A | LITHONIA | OLLWD LED P1 40K MVOLT | MVOLT | LED | 9 | 8' | .9 |
| B | BEACON PRODUCTS | TRA30-AC-24L-55-3K-UNV-DIR5 | MVOLT | LED | 57 | 8' | .9 |
| C | LITHONIA | DSXW1P1 AMBLW T3M | MVOLT | LED | 10.1 | 9' | .9 |

## STATISTICS TABLE

| LOCATION | MAXIMUM | | MINIMUM | | AVERAGE | | UNIFORMITY RATIO: AVERAGE/ MINIMUM |
|---|---|---|---|---|---|---|---|
| PROPERTY LINE | .9 | fc | 0 | fc | 0.2 | fc | N/A |
| COURTYARD | 14.6 | fc | .1 | fc | 4.1 | fc | 41.0:1 |
| DOG WALK | 4.6 | fc | .4 | fc | 2.4 | fc | 6.0:1 |
| PROPERTY LINE LIGHT FROM BALCONY | 0 | fc | 0 | fc | 0 | fc | N/A |
| SITE LIGHTING UP TO PROPERTY LINE | 1.2 | fc | 0 | fc | .2 | fc | N/A |

REVISION DATE
1 - 6 JUL 2021
2 - 8 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

E7.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

LITHONIA LIGHTING®

| Catalog Number | |
|---|---|
| Notes | |
| Type | |

## FEATURES & SPECIFICATIONS

**INTENDED USE**

Provides years of maintenance-free illumination for outdoor use in residential & commercial applications. Ideal for applications such as lighting walkways and stairways for safety and security.

**CONSTRUCTION**

Cast-aluminum housing with corrosion-resistant paint in either dark bronze or white finish.

ADA compliant.

**OPTICS**

4000K CCT LEDs.

Polycarbonate lens protects the LED from moisture, dirt and other contaminants.

LUMEN MAINTENANCE: The LED will deliver 70% of its initial lumens at 50,000 hour average LED life. See Lighting Facts label on page 2 for performance details.

**ELECTRICAL**

MVOLT driver operates on any line voltage from 120-277V

Operating temperature -30ºC to 40ºC.

1KV surge protection standard.

**INSTALLATION**

Surface mounts to universal junction box (provided by others).

**LISTINGS**

UL Listed to U.S. and Canadian safety standards for wet locations.

Tested in accordance with IESNA LM-79 and LM-80 standards.

**WARRANTY** — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/customer-support/terms-and-conditions

**Note**: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

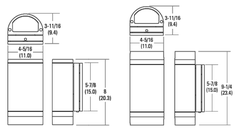
Outdoor General Purpose

# OLLWD & OLLWU

**LED WALL CYLINDER LIGHT**

Specifications

All dimensions are inches (centimeters)




ORDERING INFORMATION — For shortest lead times, configure products using **bolded options.** **Example:** OLLWD LED P1 40K MVOLT DDB

| Series | Performance Package | Color temperature (CCT) | Voltage | Finish |
|---|---|---|---|---|
| **OLLWD LED** Downlight<br>**OLLWU LED** Up & downlight | **P1** | **40K** 4000K | **MVOLT** 120V-277V<br>**120** 120V[1] | **DDB** Dark bronze<br>**WH** White[2] |

**Notes**
1. Only available with OLLWU and in DDB.
2. Only available with OLLWU.



Ⓐ LITHONIA LIGHTING OLLWD LED P1 40K MVOLT MOUNTING HEIGHT — 8'

BEACON
design · performance · technology

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

# Traditional TRA30

30" TRADITIONAL LUMINAIRE

## FEATURES

- Historic four-side lantern, provides modern technology in a traditional and attractive form factor
- Choice of acrylic or polycarbonate lensing
- Available with or without finial for customizable style
- Available in 3000K, 4000K and 5000K

energent

| | Weight lbs. | EPA |
|---|---|---|
| TRA30 | 35 | 2.6 sq. ft. |

## SPECIFICATIONS

**CONSTRUCTION**

- All cast aluminum parts shall be low copper alloy A356. All extruded aluminum parts shall be alloy 6061-T6, 6063-T5 or equal
- The upper chamberfld shall be topped by a decorative cast aluminum finial/cap and mechanically fastened to the optical chamber. The cast multi-sided cage shall accommodate UV stabilized acrylic or polycarbonate lenses (side panels) which shall be sealed for weather tight operation
- The electrical chamberfitter shall be aluminum, decorative fitter designed to accommodate the assembly and shall mount to 3 OD x 3" H tenon and secured by three stainless steel set screws
- All fasteners shall be Corrosion Resistant. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, available at additional cost)
- Finish shall be a Beacote V polyester powdercoat electrostatically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound

**ELECTRICAL**

- Each luminaire is supplied with an optical one piece cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system. Silicone foam gasket ensures a weather-proof seal around each individual LED and allows the luminaire to be rated for high-pressure hose down applications

**ELECTRICAL (CONTINUED)**

- The optical cartridge is secured to the extruded housing with fasteners to ensure thermal conductivity. The optics are held in place without the use of adhesives and the complete assembly is gasketed for high pressure hose down cleaning. The cartridge assembly is available in various lighting distributions using a specially designed acrylic optical lens over each LED
- Shall be able to operate normally in ambient temperatures from -40°C to 40°C
- The on-board surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 20,000 Amps using the industry standard 8/20 µSec wave. The LSP shall have a clamping voltage of 825V and surge rating of 540J. The case shall be a high-temperature, flame resistant plastic enclosure
- Luminaires are equipped with LED driver(s) that accept 90 through 305 VAC, 50 Hz to 60 Hz (UNIV). Power factor is .92 at full load. All driver components supplied are component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher

**CONTROLS**

- Thermal circuit shall protect the luminaire from excessive temperature by interfacing with its 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range in recognition of the effect of reduced current on the internal temperature and longevity of the LEDs and other components.

**CONTROLS (CONTINUED)**

- A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F). The thermal circuit will allow higher maximum Wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure. Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point
- Thermal circuit shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage (NEC Class 2). The device shall be located in an area of the luminaire that is protected from the elements
- Thermal circuit shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers
- Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded

**CERTIFICATIONS**

- U.L. UL1310 Class 2 and UL48 compliant
- The luminaire shall bear an NRTL label and be marked suitable for wet locations

**WARRANTY**

- 5 year warranty


© 2024 Current Lighting Solutions, LLC. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

BEACON
design · performance · technology

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

# Traditional TRA30

30" TRADITIONAL LUMINAIRE

## ORDERING GUIDE

**Example:** TRA30–AC–24L-55–3K7–UNV–PEC–PT–NF–BLT

CATALOG #

| Series | Lens Finish | Engine Watts | CCT | Voltage | Optics |
|---|---|---|---|---|---|
| **TRA30** Traditional 30" | **AC** Acrylic Clear<br>**AF** Acrylic Frosted<br>**AS** Acrylic Seeded<br>**AW** Acrylic White<br>**PC** Polycarbonate Clear<br>**PF** Polycarbonate Frosted<br>**PS** Polycarbonate Seeded<br>**PW** Polycarbonate White | **24L-55** 4800 Lumens<br>**36L-80** 7500 Lumens<br>**48L-110** 10,000 Lumens<br>**60L-136** 12,000 Lumens | **3K7** 3000K, 70 CRI<br>**4K7** 4000K, 70 CRI<br>**5K7** 5000K, 70 CRI | **UNV** 120–277V<br>**347** 347V<br>**480** 480V | **DIR2** Type 2<br>**DIR3** Type 3<br>**DIR4** Type 4<br>**DIR5** Type 5 |

| Electrical Options | Control Options | Mounting Options | Style Option | Color |
|---|---|---|---|---|
| **PEC** Photocell, Button[1] | **GENI-XX** Energent[2] | **PT** Post Top | **(blank)** Finial<br>**NF** No Finial | **BLT** Black Matte Textured<br>**BLS** Black Gloss Smooth<br>**DBT** Dark Bronze Textured<br>**DBS** Dark Bronze Smooth<br>**GTT** Graphite Matte Textured<br>**LGS** Light Grey Gloss Smooth<br>**PSS** Platinum Silver Smooth<br>**WHT** White Matte Textured<br>**WHS** White Gloss Smooth<br>**VGT** Verde Green Textured<br>**Color Option**<br>**CC** Custom Color |

Notes:
1 UNV (120-277V) only
2 Must specify routing setting code. See page 7 for details.


© 2024 Current Lighting Solutions, LLC. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

Ⓑ BEACON PRODUCTS TRA30–AC–24L–55–3K–UNV–DIR5 MOUNTING HEIGHT — 8'

d-series

# D-Series Size 1

LED Wall Luminaire

BAA BABA

| Catalog Number | |
|---|---|
| Notes | |
| Type | |

*Hit the Tab key or mouse over the page to see all interactive elements.*

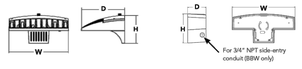
**Specifications**

**Luminaire**

**Width:** 13-3/4" (34.9 cm) **Weight:** 12 lbs (5.4 kg)
**Depth:** 10" (25.4 cm)
**Height:** 6-3/8" (16.2 cm)

**Back Box (BBW, E20WC)**

**Width:** 13-3/4" (34.9 cm) **BBW Weight:** 5 lbs (2.3 kg)
**Depth:** 4" (10.2 cm) **E20WC Weight:** 10 lbs (4.5 kg)
**Height:** 6-3/8" (16.2 cm)




## Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and significant energy savings, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

## Ordering Information

**EXAMPLE:** DSXW1 LED P2 40K 70CRI T3M MVOLT SRM DDBTXD

**DSXW1 LED**

| Series | Lumen Package | CCT | CRI | Distribution | Voltage | Mounting | Control Options |
|---|---|---|---|---|---|---|---|
| DSXW1 LED | **P1** 2000 Lumens<br>**P2** 2200 Lumens<br>**P3** 3200 Lumens<br>**P4** 4300 Lumens<br>**P5** 5200 Lumens<br>**P6** 7200 Lumens<br>**P7** 10000 Lumens | **27K** 2700K<br>**30K** 3000K<br>**35K** 3500K<br>**40K** 4000K<br>**50K** 5000K<br>**57K** 5700K<br>**AMBPC** Amber PC[1]<br>**AMBLW** Amber LW[1,2] | **70CRI** 70CRI<br>**80CRI** 80CRI[3]<br>**AMCRI** Amber CRI | **T2S** Type 2 Short<br>**T2M** Type 2 Medium<br>**T3LG** Type 3 Low Glare[4]<br>**T3M** Type 3 Medium<br>**T4M** Type 4 Medium<br>**TFTM** Forward Throw Medium<br>**BLC3** Back Light Control Type 3[5]<br>**BLC4** Back Light Control Type 4[5] | **MVOLT** 120[6] 208[6] 240[6] 277[6] 347[6,8] 480[6,8] **HVOLT**[6,9] | **Shipped included**<br>**SRM** Surface mounting bracket<br>**BBW** Surface-mounted back box (for conduit entry)[7] | **Shipped included**<br>**PE** Photoelectric cell, button type[8]<br>**DMG** 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)<br>**PIR** 180° motion/ambient light sensor, <15' mtg ht[8]<br>**PIRH** 180° motion/ambient light sensor, 15-30' mtg ht[8]<br>**PIR1FC3V** Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[8]<br>**PIRH1FC3V** Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[8]<br>**E20WC** 20 Watt Emergency battery backup (includes external component enclosure), CA Title 20 Compliant[10]<br>**E10WH** 10 Watt Emergency battery backup (includes external component enclosure), CA Title 20 compliant[10] |

| Other Options | | Finish (required) | | | |
|---|---|---|---|---|---|
| **Shipped installed**<br>**SF** Single fuse (120, 277 or 347V)[6,11]<br>**DF** Double fuse (208, 240 or 480V)[6,11]<br>**HS** House-side shield[12]<br>**SPD** Separate surge protection | **Shipped separately**[12]<br>**BSW** Bird-deterrent spikes<br>**VG** Vandal guard<br>**DDL** Diffused drop lens | **DDBXD** Dark bronze<br>**DBLXD** Black<br>**DNAXD** Natural aluminum<br>**DWHXD** White<br>**DSSXD** Sandstone<br>**DDBTXD** Textured dark bronze<br>**DBLBXD** Textured black<br>**DNATXD** Textured natural aluminum<br>**DWHGXD** Textured white<br>**DSSTXD** Textured sandstone | | | |

**Accessories**

Ordered and shipped separately.

DSXW1KS House-side shield (one per light engine)
DSXW1BW U Bird-deterrent spikes
DSXW1VG U Vandal guard accessory

**NOTES**
1 Only available with P1 and P6 Packages.
2 Not available with 57K.
3 Only Available with AMCRI.
4 Not available with HS Option.
5 Only available for 120, 208, 240, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
6 Not available with P1 package. Not available with motion/ambient light sensors (PIR or PIRH). Not Available with DMG.
7 Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory. Not Available with E20WC or E10WH.
8 Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
9 Reference Motion Sensor table on page 3. Not available with DMG.
10 Not compatible with conduit entry applications. Not available with BBW (back box) configuration. Not available with SF and DF fusing. Not available with 347, 480, HVOLT, +Magnet or -Emergency components located in back box housing. Not available with SPD.
11 Not available with E20WC and E10WH.
12 Also available as a separate accessory; see Accessories information.

LITHONIA LIGHTING
COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
© 2013-2024 Acuity Brands Lighting, Inc. All rights reserved.

DSXW1-LED
Rev. 12/12/24

Ⓒ LITHONIA LIGHTING DSXW1P1 AMBLW T3M MOUNTING HEIGHT — 9'

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
1 - 6 JUL 2021
2 - 6 JUL 2021
3 - 4 AUG 2021
4 - 21 OCT 2022
5 - 2 JAN 2025
6 - 26 SEP 2025
7 - 31 OCT 2025

**GARDEN STATION APARTMENTS**
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2198
DATE
18 JUN 2021

E7.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

## PIPING SYSTEMS

NEW CONSTRUCTION SPRINKLER HEADS

| SYMBOL | DESCRIPTION |
|---|---|
| | UPRIGHT SPRINKLER HEAD |
| | PENDANT SPRINKLER HEAD |
| | PENDANT CONCEALED SPRINKLER HEAD |
| | PENDANT DRY SPRINKLER HEAD |
| | STANDARD SIDEWALL SPRINKLER HEAD HORIZONTAL |
| | STANDARD SIDEWALL SPRINKLER HEAD VERTICAL |
| W | PENDENT WINDOW SPRINKLER HEAD |
| | CARBON DIOXIDE NOZZLE |

NEW CONSTRUCTION PIPING SYSTEMS

| | |
|---|---|
| | UPRIGHT SPRINKLER HEAD |
| | PENDANT SPRINKLER HEAD |
| | PENDANT CONCEALED SPRINKLER HEAD |
| | PENDANT DRY SPRINKLER HEAD |
| | STANDARD SIDEWALL SPRINKLER HEAD HORIZONTAL |
| | STANDARD SIDEWALL SPRINKLER HEAD VERTICAL |
| W | PENDENT WINDOW SPRINKLER HEAD |
| | CARBON DIOXIDE NOZZLE |

## SYSTEMS ABBREVIATIONS

| ABBREVIATION | SYSTEM NAME |
|---|---|
| FPD | FIRE PROTECTION DRY |
| FPW | FIRE PROTECTION WET |

### DRY VALVE

| TAG | | | RISER MOUNTED AIR COMPRESSOR | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | ELECTRICAL DATA | | | | | |
| ABBR. | # | AREA SERVED | MODEL # | HP | VOLTAGE | PHASE | MANUFACTURER | MODEL | REMARKS |
| DV | 1 | GARAGE LEVEL 1 | SERIES 7C7 FIRELOCK | 1 | 120 V | 1 | VICTAULIC | FIRELOCK NXT SERIES 768N | 1. |
| DV | 2 | GARAGE LEVEL 2 | SERIES 7C7 FIRELOCK | 1 | 120 V | 1 | VICTAULIC | FIRELOCK NXT SERIES 768N | 1. |

1. PROVIDE SERIES 7C7 FIRELOCK COMPRESSOR PACKAGE BY VICTAULIC.

### FIRE PUMP/JOCKEY PUMP

| TAG | | | | ELECTRICAL DATA | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ABBR. | # | CAPACITY (GPM) | TOTAL DYNAMIC HEAD (PSI) | HP | VOLTS | PH | MANUFACTURER | MODEL | REMARKS |
| FP | 1 | 1250 | 124 | 150 | 480 V | 3 | A-C FIRE PUMPS | 8X6X18F 8100 SERIES | -- |
| JP | 1 | 10 | 124 | 1 | 120 V | 1 | GOULDS | E-SV | -- |

### FIRE PUMP CONTROLLER

| TAG | | ELECTRICAL DATA | | | | | |
|---|---|---|---|---|---|---|---|
| ABBR. | # | HP | VOLTS | PH | MANUFACTURER | MODEL | REMARKS |
| FPC | 1 | 150 | 480 | 3 | EATON | FT90 | 1 |
| JPC | 1 | 1 | 120 | 1 | EATON | XTJP | -- |

1. PROVIDE FULL DIGITAL SOFT START CONTROLLER WITH INTEGRATED ATS.

### FIRE DEPARTMENT CONNECTIONS

| TAG | | | | | |
|---|---|---|---|---|---|
| ABBR. | # | FIXTURE | MANUFACTURER | MODEL | REMARKS |
| FDC | 1 | FIRE DEPARTMENT CONNECTION | POTTER ROEMER | 5021 | -- |
| FPTC | 1 | FIRE PUMP TEST CONNECTION | POTTER ROEMER | 5865 | -- |

## FP ABBREVIATIONS

| KEY NAME | COMMENT |
|---|---|
| AFF | ABOVE FINISH FLOOR |
| AHU | AIR HANDLING UNIT |
| ARCH | ARCHITECTURAL |
| BFP | BACKFLOW PREVENTER |
| BLD | BUILDING |
| BOP | BOTTOM OF PIPE |
| CD | CONDENSATE DRAIN |
| CFH | CUBIC FEET PER HOUR |
| CI | CAST IRON |
| CL | CENTER LINE |
| CLG | CEILING |
| CM | COFFEE MAKER |
| CO | CLEANOUT |
| CSW | COLD SOFT WATER |
| CV | CHECK VALVE |
| CW | COLD WATER |
| D | DRAIN |
| DET | DETAIL |
| DFU | DRAINAGE FIXTURE UNITS |
| DIA, Ø | DIAMETER |
| DN | DOWN |
| DT | FOUNDATION DRAIN TILE |
| DV | DRAIN VALVE |
| DWG | DRAWING |
| DWS | DOMESTIC WATER SERVICE |
| EC | ELECTRICAL CONTRACTOR |
| EL | ELEVATION |
| ELEC | ELECTRICAL |
| EP | ELEVATOR PUMP |
| EQUIP | EQUIPMENT |
| ETR | EXISTING TO REMAIN |
| EWC | ELECTRIC WATER COOLER |
| EWH | ELECTRC WATER HEATER |
| FCO | FLOOR CLEANOUT |
| FD | FLOOR DRAIN |
| FF ELEV | FINISH FLOOR ELEVATION |
| FPC | FIRE PROTECTION CONTRACTOR |
| FT | FEET |
| GF | GLYCOL FILL STATION |
| GPM | GALLON PER MINUTE |
| HD | HUB DRAIN |
| HW | HOT WATER |
| HWR | HOT WATER RETURN |
| ICW | INDUSTRIAL COLD WATER |
| KW | KILOWATT |
| LAV | LAVATORY |
| MAX | MAXIMUM |
| MB | MOP BASIN |
| MC | MECHANICAL CONTRACTOR |
| MECH | MECHANICAL |
| MIN | MINIMUM |
| MISC | MISCELLANEOUS |
| NC | NORMALLY CLOSED |
| NFWH | NON FREEZE WALL HYDRANT |
| NO | NORMALLY OPEN |
| NPW | NON POTABLE WATER |
| NTS | NOT TO SCALE |
| P | PUMP |
| PC | PLUMBING CONTRACTOR |
| PCP | PUMP CONTROL PANEL |
| PG | PRESSURE GAUGE |
| PRV | PRESSURE REDUCING VALVE |
| PSI | POUNDS PER SQUARE INCH |
| PSIG | POUNDS PER SQUARE INCH GAUGE |
| PVC | POLYVINYL CHLORIDE |
| PW | PRESSURIZED WASTE |
| REX | REMOVE EXISTING |
| RP | RECIRCULATION PUMP |
| SAIN | SANITARY WASTE |
| SK | SINK |
| SP | SUMP PUMP |
| SPEC | SPECIFICATION |
| ST | STORM, PUMP DISCHARGE TO MEET PRESSURIZED WASTE PIPING REQUIREMENTS |
| T&P | TEMPERATURE & PRESSURE RELIEF VALVE |
| TBD | TO BE DETERMINED |
| TDH | TOTAL DYNAMIC HEAD |
| TEMP or T | TEMPERATURE |
| THX | THERMAL EXPANSION TANK |
| TMV | THERMOSTATIC MIXING VALVE |
| TP | TRAP PRIMER |
| TYP | TYPICAL |
| UNO | UNLESS NOTED OTHERWISE |
| V | VENT |
| VTR | VENT THRU ROOF |
| W/ | WITH |
| WC | WATER CLOSET |
| WCO | WALL CLEANOUT |
| WCO | YARD CLEANOUT |
| WHA | WATER HAMMER ARRESTER |
| WS | WATER SOFTENER |
| ° | DEGREE |
| °F | DEGREES FAHRENHEIT |
| ø | DIAMETER |

## SYMBOLS LIST

| SYMBOL | DESCRIPTION |
|---|---|
| | ELBOW DOWN |
| | ELBOW UP |
| | TEE DN |
| | TEE UP |
| | FIXTURE TRAP |
| | CHECK VALVE |
| | UPRIGHT SPRINKLER HEAD |
| | PENDANT SPRINKLER HEAD |
| | CONCEALED SPRINKLER HEAD |
| | PENDANT DRY SPRINKLER HEAD |
| | STANDARD SIDEWALL SPRINKLER HEAD HORIZONTAL |
| | CARBON DIOXIDE NOZZLE |
| | DELUGE VALVE |
| | OS&Y VALVE |
| | ALARM CHECK VALVE |
| | DETECTOR CHECK VALVE WITH BY-PASS METER |
| | FIRE DEPARTMENT VALVE (FDV) |
| FEC-R/S | FIRE EXTINGUISHER RECESSED OR SURFACE |
| NS | NON SPRINKLED AREA |
| | SIAMESE FIRE DEPT. CONNECTION |
| | FIRE ALARM BELL |
| | WALL FIRE PUMP TEST HEADER |
| | DRY PIPE VALVE |
| FS | FLOW SWITCH |
| TS | TAMPER SWITCH |
| | ANGLE GATE VALVE |
| | GLOBE VALVE |
| | ANGLE GLOBE VALVE |
| TS | OS&Y WITH TAMPER SWITCH |
| BF | REDUCED PRESSURE BACK FLOW PREVENTOR WITH METER BY-PASS |
| BF | REDUCED PRESSURE BACK FLOW PREVENTOR |
| | DOUBLE DETECTOR CHECK VALVE |
| | BALANCING COCK |
| | BALANCING VALVE |
| | BALL VALVE / ISOLATION VALVE |
| | OS&Y VALVE |
| | GATE VALVE |
| | GLOBE VALVE |
| | MIXING VALVE |
| | WALL SLEEVE |
| | UNION |
| | FLOOR CLEAN OUT |
| | CLEAN OUT |
| | PIPE CAP |
| | WALL CLEAN OUT |
| | STRAINER |
| | THERMOMETER |
| | PRESSURE GAUGE |
| | PUMP |

# GENERAL FIRE PROTECTION NOTES

APPLICABLE TO ALL FIRE PROTECTION DRAWINGS

1. AUTOMATIC SPRINKLER SYSTEM DESIGN CRITERIA SHALL BE BASED ON LIGHT HAZARD OCCUPANCY FOR OFFICES, LOBBY, AND STAIRS WITH QUICK RESPONSE 165 DEGREES FAHRENHEIT RATED SPRINKLER HEADS. THE DENSITY REQUIREMENT SHALL BE A MINIMUM OF 0.10 GPM/SQ. FT. OVER THE HYDRAULIC MOST REMOTE 1500 SQ. FT. STORAGE, MECHANICAL ROOM SHALL BE BASED ON ORDINARY HAZARD WITH A DENSITY OF 0.15 GPM/SQ. FT. OVER THE MOST HYDRAULIC MOST REMOTE 1500 SQ. FT
2. ALL SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF NFPA NO. 13, THE LOCAL BUILDING CODE, AND ANY REFERENCED AMENDMENTS AND STANDARDS.
3. CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTION FEES AS REQUIRED FOR THIS WORK.
4. CONTRACTOR SHALL VISIT THE SITE TO VERIFY THE FULL EXTENT OF THE WORK AND THE EXACT LOCATION, ELEVATION, ETC, OF PIPING. COORDINATE ALL WORK WITH THE RESPECTIVE TRADES.
5. PROVIDE ALL REQUIRED CUTTING, DRILLING AND PATCHING. NO STRUCTURAL WORK TO BE CUT WITHOUT PREVIOUS APPROVAL OF THE ARCHITECT. PATCH ALL DISTURBED WALLS, CEILINGS AND FLOORS TO MATCH ADJACENT SURFACES AS NECESSARY.
6. WATER PRESSURE AND SUPPLY INFORMATION: FIELD VERIFY ALL PRESSURES AND CAPACITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR FLOW TEST INFORMATION. CONTRACTOR SHALL VERIFY FIRE PUMP SIZE UPON COMPLETION OF FLOW TEST.
7. SPRINKLER PIPE SIZING SHALL BE HYDRAULICALLY CALCULATED.
8. WHERE CEILINGS OCCUR USE CONCEALED PENDANT TYPE SPRINKLER HEADS.
9. WHERE THERE ARE NO CEILINGS PROVIDE UPRIGHT SPRINKLER HEADS.
10. MAINTAIN MINIMUM CLEARANCE OF 18" OR GREATER BETWEEN SPRINKLER HEAD DEFLECTOR AND THE TOP OF STORAGE.
11. CONTRACTOR SHALL INSTALL METAL SPRINKLER CABINET CONTAINING TWO SETS OF SPRINKLER WRENCHES COMPATIBLE WITH EACH TYPE OF SPRINKLER PROVIDED AND THE NUMBER OF SPARE SPRINKLERS OF EACH TYPE, FINISH AND TEMPERATURE RATING AS REQUIRED BY SECTION 6.2.9 OF NFPA 13.
12. EACH SPRINKLER SYSTEM SHALL BE HYDROSTATICALLY TESTED AT NOT LESS THAN 200 PSI FOR TWO HOURS. THE TEST SHALL CONFORM TO NFPA STANDARDS AND WITNESSED BY AUTHORITY HAVING JURISDICTION.
13. SPRINKLERS SHALL BE INSTALLED BENEATH DUCTWORK OR OTHER OBSTRUCTIONS 48" OR WIDER.
14. ALL PIPING, VALVES AND DEVICES SHALL BE INSTALLED SO AS NOT TO OBSTRUCT ANY PORTION OF A WINDOW, DOORWAY, STAIRWAY OR PASSAGEWAY OR ANY PIECE OF MECHANICAL OR ELECTRICAL EQUIPMENT.
15. EVERY SPRINKLER SYSTEM FLOOR CONTROL VALVE ASSEMBLY SHALL HAVE ALL NECESSARY VALVES, TAMPER SWITCHES, WATERFLOW INDICATORS AND COMBINATION INSPECTORS TEST AND DRAIN FITTINGS.
16. ALL HANGERS AND METHODS FOR HANGING SHALL BE IN ACCORDANCE WITH NFPA STANDARDS.
17. FACTORY MUTUAL RESEARCH CORPORATION APPROVED EQUIPMENT SHALL BE PROVIDED WHERE APPLICABLE AND DETAILS OF THE INSTALLATIONS SHALL CONFORM TO FACTORY MUTUAL'S RECOMMENDED PRACTICES.
18. DO NOT INSTALL PIPING OR SPRINKLER HEADS IN HIGH VOLTAGE (OVER 480 V) ELECTRICAL CLOSETS, TRANSFORMER ROOMS, OR ELEVATOR EQUIPMENT ROOMS. THESE AREAS SHALL HAVE HEAT DETECTORS FURNISHED AND INSTALLED BY ELECTRIC CONTRACTOR (U.N.O.).
19. PIPING SHALL NOT BE ROUTED THROUGH OR OVER ANY TELEPHONE EQUIPMENT, ELECTRICAL EQUIPMENT, COMMUNICATION ROOMS OR SIMILAR AREAS.
20. ALL SPRINKLERS LOCATED IN SUSPENDED CEILING TILES SHALL BE LOCATED IN THE CENTER OF THE TILE.
21. ALL FLOOR CONTROL VALVE ASSEMBLIES ARE TO BE LOCATED WITHIN THE STAIR ENCLOSURE. CONTROL VALVES ARE TO BE SUPERVISED AND LOCKED IN THE OPEN POSITION.
22. ALL SPRINKLER SYSTEMS SHOWN SHALL BE WET UNLESS OTHERWISE NOTED. MULTIPLE FIRE DEPARTMENT CONNECTIONS ARE REQUIRED AS SHOWN.
23. TESTING OF FIRE PUMP MUST BE SAFELY ACCOMPLISHED WITH NO MORE THAN 100 FT. OF HOSE.
24. PIPE ROUTING IS FOR DIAGRAMMATIC PURPOSES ONLY, SPRINKLER CONTRACTOR IS RESPONSIBLE FOR PIPE ROUTING, HEAD LOCATIONS, AND PIPE SIZING BASED ON HYDRAULIC CALCULATIONS.
25. SPRINKLER CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF SPRINKLER PIPING AND HEADS WITH OTHER TRADES. AVOID ALL DUCTWORK, LIGHTING FIXTURES, DIFFUSERS, ETC.
26. PIPES, DUCTS, CONDUITS AND ELECTRICAL CABLE TRAYS WHICH PASS THROUGH EXISTING AND NEW FIRE-RESISTIVE BARRIERS, INCLUDING FLOOR SLABS AND WALLS, SHALL BE FIRE SEALED TO MAINTAIN THE INTEGRITY OF THE FIRE RESISTIVE BARRIER. ALL EXPOSED PIPES PASSING THROUGH A WALL, CEILING OR FLOOR SHALL HAVE CHROME ESCUTCHEON PLATES.
27. SPRINKLER SYSTEM SHALL BE INSTALLED SO THAT DRAINING OF THE ENTIRE SYSTEM IS POSSIBLE AS PER NFPA NO. 13.
28. SPRINKLER CONTRACTOR SHALL SUBMIT SPRINKLER PLAN LAYOUT, INCLUDING PIPE SUPPORT LOCATIONS AND TYPES. SUBMITTALS SHALL INCLUDE PENETRATIONS AND DETAILS.
29. ABOVE-GROUND SPRINKLER PIPING SHALL BE: BLACK STEEL, WELDED OR SEAMLESS; ASTM A 795; GALVANIZED STEEL WELDED OR SEAMLESS; ANSI/ASTM A 53; WROUGHT STEEL; ANSI B36.10M; STEEL, ELECTRONIC-RESISTANCE WELDED; ASTM A 135;
30. SCREWED UNIONS SHALL NOT BE USED ON PIPE LARGER THAN 2". COUPLINGS AND UNIONS OF OTHER THAN SCREWED-TYPE SHALL BE OF TYPES LISTED SPECIFICALLY FOR USE IN SPRINKLER SYSTEMS.
31. PROVIDE SIDEWALL SPRINKLER HEAD AT BOTTOM OF ELEVATOR SHAFT. LOCATE SPRINKLER HEAD WITHIN ELEVATOR PIT SAFETY ZONE. PROVIDE AN ISOLATION VALVE IN THE LOCKED OPEN POSITION UPSTREAM OF SPRINKLER.
32. CONCEALED SPRINKLER HEADS TO BE INSTALLED IN ALL FINISHED SPACES WITH CEILING U.N.O.
33. ALL SPRINKLERS TO BE QUICK RESPONSE U.N.O.
34. ALL SPRINKLERS TO BE OF AN ORDINARY TEMPERATURE RATING U.N.O.
35. ALL SPRINKLERS SHALL HAVE A 5.6 K-FACTOR ORIFICE U.N.O.
36. FIRE PROTECTION SYSTEM SHALL INCLUDE ALL ITEMS FOR COMPLETE SYSTEM. SPECIFICALLY THIS IS TO INCLUDE BUT IS NOT LIMITED TO: PIPE, SUPPORTS, VALVES, GAUGES, TRIM, ALARMS, SPECIALTY DEVICES, CONTROLS, AND ITEMS INCIDENTAL TO A COMPLETE SYSTEM.
37. ADDITIONAL SPRINKLERS MAY BE REQUIRED TO PROVIDE ADEQUATE COVERAGE WHERE FURNITURE, LIGHT FIXTURES, DUCTWORK OR STRUCTURE ACT AS OBSTRUCTIONS TO A SPRINKLER SPRAY PATTERN.
38. GENERAL CONTRACTOR'S MEP/FP COORDINATOR TO SUBMIT MEP/FP COORDINATION DRAWINGS FOR "REVIEW OF DESIGN INTENT" INDICATING COORDINATION OF ALL TRADES PRIOR TO PLACEMENT OF MEP/FP WORK. DRAWINGS TO BE SUBMITTED AFTER SPRINKLER DRAWINGS HAVE BEEN SUBMITTED AND APPROVED BY BFP AND SUBSEQUENTLY COORDINATED WITH ALL OTHER TRADES.

**GENERAL NOTE:** NOT ALL SYMBOLS, NOTES AND ABBREVIATIONS ARE APPLICABLE TO THIS PROJECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION / DATE
ISSUE FOR PERMIT 04.02.2021
PERMIT RECIVIONS 06.02.2021

dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

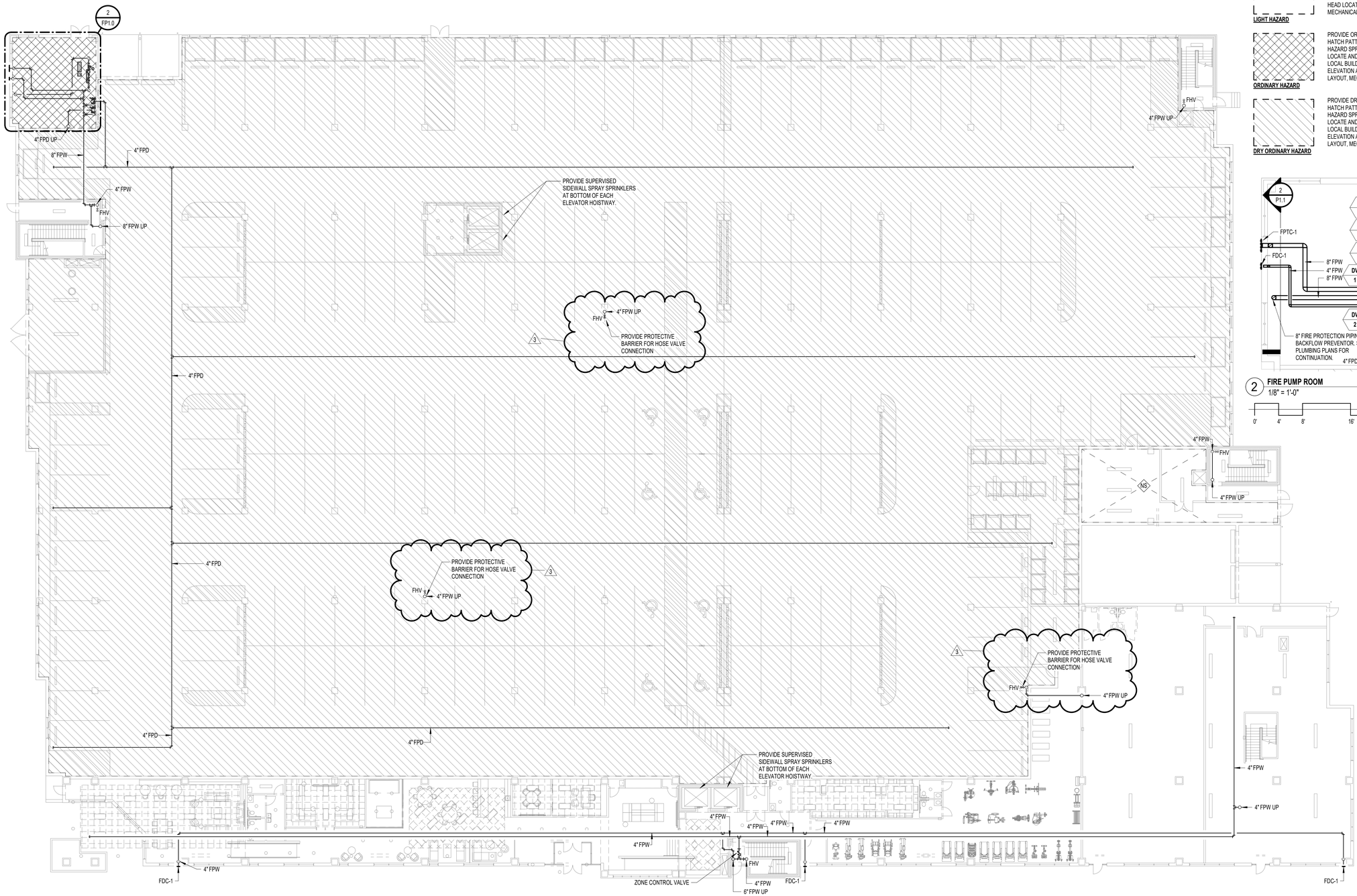
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FP0.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **1ST FLOOR - FIRE PROTECTION PLAN**
1/16" = 1'-0"

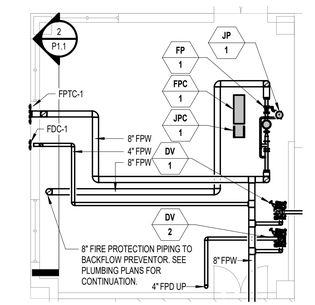
0' 8' 16' 32' 64'

## FIRE PROTECTION NOTES

**LIGHT HAZARD**
PROVIDE LIGHT HAZARD SPRINKLER COVERAGE. LACK OF HATCH PATTERN INDICATES AREA OF LIGHT HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

**ORDINARY HAZARD**
PROVIDE ORDINARY HAZARD SPRINKLER COVERAGE. HATCH PATTERN INDICATES AREA OF ORDINARY HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL BUILDING CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

**DRY ORDINARY HAZARD**
PROVIDE DRY ORDINARY HAZARD SPRINKLER COVERAGE. HATCH PATTERN INDICATES AREA OF DRY ORDINARY HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL BUILDING CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.




2 **FIRE PUMP ROOM**
1/8" = 1'-0"

0' 4' 8' 16' 32'

N

REVISION / DATE
ISSUE FOR PERMIT 04.02.2021
REVISIONS PER COMMENTS 06.02.2021
PERMIT REVISIONS #2 08.03.2021

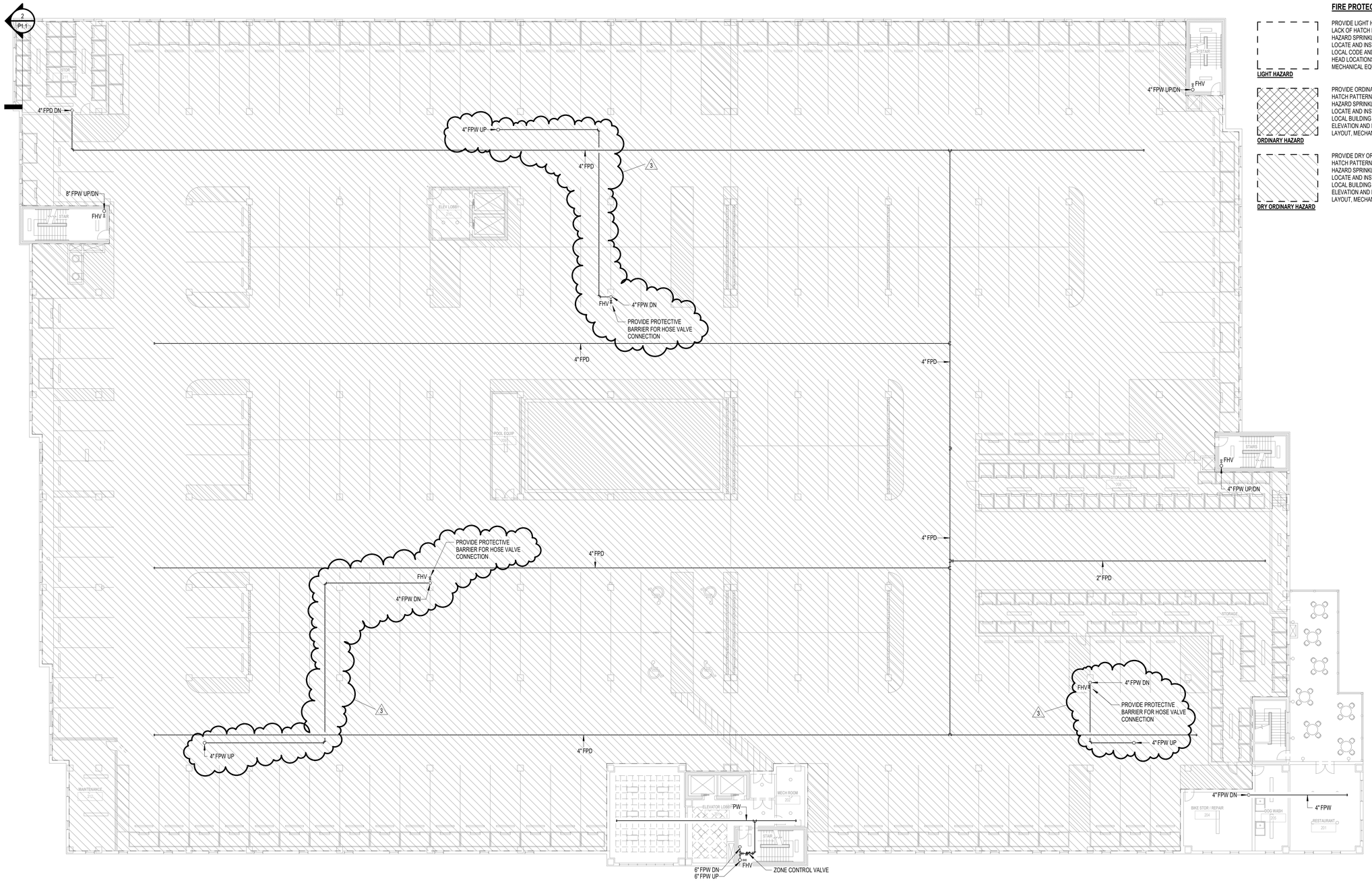
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FP1.0

JONES & JONES ASSOCIATES / ARCHITECTS PC




## FIRE PROTECTION NOTES

**LIGHT HAZARD**

PROVIDE LIGHT HAZARD SPRINKLER COVERAGE. LACK OF HATCH PATTERN INDICATES AREA OF LIGHT HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

**ORDINARY HAZARD**

PROVIDE ORDINARY HAZARD SPRINKLER COVERAGE. HATCH PATTERN INDICATES AREA OF ORDINARY HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL BUILDING CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

**DRY ORDINARY HAZARD**

PROVIDE DRY ORDINARY HAZARD SPRINKLER COVERAGE. HATCH PATTERN INDICATES AREA OF DRY ORDINARY HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL BUILDING CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

1 **SECOND FLOOR-FIRE PROTECTION PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

N

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT REVISIONS | 06.02.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

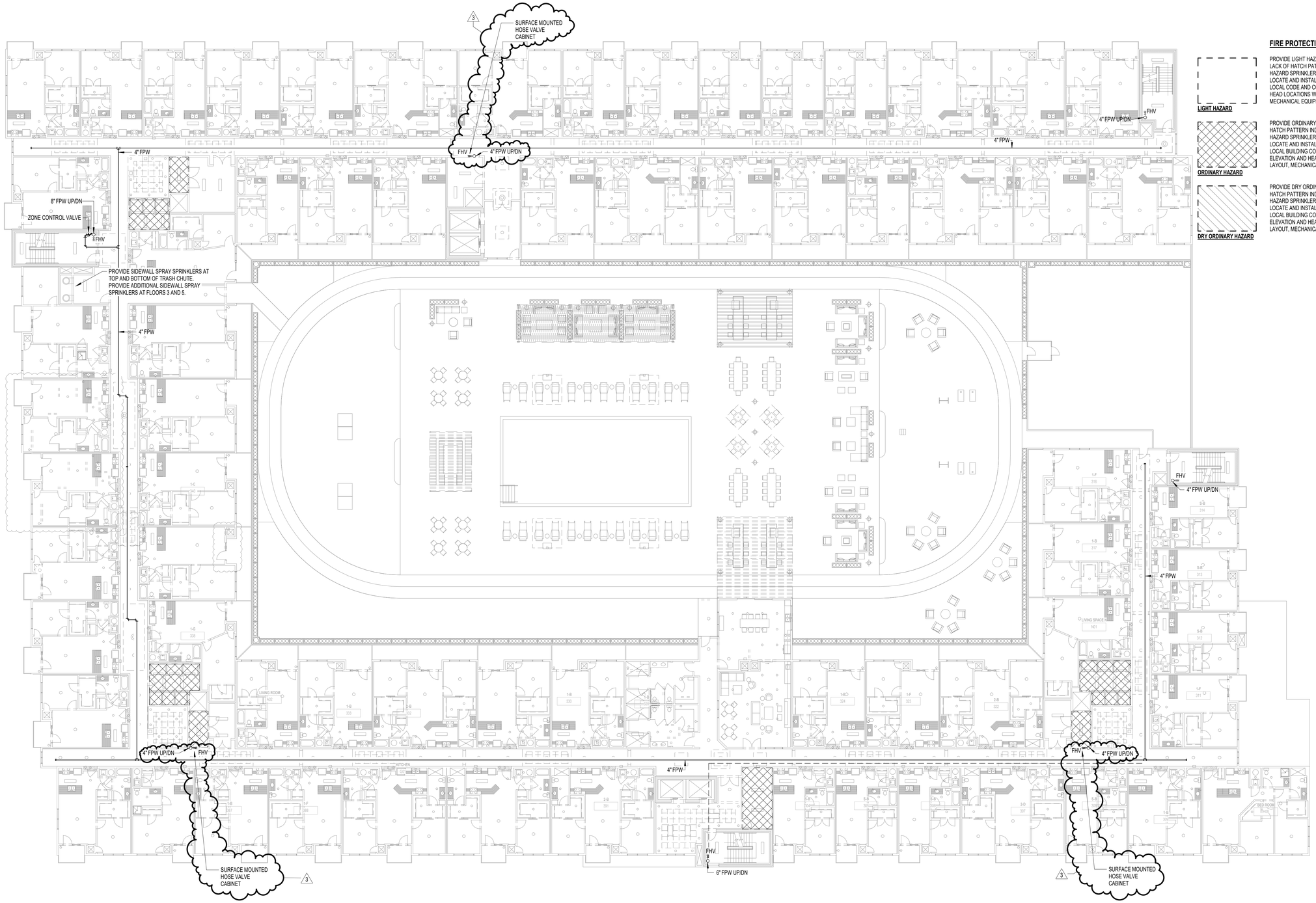

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FP1.2

JONES & JONES ASSOCIATES ARCHITECTS PC


THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **THIRD FLOOR-FIRE PROTECTION PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

## FIRE PROTECTION NOTES

**LIGHT HAZARD**

PROVIDE LIGHT HAZARD SPRINKLER COVERAGE. LACK OF HATCH PATTERN INDICATES AREA OF LIGHT HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

**ORDINARY HAZARD**

PROVIDE ORDINARY HAZARD SPRINKLER COVERAGE. HATCH PATTERN INDICATES AREA OF ORDINARY HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL BUILDING CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

**DRY ORDINARY HAZARD**

PROVIDE DRY ORDINARY HAZARD SPRINKLER COVERAGE. HATCH PATTERN INDICATES AREA OF DRY ORDINARY HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL BUILDING CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| REVISIONS PER IDOC | 06.02.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

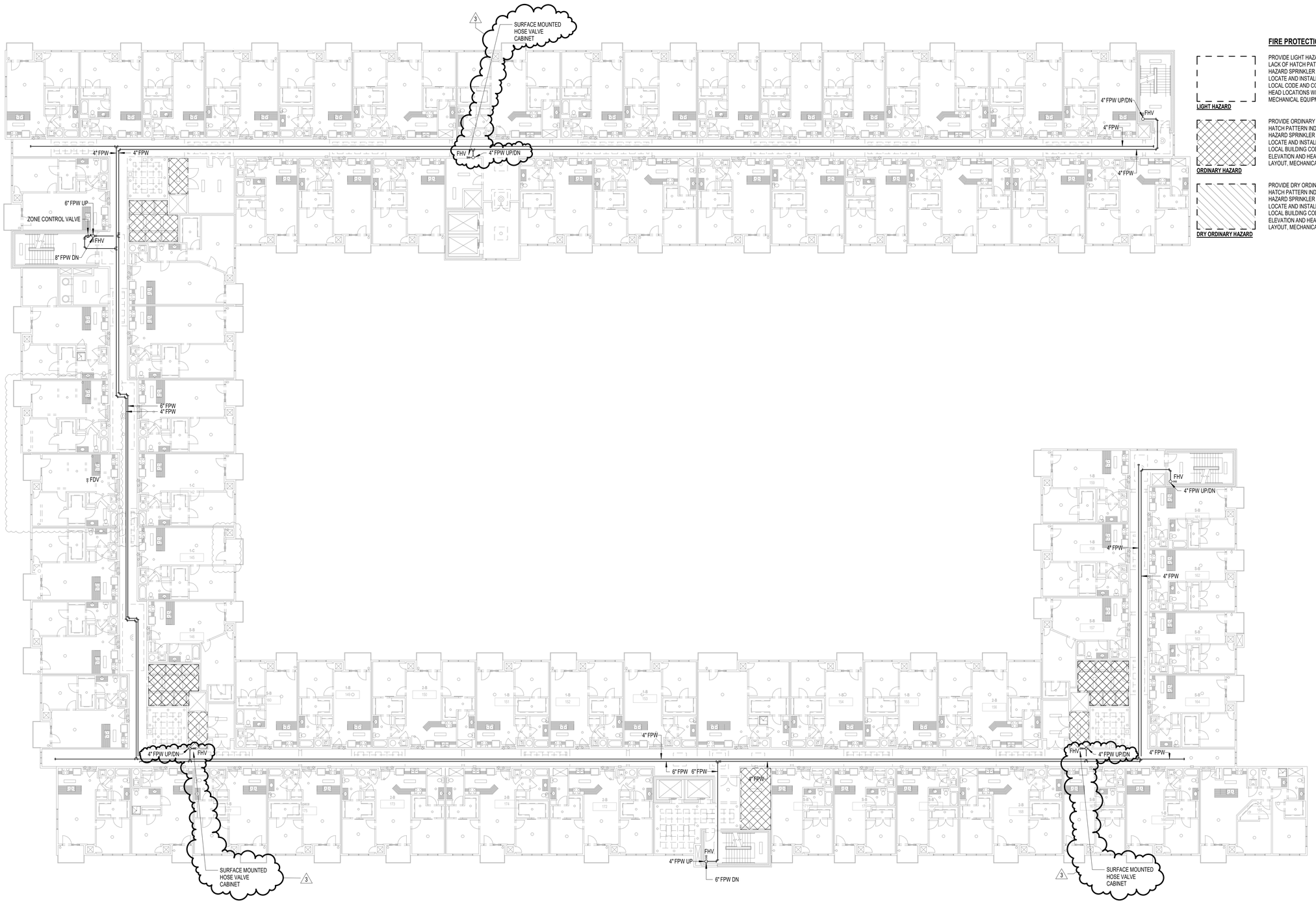
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FP1.3


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **FOURTH FLOOR-FIRE PROTECTION PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

## FIRE PROTECTION NOTES

**LIGHT HAZARD**
PROVIDE LIGHT HAZARD SPRINKLER COVERAGE. LACK OF HATCH PATTERN INDICATES AREA OF LIGHT HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT. MECHANICAL EQUIPMENT AND LIGHTING.

**ORDINARY HAZARD**
PROVIDE ORDINARY HAZARD SPRINKLER COVERAGE. HATCH PATTERN INDICATES AREA OF ORDINARY HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL BUILDING CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

**DRY ORDINARY HAZARD**
PROVIDE DRY ORDINARY HAZARD SPRINKLER COVERAGE. HATCH PATTERN INDICATES AREA OF DRY ORDINARY HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL BUILDING CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT REVISIONS | 06.02.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

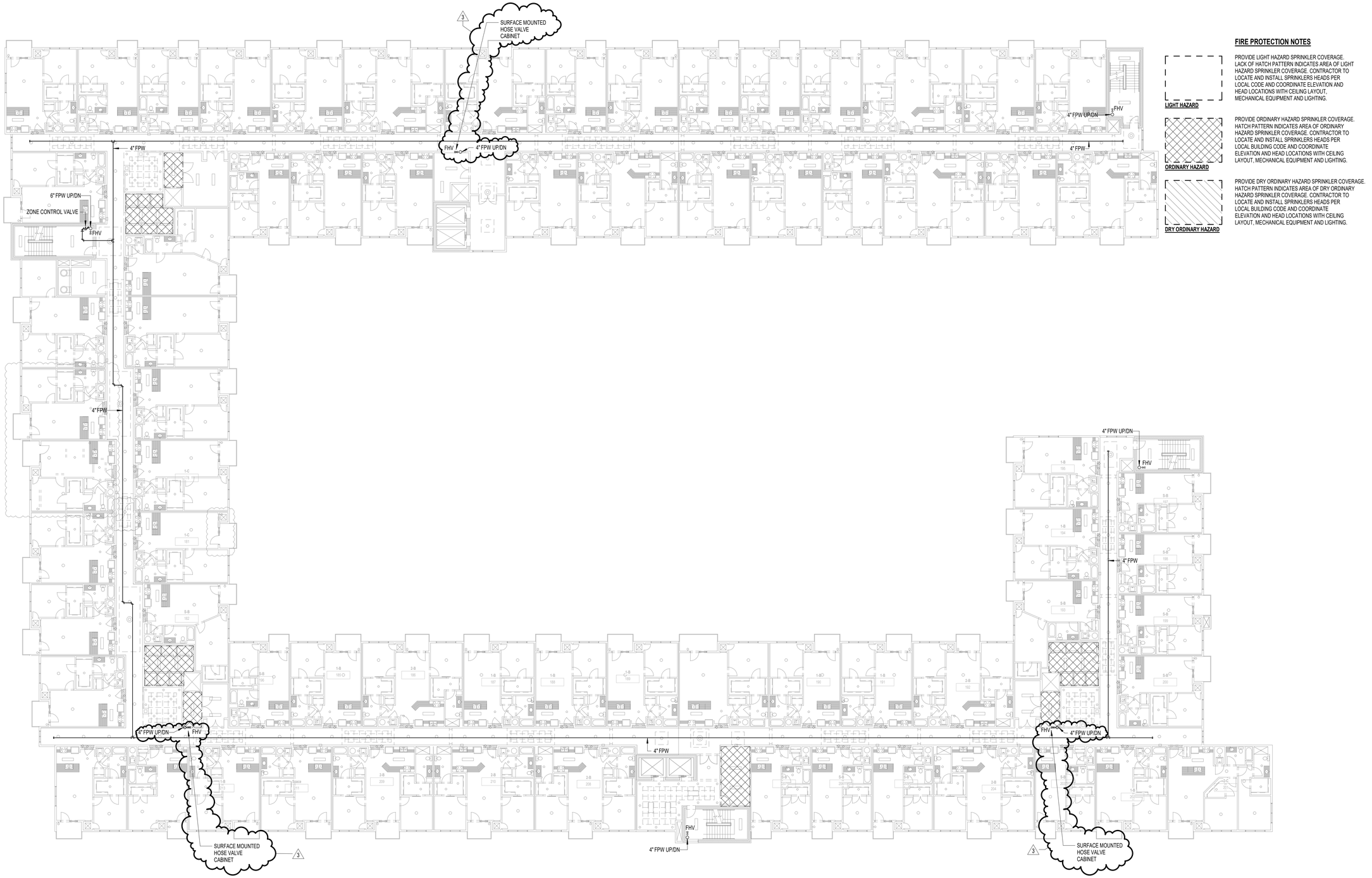

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FP1.4


THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT


JONES & JONES ASSOCIATES / ARCHITECTS PC




1 **TYPICAL FIFTH THROUGH SEVENTH FLOOR-FIRE PROTECTION PLAN**
1/16" = 1'-0"

0' 8' 16' 32' 64'

## FIRE PROTECTION NOTES

**LIGHT HAZARD**

PROVIDE LIGHT HAZARD SPRINKLER COVERAGE. LACK OF HATCH PATTERN INDICATES AREA OF LIGHT HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

**ORDINARY HAZARD**

PROVIDE ORDINARY HAZARD SPRINKLER COVERAGE. HATCH PATTERN INDICATES AREA OF ORDINARY HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL BUILDING CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

**DRY ORDINARY HAZARD**

PROVIDE DRY ORDINARY HAZARD SPRINKLER COVERAGE. HATCH PATTERN INDICATES AREA OF DRY ORDINARY HAZARD SPRINKLER COVERAGE. CONTRACTOR TO LOCATE AND INSTALL SPRINKLERS HEADS PER LOCAL BUILDING CODE AND COORDINATE ELEVATION AND HEAD LOCATIONS WITH CEILING LAYOUT, MECHANICAL EQUIPMENT AND LIGHTING.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT REVISIONS | 06.02.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

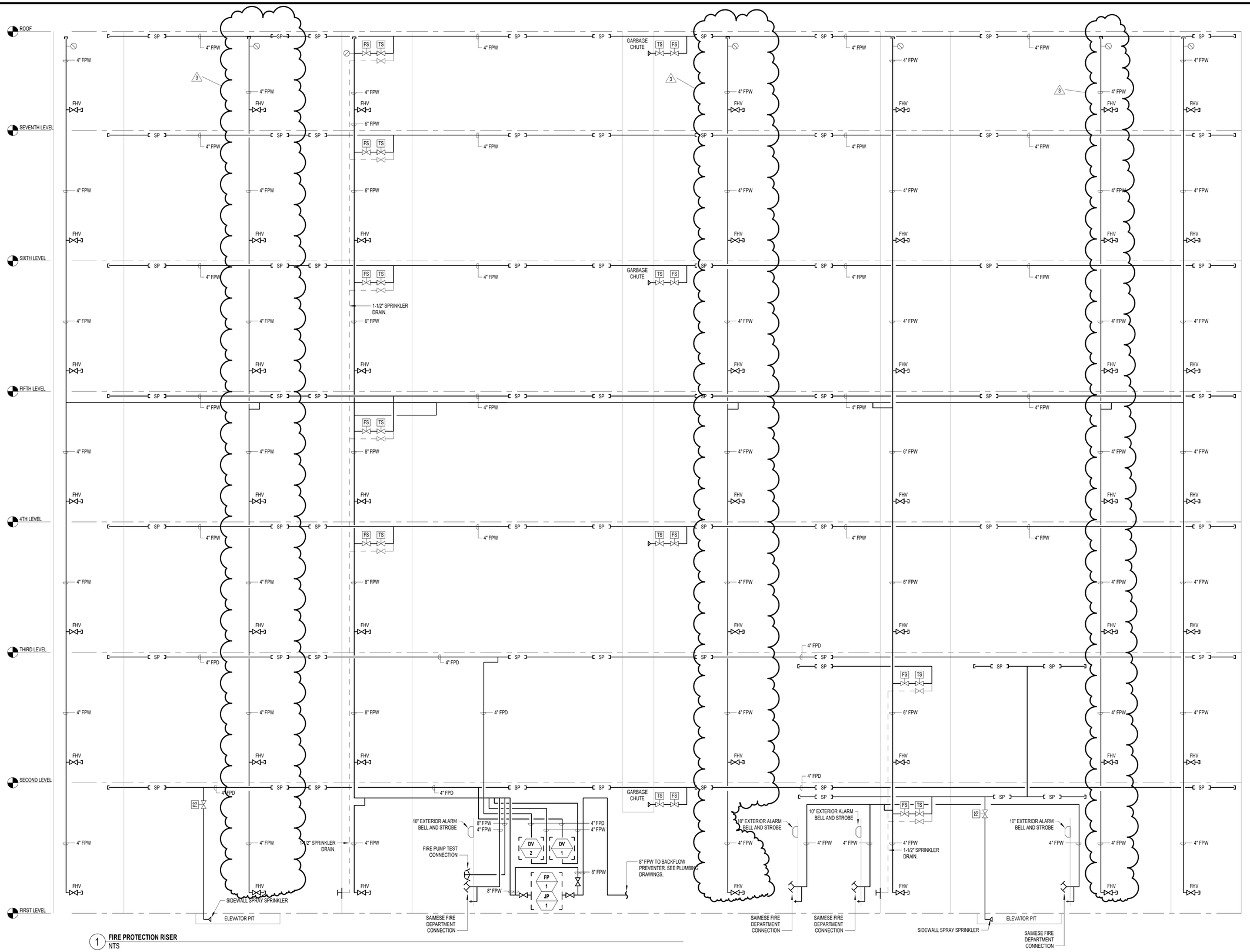
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FP1.5


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **FIRE PROTECTION RISER**
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT REVISIONS | 06.03.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |

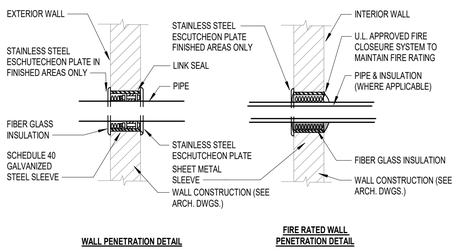
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

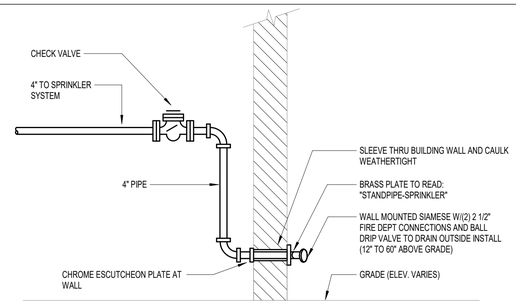
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FP4.0

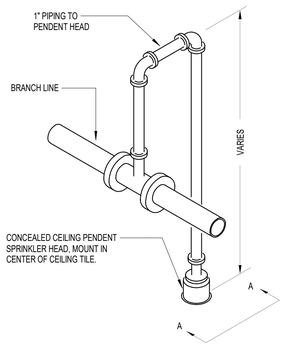
JONES & JONES ASSOCIATES / ARCHITECTS PC



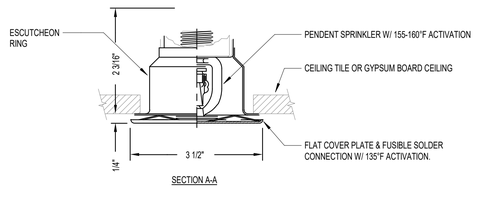

8 WALL PENETRATION
NTS



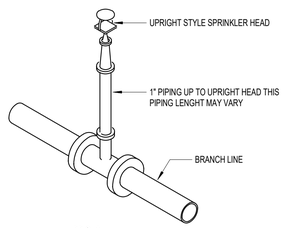

7 FIRE DEPARTMENT CONNECTION
NTS




CONCEALED PENDENT SPRINKLER

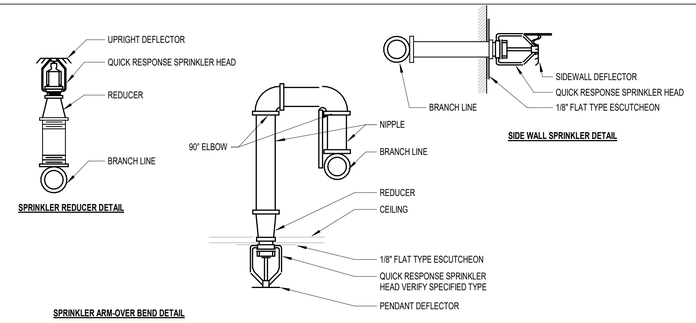



SECTION A-A

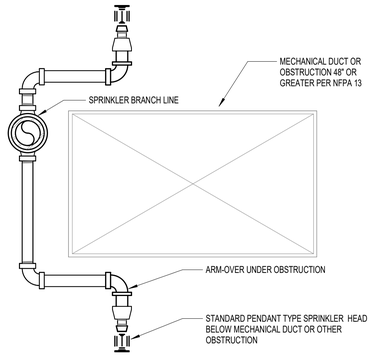



UPRIGHT

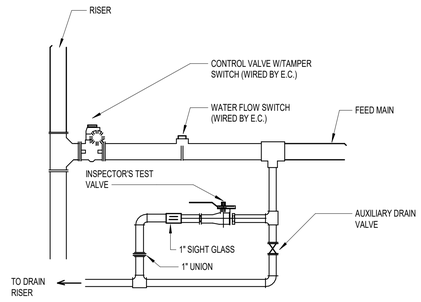
3 CONCEALED SPRINKLER ARM OVER AND UPRIGHT SPRINKLER
NTS



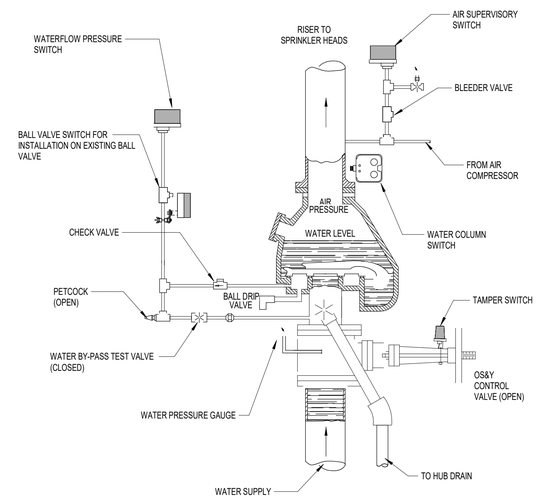

2 SPRINKLER
NTS



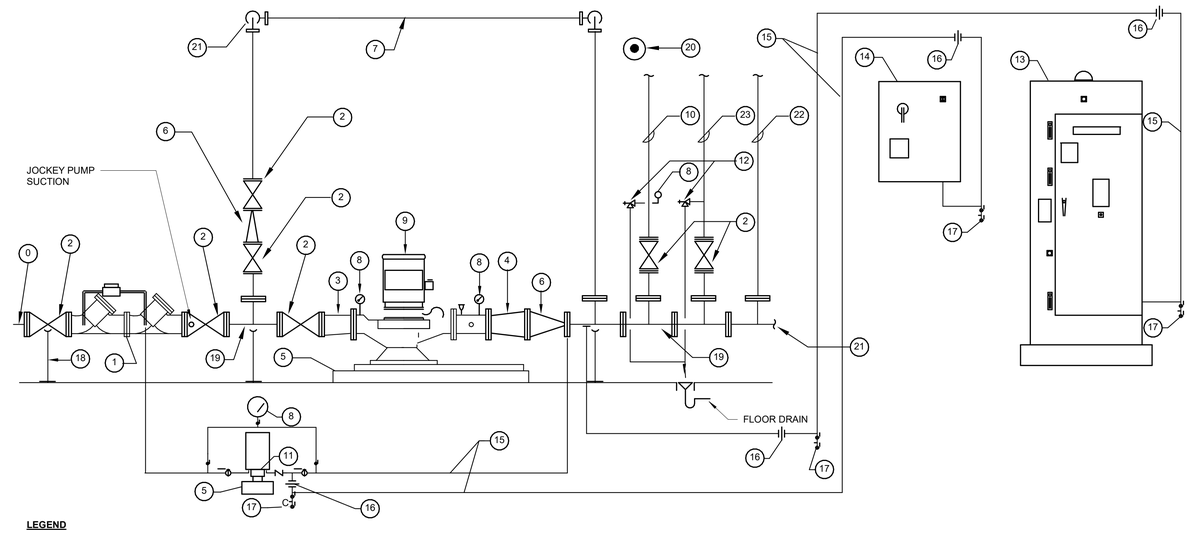

6 SPRINKLER HEAD UNDER OBSTRUCTION
NTS




5 FLOOR CONTROL VALVE
NTS




4 TYPICAL DRY VALVE
NTS




**LEGEND**

0. 8" INCOMING WATER SERVICE FROM STREET MAIN
1. 8" DOUBLE DETECTOR CHECK VALVE ASSY.
2. FLANGED O.S. & Y. VALVE W/TAMPER SWITCH (WIRED BY E.C.)
3. FLANGED ECCENTRIC SUCTION REDUCER
4. CONCENTRIC REDUCER
5. CONCRETE HOUSEKEEPING PAD
6. NON-SLAM CHECK VALVE
7. BY-PASS
8. PRESSURE GAUGE (TYP.)
9. PUMP. SEE SCHEDULES FOR PERFORMANCE INFORMATION
10. TO FIRE PUMP TEST HEADER
11. JOCKEY PUMP (JP)
12. MAIN DRAIN VALVE SPILL OVER FLR. DR.
13. REDUCED VOLTAGE AUTOMATIC FIRE PUMP CONTROLLER (FPC)
14. JOCKEY PUMP CONTROLLER (JPC)
15. 1/2" BRASS PIPE & FITTINGS (SENSING LINE)
16. GROUND-FACE UNION W/ ORIFICE
17. 1/2" GLOBE VALVES-TEE W/ XX" PLUG
18. PIPE STAND
19. FLANGED TEE
20. ALARM BELL (WIRED BY E.C.)
21. TO DRY VALVES
22. TO SYSTEM
23. TO FIRE DEPT. CONNECTION

1 FIRE PUMP/JOCKEY PUMP/CONTROLLER ARRANGEMENTS
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PC/SBC REVISIONS | 06.03.2021 |

dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FP6.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

## FIRE ALARM DETECTION

| | |
|---|---|
| S | INTELLIGENT MANUAL PULL STATION |
| H | MAGNETICALLY HELD OPEN DOORS |
| D | INTELLIGENT HEAT DETECTOR |
| SD | INTELLIGENT SMOKE DETECTOR |
| DD | INTELLIGENT DUCT SMOKE DETECTOR |
| MM | INTELLIGENT MONITOR MODULE |
| IM | INTELLIGENT INTERFACE MODULE |
| RM | INTELLIGENT RELAY MODULE |
| CM | INTELLIGENT CONTROL MODULE |
| V | VISUAL ALARM ONLY DEVICE |
| V | VISUAL ALARM ONLY CEILING MOUNTED |
| A | AUDIBLE ALARM ONLY DEVICE |
| AV | AUDIBLE AND VISUAL ALARM DEVICE |
| AV | AUDIBLE AND VISUAL ALARM CEILING MOUNTED |
| AR | AREA OF RESCUE |
| CS | CALL STATION |
| CO | CARBON MONOXIDE DETECTOR |
| B | TROUBLE BELL WITH TEST AND SILENCE SWITCH W/LAMP |
| RA | REMOTE ANNUNCIATOR LAMP FOR SELECTED DEVICES |
| RTS | REMOTE TEST STATION |
| SV | SPEAKER / VISUAL ALARM |
| SV | SPEAKER / VISUAL ALARM CEILING MOUNTED |
| S | SPEAKER ALARM |

## ABBREVIATIONS

| | |
|---|---|
| FA | FIRE ALARM |
| FAAP | FIRE ALARM ANNUNCIATOR PANEL |
| FACP | FIRE ALARM CONTROL PANEL |

REVISION
PERMIT REVISIONS

DATE
06.30.2021

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FA0.0

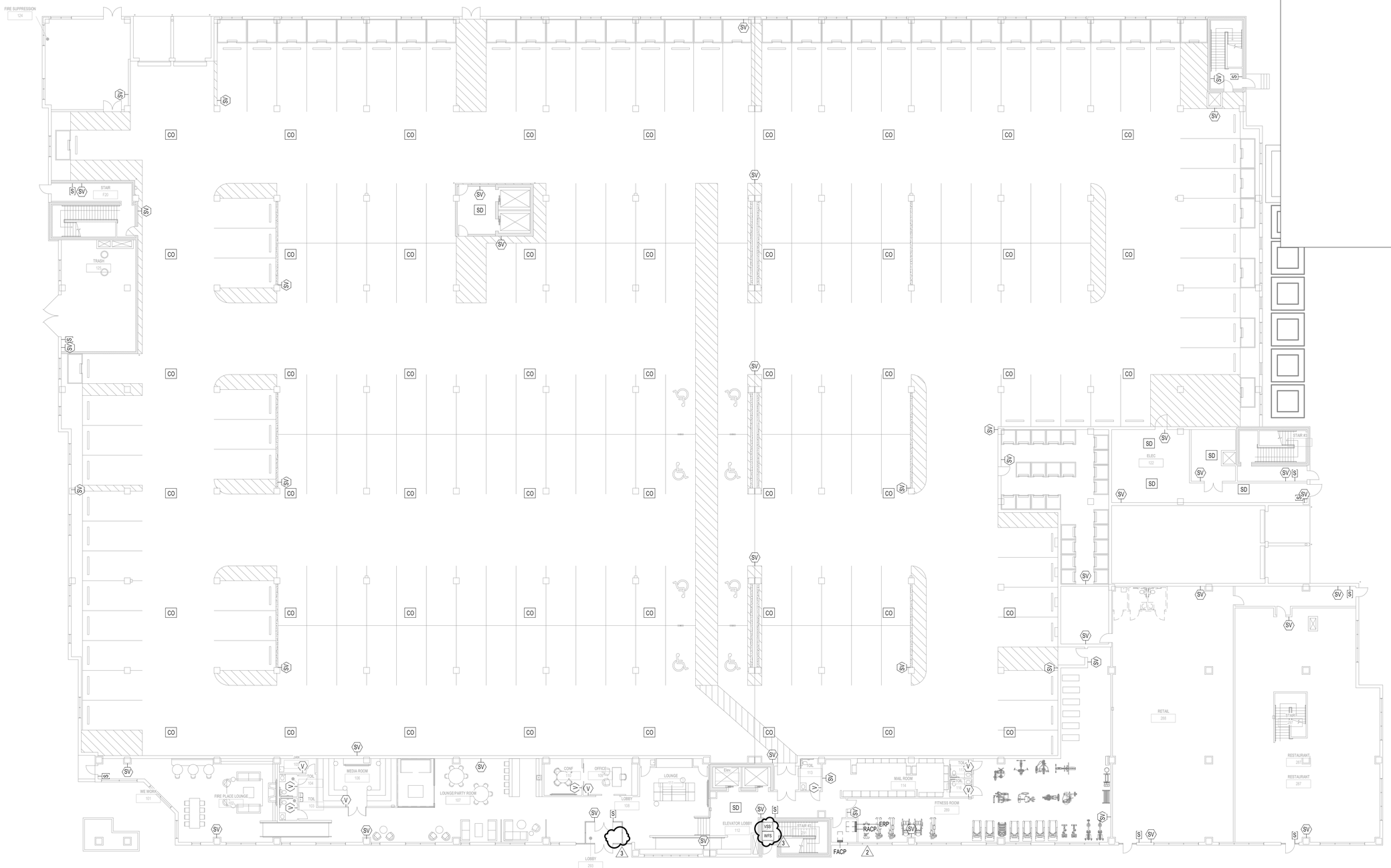
JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

1 FIRE_NOTES, SYMBOLS & ABBREVIATIONS
NTS

**GENERAL NOTES**

1. REFER TO SHEET FA1.0 FOR FIRE ALARM RISER DIAGRAM.
2. COORDINATE EXACT LOCATION OF TAMPER SWITCHES WITH FIRE PROTECTION DRAWINGS.




1 **FIRST FLOOR - FIRE ALARM PLAN**
1/16" = 1'-0"

0' 4' 8' 16' 32'

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
PERMIT REVISIONS 06.30.2021
PERMIT RESUBMITTAL #2 09.03.2021

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

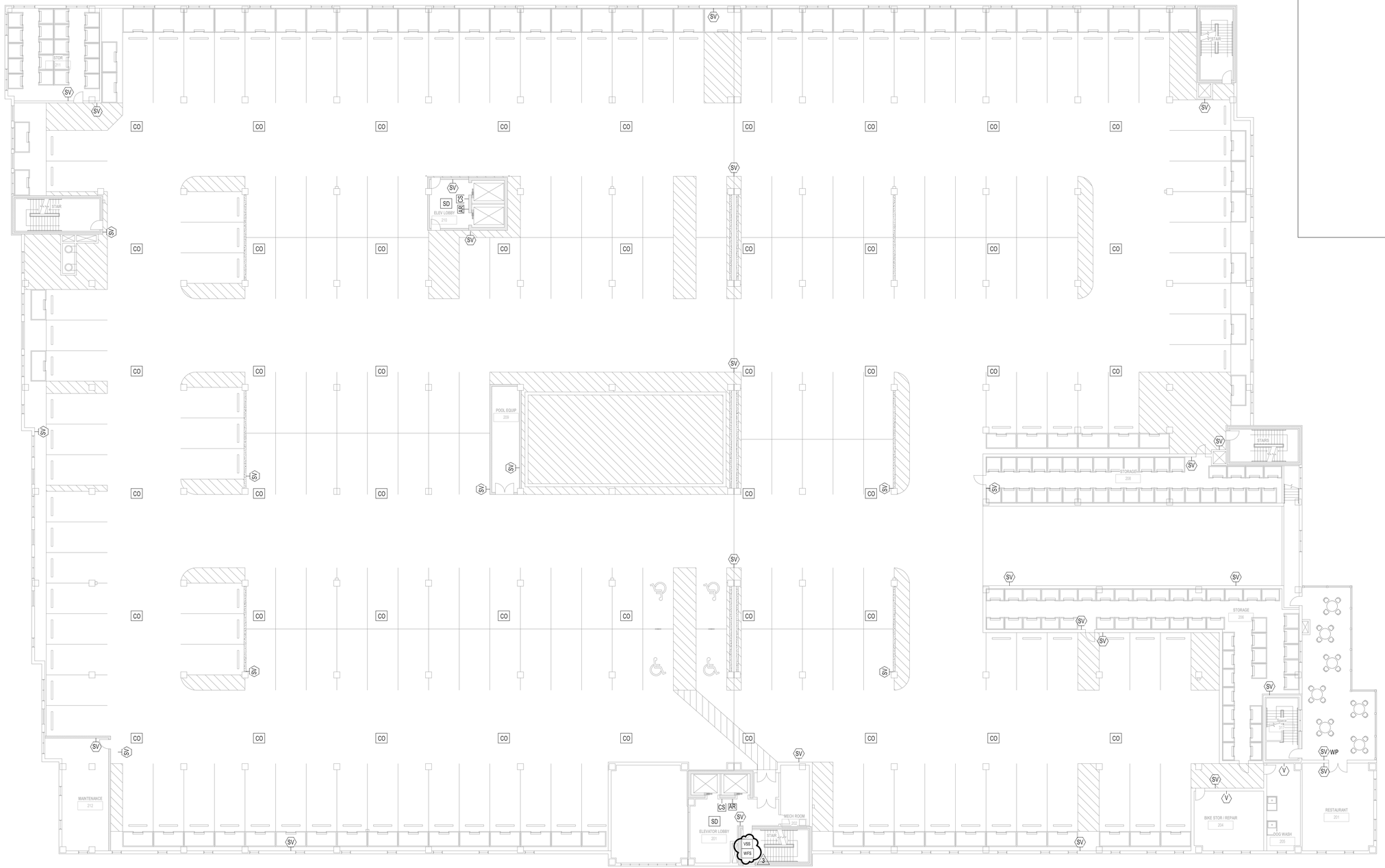
FA1.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

**GENERAL NOTES**

1. REFER TO SHEET FA1.0 FOR FIRE ALARM RISER DIAGRAM.
2. COORDINATE EXACT LOCATION OF TAMPER SWITCHES WITH FIRE PROTECTION DRAWINGS.




1 **SECOND FLOOR - FIRE ALARM PLAN**
1/16" = 1'-0"

0' 4' 8' 16' 32'

| REVISION | DATE |
|---|---|
| PERMIT REVISIONS | 06.30.2021 |
| PERMIT RESUBMITTAL #2 | 09.15.2021 |

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

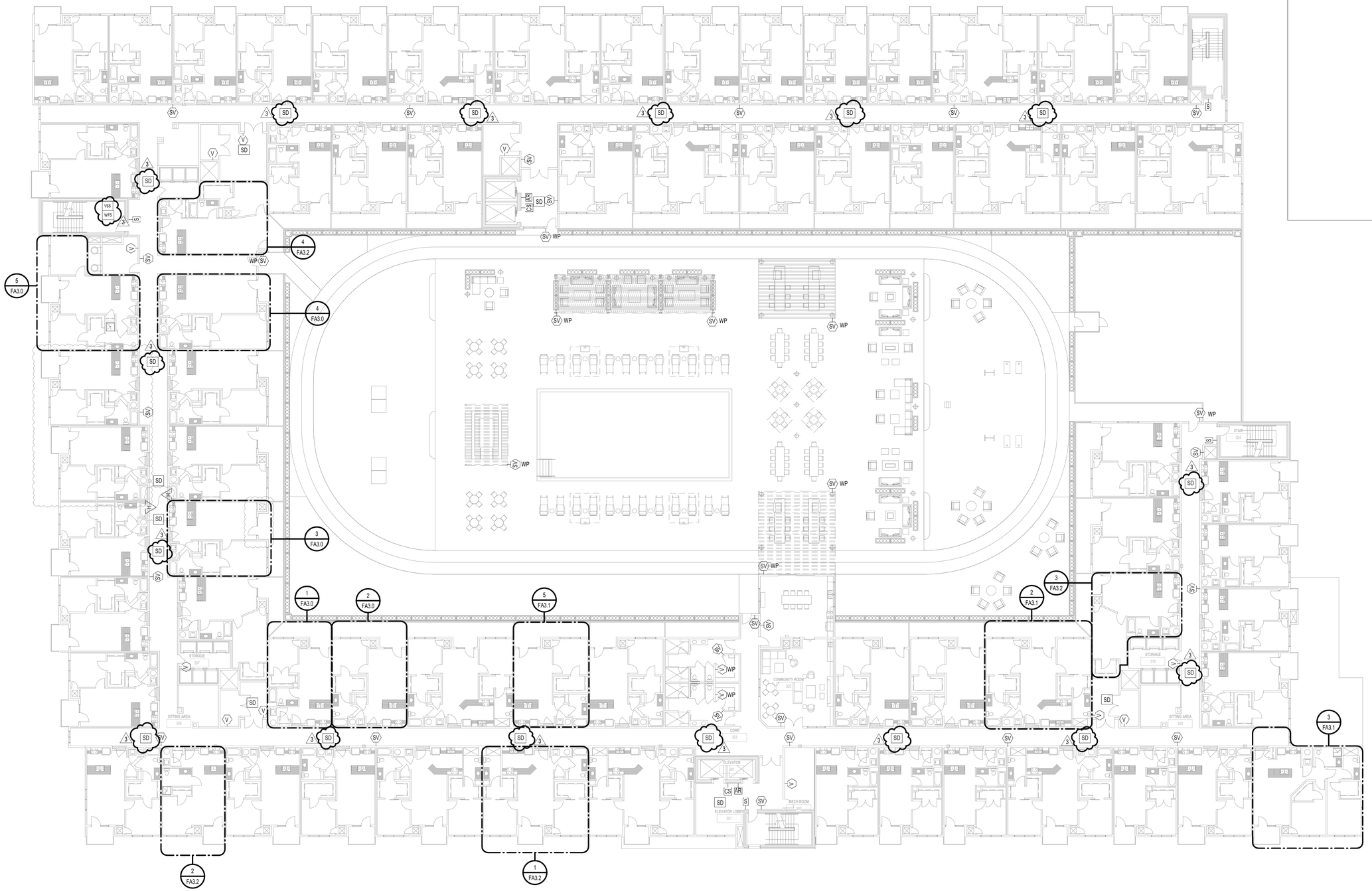
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FA1.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

**GENERAL NOTES**

1. REFER TO SHEET FA1.0 FOR FIRE ALARM KEY DIAGRAM.
2. COORDINATE EXACT LOCATION OF TAMPER SWITCHES WITH FIRE PROTECTION DRAWINGS.




1 **THIRD FLOOR - FIRE ALARM PLAN**
1/16" = 1'-0"

0' 4' 8' 16' 32'

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PERMIT REVISIONS | 06.02.2021 |
| PERMIT REVISIONS #2 | 08.03.2021 |


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FA1.3


JONES & JONES ASSOCIATES / ARCHITECTS PC

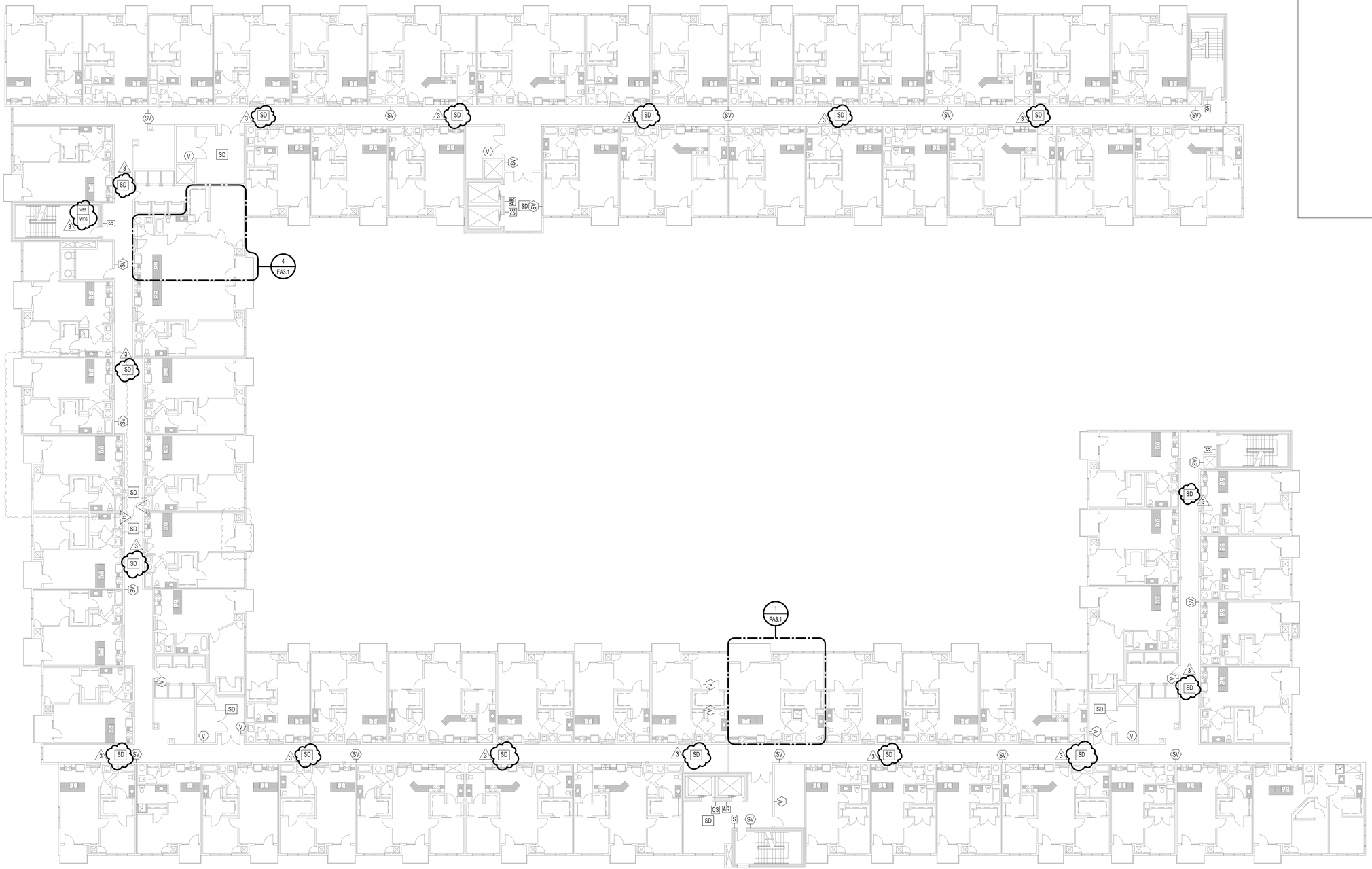


THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

**GENERAL NOTES**

1. REFER TO SHEET FA1.0 FOR FIRE ALARM KEY DIAGRAM.
2. COORDINATE EXACT LOCATION OF TAMPER SWITCHES WITH FIRE PROTECTION DRAWINGS.




1 TYPICAL FLOOR - FIRE ALARM PLAN
1/16" = 1'-0"

0' 4' 8' 16' 32'

REVISION DATE
PERMIT REVISIONS 06.30.2021
PERMIT REVISIONS #2 09.15.2021

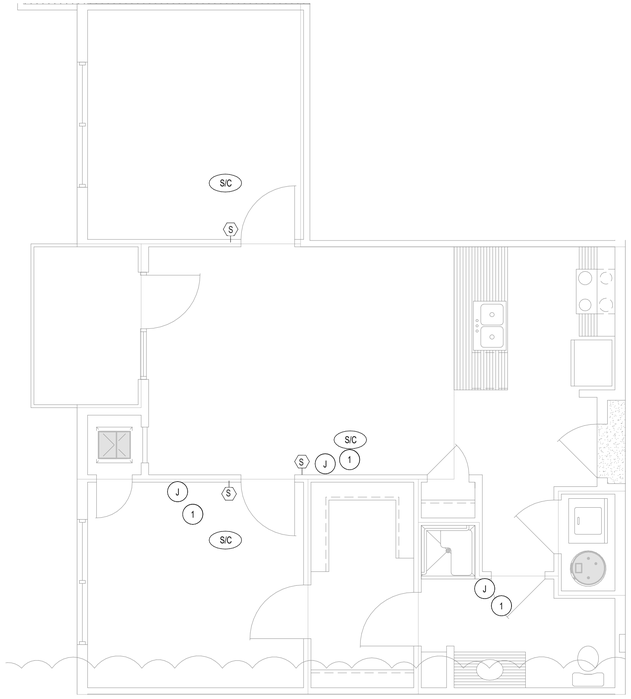
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

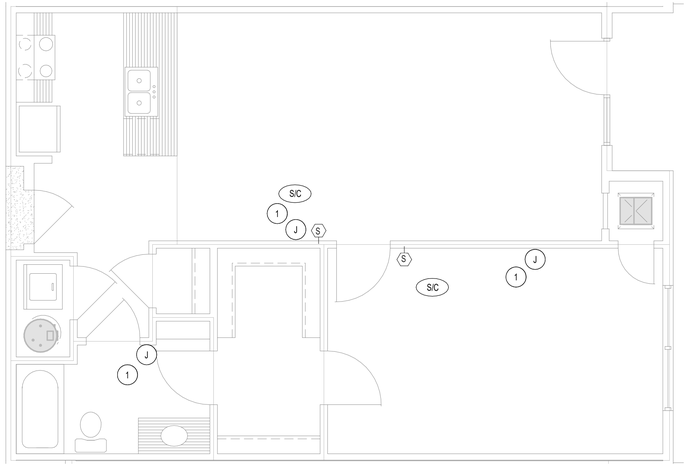
FA1.4

JONES & JONES ASSOCIATES / ARCHITECTS PC



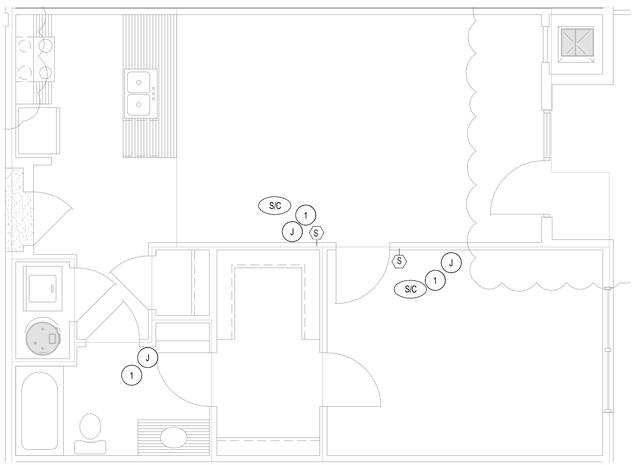

5 **ONE BEDROOM UNIT - TYPE E - FIRE ALARM PLAN**
1/4" = 1'-0"



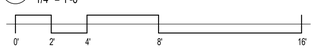



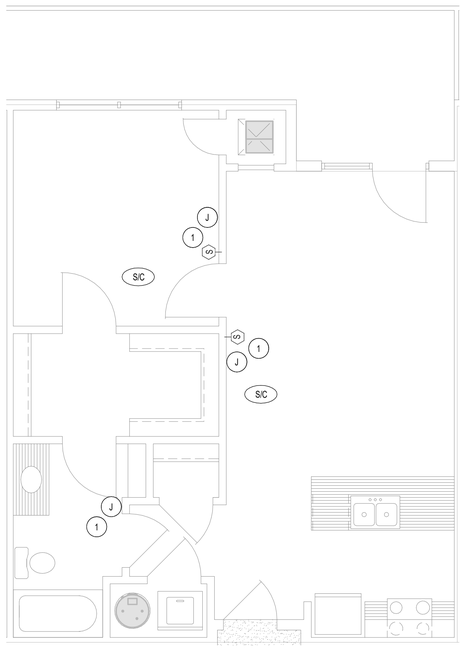

4 **ONE BEDROOM UNIT - TYPE D - FIRE ALARM PLAN**
1/4" = 1'-0"



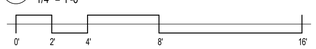



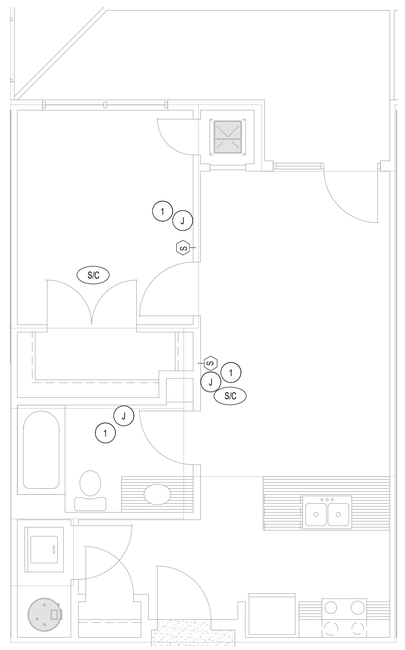

3 **ONE BEDROOM UNIT - TYPE C - FIRE ALARM PLAN**
1/4" = 1'-0"



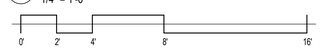




2 **ONE BEDROOM UNIT - TYPE B - FIRE ALARM PLAN**
1/4" = 1'-0"




1 **ONE BEDROOM UNIT - TYPE A - FIRE ALARM PLAN**
1/4" = 1'-0"




**LEGEND**

S/C — 120VAC NON SYSTEM HARD-WIRED COMBINATION PHOTOELECTRIC SMOKE/CARBON MONOXIDE DETECTOR COMPLETE WITH RECESSED MOUNTED BACKBOX. CONNECT SMOKE DETECTORS TO LIGHTING CIRCUIT, AHEAD OF CONTROLS. SMOKE/CARBON MONOXIDE DETECTORS SHALL BE WIRED IN TANDEM WITHIN ONE RESIDENTIAL UNIT SO THAT IN THE EVENT OF AN ALARM AT ONE LOCATION, ALL SMOKE/CARBON MONOXIDE DETECTORS WITHIN RESIDENCE ARE ACTIVATED.

**GENERAL NOTES**

1. IN ALL ADAPTABLE UNITS, PROVIDE A WALL MOUNTED COMBINATION FIRE ALARM SYSTEM AUDIBLE/VISUAL DEVICE AS PER NFPA 72 AND ILLINOIS ACCESSIBILITY CODE. THE AUDIBLE DEVICE SHALL BE CALIBRATED TO PRODUCE 75 DECIBELS AT EACH BEDROOM PILLOW.
2. CONCEAL ALL CONDUIT RACEWAYS WITHIN WALLS, FLOORS AND CEILINGS EXCEPT WHERE EXPLICITLY NOTED.
3. INSTALL ALL DEVICE BACK BOXES FULLY RECESSED IN WALLS UNLESS NOTED OTHERWISE.
4. COORDINATE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION. REFER TO ARCHITECTURAL ELEVATIONS FOR ADDITIONAL INFORMATION.
5. PROVIDE A 120VAC, NON-SYSTEM HARD-WIRED PHOTOELECTRIC COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR WITH BATTERY BACK-UP IN ALL DWELLING UNITS. INSTALL SMOKE & CO DETECTORS A MINIMUM OF 10' AWAY FROM STOVES.
6. SMOKE DETECTORS TO BE LISTED FOR RESISTANCE TO COMMON NUISANCE SOURCE.

**SHEET NOTES**

1 TYPICAL LOCATION OF AUDIO/VISUAL DEVICE FOR HEARING AND VISUAL IMPAIRED UNITS. HVI UNITS SHALL HAVE AUDIO/VISUAL DEVICES, WIRING AND CONDUIT. HVC UNITS SHALL ONLY HAVE EMPTY BACKBOXES WITH COVER PLATE AND CONDUIT FOR FUTURE AUDIO/VISUAL DEVICE. MOUNT DEVICES AT 90" A.F.F. OR 6" BELOW CEILING, WHICHEVER IS LOWER. REFER TO ARCHITECTURAL SHEETS AND ACCESSIBILITY MATRIX FOR HEARING AND VISUAL IMPAIRED UNIT DESIGNATION.

REVISION — DATE
PERMIT REVISIONS — 06.30.2021

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

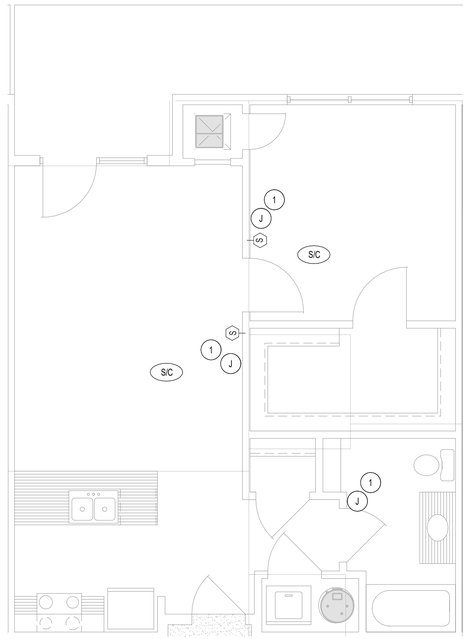
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

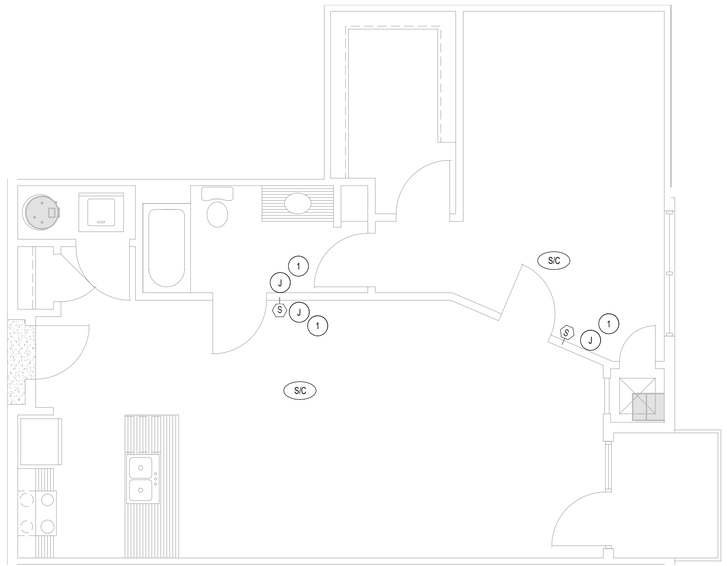
FA3.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

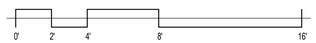
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



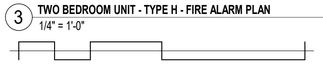

5 **ONE BEDROOM UNIT - TYPE K - FIRE ALARM PLAN**
1/4" = 1'-0"

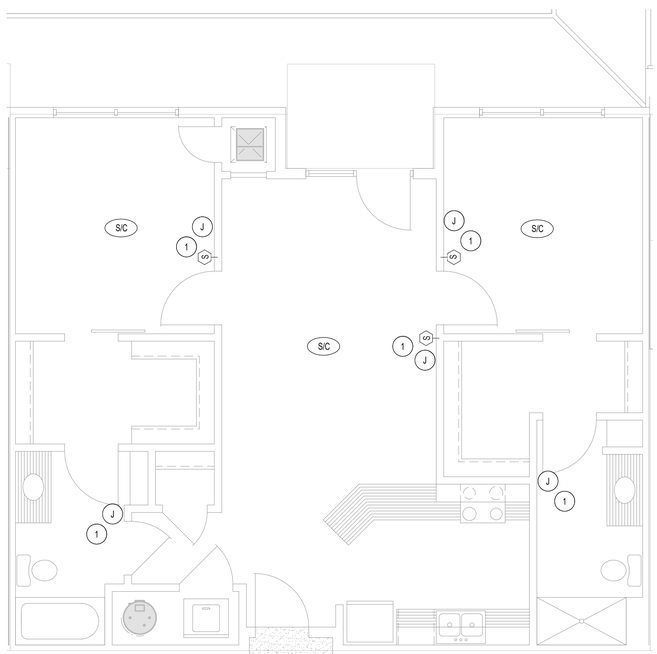



4 **ONE BEDROOM UNIT - TYPE J - FIRE ALARM PLAN**
1/4" = 1'-0"

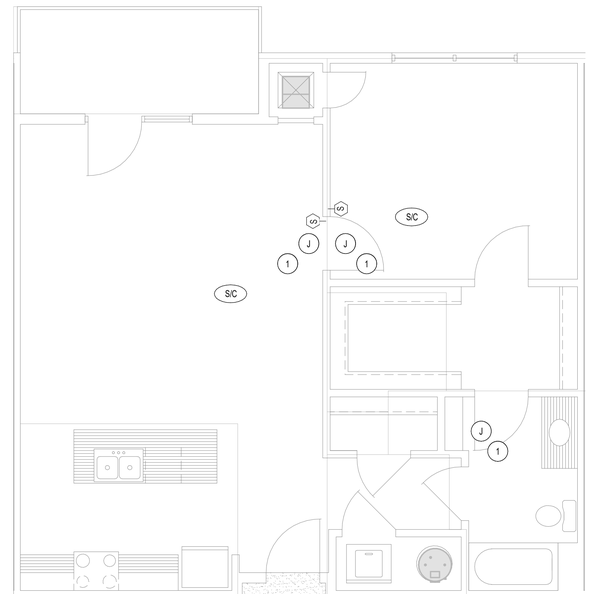


3 **TWO BEDROOM UNIT - TYPE H - FIRE ALARM PLAN**
1/4" = 1'-0"

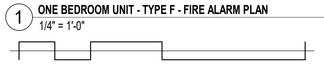



2 **TWO BEDROOM UNIT - TYPE G - FIRE ALARM PLAN**
1/4" = 1'-0"




1 **ONE BEDROOM UNIT - TYPE F - FIRE ALARM PLAN**
1/4" = 1'-0"




**LEGEND**

S/C — 120VAC NON SYSTEM HARD-WIRED COMBINATION PHOTOELECTRIC SMOKE/CARBON MONOXIDE DETECTOR COMPLETE WITH RECESSED MOUNTED BACKBOX. CONNECT SMOKE DETECTORS TO LIGHTING CIRCUIT, AHEAD OF CONTROLS. SMOKE/CARBON MONOXIDE DETECTORS SHALL BE WIRED IN TANDEM WITHIN ONE RESIDENTIAL UNIT SO THAT IN THE EVENT OF AN ALARM AT ONE LOCATION, ALL SMOKE/CARBON MONOXIDE DETECTORS WITHIN RESIDENCE ARE ACTIVATED.

**GENERAL NOTES**

1. IN ALL ADAPTABLE UNITS, PROVIDE A WALL MOUNTED COMBINATION FIRE ALARM SYSTEM AUDIBLE/VISUAL DEVICE AS PER NFPA 72 AND ILLINOIS ACCESSIBILITY CODE. THE AUDIBLE DEVICE SHALL BE CALIBRATED TO PRODUCE 75 DECIBELS AT EACH BEDROOM PILLOW.
2. CONCEAL ALL CONDUIT RACEWAYS WITHIN WALLS, FLOORS AND CEILINGS EXCEPT WHERE EXPLICITLY NOTED.
3. INSTALL ALL DEVICE BACK BOXES FULLY RECESSED IN WALLS UNLESS NOTED OTHERWISE.
4. COORDINATE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION. REFER TO ARCHITECTURAL ELEVATIONS FOR ADDITIONAL INFORMATION.
5. PROVIDE A 120VAC, NON-SYSTEM HARD-WIRED PHOTOELECTRIC COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR WITH BATTERY BACK-UP IN ALL DWELLING UNITS. INSTALL SMOKE & CO DETECTORS A MINIMUM OF 10' AWAY FROM STOVES.
6. SMOKE DETECTORS TO BE LISTED FOR RESISTANCE TO COMMON NUISANCE SOURCE.

**SHEET NOTES**

1 TYPICAL LOCATION OF AUDIO/VISUAL DEVICE FOR HEARING AND VISUAL IMPAIRED UNITS. HVI UNITS SHALL HAVE AUDIO/VISUAL DEVICES, WIRING AND CONDUIT. HVC UNITS SHALL ONLY HAVE EMPTY BACKBOXES WITH COVER PLATE AND CONDUIT FOR FUTURE AUDIO/VISUAL DEVICE. MOUNT DEVICES AT 90" A.F.F. OR 6" BELOW CEILING, WHICHEVER IS LOWER. REFER TO ARCHITECTURAL SHEETS AND ACCESSIBILITY MATRIX FOR HEARING AND VISUAL IMPAIRED UNIT DESIGNATION.

REVISION / DATE
PERMIT REVISIONS 06.30.2021

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

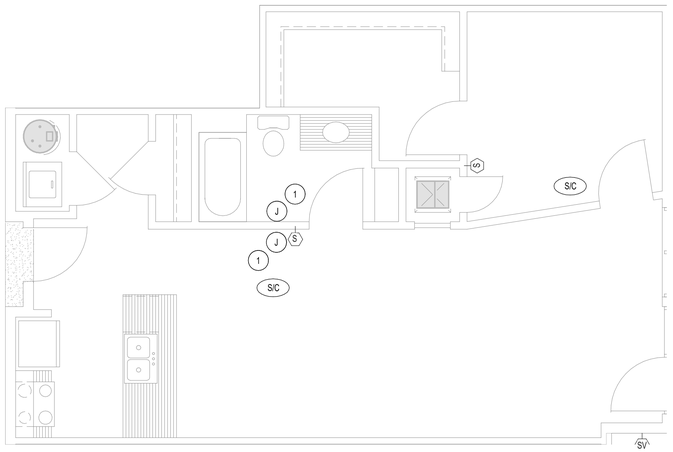
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FA3.1

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




4 **STUDIO UNIT - TYPE O - FIRE ALARM PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'

**LEGEND**

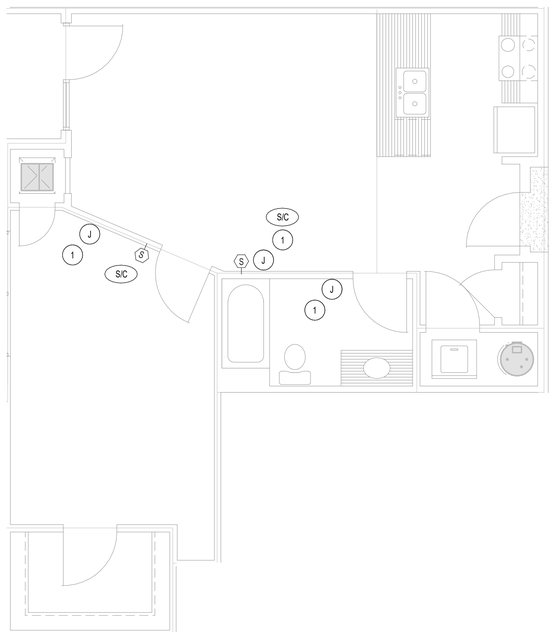
S/C — 120VAC NON SYSTEM HARD-WIRED COMBINATION PHOTOELECTRIC SMOKE/CARBON MONOXIDE DETECTOR COMPLETE WITH RECESSED MOUNTED BACKBOX. CONNECT SMOKE DETECTORS TO LIGHTING CIRCUIT, AHEAD OF CONTROLS. SMOKE/CARBON MONOXIDE DETECTORS SHALL BE WIRED IN TANDEM WITHIN ONE RESIDENTIAL UNIT SO THAT IN THE EVENT OF AN ALARM AT ONE LOCATION, ALL SMOKE/CARBON MONOXIDE DETECTORS WITHIN RESIDENCE ARE ACTIVATED.

**GENERAL NOTES**

1. IN ALL ADAPTABLE UNITS, PROVIDE A WALL MOUNTED COMBINATION FIRE ALARM SYSTEM AUDIBLE/VISUAL DEVICE AS PER NFPA 72 AND ILLINOIS ACCESSIBILITY CODE. THE AUDIBLE DEVICE SHALL BE CALIBRATED TO PRODUCE 75 DECIBELS AT EACH BEDROOM PILLOW.
2. CONCEAL ALL CONDUIT RACEWAYS WITHIN WALLS, FLOORS AND CEILINGS EXCEPT WHERE EXPLICITLY NOTED.
3. INSTALL ALL DEVICE BACK BOXES FULLY RECESSED IN WALLS UNLESS NOTED OTHERWISE.
4. COORDINATE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN/INSTALLATION. REFER TO ARCHITECTURAL ELEVATIONS FOR ADDITIONAL INFORMATION.
5. PROVIDE A 120VAC, NON-SYSTEM HARD-WIRED PHOTOELECTRIC COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR WITH BATTERY BACK-UP IN ALL DWELLING UNITS. INSTALL SMOKE & CO DETECTORS A MINIMUM OF 10' AWAY FROM STOVES.
6. SMOKE DETECTORS TO BE LISTED FOR RESISTANCE TO COMMON NUISANCE SOURCE.

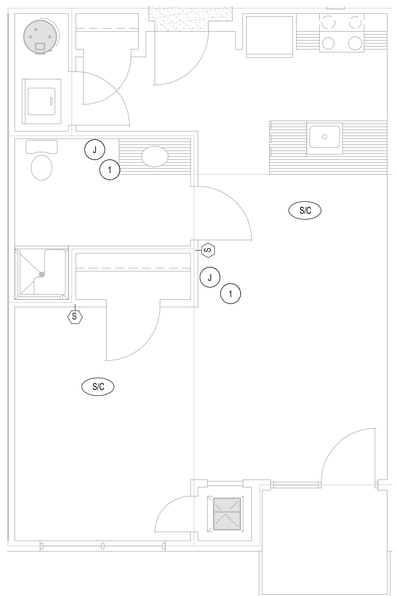
**SHEET NOTES**

1 — TYPICAL LOCATION OF AUDIO/VISUAL DEVICE FOR HEARING AND VISUAL IMPAIRED UNITS. HVI UNITS SHALL HAVE AUDIO/VISUAL DEVICES, WIRING AND CONDUIT. HVC UNITS SHALL ONLY HAVE EMPTY BACKBOXES WITH COVER PLATE AND CONDUIT FOR FUTURE AUDIO/VISUAL DEVICE. MOUNT DEVICES AT 90" A.F.F. OR 6" BELOW CEILING, WHICHEVER IS LOWER. REFER TO ARCHITECTURAL SHEETS AND ACCESSIBILITY MATRIX FOR HEARING AND VISUAL IMPAIRED UNIT DESIGNATION.



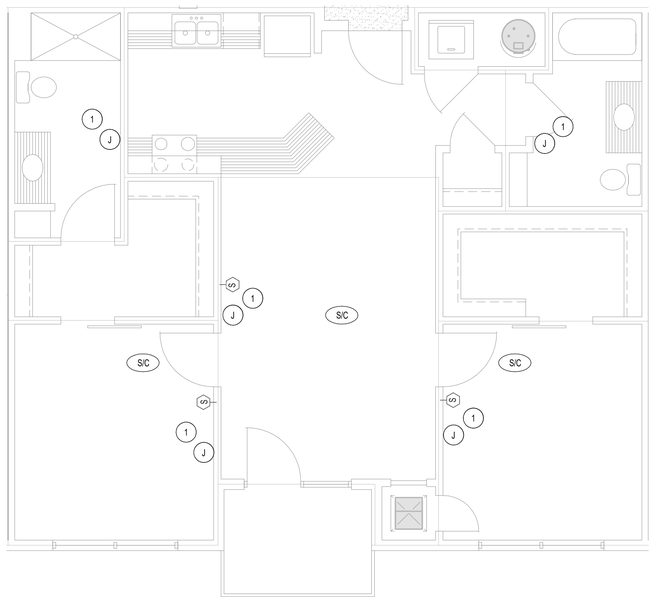

3 **ONE BEDROOM UNIT - TYPE N - FIRE ALARM PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




2 **STUDIO UNIT - TYPE M - FIRE ALARM PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'




1 **TWO BEDROOM UNIT - TYPE L - FIRE ALARM PLAN**
1/4" = 1'-0"

0' 2' 4' 8' 16'

REVISION / DATE
PERMIT REVISIONS 06.30.2021

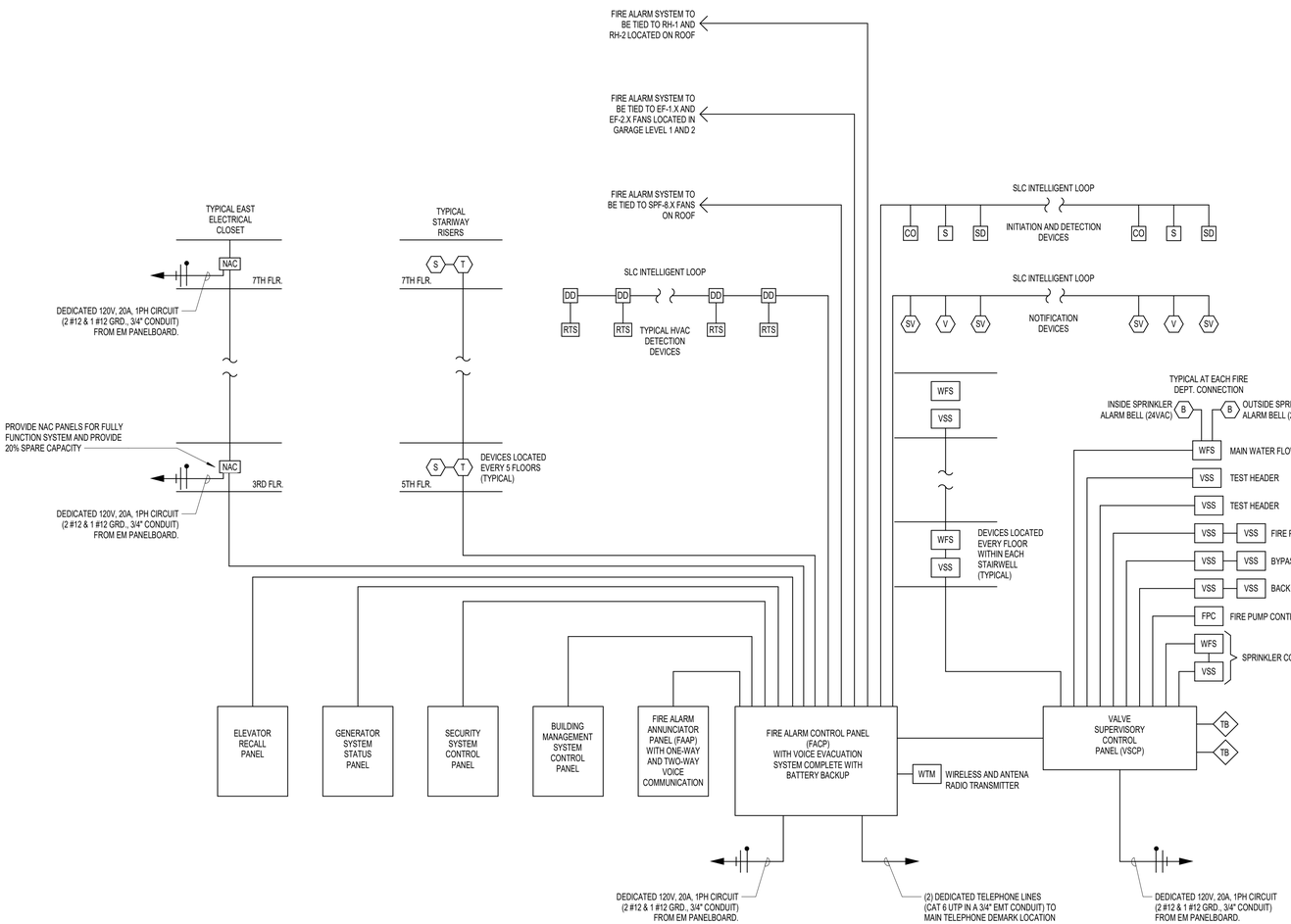
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FA3.2

JONES & JONES ASSOCIATES / ARCHITECTS PC




1 FIRE ALARM RISER DIAGRAM
NTS

**FIRE ALARM SYSTEM GENERAL NOTES**

1. ALL FIRE ALARM SYSTEMS (INITIATING, DETECTION, NOTIFICATION, RELAY MODULES, ETC.,) SHALL BE CLASS "A" WIRING.
2. ALL DEVICES AND EQUIPMENT SHOWN ON PLAN ARE FOR GENERAL LOCATION ONLY AND DO NOT DEPICT ACTUAL LOCATION. FINAL LOCATION AND PLACEMENT OF DEVICES AND EQUIPMENT SHALL BE FULLY COORDINATED WITH ARCHITECT AND ALL TRADES AND LOCAL FIRE MARSHALL. REFER TO ARCHITECTURAL DRAWINGS FOR AESTHETIC INTENT.
3. ALL SIGNALING LINE CIRCUITS (SLC's) SHALL BE CLASS "A" WIRING METHOD. THESE CIRCUITS SHALL BE 2/C #16 AWG IN 3/4" CONDUIT UNLESS OTHERWISE NOTED.
4. ALL NOTIFICATION DEVICE/APPLIANCE CIRCUITS (NAC's) SHALL BE CLASS "A" WIRING METHOD. CONNECT THESE DEVICES WITH 2/C #16 AWG IN 3/4" CONDUIT UNLESS OTHERWISE NOTED.
5. ALL INITIATING DEVICE CIRCUITS (IDC's) SHALL BE CLASS "A" WIRING METHOD. CONNECT THESE DEVICES WITH 2/C #16 AWG IN 3/4" CONDUIT UNLESS OTHERWISE NOTED.
6. FIRE ALARM SYSTEM INSTALLATION SHALL BE IN STRICT CONFORMANCE WITH THE NEC AND NFPA 72.
7. INSTALLATION MATERIALS (I.E. CONDUIT, WIRE, FITTINGS, HANGERS, AND STANDARD BOXES) SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
8. ALL HORN/STROBE AND STROBE DEVICES SHALL BE MOUNTED AT A HEIGHT OF 80" A.F.F. OR 6" BELOW DROPPED CEILING, WHICHEVER IS LESS IN ACCORDANCE WITH ADA (AMERICANS WITH DISABILITIES ACT). REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS.
9. FIRE ALARM CONTROL PANEL SHALL BE MOUNTED 6' TO THE TOP OF PANEL A.F.F. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS.
10. ALL FIRE ALARM SYSTEM CONDUITS SHALL BE FACTORY PAINTED RED AND SHALL BE NOT LESS THAN 3/4" EMT UNLESS OTHERWISE NOTED.
11. FIRE ALARM CONTROL PANEL SHALL BE CAPABLE OF MONITORING ALL DETECTION, INITIATION, NOTIFICATION AND CARBON MONOXIDE DEVICES.
12. ALL FIRE ALARM SYSTEM WIRING SHALL BE IN CONDUIT.
13. MOUNT ALL HVAC DUCT MOUNTED SMOKE DETECTORS WITHIN THE MAIN HEADER DUCT INSIDE THE BUILDING. DUCT DETECTORS MOUNTED ON THE EXTERIOR SIDE OF THE BUILDING SHALL NOT BE ACCEPTABLE.
14. ALL SECURED DOORS AT STAIRWELLS EQUIPPED WITH ELECTRIC DOOR STRIKES SHALL UNLOCK UPON ACTIVATION OF FIRE ALARM SYSTEM WHERE APPLICABLE. PROVIDE SIGNAL WIRING IN CONDUIT AND ASSOCIATED HARDWARE, SOFTWARE, MODULES AND PROGRAMMING AS REQUIRED.
15. MAIN WATER FLOW SWITCH SHALL ACTIVATE ALARM BELLS.
16. PROVIDE FIRE ALARM MAPS COMPLETE WITH DEVICE ADDRESS TO EACH FIRE ALARM CONTROL PANEL AND FIRE ALARM ANNUNCIATOR PANEL LOCATION.
17. DUCT SMOKE DETECTORS SHALL BE PROVIDED:
    a. DOWNSTREAM OF AIR FILTERS AND AHEAD OF ANY BRANCH CONNECTIONS IN AIR SUPPLY SYSTEMS HAVING A CAPACITY GREATER THAN 2,000CFM.
    b. AT EACH STORY PRIOR TO THE CONNECTION TO A COMMON RETURN AND PRIOR TO ANY RECIRCULATION OF FRESH AIR INLET CONNECTION IN AIR RETURN SYSTEMS HAVING A CAPACITY GREATER THAN 15,000CFM AND SERVING MORE THAN ONE STORY.
18. ALL AUTOMATIC TRANSFER SWITCHES SHALL BE PROVIDED WITH REMOTE MONITORING AT FIRE ALARM CONTROL PANEL.
19. COORDINATE WITH FIRE PROTECTION DRAWINGS FOR COMPLETE QUANTITY AND LOCATIONS OF FLOW AND TAMPER SWITCHES.
20. PROVIDE 3/4" EMPTY CONDUITS FROM FIRE ALARM CONTROL PANEL TO RETAIL SPACES FOR FUTURE DEVICE CONNECTION. ENSURE FIRE ALARM CONTROL PANEL IS PROVIDED WITH SPARE CAPACITY FOR FUTURE RETAIL BUILD OUT.

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PC/ZBA RESUBMIT | 06.15.2021 |


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

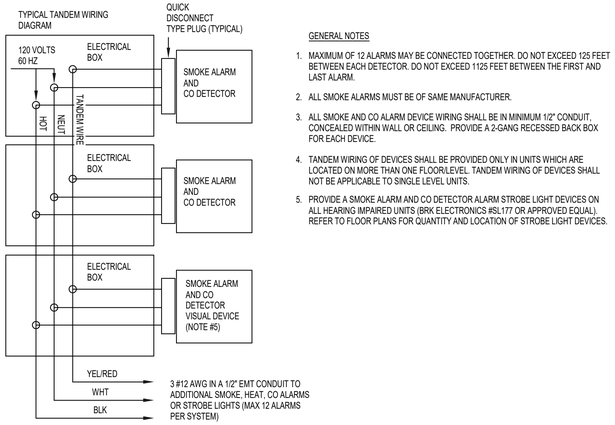
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FA4.0


JONES & JONES ASSOCIATES / ARCHITECTS PC



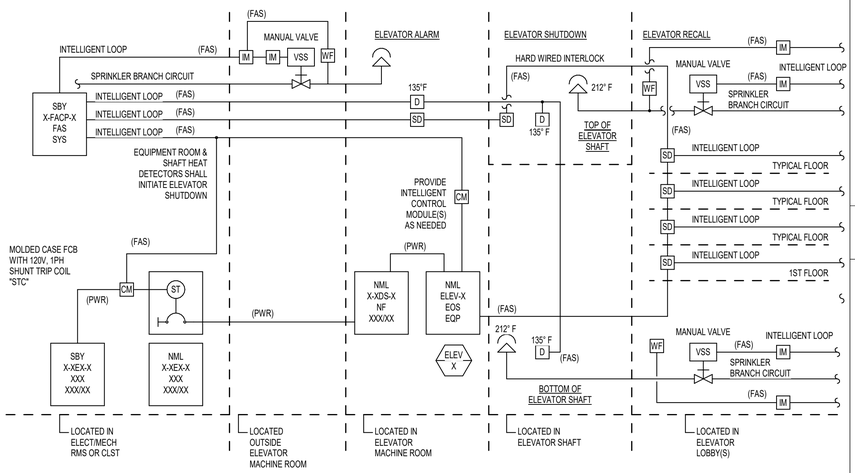
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



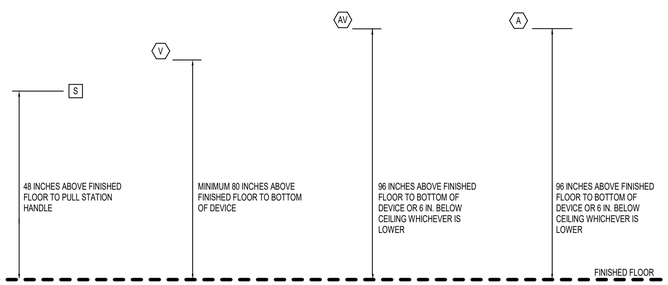

GENERAL NOTES

1. MAXIMUM OF 12 ALARMS MAY BE CONNECTED TOGETHER. DO NOT EXCEED 125 FEET BETWEEN EACH DETECTOR. DO NOT EXCEED 1125 FEET BETWEEN THE FIRST AND LAST ALARM.
2. ALL SMOKE ALARMS MUST BE OF SAME MANUFACTURER.
3. ALL SMOKE AND CO ALARM DEVICE WIRING SHALL BE IN MINIMUM 1/2" CONDUIT, CONCEALED WITHIN WALL OR CEILING. PROVIDE A 2-GANG RECESSED BACK BOX FOR EACH DEVICE.
4. TANDEM WIRING OF DEVICES SHALL BE PROVIDED ONLY IN UNITS WHICH ARE LOCATED ON MORE THAN ONE FLOOR/LEVEL. TANDEM WIRING OF DEVICES SHALL NOT BE APPLICABLE TO SINGLE LEVEL UNITS.
5. PROVIDE A SMOKE ALARM AND CO DETECTOR ALARM STROBE LIGHT DEVICES ON ALL HEARING IMPAIRED UNITS (BRK ELECTRONICS #SL177 OR APPROVED EQUAL). REFER TO FLOOR PLANS FOR QUANTITY AND LOCATION OF STROBE LIGHT DEVICES.

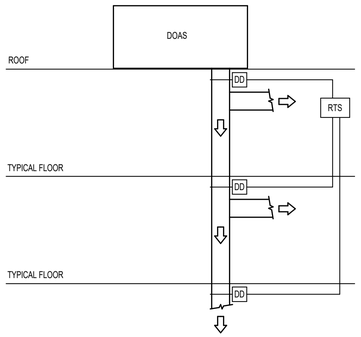
4 TANDEM WIRING OF SMOKE AND CO ALARM DEVICES - RESIDENTIAL UNITS
NTS




5 FIRE ALARM - ELEVATOR SHUT-DOWN RECALL OVERRIDE SYSTEM EOS1
NTS




6 FIRE ALARM DEVICES MOUNTING HEIGHTS
NTS




GENERAL NOTES:

1. LOCATE REMOTE KEYED TEST STATIONS IN SEVENTH FLOOR ELECTRICAL CLOSET AND PROVIDE DUCT SMOKE DETECTOR ADDRESS.
2. LOCATE DUCT SMOKE DETECTORS IN A READILY ACCESSIBLE LOCATION. PROVIDE A FIRE RATED ACCESS COVER IF DUCT SMOKE DETECTOR IS MOUNTED BEHIND OR WITHIN WALL/CEILING CAVITY.

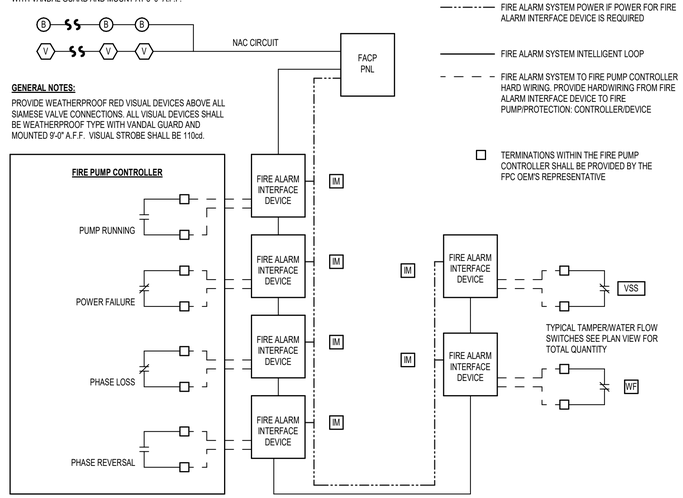
2 AIR HANDLING UNIT DUCT SMOKE DETECTOR SYSTEM SCHEMATIC DIAGRAM1
NTS

**GENERAL NOTES:**

INSTALL FURNISHED BELL ABOVE ALL SIAMESE VALVE CONNECTIONS. ALL BELLS SHALL BE FURNISHED BY THE FIRE PROTECTION CONTRACTOR. PROVIDE WEATHERPROOF TYPE WITH VANDAL GUARD AND MOUNT AT 8'-0" A.F.F.

**GENERAL NOTES:**

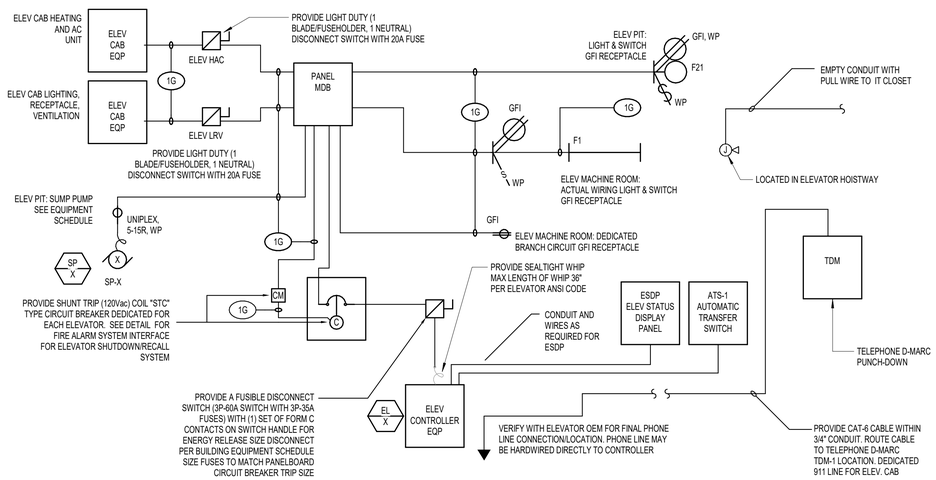
PROVIDE WEATHERPROOF RED VISUAL DEVICES ABOVE ALL SIAMESE VALVE CONNECTIONS. ALL VISUAL DEVICES SHALL BE WEATHERPROOF TYPE WITH VANDAL GUARD AND MOUNTED 9'-0" A.F.F. VISUAL STROBE SHALL BE 110cd.




**GENERAL NOTES:**

1. PROVIDE ALARM FOR FIRE PUMP RUN (FULL FIRE AND PHASE REVERSAL).
2. ALL WIRING SHALL BE IN 3/4" MINIMUM CONDUIT.

1 ELECTRICAL DRIVEN FIRE PUMP CONTROL1
NTS




3 ELEVATOR ANCILLARY POWER CONTROL WIRING DETAIL1
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

| REVISION | DATE |
|---|---|
| ISSUE FOR PERMIT | 04.02.2021 |
| PC/BBB RECISIONS | 06.02.2021 |

dbHMS
design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

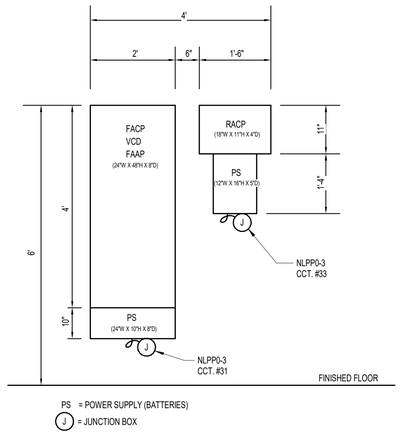
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

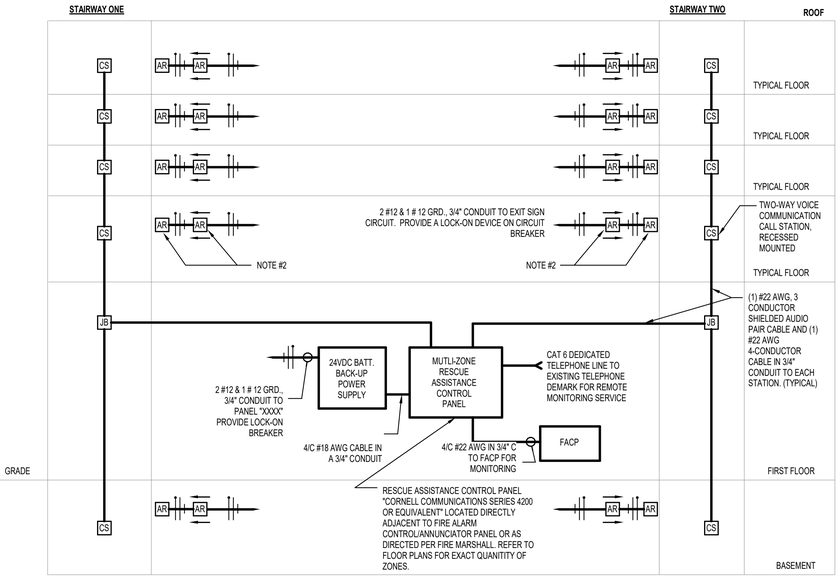
FA6.0

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 FIRE ALARM CONTROL PANEL AND RESCUE AREA CONTROL PANEL MOUNTING HEIGHTS1
NTS

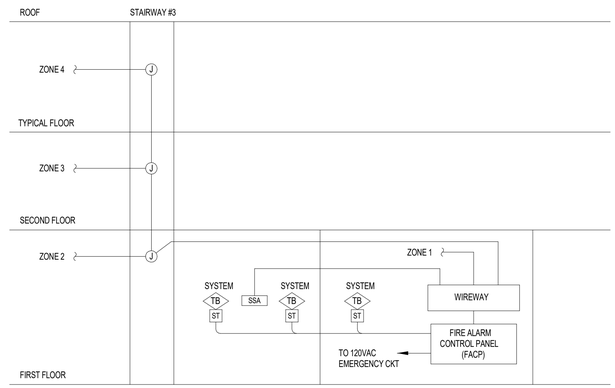



**GENERAL NOTES:**

1. PROVIDE RESCUE ASSISTANCE COMMUNICATIONS SYSTEM AS PER AMERICANS WITH DISABILITIES ACT.

2. PROVIDE AN ADA APPROVED LED ILLUMINATED "AREA OF RESCUE ASSISTANCE" SIGN AT EACH STAIRWAY ENTRANCE EQUIPPED WITH AN AREA OF RESCUE CONFIGURATION. ILLUMINATED SIGN SHALL BE EQUIPPED WITH A 90 MINUTE BATTERY AND TEST STATION (HDI INC. #ADA-IS-UL OR APPROVED EQUAL). PROVIDE A 120VAC CIRCUIT WITH 2 #12 & 1 #12 GRD., 3/4" CONDUIT TO EACH ILLUMINATED SIGN FROM 120V PANEL. PROVIDE A LOCK-ON DEVICE ON 15A-1P CIRCUIT BREAKER.

2 AREA OF RESCUE ASSISTANCE SYSTEM RISER DIAGRAM
NTS




GENERAL NOTES:

1. RISER DIAGRAM ABOVE IS DIAGRAMMATIC AND IS SHOWN TO PROVIDE A GENERAL OVERVIEW OF MAJOR SYSTEM COMPONENTS AND THEIR INTERCONNECTION. THIS DIAGRAM IS NOT TO BE USED FOR FIELD INSTALLATION PURPOSES.

2. ALL WIRING SHALL BE IN CONDUIT, 3/4" MINIMUM. ALL WIRING SHALL BE PROVIDED PER MANUFACTURER'S RECOMMENDATIONS.

3. SEE FIRE PROTECTION SYSTEM DRAWINGS FOR DEVICE LOCATIONS AND QUANTITIES.

4. PROVIDE ALL ANCILLARY COMPONENTS, HARDWARE, POWER CONNECTIONS AND WIRING AS REQUIRED FOR A COMPLETE AND OPERATING VALVE SUPERVISORY (TAMPER) SYSTEM.

3 SPRINKLER SUPERVISORY SYSTEM RISER DIAGRAM
NTS

REVISION DATE
PERMIT REVISIONS 06.30.2021

dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

FA6.1

JONES & JONES ASSOCIATES ARCHITECTS PC

## COMMUNICATIONS SYMBOLS - OUTLETS

| | |
|---|---|
| | WALL OUTLET |
| | WALL FEEDPOINT |
| | FLOOR BOX OUTLET |
| | FLOOR FEEDPOINT |
| WAP | WIRELESS ACCESS POINT - CIELING MOUNTED |
| SME | STRUCTURED MEDIA ENCLOSURE |

## SECURITY SYMBOLS

| | |
|---|---|
| | CEILING MOUNTED - INTERIOR IP CAMERA |
| | WALL MOUNTED - EXTERIOR IP CAMERA |
| | CORNER MOUNTED - EXTERIOR IP CAMERA |
| OR | CARD READER |
| OR | INTERCOM |
| KP | KEYPAD |
| PP | PUSH PLATE |
| DC | MAGNETIC CONTACT |
| MD | MOTION DETECTOR |
| DR | DOOR RELEASE |
| LA | LOCAL ALARM |
| GB | GLASS BREAK |
| DB | DURESS BUTTON |
| TS | TEMPERATURE SENSOR |
| IM | INTERCOM MASTER STATION |
| ACP | ACCESS CONTROL PANEL |

## SYMBOL DESIGNATION

| SYMBOL | CAT6 | CAT6A | AV / SEC CABLING REQUIREMENTS | NOTES |
|---|---|---|---|---|
| A | 1 | | | STANDARD NETWORK CONNECTION |
| B | 2 | | | STANDARD NETWORK CONNECTION |
| C | 3 | | | STANDARD NETWORK CONNECTION |
| D | 4 | | | STANDARD NETWORK CONNECTION |
| F | 6 | | | STANDARD NETWORK CONNECTION |
| W | 1 | | | WALL PHONE |
| WAP | | 1 | | 802.11ax WIRELESS ACCESS POINT |
| ELV | 2 | | | ELEVATOR CONTROL PANEL |
| FACP | 2 | | | FIRE ALARM CONTROL PANEL |
| RCK | | | | |
| | | | | **REFER TO THE SECURITY DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION** |
| CAM | | 1 | | IP SECURITY CAMERA |
| ACP | 2 | | | ACCESS CONTROL PANEL / SECURITY FIELD PANEL |
| IM | 1 | | | IP INTERCOM MASTER STATION |
| IC1 | 1 | | | IP VIDEO INTERCOM STATION |
| | | | | |
| | | | | **REFER TO THE AV DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION** |
| TP | 1 | | | AV TOUCH SCREENCONTROL PANEL (QSC) |
| FPD(#) | | 2 | | FLAT PANEL DISPLAY (REFER TO SCHEDULES & DETAILS FOR EACH FPD) |
| PRJ | | 2 | | PROJECTOR |
| RCK1 | | | | |
| RCK2 | | | | |
| S | | | 16/2 | AV CEILING MOUNT SPEAKERS |

## CONTRACTOR COORDINATION RESPONSIBILITY MATRIX

| | ELECTRICAL CONTRACTOR RESPONSIBILTY | CONTRACTOR / INTEGRATOR COORDINATION NOTES |
|---|---|---|
| A | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| B | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| C | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| D | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| F | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| W | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| WAP | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| ELV | PROVIDE AND INSTALL CONDUIT AND SPECIALTY BACKBOXES | |
| FACP | PROVIDE AND INSTALL CONDUIT AND SPECIALTY BACKBOXES | |
| RCK | PROVIDE AND INSTALL CONDUIT/ BACKBOXES AND POWER | |
| CAM | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| ACP | PROVIDE AND INSTALL CONDUIT, BACKBOXES / SPECIALTY BOXES AND POWER | |
| IM | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| IC1 | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| TP | PROVIDE AND INSTALL CONDUIT AND BACKBOXES | |
| FPD(#) | PROVIDE AND INSTALL CONDUIT, BACKBOXES / SPECIALTY BOXES AND POWER | |
| PRJ | PROVIDE AND INSTALL CONDUIT, BACKBOXES / SPECIALTY BOXES AND POWER | |
| RCK1 | PROVIDE AND INSTALL CONDUIT, BACKBOXES / SPECIALTY BOXES AND POWER | |
| RCK2 | PROVIDE AND INSTALL CONDUIT, BACKBOXES / SPECIALTY BOXES AND POWER | |
| S | PROVIDE AND INSTALL CONDUIT, BACKBOXES / SPECIALTY BOXES AND POWER | |

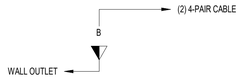
NOTES:

1. SCS / TECHNOLOGY CONTRACTOR SHALL PROVIDE AND INSTALL ALL SECURITY AND AV RACKS / CABINETS UNDER THE SCS SCOPE.
2. ELECTRICAL CONTRACTOR SHALL CONFIRM AND COORDINATE ALL AV POWER, CONDUIT AND BACKBOX REQUIREMENTS PRIOR TO INSTALLATION

CONDUIT FILL CHART ( NUMBER OF CABLES AT 40% )

| CONDUIT TRADE SIZE (in.) | | CAT6A UTP (O.D. - 0.295) | CAT6 UTP (O.D. - 0.212) | |
|---|---|---|---|---|
| 0.75 | | 2 | 5 | |
| 1 | | 4 | 9 | |
| 1.25 | | 7 | 14 | |
| 1.5 | | 10 | 20 | |
| 2 | | 18 | 35 | |

EXAMPLE:




## CONDUIT PATHWAYS AND ENCLOSURES

1. GENERAL REQUIREMENTS:
   A. REQUIREMENTS FOR CONDUITS AND BACK BOXES IN SPECIFICATION 27 05 33 COMMUNICATION CONDUITS AND BOXES SHALL BE FOLLOWED.

**PULL BOX SIZING GUIDE**

| CONDUIT TRADE SIZE (IN.) | PULL BOX WIDTH (IN.) | PULL BOX LENGTH (IN.) | PULL BOX DEPTH (IN.) | PULL BOX WIDTH INCREASE FOR ADDITIONAL CONDUIT (IN.) |
|---|---|---|---|---|
| 1 | 4 | 16 | 3 | 2 |
| 1 1/4 | 6 | 20 | 3 | 3 |
| 1 1/2 | 8 | 27 | 4 | 4 |
| 2 | 8 | 36 | 4 | 5 |
| 2 1/2 | 10 | 42 | 5 | 6 |
| 3 | 12 | 48 | 5 | 6 |
| 3 1/2 | 12 | 54 | 6 | 6 |
| 4 | 15 | 60 | 8 | 8 |

## ABBREVIATIONS

| | |
|---|---|
| AFC | ABOVE FINISHED CEILING |
| AFF | ABOVE FINISHED FLOOR |
| AHJ | AUTHORITY HAVING JURISDICTION |
| BAS | BUILDING AUTOMATED SYSTEMS |
| BMS | BUILDING MANAGEMENT SYSTEMS |
| BDF | BUILDING DISTRIBUTION FACILITY |
| C | CONDUIT |
| CATV | COMMUNITY ANTENNA TELEVISION |
| CCTV | CLOSED CIRCUIT TELEVISION |
| CP | CONSOLIDATION POINT |
| CER | COMMUNICATIONS EQUIPMENT ROOM |
| DIM | DIMENSION |
| DWG | DRAWING |
| EC | EMPTY CONDUIT |
| EF | ENTRANCE FACILITY |
| (E) | EXIST/EXISTING |
| ER | EQUIPMENT ROOM |
| F/UTP | FOIL SCREENED TWISTED PAIR |
| FOE | FIBER OPTIC ENTRANCE |
| GND | GROUND |
| HT | HEIGHT/HIGH |
| ID | INSIDE DIAMETER |
| IDF | INTERMEDIATE DISTRIBUTION FACILITY |
| LOMMF | LASER OPTIMIZED MULTIMODE FIBER |
| MDF | MAIN DISTRIBUTION FACILITY |
| MH | MANHOLE |
| MMF | MULTIMODE FIBER |
| MPOE | MINIMUM POINT OF ENTRY |
| MER | MAIN EQUIPMENT ROOM |
| NIC | NOT IN CONTRACT |
| NTS | NOT TO SCALE |
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OFCI | OWNER FURNISHED, CONTRACTOR INSTALLED |
| OFE | OWNER FURNISHED EQUIPMENT |
| OFOI | OWNER FURNISHED, OWNER INSTALLED |
| OSP | OUTSIDE PLANT CABLE |
| PB | PULLBOX |
| PR | PAIR |
| REQ | REQUIREMENT |
| RM | ROOM |
| SMF | SINGLE-MODE FIBER |
| TGB | TELECOMMUNICATIONS GROUNDING BUSBAR |
| TMGB | TELECOMMUNICATIONS MAIN GROUNDING BUSBAR |
| TSID | TELECOMMUNICATIONS SPACE IDENTIFICATION |
| TR | TELECOMMUNICATIONS ROOM |
| TSER | TELECOMMUNICATIONS SERVICE ENTRANCE ROOM |
| UPS | UNINTERRUPTIBLE POWER SUPPLY |
| (U/)UTP | UNSHIELDED TWISTED PAIR |
| UON | UNLESS OTHERWISE NOTED |
| VIF | VERIFY IN FIELD |
| WAP | WIRELESS ACCESS POINT |
| WP | WEATHERPROOF |
| ZDF | ZONE DISTRIBUTION FACILITY |

## SYMBOLS

| | |
|---|---|
| X / Y | DETAIL REFERENCE:<br>- (X) DENOTES DETAIL NUMBER<br>- (Y) DENOTES DRAWING NUMBER |
| X / Y | SECTION REFERENCE:<br>- (X) DENOTES DETAIL NUMBER<br>- (Y) DENOTES DRAWING NUMBER |
| # | KEYNOTE REFERENCE:<br>- (#) DENOTES IDENTIFIER |
| | CABLE TRAY |
| | CABLE RUNWAY |
| PB | PULL BOX |
| HH | HAND HOLE |

## GENERAL TECHNOLOGY NOTES

APPLICABLE TO ALL TECHNOLOGY DRAWINGS

1. ALL CABLES SHALL BE RATED FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED.
2. IT SHALL BE THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO VERIFY THE APPLICABLE CODE VERSION WITH THE AUTHORITY HAVING JURISDICTION (AHJ) FOR ALL WORK PERFORMED.
3. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE TELECOM DRAWINGS. OBTAIN CLARIFICATION BEFORE PROCEEDING WITH WORK.
4. A COPY OF THE SPECIFICATIONS AND DRAWINGS SHALL BE MAINTAINED AT THE JOB SITE AND SHALL BE PRESENTED UPON REQUEST. MAINTAIN DAILY MARKUPS OF ACTUAL INSTALLATION AND PRESENT FOR REVIEW DURING ALL SITE VISITS BY ENGINEER.
5. CABLE BUNDLING IS TO BE AVOIDED, ALL CABLES SHALL BE ALLOWED TO LAY NATURALLY IN CABLE TRAYS AND RUNWAYS. WHEN BUNDLING IS NECESSARY NO BUNDLE SHALL BE LARGER THAN 24 CABLES.
6. EXACT MOUNTING LOCATIONS AND HEIGHTS ARE FIELD COORDINATION ISSUES. CONTRACTOR TO COORDINATE WITH EXISTING CONDITIONS ON SITE TO PROVIDE THE MOST AESTHETIC APPEARANCE AND ALIGNMENT WITH NEARBY DEVICES.
7. TECHNOLOGY ROOM DIMENSIONS ON THE DRAWINGS HAVE BEEN TAKEN FROM ARCHITECTURAL DRAWINGS. THE SCALE OF THESE DRAWINGS ARE SUFFICIENTLY ACCURATE FOR DETERMINING THE LOCATION OF TECHNOLOGY INFRASTRUCTURE COMPONENTS, JUNCTION BOXES, OUTLET BOXES, RACEWAYS, RUNWAYS, PANELS, ETC. WHERE EXACT DIMENSIONS ARE INDICATED, THE REFERENCE SURFACE SHALL BE THE FINAL FINISHED SURFACE INCLUDING ANY ACOUSTICAL TREATMENT.
8. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD AND ANY DEVIATIONS CAUSING CHANGES EXCEEDING 6 INCHES TO THE INTENDED LOCATION OF MAJOR TECHNOLOGY INFRASTRUCTURE COMPONENTS SHALL BE COORDINATED WITH THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION.
9. IT SHALL BE THE RESPONSIBILITY OF THE TECHNOLOGY CONTRACTOR TO COORDINATE AND VERIFY SIGNAL/CONDUIT PATHWAYS WITH THE ELECTRICAL DRAWINGS.
10. REFER TO DIVISION 26 AND 27 SPECIFICATIONS FOR INSTALLATION REQUIREMENTS RELATED TO FLOORBOXES, JUNCTION BOXES, BONDING CONDUCTORS, BUSBARS, CONDUITS, CONDUIT BENDS, RUNWAYS IN CORRIDORS, METALLIC ENCLOSURES.
11. BOND ALL CONDUITS, CABLE TRAYS, AND JUNCTION BOXES IN TELECOMMUNICATION SPACES PER TIA-607 IN ADDITION TO ANY APPLICABLE CODE REQUIREMENTS.
12. PRIOR TO DRILLING OR CORING ANY CONCRETE, NEW OR EXISTING, REBAR AND PT TENDON SHALL BE LOCATED BY SCANNING. SHOP DRAWINGS SHOWING THE COORDINATED LOCATIONS OF OPENINGS AND ANCHORS TO AVOID DAMAGING REBAR AND PT TENDONS SHALL BE SUBMITTED. CORING OF POST-TENSION CONCRETE IS NOT PERMITTED WITHOUT THE REVIEW OF THE ARCHITECTS.
13. ALL TECHNOLOGY RELATED FLOORBOXES, POKE THRU DEVICES, JUNCTION BOXES AND BACK BOXES SHOULD BE PROVIDED WITH AN EMPTY CONDUIT TO THE APPLICABLE TELECOM ROOM, CABLE TRAY, RUNWAY, PULL BOX, OR OPEN ACCESS CEILING AREA.
14. CONDUIT ROUTES ON THE TELECOM DRAWINGS SHOW ONLY INTERCONNECTION BETWEEN THE TERMINATION POINTS AND APPROXIMATE ROUTES. THE EXACT ROUTE OF CONDUIT PATHWAYS SHALL BE COORDINATED AND VERIFIED BY CONTRACTOR BASED ON FIELD CONDITIONS.
15. CABLE PATHWAYS ON THE TELECOM DRAWINGS SHOW ONLY APPROXIMATE ROUTES. THE EXACT ROUTE OF PATHWAYS ARE TO BE COORDINATED AND VERIFIED BY CONTRACTOR BASED ON FIELD CONDITIONS.
16. THE METHOD OF INSTALLATION FOR ALL TECHNOLOGY RELATED BACKBOXES IN WALLS AND THE METHOD FOR PASSAGE OF CONDUIT AND RUNWAYS THROUGH ACOUSTICALLY SENSITIVE WALLS SHALL BE COORDINATED WITH THE ACOUSTICAL CONSULTANT OR OWNER PRIOR TO INSTALLATION.
17. ALL TECHNOLOGY DEVICES SHALL BE SECURELY MOUNTED PLUMB AND STRAIGHT TO WALLS, FLOORS, OR RACKS, PER THE MANUFACTURER'S RECOMMENDED MOUNTING PRACTICE.
18. CABLES INSTALLED IN ANY UNDERGROUND CONDUITS, INCLUDING UNDER OR WITHIN A SLAB ON GRADE, SHALL BE INDOOR/OUTDOOR RATED.
19. INSTALL FIRESTOP ASSEMBLIES IN ALL THROUGH-SLAB OR THROUGH-WALL RATED BARRIER PENETRATIONS FOR THE INSTALLATION OF TECHNOLOGY CABLING AS REQUIRED TO MAINTAIN FIRE RATING OF PENETRATED SLAB OR WALL. REVIEW DRAWINGS FOR PARTITION TYPE RATINGS. FIRESTOPPING SYSTEMS USED FOR ALL PENETRATIONS SHALL BE A UL LISTED ASSEMBLY AND APPROVED BY APPLICABLE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION.
20. SLEEVE ASSEMBLIES THAT PENETRATE RATED BARRIERS SHALL BE EZ-PATH OR EQUAL ASSEMBLIES TO ALLOW FOR SIMPLE MAINTENANCE FREE RE-ENTRY WITHOUT DISTURBING SEALANT AND SHALL A PROVIDE SMOKE BARRIER IN ADDITION TO FIRE RATING.
21. ELECTRICAL FEEDS ARE NOT TO BE RUN PARALLEL WITH VIDEO, AUDIO, OR TECHNOLOGY CABLING OR RACEWAYS. IF ELECTRICAL FEEDS MUST BE RUN PARALLEL, A MINIMUM OF 6 INCHES OF SEPARATION SHALL BE MAINTAINED.
22. POWER RECEPTACLES SHOWN ON TECHNOLOGY DRAWINGS ARE DEDICATED TO SPECIFIC TECHNOLOGY EQUIPMENT AND ARE SHOWN FOR REFERENCE ONLY. REFER TO ELECTRICAL DRAWINGS FOR ENGINEERED ELECTRICAL SYSTEM AND ADDITIONAL UTILITY POWER RECEPTACLES.
23. THE FINISHES FOR ALL TELECOM COMPONENTS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO PROCUREMENT.
24. TERMINATION OF OUTLETS IN ELEVATOR CONTROL AND ELEVATOR MACHINE ROOMS SHALL BE COORDINATED WITH ELEVATOR CONTRACTOR. ADDITIONAL SLACK MAY BE REQUIRED IN THESE LOCATIONS.
25. DIRECT CONNECT FIELD ASSEMBLY OF EQUIPMENT TO NETWORK CABLING IS PERMITTED.

REVISION / DATE
ISSUE FOR PERMIT 04.05.2021


dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

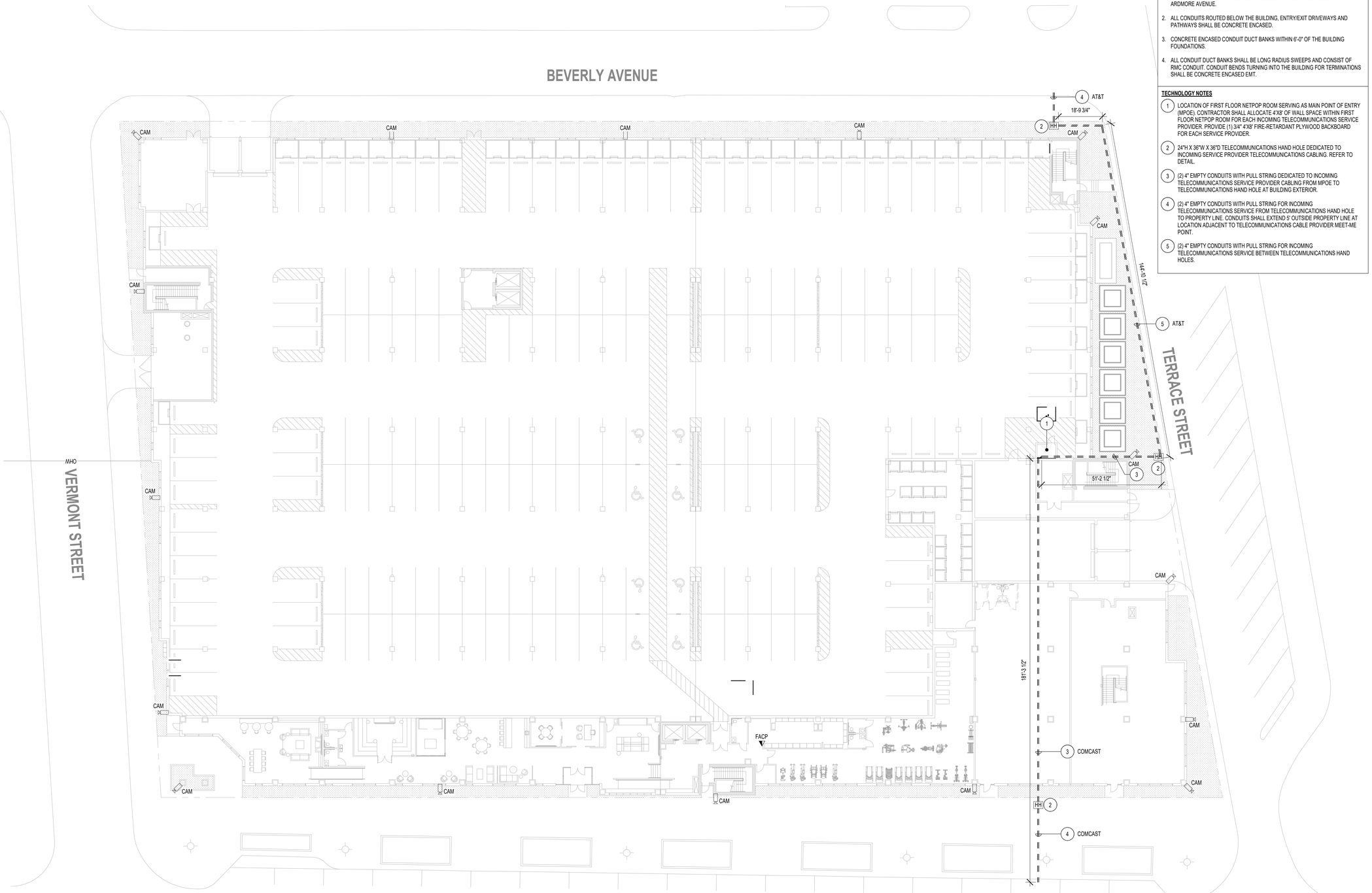
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T0.0


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




**TECHNOLOGY GENERAL NOTES:**

1. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF EXISTING TELECOMMUNICATIONS UTILITY SERVICE LINES AT TERRACE STREET AND ARDMORE AVENUE.
2. ALL CONDUITS ROUTED BELOW THE BUILDING, ENTRY/EXIT DRIVEWAYS AND PATHWAYS SHALL BE CONCRETE ENCASED.
3. CONCRETE ENCASED CONDUIT DUCT BANKS WITHIN 6'-0" OF THE BUILDING FOUNDATIONS.
4. ALL CONDUIT DUCT BANKS SHALL BE LONG RADIUS SWEEPS AND CONSIST OF RMC CONDUIT. CONDUIT BENDS TURNING INTO THE BUILDING FOR TERMINATIONS SHALL BE CONCRETE ENCASED EMT.

**TECHNOLOGY NOTES**

1. LOCATION OF FIRST FLOOR NETPOP ROOM SERVING AS MAIN POINT OF ENTRY (MPOE). CONTRACTOR SHALL ALLOCATE 4'X8' OF WALL SPACE WITHIN FIRST FLOOR NETPOP ROOM FOR EACH INCOMING TELECOMMUNICATIONS SERVICE PROVIDER. PROVIDE (1) 3/4" 4'X8' FIRE-RETARDANT PLYWOOD BACKBOARD FOR EACH SERVICE PROVIDER.
2. 24"H X 36"W X 36"D TELECOMMUNICATIONS HAND HOLE DEDICATED TO INCOMING SERVICE PROVIDER TELECOMMUNICATIONS CABLING. REFER TO DETAIL.
3. (2) 4" EMPTY CONDUITS WITH PULL STRING DEDICATED TO INCOMING TELECOMMUNICATIONS SERVICE PROVIDER CABLING FROM MPOE TO TELECOMMUNICATIONS HAND HOLE AT BUILDING EXTERIOR.
4. (2) 4" EMPTY CONDUITS WITH PULL STRING FOR INCOMING TELECOMMUNICATIONS SERVICE FROM TELECOMMUNICATIONS HAND HOLE TO PROPERTY LINE. CONDUITS SHALL EXTEND 5' OUTSIDE PROPERTY LINE AT LOCATION ADJACENT TO TELECOMMUNICATIONS CABLE PROVIDER MEET-ME POINT.
5. (2) 4" EMPTY CONDUITS WITH PULL STRING FOR INCOMING TELECOMMUNICATIONS SERVICE BETWEEN TELECOMMUNICATIONS HAND HOLES.

1 TECHNOLOGY SITE PLAN
1" = 20'-0"

REVISION DATE
ISSUE FOR PERMIT 04.05.2021


db HMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T0.1


JONES & JONES ASSOCIATES / ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

**GENERAL NOTES**

1. LOCATION OF SECOND FLOOR MDF ROOM ABOVE.
2. LOCATION OF SECOND FLOOR NORTHEAST IDF ROOM ABOVE.
3. LOCATION OF SECOND FLOOR NORTHWEST IDF ROOM ABOVE.
4. LOCATION OF SECOND FLOOR SOUTHEAST IDF ROOM ABOVE.
5. ROUTE AND TERMINATE ALL UTP AND SECURITY CABLING WITHIN THE BOUNDARY AREA TO SECOND FLOOR MDF ROOM
6. ROUTE AND TERMINATE ALL UTP AND SECURITY CABLING WITHIN THE BOUNDARY AREA TO SECOND FLOOR NORTHEAST IDF ROOM
7. ROUTE AND TERMINATE ALL UTP AND SECURITY CABLING WITHIN THE BOUNDARY AREA TO SECOND FLOOR NORTHWEST IDF ROOM
8. ROUTE AND TERMINATE ALL UTP AND SECURITY CABLING WITHIN THE BOUNDARY AREA TO SECOND FLOOR SOUTHEAST IDF ROOM

1 FIRST FLOOR - TECHNOLOGY
1/16" = 1'-0"

0' 4' 8' 16' 32'

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

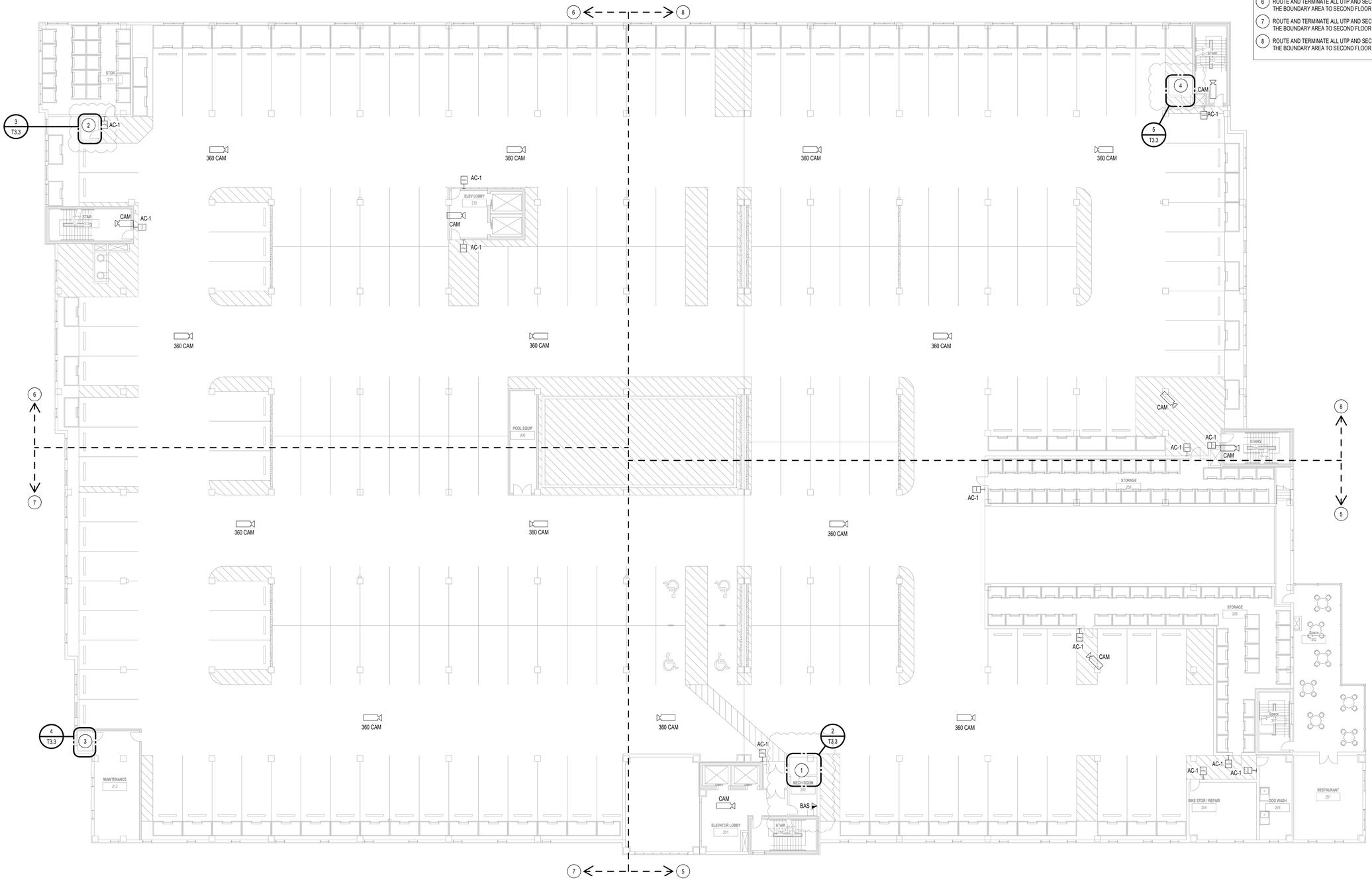
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T1.1

JONES & JONES ASSOCIATES ARCHITECTS PC

**GENERAL NOTES**

1. LOCATION OF SECOND FLOOR MDF ROOM
2. LOCATION OF SECOND FLOOR NORTHEAST IDF ROOM
3. LOCATION OF SECOND FLOOR NORTHWEST IDF ROOM
4. LOCATION OF SECOND FLOOR SOUTHEAST IDF ROOM
5. ROUTE AND TERMINATE ALL UTP AND SECURITY CABLING WITHIN THE BOUNDARY AREA TO SECOND FLOOR MDF ROOM
6. ROUTE AND TERMINATE ALL UTP AND SECURITY CABLING WITHIN THE BOUNDARY AREA TO SECOND FLOOR NORTHEAST IDF ROOM
7. ROUTE AND TERMINATE ALL UTP AND SECURITY CABLING WITHIN THE BOUNDARY AREA TO SECOND FLOOR NORTHWEST IDF ROOM
8. ROUTE AND TERMINATE ALL UTP AND SECURITY CABLING WITHIN THE BOUNDARY AREA TO SECOND FLOOR SOUTHEAST IDF ROOM




1 **SECOND FLOOR - TECHNOLOGY**
1/16" = 1'-0"

0' 4' 8' 16' 32'

N

REVISION DATE


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

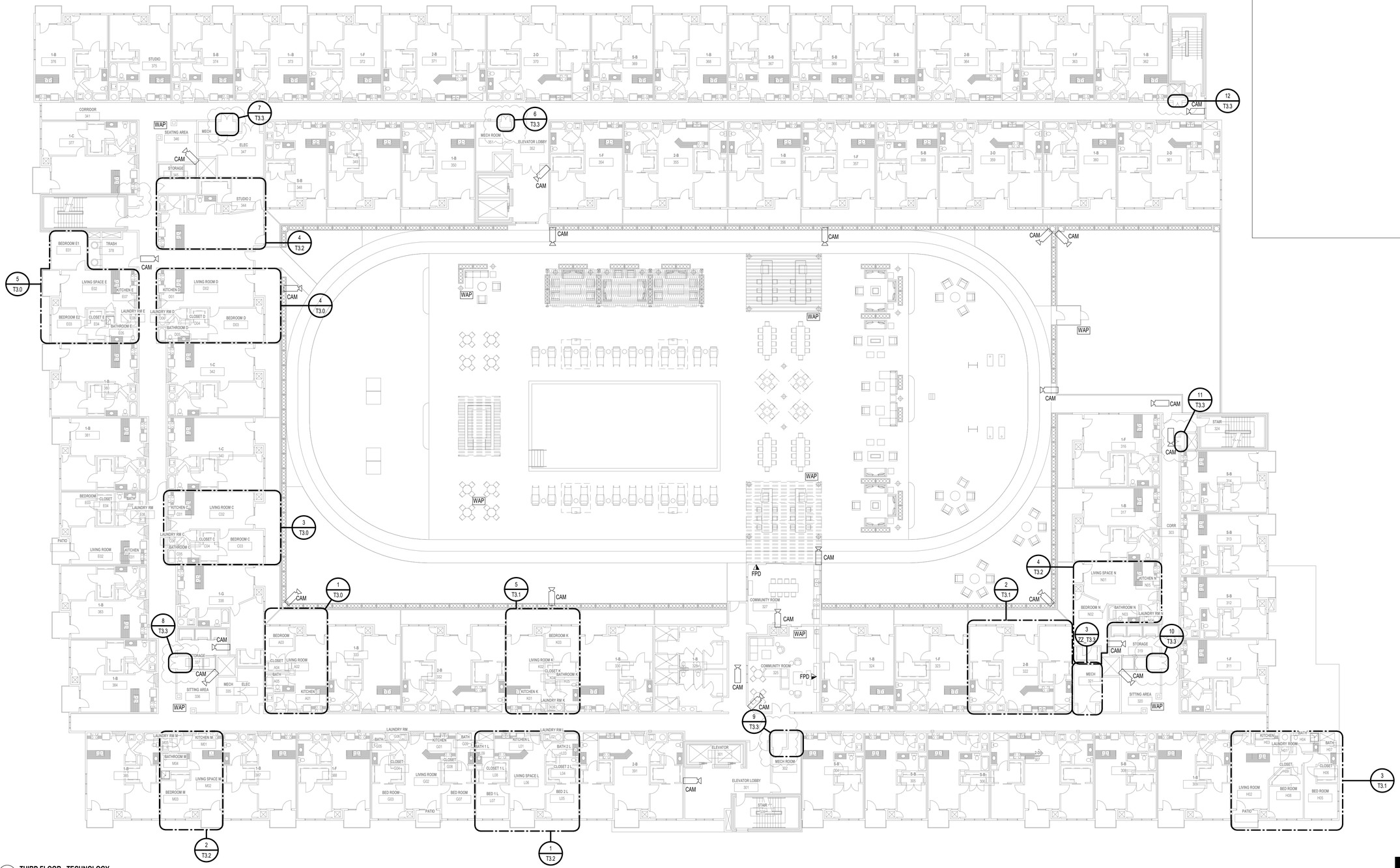
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T1.2


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **THIRD FLOOR - TECHNOLOGY**
1/16" = 1'-0"

0' 4' 8' 16' 32'

N

**GENERAL NOTES**

REVISION DATE


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T1.3

JONES & JONES ASSOCIATES ARCHITECTS PC


THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

1 **TYPICAL FLOOR - TECHNOLOGY**
1/16" = 1'-0"

0' 4' 8' 16' 32'

N

**GENERAL NOTES**

REVISION DATE


dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

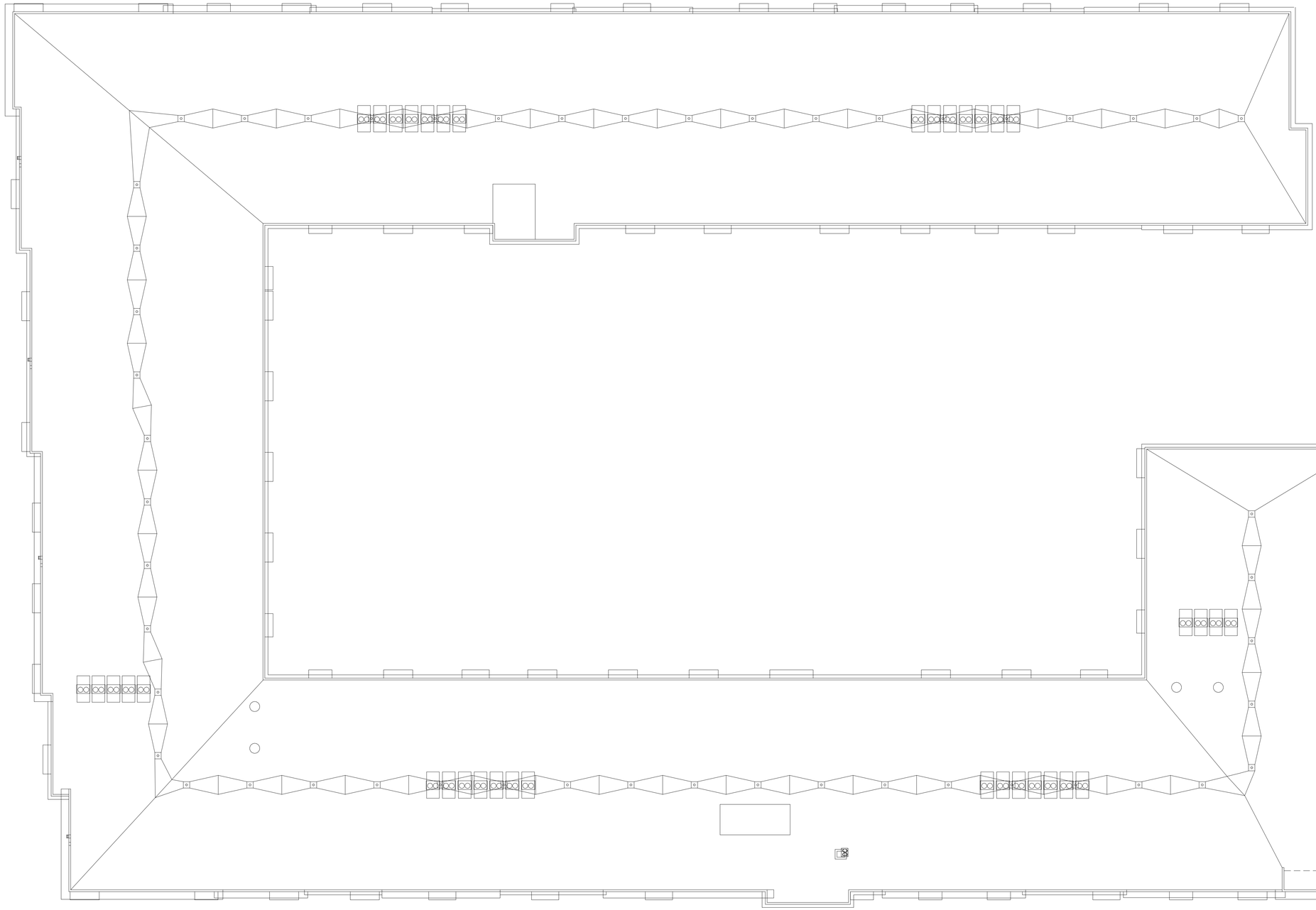
T1.4


JONES & JONES ASSOCIATES ARCHITECTS PC



THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



1 **ROOF - TECHNOLOGY**
1/16" = 1'-0"

0' 4' 8' 16' 32'

N

**GENERAL NOTES**

ROUTE ALL SECURITY CABLING ON ROOF TO IDF ROOM ON

REVISION DATE

db HMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

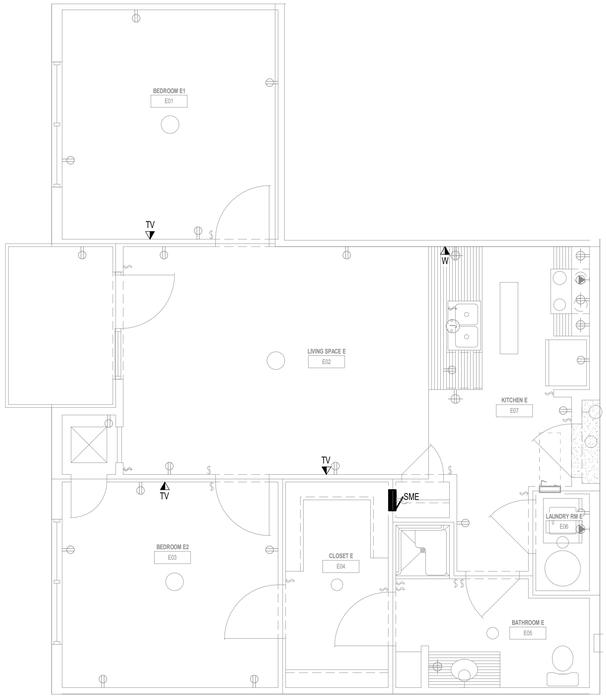
T1.8

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

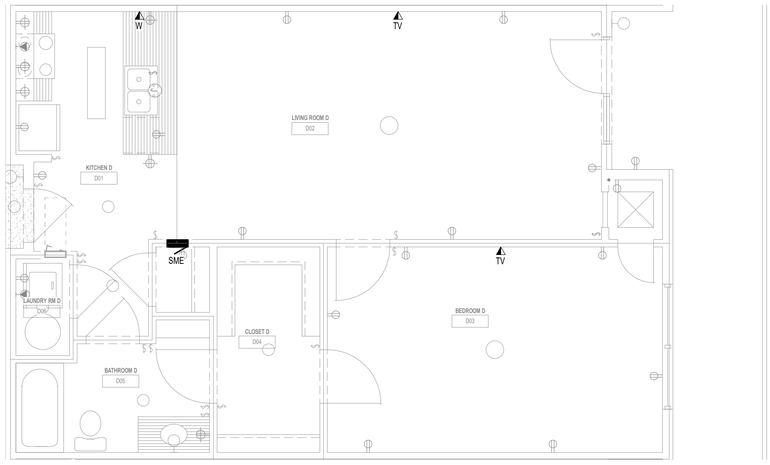
**SHEET NOTES**

1. ROUTE AND TERMINATE ALL RESIDENTIAL LOW VOLTAGE CABLING BACK TO STRUCTURED MEDIA ENCLOSURE WITHIN EACH RESIDENTIAL UNIT. ROUTE BACKBONE CABLING FROM STRUCTURED MEDIA ENCLOSURE TO RESPECTIVE IDF CLOSET SERVING FLOOR FOR TERMINATION AND UTILITY CONNECTIONS.
2. REFER TO FLOOR PLAN DRAWINGS FOR IDF LOCATIONS.
3. REFER TO DETAIL FOR CONDUIT ROUTING IN RESIDENTIAL UNITS.



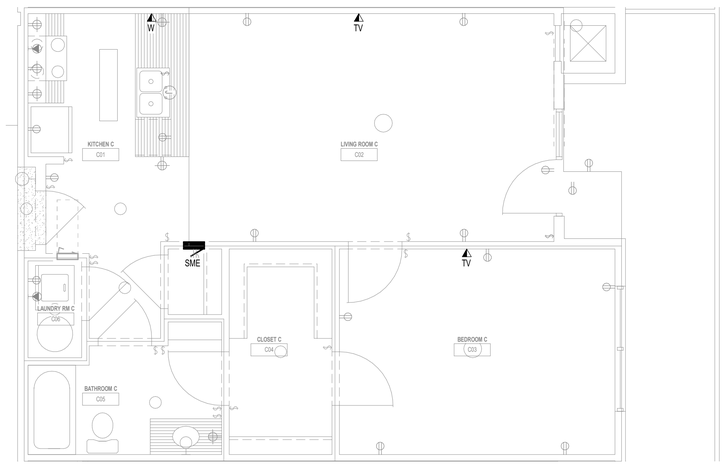

5 **ONE BEDROOM UNIT - TYPE E - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'



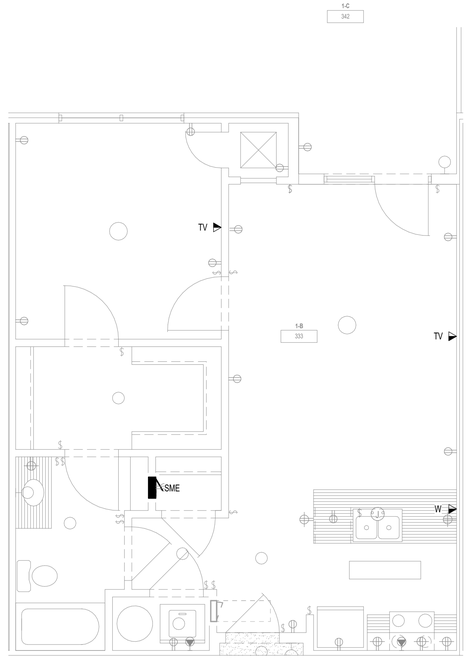

4 **ONE BEDROOM UNIT - TYPE D - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'



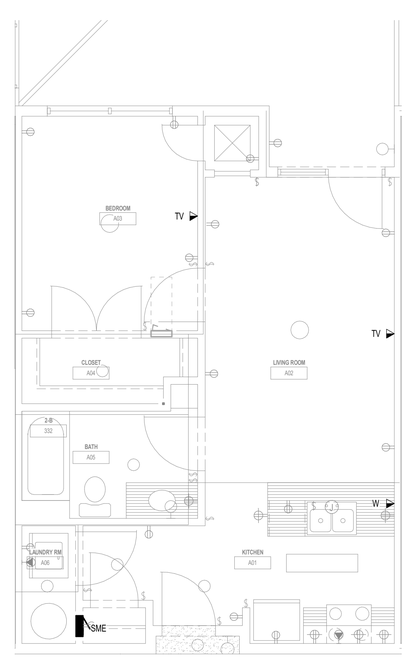

3 **ONE BEDROOM UNIT - TYPE C - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'




2 **ONE BEDROOM UNIT - TYPE B - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'




1 **ONE BEDROOM UNIT - TYPE A - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'

REVISION DATE

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

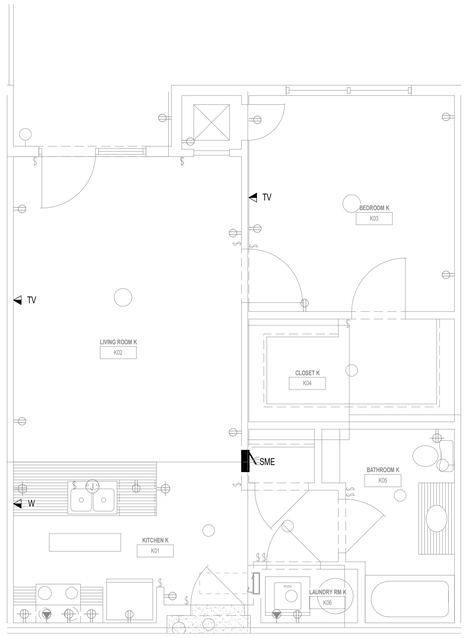
T3.0

JONES & JONES ASSOCIATES ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

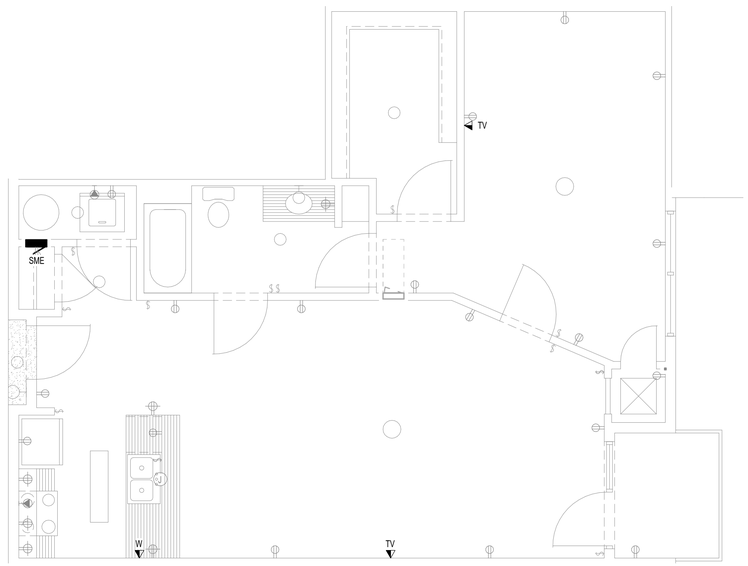
**SHEET NOTES**

1. ROUTE AND TERMINATE ALL RESIDENTIAL LOW VOLTAGE CABLING BACK TO STRUCTURED MEDIA ENCLOSURE WITHIN EACH RESIDENTIAL UNIT. ROUTE BACKBONE CABLING FROM STRUCTURED MEDIA ENCLOSURE TO RESPECTIVE IDF CLOSET SERVING FLOOR FOR TERMINATION AND UTILITY CONNECTIONS.
2. REFER TO FLOOR PLAN DRAWINGS FOR IDF LOCATIONS.
3. REFER TO DETAIL FOR CONDUIT ROUTING IN RESIDENTIAL UNITS.



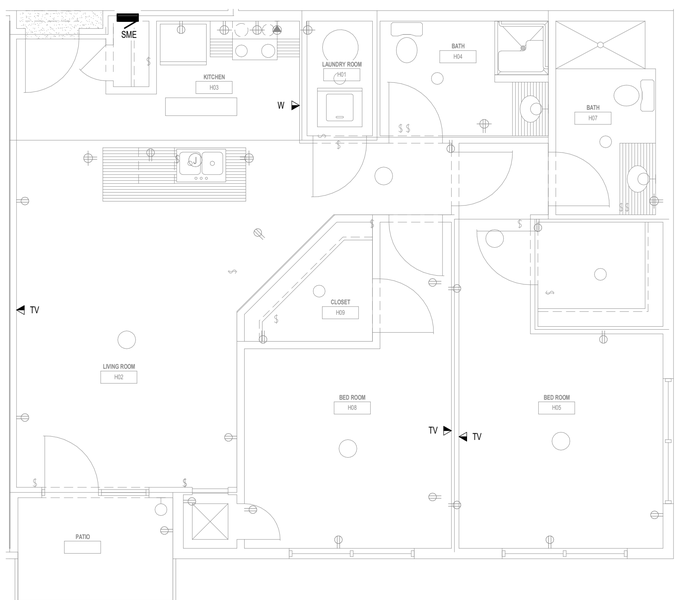

5 **ONE BEDROOM UNIT - TYPE K - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'



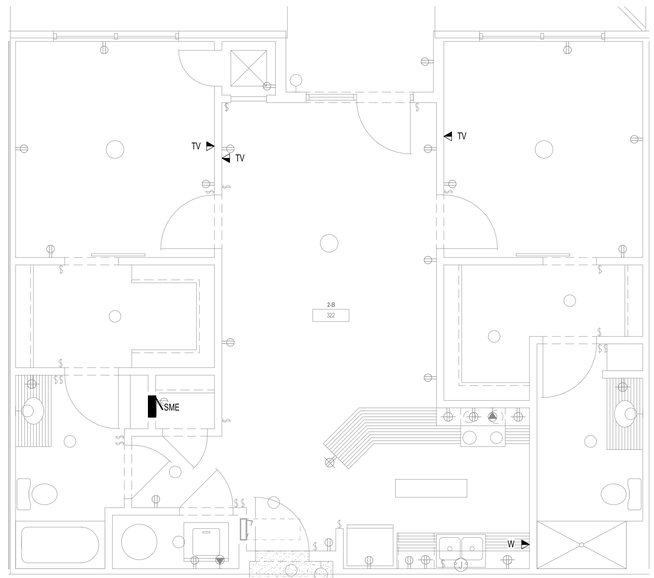

4 **ONE BEDROOM UNIT - TYPE J - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'



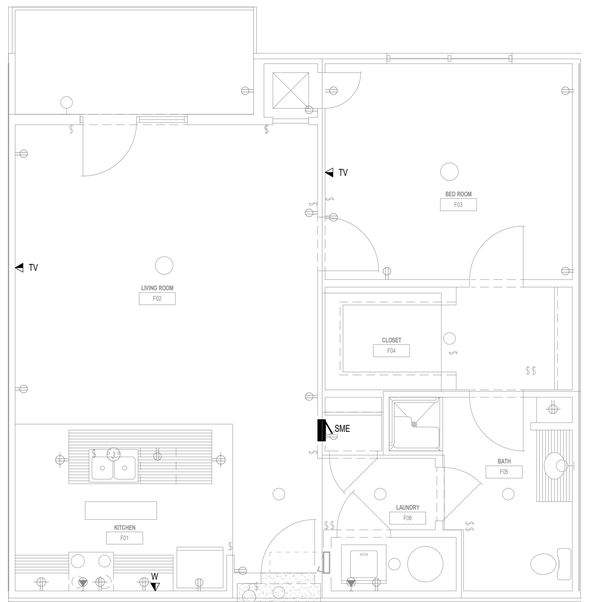

3 **TWO BEDROOM UNIT - TYPE H - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'




2 **TWO BEDROOM UNIT - TYPE G - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'




1 **ONE BEDROOM UNIT - TYPE F - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'

REVISION DATE

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

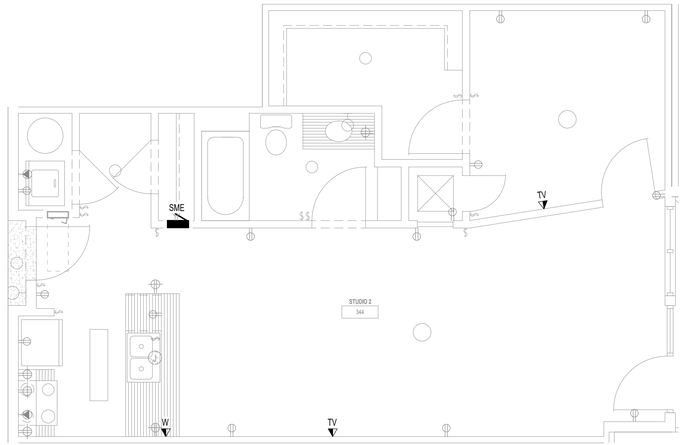
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T3.1

JONES & JONES ASSOCIATES ARCHITECTS PC

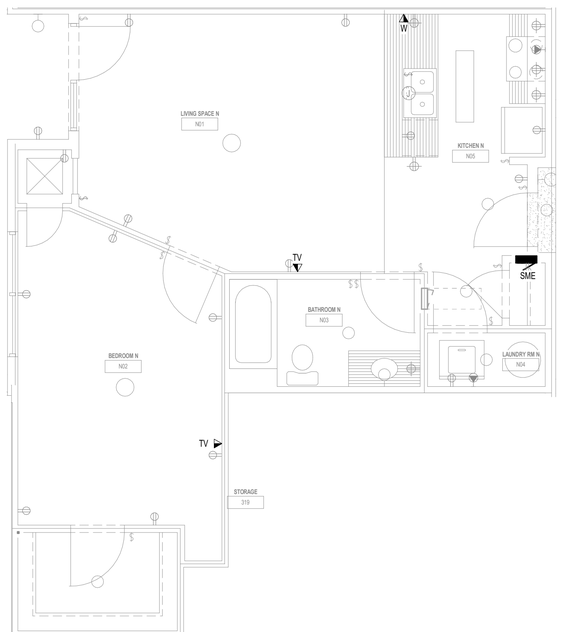
**SHEET NOTES**

1. ROUTE AND TERMINATE ALL RESIDENTIAL LOW VOLTAGE CABLING BACK TO STRUCTURED MEDIA ENCLOSURE WITHIN EACH RESIDENTIAL UNIT. ROUTE BACKBONE CABLING FROM STRUCTURED MEDIA ENCLOSURE TO RESPECTIVE IDF CLOSET SERVING FLOOR FOR TERMINATION AND UTILITY CONNECTIONS.
2. REFER TO FLOOR PLAN DRAWINGS FOR IDF LOCATIONS.
3. REFER TO DETAIL FOR CONDUIT ROUTING IN RESIDENTIAL UNITS.



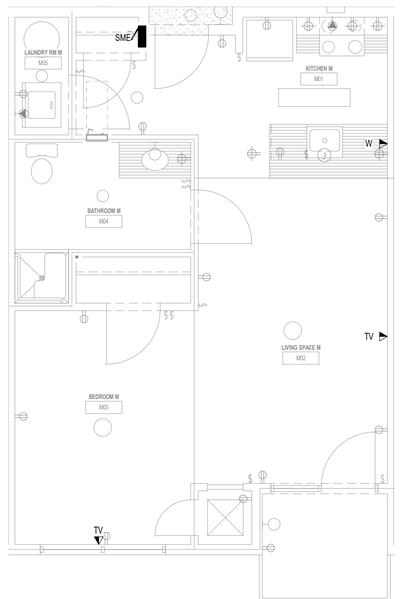

3 **STUDIO UNIT - TYPE O - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'



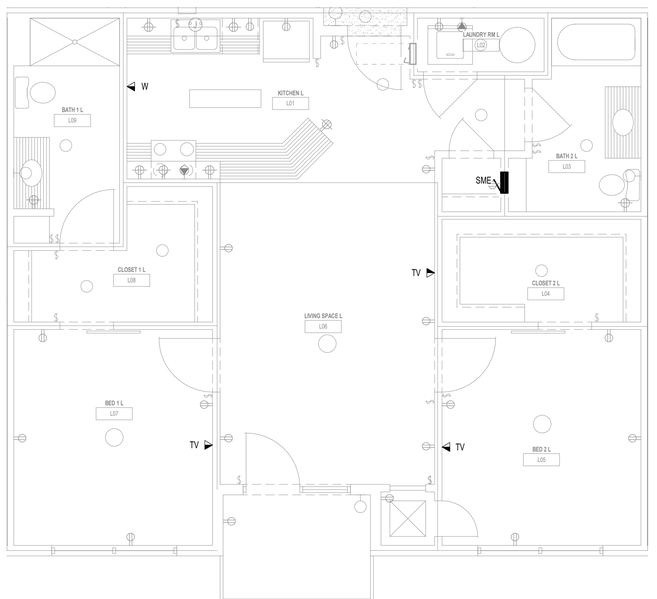

4 **ONE BEDROOM UNIT - TYPE N - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'




2 **STUDIO UNIT - TYPE M - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'




1 **TWO BEDROOM UNIT - TYPE L - TECHNOLOGY**
1/4" = 1'-0"

0' 2' 4' 8' 16'

REVISION DATE


dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com


GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

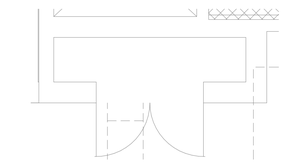
PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T3.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

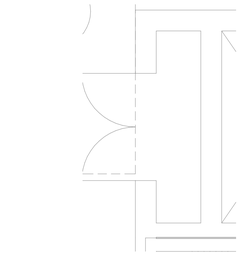

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT



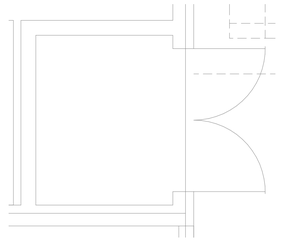
12 TYPICAL - IDF - SOUTHEAST (3RD-7TH)
1/2" = 1'-0"



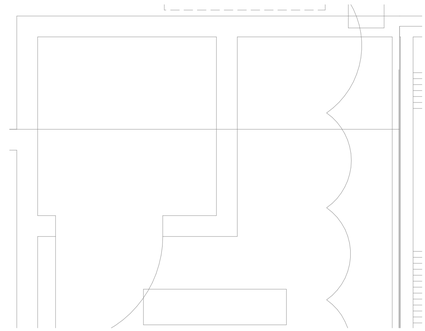
11 TYPICAL - IDF - SOUTH (3RD-7TH)
1/2" = 1'-0"



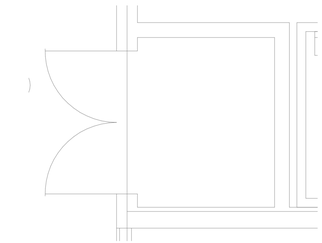
10 TYPICAL - IDF - SOUTHWEST (3RD-7TH)
1/2" = 1'-0"



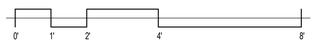



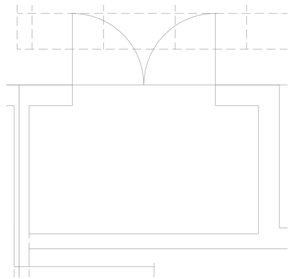
9 TYPICAL - IDF - WEST (3RD-7TH)
1/2" = 1'-0"



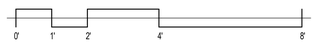



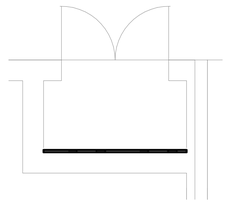
8 TYPICAL - IDF - NORTHWEST (3RD-7TH)
1/2" = 1'-0"



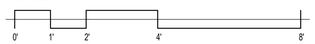



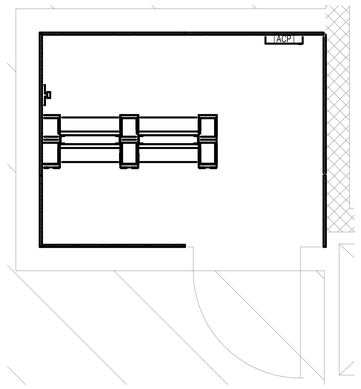
7 TYPICAL - IDF - NORTHEAST (3RD-7TH)
1/2" = 1'-0"



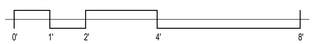



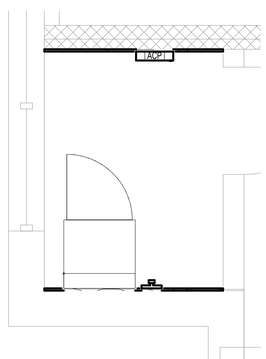
6 TYPICAL - IDF - EAST (3RD-7TH)
1/2" = 1'-0"



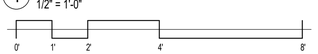



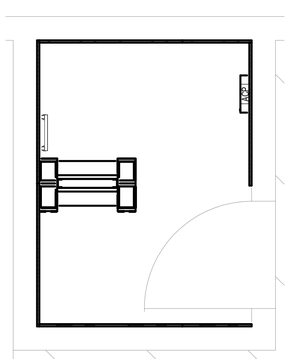

5 SECOND FLOOR - IDF - SOUTHEAST
1/2" = 1'-0"



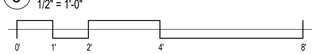



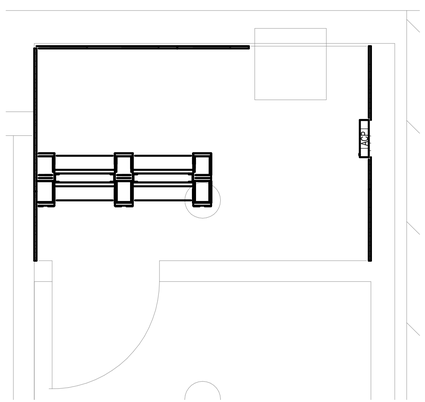

4 SECOND FLOOR - IDF - NORTHWEST
1/2" = 1'-0"



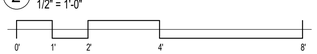



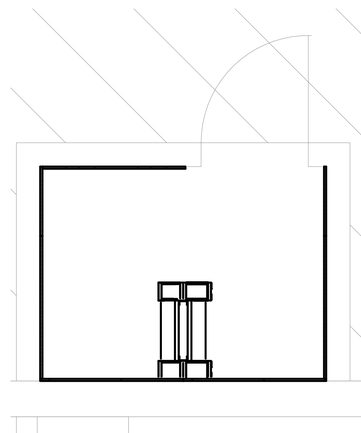

3 SECOND FLOOR - IDF - NORTHEAST
1/2" = 1'-0"



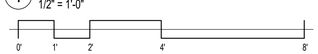




2 SECOND FLOOR - MDF ROOM
1/2" = 1'-0"



1 FIRST FLOOR - NETPOP ROOM (MPOE)
1/2" = 1'-0"




**TECHNOLOGY NOTES**

(00) Architecture - Reflected Ceiling Plan Sheet Note

REVISION DATE
ISSUE FOR PERMIT 04.05.2021

dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

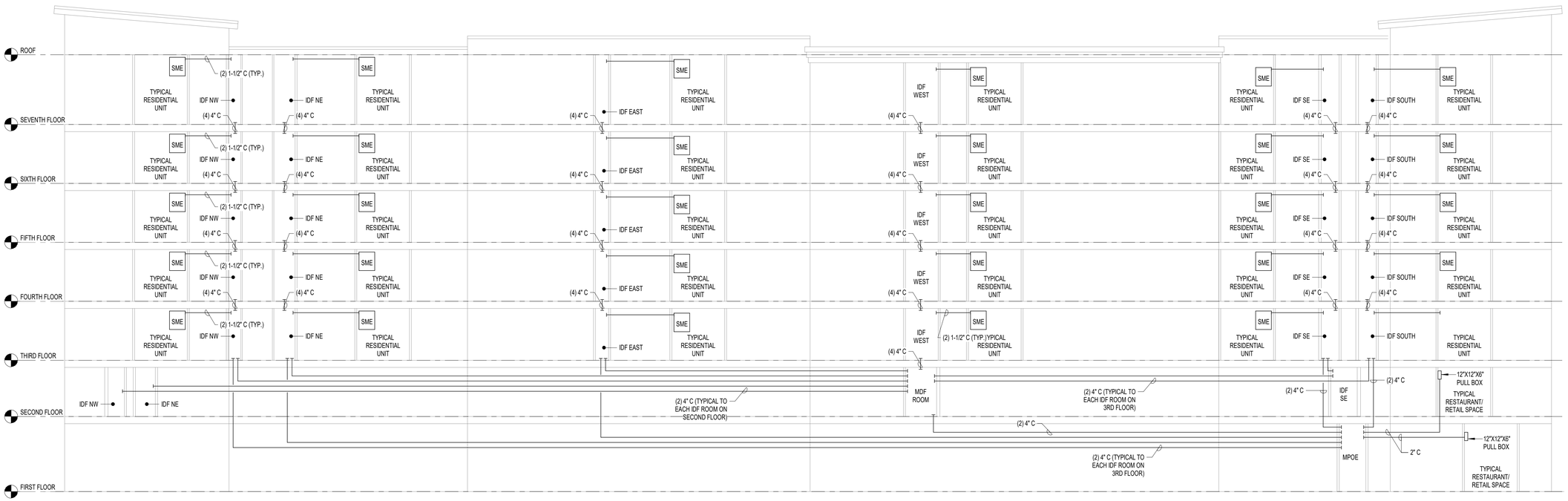
# GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T3.3

JONES & JONES ASSOCIATES / ARCHITECTS PC

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT




1 **CONDUIT RISER DIAGRAM**
NTS

REVISION DATE
ISSUE FOR PERMIT 04.05.2021

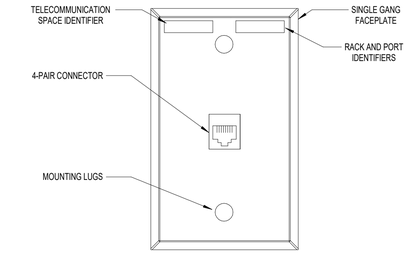
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T4.0

JONES & JONES ASSOCIATES ARCHITECTS PC




**SYMBOL DESIGNATION:**

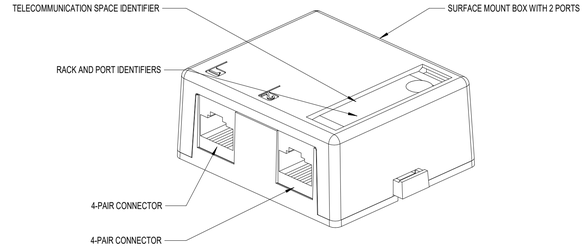
(1) 4-PAIR CABLE

W

**OUTLET NOTES:**

1. COORDINATE SPECIFIC OUTLET LOCATION, HEIGHT AND MOUNTING REQUIREMENTS WITH RESPECTIVE TRADES INVOLVED.
2. CONFIRM THE COLOR OF THE CABLING, CONNECTORS AND COMPONENTS MEET THE PROJECT REQUIREMENTS.

9 WALL PHONE FACEPLATE DETAIL
NTS




**NOTES:**
1. COORDINATE LABELING WITH THE OWNER.

**SYMBOL DESIGNATION:**

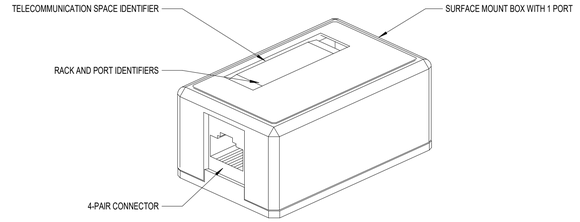
(2) 4-PAIR CABLE

B OR WAP

**OUTLET NOTES:**

1. COORDINATE SPECIFIC OUTLET LOCATION, HEIGHT AND MOUNTING REQUIREMENTS WITH RESPECTIVE TRADES INVOLVED.
2. CONFIRM THE COLOR OF THE CABLING, CONNECTORS AND COMPONENTS MEET THE PROJECT REQUIREMENTS.

8 2 PORT SURFACE MOUNTED OUTLET DETAIL
NTS




**SYMBOL DESIGNATION:**

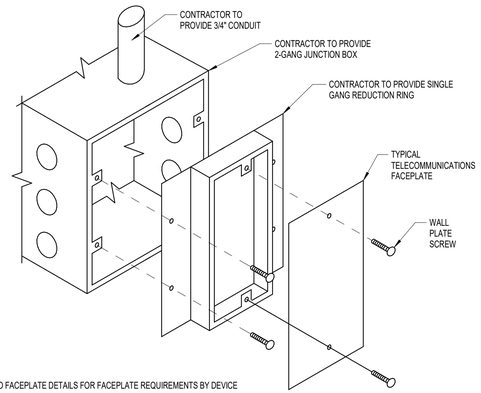
(1) 4-PAIR CABLE

BAS FACP OR

**OUTLET NOTES:**

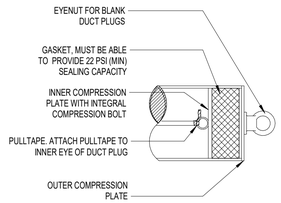
1. COORDINATE SPECIFIC OUTLET LOCATION, HEIGHT AND MOUNTING REQUIREMENTS WITH RESPECTIVE TRADES INVOLVED.
2. CONFIRM THE COLOR OF THE CABLING, CONNECTORS AND COMPONENTS MEET THE PROJECT REQUIREMENTS.

7 1 PORT SURFACE MOUNTED OUTLET DETAIL
NTS




**NOTES:**
1. REFER TO FACEPLATE DETAILS FOR FACEPLATE REQUIREMENTS BY DEVICE TYPE.
2. ROUTE A CONDUIT BETWEEN THE TELECOMMUNICATIONS DEVICE BACK-BOX AND THE CROSS CONNECT ROOM.
3. REFER TO TECHNOLOGY PLANS FOR DEVICE LOCATIONS AND QUANTITIES.

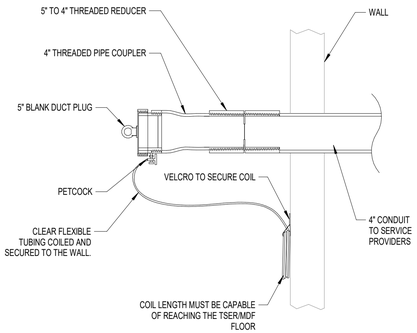
6 TYPICAL FLUSH MOUNTED TELECOMMUNICATIONS DEVICE ROUGH-IN DETAIL
NTS



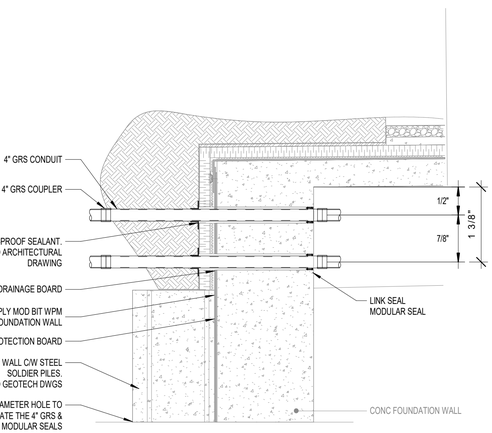

NOTES:

1. PROVIDE SUFFICIENT SLACK IN THE PULLTAPE TO ALLOW THE DUCT TO TRAVEL TO A HEIGHT OF 24" ABOVE THE BOTTOM OF THE VAULT OR FINISHED FLOOR WITHOUT DISCONNECTING THE PULLTAPE. PLACE SLACK INSIDE DUCT WHEN INSTALLING BLANK PLUG. PULL TAPE REQUIRED EVEN IF PULL TAPE IS INSTALLED INSIDE INNERDUCT IN SAME DUCT.

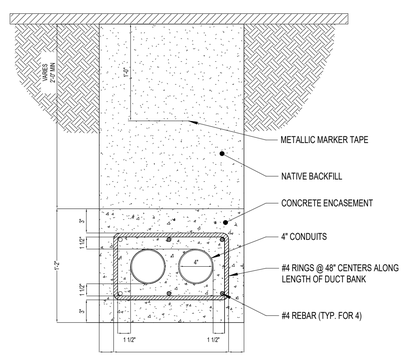
5 BLANK DUCT PLUG
NTS



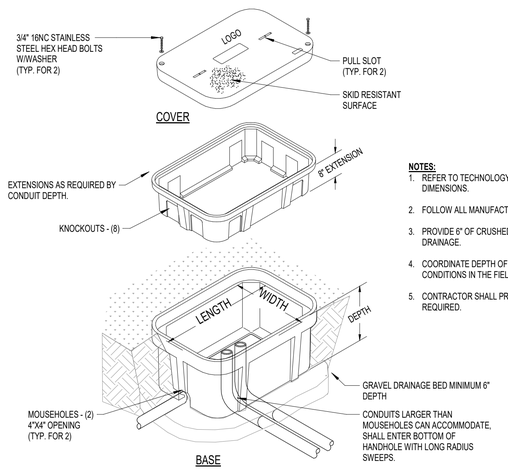

4 TSER/MDF - CONDUIT WITH VALVE EQUIPED ENTRANCE SEAL
NTS




3 TELCOMMUNICATIONS SERVICE FACILITIES CONDUIT PENETRATION EXAMPLE
NTS




2 DUCT BANK SECTION - (2) DUCTS
NTS




**NOTES:**
1. REFER TO TECHNOLOGY SITE PLAN (T0.1) FOR HAND HOLE DIMENSIONS.
2. FOLLOW ALL MANUFACTURER INSTALLATION INSTRUCTIONS.
3. PROVIDE 6" OF CRUSHED STONE BELOW HAND HOLE FOR DRAINAGE.
4. COORDINATE DEPTH OF HAND HOLES WITH EXISTING CONDITIONS IN THE FIELD.
5. CONTRACTOR SHALL PROVIDE EXTENSION BOXES AS REQUIRED.

1 TYPICAL SITE HAND HOLE
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.05.2021

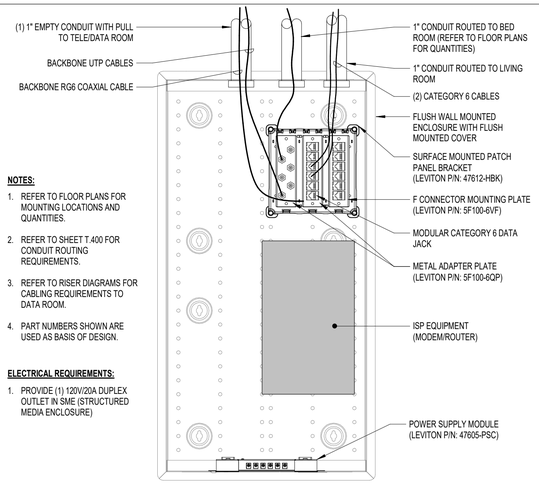
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T6.0

JONES & JONES ASSOCIATES ARCHITECTS PC



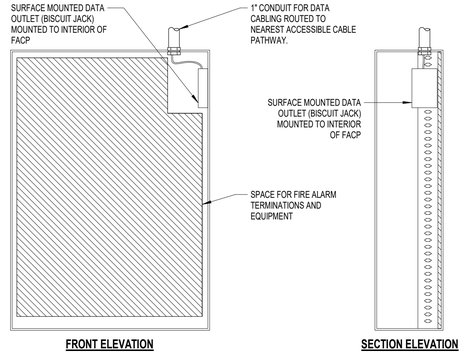

**NOTES:**

1. REFER TO FLOOR PLANS FOR MOUNTING LOCATIONS AND QUANTITIES.
2. REFER TO SHEET T.400 FOR CONDUIT ROUTING REQUIREMENTS.
3. REFER TO RISER DIAGRAMS FOR CABLING REQUIREMENTS TO DATA ROOM.
4. PART NUMBERS SHOWN ARE USED AS BASIS OF DESIGN.

**ELECTRICAL REQUIREMENTS:**

1. PROVIDE (1) 120V/20A DUPLEX OUTLET IN SME (STRUCTURED MEDIA ENCLOSURE)

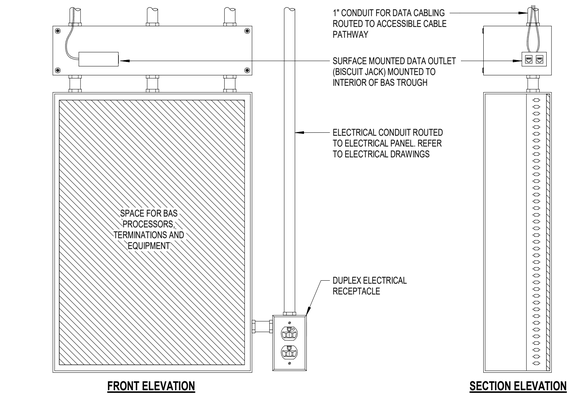
9 STRUCTURED MEDIA ENCLOSURE DETAIL - SME
NTS




**DETAIL NOTES:**

1. COORDINATE THE EXACT LOCATION OF THE DATA OUTLET AND ELECTRICAL RECEPTACLE WITH THE FIRE ALARM CONTRACTOR PRIOR TO ROUGH-IN.
2. REFER TO FIRE ALARM PLANS AND DETAILS FOR THE EXACT PANEL AND EQUIPMENTCONFIGURATION AND DIMENSIONS.

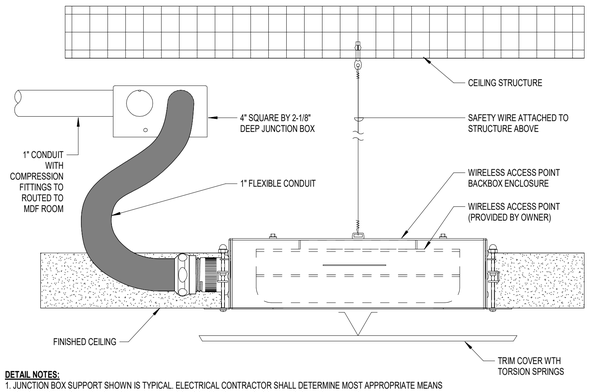
8 FIRE ALARM CONTROL PANEL OUTLET DETAIL
NTS




**NOTES:**

1. COORDINATE THE EXACT LOCATION OF THE DATA OUTLET AND ELECTRICAL RECEPTACLE WITH THE BAS CONTRACTOR PRIOR TO ROUGH-IN.
2. REFER TO MECHANICAL AND TEMPERATURE CONTROLS PLANS AND DETAILS FOR THE EXACT PANEL AND EQUIPMENT CONFIGURATION AND DIMENSIONS.
3. DATA CABLING SHALL CONNECT TO OWNER'S LOCAL AREA NETWORK.

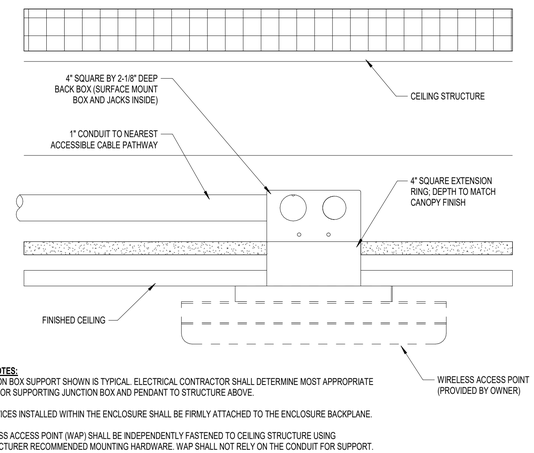
7 BAS PANEL DATA OUTLET & ELECTRICAL RECEPTACLE MOUNTING DETAIL
NTS




**DETAIL NOTES:**

1. JUNCTION BOX SUPPORT SHOWN IS TYPICAL. ELECTRICAL CONTRACTOR SHALL DETERMINE MOST APPROPRIATE MEANS FOR SUPPORTING JUNCTION BOX AND WIRELESS ACCESS POINT ENCLOSURE TO STRUCTURE ABOVE.
2. ALL DEVICES INSTALLED WITHIN THE ENCLOSURE SHALL BE FIRMLY ATTACHED TO THE ENCLOSURE BACKPLANE.
3. WIRELESS ACCESS POINT (WAP) ENCLOSURE SHALL BE INDEPENDENTLY FASTENED TO CEILING STRUCTURE USING MANUFACTURER RECOMMENDED MOUNTING HARDWARE. ENCLOSURE SHALL NOT RELY ON THE CONDUIT FOR SUPPORT.

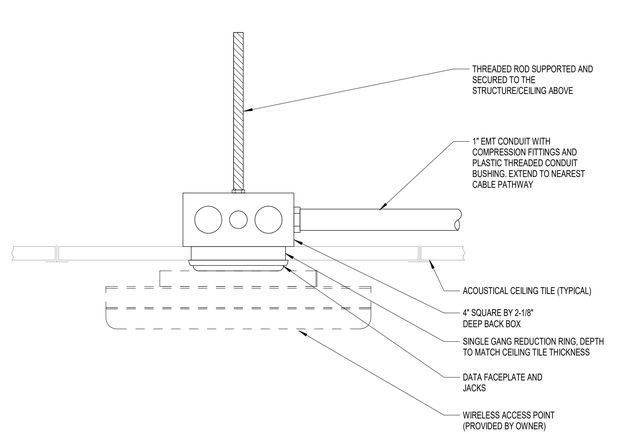
6 INTERIOR CEILING MOUNTED CONCEALED WIRELESS ACCESS POINT DETAIL (INACCESSIBLE CEILING)
NTS



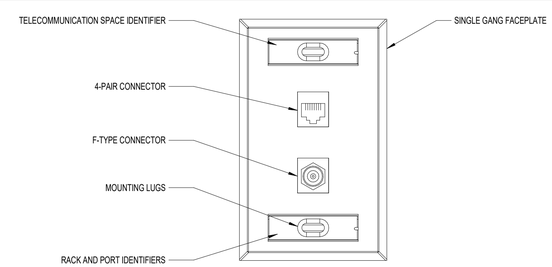

**DETAIL NOTES:**

1. JUNCTION BOX SUPPORT SHOWN IS TYPICAL. ELECTRICAL CONTRACTOR SHALL DETERMINE MOST APPROPRIATE MEANS FOR SUPPORTING JUNCTION BOX AND PENDANT TO STRUCTURE ABOVE.
2. ALL DEVICES INSTALLED WITHIN THE ENCLOSURE SHALL BE FIRMLY ATTACHED TO THE ENCLOSURE BACKPLANE.
3. WIRELESS ACCESS POINT (WAP) SHALL BE INDEPENDENTLY FASTENED TO CEILING STRUCTURE USING MANUFACTURER RECOMMENDED MOUNTING HARDWARE. WAP SHALL NOT RELY ON THE CONDUIT FOR SUPPORT.

5 INTERIOR CEILING MOUNTED WIRELESS ACCESS POINT DETAIL (INACCESSIBLE CEILING)
NTS




4 INTERIOR CEILING MOUNTED WIRELESS ACCESS POINT DETAIL (ACCESSIBLE CEILING)
NTS



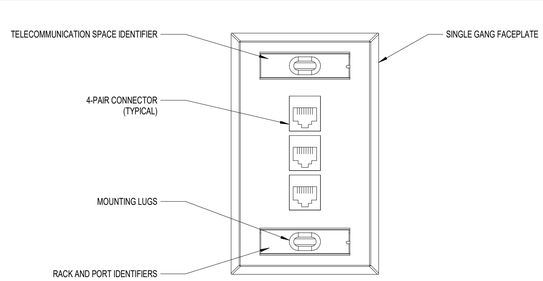

**SYMBOL DESIGNATION:**

TV — (1) 4-PAIR CABLE, (1) RG6 CABLE

**OUTLET NOTES:**

1. COORDINATE SPECIFIC OUTLET LOCATION, HEIGHT AND MOUNTING REQUIREMENTS WITH RESPECTIVE TRADES INVOLVED.
2. CONFIRM THE COLOR OF THE CABLING, CONNECTORS AND COMPONENTS MEET THE PROJECT REQUIREMENTS.

3 2 PORT (DATA & COAX) FACEPLATE DETAIL
NTS



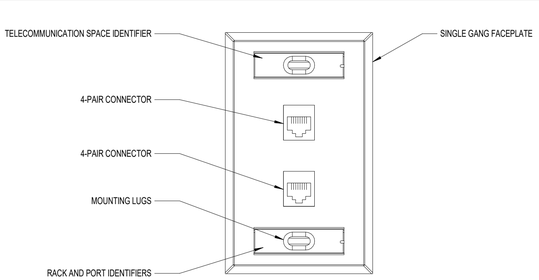

**SYMBOL DESIGNATION:**

C — (3) 4-PAIR CABLES

**OUTLET NOTES:**

1. COORDINATE SPECIFIC OUTLET LOCATION, HEIGHT AND MOUNTING REQUIREMENTS WITH RESPECTIVE TRADES INVOLVED.
2. CONFIRM THE COLOR OF THE CABLING, CONNECTORS AND COMPONENTS MEET THE PROJECT REQUIREMENTS.

2 3 PORT DATA FACEPLATE DETAIL
NTS




**SYMBOL DESIGNATION:**

B | FPD — (2) 4-PAIR CABLES

**OUTLET NOTES:**

1. COORDINATE SPECIFIC OUTLET LOCATION, HEIGHT AND MOUNTING REQUIREMENTS WITH RESPECTIVE TRADES INVOLVED.
2. CONFIRM THE COLOR OF THE CABLING, CONNECTORS AND COMPONENTS MEET THE PROJECT REQUIREMENTS.

1 2 PORT DATA FACEPLATE DETAIL
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION — DATE
ISSUE FOR PERMIT — 04.05.2021

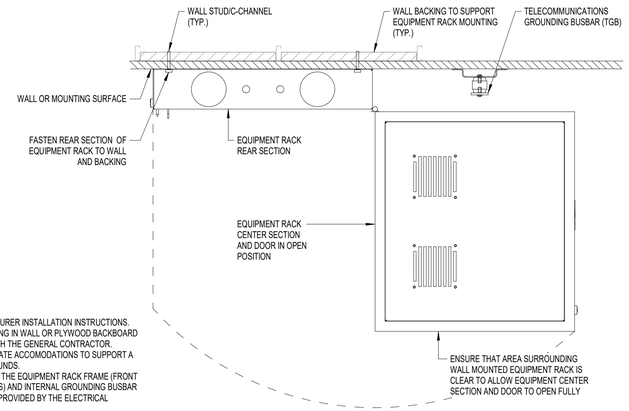
dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

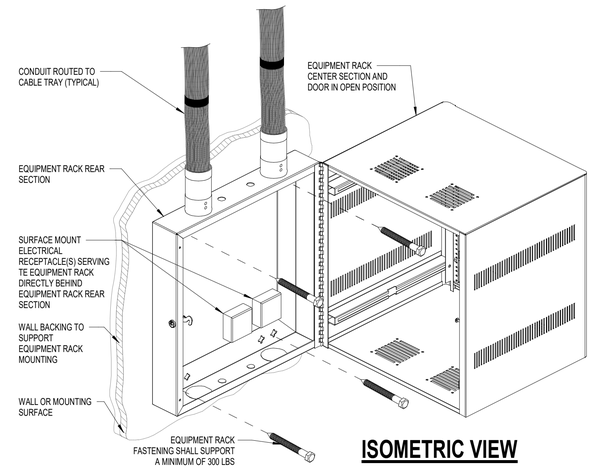
T6.1

JONES & JONES ASSOCIATES ARCHITECTS PC

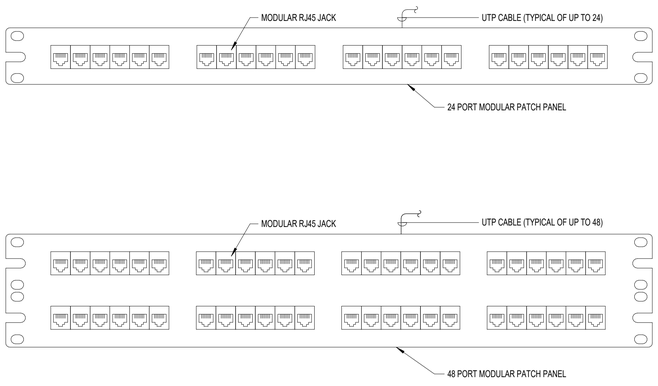



**DETAIL NOTES:**

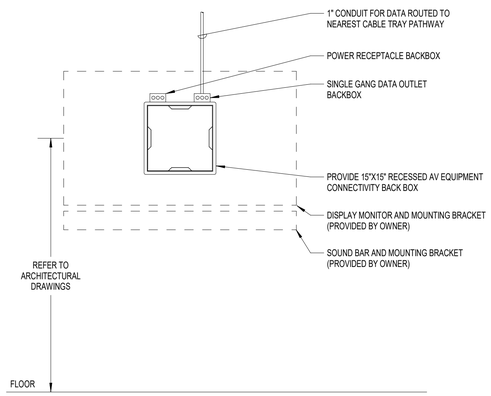
1. FOLLOW MANUFACTURER INSTALLATION INSTRUCTIONS.
2. COORDINATE BACKING IN WALL OR PLYWOOD BACKBOARD REQUIREMENTS WITH THE GENERAL CONTRACTOR. PROVIDE APPROPRIATE ACCOMODATIONS TO SUPPORT A MINIMUM OF 300 POUNDS.
3. GROUND AND BOND THE EQUIPMENT RACK FRAME (FRONT AND REAR SECTIONS) AND INTERNAL GROUNDING BUSBAR TO THE LOCAL TGB PROVIDED BY THE ELECTRICAL CONTRACTOR.




4 WALL MOUNTED TE CABINET - REAR SECTION INSTALLATION DETAIL
NTS

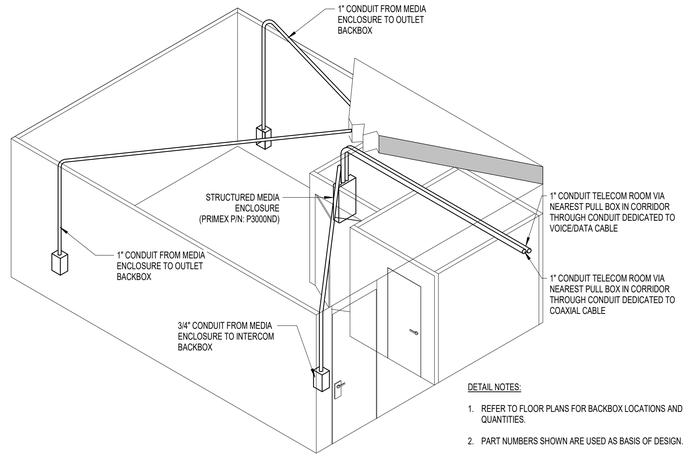



3 24 PORT & 48 PORT PATCH PANEL DETAIL
NTS




DETAIL NOTES:
1. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHTS. MOUNTING ARE GIVEN FOR REFERENCE ONLY.
2. COORDINATE EXACT OUTLET CONFIGURATION WITH THE OWNER PROVIDED MONITOR MOUNTING BRACKET PRIOR TO ROUGH-IN.

2 WALL DISPLAY AUDIO/VISUAL AND DATA CONDUIT ROUGH-IN DETAIL (FPD)
NTS




DETAIL NOTES:

1. REFER TO FLOOR PLANS FOR BACKBOX LOCATIONS AND QUANTITIES.
2. PART NUMBERS SHOWN ARE USED AS BASIS OF DESIGN.

1 RESIDENTIAL UNIT CONDUIT ROUTING
NTS

REVISION DATE
ISSUE FOR PERMIT 04.05.2021

dbHMS design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

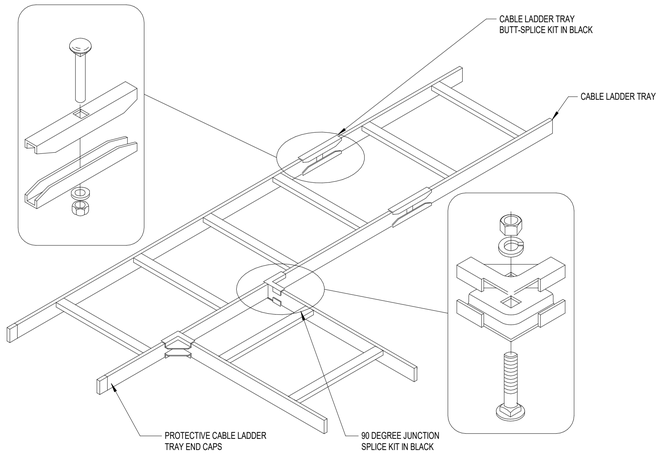
GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

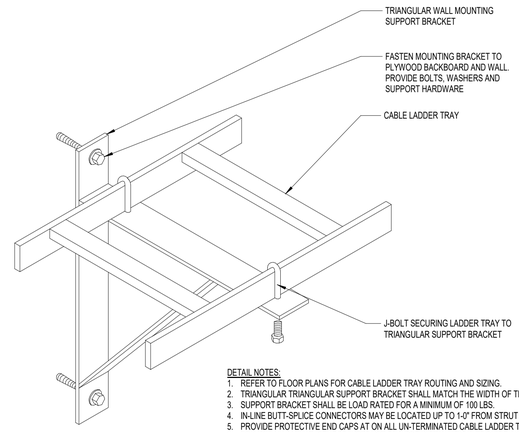
T6.2

JONES & JONES ASSOCIATES / ARCHITECTS PC

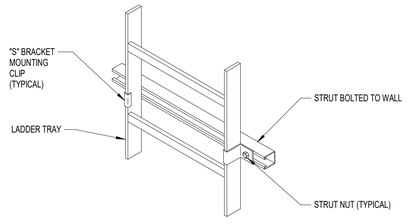
THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

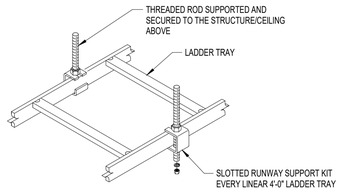


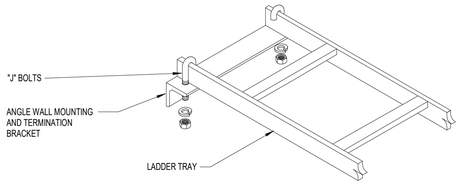

2 LADDER TRAY CANTILEVER WALL MOUNTING DETAIL
NTS



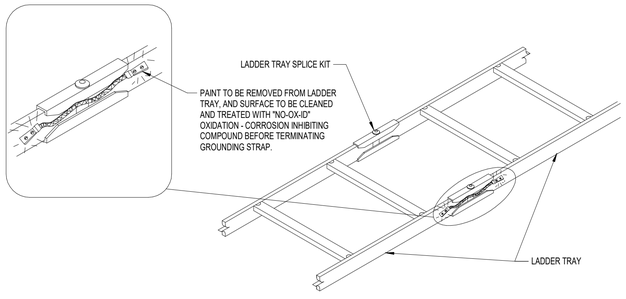

DETAIL NOTES:
1. REFER TO FLOOR PLANS FOR CABLE LADDER TRAY ROUTING AND SIZING.
2. TRIANGULAR TRIANGULAR SUPPORT BRACKET SHALL MATCH THE WIDTH OF THE CABLE LADDER TRAY IT IS SUPPORTING.
3. SUPPORT BRACKET SHALL BE LOAD RATED FOR A MINIMUM OF 100 LBS.
4. IN-LINE BUTT-SPLICE CONNECTORS MAY BE LOCATED UP TO 1-0" FROM STRUT SUPPORT MEMBERS.
5. PROVIDE PROTECTIVE END CAPS AT ON ALL UN-TERMINATED CABLE LADDER TRAY ENDS.
6. FOLLOW ALL MANUFACTURER INSTRUCTIONS FOR INSTALLATION. PROVIDE ANY ADDITIONAL MOUNTING HARDWARE NECESSARY FOR A COMPLETE AND FUNCTIONAL INSTALLATION NOT INCLUDED IN THE BRACKET MOUNTING KIT.




**NOTES:**
1. PROVIDE SUPPORTS NO MORE THAN 1'-0" FROM TOP AND BOTTOM OF TRAY. PROVIDE AT LEAST TWO VERTICAL SUPPORT POINTS, MOUNTED EVERY 4'-0" O.C.
2. BRAIDED GROUNDING STRAP #6 AWG - 6" LENGTH / (2) - #6 AWG 2-HOLE COMPRESSION LUGS.




1 LADDER TRAY INSTALLATION DETAILS
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.05.2021

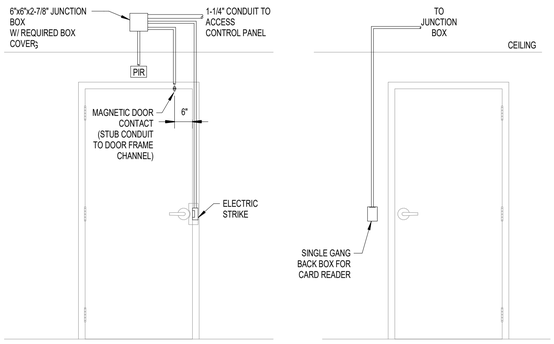
dbHMS
design build engineering
303 W. ERIE ST, SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T6.3

JONES & JONES ASSOCIATES / ARCHITECTS PC

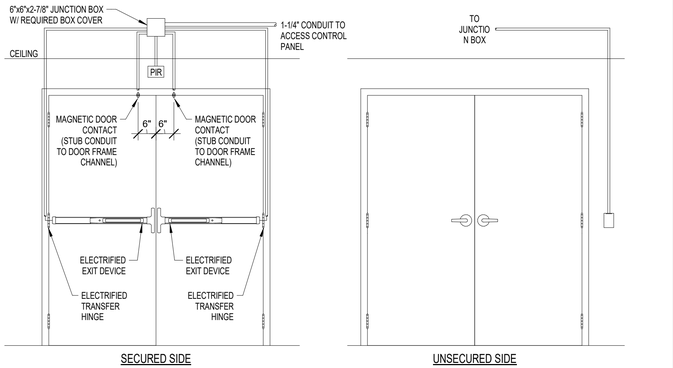



SECURED SIDE UNSECURED SIDE

DETAIL NOTES:
1. ALL CONDUITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
2. REFER TO FLOOR PLANS FOR EXACT DOOR SWING.
3. REFER TO SHOP DRAWINGS FOR EXACT CONDUIT ROUGH-IN LOCATIONS.

DOOR OPERATION:
PRESENTATION OF A VALID CREDENTIAL SHALL UNLOCK THE ELECTRIC STRIKE FOR AUTHORIZED ENTRY. THE PIR SHALL INDICATE A VALID EGRESS. THE DOOR CONTACT SHALL MONITOR THE STATE OF THE DOOR AT ALL TIMES, CREATING AN ALARM WITHIN THE ELECTRONIC ACCESS CONTROL SYSTEM WHEN THE DOOR IS HELD OPEN FOR LONGER THAN A DURATION DETERMINED BY THE PROPERTY MANAGEMENT.

8 SINGLE DOOR W/CARD READER & ELECTRIC STRIKE
NTS

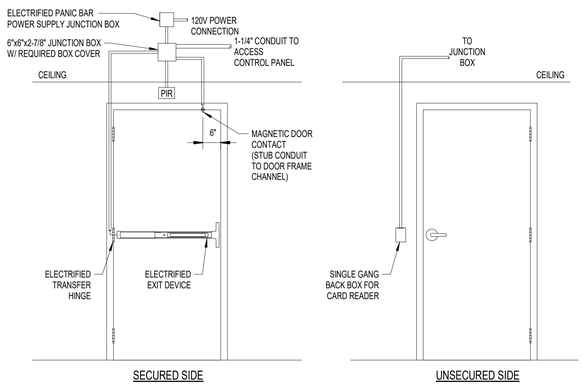



SECURED SIDE UNSECURED SIDE

DETAIL NOTES:
1. ALL CONDUITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
2. REFER TO FLOOR PLANS FOR EXACT DOOR SWING.
3. REFER TO SHOP DRAWINGS FOR EXACT CONDUIT ROUGH-IN LOCATIONS.

DOOR OPERATION:
PRESENTATION OF A VALID CREDENTIAL OR ACTUATION OF THE INTERIOR PUSH PLATE SHALL SIGNAL THE LATCH TO RETRACT FOR AUTHORIZED ENTRY AND ACTIVATE THE POWER OPERATOR (FOLLOWING A SLIGHT DELAY). THE PIR SHALL INDICATE A VALID EGRESS. ACTUATION OF THE INTERIOR OR EXTERIOR PUSH PLATES SHALL ACTIVATE THE POWER OPERATOR (FOLLOWING A SLIGHT DELAY). THE DOOR CONTACT SHALL MONITOR THE STATE OF THE DOOR AT ALL TIMES, CREATING AN ALARM WITHIN THE ELECTRONIC ACCESS CONTROL SYSTEM WHEN THE DOOR IS HELD OPEN FOR LONGER THAN A DURATION DETERMINED BY THE PROPERTY MANAGEMENT.

7 DOUBLE DOOR W/CARD READER
NTS

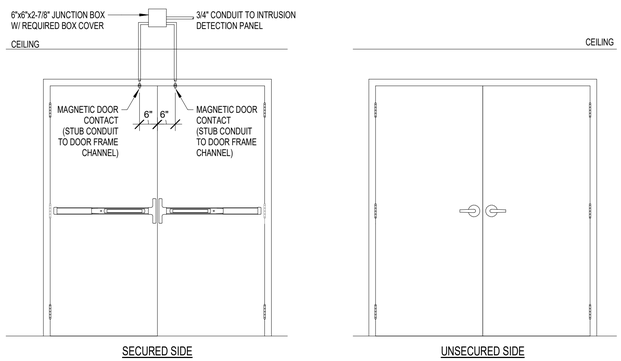



SECURED SIDE UNSECURED SIDE

DETAIL NOTES:
1. ALL CONDUITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
2. REFER TO FLOOR PLANS FOR EXACT DOOR SWING.
3. REFER TO SHOP DRAWINGS FOR EXACT CONDUIT ROUGH-IN LOCATIONS.

DOOR OPERATION:
PRESENTATION OF A VALID CREDENTIAL SHALL SIGNAL THE LATCH TO RETRACT FOR AUTHORIZED ENTRY. THE REQUEST TO EXIT WITHIN THE EXIT DEVICE SHALL INDICATE A VALID EGRESS. THE DOOR CONTACT SHALL MONITOR THE STATE OF THE DOOR AT ALL TIMES, CREATING AN ALARM WITHIN THE ELECTRONIC ACCESS CONTROL SYSTEM WHEN THE DOOR IS HELD OPEN FOR LONGER THAN A DURATION DETERMINED BY THE PROPERTY MANAGEMENT.

6 SINGLE DOOR W/CARD READER & ELECTRIFIED EXIT DEVICE
NTS

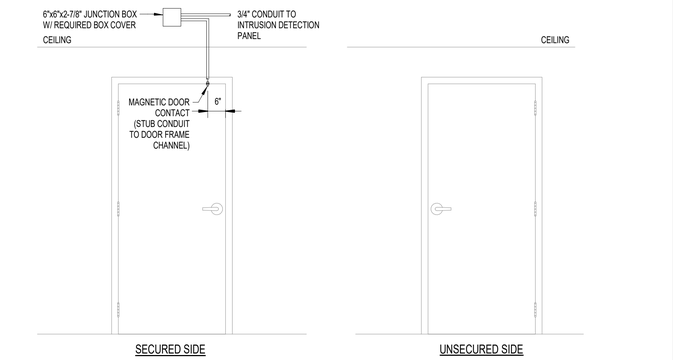



SECURED SIDE UNSECURED SIDE

DETAIL NOTES:
1. ALL CONDUITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
2. REFER TO FLOOR PLANS FOR EXACT DOOR SWING.
3. REFER TO SHOP DRAWINGS FOR EXACT CONDUIT ROUGH-IN LOCATIONS.

DOOR OPERATION:
THE DOOR CONTACT SHALL MONITOR THE STATE OF THE DOOR AT ALL TIMES, CREATING AN ALARM WITHIN THE ELECTRONIC ACCESS CONTROL SYSTEM WHEN THE DOOR IS HELD OPEN FOR LONGER THAN A DURATION DETERMINED BY THE PROPERTY MANAGEMENT.

5 DOUBLE DOOR W/MAGNETIC DOOR CONTACT
NTS

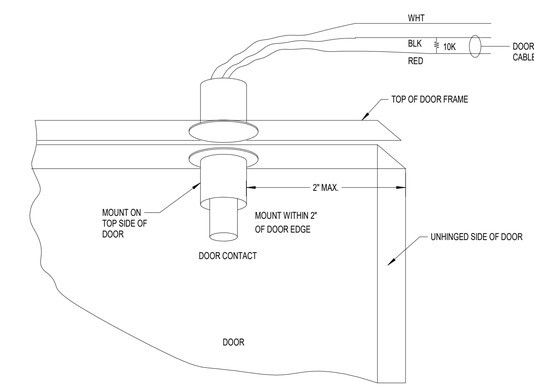



SECURED SIDE UNSECURED SIDE

DETAIL NOTES:
1. ALL CONDUITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
2. REFER TO FLOOR PLANS FOR EXACT DOOR SWING.
3. REFER TO SHOP DRAWINGS FOR EXACT CONDUIT ROUGH-IN LOCATIONS.

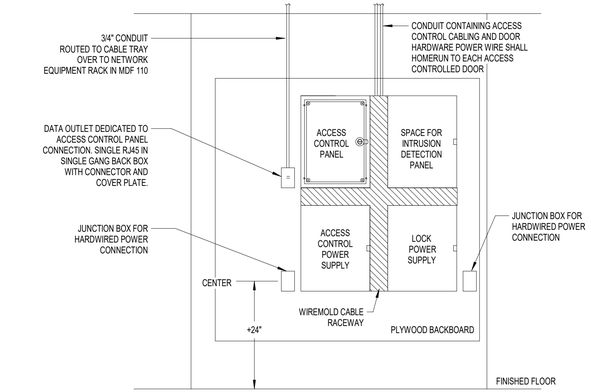
DOOR OPERATION:
THE DOOR CONTACT SHALL MONITOR THE STATE OF THE DOOR, CREATING AN ALARM WITHIN THE ELECTRONIC ACCESS CONTROL SYSTEM WHEN THE DOOR IS HELD OPEN FOR LONGER THAN A DURATION DETERMINED BY THE PROPERTY MANAGEMENT.

4 SINGLE DOOR W/MAGNETIC DOOR CONTACT
NTS



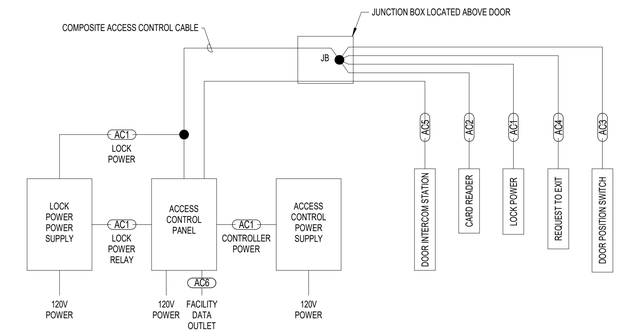

**DETAIL NOTES:**
1. FOR MULTIPLE CONTACTS ON ONE POINT, PARALLEL RED & BLACK WITH ONE 1.0K RESISTOR.

3 TYPICAL DOOR CONTACT DETAIL
NTS




NOTES:
1. ALL CABLING, LOCKS AND LOCK POWER SUPPLIES SHALL BE PROVIDED BY THE CONTRACTOR. ALL ELECTRONIC ACCESS CONTROL DEVICES INCLUDING BUT NOT LIMITED TO ACCESS CONTROL PANELS, ACCESS CONTROL POWER SUPPLIES AND CARD READERS SHALL BE PROVIDED BY SECURITY CONTRACTOR.
2. THE LOCK POWER SUPPLY(S) SHALL BE PROVIDED WITH THE DOOR HARDWARE PACKAGE.

2 ACCESS CONTROL PANEL AND POWER SUPPLY MOUNTING DETAIL
NTS




| | JACKET COLOR | PRINT LEGEND | CABLE TYPE |
|---|---|---|---|
| COMPOSITE CABLE | AC1 | LOCK POWER | 4/C, 16AWG, SHIELDED |
| | AC2 | CARD READER | 3/P, 18AWG, SHIELDED |
| | AC3 | DOOR CONTACT | 2/C, 18AWG, SHIELDED |
| | AC4 | REX/SPARE | 4/C, 18AWG, SHIELDED |
| | AC5 | TWISTED PAIR | 2/C, 18AWG, SHIELDED |
| | AC6 | DATA | CAT. 6, 4-PR UTP |

NOTES:
1. REFER TO DRAWINGS FOR EXACT QUANTITIES AND LOCATIONS OF EQUIPMENT.
2. REFER TO DOOR CONDUIT ROUGH-IN DETAILS FOR EXACT CONDUIT AND ASSOCIATED CABLING ROUTING.
3. REFER TO PLANS FOR SPECIFIC DOORS WITH INTERCOM STATIONS. NOT ALL DOORS WILL REQUIRE INTERCOM WIRING.
4. THE LOCK POWER SUPPLY(S) SHALL BE PROVIDED WITH THE DOOR HARDWARE PACKAGE.

1 TYPICAL ACCESS CONTROL DOOR WIRING DIAGRAM
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.05.2021

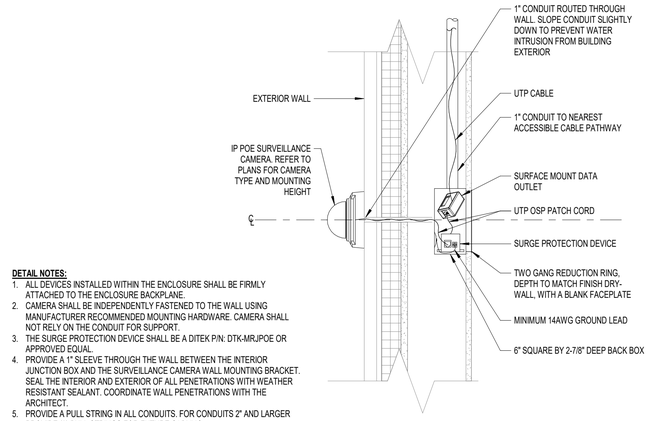
dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

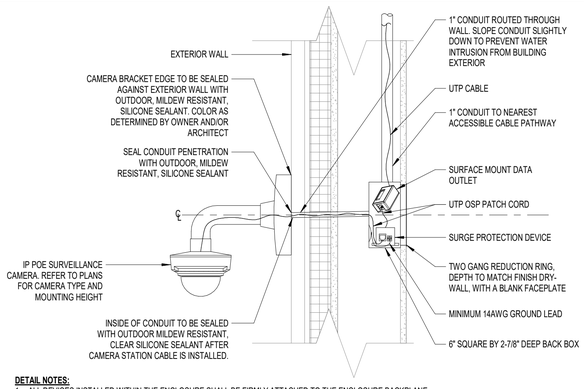
T6.4

JONES & JONES ASSOCIATES ARCHITECTS PC



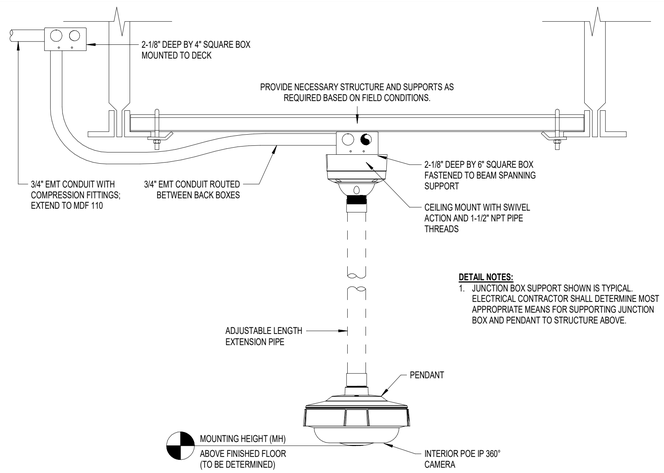

**DETAIL NOTES:**
1. ALL DEVICES INSTALLED WITHIN THE ENCLOSURE SHALL BE FIRMLY ATTACHED TO THE ENCLOSURE BACKPLANE.
2. CAMERA SHALL BE INDEPENDENTLY FASTENED TO THE WALL USING MANUFACTURER RECOMMENDED MOUNTING HARDWARE. CAMERA SHALL NOT RELY ON THE CONDUIT FOR SUPPORT.
3. THE SURGE PROTECTION DEVICE SHALL BE A DITEK P/N: DTK-MRJPOE OR APPROVED EQUAL.
4. PROVIDE A 1" SLEEVE THROUGH THE WALL BETWEEN THE INTERIOR JUNCTION BOX AND THE SURVEILLANCE CAMERA WALL MOUNTING BRACKET. SEAL THE INTERIOR AND EXTERIOR OF ALL PENETRATIONS WITH WEATHER RESISTANT SEALANT. COORDINATE WALL PENETRATIONS WITH THE ARCHITECT.
5. PROVIDE A PULL STRING IN ALL CONDUITS. FOR CONDUITS 2" AND LARGER PROVIDE (2) PULL STRINGS FOR FUTURE CABLING.

7 EXTERIOR IP CAMERA - WALL SURFACE MOUNT DETAIL
NTS



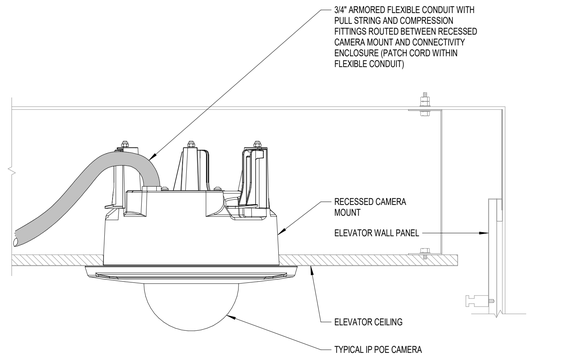

**DETAIL NOTES:**
1. ALL DEVICES INSTALLED WITHIN THE ENCLOSURE SHALL BE FIRMLY ATTACHED TO THE ENCLOSURE BACKPLANE.
2. CAMERA SHALL BE INDEPENDENTLY FASTENED TO THE WALL USING MANUFACTURER RECOMMENDED MOUNTING HARDWARE. CAMERA SHALL NOT RELY ON THE CONDUIT FOR SUPPORT.
3. THE SURGE PROTECTION DEVICE SHALL BE A DITEK P/N: DTK-MRJPOE OR APPROVED EQUAL. CONNECT A MINIMUM 14AWG GROUND LEAD TO THE GROUND TERMINAL ON THE SURGE PROTECTION DEVICE. ENSURE THE GROUND WIRE IS AS SHORT AS POSSIBLE.
4. PROVIDE A 1" SLEEVE THROUGH THE WALL BETWEEN THE INTERIOR JUNCTION BOX AND THE SURVEILLANCE CAMERA WALL MOUNTING BRACKET. SEAL THE INTERIOR AND EXTERIOR OF ALL PENETRATIONS WITH WEATHER RESISTANT SEALANT. COORDINATE WALL PENETRATIONS WITH THE ARCHITECT.
5. PROVIDE A PULL STRING IN ALL CONDUITS. FOR CONDUITS 2" AND LARGER PROVIDE (2) PULL STRINGS FOR FUTURE CABLING.

6 EXTERIOR IP CAMERA - WALL PENDANT MOUNT DETAIL
NTS



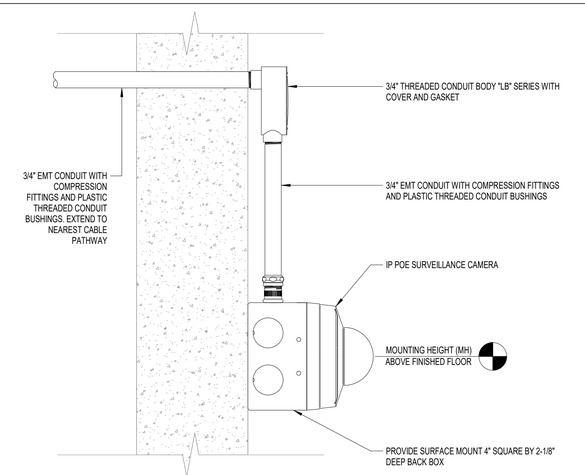

**DETAIL NOTES:**
1. JUNCTION BOX SUPPORT SHOWN IS TYPICAL. ELECTRICAL CONTRACTOR SHALL DETERMINE MOST APPROPRIATE MEANS FOR SUPPORTING JUNCTION BOX AND PENDANT TO STRUCTURE ABOVE.

5 INTERIOR IP CAMERA - PENDANT MOUNTED CAMERA DETAIL
NTS

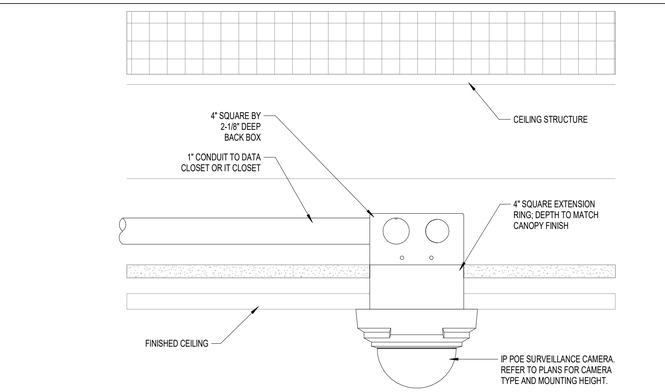



DETAIL NOTES:
1. CAMERAS AND ALL ASSOCIATED EQUIPMENT, CONDUIT AND BACK BOXES SHALL BE INDEPENDENTLY SUPPORTED AND SHALL NOT RELY ON ANY CEILING SUPPORT SYSTEM, FRAME OR CEILING TILE FOR SUPPORT. COORDINATE MOUNTING WITH ELEVATOR CONTRACTOR AND ARCHITECT PRIOR TO INSTALLATION. FOLLOW ALL MANUFACTURER MOUNTING INSTRUCTIONS.
2. REFER TO PLANS FOR LOCATIONS AND TYPES OF CAMERAS.
3. PROVIDE A CATEGORY 6 PATCH CORD (PURPLE) ROUTED BETWEEN THE CAMERA AND CONNECTIVITY ENCLOSURE MOUNTED TO ELEVATOR CAR. COORDINATE CONNECTION REQUIREMENTS AND WIRING WITHIN TRAVELLER CABLE WITH ELEVATOR CONTRACTOR.
4. LENGTH OF ARMORED FLEXIBLE CONDUIT WILL VARY BASED ON THE FINAL LOCATION OF THE CONNECTIVITY ENCLOSURE.

4 INTERIOR ELEVATOR CEILING MOUNTED CAMERA DETAIL
NTS

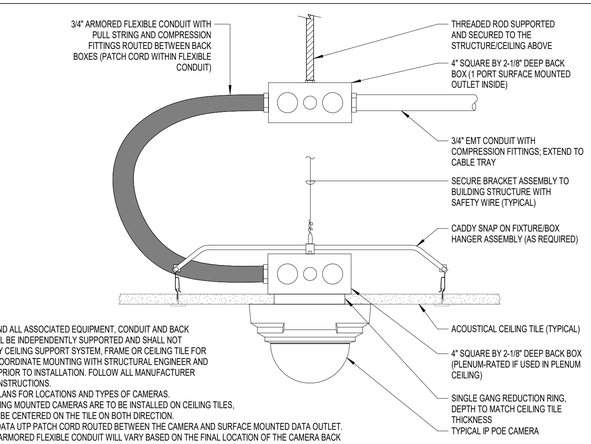



3 INTERIOR IP CAMERA - STAIRWELL WALL MOUNTED DETAIL
NTS




**DETAIL NOTES:**
1. JUNCTION BOX SUPPORT SHOWN IS TYPICAL. ELECTRICAL CONTRACTOR SHALL DETERMINE MOST APPROPRIATE MEANS FOR SUPPORTING JUNCTION BOX AND PENDANT TO STRUCTURE ABOVE.
2. ALL DEVICES INSTALLED WITHIN THE ENCLOSURE SHALL BE FIRMLY ATTACHED TO THE ENCLOSURE BACKPLANE.
3. CAMERA SHALL BE INDEPENDENTLY FASTENED TO CEILING STRUCTURE USING MANUFACTURER RECOMMENDED MOUNTING HARDWARE. CAMERA SHALL NOT RELY ON THE CONDUIT FOR SUPPORT.

2 INTERIOR IP CAMERA - CEILING MOUNTED (INACCESSIBLE CEILING)
NTS




DETAIL NOTES:
1. CAMERAS AND ALL ASSOCIATED EQUIPMENT, CONDUIT AND BACK BOXES SHALL BE INDEPENDENTLY SUPPORTED AND SHALL NOT RELY ON ANY CEILING SUPPORT SYSTEM, FRAME OR CEILING TILE FOR SUPPORT. COORDINATE MOUNTING WITH STRUCTURAL ENGINEER AND ARCHITECT PRIOR TO INSTALLATION. FOLLOW ALL MANUFACTURER MOUNTING INSTRUCTIONS.
2. REFER TO PLANS FOR LOCATIONS AND TYPES OF CAMERAS.
3. WHERE CEILING MOUNTED CAMERAS ARE TO BE INSTALLED ON CEILING TILES, THEY SHALL BE CENTERED ON THE TILE ON BOTH DIRECTION.
4. PROVIDE A DATA UTP PATCH CORD ROUTED BETWEEN THE CAMERA AND SURFACE MOUNTED DATA OUTLET.
5. LENGTH OF ARMORED FLEXIBLE CONDUIT WILL VARY BASED ON THE FINAL LOCATION OF THE CAMERA BACK BOX.
6. LEAVE ADDITIONAL 10-15 FT OF SLACK CABLE COILED INSIDE UPPER BACK BOX, DO NOT EXCEED MINIMUM BEND RADIUS REQUIREMENTS.

1 INTERIOR IP CAMERA - SURFACE CEILING MOUNTED (ACCESSIBLE CEILING)
NTS

THESE DOCUMENTS ARE THE PROPERTY OF JONES AND JONES ARCHITECTS PC AND THEY OR THE DESIGNS THEY INDICATE MAY NOT BE COPIED WITHOUT WRITTEN CONSENT OF THE ARCHITECT

REVISION DATE
ISSUE FOR PERMIT 04.05.2021

dbHMS design build engineering
303 W. ERIE ST., SUITE 510 CHICAGO, IL 60654
phone: 312.915.0557 web: www.dbhms.com

GARDEN STATION APARTMENTS
ARDMORE AVENUE / VERMONT STREET
VILLA PARK, ILLINOIS

PROJECT ARCHITECT
RLJ JR
TECHNICIANS
JMB
COMMISSION NUMBER
2793
DATE
15 APR 2021

T6.5

JONES & JONES ASSOCIATES ARCHITECTS PC

# OLD CHICAGO

**Manufactured In:**

City: Denver

State: CO

---

The Denver, Colorado Collection is comprised of superior clay brick for building projects. Stronger and more sustainable than alternative cladding materials, its beauty, durability, and value is unmatched.

*COLOR DISCLAIMER: We do our best to ensure that our digital photos of products are as true to color as possible. However, due to inconsistencies and/or differences that occur between screens/monitors and browsers, lighting sources, graphic displays, mortar/mortar color, dye lot variations, every individual's color perception, and other factors outside of our control, we simply cannot guarantee that the color you see on your screen portrays the exact color of any product. Thus, screen images are intended as a guide only and should not be regarded as absolutely correct. We advise that all of our customers, prior to purchasing one of our products, first order a physical sample of the product or visit one of our nearby showrooms to physically view the product.*

## COLLECTIONS

- Denver Collection

## MANUFACTURED BY

- General Shale Brick

## ADDITIONAL RESOURCES

Technical Resources

## WARRANTIES

Warranty

## AVAILABLE SIZES

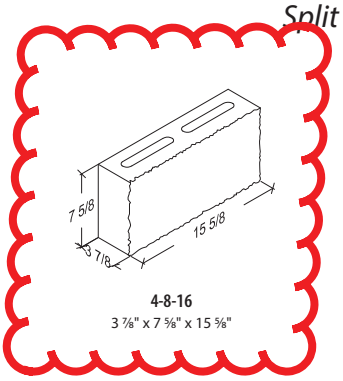
- Modular Dimensions: 3-5/8" W x 2 1/4" H x 7-5/8" L

# CMU SHAPES & SIZES

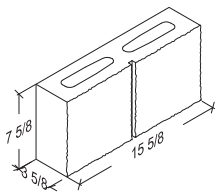
## SPLIT FACE

### 4 INCH UNITS

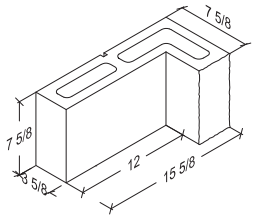
*Split Face*




**4-8-16**
3 ⅞" x 7 ⅝" x 15 ⅝"



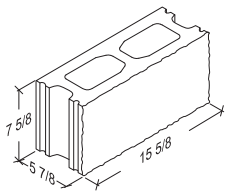

**4-8-16 1-Score**
3 ⅞" x 7 ⅝" x 15 ⅝"



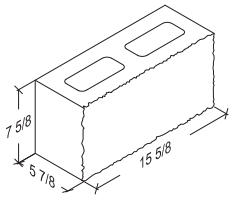

**4 Inch L-Corner**
7 ⅝" x 7 ⅝" x 15 ⅝"

### 6 INCH UNITS

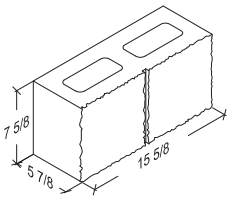
*Split Face*




**6-8-16 Standard**
5 ⅞" x 7 ⅝" x 15 ⅝"



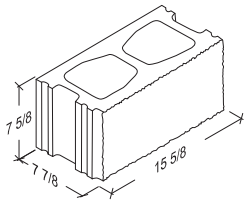

**6-8-16 Square Corner**
5 ⅞" x 7 ⅝" x 15 ⅝"



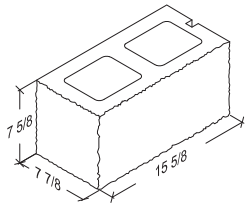

**6-8-16 1-Score**
5 ⅞" x 7 ⅝" x 15 ⅝"

### 8 INCH UNITS

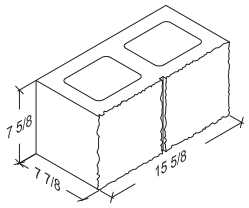
*Split Face*



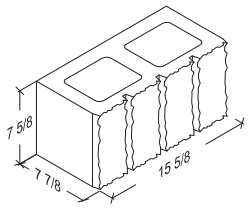

**8-8-16 Standard**
7 ⅞" x 7 ⅝" x 15 ⅝"



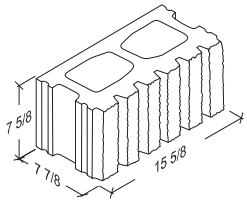

**8-8-16 Side & End**
7 ⅞" x 7 ⅝" x 15 ⅝"



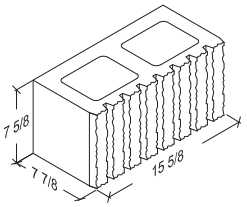

**8-8-16 1-Score**
7 ⅞" x 7 ⅝" x 15 ⅝"



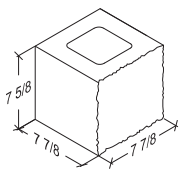

**8-8-16 3-Score**
7 ⅞" x 7 ⅝" x 15 ⅝"




**8-8-16 5-Score**
7 ⅞" x 7 ⅝" x 15 ⅝"

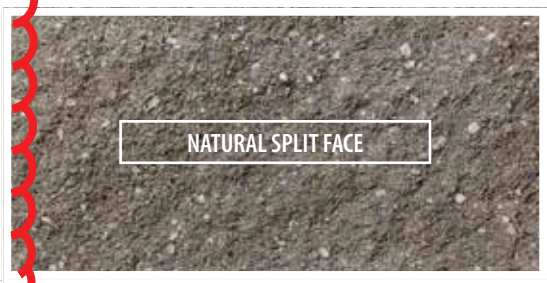


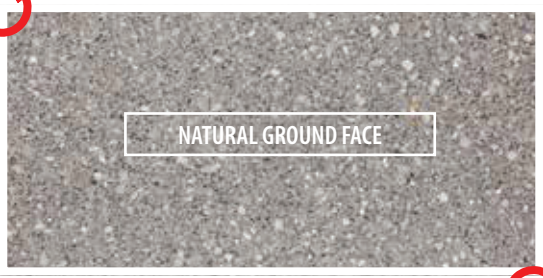

**8-8-16 7-Score**
7 ⅞" x 7 ⅝" x 15 ⅝"




**8-8-8 Half**
7 ⅞" x 7 ⅝" x 7 ⅞"

# Color Guide: Split Face & Ground Face



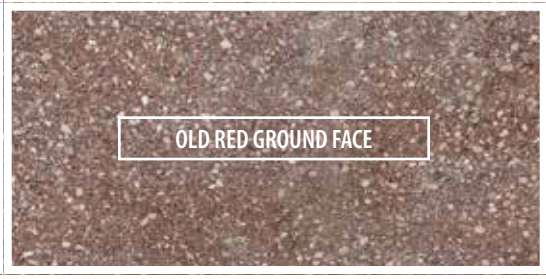


**Concrete Masonry Units (CMU)** from Kanta Products are available in both standard or premium colors, and with three different texture choices.

**Premium Colors:**
Castle White, Sandstone

**Standard Colors:**
Natural, Buff, Golden Rod, Old Red, Kanta Brown

**Textures:**
Ground Face, Split Face, and Smooth



# Hardie® Panel vertical siding Submittal Form 02

**Submitted to:** .....

**Project Name:** .....

**Submitted by:** .....

**Date:** .....

☐ **HZ5® Product Zone** ☐ **HZ10® Product Zone**

**Product Width:** ☐ **4x8ft** ☐ **4x9ft** ☐ **4x10ft** ☐ **16inx12ft**

**Product Finish:** ☐ **Primed** ☐ **ColorPlus® Technology**

**Product Texture:** ☐ **Smooth** ☐ **Select Cedarmill©** ☐ **Sierra 8** ☐ **Stucco**

# Hardie® Panel vertical siding Specification Sheet 02

**DIVISION: 07 00 00 THERMAL AND MOISTURE PROTECTION | SECTION: 07 46 46 FIBER CEMENT SIDING**

## HARDIE® PANEL VERTICAL SIDING

### Manufacturer

*James Hardie Building Products Inc.*

The products are manufactured at the following locations, with quality control inspections by ICC-ES:

- Cleburne, Texas
- Plant City, Florida
- Reno, Nevada
- Waxahachie, Texas
- Prattville, Alabama
- Peru, Illinois
- Pulaski, Virginia
- Tacoma, Washington
- Fontana, California
- Summerville, South Carolina

### Compliance with the following codes

- 2006 thru 2021 International Building Code (IBC)
- 2006 thru 2021 International Residential Code (IRC)

For more information about other compliances and applicable uses, refer to the ESR-1844

### Features

- Noncombustible
- Dimensionally Stable
- Resistant to damage caused by pests
- Weather Resistant-Engineered for Climate®
- Impact resistant
- Sustainable

### Use

James Hardie fiber-cement panels are used as exterior wall covering. The product complies with IBC Section 1403.9 and IRC Section R703.10. The product may be used on exterior walls of buildings of Type I, II, III and IV construction (IBC).

### Description

Hardie® Panel vertical siding is a single-faced, cellulose fiber-reinforced cement (fiber-cement) product. Hardie® Panel vertical siding complies with ASTM C1186, as Grade II, Type A; has a flame-spread index of 0 and a smoke-developed index of 5 when tested in accordance with ASTM E84; and is classified as noncombustible when tested in accordance with ASTM E136.

### Available Sizes

| Product | Width (inches) | Length (feet) | Thickness (inches) |
|---|---|---|---|
| Hardie® Panel vertical siding | 48 | 8, 9*, 10 | 5/16 |

** Size not available in ColorPlus® Technology, primed only.*

*Weight: 2.40 lbs. per square foot*

### Texture & Finish

Hardie® Panel vertical siding comes in a variety of textures and finishes. The product is available in smooth, wood grain, Sierra 8, or stucco. Finish options are primed for field paint, or factory finished with ColorPlus® Technology. Color availability varies by region.

### Engineered for Climate®

Hardie® Panel vertical siding is engineered for performance to specific weather conditions by climate zones as identified by the following map.

## Performance Properties

| | General Property | Test Method | Unit or Characteristic | Requirement | Result |
|---|---|---|---|---|---|
| PHYSICAL ATTRIBUTES | Dimensional Tolerances | ASTM C1185 | Length | ± 0.5% or ± 1/4 in | Pass |
| | | | Width | ± 0.5% or ± 1/4 in | |
| | | | Thickness | ± 0.04 in | |
| | | | Squareness | Δ in diagonals ≤ 1/32 in/ft of sheet length. Opposite sheet sides shall not vary in length by more than 1/32 in/ft | |
| | | | Edge Straightness | ≤ 1/32 in/ft of length | |
| | Density, lb/ft$^3$ | ASTM C1185 | | As reported | 83 |
| | Water Absorption, % by mass | ASTM C1185 | | As reported | 36 |
| | Water Tightness | ASTM C1185 | Physical Observations | No drop formation | Pass |
| | Flexural Strength | ASTM C1185 | Wet conditioned, psi | >1015 psi | Pass |
| | | | Equilibrium conditioned, psi | >1450 psi | |
| THERMAL | Thermal Conductivity | ASTM C177 | (BTU/(hr·ft°F))/inch | As reported | 2.07 |
| | Actual Thermal Conductivity | | ($K_{eff}$) | | 6.62 |
| | Thermal Resistance | | R=1/ $K_{eff}$ | | 0.48 |
| | Actual Thermal Resistance | | (R) | | 0.15 |
| DURABILITY | Warm Water Resistance | ASTM C1185 | Physical Observations | No visible cracks or structural alteration | Pass |
| | Heat/Rain Resistance | ASTM C1185 | Physical Observations | No visible cracks or structural alteration | Pass |
| | Freeze/Thaw Resistance | ASTM C1185 | Physical Observations | No visible cracks or structural alteration | Pass |
| | | | Mass Loss, % | ≤ 3.0% | |
| | | | Freeze/Thaw, % strength retention | ≥ 80% | |
| | UV Accelerated Weathering Test | ASTM G23 | Physical Observations | No cracking, checking, or crazing | Pass |
| FIRE CHARACTERISTICS | Surface Burning Characteristics | ASTM E84 | Flame Spread Index (FSI) | | 0 |
| | | | Smoke Developed Index (SDI) | | ≤ 5 |
| | | | Fuel Contributed | | 0 |
| | | | NFPA Class | | A |
| | | | Uniform Building Code Class | As reported | 1 |
| | | | International Building Code® class | | A |
| | Noncombustibility | ASTM E136 | Noncombustible | Pass/fail | Pass |
| | Fire Resistance Rated Construction | ASTM E119 | Fire Resistance Rating | 1-hour | Note 1 |

Note 1: listed on Warnock Hersey and ESR 1844

## Installation

Install Hardie® Panel vertical siding in accordance with:

- Hardie® Panel vertical siding installation instructions
- ICC-ES ESR-1844
- Requirements of authorities having jurisdiction

## Warranty

Hardie® Panel vertical siding: 30-year, Non-Prorated, Limited Warranty
ColorPlus® Technology: 15-year Limited Finish Warranty

## Sustainable Design Contribution

- Regionally sourced content- varies by project location
- Avoidance of certain chemicals or Red List Compliance

Detailed product information for LEED projects, or other state or regional sustainability programs is available through James Hardie Technical Services.

## Storage and Handling

Store flat and keep dry and covered prior to installation.

## Technical Services

Contact James Hardie Technical Services online at JamesHardie.com, or by phone at (800)426-4051



**IMPORTANT:** Failure to install and finish this product in accordance with applicable building codes and James Hardie written application instructions may affect system performance, violate local building codes, void the product-only warranty and lead to personal injury. **DESIGN ADVICE**: Any information or assistance provided by James Hardie in relation to specific projects must be approved by the relevant specialists engaged for the project eg. builder, architect or engineer. James Hardie will not be responsible in connection with any such information or assistance.

© 2024 James Hardie Building Products, Inc. All rights reserved TM, SM and ® denote trademarks or registered trademarks of James Hardie Technology Limited. The International Building Code and International Residential Code trademarks are registered trademarks of International Code Council, Inc.

**Product warranties, safety information and additional installation information are available at jameshardiepros.com**
**1 866 442 7343 I www.jameshardie.com**

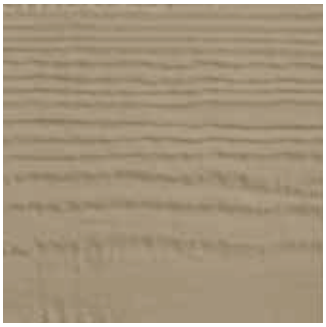
JamesHardie™

# Statement Collection® Color Availability

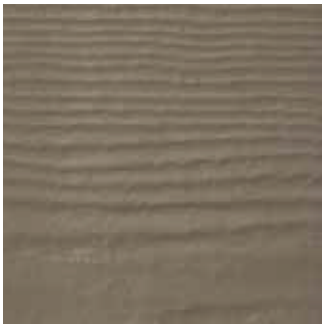

ARCTIC WHITE **1 | 2 | 3**

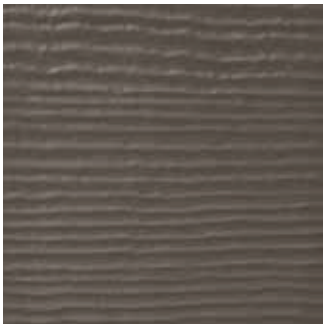
COBBLE STONE **1 | 2**

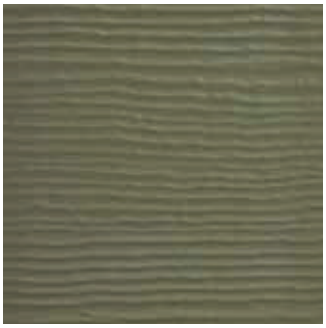
NAVAJO BEIGE **1**


KHAKI BROWN **1**

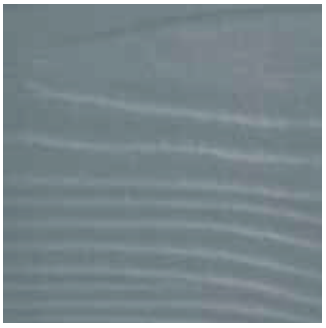
MONTEREY TAUPE **1**


TIMBER BARK **1 | 2**


RICH ESPRESSO **1**


MOUNTAIN SAGE **1**

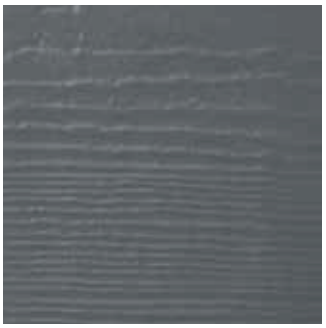
GRAY SLATE **1**

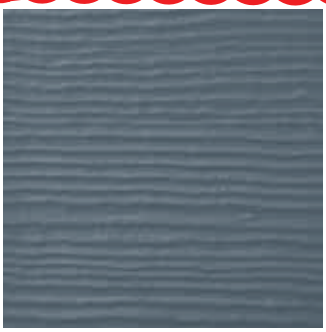

BOOTHBAY BLUE **1**

LIGHT MIST **1**

PEARL GRAY **1**

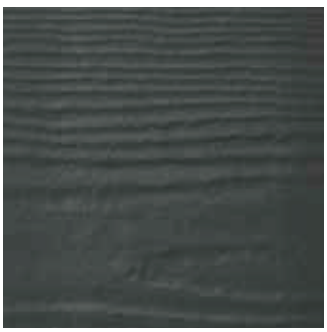
AGED PEWTER **1 | 2**

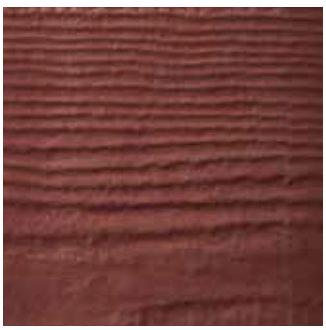

NIGHT GRAY **1**


EVENING BLUE **1**

DEEP OCEAN **1**

| PRODUCT AVAILABILITY KEY | |
|---|---|
| 1 | **Hardie® Siding** Hardie® Plank, Hardie® Shingle, Hardie® Panel, Hardie® Trim Batten |
| 2 | **Hardie® Trim** |
| 3 | **Hardie® Soffit** |


IRON GRAY **1 | 2**


COUNTRYLANE RED **1**

MIDNIGHT BLACK **2**
(Only available in Hardie® Trim)

Colors shown are as accurate as printing methods will permit. Go to jameshardie.com to order a color sample.

Final Landscape Plan

# GARDEN STATION APARTMENTS

## Villa Park, Illinois

November 4, 2025

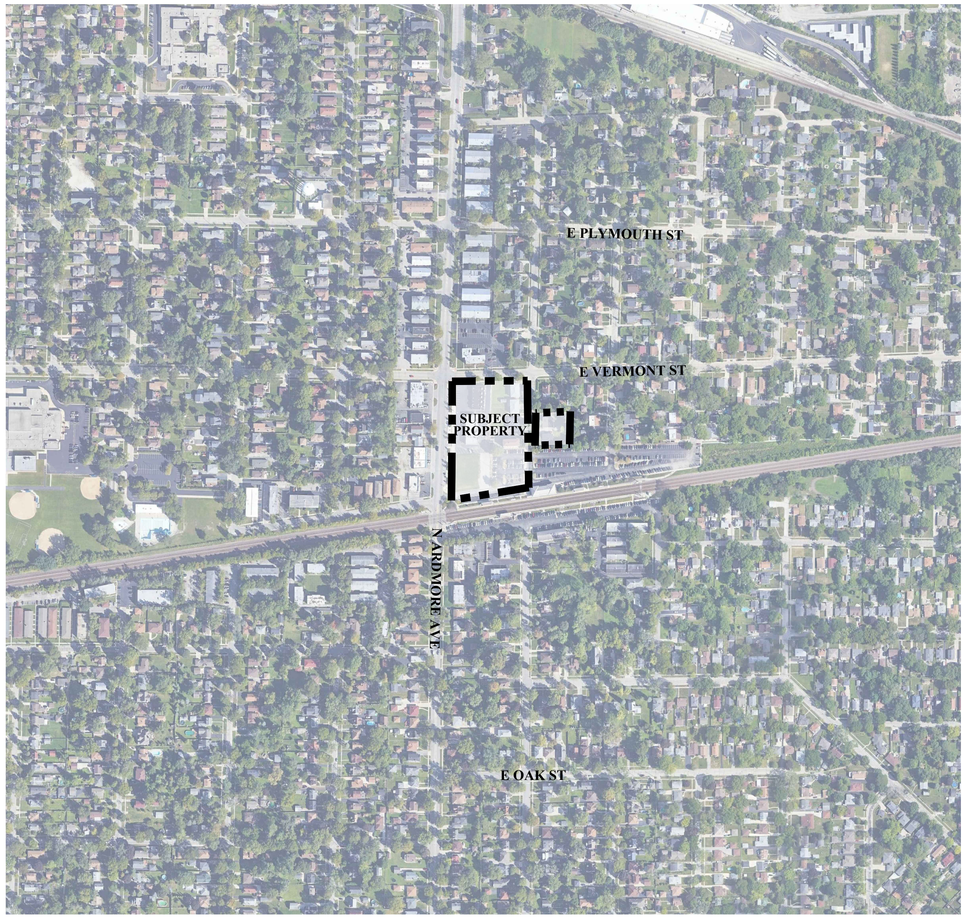
## CONSULTANTS:


LANDSCAPE ARCHITECT:

GARY R. WEBER ASSOCIATES, INC
402 W. LIBERTY DRIVE
WHEATON, ILLINOIS 60187

CONSULTANT:

CEMCON LTD.
2280 WHITE OAK CIRCLE, SUITE 100
AURORA, ILLINOIS 60502


LOCATION MAP

SCALE: 1"=300'

## INDEX OF SHEETS


| SHEET NO. | DESCRIPTION |
|---|---|
| L1.0 | COVER SHEET |
| L1.1 | OVERALL LANDSCAPE PLAN |
| L1.2 | TREE PRESERVATION PLAN |
| L1.3 | LANDSCAPE SPECIFICATIONS |


I:\Projects\HDC2201\Acad\HDC2201_A07_00LP.dwg

# PLANT LIST

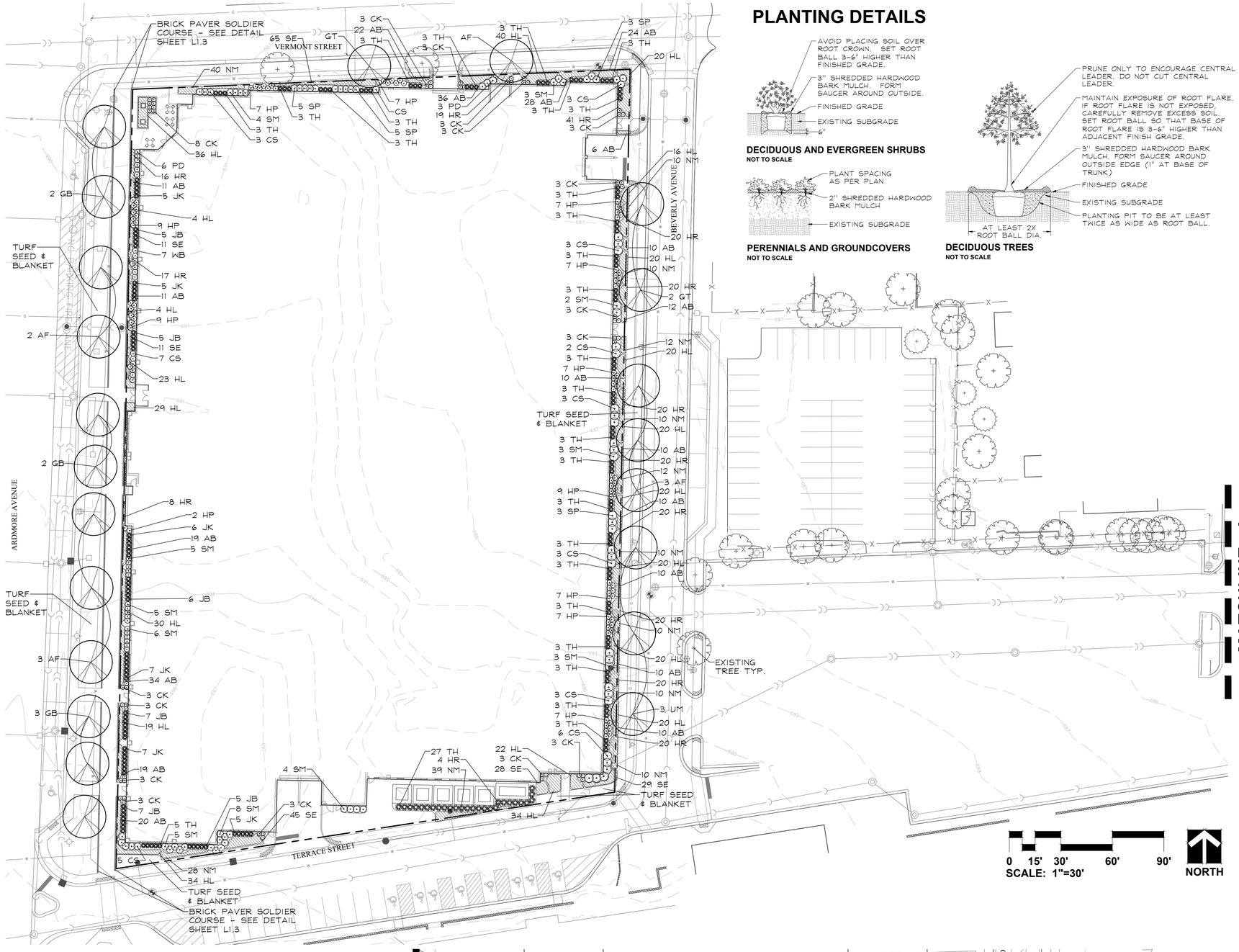
| Key | Qty | Botanical/Common Name | Size | Remarks |
|---|---|---|---|---|
| | | **SHADE TREES** | | |
| AF | 9 | Acer x freemanii 'Marmo'<br>MARMO FREEMAN MAPLE | 2 1/2" Cal.<br>B&B | |
| GT | 3 | Gleditsia triacanthos var. inermis 'Skycole'<br>SKYLINE HONEYLOCUST | 2 1/2" Cal.<br>B&B | |
| GB | 7 | Ginkgo biloba<br>GINKGO TREE | 2 1/2" Cal.<br>B&B | Male only |
| UM | 3 | Ulmus 'Morton Glossy'<br>TRIUMPH ELM | 2 1/2" Cal.<br>B&B | |
| | | **DECIDUOUS SHRUBS** | | |
| CS | 39 | Cornus sericea 'Baileyi'<br>BAILEY'S REDTWIG DOGWOOD | 36" Tall<br>B&B | 5' O.C. |
| HP | 85 | Hydrangea paniculata 'SMHPLQF'<br>LITTLE QUICK FIRE HYDRANGEA | 24" Tall<br>B&B | 3' O.C. |
| PD | 9 | Physocarpus opulifolius 'Donna May'<br>LITTLE DEVIL NINEBARK | 24" Tall<br>B&B | 3' O.C. |
| SM | 48 | Syringa meyeri 'Palabin'<br>DWARF KOREAN LILAC | 24" Tall<br>B&B | 4' O.C. |
| SP | 16 | Syringa patula 'Miss Kim'<br>MISS KIM LILAC | 24" Tall<br>B&B | 4' O.C. |
| WB | 7 | Weigela florida 'Bramwell'<br>FINE WINE WEIGELA | 24" Tall<br>B&B | 3' O.C. |
| | | **EVERGREEN SHRUBS** | | |
| JK | 35 | Juniperus chinensis 'Kallays Compact'<br>KALLAYS COMPACT PFITZER JUNIPER | 24" Wide<br>GALLON | 4' O.C. |
| JB | 35 | Juniperus conferta 'Blue Pacific'<br>BLUE PACIFIC JUNIPER | 24" Wide<br>GALLON | 4' O.C. |
| TH | 110 | Taxus x media 'Hicksii'<br>HICKS YEW | 24" Wide<br>GALLON | 4' O.C. |
| | | **PERENNIALS & ORNAMENTAL GRASSES** | | |
| AB | 312 | Allium 'Summer Beauty'<br>SUMMER BEAUTY ONION | #1 | 18" O.C. |
| CK | 53 | Calamagrostis x acutiflora 'Karl Foerster'<br>FEATHER REED GRASS | #1 | 30" O.C. |
| HL | 451 | Hemerocallis 'Little Wine Cup'<br>LITTLE WINE CUP DAYLILY | #1 | 18" O.C. |
| HR | 265 | Hemerocallis 'Rosy Returns'<br>ROSY RETURNS DAYLILY | #1 | 18" O.C. |
| NM | 201 | Nepeta racemosa 'Walker's Low'<br>WALKER'S LOW CATMINT | #1 | 18" O.C. |
| SE | 189 | Sedum 'Autumn Joy'<br>AUTUMN JOY SEDUM | #1 | 18" O.C. |
| | | **MISC. MATERIALS** | | |
| | 87 | SHREDDED HARDWOOD MULCH | C.Y. | |
| | 24 | TURF SEED & BLANKET | AC. | |

# SEEDING LEGEND

| Key | Qty | Description |
|---|---|---|
| | 518 S.F. | LOW PROFILE PRAIRIE SEED MIX |

# GENERAL LANDSCAPE NOTES

1. Contractor shall verify underground utility lines and is responsible for any damage.
2. Contractor shall verify all existing conditions in the field prior to construction and shall notify landscape architect of any variance.
3. Material quantities shown are for contractors convenience only. The Contractor must verify all material and supply sufficient materials to complete the job per plan.
4. The landscape architect reserves the right to inspect trees and shrubs either at place of growth or at site before planting, for compliance with requirements of variety, size and quality.
5. Work shall conform to American Standard for Nursery Stock, State of Illinois Horticultural Standards, and Local Municipal requirements.
6. Contractor shall secure and pay for all permits, fees, and inspections necessary for the proper execution of this work and comply with all codes applicable to this work.
7. See General Conditions and Specifications for landscape work for additional requirements.




# PLANTING DETAILS




**DECIDUOUS AND EVERGREEN SHRUBS**
NOT TO SCALE




**PERENNIALS AND GROUNDCOVERS**
NOT TO SCALE




**DECIDUOUS TREES**
NOT TO SCALE


GARY R. WEBER ASSOCIATES, INC.
LAND PLANNING
ECOLOGICAL CONSULTING
LANDSCAPE ARCHITECTURE
402 W. LIBERTY DRIVE
WHEATON, ILLINOIS 60187
PHONE: 630-668-7197
www.grwainc.com

HAWTHORNE DEVELOPMENT CORPORATION
100 TOWER DRIVE, SUITE 131
BURR RIDGE, ILLINOIS 60527
312-235-6647

ENGINEER
CEMCON, LTD
2280 WHITE OAK CIRCLE, SUITE 100
AURORA, IL 60502
630-862-2100


# GARDEN STATION APARTMENTS

VILLA PARK, IL

## OVERALL LANDSCAPE PLAN

| | |
|---|---|
| 6 | 11.04.2025 |
| 5 | 10.01.2025 |
| 4 | 04.17.2025 |
| 3 | 12.01.2022 |
| 2 | 10.12.2022 |
| 1 | 06.15.2022 |

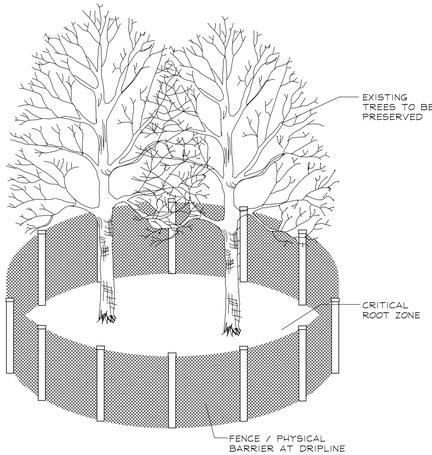
**REVISIONS**

| | |
|---|---|
| **DATE** | 06.06.2022 |
| **PROJECT NO.** | HDC2201 |
| **DRAWN** | DHS |
| **CHECKED** | MGM |

**SHEET NO.**

**L1.1**

Know what's below. Call before you dig.

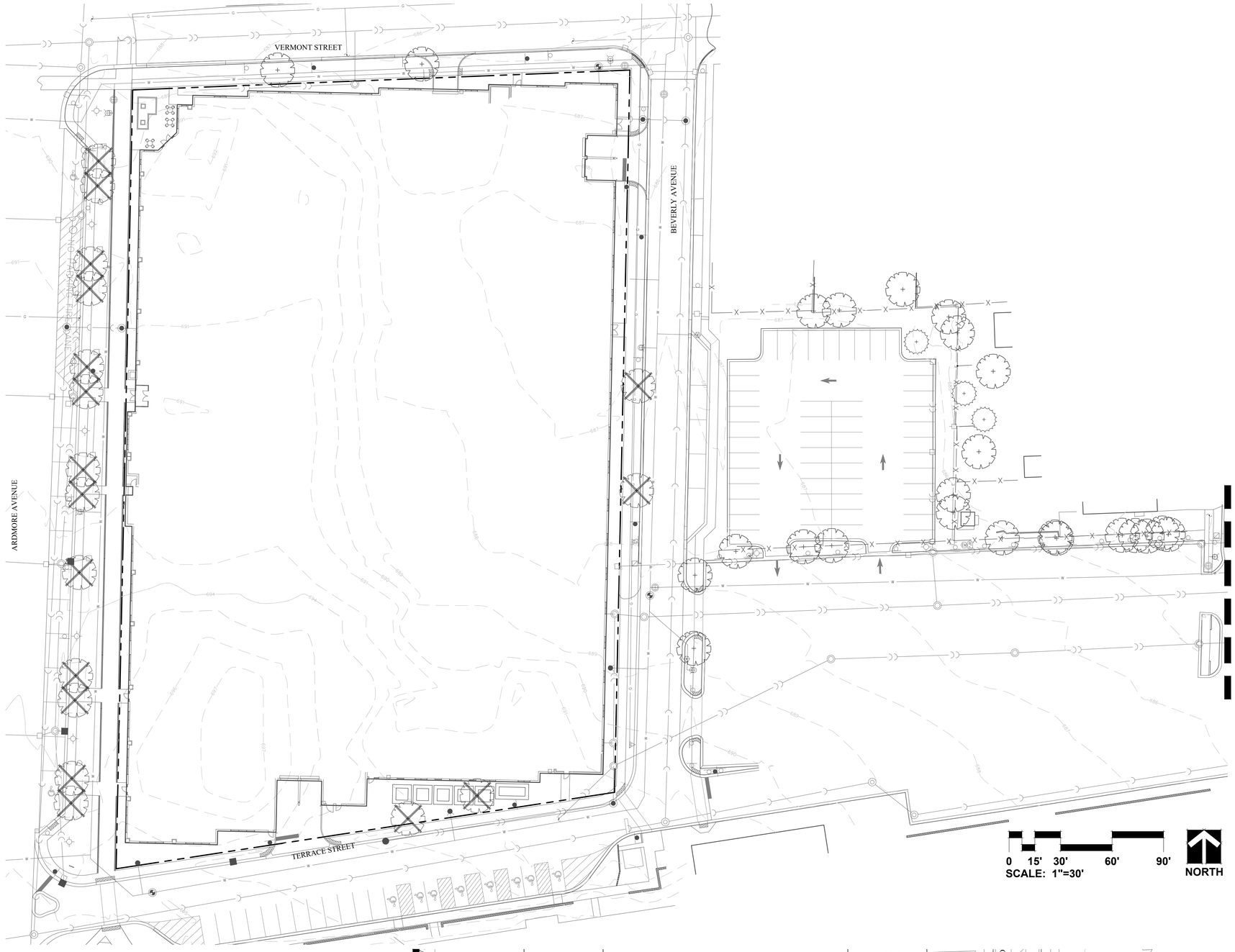



## TREE PRESERVATION DETAIL

**(NOT TO SCALE)**
**SEE NOTES**

## TREE PRESERVATION NOTES

1. Property line shall be located and staked by a professional land surveyor prior to tree removal.
2. 48'' high snow fence or wood barriers shall extend to the dripline of the tree or tree mass whenever possible, shall be installed before construction begins, and should not be removed until the completion of construction.
3. Contractor shall take extreme care to protect the root system of existing trees. Should root pruning be necessary it shall not exceed 25% of the tree's root system and shall be done in accordance with recognized horticulture practices under the supervision of a professional arborists, Landscape Architect or Horticulturist.
4. All accidental damage to existing trees that are to be preserved shall be promptly treated as required in accordance with recognized horticultural practices and the instructions of the professional Arborist, Landscape Architect or Horticulturist.
5. Broken or badly bruised branches shall be removed with a clean cut. If recommended by the professional Arborist, Landscape Architect or Horticulturist.
6. Care shall be exercised by the contractors to protect all overhead limbs and branches from damage by contact with material, machinery or equipment and by damage from engine exhaust.
7. Contractors shall protect trees and vegetation against spills or discharge of fuels,lubricating oils, hydraulic fluids, anti-freeze and coolants, calcium chloride, lime and all other similar hydrocarbons, organic chemicals, and other materials which can be harmful.
8. When underground utilities are proposed within 5' of a preserved tree trunk, they must be augered if possible.




GARY R. WEBER ASSOCIATES, INC.
LAND PLANNING
ECOLOGICAL CONSULTING
LANDSCAPE ARCHITECTURE
402 W. LIBERTY DRIVE
WHEATON, ILLINOIS 60187
PHONE: 630-668-7197
www.grwainc.com

HAWTHORNE DEVELOPMENT CORPORATION
100 TOWER DRIVE, SUITE 131
BURR RIDGE, ILLINOIS 60527
312-235-6647

ENGINEER
CEMCON, LTD
2280 WHITE OAK CIRCLE, SUITE 100
AURORA, IL 60502
630-862-2100

# GARDEN STATION APARTMENTS

VILLA PARK, IL

## TREE PRESERVATION PLAN

| | |
|---|---|
| 6 | 11.04.2025 |
| 5 | 10.01.2025 |
| 4 | 04.17.2025 |
| 3 | 12.01.2022 |
| 2 | 10.12.2022 |
| 1 | 06.15.2022 |

**REVISIONS**

| | |
|---|---|
| **DATE** | 06.06.2022 |
| **PROJECT NO.** | HDC2201 |
| **DRAWN** | DHS |
| **CHECKED** | MGM |

**SHEET NO.**

**L1.2**

Know what's below. Call before you dig.

XREFS:
PLOT CONFIG:

LANDSCAPE WORK PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

The work shall consist of furnishing, transporting and installing all seeds, plants and other materials required for:

1. The establishment of trees, shrubs, perennial, annual and lawn areas as shown on Landscape Plan;
2. The provision of post-planting management as specified herein;
3. Any remedial operations necessary in conformance with the plans as specified in this document;
4. Permits which may be required.

1.2 QUALITY ASSURANCE

A. Work shall conform to State of Illinois Horticultural Standards and local municipal requirements.

B. Quality Control Procedures:

1. Ship landscape materials with certificates of inspection as required by governmental authorities. Comply with governing regulations applicable to landscape materials.

2. Do not make substitutions. If specified landscape material is not obtainable, submit to Landscape Architect proof of non-availability and proposal for use of equivalent material.

3. Analysis and Standards: Package standard products with manufacturers certified analysis.

1.3 SUBMITTALS

A. Planting Schedule

Submit three (3) copies of the proposed planting schedule showing dates for each type of planting

B. Maintenance Instruction - Landscape Work

Submit two (2) copies of typewritten instructions recommending procedures to be established by the Owner for the maintenance of landscape work for one full year. Submit prior to expiration of required maintenance periods.

Instructions shall include: watering, fertilizing, spraying, mulching and pruning for plant material and trimming groundcover. Instructions for watering, fertilizing and mowing grass areas shall be provided ten (10) days prior to request for inspection for final acceptance. Landscape Architect shall receive copies of all instructions when issued.

C. Submit two (2) copies of soil test of existing topsoil with recommendations for soil additive requirement to Landscape Architect for review and written approval.

D. Submit two (2) samples of shredded hardwood bark mulch, erosion control blankets, and all other products and materials as specified on plans to Landscape Architect for review and written approval.

E. Nursery packing lists indicating the species and quantities of material installed must be provided to the Owner and/or City upon request.

1.4 JOB CONDITIONS

A. Examine and evaluate grades, soils and water levels. Observe the conditions under which work is to be performed and notify Landscape Architect of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

B. Utilities: Review underground utility location maps and plans; notify local utility location service; demonstrate an awareness of utility locations; and certify acceptance of liability for the protection of utilities during course of work. Contractor shall be responsible for any damage to utilities or property.

C. Excavation: When conditions detrimental to plant growth are encountered such as rubble fill, adverse drainage conditions or obstructions, notify Landscape Architect before planting.

1.5 GUARANTEES

A. Guarantee seeded and sodded areas through the specified maintenance period and until final inspection.

B. Guarantee trees, shrubs, groundcover and perennials for a period of one year after date of acceptance against defects including death and unsatisfactory growth, except for defects resulting from neglect by Owner, abuse or damage by others or unusual phenomena or incidents which are beyond Landscape Installer's control.

LANDSCAPE WORK PART 2 - PLANT MATERIALS

2.1 LAWN SOD

Provide strongly rooted sod, not less than two (2) years old and free of weeds and undesirable native grasses. Provide only sod capable of growth and development when planted (viable, not dormant) and in strips not more than 18" wide x 4' long. Provide sod composed of a 5-way blend of Kentucky Bluegrass such as: Midnight, Allure, Viva, Washington, Liberty.

2.2 LAWN SEED MIXTURE

Grass Seed: Provide fresh, clean, new crop seed complying with the tolerance for purity and germination established by the Official Seed Analysts of North America. Provide seed of the grass species, proportions and maximum percentage of weed seed, as specified.

A. Lawn Seed Mixture - 5 lbs. / 1,000 sq. ft.
50 Kentucky Bluegrass 98/85
15% Cutter Perennial Ryegrass
10% Spartan Hard Fescue
10% Edge Perennial Ryegrass
10% Express Perennial Ryegrass
5%Pennlawn Creeping Red Fescue

B. Temporary Lawn Seed Mixture - 5 lbs. / 1,000 sq. ft.
40% Kentucky Bluegrass 98/85
40% Perennial Ryegrass
20% Annual Ryegrass

2.3 GROUNDCOVERS, PERENNIALS AND ANNUALS

Provide plants established and well-rooted in removable containers or integral peat pots and with not less than the minimum number and length of runners required by ANSI Z60.1 for the pot size shown or listed.

2.4 TREES AND SHRUBS

A. Name and Variety: Provide nursery grown plant material true to name and variety.

B. Quality: Provide trees, shrubs and other plants complying with the recommendations and requirements of ANSI Z60.1 "Standard for Nursery Stock" and as further specified.

C. Deciduous Trees: Provide trees of height and caliper listed or shown and with branching configuration recommended by ANSI Z60.1 for type and species required. Provide single stem trees except where special forms are shown or listed. Provide balled and burlapped (B&B) deciduous trees.

D. Deciduous Shrubs: Provide shrubs of the height shown or listed and with not less than the minimum number of canes required by ANSI Z60.1 for the type and height of shrub required. Provide balled and burlapped (B&B) deciduous shrubs.

E. Coniferous Evergreen: Provide evergreens of the sizes shown or listed. Dimensions indicate minimum spread for spreading and semi-spreading type evergreens and height for other types. Provide quality evergreens with well-balanced form complying with requirements for other size relationships to the primary dimension shown. Provide balled and burlapped (B&B) evergreen trees and containerized shrubs.

F. Inspection: All plants shall be subject to inspection and review at the place of growth or upon delivery and conformity to specification requirements as to quality, right of inspection and rejection upon delivery at the site or during the progress of the work for size and condition of balls or roots, diseases, insects and latent defects or injuries. Rejected plants shall be removed immediately from the site.

2.5 PLANTING SOIL MIXTURE

Provide planting soil mixture consisting of clean uncompacted topsoil (stockpiled at site) for all planting pits, perennial, annual and groundcover areas. Topsoil shall be conditioned based on any recommendations resulting from the soil test in 1.3.C.

2.6 PLANTER SOIL MIXTURE

Provide amended soil mixture consisting of 20% sand, 30% compost & 50% topsoil. Compost shall consist of 35% - 65% organic material and less than 1% manufactured inert material. Amended soil mixture shall pass through a 1/2" screen. Mix materials thoroughly.

2.7 EROSION CONTROL

A. Erosion Control Blanket: North American Green S150, or equivalent approved equal.

2.8 MULCH

Provide mulch consisting of shredded hardwood. Provide sample to Landscape Architect for approval prior to ordering materials.

LANDSCAPE WORK PART 3 - EXECUTION

3.1 PLANTING SCHEDULE

At least thirty (30) days prior to the beginning of work in each area, submit a planting schedule for approval by the Landscape Architect.

3.2 PLANTINGS

A. Sodding New Lawns

1. Remove existing grass, vegetation and turf. Dispose of such material legally off-site, do not turn over into soil being prepared for lawns.

2. Till to a depth of not less than 6"; apply soil amendments as needed; remove high areas and fill in depressions; till soil to a homogenous mixture of fine texture, remove lumps, clods, stones over 1" diameter, roots and other extraneous matter. Dispose of such material legally off-site.

3. Sodded areas shall receive an application of commercial fertilizer at the rate of 10 lbs. per 1,000 sq. ft. and shall have an analysis of 16-8-8.

4. Lay sod within 24 hours from time of stripping.

5. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod strips; do not overlap. Stagger strips to offset joints in adjacent courses. Work from boards to avoid damage to subgrade or sod. Tamp or roll lightly to ensure contact with subgrade. Work sifted soil into minor cracks between pieces of sod; remove excess to avoid smothering of adjacent grass.

6. Water sod thoroughly with a fine spray immediately after planting.

B. Seeding New Lawns

1. Remove existing grass, vegetation and turf. Dispose of such material legally off-site. Do not turn over into soil being prepared for lawns.

2. Till to a depth of not less than 6"; apply soil amendments; remove high areas and fill in depressions; till soil to a homogenous mixture of fine texture, remove lumps, clods, stones over 1" diameter, roots and other extraneous matter. Dispose of such material legally off-site.

3. Seeded lawn areas shall receive an application of commercial fertilizer at the rate of 5 lbs. per 1,000 sq. ft. and shall be 6-24-24. Fertilizer shall be uniformly spread and mixed into the soil to a depth of 1" inches.

4. Do not use wet seed or seed which is moldy or otherwise damaged in transit or storage.

5. Sow seed using a spreader or seeding machine. Do not seed when wind velocity exceeds five (5) miles per hour. Distribute seed evenly over entire area by sowing equal quantity in two directions at right angles to each other.

6. Sow not less than specified rate.

7. Rake lawn seed lightly into top 1" of soil, roll lightly and water with a fine spray.

8. After the seeding operation is completed, spray a wood fiber mulch (Conweb 2000 with tackifier or approved equal) over the entire grassed area at the rate of 2,000 lbs. per acre. Use a mechanical spray unit to insure uniform coverage. Exercise care to protect buildings, automobiles and people during the application of the mulch.

C. Groundcover and Perennial Beds

Groundcover, perennials, and annuals shall be planted in continuous beds of planting soil mixture a minimum of 8" deep. Install per spacing indicated on plan.

D. Trees and Shrubs

1. Set balled and burlapped (B&B) stock plumb and in center of pit or trench with top of ball at an elevation that will keep the root flare exposed upon backfill and mulching. Remove burlap from top and sides of balls; retain on bottoms. When set, place additional topsoil backfill around base and sides of ball and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing final layer of backfill.

2. Dish top of backfill to allow for mulching. Provide additional backfill berm around edge of excavations to form shallow saucer to collect water.

3. Mulch pits, trenches and planted areas. Provide not less than 2" thickness of mulch and work into top of backfill and finish level with adjacent finish grades. Maintain exposed root flare at all times.

4. Prune only injured or dead branches from flowering trees, if any. Protect central leader of tree during shipping and pruning operations. Prune shrubs to retain natural character in accordance with standard horticultural practices.

5. Remove and replace excessively pruned or ill-formed stock resulting from improper pruning.

6. The Contractor shall be wholly responsible for assuring that all trees are planted in a vertical and plumb position and remain so throughout the life of this contract and guarantee period. Trees may or may not be staked and guyed depending upon the individual preference of the Contractor; however, any bracing procedure(s) must be approved by the Owner prior to its installation.

3.3 INITIAL MAINTENANCE

A. Begin maintenance immediately after planting, continuing until final acceptance. A minimum of thirty (30) days.

B. Maintain planted and seeded areas by watering, rolling/regrading, replanting and implementing erosion control as required to establish vegetation free of eroded or bare areas.

3.4 CLEAN UP AND PROTECTION

A. During landscape work, store materials and equipment where directed. Keep pavements clean and work areas and adjoining areas in an orderly condition.

B. Protect landscape work and materials from damage due to landscape operations, operations by other trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair or replace damaged landscape work as directed by Landscape Architect.

3.5 INSPECTION AND ACCEPTANCE

A. The Landscape Architect reserves the right to inspect seeds, plants, trees and shrubs either at place of growth or at site before planting for compliance with requirements for name, variety, size, quantity, quality and mix proportion.

B. Supply written affidavit certifying composition of seed mixtures and integrity of plant materials with respect to species, variety and source.

C. Notify the Landscape Architect within five (5) days after completing initial and/or supplemental plantings in each area.

D. When the landscape work is completed, including maintenance, the Landscape Architect will, upon request, make a final inspection to determine acceptability. After final acceptance, the Owner will be responsible for maintenance.

**NATIVE SEED MIXTURES**

**Temporary Cover Crop**

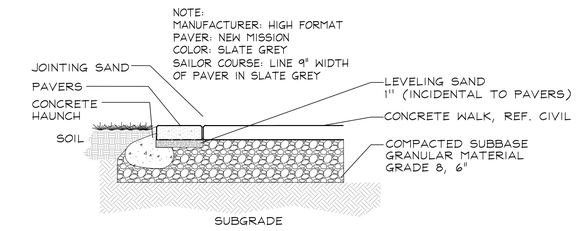
Cover crops shall be installed in all planting areas containing dry mesic, mesic, and wet mesic soils to, stabilize soils, and combat weed pressure during the germination and establishement of the native seeding area.

| Botanical Name | Common Name | lbs / AC |
|---|---|---|
| **Spring Cover Crop** | | |
| *Avena sativa* | Seed Oats | 30.000 |
| **Fall or Dormant Cover Crop** | | |
| *Tricticum aestivum* | Regreen | 10.000 |

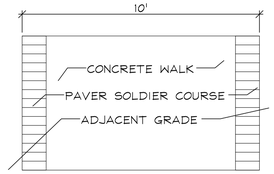
**Low Profile Prairie**

Upper basin slopes

| Botanical Name | Common Name | lbs / AC |
|---|---|---|
| **Grasses** | | |
| *Bouteloua curtipendula* | Side Oats Grama | 8.000 |
| *Panicum virgatum* | Prairie Switch Grass | 0.125 |
| *Elymus canadenesis* | Prairie Wild Rye | 1.000 |
| *Schizachyrium scoparium* | Little Bluestem | 6.000 |
| | **Total Low Profile Prairie Seed Mix** | **15.125** |




**BRICK SOLDIER COURSE DETAIL**
**NOT TO SCALE**




**BRICK SOLDIER COURSE PLAN DETAIL**
**NOT TO SCALE**

GARY R. WEBER ASSOCIATES, INC.
LAND PLANNING
ECOLOGICAL CONSULTING
LANDSCAPE ARCHITECTURE
402 W. LIBERTY DRIVE
WHEATON, ILLINOIS 60187
PHONE: 630-668-7197
www.grwainc.com

HAWTHORNE DEVELOPMENT CORPORATION
100 TOWER DRIVE, SUITE 131
BURR RIDGE, ILLINOIS 60527
312-235-6647

ENGINEER
CEMCON, LTD
2280 WHITE OAK CIRCLE, SUITE 100
AURORA, IL 60502
630-862-2100

# GARDEN STATION APARTMENTS
VILLA PARK, IL

## LANDSCAPE SPECIFICATIONS

| | |
|---|---|
| 6 | 11.04.2025 |
| 5 | 10.01.2025 |
| 4 | 04.17.2025 |
| 3 | 12.01.2022 |
| 2 | 10.12.2022 |
| 1 | 06.15.2022 |
| **REVISIONS** | |

| | |
|---|---|
| **DATE** | 06.06.2022 |
| **PROJECT NO.** | HDC2201 |
| **DRAWN** | DHS |
| **CHECKED** | MGM |
| **SHEET NO.** | |

**L1.3**

Know what's below. Call before you dig.

XREFS

PLOT COMPG

# Traffic Impact Study

## Proposed
## Garden Station Apartments
## SEC Ardmore Ave at
## Vermont St
## Villa Park, Illinois

May 5, 2025

Prepared For:

HAWTHORNE DEVELOPMENT

*Prepared by:*
*Milan K Patel, PE, PTOE, RSP1*
*Daniel P Brinkman, PE, PTOE*

GHA GEWALT HAMILTON ASSOCIATES, INC.

## Part I. Introduction and Project Context

Gewalt Hamilton Associates, Inc. (GHA) has conducted a Traffic Impact Study (TIS) for the proposed mixed-use development: *Garden Station Apartments*. The approximately 2.9-acre subject site is located on the east side of Ardmore Avenue south of the Vermont Street intersection and northwest of the METRA Station in Villa Park, Illinois. The property is bounded by Ardmore Avenue on the west, Vermont Street on the north, Beverly Avenue on the east and Terrace Street on the south. Per the January 24, 2022, Geometric Plan, prepared CEMCON, Ltd., Hawthorne Development Corporation is proposing to construct a single mixed-use building containing 348 residential units, 4,400 square foot restaurant (Brew Pub) and an additional 2,830 square feet of commercial space. Access to the development's internal parking garages is proposed on Terrace Street and Beverley Avenue.

The following summarizes our findings and provides various recommendations for your consideration. *Appendices* referenced are in the Technical Addendum at the end of this document.

## Part II. Background Information

### *Site Location Map and Roadway Inventory*

***Exhibit 1*** provides a site location map. The existing traffic operations in the site area are illustrated on ***Exhibit 2***. ***Appendix A*** provides a photo inventory of operations along the site frontages. Pertinent comments about the adjacent roadways include:

Ardmore Avenue

- Ardmore Avenue is a north-south Major Collector in the vicinity of the side under the jurisdiction of the Village of Villa Park
- Along the site frontage, Ardmore Avenue provides a single travel lane in each direction separated by a full-width, flush median.
- Ardmore Avenue has a posted speed limit of 25 miles per hour (mph) in the vicinity of the site.
- Protected parallel parking is provided along the east side of Ardmore Avenue adjacent to the subject site.
- Separate northbound and southbound left turn lanes are provided at the All-Way Stop Controlled (AWSC) intersection with Vermont Street.
- A separate southbound left turn lane is provided for Terrace Street.
- Algonquin Road is designated as a Class II Truck route.
- The Annual Average Daily Traffic (AADT), year 2016, on Ardmore Avenue was 7,550 vehicles per day.

Vermont Street

- Vermont Street is an east-west local roadway under Village of Villa Park jurisdiction.
- Vermont Street provides a single travel lane in each direction marked with "sharrows" for use as a shared bike lane.
- No speed limit is posted on Vermont Street in the vicinity of the subject site.
- Parking is prohibited along Vermont Street adjacent to the site.
- No historic AADT volume is available for Vermont Street.

Beverly Avenue

- Beverly Avenue is a north-south local street under Village of Villa Park jurisdiction.
- Beverly Avenue provides a single travel lane in each direction.

- Beverly Avenue is under Stop Sign control at its intersection with Vermont Street.
- Parking is prohibited all day on the west side of Beverly Avenue adjacent to the site and prohibited between 7AM and 9AM on the east side of the street.
- No speed limit is posted on Beverly Avenue and no historical AADT volume is available.

Terrace Street

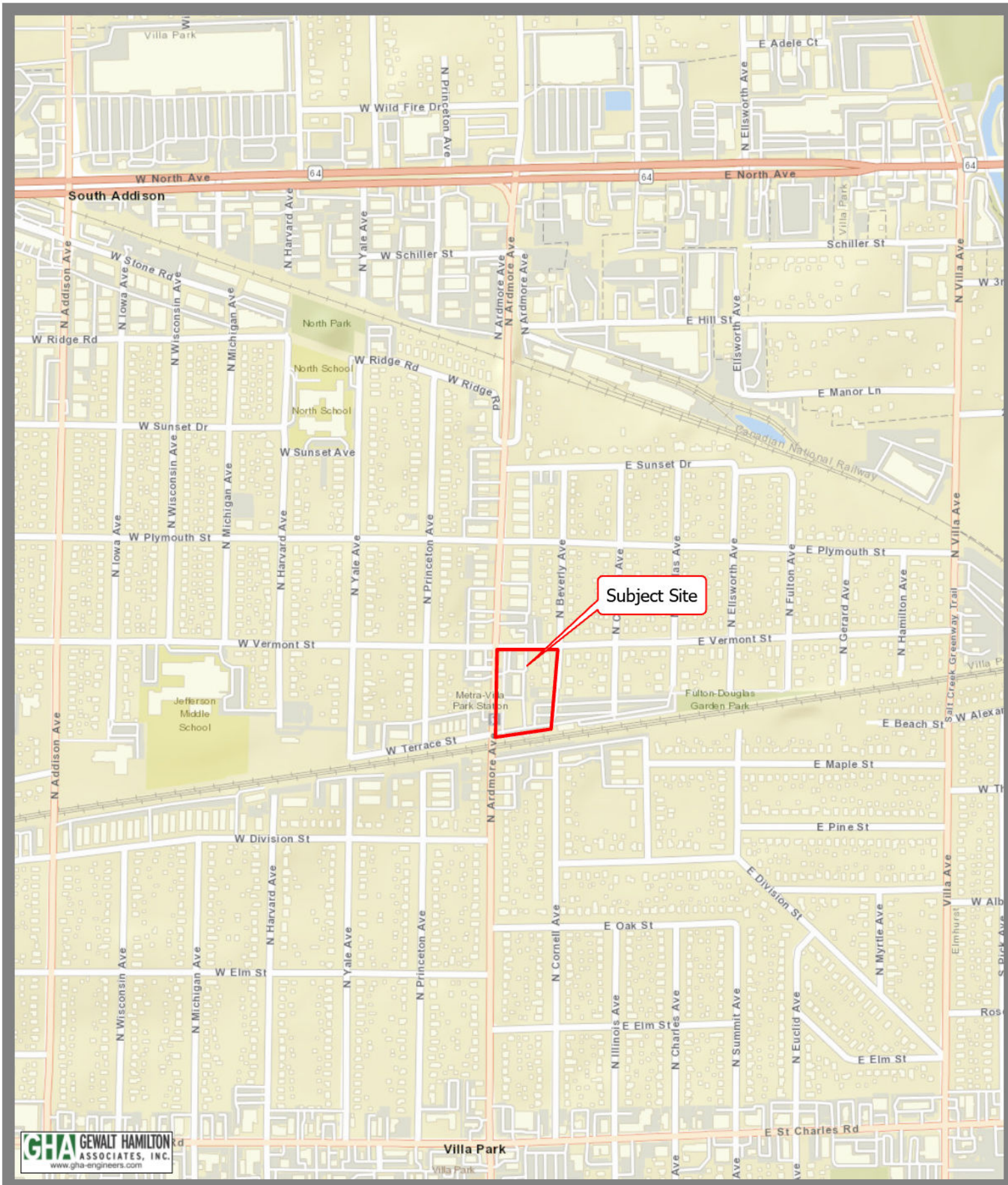
- Terrace Street is a One-Way (eastbound) east-west local street under Village of Villa Park jurisdiction.
- Terrace Street serves as the primary access to the Villa Park METRA Station located just southeast of the subject site.
- Terrace Street provides a single travel lane in each direction.
- Parking (10 MIN) for "Kiss and Ride" is provided on the south side of Terrace Street between the subject site and the METRA platform.
- No speed limit is posted on Terrace Street and no historical AADT volume is available.

Pedestrian Facilities

- Sidewalks are provided adjacent to the subject site on both Ardmore Avenue and Vermont Street.
- There are no sidewalks on Beverly Avenue or Terrace Street, but there is a sidewalk connection from the northeast corner of the Ardmore Avenue intersection with Terrace Street to the METRA platform.

Transit

- The Villa Park METRA (Union-Pacific West Line) station is just to the southeast of the subject site.
- There are no active PACE routes in the site vicinity per the PACE website www.pacebus.com .




GHA GEWALT HAMILTON ASSOCIATES, INC.
www.gha-engineers.com

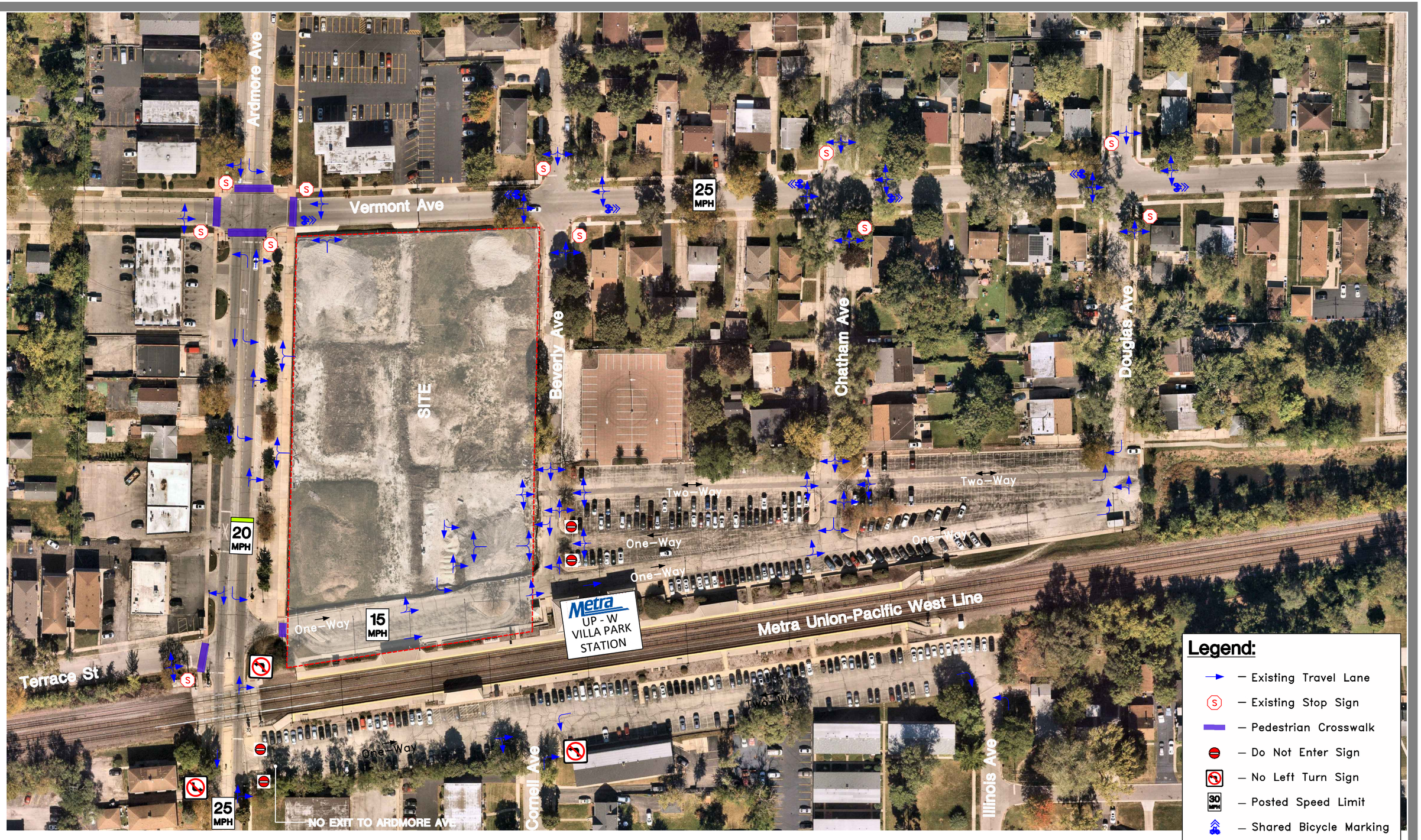
N

1 inch = 1,000 Feet

Map Center: 87.97872°W 41.89778°N

# Exhibit 1 - Location Map

Proposed Garden Station Apartments
SEC Ardmore Ave at E Vermont St
Villa Park, IL




GEWALT HAMILTON ASSOCIATES, INC.

N

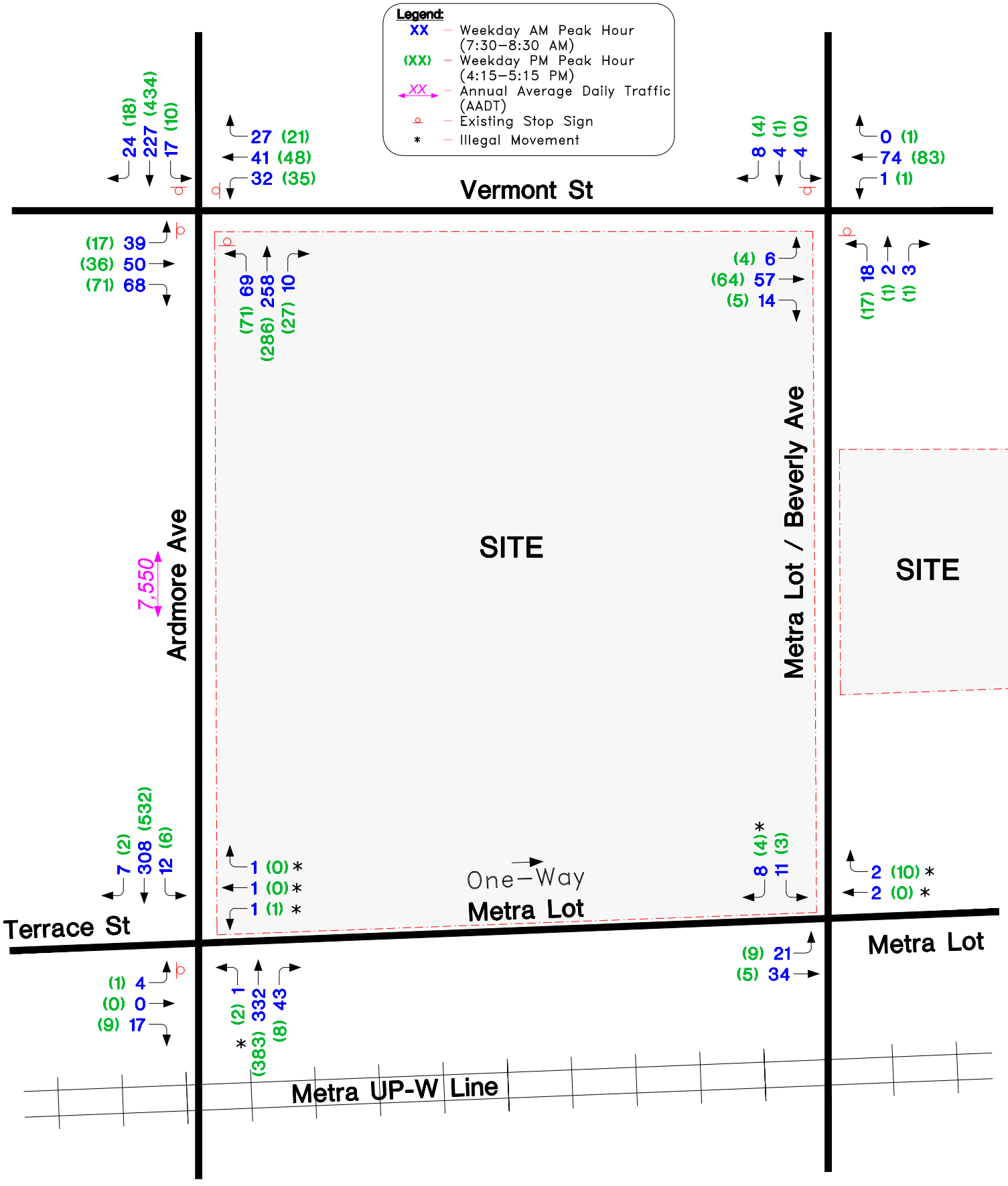
Not to Scale

**Exhibit 2**
**Existing Traffic Operations**

## *Existing Traffic*

***Exhibit 3*** summarizes the existing weekday morning and evening peak hour traffic volumes. Peak period traffic turning movement counts were conducted by GHA on Thursday April 17, 2025, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM at the at the Ardmore Avenue and Beverly Avenue intersections with Vermont Street and Terrace Street. The observed weekday morning and evening peak hours generally occurred from 7:15 to 8:15 AM, 4:15 to 5:15 PM respectively. ***Exhibit 3*** also provides the year 2016 AADT (24-hour volume) along Ardmore Avenue as published by IDOT on their website: www.gettingaroundillinois.com.

No unusual activities (e.g., roadway construction, or inclement weather) were observed during our counts that would be expected to impact traffic volumes or travel patterns in the vicinity. Summaries of the 2025 existing traffic counts can be found in ***Appendix B***.




GEWALT HAMILTON ASSOCIATES, INC.

Not to Scale

# Exhibit 3
## Existing Traffic

Sources: 1) GHA April, 2025 2) IDOT 2016 AADT

## *Crash Analysis*

Crash data was obtained from the IDOT Division of Transportation and Safety for the last five calendar years, 2019 through 2023. A summary of the crash data is provided in **Table 1** with the locations mapped on the exhibit contained in ***Appendix C***.

**Table 1: Crash Summary (2019-2023) [A]**

| Location | No. of Crashes | PD | Severity[A] | | | F | Crash Type[B] | | | | | | | | | Percent Wet / Icy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | A | B | C | | A | FO | FTF | FTR | SS | T | PED | BIKE | O | |
| *Intersections (Crashes within 250 ft of Intersection)* | | | | | | | | | | | | | | | | |
| Ardmore Ave at Vermont St | 9 | 7 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 2 | 33% |
| Ardmore Ave at Terrace St | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 67% |
| Beverley Ave at Vermont St | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Beverley Ave at Terrace St | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total = | 13 | 10 | 0 | 1 | 2 | 0 | 3 | 0 | 0 | 4 | 0 | 3 | 0 | 0 | 3 | 38% |

[A] PD=Property Damage Only, A=Type A (incapacitating injury), B=Type B (non-incapacitating injury), C=Type C (possible injury), F= Fatal Injury

[B] A=Angle, FO=Fixed Object, FTF=Front-to-Front, FTR=Front-to-Rear, SSD=Sideswipe Same Direction, T=Turning, PED=Pedestrian, BIKE=Pedacyclist, O=Other

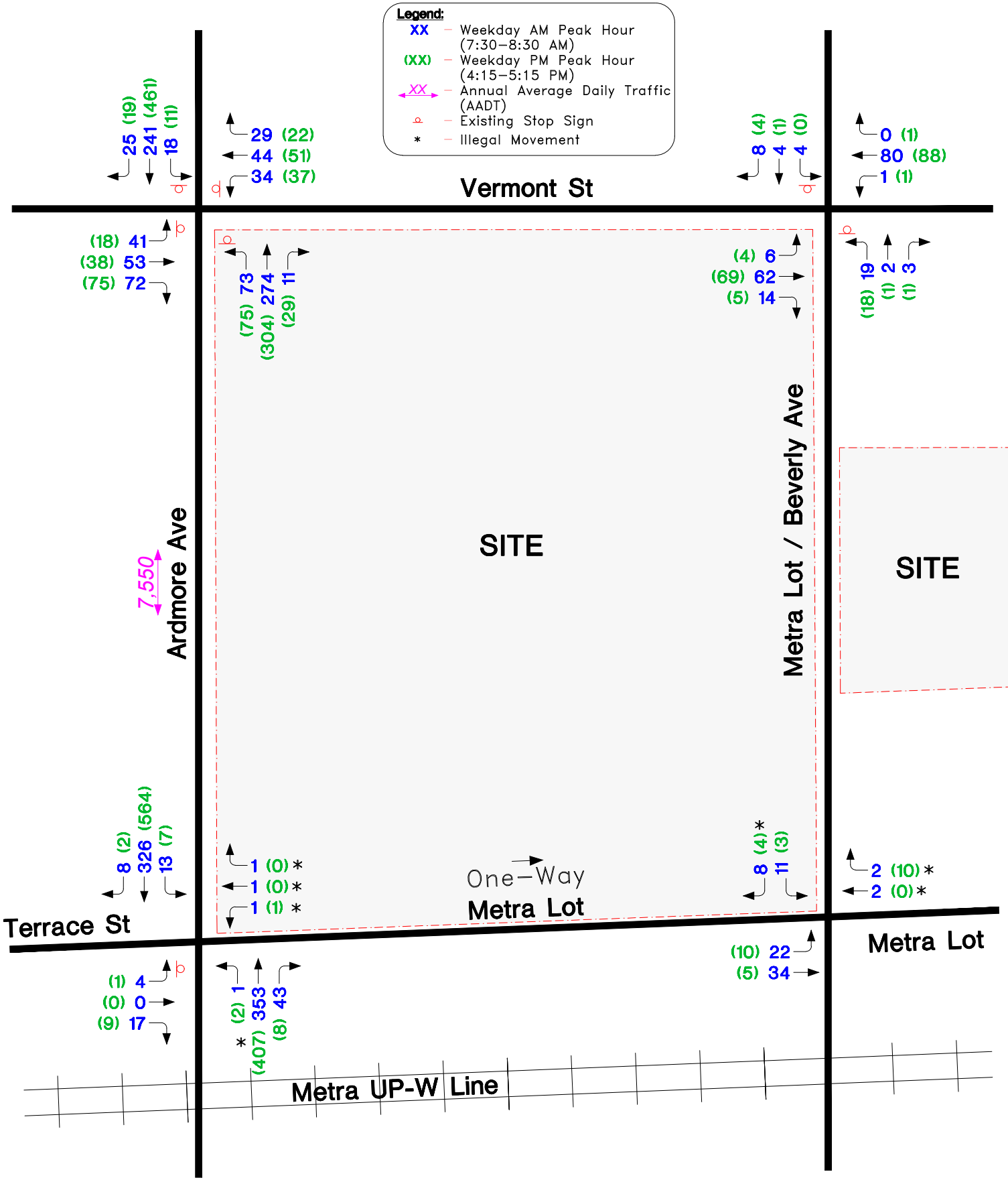
As shown in **Table 1**, the intersection of Ardmore Avenue and Vermont Street experienced the highest number of crashes within the study area over the five-year analyses period, with an average of 2 crashes per year. Approximately 78 percent (7 of 9) of the crashes involved property damage only and approximately 56 percent (5 of 9) were either Angle or Turning crashes. One B-Type injury crash and one C-Type injury crash were reported.

Additionally, the intersection of Ardmore Avenue and Terrace Street experienced the next highest number of crashes with an average of approximately 1 crash every three years. All of the crashes at this intersection involved property damage only and more than half (approximately 67 percent) were rear-end collisions. No injury crashes were reported.

There were no crashes that involved pedestrians or bicyclists throughout the study area.

## *No-Build Traffic*

Traffic growth in the area is a function of expected land development in the region. Future traffic volume conditions were developed for the year 2033, build-out year of the development (Q4 year 2027-say 2028) plus five years. Based on a review of historical traffic volumes and the Chicago Metropolitan Agency for Planning (CMAP) 2050 projections (see ***Appendix D***), traffic volumes along the roadways surrounding the site are assumed to experience an overall annual compounded growth rate of approximately 0.67% per year. Accordingly, the 2033 No-Build peak hour traffic volumes (see ***Exhibit 4***) were developed by applying the predicted growth rate to the existing 2025 traffic volumes.




GEWALT HAMILTON ASSOCIATES, INC.

Not to Scale

**Exhibit 4**
**2033 No-Build Traffic**

# Part III. Traffic Evaluation

## *Future Site Characteristics*

### Proposed Development Plan

Per the January 24, 2022, Geometric Plan, prepared CEMCON, Ltd., Hawthorne Development Corporation is proposing to construct a single mixed-use building containing 348 residential units, a 4,400 square foot restaurant and an additional 2,830 square feet of commercial space. Access to the development's internal parking garages is proposed on Terrace Street and Beverley Avenue. The Terrace Street entrance is approximately 75-feet east of Ardmore and the Beverly Avenue entrance is approximately 85-feet south of Vermont Street.

These dimensions are also illustrated on ***Exhibit 5.***

The January 24, 2022, Geometric Plan is provided in ***Appendix E***.

### Planned Street Operations

Terrace Street east of Ardmore Avenue will be repurposed to provide two-way operations until Beverly Avenue. This change was made as a result of feedback from the Village. It will allow traffic entering and exiting the parking garages to utilize both Ardmore Avenue and Vermont Street. The Ardmore Avenue / Terrace Street intersection will allow southbound left turns, northbound right turns, and westbound right turns. Westbound left turns from Terrace Street to Ardmore Avenue will be prohibited due to its close proximity to the railroad crossing. As a result of changing Terrace Street to two-way operations, it is our understanding that the current kiss-n-ride parking spaces and drop-off lane will be replaced with eight standard parking spaces, as well as eight accessible parking spaces. It should also be noted that a new sidewalk will be constructed along the north side of Terrace Street adjacent to the building to enhance pedestrian mobility.

### Trip Generation

**Table 2** summarizes the traffic generation calculations for the proposed development. Trip generation rates published by the Institute of Transportation Engineers (ITE) in the 11th Edition of the Manual *Trip Generation* were used to determine the anticipated traffic generated by the proposed development. As can be seen in **Table 2** the proposed mixed-use development is expected to generate between 120-180 trips (combined inbound and outbound) during the Peak Hours and approximately 2,460 trips (again inbound and outbound total) in a 24-hour period.

The proximity of the proposed development to the METRA station suggests that some, if not many trips will be oriented to and from the station, reducing peak period traffic. Additionally, not all traffic to and from the on-site retail and restaurant uses is expected to be new trips. Up to 20% of retail and restaurant traffic would be expected to be from patrons already traveling the roadway network (e.g., a stop on the way home after getting off the train). However, to ensure that a conservative approach was considered we did not take any of these discounts when analyzing the impact of the proposed development.

**Table 2: Trip Generation Calculations**

| Land Use | Size | ITE Code | Weekday Peak Hours | | | | | | Daily | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Morning 7:15-8:15 AM | | | Evening 4:15-5:15 PM | | | | | |
| | | | In | Out | Sum | In | Out | Sum | In | Out | Sum |
| | | | | | | | | | | | |
| Residential | 348 DU | 221 | 39 | 70 | 109 | 66 | 35 | 101 | 807 | 807 | 1,614 |
| Retail <40ksf | 2.8 KSF | 822 | 7 | 5 | 12 | 16 | 16 | 32 | 174 | 174 | 348 |
| Brew Pub | 4.4 KSF | 925 | - | - | - | 33 | 17 | 50 | 250 | 250 | 500 |
| **New Trips** | | | **46** | **75** | **121** | **115** | **68** | **183** | **1,231** | **1,231** | **2,462** |

See ***Appendix F*** for excerpts of the ITE manual.

**Trip Distribution**

***Table 3*** provides the anticipated distribution of site traffic. This was based on existing site travel patterns, proposed access, and the operational characteristics of the adjacent street system, including the proximity to the I-90 interchange to the west and the IL 53/ I-290 interchange to the east.

**Table 3: Trip Distribution**

| Route & Direction | Percent Route To/From Site |
|---|---|
| **Ardmore Avenue** | |
| North of Vermont St | 35% |
| South of Terrace St | 30% |
| **Vermont Street** | |
| West of Ardmore Ave | 15% |
| East of Beverly Ave | 20% |
| **Terrace Street** | |
| West of Ardmore Ave | <5% |
| **Beverly Avenue** | |
| North of Vermont St | <5% |
| ***Totals =*** | ***100%*** |

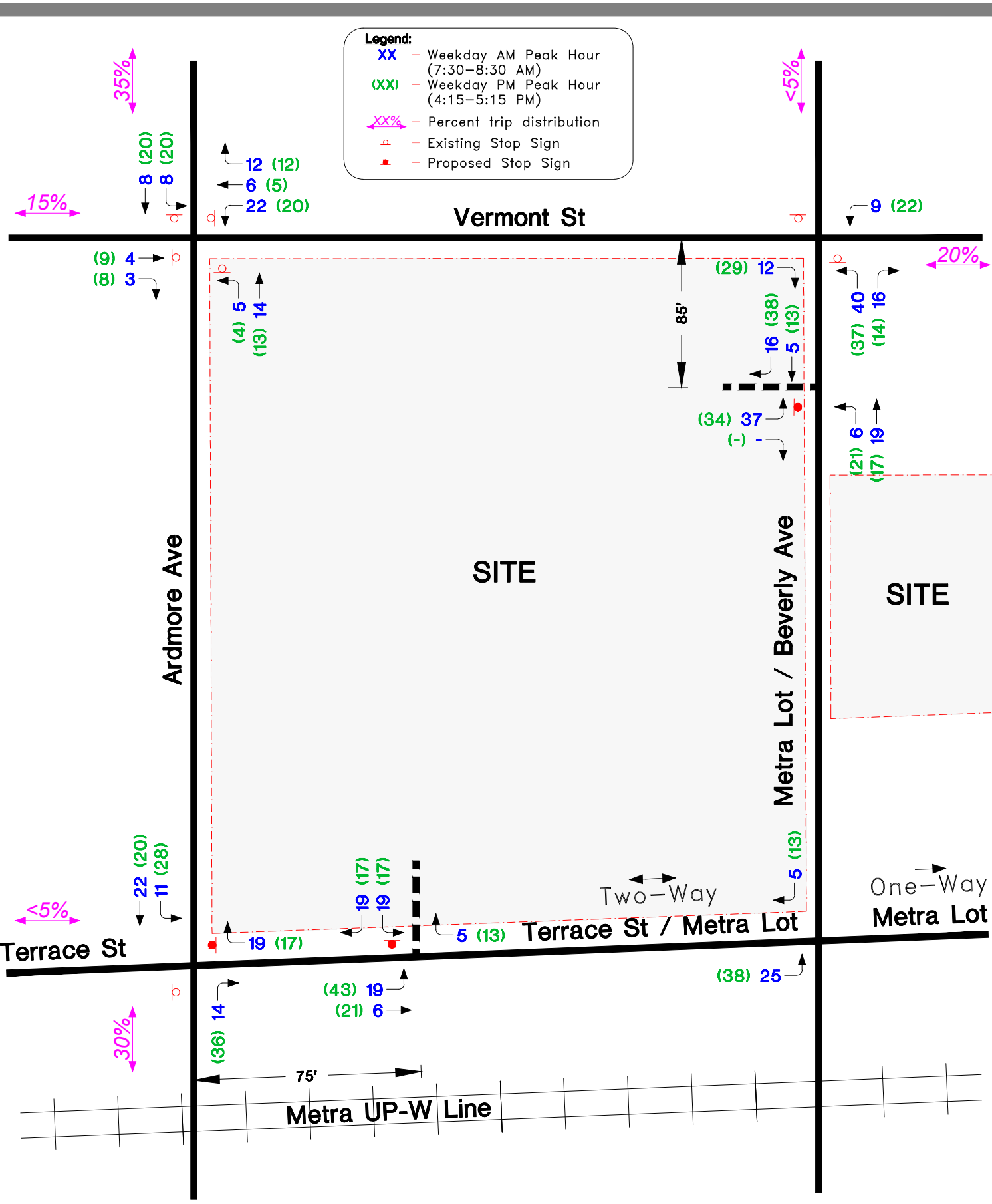
Traffic usage of the area roadway network is also illustrated on ***Exhibit 5.***

## *Site and Total Traffic Assignments*

***Exhibit 5*** illustrates the site traffic assignments for the development's trips, which is based on the traffic characteristics summarized in **Tables 2 and 3** (traffic generation and trip distribution) and assigned to the area roadways. As previously noted, the proposed development is anticipated to open in late 2027 or early 2028. Therefore, we have considered the total impacts of the complete development for the year 2033, or buildout plus five years.

The site traffic (***Exhibit 5***) and 2033 No-Build traffic (***Exhibit 4***) were combined to produce the 2033 Total traffic, which is illustrated on ***Exhibit 6***.

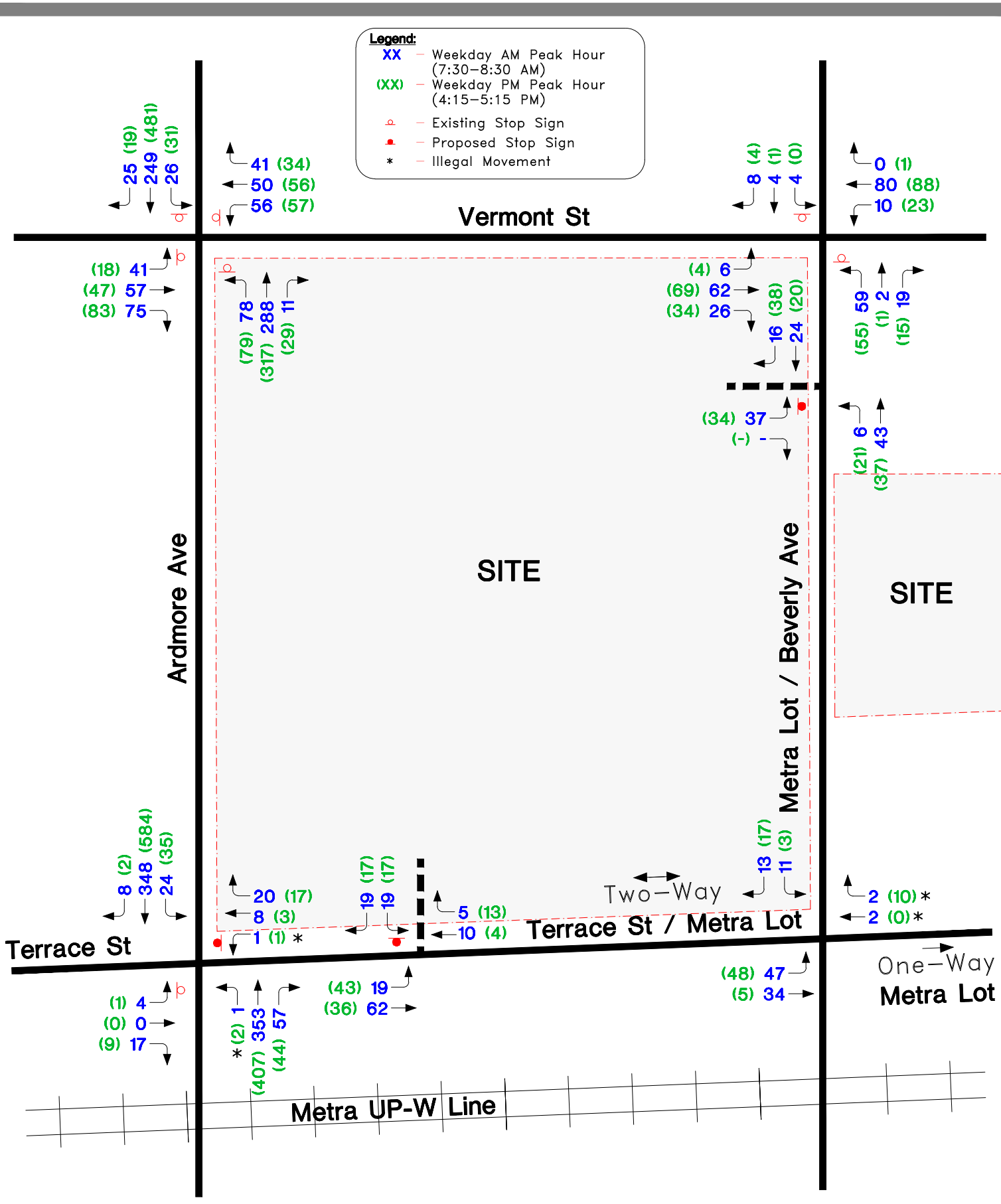
*Discussion Point.* The site traffic assignment assumes that all site trips would be entering and exiting via the garage access points. In reality, the vast majority of commercial trips will be oriented along and parking in the on-street spaces on Ardmore Avenue and perhaps Beverly Avenue after hours for METRA. Thus, it can be concluded that we have analyzed the maximum potential Garden Station traffic impacts.




GEWALT HAMILTON ASSOCIATES, INC.

Not to Scale

**Exhibit 5**
**Site Traffic**




GEWALT HAMILTON ASSOCIATES, INC.

Not to Scale

**Exhibit 6**
**2033 Total Traffic**

## *Capacity Analysis*

Capacity analyses are a standard measurement that identifies how an intersection operates. They are measured in terms of Level of Service (LOS). The concept of LOS is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six Levels of Service are defined for each type of facility. They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst. LOS C is often considered acceptable for design purposes and LOS D is usually considered as providing the lower threshold of acceptable operations. Since the level of service is a function of the traffic flows placed upon it, the facility may operate at a wide range of levels of service, depending on the time of day, day of week or period of year. A description of the operating conditions under each level of service, based on the analysis parameters as published in the Transportation Research Board's (TRB) Highway Capacity Manual (HCM), Seventh Edition, is provided in **Table 4**.

**Table 4: Level of Service (LOS) Summary**

| LOS | Description | Delay (sec/veh) | |
|---|---|---|---|
| | | Traffic Signal | Stop Sign |
| A | Describes conditions with little to no delay to motorists. | <10 | < 10 |
| B | Represents a desirable level with relatively low delay to motorists. | >10 and < 20 | >10 and < 15 |
| C | Describes conditions with average delays to motorists. | >20 and < 35 | >15 and < 25 |
| D | Describes operations where the influence of congestion becomes more noticeable. Delays are still within an acceptable range. | >35 and < 55 | >25 and < 35 |
| E | Represents operating conditions with high delay values. This level is often considered within urban settings or for minor streets intersecting major arterial roadways to be the limit of acceptable delay. | >55 and < 80 | >35 and < 50 |
| F | Is unacceptable to most drivers with high delay values that often occur when arrival flow rates exceed the capacity of the intersection. | >80 | >50 |

Capacity analyses were performed using the methodologies outlined in the HCM, for the following scenarios:

- *Existing Traffic* – Existing traffic (year 2025),
- *No-Build Traffic* – Future (non-site, year 2033) traffic with background growth, and
- *Total Traffic* – Future No-Build traffic volumes (year 2033) plus the addition of the site generated traffic.

**2033 Total traffic conditions assumed the following, with *Exhibit* 7, illustrating future traffic operations:**

- The location of the Beverly Avenue parking entrance will be approximately 85-feet south of Vermont Street.
- The location of the Terrace Street parking entrance will be approximately 75-feet east of Ardmore Avenue.
- Westbound left turns at Ardmore Avenue and Terrace Street will be prohibited.
- Both parking accesses will operate under Stop Sign Control.

***Table 5*** summarizes the intersection capacity and queue analysis results.

## Table 5: Level-of-Service Summary

| Intersection / Timeframe | | Roadway Conditions | Movement Group By Approach<br>> = Shared Lane - = Non Critical or Not Allowed Movement | | | | | | | | | | | | Overall Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | |
| **1. Ardmore Avenue & Vermont Street** | | **AWSC** | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | |
| **AM Peak** | **A. Existing Traffic (See Exhibit 3)** | • LOS | > | **B** | < | > | **B** | < | **B** | **B** | < | **A** | **B** | < | **B** |
| | | • Delay | - | 11.1 | - | - | 10.3 | - | 10.1 | 14 | - | 9.3 | 13.5 | - | 12.5 |
| | | • 95th Queue Length (ft) | - | 31.7 | - | - | 17.9 | - | 12.9 | 70.7 | - | 2.5 | 61.9 | - | - |
| | | • Approach LOS (Delay) | | **B (11.1)** | | | **B ( 10.3)** | | | **B (13.2)** | | | **B (13.2)** | | - |
| | **B. 2033 No-Build Traffic (See Exhibit 4)** | • LOS | > | **B** | < | > | **B** | < | **B** | **C** | < | **A** | **B** | < | **B** |
| | | • Delay | - | 11.6 | - | - | 10.7 | - | 10.3 | 15.2 | - | 9.5 | 14.5 | - | 13.3 |
| | | • 95th Queue Length (ft) | - | 34.3 | - | - | 20.5 | - | 12.9 | 81.2 | - | 2.5 | 72.2 | - | - |
| | | • Approach LOS (Delay) | | **B (11.6)** | | | **B (10.7)** | | | **B (14.2)** | | | **B (14.2)** | | - |
| | **C. 2033 Total Traffic (See Exhibit 6)** | • LOS | > | **B** | < | > | **B** | < | **B** | **C** | < | **A** | **C** | < | **B** |
| | | • Delay | - | 12.4 | - | - | 12 | - | 10.8 | 17.4 | - | 10 | 16.2 | - | 14.7 |
| | | • 95th Queue Length (ft) | - | 39.6 | - | - | 30.7 | - | 15.5 | 96.9 | - | 5 | 82.6 | - | - |
| | | • Approach LOS (Delay) | | **B (12.4)** | | | **B (12.0)** | | | **C (16.0)** | | | **C (15.6)** | | - |
| **PM Peak** | **A. Existing Traffic (See Exhibit 3)** | • LOS | > | **B** | < | > | **B** | < | **B** | **C** | < | **A** | **D** | < | **C** |
| | | • Delay | - | 11.2 | - | - | 11.3 | - | 10.2 | 16 | - | 9.2 | 27.8 | - | 19.5 |
| | | • 95th Queue Length (ft) | - | 23 | - | - | 20.2 | - | 12.5 | 89.6 | - | 2.5 | 198 | - | - |
| | | • Approach LOS (Delay) | | **B (11.2)** | | | **B (11.3)** | | | **B (15.0)** | | | **D (27.4)** | | - |
| | **B. 2033 No-Build Traffic (See Exhibit 4)** | • LOS | > | **B** | < | > | **B** | < | **B** | **C** | < | **A** | **E** | < | **C** |
| | | • Delay | - | 11.8 | - | - | 11.8 | - | 10.6 | 18.1 | - | 9.4 | 36.2 | - | 23.8 |
| | | • 95th Queue Length (ft) | - | 25.6 | - | - | 22.7 | - | 12.5 | 105 | - | 2.5 | 252 | - | - |
| | | • Approach LOS (Delay) | | **B (11.8)** | | | **B (11.8)** | | | **C (16.7)** | | | **E (35.6)** | | - |
| | **C. 2033 Total Traffic (See Exhibit 6)** | • LOS | > | **B** | < | > | **B** | < | **B** | **C** | < | **B** | **F** | < | **D** |
| | | • Delay | - | 13.2 | - | - | 13.6 | - | 11.3 | 22.7 | - | 10.2 | 55.4 | - | 32.6 |
| | | • 95th Queue Length (ft) | - | 33.3 | - | - | 35.3 | - | 15 | 136 | - | 5 | 333 | - | - |
| | | • Approach LOS (Delay) | | **B (13.2)** | | | **B (13.6)** | | | **C (20.6)** | | | **F (52.8)** | | - |

**Table 5: Level-of-Service Summary (cont.)**

| Intersection / Timeframe | | Roadway Conditions | Movement Group By Approach<br>> = Shared Lane - = Non Critical or Not Allowed Movement | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
| **2. Vermont Street & Beverly Avenue** | | **TWSC - NB/SB Stops** | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| **AM Peak** | **A. Existing Traffic (See Exhibit 3)** | • LOS | **A** | **<** | **<** | **A** | **<** | **<** | **>** | **B** | **<** | **<** | **A** | **<** |
| | | • Delay | 7.4 | - | - | 7.4 | - | - | - | 10.2 | - | - | 9.9 | - |
| | | • 95th Queue Length (ft) | 0 | - | - | 0 | - | - | - | 3 | - | - | 3 | - |
| | | • Approach LOS (Delay) | **A (0.6)** | | | **A (0.1)** | | | **B (10.2)** | | | **A (9.9)** | | |
| | **B. 2033 No-Build Traffic (See Exhibit 4)** | • LOS | **A** | **<** | **<** | **A** | **<** | **<** | **>** | **B** | **<** | **>** | **A** | **<** |
| | | • Delay | 7.4 | - | - | 7.4 | - | - | - | 10.4 | - | - | 10.0 | - |
| | | • 95th Queue Length (ft) | 0 | - | - | 0 | - | - | - | 3 | - | - | 3 | - |
| | | • Approach LOS (Delay) | **A (0.6)** | | | **A (0.1)** | | | **A (10.4)** | | | **A (10.0)** | | |
| | **C. 2033 Total Traffic (See Exhibit 6)** | • LOS | **A** | **<** | **<** | **A** | **<** | **<** | **>** | **B** | **<** | **<** | **B** | **<** |
| | | • Delay | 7.4 | - | - | 7.5 | - | - | - | 11.1 | - | - | 10.2 | - |
| | | • 95th Queue Length (ft) | 0 | - | - | 0 | - | - | - | 13 | - | - | 3 | - |
| | | • Approach LOS (Delay) | **A (0.5)** | | | **A (0.9)** | | | **B (11.1)** | | | **B (10.2)** | | |
| **PM Peak** | **A. Existing Traffic (See Exhibit 3)** | • LOS | **A** | **<** | **<** | **A** | **<** | **<** | **>** | **A** | **<** | **>** | **A** | **<** |
| | | • Delay | 7.4 | - | - | 7.4 | - | - | - | 10.0 | - | - | 9.2 | - |
| | | • 95th Queue Length (ft) | 0 | - | - | 0 | - | - | - | 3 | - | - | 0 | - |
| | | • Approach LOS (Delay) | **A (0.4)** | | | **A (0.1)** | | | **A (10.0)** | | | **A (9.2)** | | |
| | **B. 2033 No-Build Traffic (See Exhibit 4)** | • LOS | **A** | **<** | **<** | **A** | **<** | **<** | **>** | **B** | **<** | **<** | **A** | **<** |
| | | • Delay | 7.4 | - | - | 7.4 | - | - | - | 10.1 | - | - | 9.2 | - |
| | | • 95th Queue Length (ft) | 0 | - | - | 0 | - | - | - | 3 | - | - | 3 | - |
| | | • Approach LOS (Delay) | **A (0.6)** | | | **A (0.1)** | | | **B (10.1)** | | | **A (9.2)** | | |
| | **C. 2033 Total Traffic (See Exhibit 6)** | • LOS | **A** | **<** | **<** | **A** | **<** | **<** | **>** | **B** | **<** | **>** | **A** | **<** |
| | | • Delay | 7.4 | - | - | 7.5 | - | - | - | 11.1 | - | - | 9.4 | - |
| | | • 95th Queue Length (ft) | 0 | - | - | 0 | - | - | - | 10 | - | - | 0 | - |
| | | • Approach LOS (Delay) | **A (0.3)** | | | **A (1.7)** | | | **B (11.1)** | | | **A (9.4)** | | |

**Table 5: Level-of-Service Summary (cont.)**

| Intersection / Timeframe | | Roadway Conditions | Movement Group By Approach | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | > = Shared Lane - = Non Critical or Not Allowed Movement | | | | | | | | | | | |
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
| **3. Terrace Street & Ardmore Avenue** | | **TWSC - EB/WB Stops** | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| **AM Peak** | **C. 2033 Total Traffic (See Exhibit 6)** | • LOS | > | **B** | < | - | - | **B** | - | - | - | **A** | - | - |
| | | • Delay | - | 12.4 | - | - | - | 10.9 | - | - | - | 8.3 | - | - |
| | | • 95th Queue Length (ft) | - | 3 | - | - | - | 3 | - | - | - | 3 | - | - |
| | | • Approach LOS (Delay) | | **B (12.4)** | | | **B (10.9)** | | | **-** | | | **A (0.5)** | |
| **PM Peak** | **C. 2033 Total Traffic (See Exhibit 6)** | • LOS | > | **B** | < | - | - | **B** | - | - | - | **A** | - | - |
| | | • Delay | - | 14.4 | - | - | - | 11.3 | - | - | - | 8.5 | - | - |
| | | • 95th Queue Length (ft) | - | 3 | - | - | - | 3 | - | - | - | 3 | - | - |
| | | • Approach LOS (Delay) | | **B (14.4)** | | | **B (11.3)** | | | **-** | | | **A (0.5)** | |

| Intersection / Timeframe | | Roadway Conditions | Movement Group By Approach | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | > = Shared Lane - = Non Critical or Not Allowed Movement | | | | | | | | | | | |
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
| **4. Beverly Avenue & Parking Garage** | | **TWSC - EB Stop** | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| **AM Peak** | **C. 2033 Total Traffic (See Exhibit 6)** | • LOS | . | **A** | < | - | - | - | **A** | - | - | - | - | - |
| | | • Delay | - | 7.4 | - | - | - | - | 7.3 | - | - | - | - | - |
| | | • 95th Queue Length (ft) | - | 0 | - | - | - | - | 0 | - | - | - | - | - |
| | | • Approach LOS (Delay) | | **A (0.5)** | | | **-** | | | **A (0.9)** | | | **-** | |
| **PM Peak** | **C. 2033 Total Traffic (See Exhibit 6)** | • LOS | > | **A** | < | - | - | - | **A** | - | - | - | - | - |
| | | • Delay | - | 9.4 | - | - | - | - | 7.3 | - | - | - | - | - |
| | | • 95th Queue Length (ft) | - | 3 | - | - | - | - | 0 | - | - | - | - | - |
| | | • Approach LOS (Delay) | | **A (9.4)** | | | **-** | | | **A (2.7)** | | | **-** | |

**Table 5: Level-of-Service Summary (cont.)**

| Intersection / Timeframe | | Roadway Conditions | Movement Group By Approach<br>> = Shared Lane - = Non Critical or Not Allowed Movement | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
| **5. Terrace Street & Parking Garage** | | **TWSC - SB Stop** | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| **AM Peak** | **C. 2033 Total Traffic (See Exhibit 6)** | • LOS | **A** | **A** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **>** | **A** | **<** |
| | | • Delay | 7.3 | 0.1 | - | - | - | - | - | - | - | - | 9.0 | - |
| | | • 95th Queue Length (ft) | 0 | - | - | - | - | - | - | - | - | - | 3 | 0 |
| | | • Approach LOS (Delay) | | **A (1.8)** | | | **-** | | | **-** | | | **A (9.0)** | |
| **PM Peak** | **C. 2033 Total Traffic (See Exhibit 6)** | • LOS | **A** | **A** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **>** | **A** | **<** |
| | | • Delay | 7.3 | 0.2 | - | - | - | - | - | - | - | - | 9.1 | - |
| | | • 95th Queue Length (ft) | 3 | - | - | - | - | - | - | - | - | - | 3 | 0 |
| | | • Approach LOS (Delay) | | **A (4.1)** | | | **-** | | | **-** | | | **A (9.1)** | |

Capacity analysis summary printouts are provided in ***Appendix G***.

The following summarizes the findings of the Capacity Analyses.

Ardmore Avenue and Vermont Street

Under both existing and future traffic conditions (No-Build and Total), the all-way stop controlled intersection of Ardmore Avenue and Vermont Street operates at an overall acceptable LOS "D" or better during both the weekday AM peak hour and weekday PM peak hour.

*Discussion Point.* During the PM peak hour, the southbound through movement at this intersection is expected to operate with capacity constraints and experience longer than desirable delays. However, it should be remembered that none of the available discounts on trips were taken for pass-by or walking trips. Thus, no changes to the existing operations are anticipated to accommodate the development traffic.

Vermont Street and Beverly Avenue

Under existing and future (No-Build and Total) traffic conditions, the northbound approach of the unsignalized intersection of Vermont Street and Beverly Avenue operates at an overall LOS "B" or better during both the weekday AM peak hour and weekday PM peak hour.

Terrace Street and Ardmore Avenue

Under future (Total) traffic conditions, the eastbound and westbound approach of the intersection at Terrace Street and Ardmore Avenue operates at an overall LOS "B" during both the weekday AM peak hour and weekday PM peak hour. No changes to the proposed operations are required to accommodate the development traffic.

Beverly Avenue and Parking Garage

Under future (Total) traffic conditions, the eastbound approach of the intersection at Beverly Avenue and the Site Parking Garage operates at an overall LOS "A" during both the weekday AM peak hour and weekday PM peak hour. No changes to the proposed operations are required to accommodate the development traffic.

Terrace Street and Parking Garage

Under future (Total) traffic conditions, the southbound approach of the intersection at Terrace Street and the Site Parking Garage operates at an overall LOS "A" during both the weekday AM peak hour and weekday PM peak hour. No changes to the proposed operations are required to accommodate the development traffic.

## *Parking Supply & Demand*

A new parking lot has been constructed immediately east of the site across Beverly Avenue to replace the existing portion of the Metra parking lot that the building is occupying. This parking lot provides 49 off-street spaces and is connected to the existing METRA parking lot. Furthermore, 12 angled parking spaces will be constructed along Beverly Avenue that border the west side of the new parking lot. In total, the new 61 surface parking spaces will replace the 55 parking spaces that previously existed for a net gain of four new parking spaces in the METRA parking lot.

The Villa Park zoning code requires one parking space to be provided for each bedroom, which is more than what is typically found at a TOD development such as the Garden Station Apartments. One parking space per dwelling unit is a typical requirement for this development. There will be 421 parking spaces inside the building to serve the 348 apartments.

**Table 6** calculates the required parking spaces per Village Code. As can be seen, using the higher 1 space per bedroom requirement, 418 spaces are required for the residential portion of the development. This can be compared to an estimated Peak Demand of 236 spaces per average demand rates for 1 and 2-bedroom units as published by the ITE.

**Table 6: Parking Calculations**

| Use | Size | ITE Code | Village Code | Parking Spaces | | |
|---|---|---|---|---|---|---|
| | | | | Code Required | ITE Projected Demand | Provided |
| Residential | 348 DU<br>387 BED | 221 | 1 Space per DU<br>1 Space per BED | 348<br>418 | 236 | 440[A] |
| Strip Retail Plaza (<40k) | 2,800 SF | 822 | 1 Space per 250 SF | 12 | 8 | |
| Brew Pub | 45 Seats | 925 | 1 Space per 3 Seats | 15 | 25 | |
| | | | **Total:** | **445** | **269** | **440** |

*A) includes 19 on-street spaces along Ardmore Avenue*

See ***Appendix H*** for excerpts of the 6th Edition of the ITE manual *Parking Generation.*

## Part IV. Recommendations and Conclusions

Analyses have been conducted under existing and future conditions to determine the impact from the proposed mixed-use development on the study area intersections. The capacity analysis results indicate that the increase in project site-generated traffic has little to no effect upon the Peak Hour operations of the area roadway network with the recommendations contained herein:

- The location of the Beverly Avenue parking entrance will be approximately 85' south of Vermont Street.
- The location of the Terrace Street parking entrance will be approximately 75' east of Ardmore Avenue.
- Westbound left turns at Ardmore Avenue and Terrace Street will be prohibited.
- Both parking accesses will operate under Stop Sign Control.

GEWALT HAMILTON ASSOCIATES, INC.

N

Not to Scale

**Exhibit 7**
**Future Traffic Operations**

## Part V. Technical Addendum

The following Appendices were previously referenced. They provide technical support for our observations, findings and recommendations discussed in the text.

Appendices

A. Photo Inventory
B. 2025 Traffic Count Summaries
C. Crash Summary Map
D. CMAP Traffic Projections
E. January 22, 2022, Site Plan
F. ITE Trip Generation Manual Excerpts
G. Capacity Analysis Worksheets
H. ITE Parking Generation Manual Excerpts

5732.942 Garden Station Apts - 050525.docx

# TECHNICAL ADDENDUM

GEWALT HAMILTON ASSOCIATES, INC.

# APPENDICES

A. PHOTO INVENTORY
B. 2025 TRAFFIC COUNT SUMMARY REPORTS
C. CRASH SUMMARY MAP
D. CMAP 2050 TRAFFIC PROJECTIONS
E. JANUARY 24, 2022, SITE PLAN
F. ITE TRIP GENERATION MANUAL EXCERPTS
G. CAPACITY ANALYSIS WORKSHEETS
H. ITE PARKING GENERATION MANUAL EXCERPTS

# APPENDIX A

## *Photo Inventory*

Looking North along Ardmore approaching Railroad and Terrace St

Looking North across Railroad approaching Terrace St along Ardmore

Looking South along Ardmore approaching Railroad

Looking North across Metra Lot/Terrace St at Site

**Looking North along Ardmore Rd approaching Terrace St**

**Looking South along Ardmore Rd approaching Terrace St**

**Looking East along Terrace St approaching Ardmore Rd**

**Looking West along Terrace St approaching Ardmore Rd**

**Looking North along Ardmore Rd approaching Vermont St**

**Looking South along  Ardmore Rd approaching Vermont St**

**Looking East along Vermont St approaching Ardmore Rd**

**Looking West along Vermont St approaching Ardmore Rd**

Looking North along Metra Lot/Beverly approaching Metra Lot/Terrace

Looking South along Metra Lot/Beverly approaching Metra Lot/Terrace

Looking East along Metra Lot/Terrace approaching Metra Lot/Beverly

Looking West along Metra Lot/Terrace approaching Metra Lot/Beverly

Looking North along Beverly Ave approaching Vermont St

Looking South along Beverly Ave approaching Vermont St

Looking East along Vermont St approaching Beverly Ave

Looking West along Vermont St approaching Beverly Ave

# APPENDIX B

## *2025 Traffic Count Summary Reports*

GEWALT HAMILTON ASSOCIATES, INC.

Ardmore Ave at Vermont St
5732.942 Villa Park
7-9AM; 4-6PM
GHA Mio

Gewalt Hamilton Associates Inc.
625 Forest Edge Drive

Vernon Hills, Illinois, United States 60061
(847) 478-9700 poster@gha-engineers.com

Count Name: Ardmore Ave at Vermont St
Site Code:
Start Date: 04/17/2025
Page No: 1

# Turning Movement Data

| Start Time | Ardmore Ave Southbound | | | | | | Vermont St Westbound | | | | | | Ardmore Ave Northbound | | | | | | Vermont St Eastbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:00 AM | 0 | 3 | 30 | 3 | 0 | 36 | 0 | 12 | 5 | 1 | 3 | 18 | 0 | 7 | 38 | 2 | 0 | 47 | 0 | 2 | 7 | 9 | 0 | 18 | 119 |
| 7:15 AM | 0 | 0 | 53 | 2 | 0 | 55 | 0 | 12 | 8 | 3 | 2 | 23 | 0 | 11 | 52 | 2 | 0 | 65 | 0 | 6 | 4 | 16 | 1 | 26 | 169 |
| 7:30 AM | 0 | 7 | 38 | 10 | 0 | 55 | 0 | 10 | 12 | 13 | 2 | 35 | 0 | 16 | 54 | 1 | 1 | 71 | 0 | 10 | 14 | 20 | 0 | 44 | 205 |
| 7:45 AM | 0 | 3 | 51 | 8 | 0 | 62 | 0 | 8 | 10 | 8 | 1 | 26 | 0 | 27 | 79 | 3 | 0 | 109 | 0 | 7 | 16 | 14 | 0 | 37 | 234 |
| Hourly Total | 0 | 13 | 172 | 23 | 0 | 208 | 0 | 42 | 35 | 25 | 8 | 102 | 0 | 61 | 223 | 8 | 1 | 292 | 0 | 25 | 41 | 59 | 1 | 125 | 727 |
| 8:00 AM | 0 | 6 | 73 | 1 | 1 | 80 | 0 | 6 | 9 | 3 | 0 | 18 | 0 | 18 | 69 | 3 | 4 | 90 | 0 | 9 | 12 | 26 | 1 | 47 | 235 |
| 8:15 AM | 0 | 1 | 55 | 5 | 0 | 61 | 0 | 4 | 10 | 3 | 1 | 17 | 0 | 8 | 54 | 3 | 2 | 65 | 0 | 13 | 8 | 8 | 1 | 29 | 172 |
| 8:30 AM | 0 | 5 | 46 | 4 | 0 | 55 | 0 | 6 | 2 | 1 | 0 | 9 | 0 | 6 | 47 | 2 | 1 | 55 | 0 | 5 | 7 | 9 | 1 | 21 | 140 |
| 8:45 AM | 0 | 2 | 48 | 1 | 0 | 51 | 0 | 5 | 3 | 2 | 0 | 10 | 0 | 9 | 35 | 0 | 0 | 44 | 0 | 4 | 7 | 10 | 1 | 21 | 126 |
| Hourly Total | 0 | 14 | 222 | 11 | 1 | 247 | 0 | 21 | 24 | 9 | 1 | 54 | 0 | 41 | 205 | 8 | 7 | 254 | 0 | 31 | 34 | 53 | 4 | 118 | 673 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 2 | 91 | 10 | 1 | 103 | 0 | 2 | 9 | 0 | 2 | 11 | 0 | 16 | 47 | 5 | 1 | 68 | 0 | 5 | 8 | 16 | 0 | 29 | 211 |
| 4:15 PM | 0 | 7 | 112 | 2 | 0 | 121 | 0 | 9 | 6 | 4 | 0 | 19 | 0 | 13 | 75 | 5 | 0 | 93 | 0 | 5 | 11 | 18 | 0 | 34 | 267 |
| 4:30 PM | 0 | 1 | 102 | 2 | 0 | 105 | 0 | 9 | 5 | 3 | 1 | 17 | 0 | 18 | 63 | 8 | 0 | 89 | 0 | 2 | 10 | 12 | 2 | 24 | 235 |
| 4:45 PM | 0 | 2 | 105 | 8 | 0 | 115 | 0 | 8 | 7 | 5 | 8 | 20 | 0 | 19 | 77 | 7 | 2 | 103 | 0 | 4 | 9 | 22 | 6 | 35 | 273 |
| Hourly Total | 0 | 12 | 410 | 22 | 1 | 444 | 0 | 28 | 27 | 12 | 11 | 67 | 0 | 66 | 262 | 25 | 3 | 353 | 0 | 16 | 38 | 68 | 8 | 122 | 986 |
| 5:00 PM | 0 | 0 | 115 | 6 | 0 | 121 | 0 | 9 | 14 | 9 | 1 | 32 | 0 | 21 | 71 | 7 | 2 | 99 | 0 | 6 | 6 | 19 | 2 | 31 | 283 |
| 5:15 PM | 0 | 5 | 86 | 2 | 0 | 93 | 0 | 8 | 5 | 1 | 0 | 14 | 0 | 6 | 32 | 6 | 0 | 44 | 0 | 6 | 8 | 13 | 0 | 27 | 178 |
| 5:30 PM | 0 | 6 | 113 | 2 | 0 | 121 | 0 | 8 | 11 | 1 | 0 | 20 | 0 | 30 | 89 | 7 | 0 | 126 | 0 | 6 | 4 | 10 | 2 | 20 | 287 |
| 5:45 PM | 0 | 6 | 115 | 3 | 1 | 124 | 0 | 8 | 13 | 16 | 1 | 37 | 0 | 16 | 62 | 6 | 1 | 84 | 0 | 3 | 5 | 7 | 1 | 15 | 260 |
| Hourly Total | 0 | 17 | 429 | 13 | 1 | 459 | 0 | 33 | 43 | 27 | 2 | 103 | 0 | 73 | 254 | 26 | 3 | 353 | 0 | 21 | 23 | 49 | 5 | 93 | 1008 |
| Grand Total | 0 | 56 | 1233 | 69 | 3 | 1358 | 0 | 124 | 129 | 73 | 22 | 326 | 0 | 241 | 944 | 67 | 14 | 1252 | 0 | 93 | 136 | 229 | 18 | 458 | 3394 |
| Approach % | 0.0 | 4.1 | 90.8 | 5.1 | - | - | 0.0 | 38.0 | 39.6 | 22.4 | - | - | 0.0 | 19.2 | 75.4 | 5.4 | - | - | 0.0 | 20.3 | 29.7 | 50.0 | - | - | - |
| Total % | 0.0 | 1.6 | 36.3 | 2.0 | - | 40.0 | 0.0 | 3.7 | 3.8 | 2.2 | - | 9.6 | 0.0 | 7.1 | 27.8 | 2.0 | - | 36.9 | 0.0 | 2.7 | 4.0 | 6.7 | - | 13.5 | - |
| Lights | 0 | 55 | 1202 | 66 | - | 1323 | 0 | 120 | 124 | 71 | - | 315 | 0 | 237 | 905 | 62 | - | 1204 | 0 | 90 | 126 | 223 | - | 439 | 3281 |
| % Lights | - | 98.2 | 97.5 | 95.7 | - | 97.4 | - | 96.8 | 96.1 | 97.3 | - | 96.6 | - | 98.3 | 95.9 | 92.5 | - | 96.2 | - | 96.8 | 92.6 | 97.4 | - | 95.9 | 96.7 |
| Mediums | 0 | 1 | 27 | 3 | - | 31 | 0 | 4 | 5 | 2 | - | 11 | 0 | 3 | 38 | 5 | - | 46 | 0 | 3 | 10 | 6 | - | 19 | 107 |
| % Mediums | - | 1.8 | 2.2 | 4.3 | - | 2.3 | - | 3.2 | 3.9 | 2.7 | - | 3.4 | - | 1.2 | 4.0 | 7.5 | - | 3.7 | - | 3.2 | 7.4 | 2.6 | - | 4.1 | 3.2 |
| Articulated Trucks | 0 | 0 | 4 | 0 | - | 4 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 1 | 0 | - | 2 | 0 | 0 | 0 | 0 | - | 0 | 6 |
| % Articulated Trucks | - | 0.0 | 0.3 | 0.0 | - | 0.3 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.4 | 0.1 | 0.0 | - | 0.2 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.2 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 3 | - | - | - | - | - | 22 | - | - | - | - | - | 14 | - | - | - | - | - | 18 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Ardmore Ave at Terrace St
5732.942 Villa Park
7-9AM; 4-6PM
GHA Mio

Gewalt Hamilton Associates Inc.
625 Forest Edge Drive

Vernon Hills, Illinois, United States 60061
(847) 478-9700 poster@gha-engineers.com

Count Name: Ardmore Ave at Terrace St
Site Code:
Start Date: 04/17/2025
Page No: 1

## Turning Movement Data

| Start Time | Ardmore Ave Southbound | | | | | | Terrace St Westbound | | | | | | Ardmore Ave Northbound | | | | | | Terrace St Eastbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:00 AM | 0 | 3 | 49 | 0 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 2 | 0 | 46 | 0 | 0 | 0 | 4 | 1 | 4 | 102 |
| 7:15 AM | 0 | 3 | 73 | 2 | 1 | 78 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 61 | 4 | 0 | 65 | 0 | 3 | 0 | 6 | 0 | 9 | 152 |
| 7:30 AM | 0 | 5 | 66 | 1 | 1 | 72 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 72 | 17 | 0 | 89 | 0 | 0 | 0 | 6 | 3 | 6 | 168 |
| 7:45 AM | 0 | 4 | 63 | 4 | 0 | 71 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 118 | 7 | 0 | 125 | 0 | 1 | 0 | 2 | 1 | 3 | 200 |
| Hourly Total | 0 | 15 | 251 | 7 | 2 | 273 | 0 | 1 | 1 | 0 | 6 | 2 | 0 | 0 | 295 | 30 | 0 | 325 | 0 | 4 | 0 | 18 | 5 | 22 | 622 |
| 8:00 AM | 0 | 0 | 106 | 0 | 3 | 106 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 81 | 13 | 0 | 95 | 0 | 0 | 0 | 3 | 2 | 3 | 205 |
| 8:15 AM | 0 | 2 | 63 | 1 | 2 | 66 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 65 | 2 | 0 | 68 | 0 | 1 | 0 | 5 | 0 | 6 | 140 |
| 8:30 AM | 0 | 1 | 59 | 5 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 49 | 3 | 1 | 53 | 0 | 0 | 0 | 1 | 2 | 1 | 119 |
| 8:45 AM | 0 | 0 | 61 | 0 | 0 | 61 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 46 | 0 | 0 | 46 | 0 | 0 | 0 | 4 | 1 | 4 | 111 |
| Hourly Total | 0 | 3 | 289 | 6 | 5 | 298 | 0 | 0 | 0 | 1 | 5 | 1 | 1 | 2 | 241 | 18 | 1 | 262 | 0 | 1 | 0 | 13 | 5 | 14 | 575 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 1 | 105 | 0 | 0 | 106 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 77 | 1 | 0 | 78 | 0 | 0 | 0 | 1 | 0 | 1 | 186 |
| 4:15 PM | 0 | 0 | 139 | 0 | 0 | 139 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 84 | 0 | 2 | 84 | 0 | 0 | 0 | 3 | 2 | 3 | 226 |
| 4:30 PM | 0 | 2 | 117 | 1 | 0 | 120 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 85 | 1 | 0 | 86 | 0 | 0 | 0 | 1 | 0 | 1 | 208 |
| 4:45 PM | 0 | 3 | 127 | 1 | 5 | 131 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 107 | 1 | 0 | 110 | 0 | 0 | 0 | 3 | 1 | 3 | 244 |
| Hourly Total | 0 | 6 | 488 | 2 | 5 | 496 | 0 | 2 | 0 | 0 | 8 | 2 | 0 | 2 | 353 | 3 | 2 | 358 | 0 | 0 | 0 | 8 | 3 | 8 | 864 |
| 5:00 PM | 0 | 0 | 144 | 0 | 0 | 144 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 94 | 1 | 1 | 95 | 0 | 1 | 0 | 2 | 2 | 3 | 242 |
| 5:15 PM | 0 | 1 | 98 | 3 | 3 | 102 | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 48 | 1 | 2 | 49 | 0 | 0 | 0 | 1 | 2 | 1 | 153 |
| 5:30 PM | 0 | 1 | 137 | 1 | 1 | 139 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 131 | 5 | 0 | 136 | 0 | 0 | 0 | 2 | 2 | 2 | 277 |
| 5:45 PM | 0 | 1 | 121 | 0 | 4 | 122 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 78 | 0 | 2 | 78 | 0 | 0 | 0 | 2 | 7 | 2 | 202 |
| Hourly Total | 0 | 3 | 500 | 4 | 8 | 507 | 0 | 0 | 0 | 1 | 10 | 1 | 0 | 0 | 351 | 7 | 5 | 358 | 0 | 1 | 0 | 7 | 13 | 8 | 874 |
| Grand Total | 0 | 27 | 1528 | 19 | 20 | 1574 | 0 | 3 | 1 | 2 | 29 | 6 | 1 | 4 | 1240 | 58 | 8 | 1303 | 0 | 6 | 0 | 46 | 26 | 52 | 2935 |
| Approach % | 0.0 | 1.7 | 97.1 | 1.2 | - | - | 0.0 | 50.0 | 16.7 | 33.3 | - | - | 0.1 | 0.3 | 95.2 | 4.5 | - | - | 0.0 | 11.5 | 0.0 | 88.5 | - | - | - |
| Total % | 0.0 | 0.9 | 52.1 | 0.6 | - | 53.6 | 0.0 | 0.1 | 0.0 | 0.1 | - | 0.2 | 0.0 | 0.1 | 42.2 | 2.0 | - | 44.4 | 0.0 | 0.2 | 0.0 | 1.6 | - | 1.8 | - |
| Lights | 0 | 27 | 1490 | 15 | - | 1532 | 0 | 3 | 0 | 2 | - | 5 | 1 | 4 | 1189 | 58 | - | 1252 | 0 | 6 | 0 | 43 | - | 49 | 2838 |
| % Lights | - | 100.0 | 97.5 | 78.9 | - | 97.3 | - | 100.0 | 0.0 | 100.0 | - | 83.3 | 100.0 | 100.0 | 95.9 | 100.0 | - | 96.1 | - | 100.0 | - | 93.5 | - | 94.2 | 96.7 |
| Mediums | 0 | 0 | 34 | 4 | - | 38 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 49 | 0 | - | 49 | 0 | 0 | 0 | 0 | - | 0 | 87 |
| % Mediums | - | 0.0 | 2.2 | 21.1 | - | 2.4 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 4.0 | 0.0 | - | 3.8 | - | 0.0 | - | 0.0 | - | 0.0 | 3.0 |
| Articulated Trucks | 0 | 0 | 4 | 0 | - | 4 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 1 | - | 1 | 6 |
| % Articulated Trucks | - | 0.0 | 0.3 | 0.0 | - | 0.3 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | - | 0.1 | - | 0.0 | - | 2.2 | - | 1.9 | 0.2 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 2 | - | 2 | 4 |
| % Bicycles on Road | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 100.0 | 0.0 | - | 16.7 | 0.0 | 0.0 | 0.1 | 0.0 | - | 0.1 | - | 0.0 | - | 4.3 | - | 3.8 | 0.1 |
| Pedestrians | - | - | - | - | 20 | - | - | - | - | - | 29 | - | - | - | - | - | 8 | - | - | - | - | - | 26 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Beverly Ave at Vermont St
5732.942 Villa Park
7-9AM; 4-6PM
GHA Mio

Gewalt Hamilton Associates Inc.
625 Forest Edge Drive

Vernon Hills, Illinois, United States 60061
(847) 478-9700 poster@gha-engineers.com

Count Name: Beverly Ave at Vermont St
Site Code:
Start Date: 04/17/2025
Page No: 1

## Turning Movement Data

| Start Time | Beverly Ave Southbound | | | | | | Vermont St Westbound | | | | | | Beverly Ave Northbound | | | | | | Vermont St Eastbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:00 AM | 0 | 1 | 0 | 4 | 0 | 5 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 3 | 2 | 0 | 0 | 5 | 0 | 1 | 7 | 3 | 0 | 11 | 29 |
| 7:15 AM | 0 | 1 | 0 | 3 | 0 | 4 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 0 | 0 | 8 | 30 |
| 7:30 AM | 0 | 1 | 3 | 2 | 0 | 6 | 0 | 1 | 23 | 0 | 1 | 24 | 0 | 9 | 0 | 3 | 0 | 12 | 0 | 1 | 13 | 7 | 0 | 21 | 63 |
| 7:45 AM | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 20 | 0 | 0 | 20 | 0 | 6 | 1 | 0 | 3 | 7 | 0 | 3 | 19 | 2 | 0 | 24 | 53 |
| Hourly Total | 0 | 4 | 3 | 10 | 0 | 17 | 0 | 1 | 69 | 0 | 1 | 70 | 0 | 18 | 3 | 3 | 3 | 24 | 0 | 6 | 46 | 12 | 0 | 64 | 175 |
| 8:00 AM | 0 | 1 | 1 | 2 | 0 | 4 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 1 | 14 | 5 | 0 | 20 | 40 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 4 | 0 | 0 | 1 | 4 | 0 | 0 | 12 | 1 | 0 | 13 | 30 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 6 | 0 | 3 | 1 | 0 | 1 | 4 | 0 | 0 | 12 | 3 | 0 | 15 | 25 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 20 |
| Hourly Total | 0 | 1 | 1 | 2 | 0 | 4 | 0 | 1 | 41 | 1 | 0 | 43 | 0 | 10 | 1 | 0 | 2 | 11 | 0 | 1 | 47 | 9 | 0 | 57 | 115 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 10 | 1 | 0 | 11 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 12 | 0 | 0 | 13 | 26 |
| 4:15 PM | 0 | 1 | 1 | 2 | 0 | 4 | 0 | 0 | 14 | 0 | 0 | 14 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 3 | 19 | 3 | 0 | 25 | 47 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 1 | 1 | 18 | 0 | 2 | 1 | 0 | 0 | 3 | 0 | 1 | 14 | 3 | 0 | 18 | 39 |
| 4:45 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 14 | 1 | 0 | 16 | 34 |
| Hourly Total | 0 | 2 | 1 | 3 | 0 | 6 | 0 | 0 | 56 | 2 | 1 | 58 | 0 | 9 | 1 | 0 | 0 | 10 | 0 | 6 | 59 | 7 | 0 | 72 | 146 |
| 5:00 PM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 26 | 0 | 0 | 27 | 0 | 6 | 1 | 1 | 1 | 8 | 0 | 2 | 11 | 0 | 0 | 13 | 49 |
| 5:15 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 23 | 1 | 0 | 24 | 42 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 1 | 14 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 2 | 11 | 1 | 0 | 14 | 31 |
| 5:45 PM | 0 | 0 | 0 | 3 | 2 | 3 | 0 | 0 | 28 | 1 | 0 | 29 | 0 | 6 | 0 | 0 | 1 | 6 | 0 | 0 | 17 | 0 | 1 | 17 | 55 |
| Hourly Total | 0 | 0 | 1 | 4 | 2 | 5 | 0 | 1 | 83 | 1 | 1 | 85 | 0 | 17 | 1 | 1 | 2 | 19 | 0 | 4 | 62 | 2 | 1 | 68 | 177 |
| Grand Total | 0 | 7 | 6 | 19 | 2 | 32 | 0 | 3 | 249 | 4 | 3 | 256 | 0 | 54 | 6 | 4 | 7 | 64 | 0 | 17 | 214 | 30 | 1 | 261 | 613 |
| Approach % | 0.0 | 21.9 | 18.8 | 59.4 | - | - | 0.0 | 1.2 | 97.3 | 1.6 | - | - | 0.0 | 84.4 | 9.4 | 6.3 | - | - | 0.0 | 6.5 | 82.0 | 11.5 | - | - | - |
| Total % | 0.0 | 1.1 | 1.0 | 3.1 | - | 5.2 | 0.0 | 0.5 | 40.6 | 0.7 | - | 41.8 | 0.0 | 8.8 | 1.0 | 0.7 | - | 10.4 | 0.0 | 2.8 | 34.9 | 4.9 | - | 42.6 | - |
| Lights | 0 | 6 | 6 | 16 | - | 28 | 0 | 3 | 240 | 4 | - | 247 | 0 | 54 | 5 | 4 | - | 63 | 0 | 16 | 200 | 28 | - | 244 | 582 |
| % Lights | - | 85.7 | 100.0 | 84.2 | - | 87.5 | - | 100.0 | 96.4 | 100.0 | - | 96.5 | - | 100.0 | 83.3 | 100.0 | - | 98.4 | - | 94.1 | 93.5 | 93.3 | - | 93.5 | 94.9 |
| Mediums | 0 | 1 | 0 | 3 | - | 4 | 0 | 0 | 9 | 0 | - | 9 | 0 | 0 | 1 | 0 | - | 1 | 0 | 1 | 14 | 1 | - | 16 | 30 |
| % Mediums | - | 14.3 | 0.0 | 15.8 | - | 12.5 | - | 0.0 | 3.6 | 0.0 | - | 3.5 | - | 0.0 | 16.7 | 0.0 | - | 1.6 | - | 5.9 | 6.5 | 3.3 | - | 6.1 | 4.9 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 1 | - | 1 | 1 |
| % Bicycles on Road | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 3.3 | - | 0.4 | 0.2 |
| Pedestrians | - | - | - | - | 2 | - | - | - | - | - | 3 | - | - | - | - | - | 7 | - | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Beverly Ave at Terrace St/METRA
5732.942 Villa Park
7-9AM; 4-6PM
GHA Mio

Gewalt Hamilton Associates Inc.
625 Forest Edge Drive

Vernon Hills, Illinois, United States 60061
(847) 478-9700 poster@gha-engineers.com

Count Name: Beverly Ave at Terrace St/METRA
Site Code:
Start Date: 04/17/2025
Page No: 1

## Turning Movement Data

| Start Time | Metra Southbound | | | | | Terrace St Westbound | | | | | Terrace St Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 0 | 9 | 10 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 4 |
| 7:30 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 11 | 12 | 0 | 23 | 26 |
| 7:45 AM | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 2 | 1 | 0 | 3 | 9 | 0 | 12 | 15 |
| Hourly Total | 0 | 4 | 1 | 0 | 5 | 0 | 0 | 2 | 2 | 2 | 0 | 18 | 30 | 0 | 48 | 55 |
| 8:00 AM | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 0 | 2 | 1 | 0 | 5 | 9 | 0 | 14 | 17 |
| 8:15 AM | 0 | 1 | 1 | 3 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 4 | 0 | 6 | 9 |
| 8:30 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 3 | 0 | 5 | 7 |
| 8:45 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Hourly Total | 0 | 4 | 2 | 3 | 6 | 0 | 2 | 1 | 2 | 3 | 0 | 9 | 16 | 0 | 25 | 34 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 3 |
| 4:15 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 4 |
| 4:30 PM | 0 | 1 | 2 | 0 | 3 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 5 |
| 4:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 3 | 4 |
| Hourly Total | 0 | 2 | 3 | 0 | 5 | 0 | 1 | 3 | 1 | 4 | 0 | 2 | 5 | 1 | 7 | 16 |
| 5:00 PM | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 4 | 6 |
| 5:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 5 | 0 | 6 | 7 |
| 5:45 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 3 |
| Hourly Total | 0 | 2 | 1 | 4 | 3 | 0 | 1 | 0 | 0 | 1 | 0 | 6 | 8 | 0 | 14 | 18 |
| Grand Total | 0 | 12 | 7 | 7 | 19 | 0 | 4 | 6 | 5 | 10 | 0 | 35 | 59 | 1 | 94 | 123 |
| Approach % | 0.0 | 63.2 | 36.8 | - | - | 0.0 | 40.0 | 60.0 | - | - | 0.0 | 37.2 | 62.8 | - | - | - |
| Total % | 0.0 | 9.8 | 5.7 | - | 15.4 | 0.0 | 3.3 | 4.9 | - | 8.1 | 0.0 | 28.5 | 48.0 | - | 76.4 | - |
| Lights | 0 | 12 | 7 | - | 19 | 0 | 4 | 5 | - | 9 | 0 | 35 | 58 | - | 93 | 121 |
| % Lights | - | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 83.3 | - | 90.0 | - | 100.0 | 98.3 | - | 98.9 | 98.4 |
| Mediums | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | - | 1 | 0 | 0 | 0 | - | 0 | 1 |
| % Mediums | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 16.7 | - | 10.0 | - | 0.0 | 0.0 | - | 0.0 | 0.8 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | - | 1 | 1 |
| % Bicycles on Road | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 1.7 | - | 1.1 | 0.8 |
| Pedestrians | - | - | - | 7 | - | - | - | - | 5 | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

# APPENDIX C

## *Crash Summary Map*

N

1 inch = 150 Feet

Map Center: 87.97798°W 41.89652°N

# Appendix C - IDOT Crash Data 2019-23

Proposed Garden Station Apartments
SEC Ardmore Ave at E Vermont St
Villa Park, IL

# APPENDIX D

## *CMAP Traffic Projections*

Chicago Metropolitan Agency for Planning

433 West Van Buren Street, Suite 450
Chicago, IL 60607
cmap.illinois.gov | 312-454-0400

April 16, 2025

Daniel P. Brinkman, PE, PTOE
Senior Transportation Engineer
Gewalt Hamilton Associates
625 Forest Edge Drive
Vernon Hills, IL 60061

***Subject: Ardmore Avenue - IL 64 - Vermont Street***
IDOT

Dear Mr. Brinkman:

In response to a request made on your behalf and dated April 16, 2025, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

| ROAD SEGMENT | Current ADT | Year 2050 ADT |
|---|---|---|
| **Ardmore Ave south of IL 64** | 7,550 (2017) | 9,400 |
| **IL 64 east of Ardmore Ave** | 44,000 (2023) | 47,500 |

Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2024 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806 or email me at jrodriguez@cmap.illinois.gov

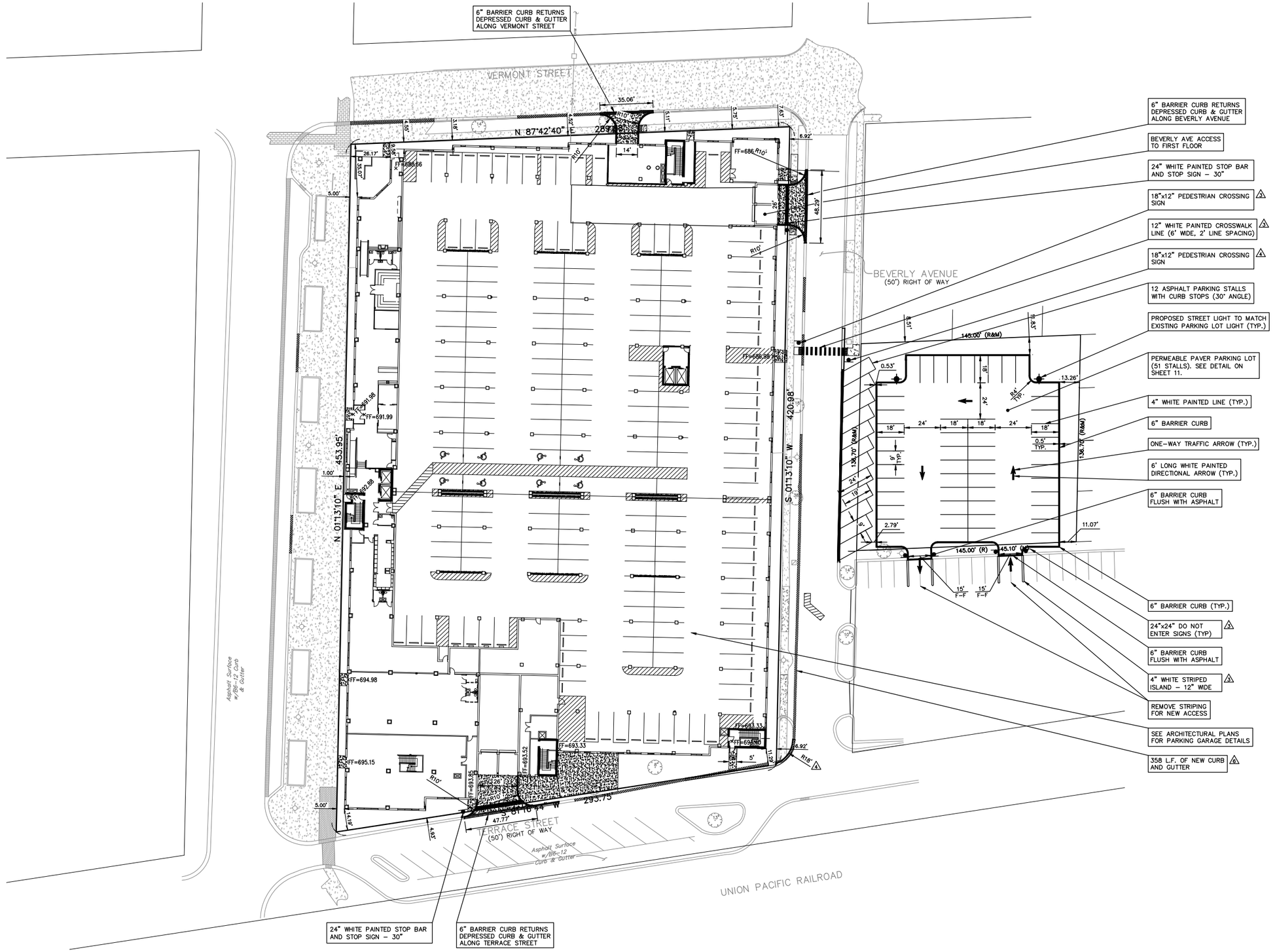
Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Rios (IDOT)
\2025_trafficForecasts\VillaPark\du-25-25\du-25-25.docx

# APPENDIX E

## *January 2022 Site Plan*

GEWALT HAMILTON ASSOCIATES, INC.




# Appendix E

⚠4 NOTE:
1.5' OF PAVEMENT SHALL BE REMOVED & REPLACED ALONG ALL EXISTING CURB TO BE REMOVED & REPLACED.

Copyright © 2021 Cemcon, Ltd. All rights reserved.

PREPARED FOR:
HAWTHORNE DEVELOPMENT CORPORATION
100 TOWER DRIVE, SUITE 238
BURR RIDGE, ILLINOIS 60527
(312) 235-6647

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60502-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

REVISIONS

| NO. | DATE | DESCRIPTION | NO. | DATE | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 06-23-21/DDD | REVISED PER BUILDING LAYOUT (ALL) | | | |
| 2 | 09-02-21/DDD | REVISED PER VILLAGE REVIEW DATED 07-23-21 | | | |
| 3 | 09-29-21/BCD | REVISED PER IEPA REVIEW | | | |
| 4 | 11-16-21/BCD | REVISED PER VILLAGE REVIEW DATED 11-12-21 | | | |
| 5 | 01-24-22/BCD | REVISED PER VILLAGE REVIEW DATED 01-21-22 | | | |

GEOMETRIC PLAN

GARDEN STATION APARTMENTS

| FILE NAME: GEOMETRIC | DSGN. BY: KTS | JOB NO.: 904.351 | FLD. BK./PG.: | SHEET NO. |
|---|---|---|---|---|
| DIR: 904351 | DRN. BY: KMS | DATE: 07-27-2020 | SCALE: 1" = 30' | 07 of 13 |

PLOT FILE CREATED: 1/24/2022 1:53 PM BY BRANDON DAVID DRAWING LAST SAVED: 1/24/2022 12:17 PM BY BRANDON DRAWING PATH: P:\904351\DWG\ENG\DRAWINGS\FINAL DRAFTING\GEOMETRIC.DWG

# APPENDIX F

## *ITE Trip Generation Manual Excerpts*

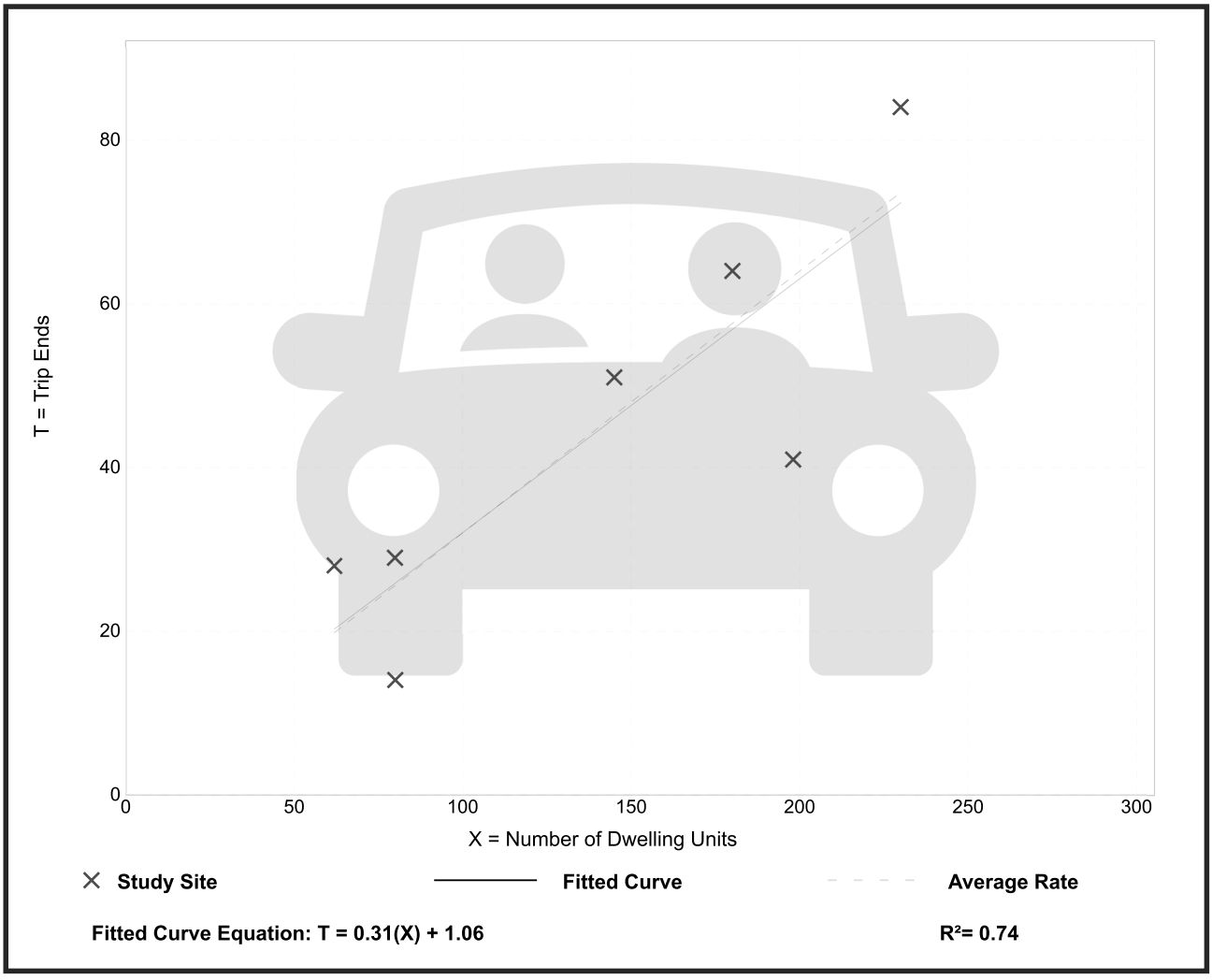
# Multifamily Housing (Mid-Rise)
## Close to Rail Transit (221)

**Vehicle Trip Ends vs:** **Dwelling Units**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 7 and 9 a.m.**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Dwelling Units: 139
Directional Distribution: 36% entering, 64% exiting

### Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.32 | 0.18 - 0.45 | 0.09 |

### Data Plot and Equation




*Trip Gen Manual,* 11th Edition ● Institute of Transportation Engineers

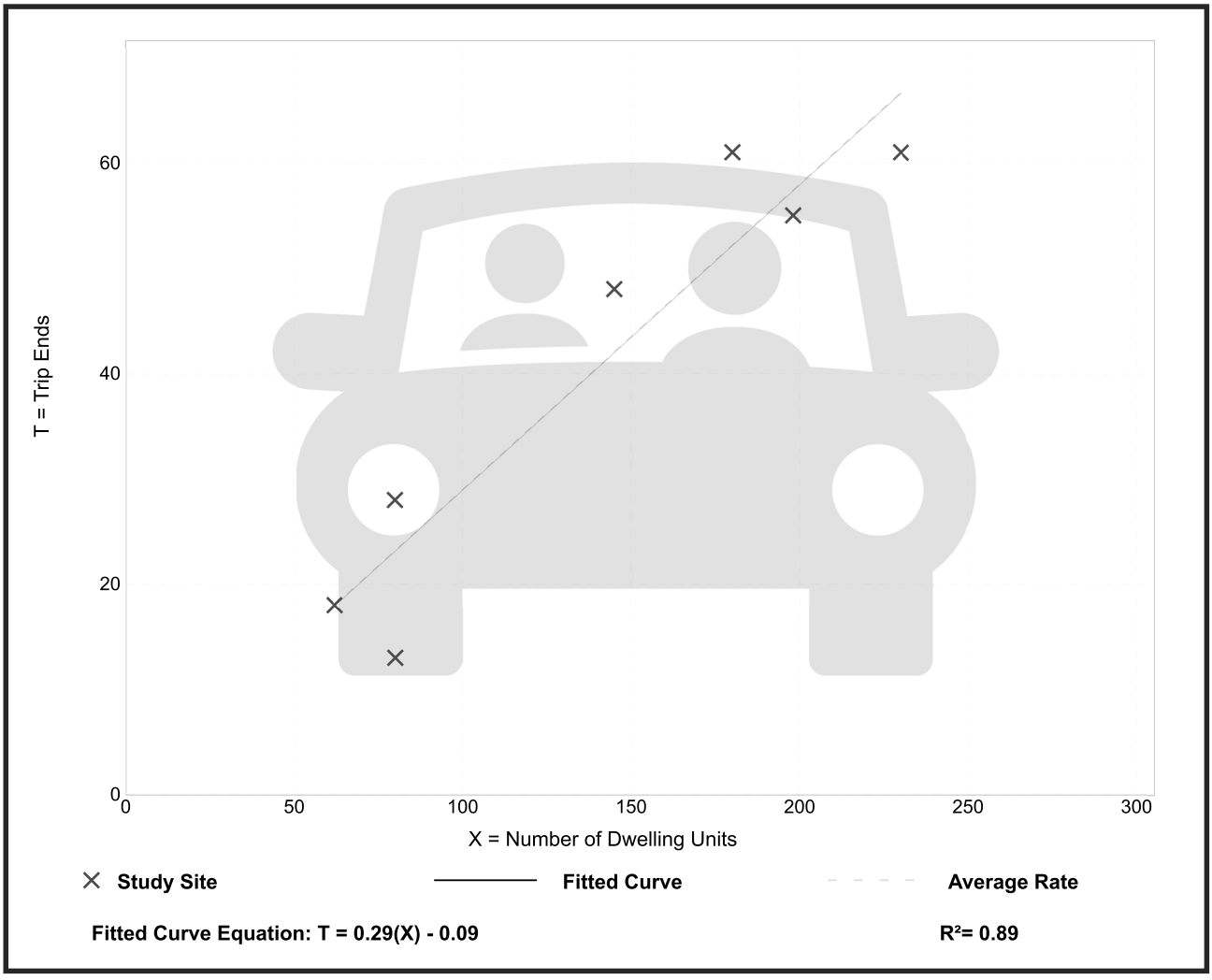
# Multifamily Housing (Mid-Rise)
## Close to Rail Transit (221)

**Vehicle Trip Ends vs:** **Dwelling Units**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 4 and 6 p.m.**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Dwelling Units: 139
Directional Distribution: 65% entering, 35% exiting

### Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.29 | 0.16 - 0.35 | 0.05 |

### Data Plot and Equation




*Trip Gen Manual,* 11th Edition ● Institute of Transportation Engineers

# Multifamily Housing (Mid-Rise)
## Close to Rail Transit (221)

**Vehicle Trip Ends vs:** **Dwelling Units**
**On a:** **Weekday**

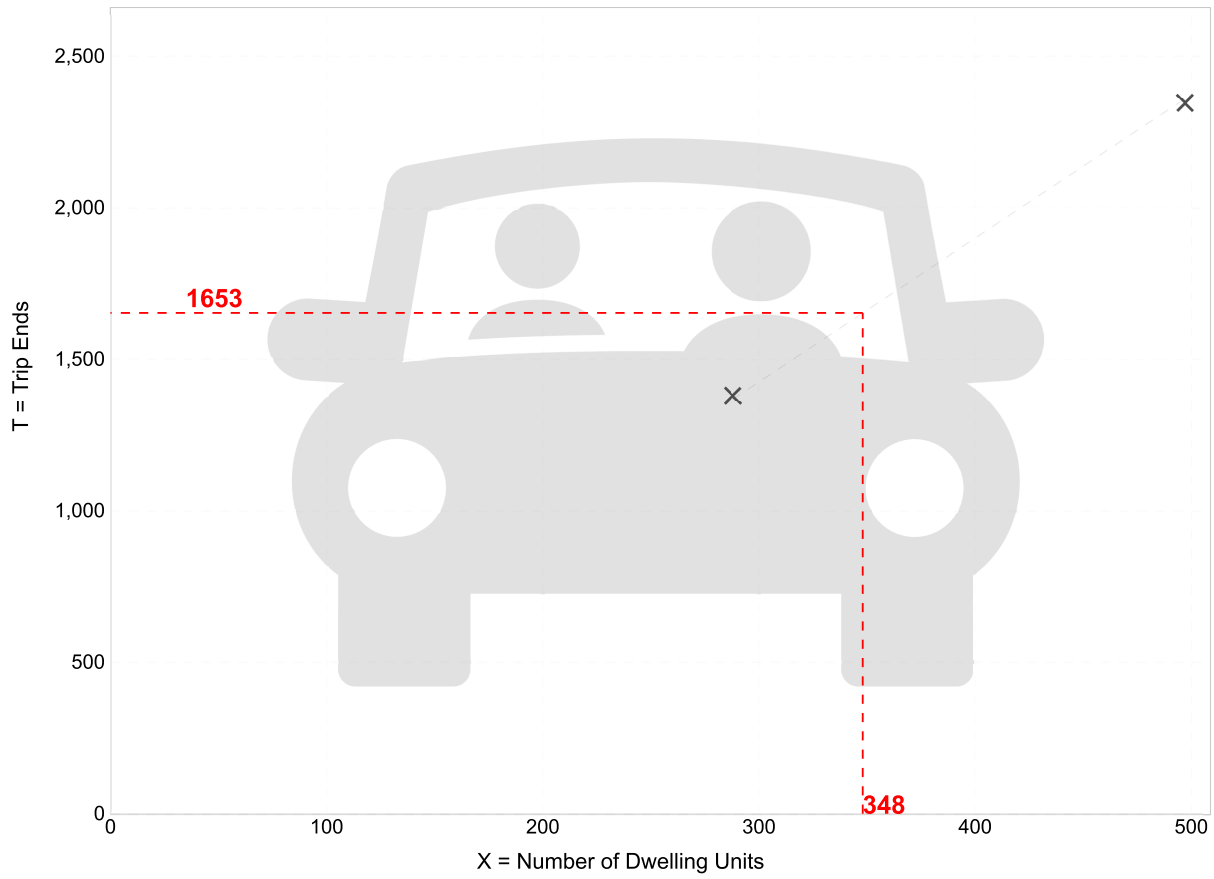
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 2
Avg. Num. of Dwelling Units: 393
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 4.75 | 4.72 - 4.79 | * |

## Data Plot and Equation

***Caution – Small Sample Size***




*Trip Gen Manual,* 11th Edition ● Institute of Transportation Engineers

# Strip Retail Plaza (<40k)
(822)

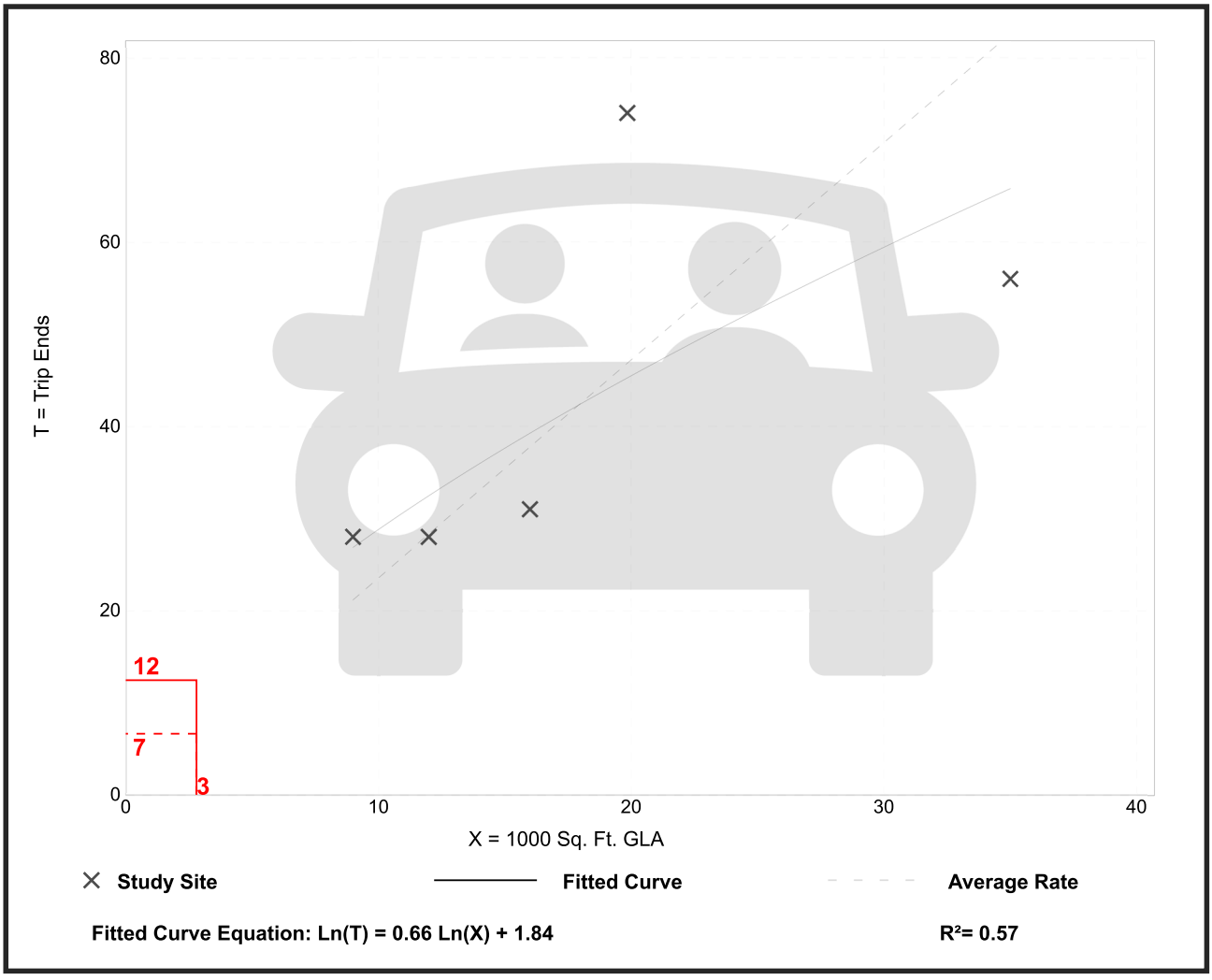
**Vehicle Trip Ends vs:** **1000 Sq. Ft. GLA**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 7 and 9 a.m.**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 5
Avg. 1000 Sq. Ft. GLA: 18
Directional Distribution: 60% entering, 40% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GLA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 2.36 | 1.60 - 3.73 | 0.94 |

## Data Plot and Equation

***Caution – Small Sample Size***




*Trip Gen Manual,* 11th Edition ● Institute of Transportation Engineers

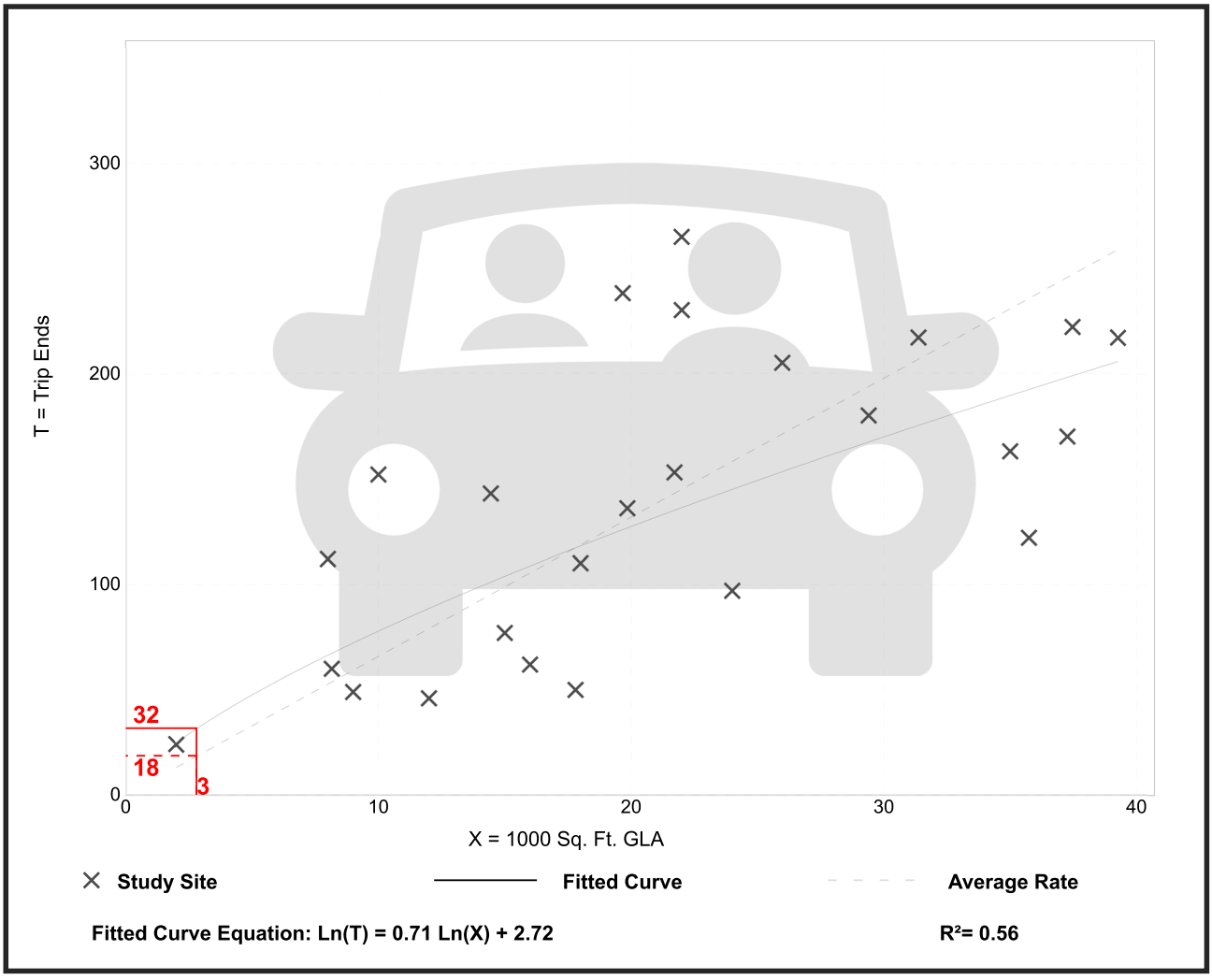
# Strip Retail Plaza (<40k)
(822)

**Vehicle Trip Ends vs:** **1000 Sq. Ft. GLA**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 4 and 6 p.m.**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 25
Avg. 1000 Sq. Ft. GLA: 21
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GLA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 6.59 | 2.81 - 15.20 | 2.94 |

## Data Plot and Equation




*Trip Gen Manual,* 11th Edition ● Institute of Transportation Engineers

# Strip Retail Plaza (<40k)
(822)

**Vehicle Trip Ends vs:** **1000 Sq. Ft. GLA**
**On a:** **Weekday**

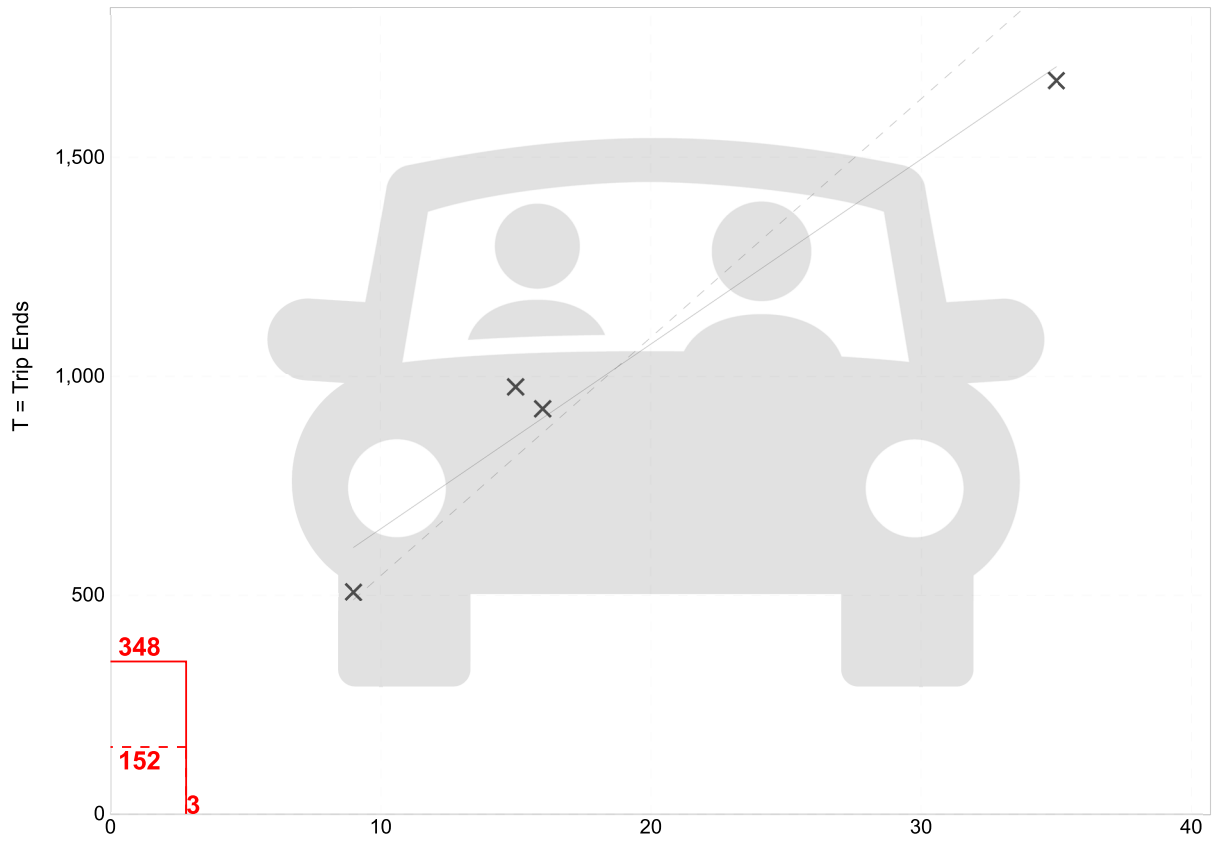
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 4
Avg. 1000 Sq. Ft. GLA: 19
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GLA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 54.45 | 47.86 - 65.07 | 7.81 |

## Data Plot and Equation

***Caution – Small Sample Size***




**Fitted Curve Equation: T = 42.20(X) + 229.68**

**$R^2$= 0.96**

*Trip Gen Manual,* 11th Edition ● Institute of Transportation Engineers

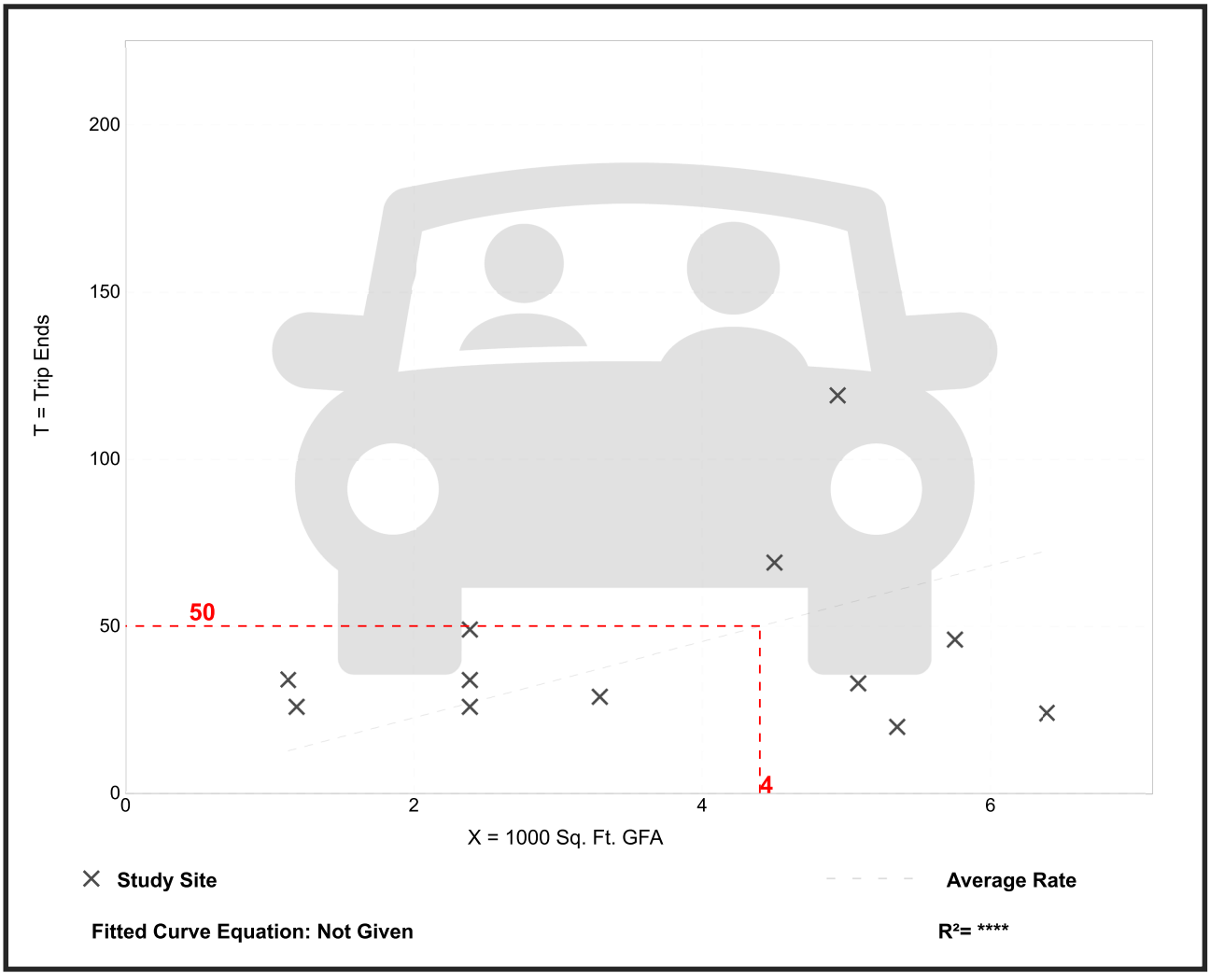
# Drinking Place
(975)

**Vehicle Trip Ends vs:** **1000 Sq. Ft. GFA**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 4 and 6 p.m.**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 12
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 66% entering, 34% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 11.36 | 3.74 - 30.09 | 7.81 |

## Data Plot and Equation




*Trip Gen Manual,* 11th Edition ● Institute of Transportation Engineers

# APPENDIX G

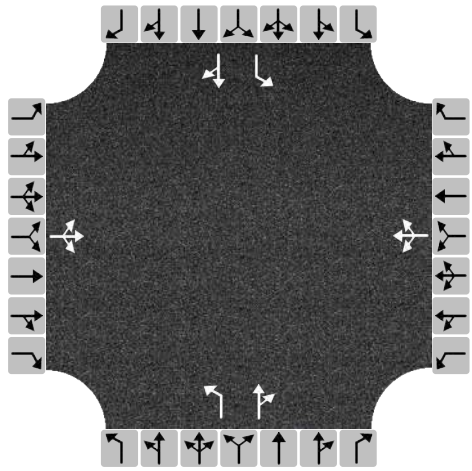
## *Capacity Analysis Worksheets*

GEWALT HAMILTON ASSOCIATES, INC.

## General and Site Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2025 |
| Analysis Time Period (hrs) | 0.25 |
| Time Analyzed | EX AM |
| Project Description | 5732.942 |
| Intersection | Ardmore Ave & Vermont St |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Ardmore Avenue |
| Peak Hour Factor | 0.90 |

## Lanes



## Turning Movement Demand Volumes

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume (veh/h) | 39 | 50 | 68 | 32 | 41 | 27 | 69 | 258 | 10 | 17 | 227 | 24 |
| % Thrus in Shared Lane | | | | | | | | | | | | |

## Lane Flow Rate and Adjustments

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 174 | | | 111 | | | 77 | 298 | | 19 | 279 | |
| Percent Heavy Vehicles | 7 | | | 3 | | | 4 | 6 | | 0 | 4 | |
| Initial Departure Headway, $h_d$ (s) | 3.20 | | | 3.20 | | | 3.20 | 3.20 | | 3.20 | 3.20 | |
| Initial Degree of Utilization, x | 0.155 | | | 0.099 | | | 0.068 | 0.265 | | 0.017 | 0.248 | |
| Final Departure Headway, $h_d$ (s) | 5.80 | | | 5.99 | | | 6.37 | 5.87 | | 6.41 | 5.90 | |
| Final Degree of Utilization, x | 0.281 | | | 0.185 | | | 0.136 | 0.486 | | 0.034 | 0.457 | |
| Move-Up Time, m (s) | 2.0 | | | 2.0 | | | 2.3 | 2.3 | | 2.3 | 2.3 | |
| Service Time, $t_s$ (s) | 3.80 | | | 3.99 | | | 4.07 | 3.57 | | 4.11 | 3.60 | |

## Capacity, Delay and Level of Service

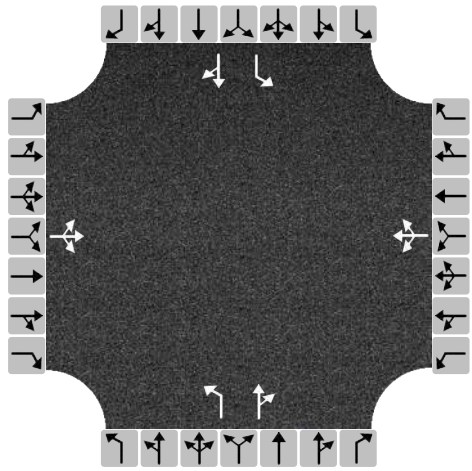
| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 174 | | | 111 | | | 77 | 298 | | 19 | 279 | |
| Capacity (veh/h) | 620 | | | 601 | | | 565 | 613 | | 562 | 610 | |
| 95% Queue Length, $Q_{95}$ (veh) | 1.2 | | | 0.7 | | | 0.5 | 2.7 | | 0.1 | 2.4 | |
| 95% Queue Length, $Q_{95}$ (ft) | 31.7 | | | 17.9 | | | 12.9 | 70.7 | | 2.5 | 61.9 | |
| Control Delay (s/veh) | 11.1 | | | 10.3 | | | 10.1 | 14.0 | | 9.3 | 13.5 | |
| Level of Service, LOS | B | | | B | | | B | B | | A | B | |
| Approach Delay (s/veh) \| LOS | 11.1 | B | | 10.3 | B | | 13.2 | B | | 13.2 | B | |
| Intersection Delay (s/veh) \| LOS | 12.5 | | | | | | B | | | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

## General and Site Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Analysis Time Period (hrs) | 0.25 |
| Time Analyzed | 2033 NB AM |
| Project Description | 5732.942 |
| Intersection | Ardmore Ave & Vermont St |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Ardmore Avenue |
| Peak Hour Factor | 0.90 |

## Lanes



## Turning Movement Demand Volumes

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume (veh/h) | 41 | 53 | 72 | 34 | 44 | 29 | 73 | 274 | 11 | 18 | 241 | 25 |
| % Thrus in Shared Lane | | | | | | | | | | | | |

## Lane Flow Rate and Adjustments

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 184 | | | 119 | | | 81 | 317 | | 20 | 296 | |
| Percent Heavy Vehicles | 7 | | | 3 | | | 4 | 6 | | 0 | 4 | |
| Initial Departure Headway, $h_d$ (s) | 3.20 | | | 3.20 | | | 3.20 | 3.20 | | 3.20 | 3.20 | |
| Initial Degree of Utilization, x | 0.164 | | | 0.106 | | | 0.072 | 0.281 | | 0.018 | 0.263 | |
| Final Departure Headway, $h_d$ (s) | 5.96 | | | 6.17 | | | 6.50 | 6.00 | | 6.55 | 6.04 | |
| Final Degree of Utilization, x | 0.306 | | | 0.204 | | | 0.146 | 0.528 | | 0.036 | 0.496 | |
| Move-Up Time, m (s) | 2.0 | | | 2.0 | | | 2.3 | 2.3 | | 2.3 | 2.3 | |
| Service Time, $t_s$ (s) | 3.96 | | | 4.17 | | | 4.20 | 3.70 | | 4.25 | 3.74 | |

## Capacity, Delay and Level of Service

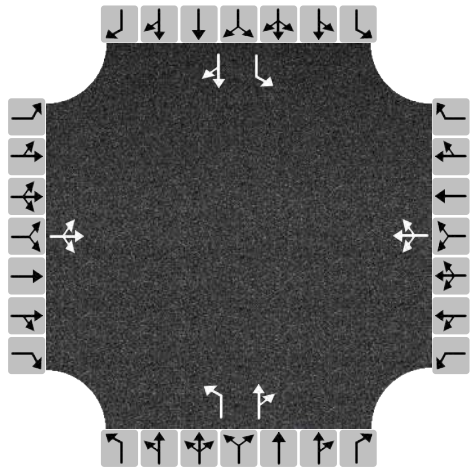
| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 184 | | | 119 | | | 81 | 317 | | 20 | 296 | |
| Capacity (veh/h) | 604 | | | 584 | | | 554 | 600 | | 550 | 596 | |
| 95% Queue Length, $Q_{95}$ (veh) | 1.3 | | | 0.8 | | | 0.5 | 3.1 | | 0.1 | 2.8 | |
| 95% Queue Length, $Q_{95}$ (ft) | 34.3 | | | 20.5 | | | 12.9 | 81.2 | | 2.5 | 72.2 | |
| Control Delay (s/veh) | 11.6 | | | 10.7 | | | 10.3 | 15.2 | | 9.5 | 14.5 | |
| Level of Service, LOS | B | | | B | | | B | C | | A | B | |
| Approach Delay (s/veh) \| LOS | 11.6 | B | | 10.7 | B | | 14.2 | B | | 14.2 | B | |
| Intersection Delay (s/veh) \| LOS | 13.3 | | | | | | B | | | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

## General and Site Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Analysis Time Period (hrs) | 0.25 |
| Time Analyzed | 2033 TOTAL AM |
| Project Description | 5732.942 |
| Intersection | Ardmore Ave & Vermont St |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Ardmore Avenue |
| Peak Hour Factor | 0.90 |

## Lanes



## Turning Movement Demand Volumes

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume (veh/h) | 41 | 57 | 75 | 56 | 50 | 41 | 78 | 288 | 11 | 26 | 249 | 25 |
| % Thrus in Shared Lane | | | | | | | | | | | | |

## Lane Flow Rate and Adjustments

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 192 | | | 163 | | | 87 | 332 | | 29 | 304 | |
| Percent Heavy Vehicles | 7 | | | 3 | | | 4 | 6 | | 0 | 4 | |
| Initial Departure Headway, $h_d$ (s) | 3.20 | | | 3.20 | | | 3.20 | 3.20 | | 3.20 | 3.20 | |
| Initial Degree of Utilization, x | 0.171 | | | 0.145 | | | 0.077 | 0.295 | | 0.026 | 0.271 | |
| Final Departure Headway, $h_d$ (s) | 6.27 | | | 6.40 | | | 6.80 | 6.30 | | 6.86 | 6.35 | |
| Final Degree of Utilization, x | 0.335 | | | 0.290 | | | 0.164 | 0.581 | | 0.055 | 0.537 | |
| Move-Up Time, m (s) | 2.0 | | | 2.0 | | | 2.3 | 2.3 | | 2.3 | 2.3 | |
| Service Time, $t_s$ (s) | 4.27 | | | 4.40 | | | 4.50 | 4.00 | | 4.56 | 4.05 | |

## Capacity, Delay and Level of Service

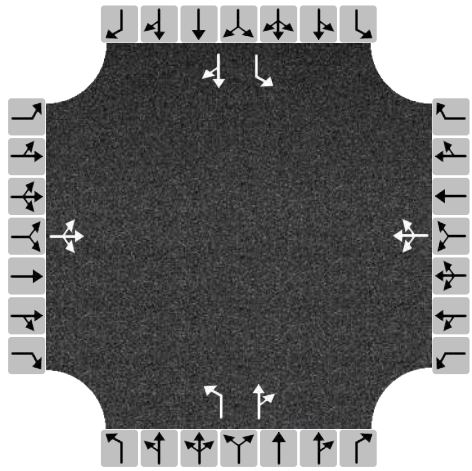
| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 192 | | | 163 | | | 87 | 332 | | 29 | 304 | |
| Capacity (veh/h) | 574 | | | 563 | | | 530 | 572 | | 525 | 567 | |
| 95% Queue Length, $Q_{95}$ (veh) | 1.5 | | | 1.2 | | | 0.6 | 3.7 | | 0.2 | 3.2 | |
| 95% Queue Length, $Q_{95}$ (ft) | 39.6 | | | 30.7 | | | 15.5 | 96.9 | | 5.0 | 82.6 | |
| Control Delay (s/veh) | 12.4 | | | 12.0 | | | 10.8 | 17.4 | | 10.0 | 16.2 | |
| Level of Service, LOS | B | | | B | | | B | C | | A | C | |
| Approach Delay (s/veh) \| LOS | 12.4 | B | | 12.0 | B | | 16.0 | C | | 15.6 | C | |
| Intersection Delay (s/veh) \| LOS | 14.7 | | | | | | B | | | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

## General and Site Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2025 |
| Analysis Time Period (hrs) | 0.25 |
| Time Analyzed | EX PM |
| Project Description | 5732.942 |
| Intersection | Ardmore Ave & Vermont St |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Ardmore Avenue |
| Peak Hour Factor | 0.93 |

## Lanes



## Turning Movement Demand Volumes

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume (veh/h) | 17 | 36 | 71 | 35 | 48 | 21 | 71 | 286 | 27 | 10 | 434 | 18 |
| % Thrus in Shared Lane | | | | | | | | | | | | |

## Lane Flow Rate and Adjustments

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 133 | | | 112 | | | 76 | 337 | | 11 | 486 | |
| Percent Heavy Vehicles | 3 | | | 1 | | | 0 | 3 | | 0 | 2 | |
| Initial Departure Headway, $h_d$ (s) | 3.20 | | | 3.20 | | | 3.20 | 3.20 | | 3.20 | 3.20 | |
| Initial Degree of Utilization, x | 0.119 | | | 0.099 | | | 0.068 | 0.299 | | 0.010 | 0.432 | |
| Final Departure Headway, $h_d$ (s) | 6.30 | | | 6.59 | | | 6.50 | 5.99 | | 6.40 | 5.90 | |
| Final Degree of Utilization, x | 0.234 | | | 0.205 | | | 0.138 | 0.560 | | 0.019 | 0.797 | |
| Move-Up Time, m (s) | 2.0 | | | 2.0 | | | 2.3 | 2.3 | | 2.3 | 2.3 | |
| Service Time, $t_s$ (s) | 4.30 | | | 4.59 | | | 4.20 | 3.69 | | 4.10 | 3.60 | |

## Capacity, Delay and Level of Service

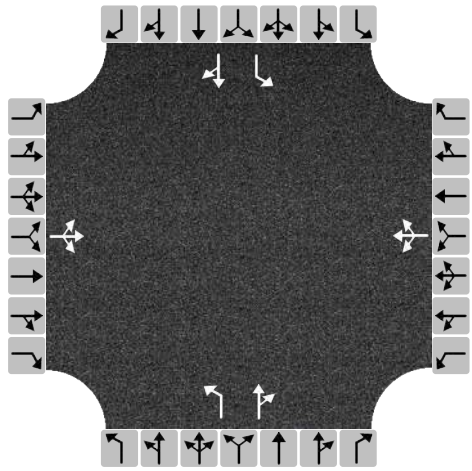
| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 133 | | | 112 | | | 76 | 337 | | 11 | 486 | |
| Capacity (veh/h) | 571 | | | 546 | | | 553 | 601 | | 562 | 610 | |
| 95% Queue Length, $Q_{95}$ (veh) | 0.9 | | | 0.8 | | | 0.5 | 3.5 | | 0.1 | 7.8 | |
| 95% Queue Length, $Q_{95}$ (ft) | 23.0 | | | 20.2 | | | 12.5 | 89.6 | | 2.5 | 198.1 | |
| Control Delay (s/veh) | 11.2 | | | 11.3 | | | 10.2 | 16.0 | | 9.2 | 27.8 | |
| Level of Service, LOS | B | | | B | | | B | C | | A | D | |
| Approach Delay (s/veh) \| LOS | 11.2 | B | | 11.3 | B | | 15.0 | B | | 27.4 | D | |
| Intersection Delay (s/veh) \| LOS | 19.5 | | | | | | C | | | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

## General and Site Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Analysis Time Period (hrs) | 0.25 |
| Time Analyzed | 2033 NB PM |
| Project Description | 5732.942 |
| Intersection | Ardmore Ave & Vermont St |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Ardmore Avenue |
| Peak Hour Factor | 0.93 |

## Lanes



## Turning Movement Demand Volumes

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume (veh/h) | 18 | 38 | 75 | 37 | 51 | 22 | 75 | 304 | 29 | 11 | 461 | 19 |
| % Thrus in Shared Lane | | | | | | | | | | | | |

## Lane Flow Rate and Adjustments

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 141 | | | 118 | | | 81 | 358 | | 12 | 516 | |
| Percent Heavy Vehicles | 3 | | | 1 | | | 0 | 3 | | 0 | 2 | |
| Initial Departure Headway, $h_d$ (s) | 3.20 | | | 3.20 | | | 3.20 | 3.20 | | 3.20 | 3.20 | |
| Initial Degree of Utilization, x | 0.125 | | | 0.105 | | | 0.072 | 0.318 | | 0.011 | 0.459 | |
| Final Departure Headway, $h_d$ (s) | 6.53 | | | 6.83 | | | 6.68 | 6.16 | | 6.56 | 6.06 | |
| Final Degree of Utilization, x | 0.256 | | | 0.224 | | | 0.150 | 0.613 | | 0.022 | 0.869 | |
| Move-Up Time, m (s) | 2.0 | | | 2.0 | | | 2.3 | 2.3 | | 2.3 | 2.3 | |
| Service Time, $t_s$ (s) | 4.53 | | | 4.83 | | | 4.38 | 3.86 | | 4.26 | 3.76 | |

## Capacity, Delay and Level of Service

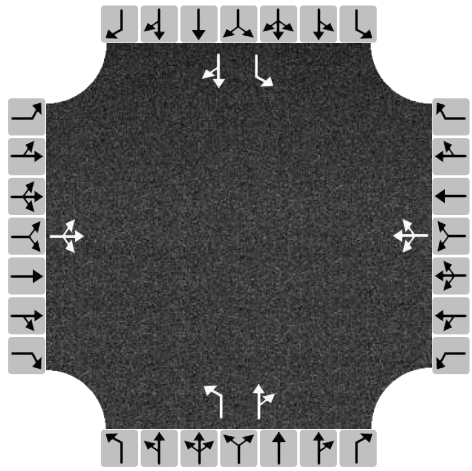
| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 141 | | | 118 | | | 81 | 358 | | 12 | 516 | |
| Capacity (veh/h) | 551 | | | 527 | | | 539 | 584 | | 548 | 594 | |
| 95% Queue Length, $Q_{95}$ (veh) | 1.0 | | | 0.9 | | | 0.5 | 4.1 | | 0.1 | 9.9 | |
| 95% Queue Length, $Q_{95}$ (ft) | 25.6 | | | 22.7 | | | 12.5 | 105.0 | | 2.5 | 251.5 | |
| Control Delay (s/veh) | 11.8 | | | 11.8 | | | 10.6 | 18.1 | | 9.4 | 36.2 | |
| Level of Service, LOS | B | | | B | | | B | C | | A | E | |
| Approach Delay (s/veh) \| LOS | 11.8 | B | | 11.8 | B | | 16.7 | C | | 35.6 | E | |
| Intersection Delay (s/veh) \| LOS | 23.8 | | | | | | C | | | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

## General and Site Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Analysis Time Period (hrs) | 0.25 |
| Time Analyzed | 2033 TOTAL PM |
| Project Description | 5732.942 |
| Intersection | Ardmore Ave & Vermont St |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Ardmore Avenue |
| Peak Hour Factor | 0.93 |

## Lanes



## Turning Movement Demand Volumes

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume (veh/h) | 18 | 47 | 83 | 57 | 56 | 34 | 79 | 317 | 29 | 31 | 481 | 19 |
| % Thrus in Shared Lane | | | | | | | | | | | | |

## Lane Flow Rate and Adjustments

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 159 | | | 158 | | | 85 | 372 | | 33 | 538 | |
| Percent Heavy Vehicles | 3 | | | 1 | | | 0 | 3 | | 0 | 2 | |
| Initial Departure Headway, $h_d$ (s) | 3.20 | | | 3.20 | | | 3.20 | 3.20 | | 3.20 | 3.20 | |
| Initial Degree of Utilization, x | 0.141 | | | 0.141 | | | 0.076 | 0.331 | | 0.030 | 0.478 | |
| Final Departure Headway, $h_d$ (s) | 7.03 | | | 7.24 | | | 7.17 | 6.65 | | 6.98 | 6.48 | |
| Final Degree of Utilization, x | 0.311 | | | 0.318 | | | 0.169 | 0.688 | | 0.065 | 0.967 | |
| Move-Up Time, m (s) | 2.0 | | | 2.0 | | | 2.3 | 2.3 | | 2.3 | 2.3 | |
| Service Time, $t_s$ (s) | 5.03 | | | 5.24 | | | 4.87 | 4.35 | | 4.68 | 4.18 | |

## Capacity, Delay and Level of Service

| Approach | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 | L1 | L2 | L3 |
| Configuration | LTR | | | LTR | | | L | TR | | L | TR | |
| Flow Rate, v (veh/h) | 159 | | | 158 | | | 85 | 372 | | 33 | 538 | |
| Capacity (veh/h) | 512 | | | 497 | | | 502 | 541 | | 516 | 556 | |
| 95% Queue Length, $Q_{95}$ (veh) | 1.3 | | | 1.4 | | | 0.6 | 5.3 | | 0.2 | 13.1 | |
| 95% Queue Length, $Q_{95}$ (ft) | 33.3 | | | 35.3 | | | 15.0 | 135.7 | | 5.0 | 332.7 | |
| Control Delay (s/veh) | 13.2 | | | 13.6 | | | 11.3 | 22.7 | | 10.2 | 55.4 | |
| Level of Service, LOS | B | | | B | | | B | C | | B | F | |
| Approach Delay (s/veh) \| LOS | 13.2 | B | | 13.6 | B | | 20.6 | C | | 52.8 | F | |
| Intersection Delay (s/veh) \| LOS | 32.6 | | | | | | D | | | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

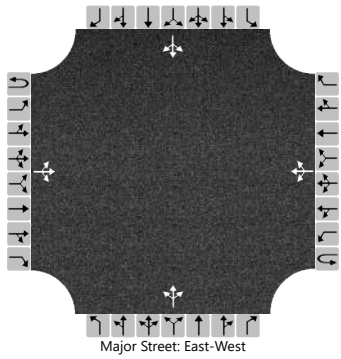
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2025 |
| Time Analyzed | EX AM |
| Intersection Orientation | East-West |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Vermont St & Beverly Ave |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Beverly Avenue |
| Peak Hour Factor | 0.74 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes


Major Street: East-West

## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 6 | 57 | 14 | | 1 | 74 | 0 | | 18 | 2 | 3 | | 4 | 4 | 8 |
| Percent Heavy Vehicles (%) | | 0 | | | | 0 | | | | 0 | 100 | 0 | | 25 | 0 | 25 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | 0 | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type \| Storage | | | Undivided | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.10 | | | | 4.10 | | | | 7.10 | 7.50 | 6.20 | | 7.35 | 6.50 | 6.45 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | 2.20 | | | | 3.50 | 4.90 | 3.30 | | 3.73 | 4.00 | 3.53 |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | 8 | | | | 1 | | | | | 31 | | | | 22 | |
| Capacity, c (veh/h) | | 1497 | | | | 1510 | | | | | 718 | | | | 758 | |
| v/c Ratio | | 0.01 | | | | 0.00 | | | | | 0.04 | | | | 0.03 | |
| 95% Queue Length, $Q_{95}$ (veh) | | 0.0 | | | | 0.0 | | | | | 0.1 | | | | 0.1 | |
| 95% Queue Length, $Q_{95}$ (ft) | | | | | | | | | | | 2.7 | | | | 2.9 | |
| Control Delay (s/veh) | | 7.4 | 0.0 | 0.0 | | 7.4 | 0.0 | 0.0 | | | 10.2 | | | | 9.9 | |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | B | | | | A | |
| Approach Delay (s/veh) | 0.6 | | | | 0.1 | | | | 10.2 | | | | 9.9 | | | |
| Approach LOS | A | | | | A | | | | B | | | | A | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

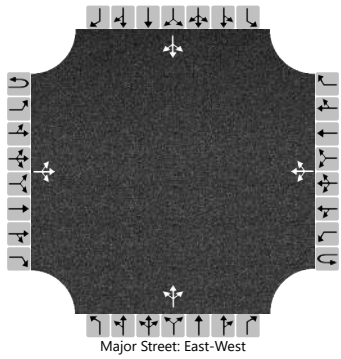
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Time Analyzed | 2033 NB AM |
| Intersection Orientation | East-West |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Vermont St & Beverly Ave |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Beverly Avenue |
| Peak Hour Factor | 0.74 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes


Major Street: East-West

## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 6 | 62 | 14 | | 1 | 80 | 0 | | 19 | 2 | 3 | | 4 | 4 | 8 |
| Percent Heavy Vehicles (%) | | 0 | | | | 0 | | | | 0 | 100 | 0 | | 25 | 0 | 25 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type \| Storage | Undivided | | | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.10 | | | | 4.10 | | | | 7.10 | 7.50 | 6.20 | | 7.35 | 6.50 | 6.45 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | 2.20 | | | | 3.50 | 4.90 | 3.30 | | 3.73 | 4.00 | 3.53 |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | 8 | | | | 1 | | | | | 32 | | | | 22 | |
| Capacity, c (veh/h) | | 1487 | | | | 1502 | | | | | 702 | | | | 745 | |
| v/c Ratio | | 0.01 | | | | 0.00 | | | | | 0.05 | | | | 0.03 | |
| 95% Queue Length, $Q_{95}$ (veh) | | 0.0 | | | | 0.0 | | | | | 0.1 | | | | 0.1 | |
| 95% Queue Length, $Q_{95}$ (ft) | | | | | | | | | | | 2.7 | | | | 2.9 | |
| Control Delay (s/veh) | | 7.4 | 0.0 | 0.0 | | 7.4 | 0.0 | 0.0 | | | 10.4 | | | | 10.0 | |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | B | | | | A | |
| Approach Delay (s/veh) | 0.6 | | | | 0.1 | | | | 10.4 | | | | 10.0 | | | |
| Approach LOS | A | | | | A | | | | B | | | | A | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

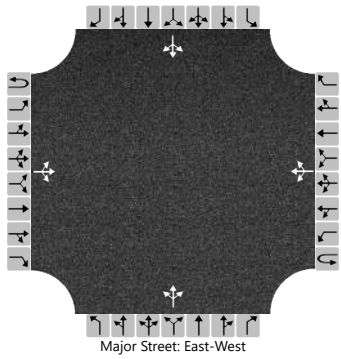
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Time Analyzed | 2033 TOTAL AM |
| Intersection Orientation | East-West |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Vermont St & Beverly Ave |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Beverly Avenue |
| Peak Hour Factor | 0.74 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes


Major Street: East-West

## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 6 | 62 | 26 | | 10 | 80 | 0 | | 59 | 2 | 19 | | 4 | 4 | 8 |
| Percent Heavy Vehicles (%) | | 0 | | | | 0 | | | | 0 | 100 | 0 | | 25 | 0 | 25 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | 0 | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type \| Storage | | | Undivided | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.10 | | | | 4.10 | | | | 7.10 | 7.50 | 6.20 | | 7.35 | 6.50 | 6.45 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | 2.20 | | | | 3.50 | 4.90 | 3.30 | | 3.73 | 4.00 | 3.53 |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | 8 | | | | 14 | | | | | 108 | | | | 22 | |
| Capacity, c (veh/h) | | 1487 | | | | 1482 | | | | | 701 | | | | 712 | |
| v/c Ratio | | 0.01 | | | | 0.01 | | | | | 0.15 | | | | 0.03 | |
| 95% Queue Length, $Q_{95}$ (veh) | | 0.0 | | | | 0.0 | | | | | 0.5 | | | | 0.1 | |
| 95% Queue Length, $Q_{95}$ (ft) | | | | | | | | | | | 12.8 | | | | 2.9 | |
| Control Delay (s/veh) | | 7.4 | 0.0 | 0.0 | | 7.5 | 0.1 | 0.1 | | | 11.1 | | | | 10.2 | |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | B | | | | B | |
| Approach Delay (s/veh) | 0.5 | | | | 0.9 | | | | 11.1 | | | | 10.2 | | | |
| Approach LOS | A | | | | A | | | | B | | | | B | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

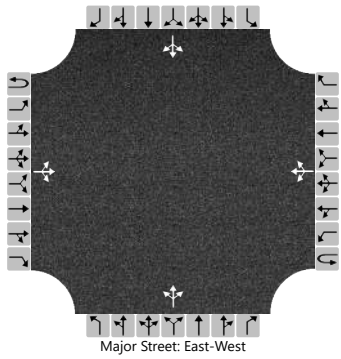
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2025 |
| Time Analyzed | EX PM |
| Intersection Orientation | East-West |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Vermont St & Beverly Ave |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Beverly Avenue |
| Peak Hour Factor | 0.81 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes


Major Street: East-West

## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 4 | 64 | 5 | | 1 | 83 | 1 | | 17 | 1 | 1 | | 0 | 1 | 4 |
| Percent Heavy Vehicles (%) | | 0 | | | | 0 | | | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | 0 | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type \| Storage | | | Undivided | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.10 | | | | 4.10 | | | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | 2.20 | | | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | 5 | | | | 1 | | | | | 23 | | | | 6 | |
| Capacity, c (veh/h) | | 1493 | | | | 1524 | | | | | 747 | | | | 868 | |
| v/c Ratio | | 0.00 | | | | 0.00 | | | | | 0.03 | | | | 0.01 | |
| 95% Queue Length, $Q_{95}$ (veh) | | 0.0 | | | | 0.0 | | | | | 0.1 | | | | 0.0 | |
| 95% Queue Length, $Q_{95}$ (ft) | | | | | | | | | | | 2.5 | | | | 0.0 | |
| Control Delay (s/veh) | | 7.4 | 0.0 | 0.0 | | 7.4 | 0.0 | 0.0 | | | 10.0 | | | | 9.2 | |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | A | | | | A | |
| Approach Delay (s/veh) | 0.4 | | | | 0.1 | | | | 10.0 | | | | 9.2 | | | |
| Approach LOS | A | | | | A | | | | A | | | | A | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

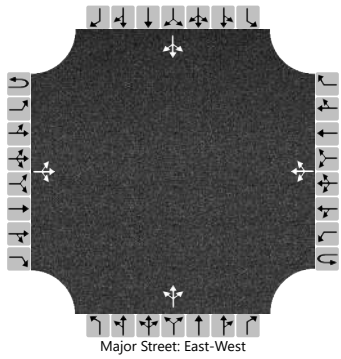
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Time Analyzed | 2033 NB PM |
| Intersection Orientation | East-West |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Vermont St & Beverly Ave |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Beverly Avenue |
| Peak Hour Factor | 0.81 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes


Major Street: East-West

## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 4 | 69 | 5 | | 1 | 88 | 1 | | 18 | 1 | 1 | | 0 | 1 | 4 |
| Percent Heavy Vehicles (%) | | 0 | | | | 0 | | | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type \| Storage | Undivided | | | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.10 | | | | 4.10 | | | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | 2.20 | | | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | 5 | | | | 1 | | | | | 25 | | | | 6 | |
| Capacity, c (veh/h) | | 1485 | | | | 1516 | | | | | 733 | | | | 860 | |
| v/c Ratio | | 0.00 | | | | 0.00 | | | | | 0.03 | | | | 0.01 | |
| 95% Queue Length, $Q_{95}$ (veh) | | 0.0 | | | | 0.0 | | | | | 0.1 | | | | 0.0 | |
| 95% Queue Length, $Q_{95}$ (ft) | | | | | | | | | | | 2.5 | | | | 0.0 | |
| Control Delay (s/veh) | | 7.4 | 0.0 | 0.0 | | 7.4 | 0.0 | 0.0 | | | 10.1 | | | | 9.2 | |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | B | | | | A | |
| Approach Delay (s/veh) | 0.4 | | | | 0.1 | | | | 10.1 | | | | 9.2 | | | |
| Approach LOS | A | | | | A | | | | B | | | | A | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

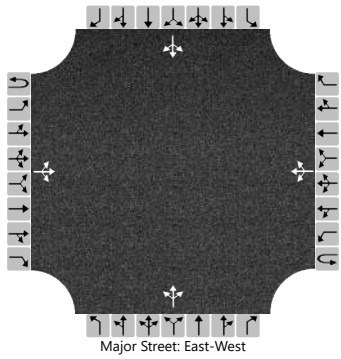
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Time Analyzed | 2033 TOTAL PM |
| Intersection Orientation | East-West |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Vermont St & Beverly Ave |
| Jurisdiction | Local |
| East/West Street | Vermont Street |
| North/South Street | Beverly Avenue |
| Peak Hour Factor | 0.81 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes


Major Street: East-West

## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 4 | 69 | 34 | | 23 | 88 | 1 | | 55 | 1 | 15 | | 0 | 1 | 4 |
| Percent Heavy Vehicles (%) | | 0 | | | | 0 | | | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | 0 | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type \| Storage | | | Undivided | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.10 | | | | 4.10 | | | | 7.10 | 6.50 | 6.20 | | 7.10 | 6.50 | 6.20 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | 2.20 | | | | 3.50 | 4.00 | 3.30 | | 3.50 | 4.00 | 3.30 |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | 5 | | | | 28 | | | | | 88 | | | | 6 | |
| Capacity, c (veh/h) | | 1485 | | | | 1471 | | | | | 682 | | | | 830 | |
| v/c Ratio | | 0.00 | | | | 0.02 | | | | | 0.13 | | | | 0.01 | |
| 95% Queue Length, $Q_{95}$ (veh) | | 0.0 | | | | 0.1 | | | | | 0.4 | | | | 0.0 | |
| 95% Queue Length, $Q_{95}$ (ft) | | | | | | | | | | | 10.0 | | | | 0.0 | |
| Control Delay (s/veh) | | 7.4 | 0.0 | 0.0 | | 7.5 | 0.2 | 0.2 | | | 11.1 | | | | 9.4 | |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | B | | | | A | |
| Approach Delay (s/veh) | 0.3 | | | | 1.7 | | | | 11.1 | | | | 9.4 | | | |
| Approach LOS | A | | | | A | | | | B | | | | A | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

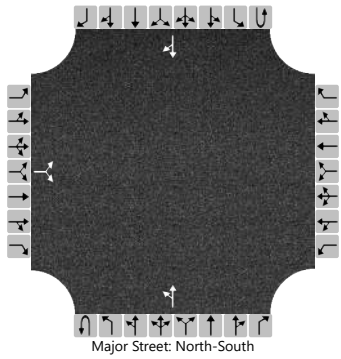
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 5/02/2025 |
| Analysis Year | 2033 |
| Time Analyzed | 2033 TOTAL AM |
| Intersection Orientation | North-South |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Beverly Ave & Garage |
| Jurisdiction | Local |
| East/West Street | Garage Entrance |
| North/South Street | Beverly Avenue |
| Peak Hour Factor | 0.92 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes


Major Street: North-South

## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 37 | | 0 | | | | | | 6 | 43 | | | | 24 | 16 |
| Percent Heavy Vehicles (%) | | 3 | | 3 | | | | | | 3 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type \| Storage | | Undivided | | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.43 | | 6.23 | | | | | | 4.13 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.53 | | 3.33 | | | | | | 2.23 | | | | | | |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | | 40 | | | | | | | 7 | | | | | | |
| Capacity, c (veh/h) | | | 899 | | | | | | | 1559 | | | | | | |
| v/c Ratio | | | 0.04 | | | | | | | 0.00 | | | | | | |
| 95% Queue Length, $Q_{95}$ (veh) | | | 0.1 | | | | | | | 0.0 | | | | | | |
| 95% Queue Length, $Q_{95}$ (ft) | | | 2.6 | | | | | | | 0.0 | | | | | | |
| Control Delay (s/veh) | | | 9.2 | | | | | | | 7.3 | 0.0 | | | | | |
| Level of Service (LOS) | | | A | | | | | | | A | A | | | | | |
| Approach Delay (s/veh) | | 9.2 | | | | | | | | 0.9 | | | | | | |
| Approach LOS | | A | | | | | | | | A | | | | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

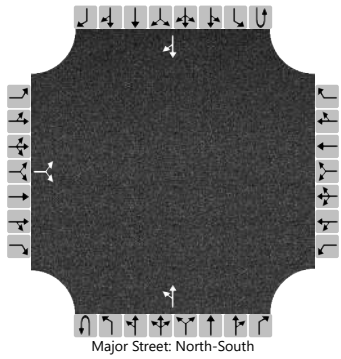
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 6/10/2021 |
| Analysis Year | 2033 |
| Time Analyzed | 2033 TOTAL PM |
| Intersection Orientation | North-South |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Beverly Ave & Garage |
| Jurisdiction | Local |
| East/West Street | Garage Entrance |
| North/South Street | Beverly Avenue |
| Peak Hour Factor | 0.92 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes


Major Street: North-South

## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 34 | | 0 | | | | | | 21 | 37 | | | | 24 | 16 |
| Percent Heavy Vehicles (%) | | 3 | | 3 | | | | | | 3 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type \| Storage | | Undivided | | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.43 | | 6.23 | | | | | | 4.13 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.53 | | 3.33 | | | | | | 2.23 | | | | | | |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | | 37 | | | | | | | 23 | | | | | | |
| Capacity, c (veh/h) | | | 859 | | | | | | | 1559 | | | | | | |
| v/c Ratio | | | 0.04 | | | | | | | 0.01 | | | | | | |
| 95% Queue Length, $Q_{95}$ (veh) | | | 0.1 | | | | | | | 0.0 | | | | | | |
| 95% Queue Length, $Q_{95}$ (ft) | | | 2.6 | | | | | | | 0.0 | | | | | | |
| Control Delay (s/veh) | | | 9.4 | | | | | | | 7.3 | 0.1 | | | | | |
| Level of Service (LOS) | | | A | | | | | | | A | A | | | | | |
| Approach Delay (s/veh) | | 9.4 | | | | | | | | 2.7 | | | | | | |
| Approach LOS | | A | | | | | | | | A | | | | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

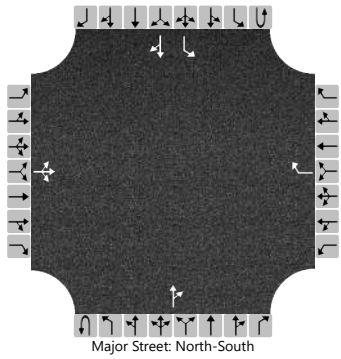
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Time Analyzed | 2033 TOTAL AM |
| Intersection Orientation | North-South |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Ardmore Ave & Terrace St |
| Jurisdiction | Local |
| East/West Street | Terrace Street |
| North/South Street | Ardmore Avenue |
| Peak Hour Factor | 0.92 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes


Major Street: North-South

## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| Configuration | | | LTR | | | | | R | | | | TR | | L | | TR |
| Volume (veh/h) | | 4 | 0 | 17 | | | | 20 | | | 353 | 57 | | 24 | 348 | 8 |
| Percent Heavy Vehicles (%) | | 3 | 3 | 3 | | | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | No | | | | | | | | | | | |
| Median Type \| Storage | Undivided | | | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | | | 6.2 | | | | | | 4.1 | | |
| Critical Headway (sec) | | 7.13 | 6.53 | 6.23 | | | | 6.23 | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | | | 3.3 | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.53 | 4.03 | 3.33 | | | | 3.33 | | | | | | 2.23 | | |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | | 23 | | | | | 22 | | | | | | 26 | | |
| Capacity, c (veh/h) | | | 511 | | | | | 636 | | | | | | 1109 | | |
| v/c Ratio | | | 0.04 | | | | | 0.03 | | | | | | 0.02 | | |
| 95% Queue Length, $Q_{95}$ (veh) | | | 0.1 | | | | | 0.1 | | | | | | 0.1 | | |
| 95% Queue Length, $Q_{95}$ (ft) | | | 2.6 | | | | | 2.6 | | | | | | 2.6 | | |
| Control Delay (s/veh) | | | 12.4 | | | | | 10.9 | | | | | | 8.3 | | |
| Level of Service (LOS) | | | B | | | | | B | | | | | | A | | |
| Approach Delay (s/veh) | 12.4 | | | | 10.9 | | | | | | | | 0.5 | | | |
| Approach LOS | B | | | | B | | | | | | | | A | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

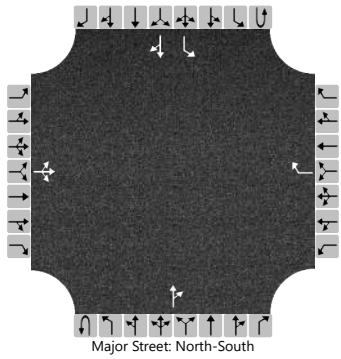
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Time Analyzed | 2033 TOTAL PM |
| Intersection Orientation | North-South |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Ardmore Ave & Terrace St |
| Jurisdiction | Local |
| East/West Street | Terrace Street |
| North/South Street | Ardmore Avenue |
| Peak Hour Factor | 0.92 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes


Major Street: North-South

## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| Configuration | | | LTR | | | | | R | | | | TR | | L | | TR |
| Volume (veh/h) | | 1 | 0 | 9 | | | | 17 | | | 407 | 44 | | 35 | 584 | 2 |
| Percent Heavy Vehicles (%) | | 3 | 3 | 3 | | | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | No | | | | | | | | | | | |
| Median Type \| Storage | Undivided | | | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 7.1 | 6.5 | 6.2 | | | | 6.2 | | | | | | 4.1 | | |
| Critical Headway (sec) | | 7.13 | 6.53 | 6.23 | | | | 6.23 | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | 3.5 | 4.0 | 3.3 | | | | 3.3 | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | 3.53 | 4.03 | 3.33 | | | | 3.33 | | | | | | 2.23 | | |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | | 11 | | | | | 18 | | | | | | 38 | | |
| Capacity, c (veh/h) | | | 394 | | | | | 594 | | | | | | 1068 | | |
| v/c Ratio | | | 0.03 | | | | | 0.03 | | | | | | 0.04 | | |
| 95% Queue Length, $Q_{95}$ (veh) | | | 0.1 | | | | | 0.1 | | | | | | 0.1 | | |
| 95% Queue Length, $Q_{95}$ (ft) | | | 2.6 | | | | | 2.6 | | | | | | 2.6 | | |
| Control Delay (s/veh) | | | 14.4 | | | | | 11.3 | | | | | | 8.5 | | |
| Level of Service (LOS) | | | B | | | | | B | | | | | | A | | |
| Approach Delay (s/veh) | 14.4 | | | | 11.3 | | | | | | | | 0.5 | | | |
| Approach LOS | B | | | | B | | | | | | | | A | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

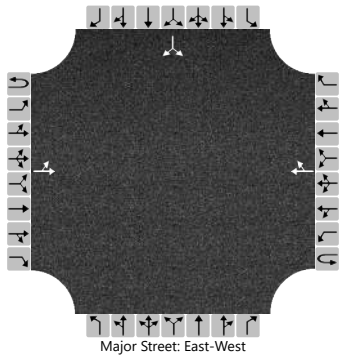
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Time Analyzed | 2033 TOTAL AM |
| Intersection Orientation | East-West |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Terrace St & Garage Acces |
| Jurisdiction | Local |
| East/West Street | Terrace St / Metra Lot |
| North/South Street | Parking Garage Access |
| Peak Hour Factor | 0.92 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes




## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | | TR | | | | | | | LR | |
| Volume (veh/h) | | 19 | 62 | | | | 10 | 5 | | | | | | 19 | | 19 |
| Percent Heavy Vehicles (%) | | 3 | | | | | | | | | | | | 3 | | 3 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type \| Storage | Undivided | | | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.1 | | 6.2 |
| Critical Headway (sec) | | 4.13 | | | | | | | | | | | | 6.43 | | 6.23 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | | | | | | | | | 3.53 | | 3.33 |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | 21 | | | | | | | | | | | | | 41 | |
| Capacity, c (veh/h) | | 1595 | | | | | | | | | | | | | 950 | |
| v/c Ratio | | 0.01 | | | | | | | | | | | | | 0.04 | |
| 95% Queue Length, $Q_{95}$ (veh) | | 0.0 | | | | | | | | | | | | | 0.1 | |
| 95% Queue Length, $Q_{95}$ (ft) | | 0.0 | | | | | | | | | | | | | 2.6 | |
| Control Delay (s/veh) | | 7.3 | 0.1 | | | | | | | | | | | | 9.0 | |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | A | |
| Approach Delay (s/veh) | 1.8 | | | | | | | | | | | | 9.0 | | | |
| Approach LOS | A | | | | | | | | | | | | A | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

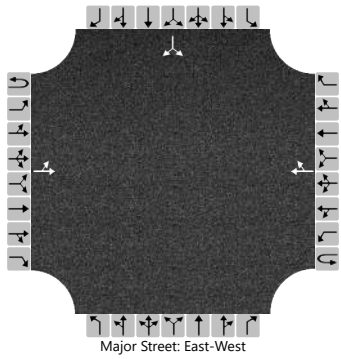
## General Information

| | |
|---|---|
| Analyst | GHA |
| Agency/Co. | GHA |
| Date Performed | 05/02/2025 |
| Analysis Year | 2033 |
| Time Analyzed | 2032 TOTAL PM |
| Intersection Orientation | East-West |
| Project Description | 5732.942 |

## Site Information

| | |
|---|---|
| Intersection | Terrace St & Garage Acces |
| Jurisdiction | Local |
| East/West Street | Terrace St / Metra Lot |
| North/South Street | Parking Garage Access |
| Peak Hour Factor | 0.92 |
| Analysis Time Period (hrs) | 0.25 |

## Lanes




## Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 |
| Configuration | | LT | | | | | | TR | | | | | | | LR | |
| Volume (veh/h) | | 43 | 36 | | | | 10 | 5 | | | | | | 19 | | 19 |
| Percent Heavy Vehicles (%) | | 3 | | | | | | | | | | | | 3 | | 3 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | 0 | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type \| Storage | | Undivided | | | | | | | | | | | | | | |

## Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.1 | | 6.2 |
| Critical Headway (sec) | | 4.13 | | | | | | | | | | | | 6.43 | | 6.23 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | | | | | | | | | 3.53 | | 3.33 |

## Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate, v (veh/h) | | 47 | | | | | | | | | | | | | 41 | |
| Capacity, c (veh/h) | | 1595 | | | | | | | | | | | | | 925 | |
| v/c Ratio | | 0.03 | | | | | | | | | | | | | 0.04 | |
| 95% Queue Length, $Q_{95}$ (veh) | | 0.1 | | | | | | | | | | | | | 0.1 | |
| 95% Queue Length, $Q_{95}$ (ft) | | 2.6 | | | | | | | | | | | | | 2.6 | |
| Control Delay (s/veh) | | 7.3 | 0.2 | | | | | | | | | | | | 9.1 | |
| Level of Service (LOS) | | A | A | | | | | | | | | | | | A | |
| Approach Delay (s/veh) | 4.1 | | | | | | | | | | | | 9.1 | | | |
| Approach LOS | A | | | | | | | | | | | | A | | | |

Copyright © 2025 University of Florida. All Rights Reserved.

# APPENDIX H

## *ITE Parking Generation Manual Excerpts*

# Multifamily Housing - 1 BR (Mid-Rise) - Close to Rail Transit
(218)

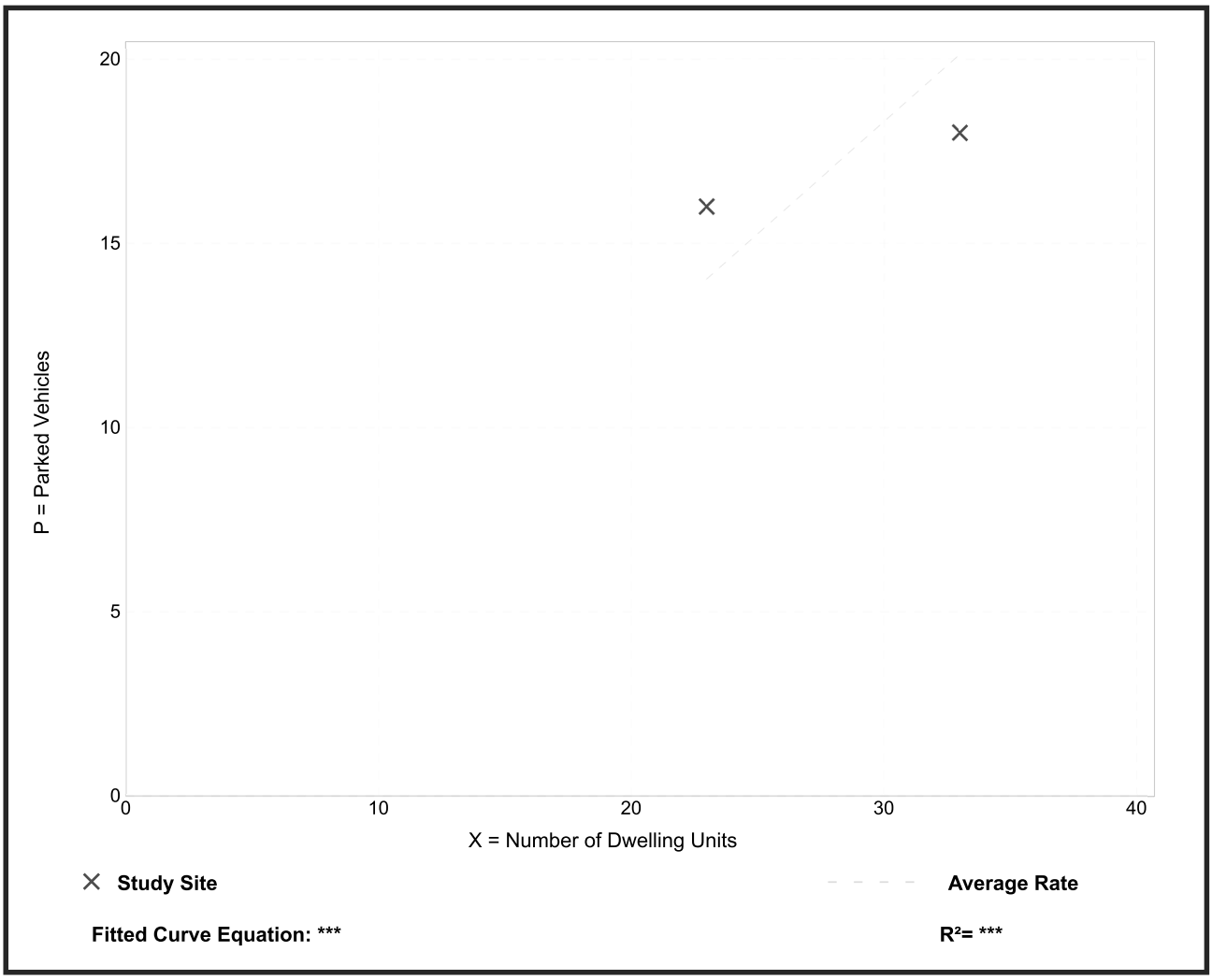
**Peak Period Parking Demand vs:** **Dwelling Units**
**On a:** **Weekday (Monday - Friday)**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 2
Avg. Num. of Dwelling Units: 28

## Peak Period Parking Demand per Dwelling Unit

| Average Rate | Range of Rates | 33rd / 85th Percentile | 95% Confidence Interval | Standard Deviation (Coeff. of Variation) |
|---|---|---|---|---|
| 0.61 | 0.55 - 0.70 | *** / *** | *** | *** |

## Data Plot and Equation

***Caution – Small Sample Size***




*Parking Generation Manual, 6th Edition* ● Institute of Transportation Engineers

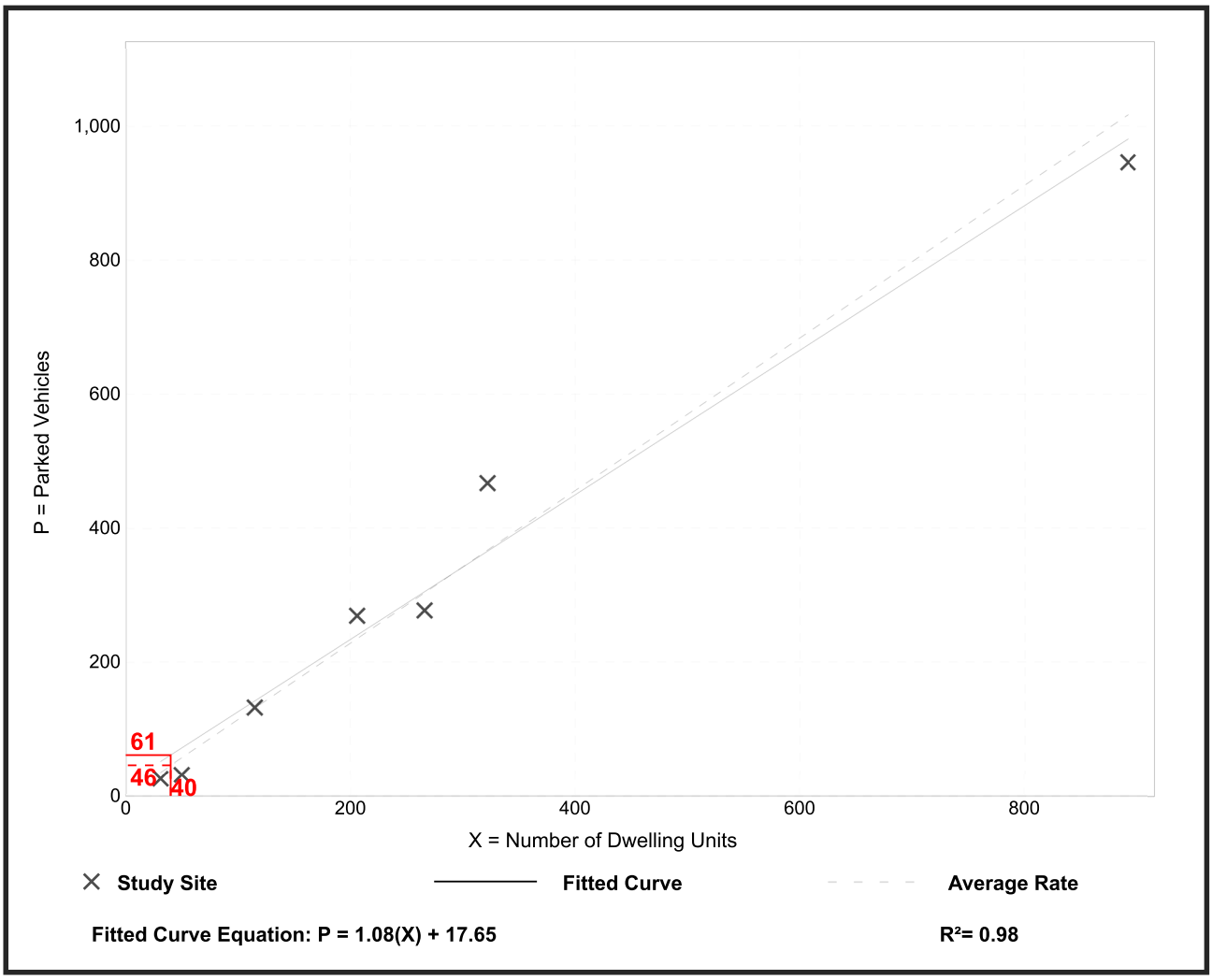
# Multifamily Housing - 2+ BR (Mid-Rise) - Close to Rail Transit
(221)

**Peak Period Parking Demand vs:** **Dwelling Units**
**On a:** **Weekday (Monday - Friday)**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Dwelling Units: 269

## Peak Period Parking Demand per Dwelling Unit

| Average Rate | Range of Rates | 33rd / 85th Percentile | 95% Confidence Interval | Standard Deviation (Coeff. of Variation) |
|---|---|---|---|---|
| 1.14 | 0.64 - 1.45 | 0.97 / 1.42 | *** | 0.19 (17%) |

## Data Plot and Equation




*Parking Generation Manual, 6th Edition* ● Institute of Transportation Engineers

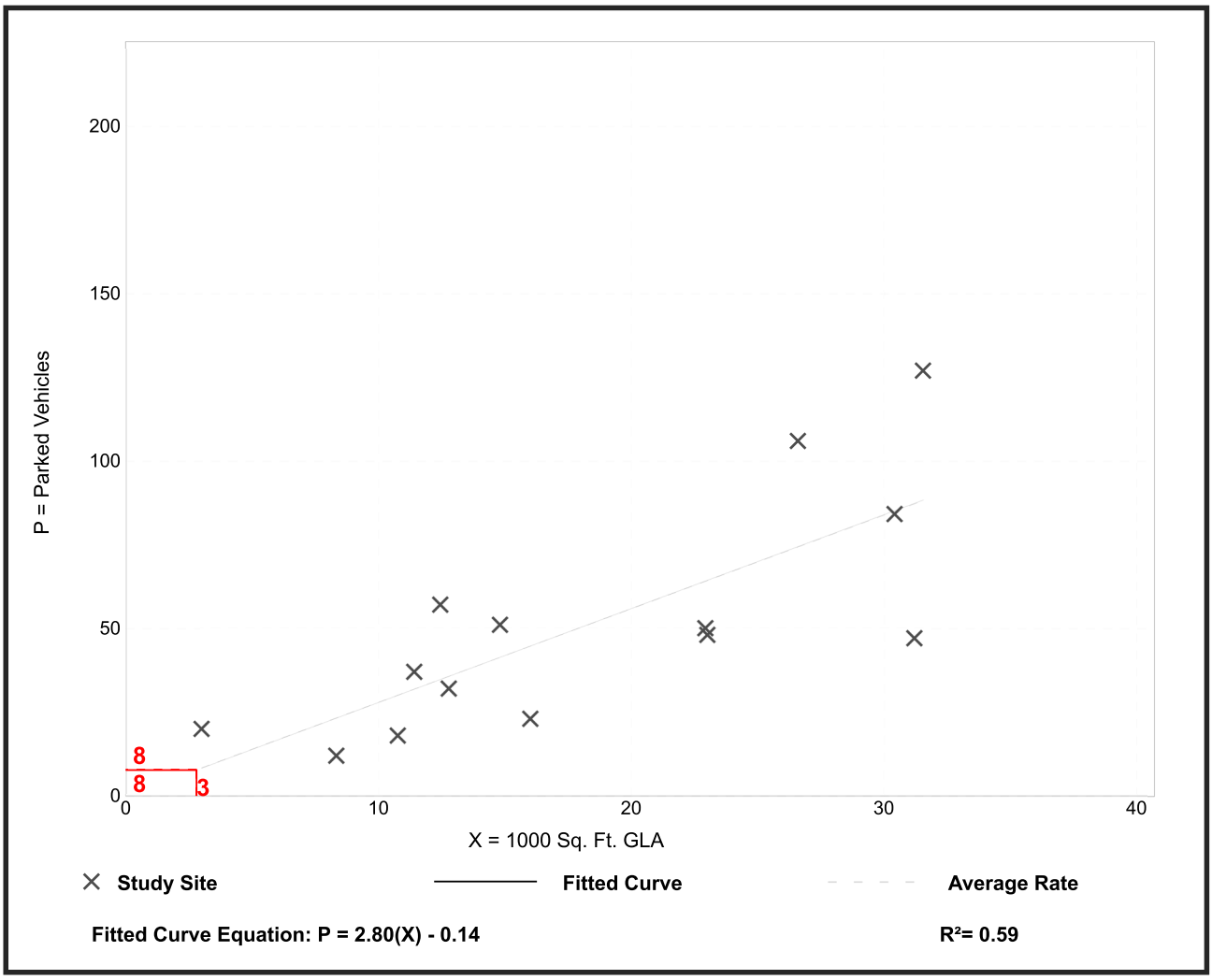
# Strip Retail Plaza (< 40k)
(822)

**Peak Period Parking Demand vs:** **1000 Sq. Ft. GLA**
**On a:** **Weekday (Monday - Thursday)**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 14
Avg. 1000 Sq. Ft. GLA: 18

## Peak Period Parking Demand per 1000 Sq. Ft. GLA

| Average Rate | Range of Rates | 33rd / 85th Percentile | 95% Confidence Interval | Standard Deviation (Coeff. of Variation) |
|---|---|---|---|---|
| 2.79 | 1.44 - 6.67 | 2.07 / 4.44 | *** | 1.14 (41%) |

## Data Plot and Equation




*Parking Generation Manual, 6th Edition* ● Institute of Transportation Engineers

# High-Turnover (Sit Down) Restaurant - Does Not Serve Breakfast
(932)

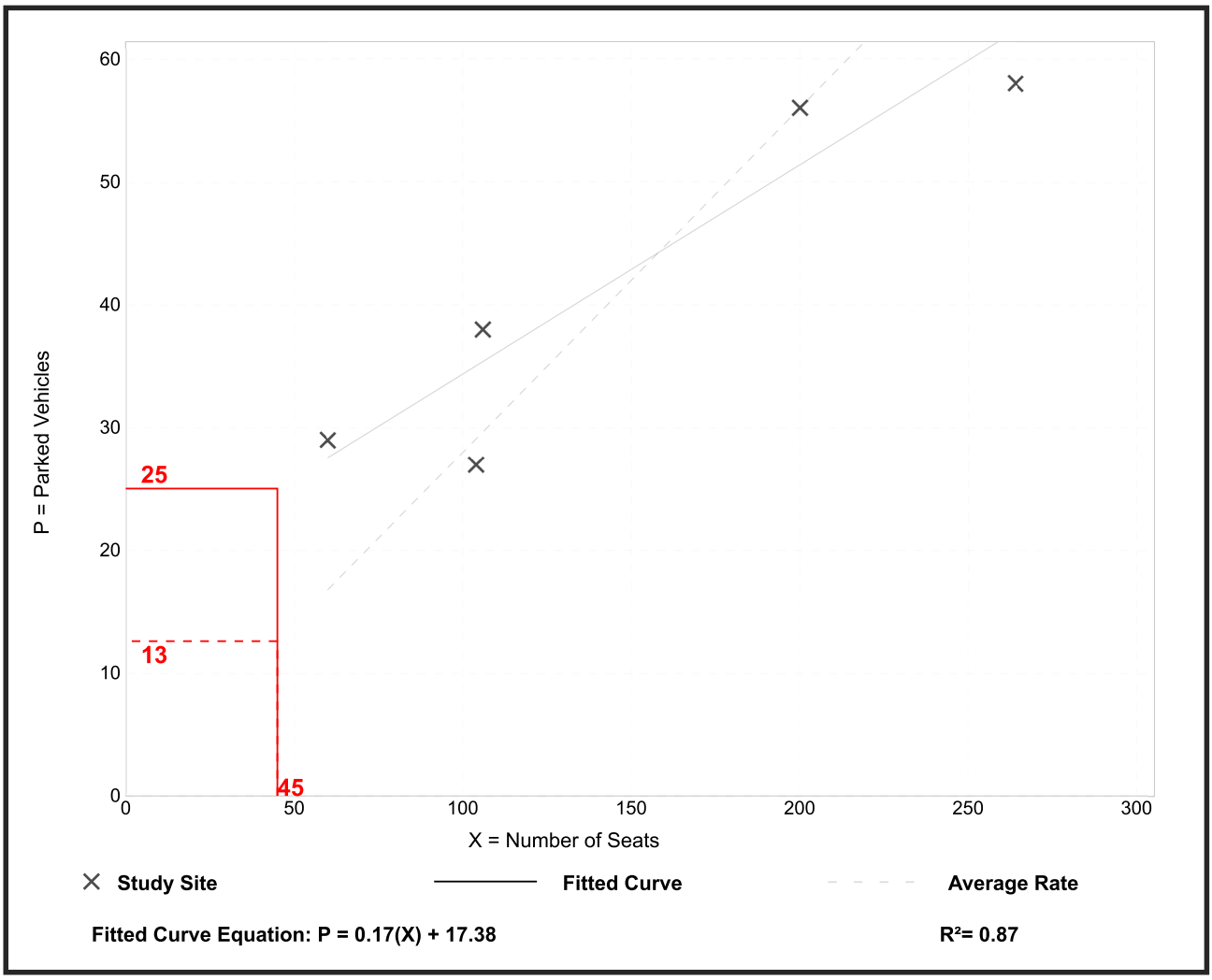
**Peak Period Parking Demand vs:** **Seats**
**On a:** **Weekday (Monday - Thursday)**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 5
Avg. Num. of Seats: 147

## Peak Period Parking Demand per Seat

| Average Rate | Range of Rates | 33rd / 85th Percentile | 95% Confidence Interval | Standard Deviation (Coeff. of Variation) |
|---|---|---|---|---|
| 0.28 | 0.22 - 0.48 | 0.26 / 0.48 | *** | 0.08 (29%) |

## Data Plot and Equation

***Caution – Small Sample Size***




*Parking Generation Manual, 6th Edition* ● Institute of Transportation Engineers