5TH WARD RESIDENCES 72 UNIT APARTMENT BUILDING

ISG PROJECT # 20-24403



PROJECT GENERAL NOTES

ALL WORK SHALL CONFORM TO THE CONTRACT DOCUMENTS, WHICH INCLUDE, BUT ARE NOT LIMITED TO, THE OWNER - CONTRACTOR AGREEMENT, THE PROJECT MANUAL (WHICH INCLUDES GENERAL AND SUPPLEMENTARY CONDITIONS AND SPECIFICATIONS), DRAWINGS OF ALL DISCIPLINES AND ALL ADDENDA, MODIFICATIONS AND CLARIFICATIONS ISSUED BY THE ARCHITECT / ENGINEER.

CONTRACT DOCUMENTS SHALL BE ISSUED TO ALL SUBCONTRACTORS BY THE GENERAL CONTRACTOR IN

CONTRACT DOCUMENTS SHALL BE ISSUED TO ALL SUBCONTRACTORS BY THE GENERAL CONTRACTOR IN COMPLETE SETS IN ORDER TO ACHIEVE THE FULL EXTENT AND COMPLETE COORDINATION OF ALL WORK. CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND CORRELATING QUANTITIES AND DIMENSIONS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING

DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.

DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPE OF DETAILING REQUIRED THROUGHOUT THE WORK. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO DETAILS SHOWN. WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED. NOTIFY ARCHITECT /

FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY ARCHITECT / ENGINEER OF ANY

ENGINEER BEFORE PROCEEDING WITH THE WORK.

ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, CLEANED AND CONDITIONED ACCORDING TO MANUFACTURERS' INSTRUCTIONS. IN CASE OF DISCREPANCIES BETWEEN MANUFACTURERS' INSTRUCTIONS AND THE CONTRACT DOCUMENTS, NOTIFY ARCHITECT / ENGINEER BEFORE PROCEEDING WITH THE WORK.

LARGE-SCALE, MORE SPECIFIC DETAILS TAKE PRECEDENCE OVER SMALLER-SCALE, LESS SPECIFIC DETAILS AND INFORMATION. MORE STRINGENT REQUIREMENTS FOR CODE, PRODUCTS AND INSTALLATION TAKE PRECEDENCE OVER LESS STRINGENT REQUIREMENTS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.

PROVIDE CONTINUOUS SEALANT AROUND ALL MATERIALS AT EXTERIOR WALL PENETRATIONS.

ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID GALVANIC CORROSION.

SEAL ALL OPENINGS IN WALLS, FLOORS, CEILINGS, AND ROOFS AROUND DUCTS, PIPES, VENTS, TRAPS, CONDUIT AND ALL OTHER PENETRATIONS WITH FIRE STOPPING AS SPECIFIED AND REQUIRED BY CODES.

PROVIDE SOLID WALL BACKING WITH WOOD BLOCKING BEHIND DOOR HARDWARE SUCH AS WALL STOPS, BUMPERS, HOLD OPENS, ETC.

BATH EXHAUST - SYSTEM TO BE 50 CFM.

ATTIC VENTILATION - NET FREE AREA NOT LESS THAN 1/300 OF VENTILATION AREA.

EACH BEDROOM SHALL BE PROVIDED WITH AN EGRESS WINDOW COMPLYING W/ IBC SECTION 1029, MIN CLEAR OPENING WIDTH OF 20" AND HEIGHT OF 24".

WALL AND FLOOR CONSTRUCTION TO MEET SOUND TRANSMISSION LIMITATIONS PER IBC 1207.2.

CONTRACTOR TO INSTALL ONE 5 POUND FIRE EXTINGUISHER IN EACH UNIT KITCHEN CABINET. FIRE

EXTINGUISHERS SHALL BE PROVIDED PER IBC SECTION 906 AND MAINTAINED PER NFPA 13.

17 MANUAL FIRE ALARM SYSTEM REQUIRED THROUGHOUT STRUCTURE.

18 PROVIDE INTERCONNECTED SMOKE ALARMS IN EACH BEDROOM, OUTSIDE EACH SLEEPING AREA AND ON EACH STORY WITHIN THE DWELLING UNIT.

19 ALL DOOR HARDWARE TO MEET ICC/ANSI A117.1 SECTION 404.2.6 FOR OPERABILITY.
 20 CONTRACTOR TO PROVIDE ADEQUATE BLOCKING FOR ALL WALL HUNG VANITIES, REQUIRED GRAB BARS AND TOWEL BARS PER OWNER'S REQUIREMENTS.
 21 FIRE BLOCKING SHALL BE PROVIDED IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF EACH RUN. FIRST FLOOR DWELLING UNIT WALLS/SECOND FLOOR STAIR LANDING, SHARED

ASSEMBLY.

ALL GARAGE OVERHEAD DOORS MUST BE DESIGNED AND SIZED TO WITHSTAND LOADS CAUSED BY PRESSURE AND SUCTION OF WIND ACTING NORMAL TO PLANE OF WALL AS CALCULATED IN ACCORDANCE WITH APPLICABLE CODE.

STAIR CEILING/DWELLING UNIT STAIR FLOOR AND DWELLING UNIT SEPARATION AT FLOOR/CEILING

ALL OPERABLE WINDOWS SHALL BE PROVIDED WITH INSECT SCREENS.
 THE GYPSUM BOARD SHALL BE INSTALLED ON ALL FIRE RATED AND APARTMENT SEPARATION WALLS PRIOF TO THE TUBS/SHOWERS BEING INSTALLED.
 AT A MINIMUM, ICE AND WATER GUARD SHALL EXTEND FROM THE EDGE TO THE ROOF TO A POINT A

MINIMUM OF 24" INSIDE THE LINE OF THE EXTERIOR WALLS AND IN ALL VALLEYS OF THE ROOF.

26 ALL EXTERIOR FINISHES INCLUDING SIDING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION DETAILS.

MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION DETAILS.

ALL WINDOWS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS.

SHEET INDEX SHEET# SHEET TITLE **IGENERAL** G1-10 TITLE SHEET, SHEET INDEX, PROJECT GENERAL NOTES G1-11 MOUNTING HEIGHTS AND STANDARDS, ABBREVIATIONS AND SYMBOLS G1-20 CODE DATA AND GROUND LEVEL CODE DATA PLAN G1-21 SECOND AND THIRD FLOOR CODE DATA PLANS G1-22 FOURTH AND FIFTH FLOOR CODE DATA PLANS REFER TO CIVIL BID PACKAGE **ARCHITECTURAL** A1-01 WALL AND ASSEMBLY TYPES, PARTITION NOTES A1-20 GROUND LEVEL FLOOR PLAN A1-21 SECOND FLOOR PLAN A1-22 THIRD FLOOR PLAN A1-23 FOURTH FLOOR PLAN A1-24 FIFTH FLOOR PLAN A1-25 UNIT FLOOR PLANS A1-26 UNIT AND BALCONY FLOOR PLANS A1-31 GROUND LEVEL REFLECTED CEILING PLAN A1-32 SECOND AND THIRD FLOOR REFLECTED CEILING PLANS A1-33 FOURTH AND FIFTH FLOOR REFLECTED CEILING PLAN A1-71 ROOF PLAN A2-10 EXTERIOR ELEVATIONS A2-11 EXTERIOR ELEVATIONS A3-11 BUILDING SECTIONS A3-12 BUILDING SECTIONS A3-21 WALL SECTIONS A3-22 WALL SECTIONS A3-24 ENLARGED SECTIONS A3-25 ENLARGED SECTIONS A3-26 ENLARGED SECTIONS A4-11 INTERIOR ELEVATIONS, DOOR SCHEDULE, DOOR AND FRAME TYPES A7-11 ENLARGED VERTICAL CIRCULATION PLANS A7-21 STAIR A VERTICAL CIRCULATION SECTIONS A7-22 STAIR A VERTICAL CIRCULATION SECTIONS AND DETAILS A7-23 STAIR B VERTICAL CIRCULATION SECTIONS A7-24 ELEVATOR VERTICAL CIRCULATION SECTIONS AND TRASH ENCLOSURE DETAILS S1-00 STRUCTURAL NOTES S1-01 STRUCTURAL SCHEDULES S1-11 FOUNDATION PLAN S1-12 SLAB/TOPPING PLANS S2-11 FOOTING AND FOUNDATION DETAILS S2-12 FOOTING AND FOUNDATION DETAILS SECOND FLOOR PRECAST LOADING PLAN S3-21 SECOND AND THIRD FLOOR FRAMING PLAN S3-22 FOURTH AND FIFTH FLOOR FRAMING PLAN

S3-31 SHEAR WALL PLAN AND DETAILS

S6-11 STAIR, BALCONY, AND CANOPY FRAMING PLANS

S4-11 ROOF FRAMING PLAN

S6-21 FRAMING DETAILS



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PROJECT

5TH WARD RESIDENCES

72 UNIT
APARTMENT
BUILDING

REVISION SCHEDULE
DESCRIPTION

SE WISCONSIN

| PROJECT | NO. | 20-24403 | |
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| DRAWN E | 3Y | KAP | |
| DESIGNE | D BY | KMB | |
| REVIEWE | D BY | KMB | |
| | | | |

CLIENT PROJECT NO.

ORIGINAL ISSUE DATE 09/15/2021

TITLE SHEET, SHEET INDEX,

PROJECT GENERAL NOTES

SHEET

G1-10

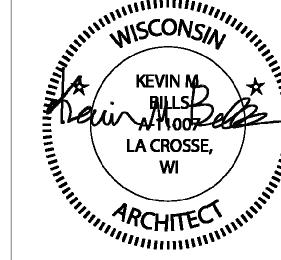
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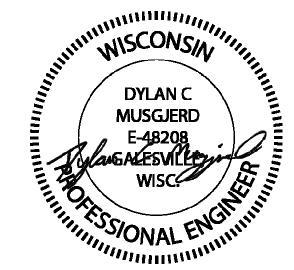
LA CROSSE, WISCONSIN

OWNER:

STIZO DEVELOPMENT 2 COPELAND AVE #201 LA CROSSE, WISCONSIN 54603 608.779.0400 PROJECT ADDRESS:

1325 ST ANDREW ST LA CROSSE, WISCONSIN 54601 MANAGING OFFICE:



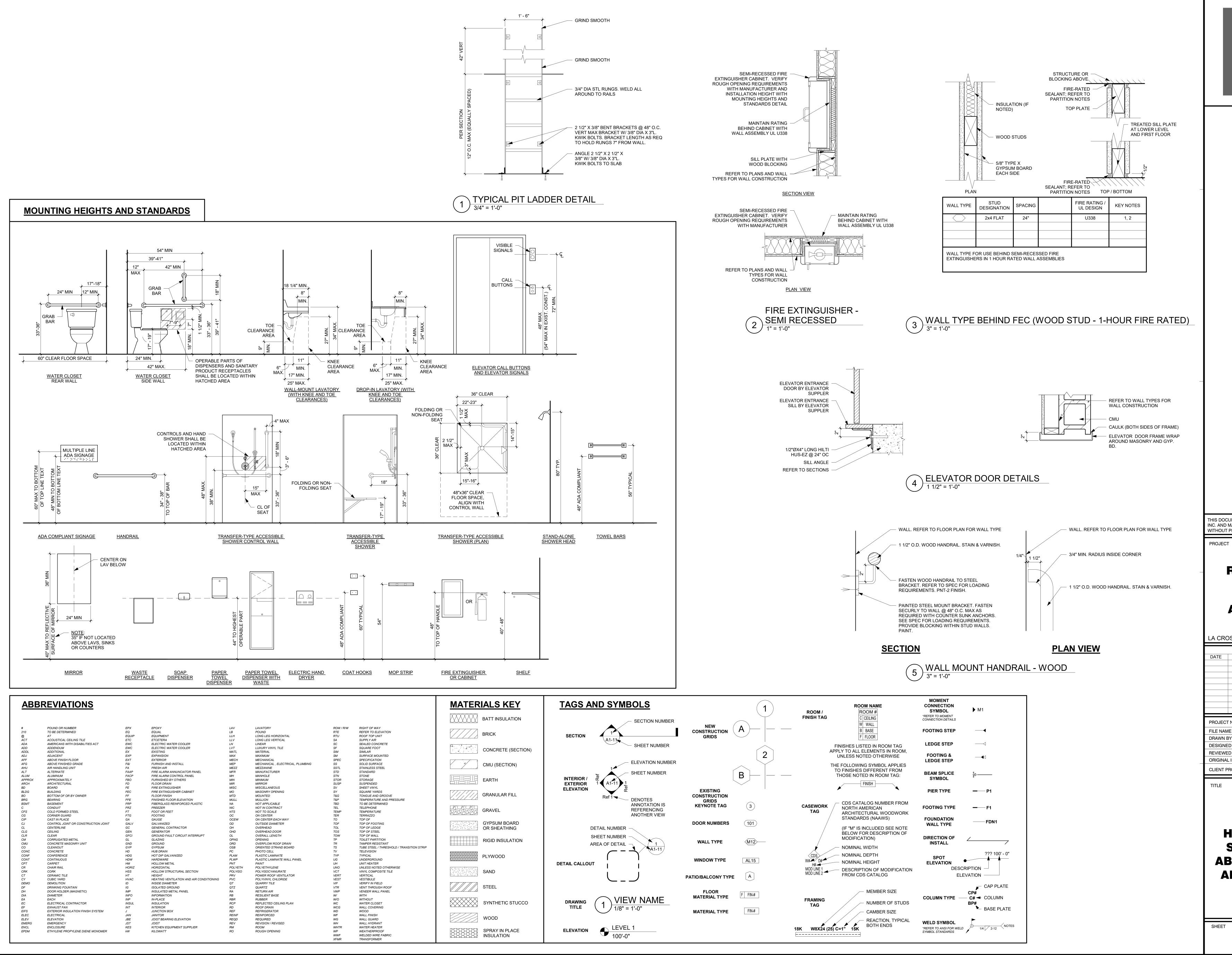




LA CROSSE OFFICE

201 MAIN STREET
SUITE 1020
LA CROSSE, WISCONSIN 54601
PHONE: 608.789.2034
PROJECT MANAGER: KEVIN BILLS

EMAIL: KEVIN.BILLS@ISGINC.COM



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> **5TH WARD RESIDENCES**

72 UNIT APARTMENT

BUILDING WISCONSIN LA CROSSE

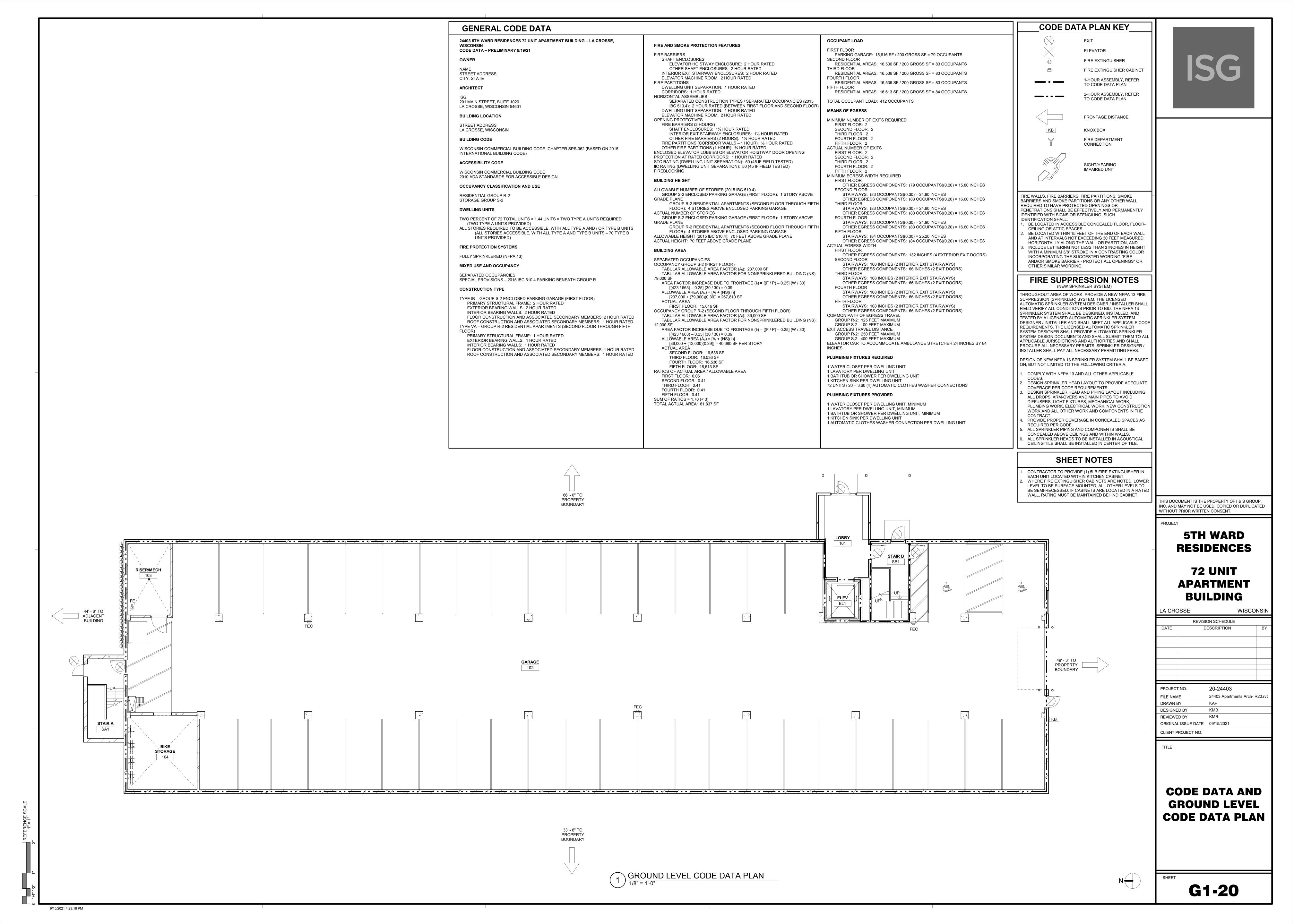
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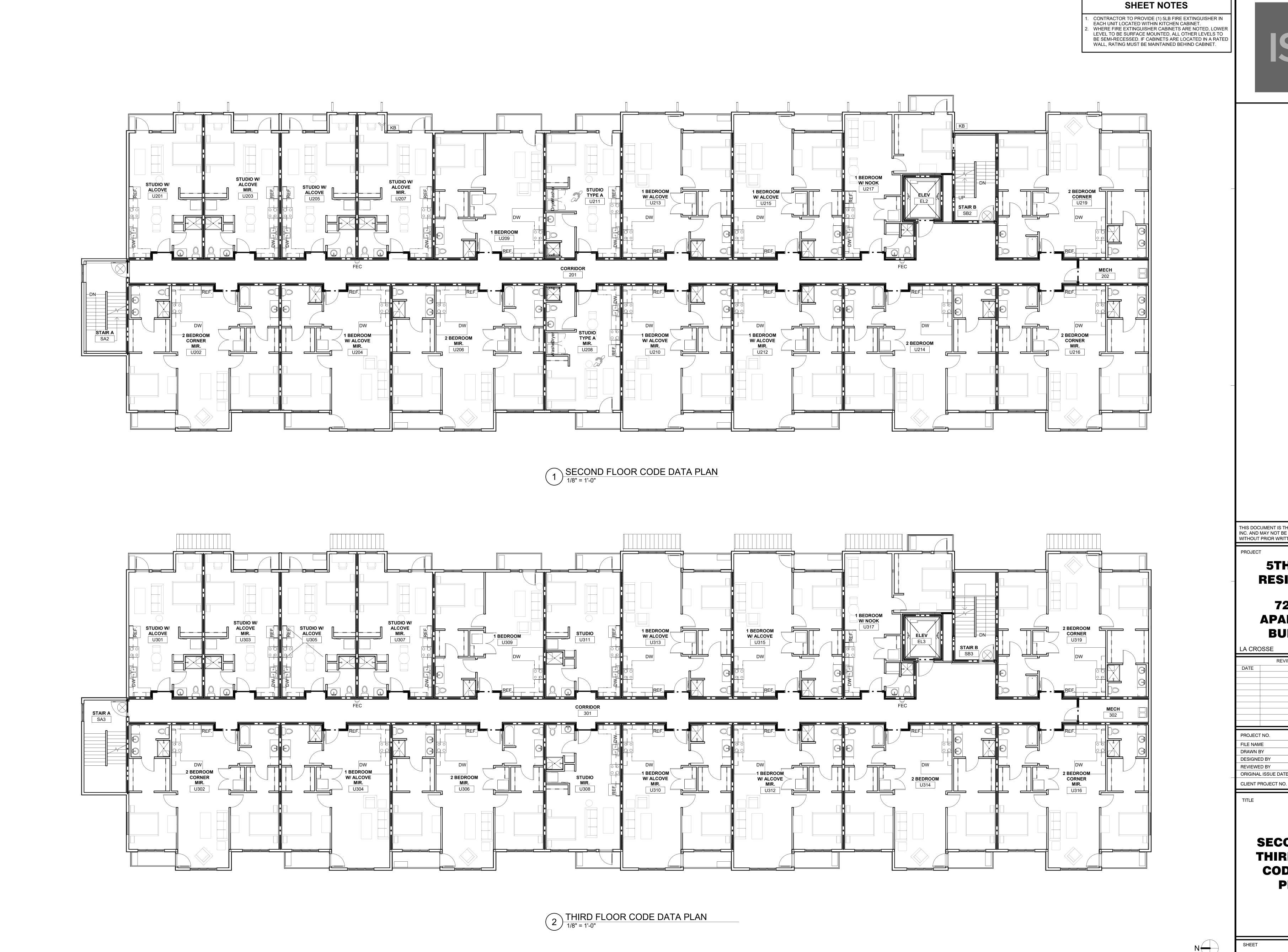
24403 Apartments Arch- R20.rv FILE NAME DRAWN BY KMB DESIGNED BY KMB REVIEWED BY ORIGINAL ISSUE DATE 09/15/2021 CLIENT PROJECT NO.

TITLE

MOUNTING HEIGHTS AND STANDARDS, **ABBREVIATIONS AND SYMBOLS**

G1-11





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5TH WARD RESIDENCES

72 UNIT
APARTMENT
BUILDING

REVISION SCHEDULE

DESCRIPTION BY

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PROJECT NO. 20-24403

FILE NAME 24403 Apartments Arch- R20.rvt

DRAWN BY KAP

DESIGNED BY KMB

REVIEWED BY KMB

ORIGINAL ISSUE DATE 09/15/2021

SECOND AND THIRD FLOOR CODE DATA PLANS

G1-21



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5TH WARD RESIDENCES

72 UNIT
APARTMENT
BUILDING

ROSSE WISCONSIN

20-24403

REVISION SCHEDULE

DATE DESCRIPTION BY

FILE NAME

24403 Apartments Arch- R20.rvt

DRAWN BY

KAP

DESIGNED BY

KMB

REVIEWED BY

ORIGINAL ISSUE DATE

09/15/2021

CLIENT PROJECT NO.

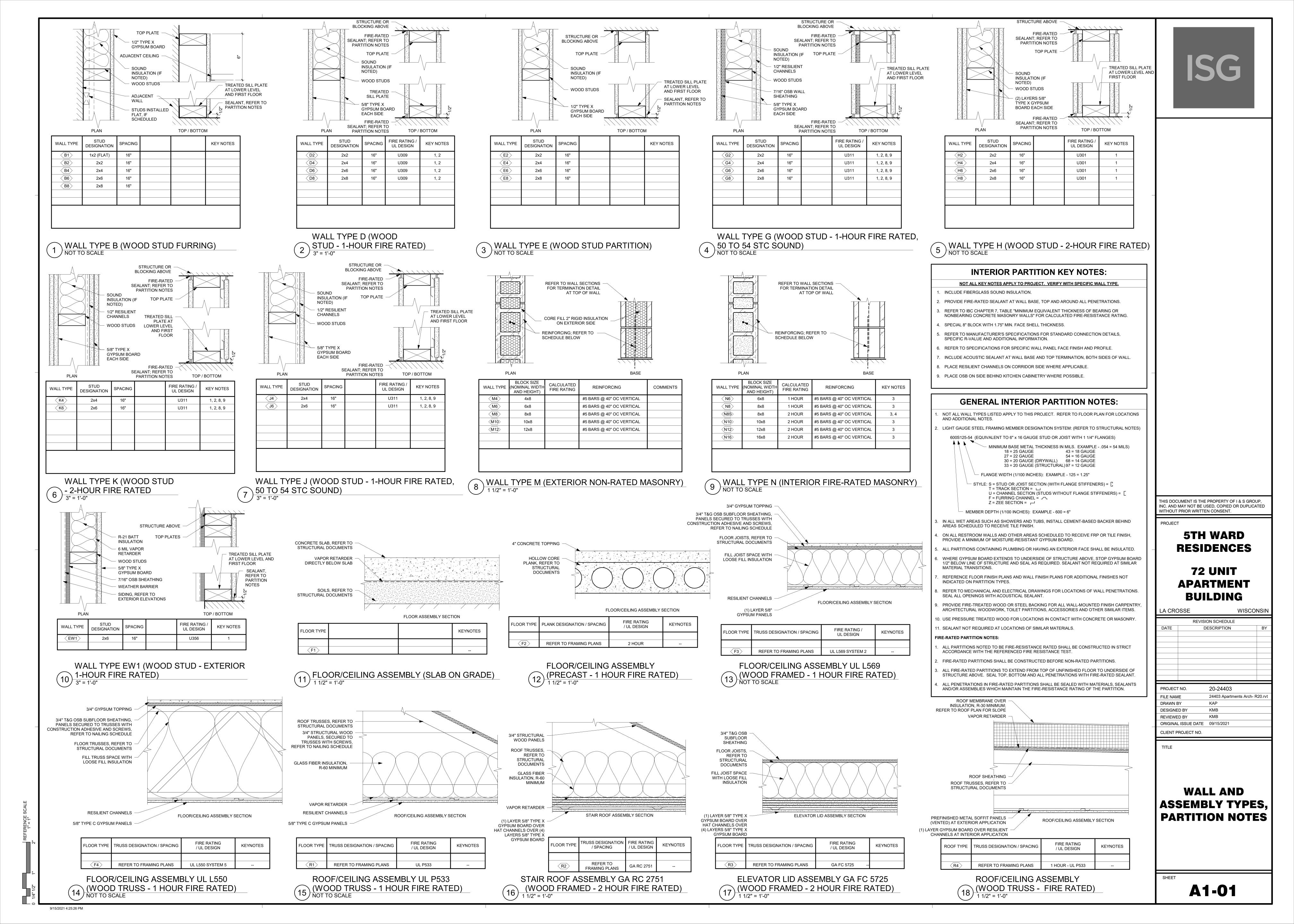
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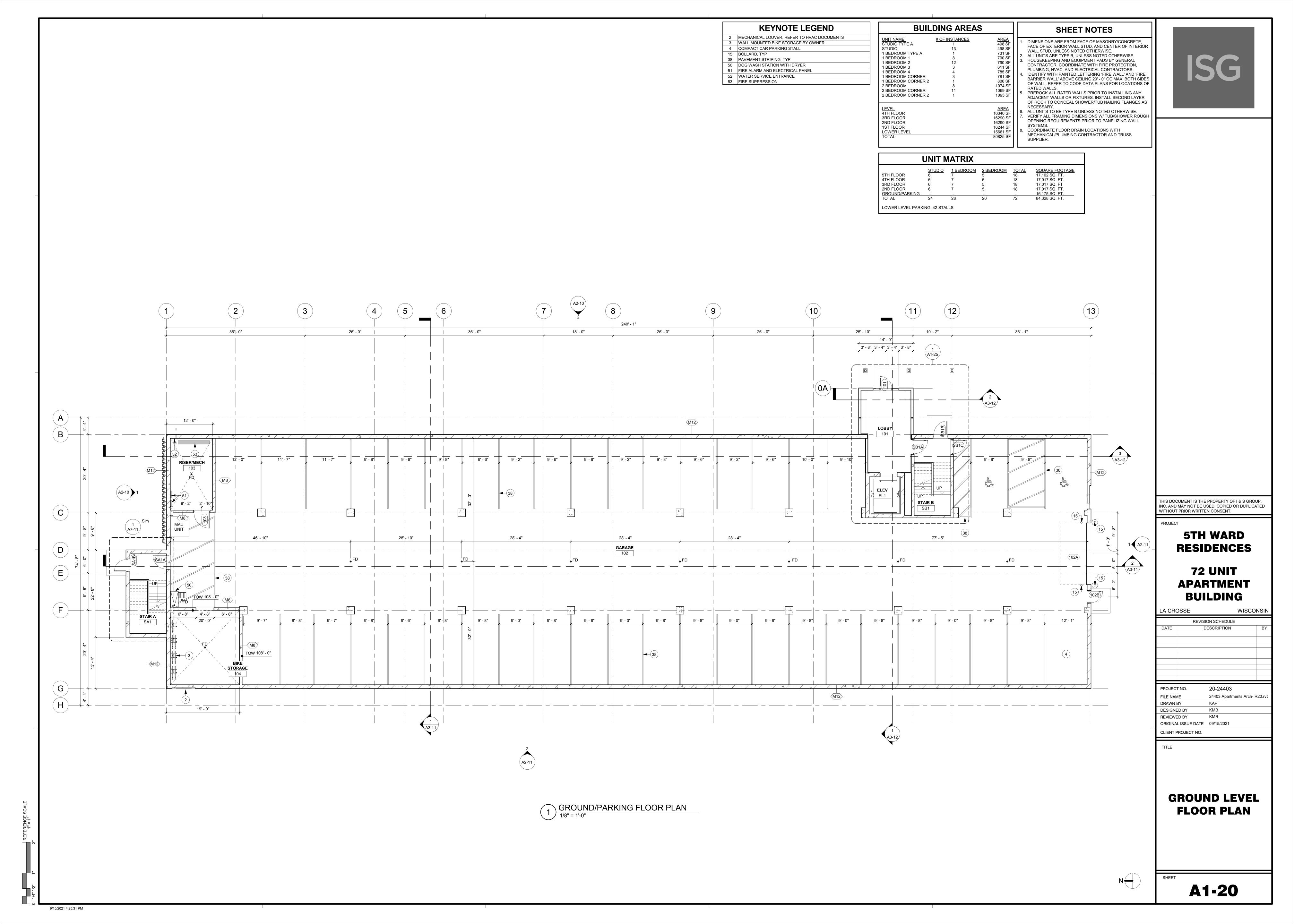
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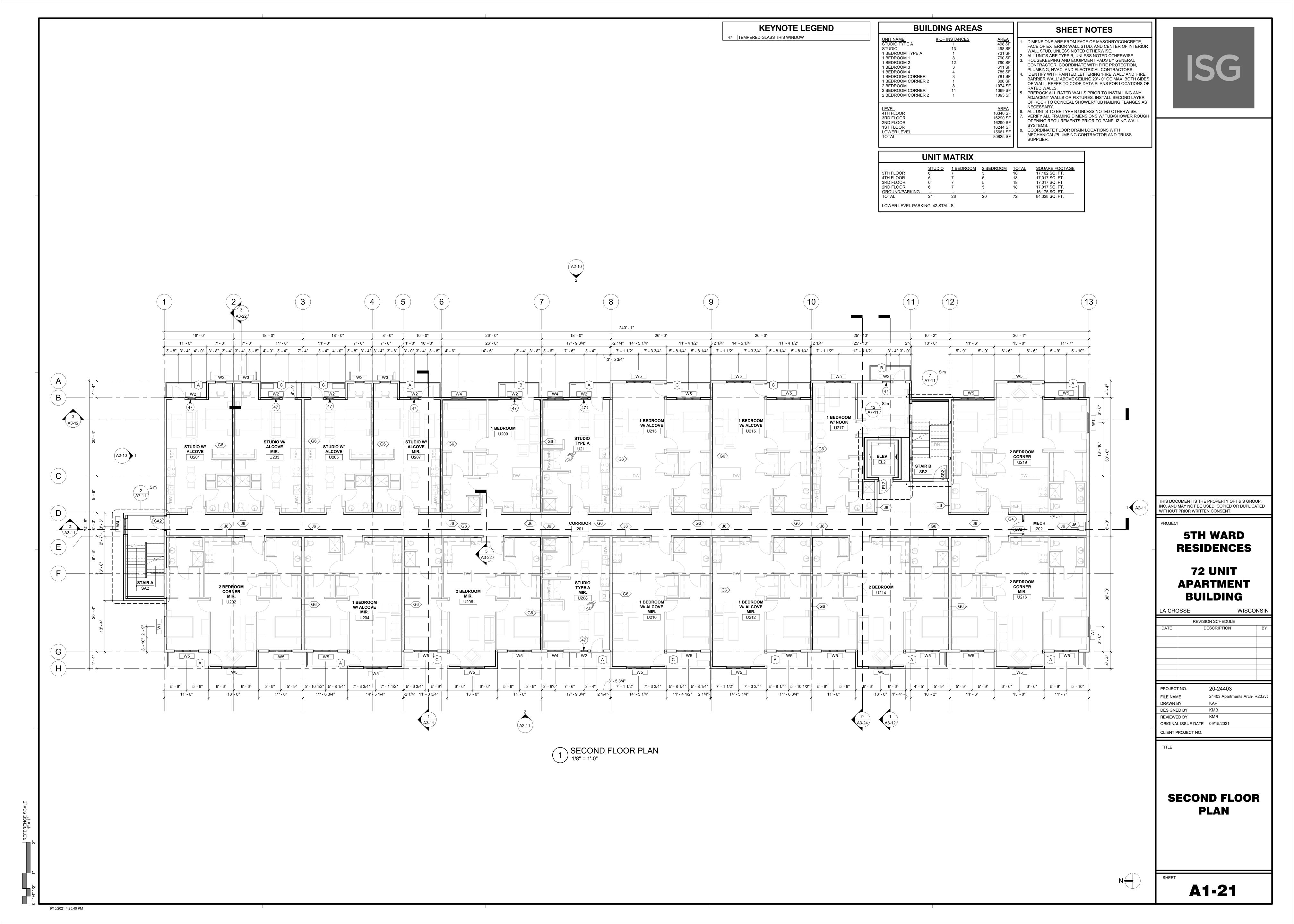
FOURTH AND FIFTH FLOOR CODE DATA PLANS

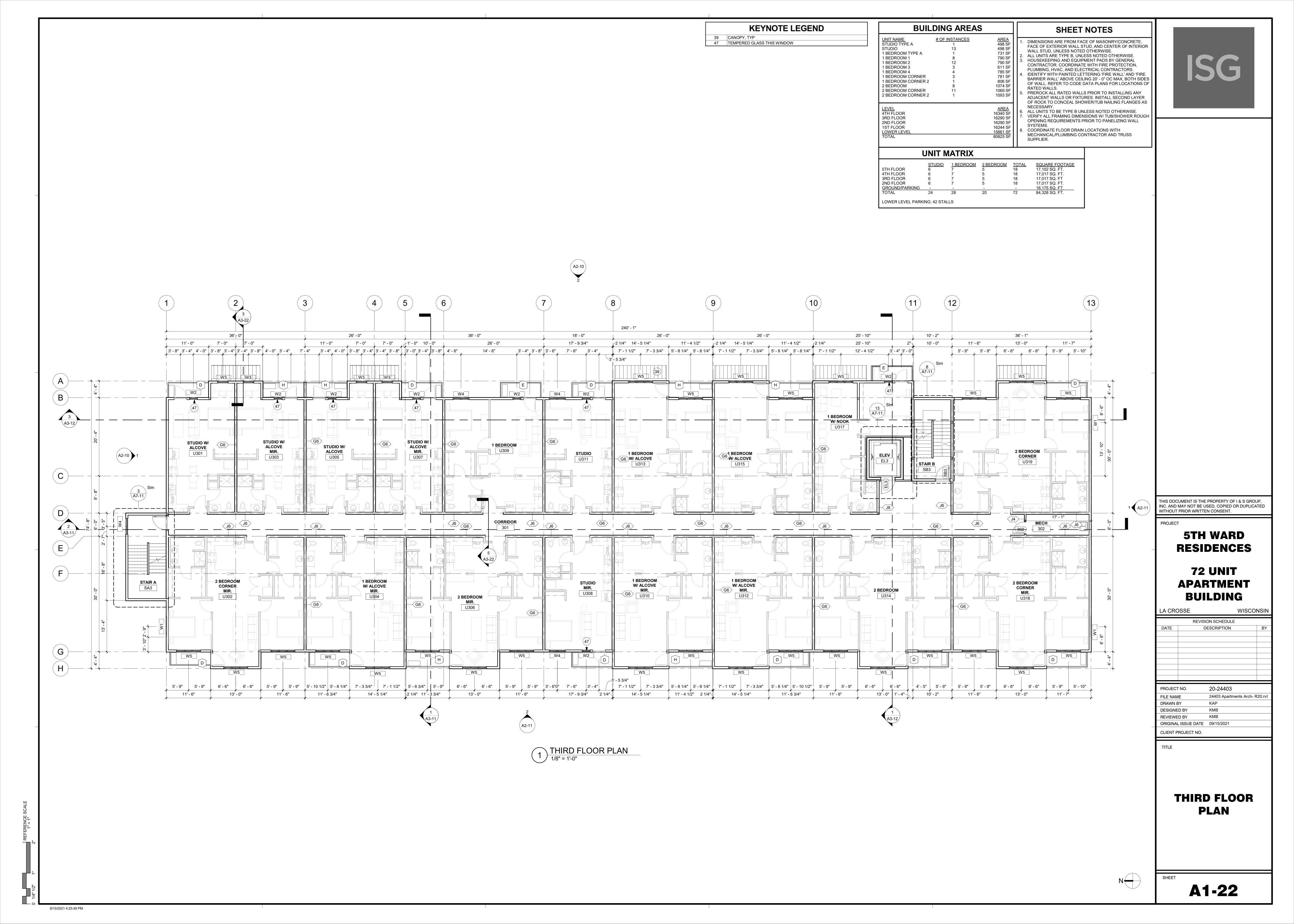
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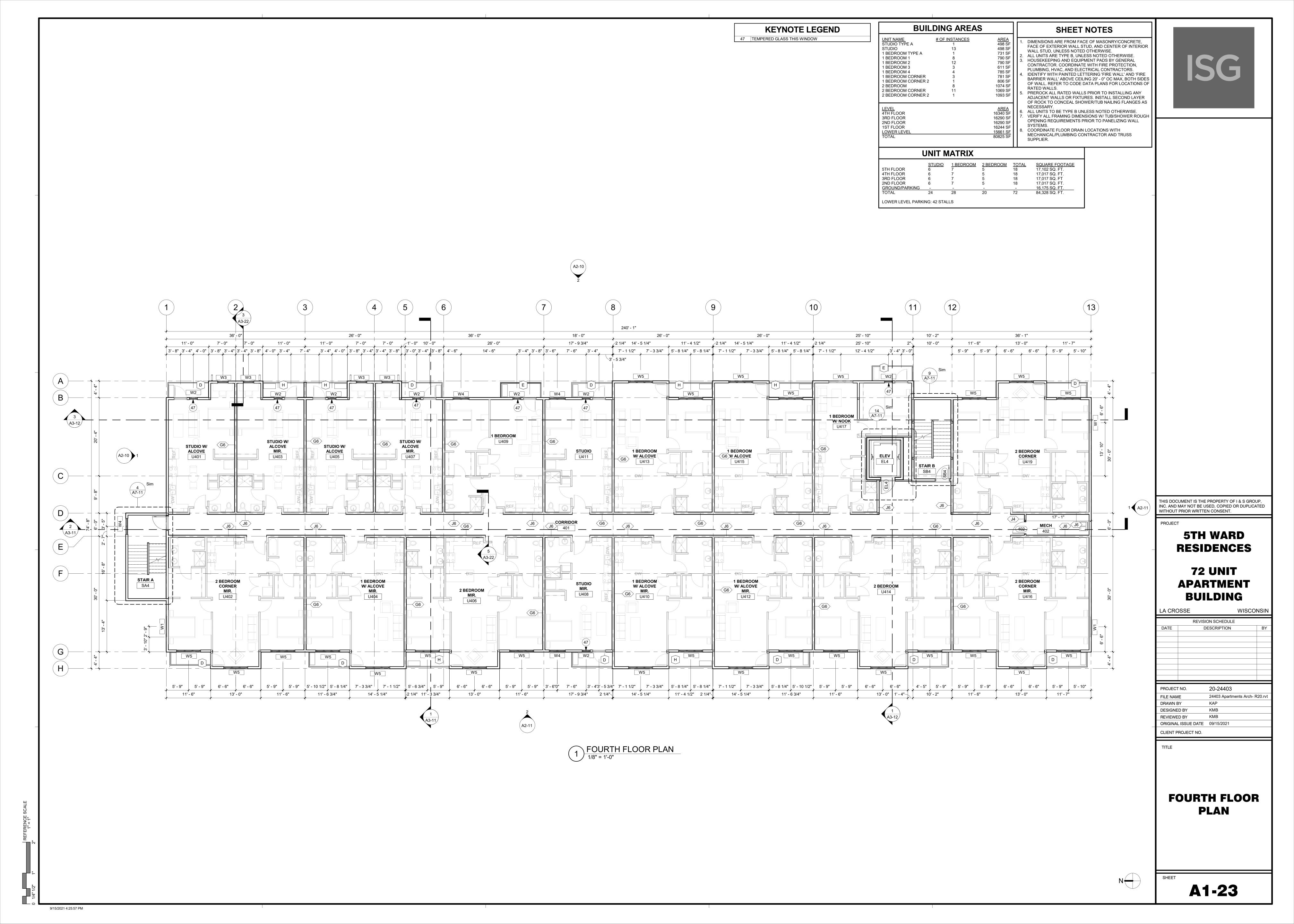
G1-22

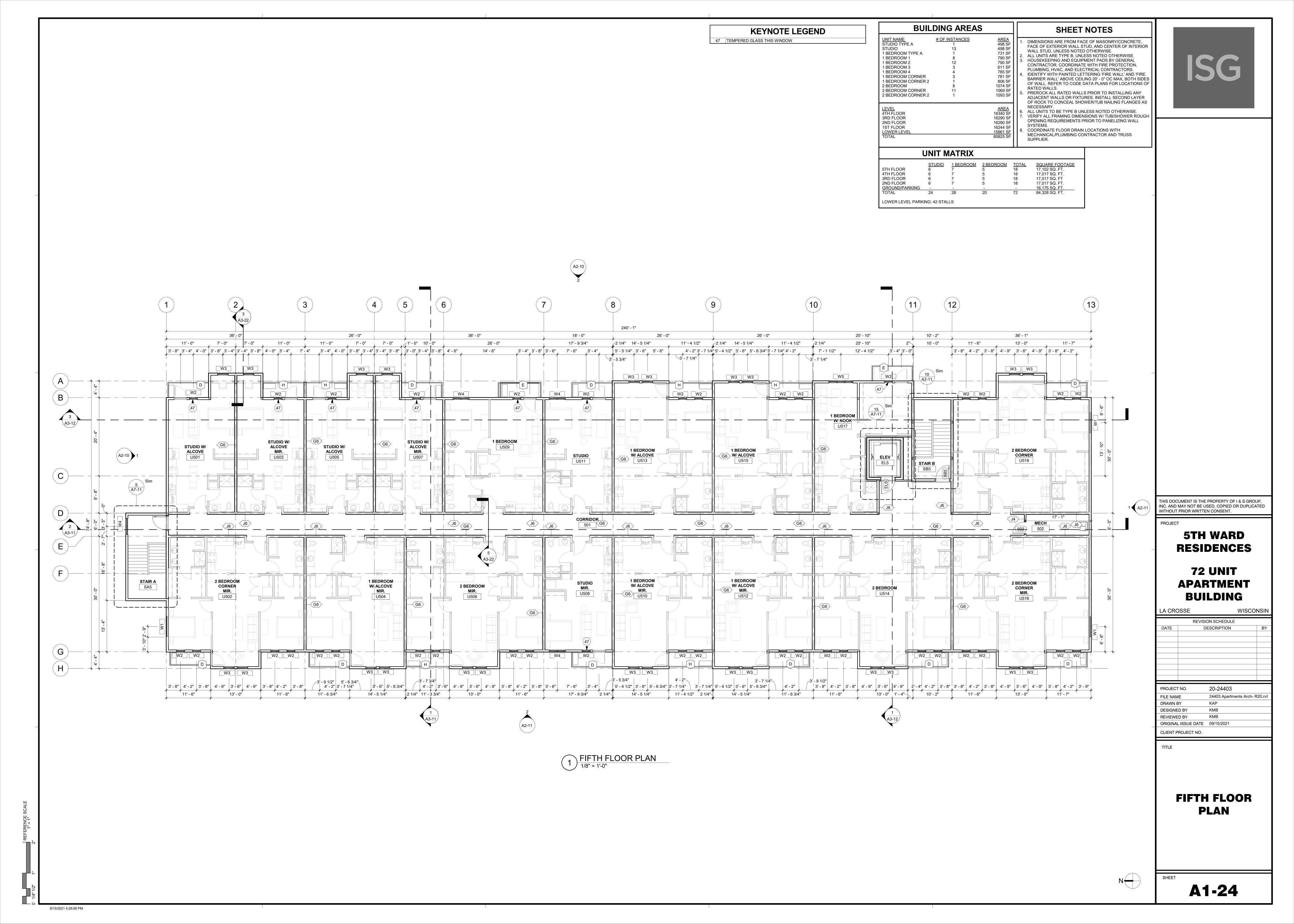


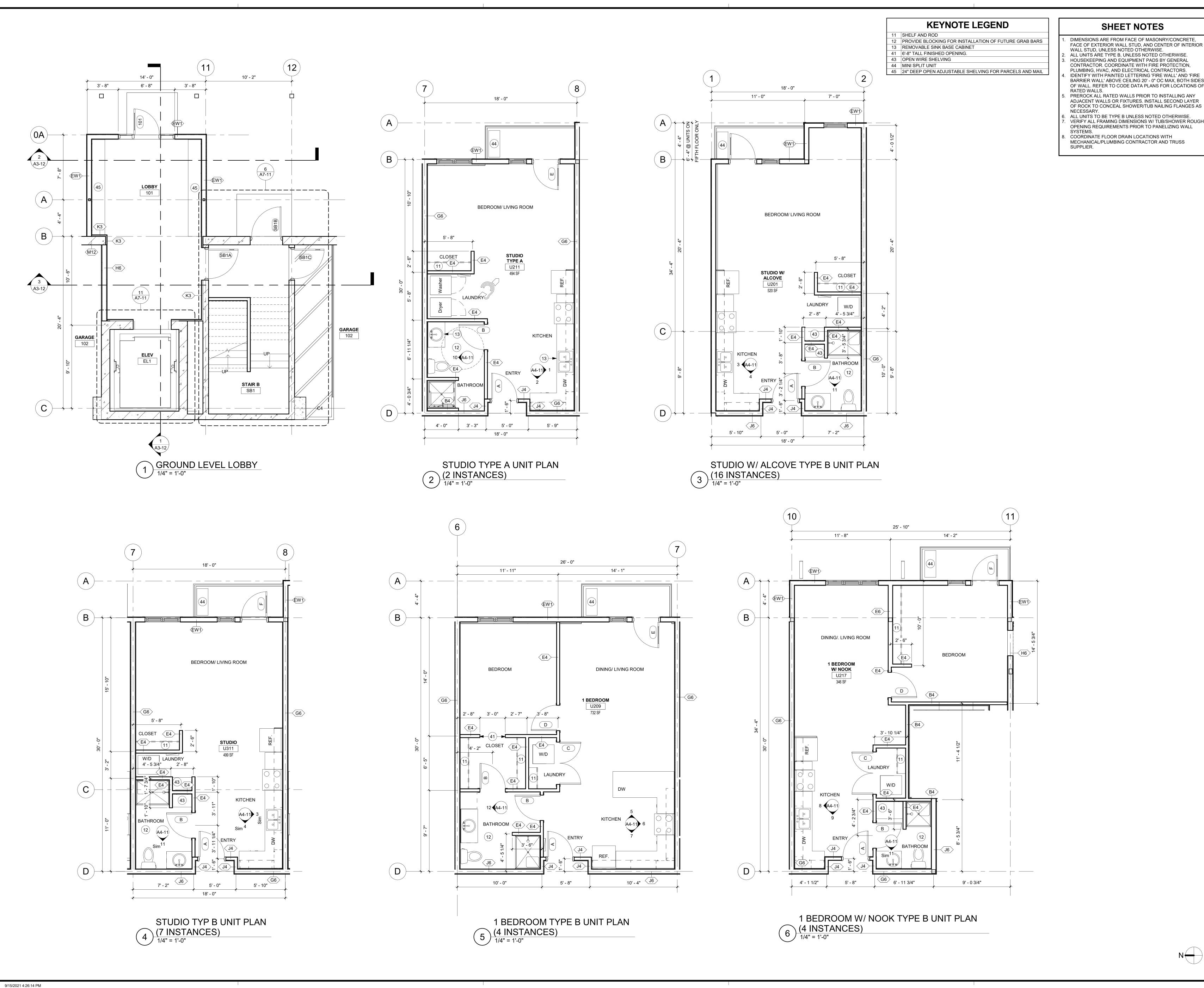












DIMENSIONS ARE FROM FACE OF MASONRY/CONCRETE, FACE OF EXTERIOR WALL STUD, AND CENTER OF INTERIOR WALL STUD, UNLESS NOTED OTHERWISE. ALL UNITS ARE TYPE B, UNLESS NOTED OTHERWISE.

HOUSEKEEPING AND EQUIPMENT PADS BY GENERAL CONTRACTOR. COORDINATE WITH FIRE PROTECTION, PLUMBING, HVAC, AND ELECTRICAL CONTRACTORS. IDENTIFY WITH PAINTED LETTERING 'FIRE WALL' AND 'FIRE BARRIER WALL' ABOVE CEILING 20' - 0" OC MAX, BOTH SIDES OF WALL. REFER TO CODE DATA PLANS FOR LOCATIONS OF PREROCK ALL RATED WALLS PRIOR TO INSTALLING ANY

ALL UNITS TO BE TYPE B UNLESS NOTED OTHERWISE. VERIFY ALL FRAMING DIMENSIONS W/ TUB/SHOWER ROUGH OPENING REQUIREMENTS PRIOR TO PANELIZING WALL

COORDINATE FLOOR DRAIN LOCATIONS WITH MECHANICAL/PLUMBING CONTRACTOR AND TRUSS

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5TH WARD RESIDENCES

72 UNIT APARTMENT BUILDING

WISCONSIN

REVISION SCHEDULE DESCRIPTION PROJECT NO. 20-24403

24403 Apartments Arch- R20.rvi **DESIGNED BY** KMB KMB REVIEWED BY ORIGINAL ISSUE DATE 09/15/2021

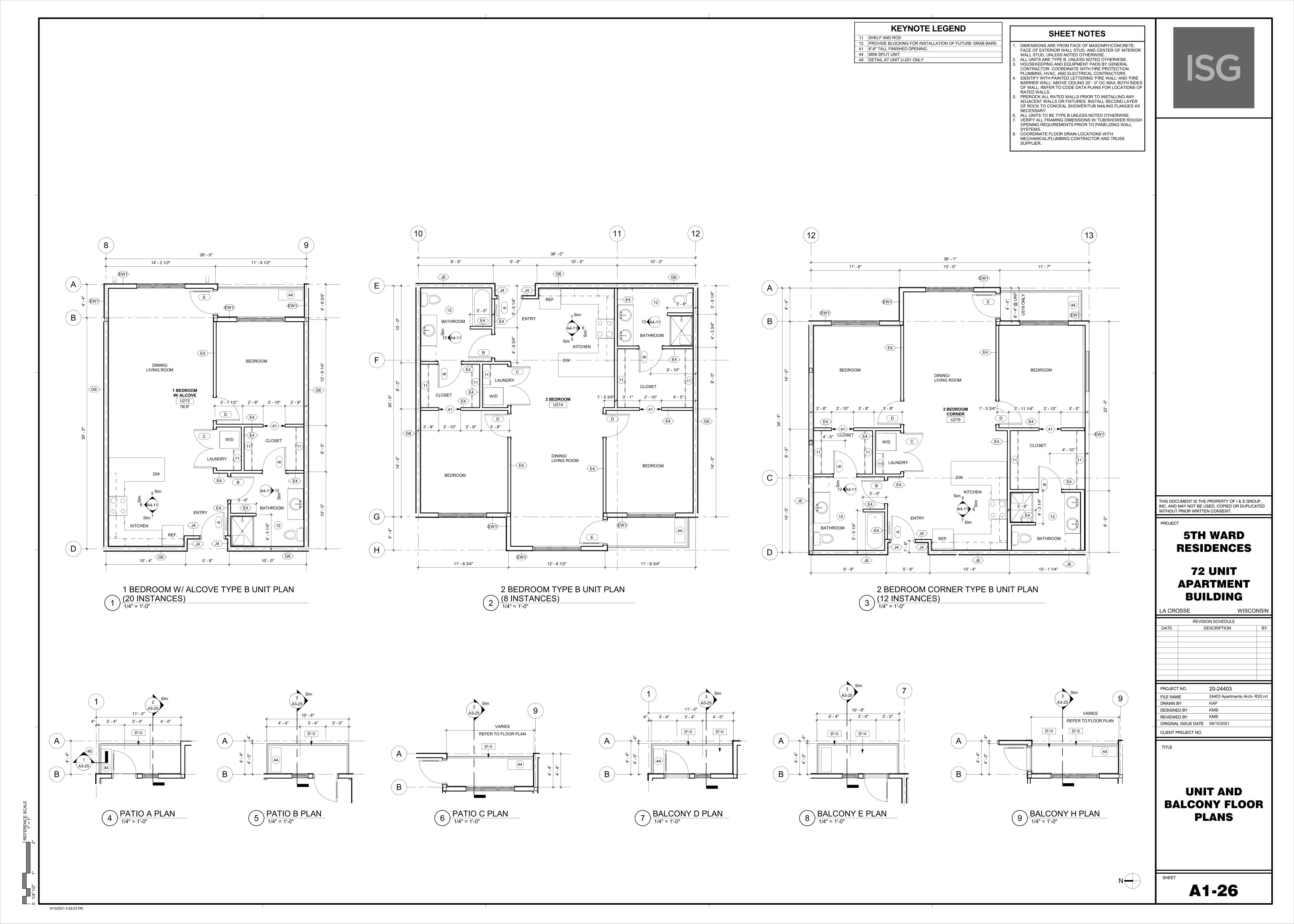
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UNIT FLOOR PLANS

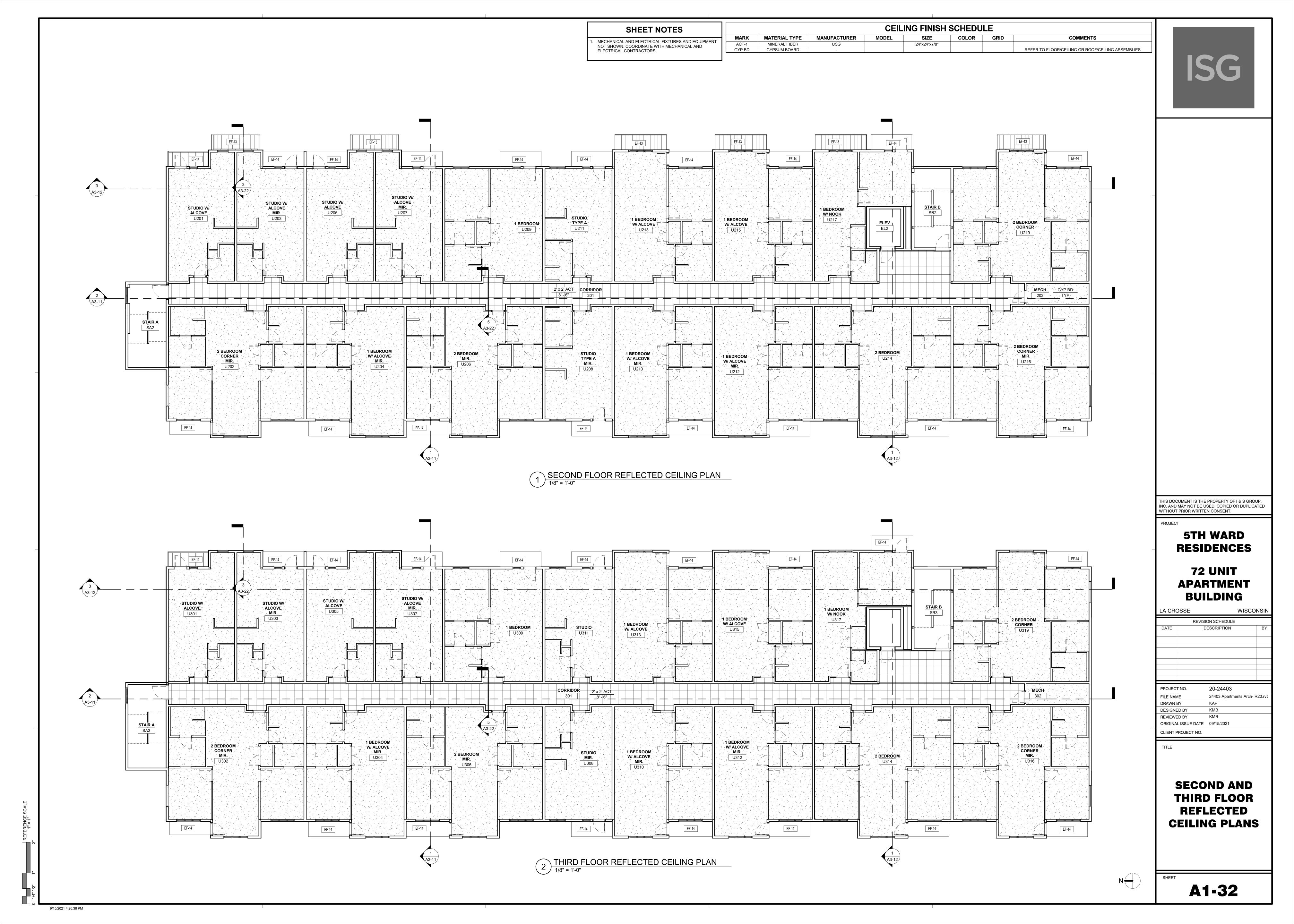
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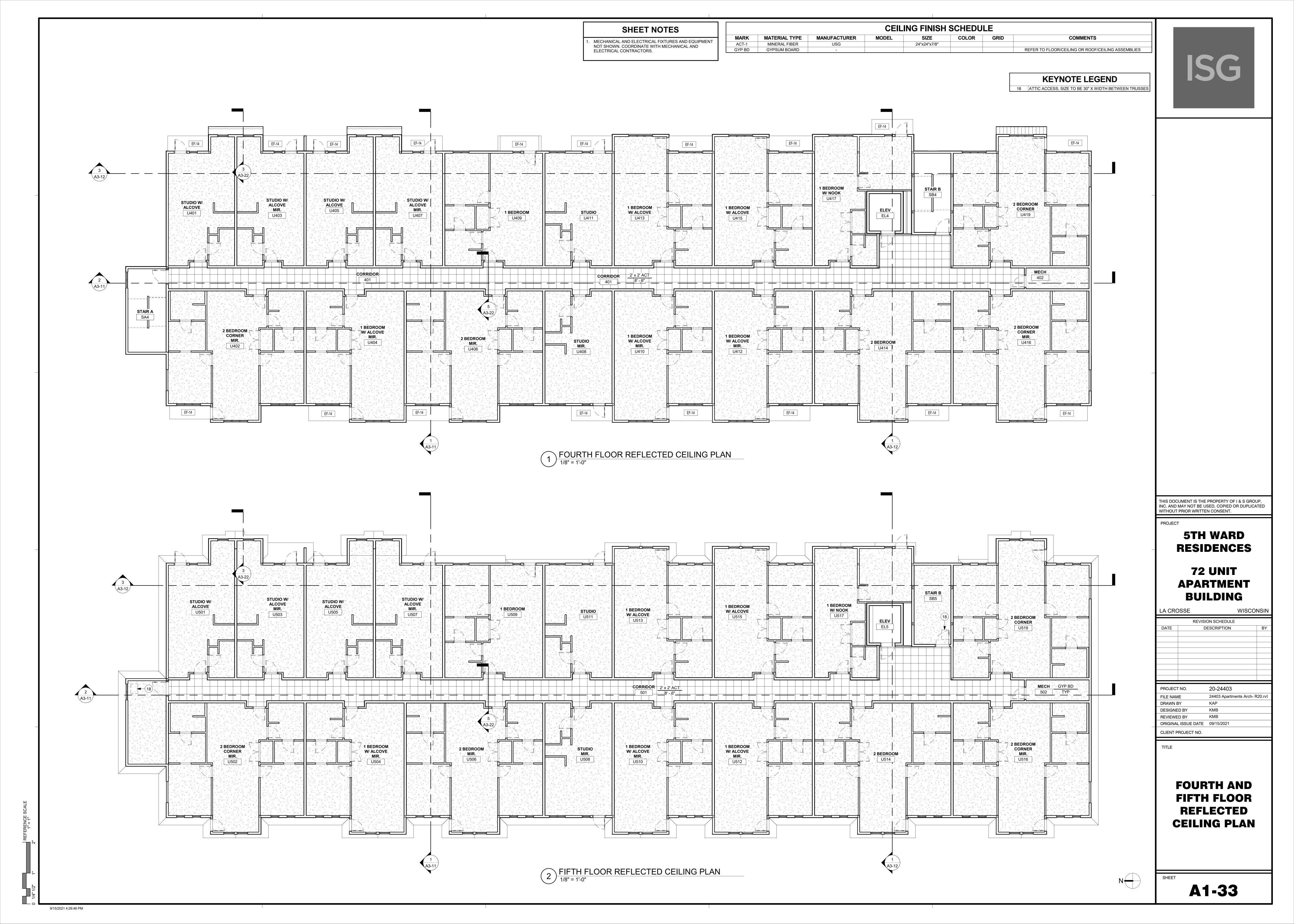
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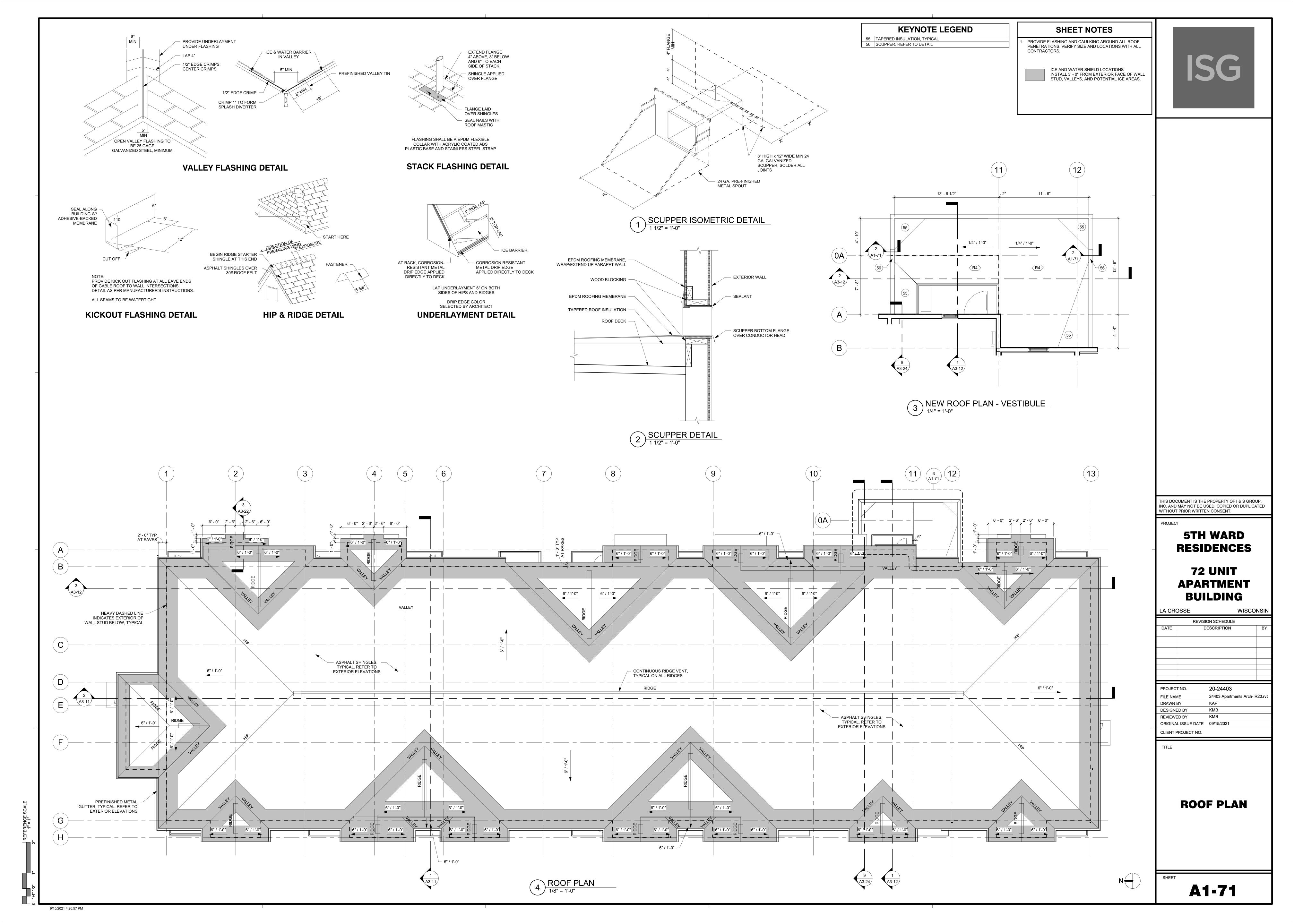


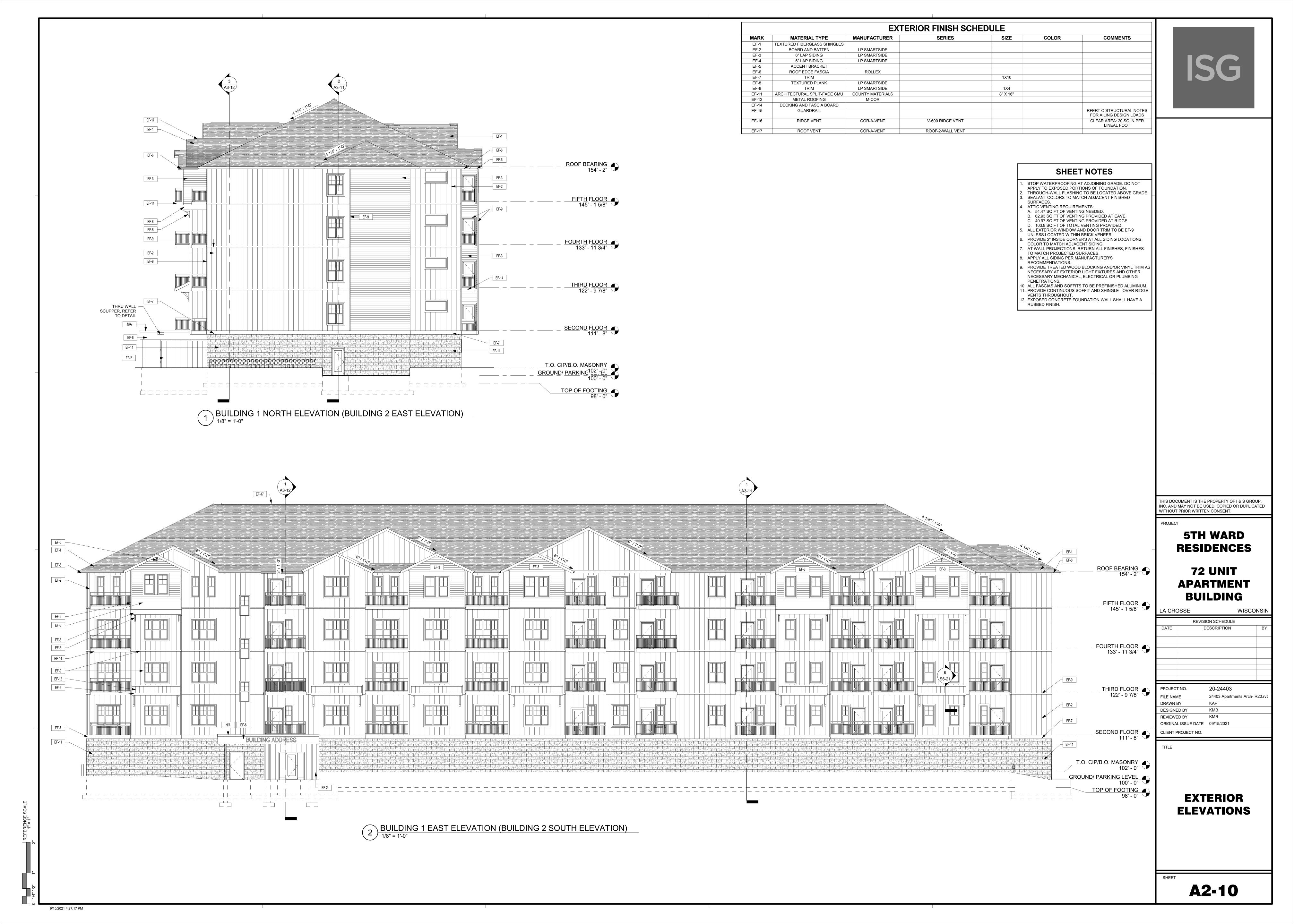
CEILING FINISH SCHEDULE SHEET NOTES SIZE COLOR COMMENTS MODEL MATERIAL TYPE MANUFACTURER MECHANICAL AND ELECTRICAL FIXTURES AND EQUIPMENT NOT SHOWN. COORDINATE WITH MECHANICAL AND ELECTRICAL CONTRACTORS. ACT-1 MINERAL FIBER 24"x24"x7/8" GYP BD REFER TO FLOOR/CEILING OR ROOF/CEILING ASSEMBLIES GYPSUM BOARD **KEYNOTE LEGEND** 25 EXPOSED STRUCTURE RISER/MECH THIS DOCUMENT IS THE PROPERTY OF I & S GROUP, INC. AND MAY NOT BE USED, COPIED OR DUPLICATED WITHOUT PRIOR WRITTEN CONSENT. **5TH WARD RESIDENCES 72 UNIT APARTMENT BUILDING** WISCONSIN LA CROSSE REVISION SCHEDULE DESCRIPTION STORAGE 20-24403 PROJECT NO. 24403 Apartments Arch- R20.rvt FILE NAME DRAWN BY DESIGNED BY KMB REVIEWED BY ORIGINAL ISSUE DATE 09/15/2021 CLIENT PROJECT NO. GROUND LEVEL REFLECTED CEILING PLAN

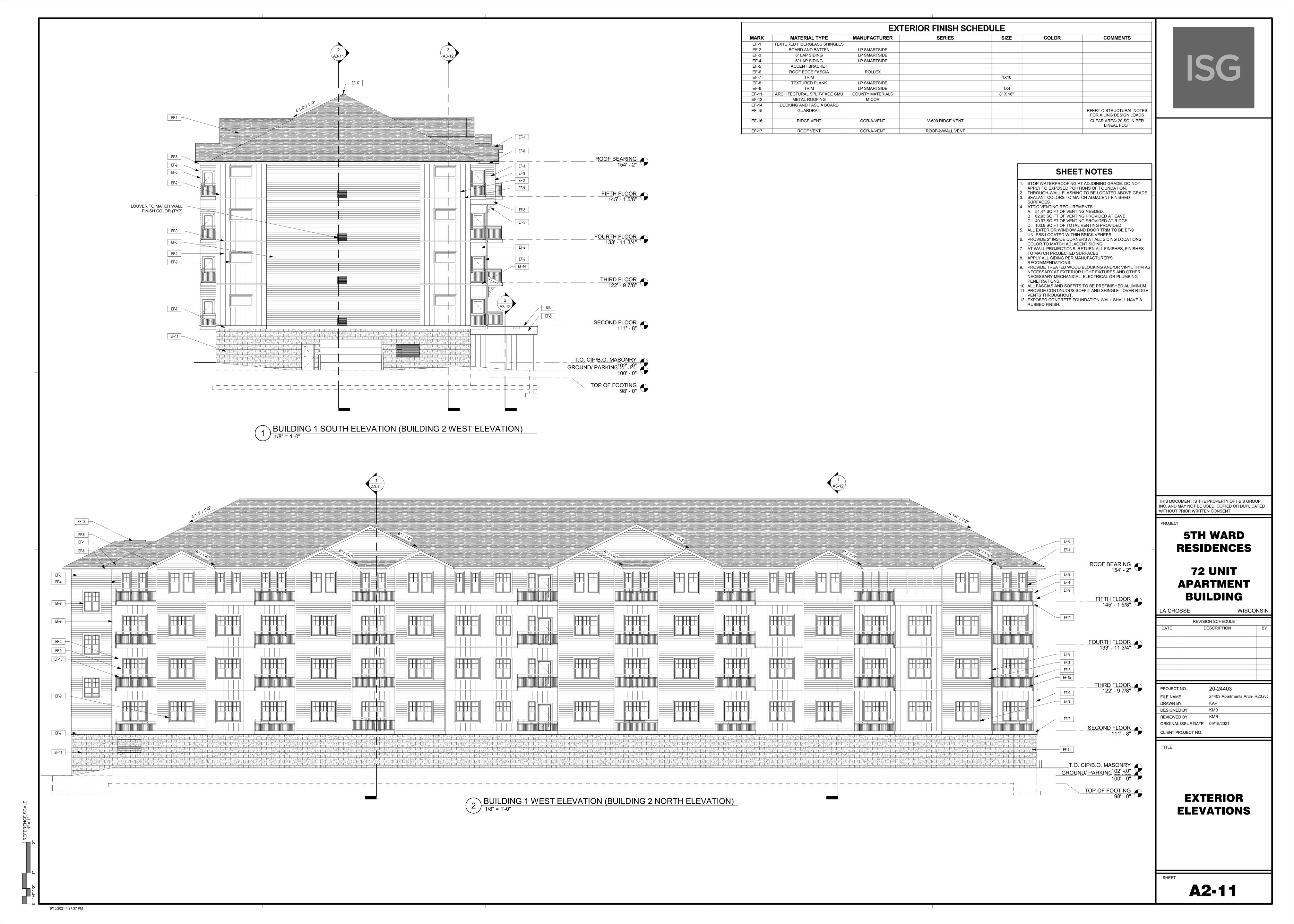
1/8" = 1'-0" TITLE **GROUND LEVEL** REFLECTED **CEILING PLAN** A1-31 9/15/2021 4:26:27 PM

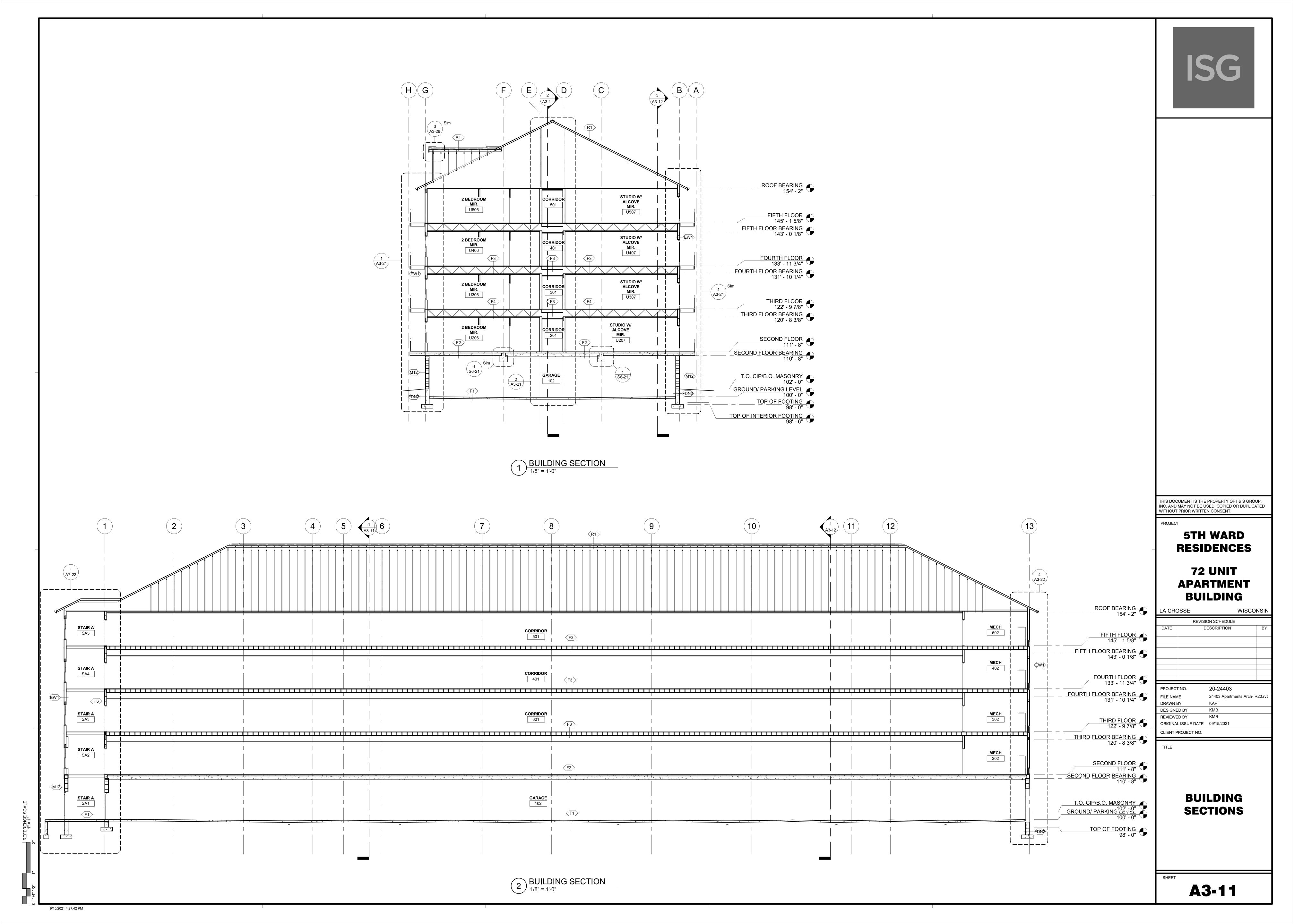


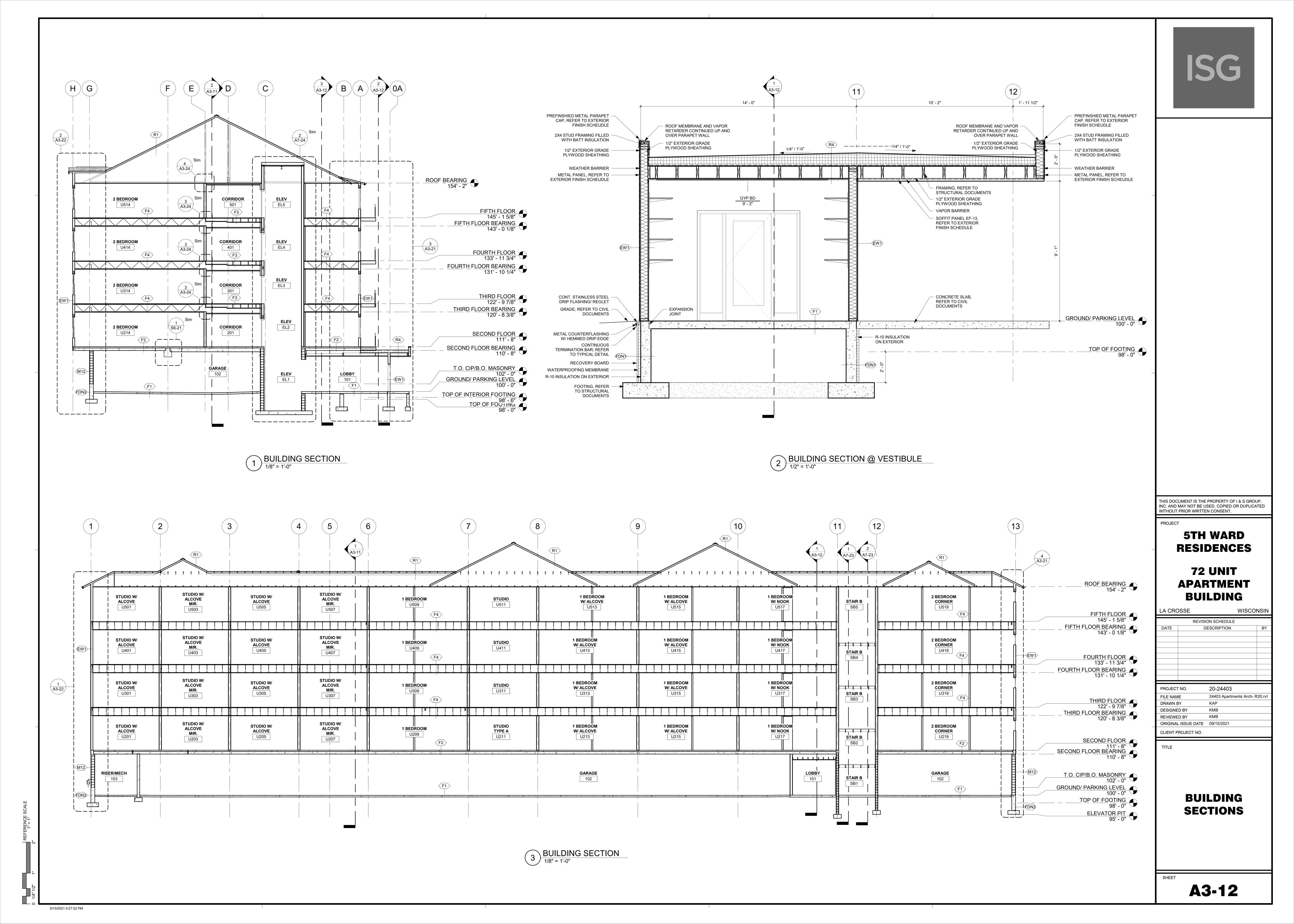


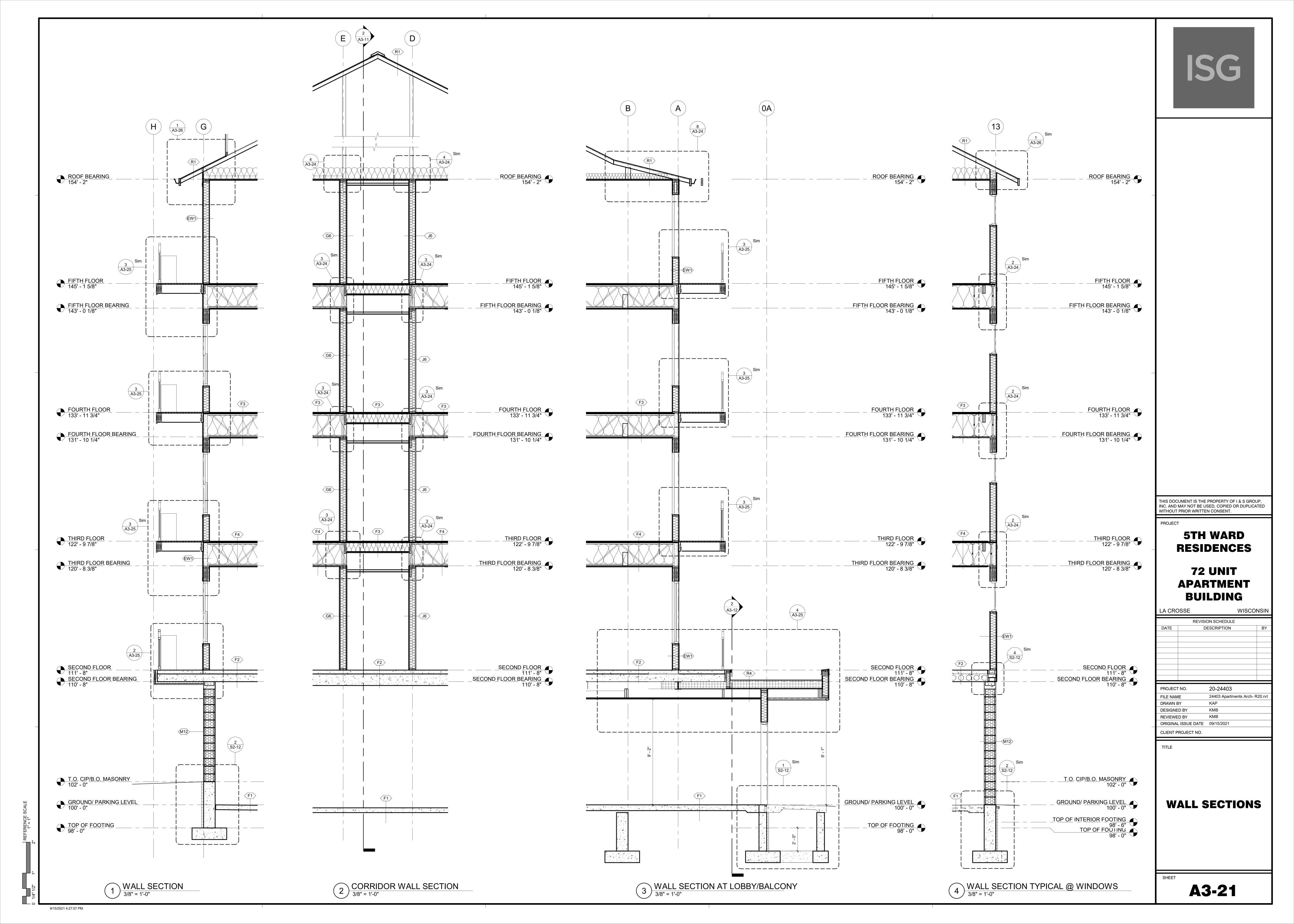


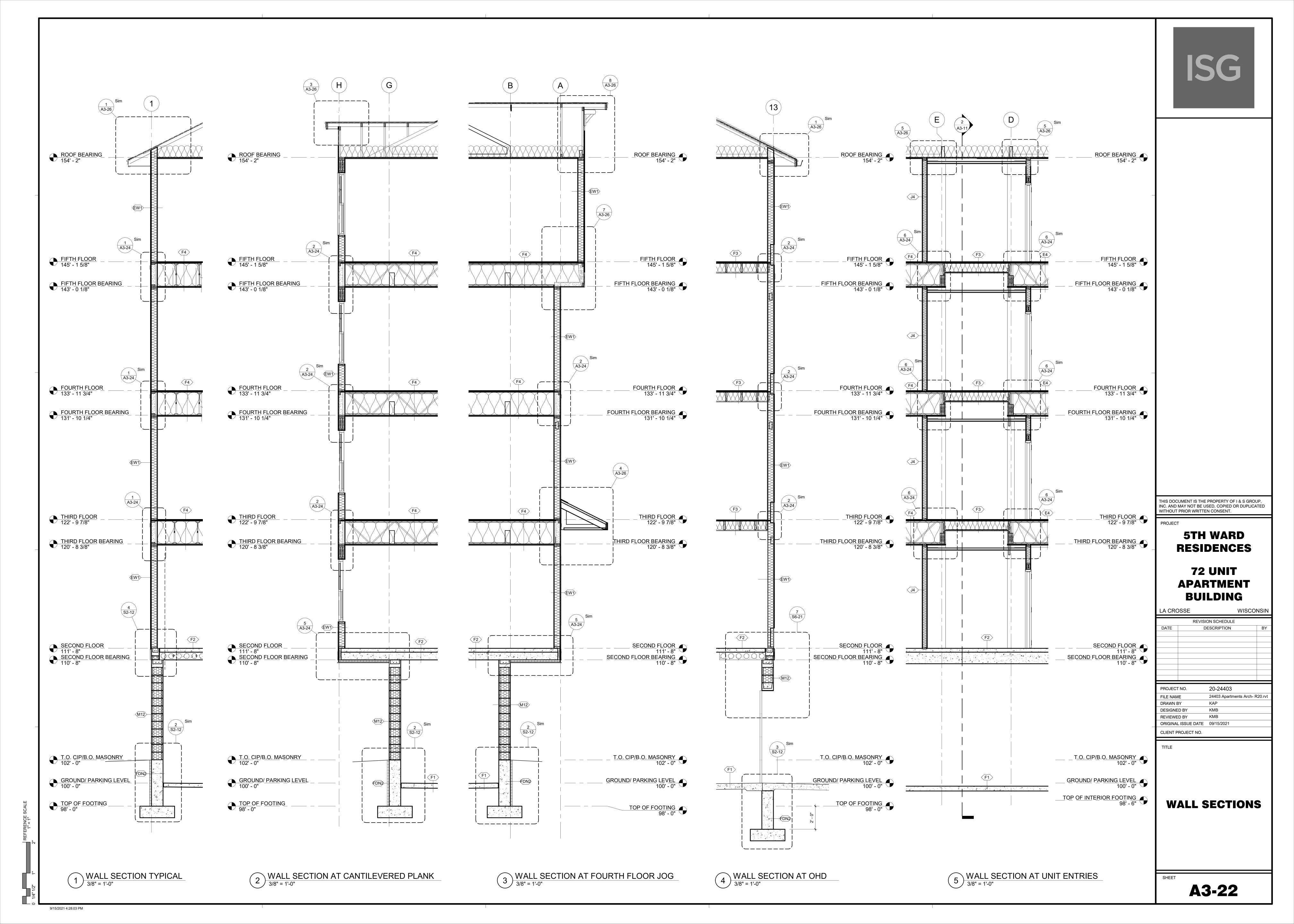


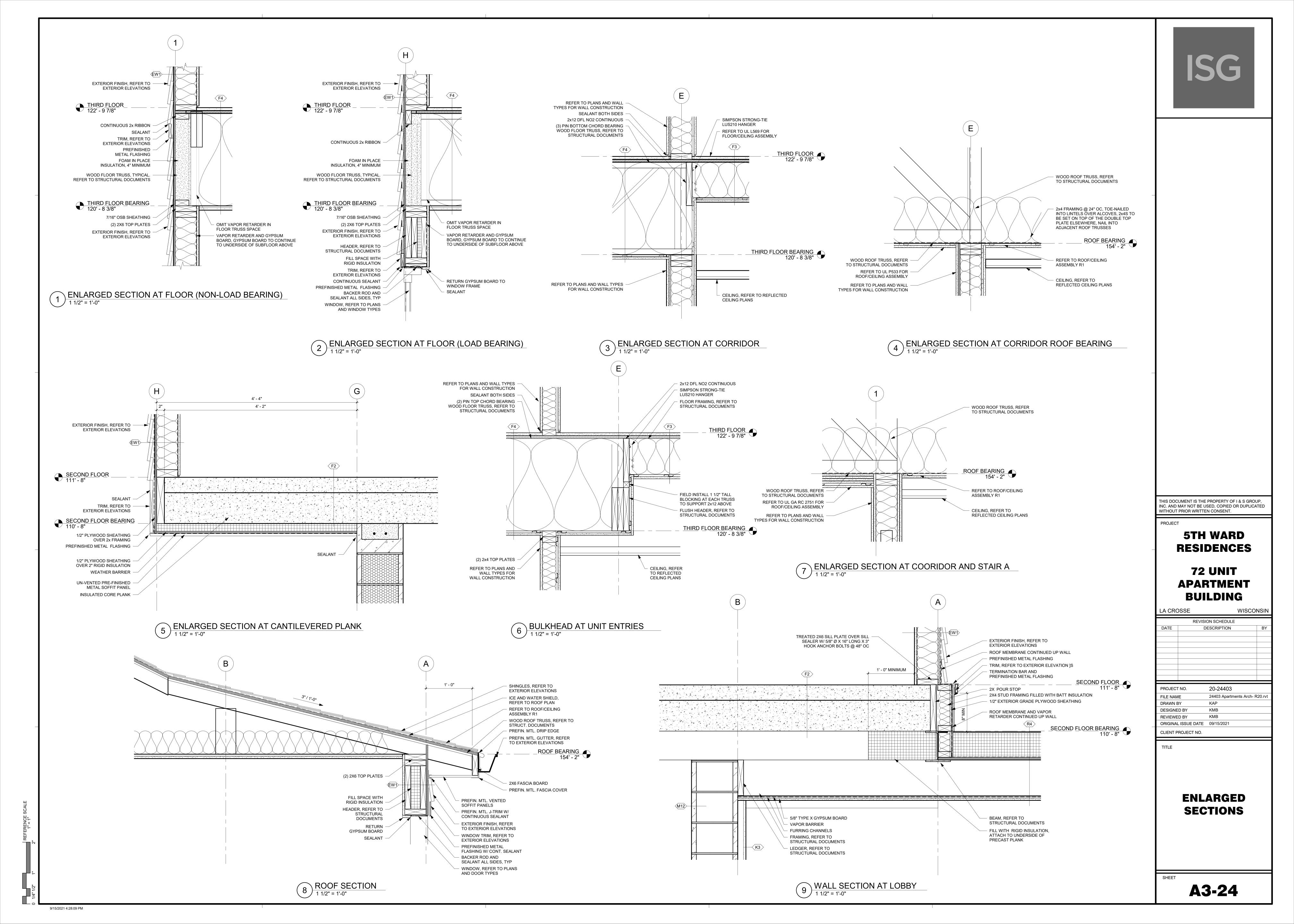


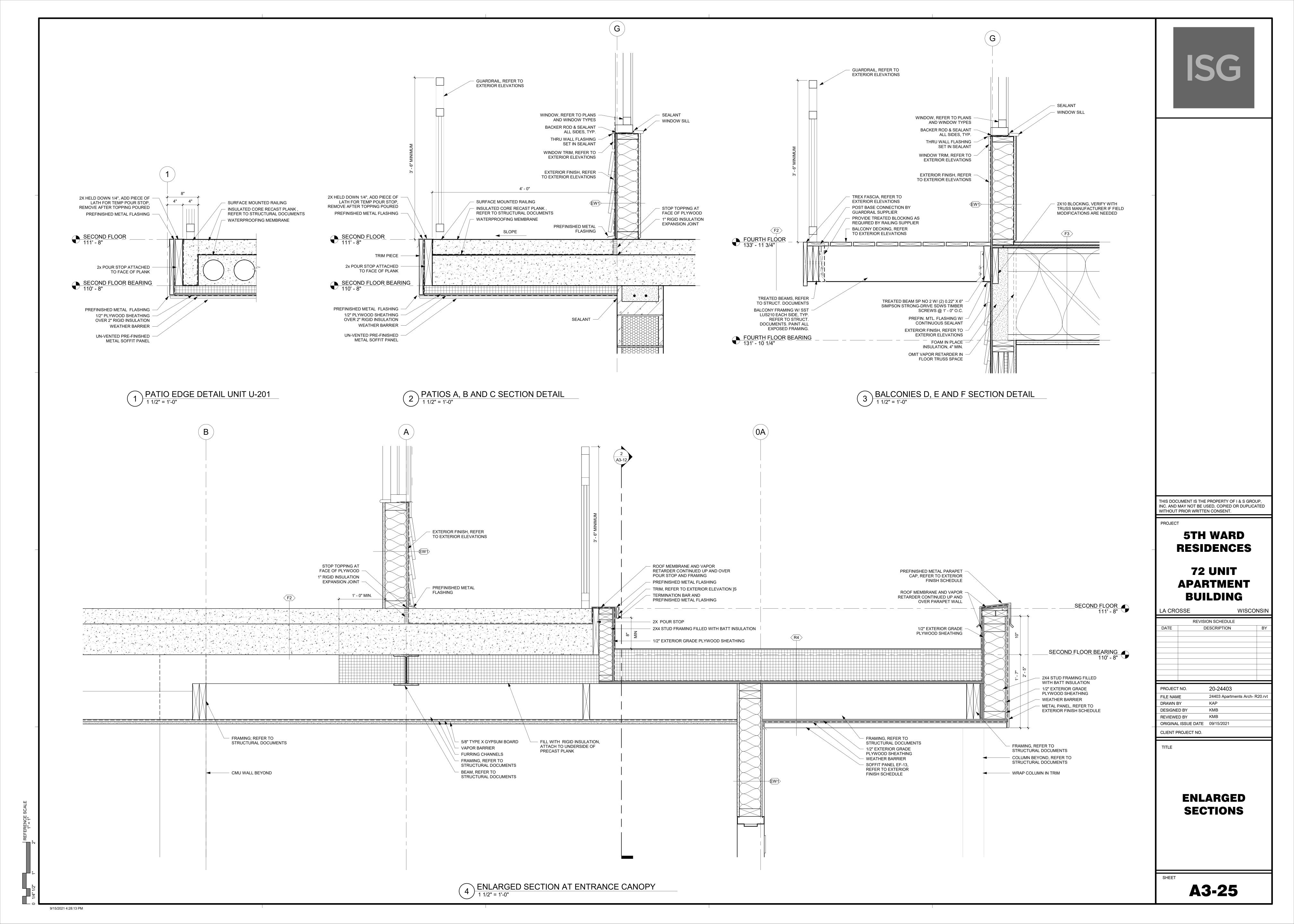


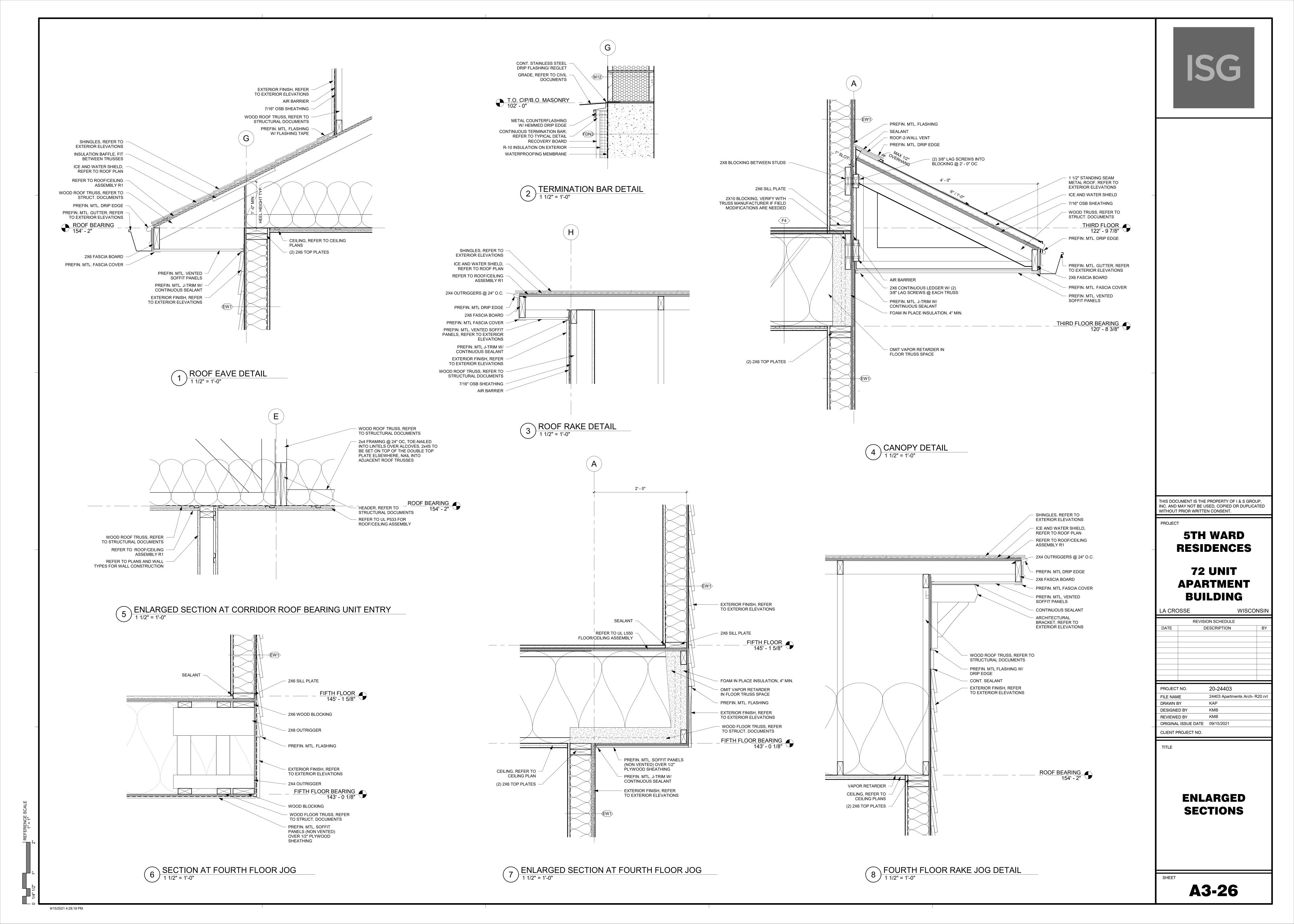


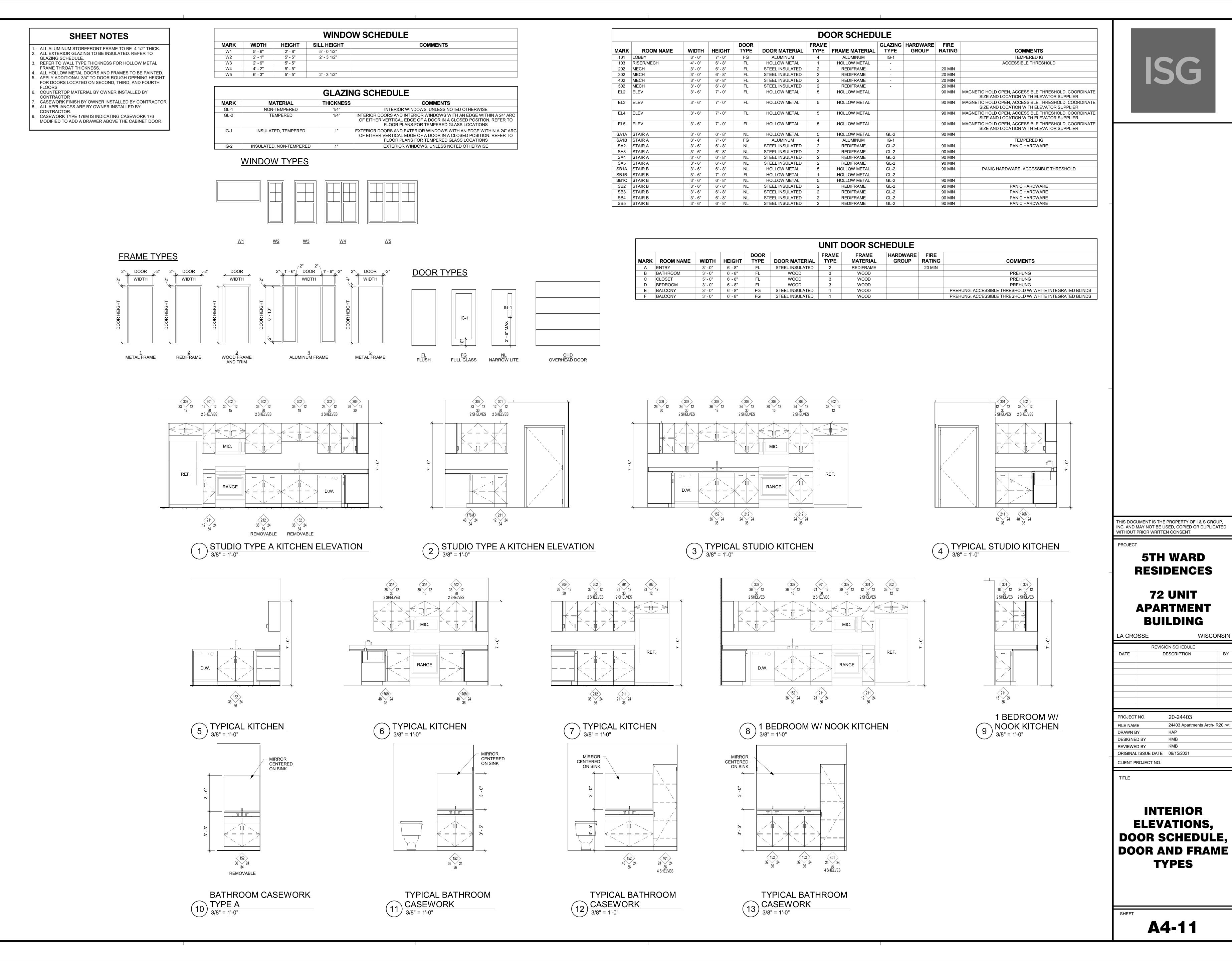












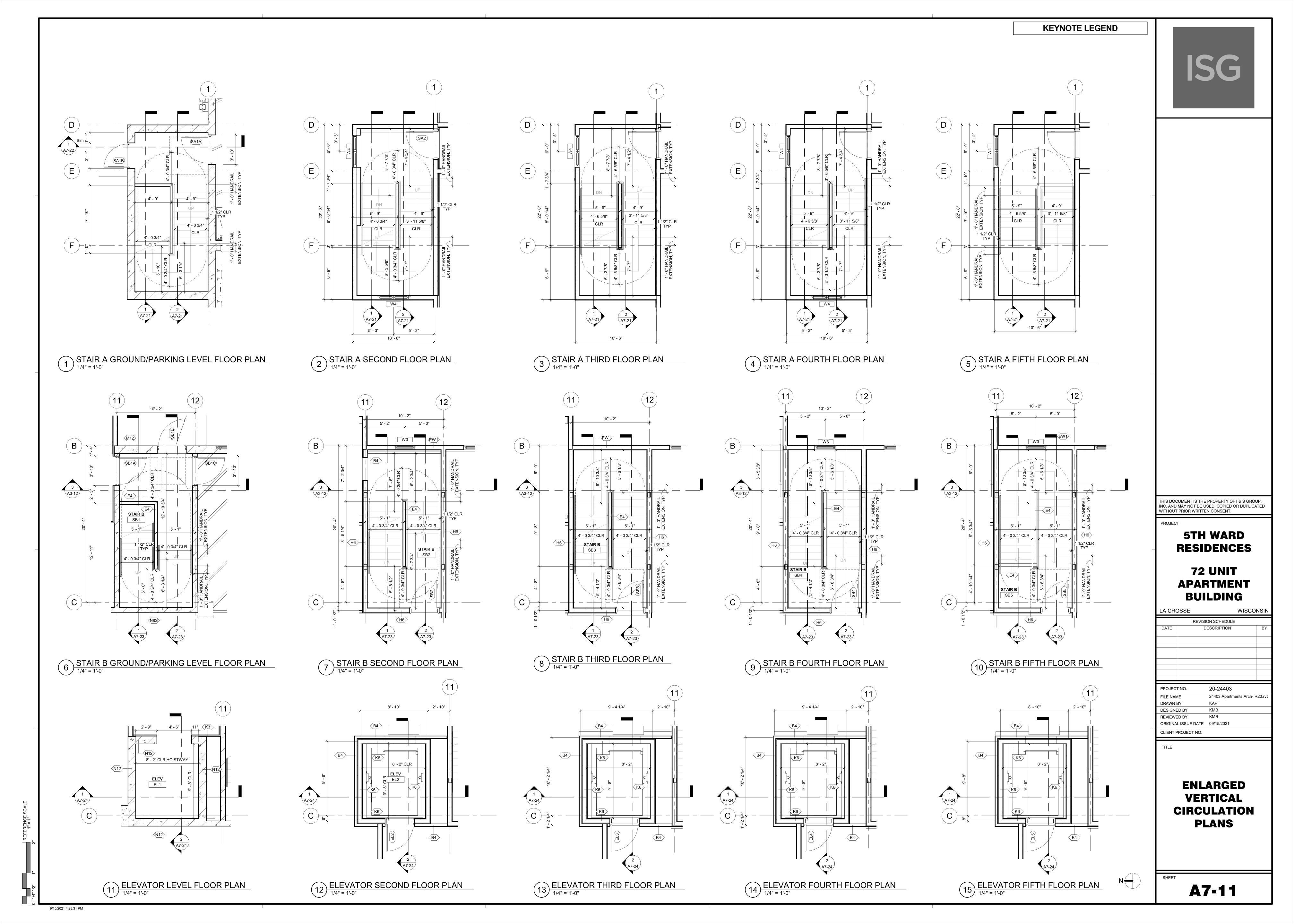
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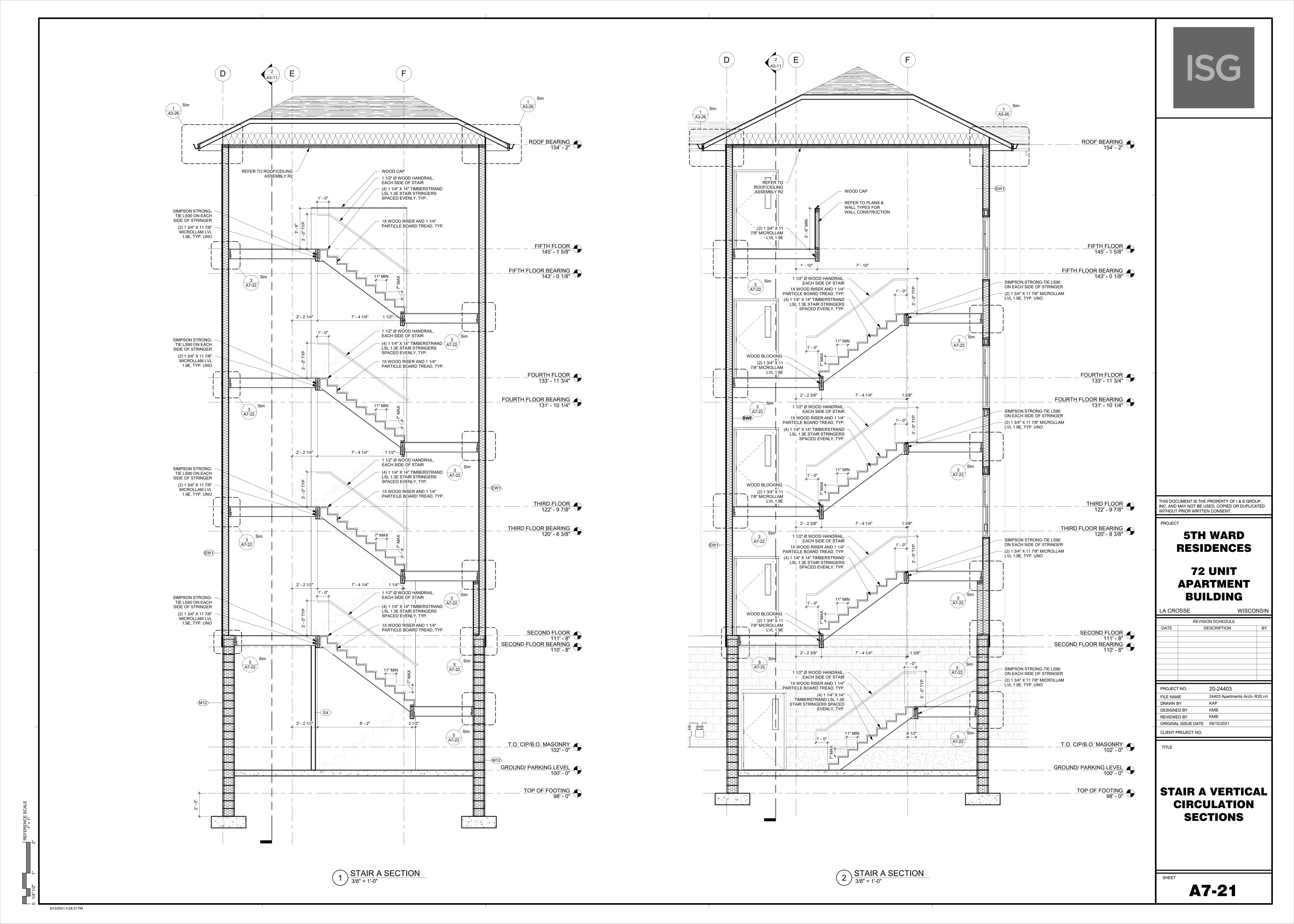
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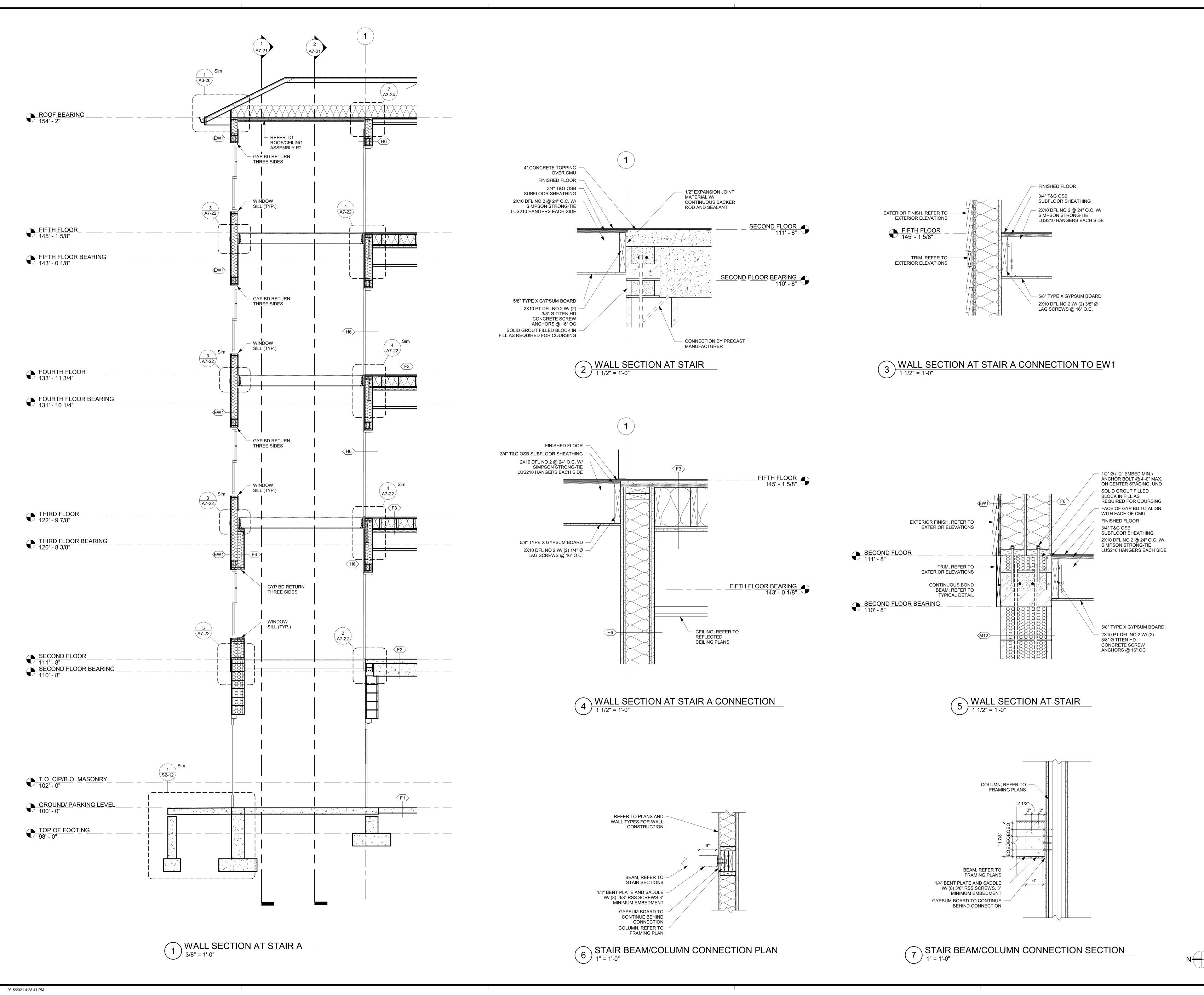
DESCRIPTION

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PROJECT NO.

DRAWN BY
DESIGNED BY

TITLE

REVIEWED BY

CLIENT PROJECT NO.

ORIGINAL ISSUE DATE 09/15/2021

A7-22

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5TH WARD

RESIDENCES

72 UNIT

APARTMENT

BUILDING

REVISION SCHEDULE DESCRIPTION

20-24403

KMB KMB

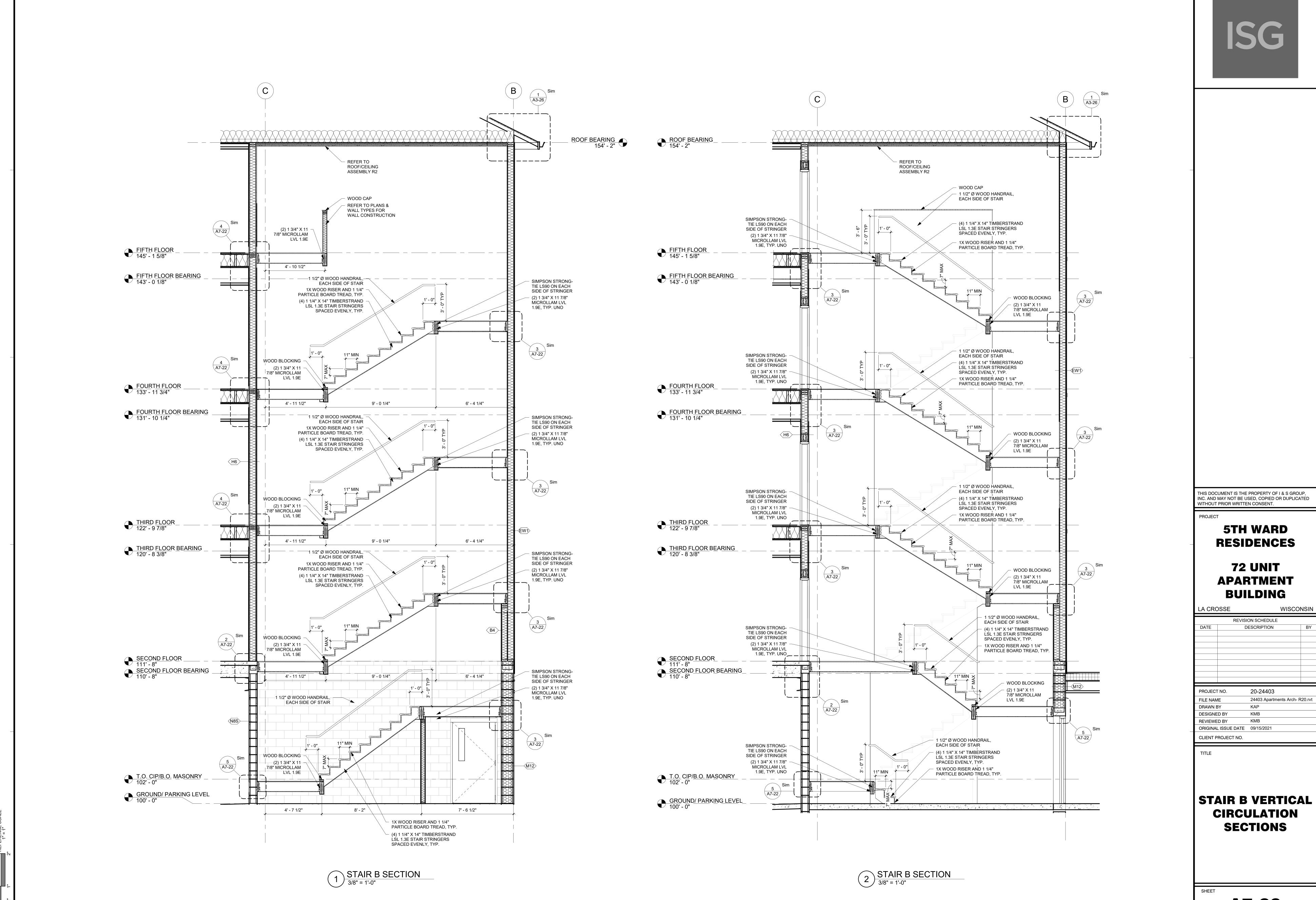
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CIRCULATION

SECTIONS AND

24403 Apartments Arch- R20.rv

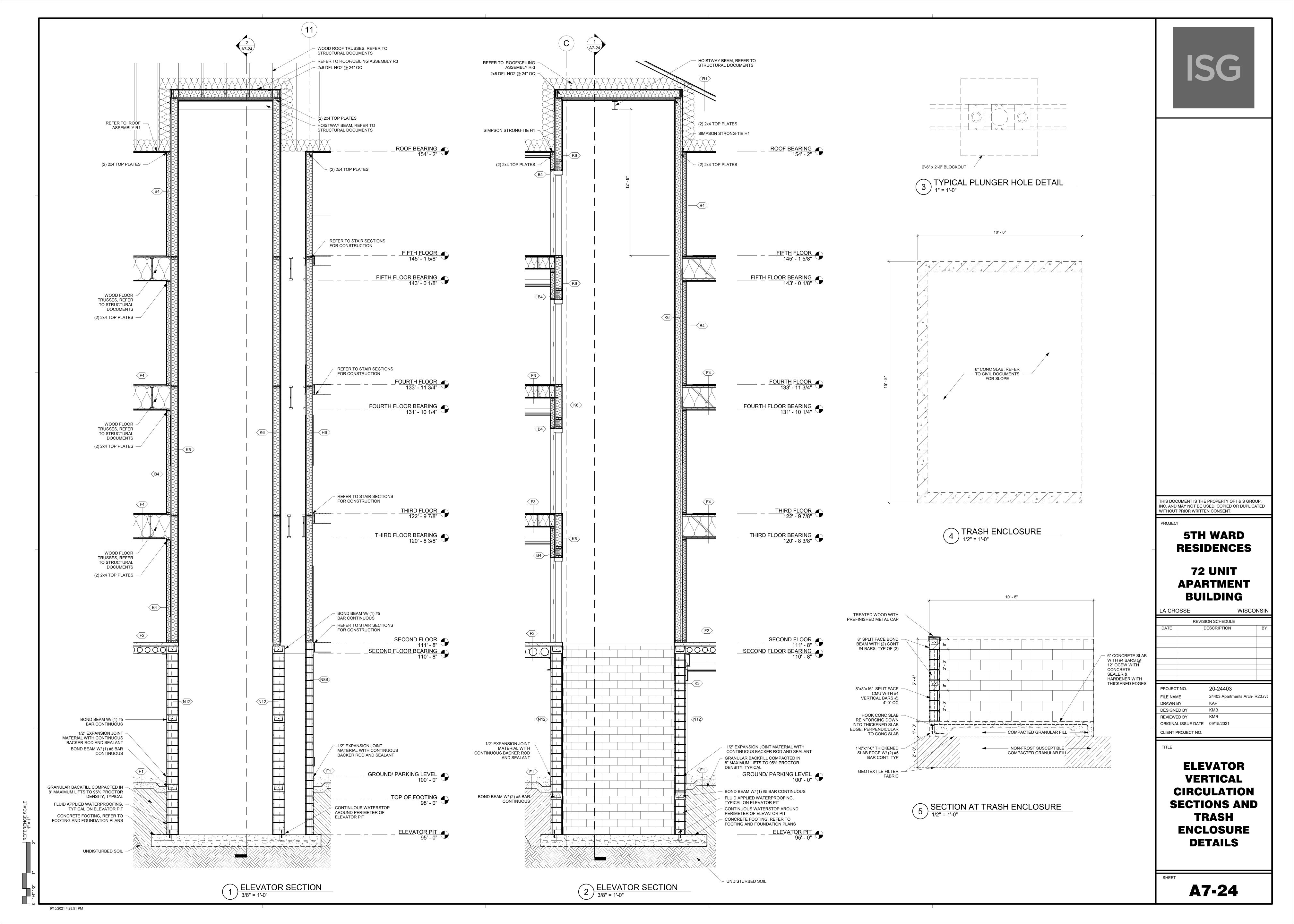
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A7-23



- A. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER THESE STANDARD STRUCTURAL NOTES. TYPICAL DETAILS SHALL BE USED WHENEVER APPLICABLE.
- B. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK; AND THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED, IN WRITING, OF ANY DISCREPANCIES.
- C. IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THE STRUCTURAL DRAWINGS.
- D. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN THE AREA TO BE EXCAVATED BEFORE BEGINNING EXCAVATION.
- E. NO PIPES, DUCTS, SLEEVES, CHASES, ETC., SHALL BE PLACED IN SLABS OR WALLS, NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TEMPORARY SHORING AND BRACING OF EXISTING STRUCTURAL ELEMENTS DURING CONSTRUCTION. ALL SHORING SHALL BE ADEQUATE TO SUPPORT ALL STRUCTURAL LOADS DURING THE REMOVAL OF THE EXISTING STRUCTURE. TEMPORARY SHORING MUST REMAIN IN PLACE UNTIL ALL NEW STRUCTURAL ELEMENTS ARE SECURED INTO PLACE PER CONSTRUCTION DOCUMENTS.

G. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING CODES AND MANUALS

- - (LATEST EDITION): INTERNATIONAL BUILDING CODE (IBC). 2. AMERICAN CONCRETE INSTITUTE (ACI)
 - 3. CONCRETE REINFORCING STEEL INSTITUTE (CRSI) MANUAL OF STANDARD PRACTICE (FOR PLACING AND DETAILING OF ALL REINFORCING).
 - 4. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
 - AMERICAN WELDING SOCIETY (AWS) STANDARDS FOR WELDING AS MODIFIED BY AISC SPECIFICATION. 6. MASONRY STANDARDS JOINT COMMITTEE (MSJC) 7. AMERICAN FOREST & PAPER ASSOCIATION NATIONAL DESIGN SPECIFICATION (AF & PA NDS)

DESIGN LOADS CRITERIA

- A. CODES USED:
- 1. 2015 INTERNATIONAL BUILDING CODE 2. 2010 AMERICAN SOCIETY OF CIVIL ENGINEERS STANDARD 7 (ASCE 7-10)
- B. WIND LOAD CRITERIA:
- 1. ULTIMATE WIND SPEED. V = 115 MPH (3 SECOND GUST) 2. NOMINAL WIND SPEED, V = 90 MPH (3 SECOND GUST)
- WIND RISK CATEGORY: II WIND LOAD EXPOSURE:
- 5. INTERNAL PRESSURE COEFFICIENT: +/- 0.18 (ENCLOSED BUILDING)
- 6. WIND TOPOGRAPHIC FACTOR: K_{ZT} = 1.0 C & C WIND WALL PRESSURE: REFER TO COMPONENT AND CLADDING WIND PRESSURE TABLE 8. WIND NET UPLIFT: 17.9 PSF (NOMINAL)
- SNOW LOAD CRITERIA: 1. GROUND SNOW LOAD, Pg = 40 PSF
- 2. FLAT-ROOF SNOW LOAD (BALANCED), $P_F = 31 PSF$ 3. FLAT-ROOF SNOW LOAD (UNHEATED), P_F = 33.6 PSF
- 4. SNOW LOAD IMPORTANCE FACTOR, I = 1.0
- 5. SLOPE FACTOR, $C_S = 1.0$ 6. THERMAL FACTOR, $C_T = 1.1$
- THERMAL FACTOR (UNHEATED), $C_T = 1.2$ 8. SNOW EXPOSURE FACTOR, $C_E = 1.0$ 9. UNBALANCED SNOW LOAD: ON PLAN IF APPLICABLE
- D. EARTHQUAKE LOAD CRITERIA
- 1. SEISMIC IMPORTANCE FACTOR: I = 1.0 2. MAPPED SPECTRAL RESPONSE ACCELERATIONS:
- $S_S = 5.3\% g$ • $S_1 = 3.6\% g$
- 3. SOIL SITE CLASS: D 4. SPECTRAL RESPONSE COEFFICIENT:
- S_{DS} = 0.057
- $S_{D1} = 0.058$. SEISMIC DESIGN CATEGORY = A 6. SEISMIC FORCE RESISTING SYSTEM: LIGHT FRAME WOOD WALLS WITH STRUCTURAL
- WOOD SHEAR PANELS 7. SEISMIC RESPONSE COEFFICIENT, C_S = 0.010 8. RESPONSE MODIFICATION FACTOR, R = 7
- 9. OVER-STRENGTH FACTOR: $\Omega = 2$ 10. DESIGN BASE SHEAR, V = 0.010W 11. ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL-FORCE ANALYSIS

ROOF: 20 PSF

- 2. FLOOR: 50 PSF STAIR ASSEMBLIES: 100 PSF
- 4. RAILING: 200 LBS AT ANY POINT OR 50 PLF, WHICHEVER PRODUCES MAXIMUM LOAD EFFECT PARTITIONS: 15 PSF
- . LOBBIES AND FIRST FLOOR CORRIDORS: 100 PSF BALCONIES: 75 PSF
- 8. RESIDENTIAL AREAS EXCEPT BALCONIES: 40 PSF
- F. DEAD LOADS
- 1. ROOF: 20 PSF TOTAL (10 PSF TOP CHORD, 10 PSF BOTTOM CHORD) . FLOOR: 25 PSF TOTAL (15 PSF TOP CHORD, 10 PSF BOTTOM CHORD) FRAMING: ACTUAL
- 4. MISCELLANEOUS CEILING: 6 PSF 5. MECHANICAL: SEE PLAN

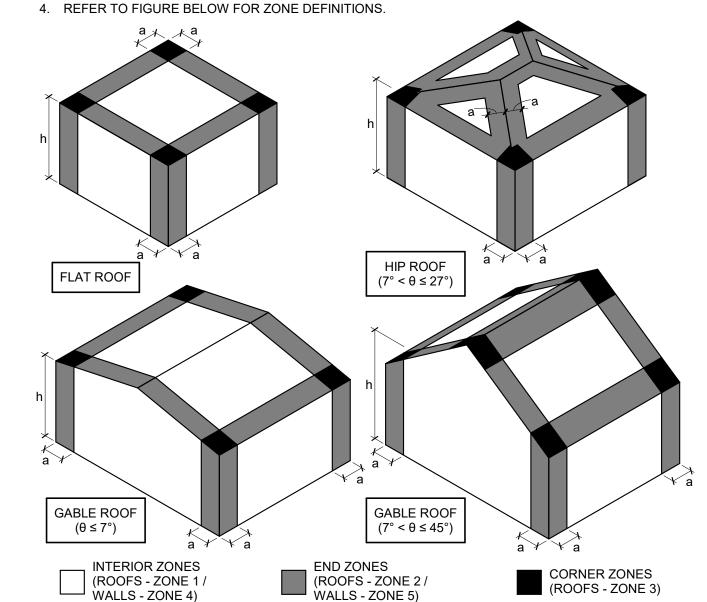
SHOP DRAWINGS

- A. SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR APPROVAL. SIGNED AND SEALED BY A PROFESSIONAL ENGINEER RESPONSIBLE FOR ITS PREPARATION, WHO IS REGISTERED IN THE STATE WHICH THE PROJECT IS LOCATED.
- B. PRIOR TO SUBMITTAL, THE CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS AND MAKE ANY CORRECTIONS REQUIRED. THE CONTRACTOR SHALL STAMP AND SIGN THE SHOP DRAWINGS PRIOR TO SUBMITTAL TO THE ENGINEER.
- C. THE ENGINEER'S REVIEW OF SHOP DRAWINGS IS FOR GENERAL CONFORMANCE OF THE DESIGN CONCEPT. CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTALS THAT IS ACCEPTABLE TO BOTH CONTRACTOR AND ENGINEER. AFTER THE CONTRACTOR HAS REVIEWED THE SHOP DRAWINGS, PROMPT REVIEW BY THE ENGINEER WILL BE MADE OF ALL SUBMITTALS.
- D. FOR LARGE SUBMITTALS, REASONABLE REVIEW TIME SHALL BE ALLOWED AND MAY EXCEED TWO WEEKS. THE CONTRACTOR SHALL SUBMIT NECESSARY REQUEST FOR INFORMATION (RFI's) DURING THE DETAILING PROCESS TO AVOID SUBMITTALS THAT ARE INCOMPLETE OR NEED SIGNIFICANT VERIFICATIONS. THE CONCURRENT SUBMITTAL OF MULTIPLE SHOP DRAWINGS ("DUMPING") WILL FURTHER EXTEND THE REVIEW PROCESS AND TIME FRAME NECESSARY TO PROPERLY REVIEW EACH SUBMITTAL.
- UNLESS INDICATED OTHERWISE, THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE FOLLOWING ITEMS FOR STRUCTURAL REVIEW. REFER TO SPECIFIC SECTION OF STRUCTURAL NOTES FOR ANY ADDITIONAL CRITERIA:
- . CONCRETE MIX DESIGNS PRESTRESSED CONCRETE 3. STRUCTURAL STEEL
- OPEN-WEB BAR JOISTS
- 5. STEEL ROOF DECK 6. PRE-ENGINEERED METAL BUILDING DESIGN 7. PRE-FABRICATED WOOD TRUSSES
- 8. PRE-ENGINEERED POST-FRAME BUILDING 9. ADDITIONAL STRUCTURAL SHOP DRAWINGS REQUESTED IN THE SPECIFICATIONS
- F. A COPY OF ALL SHOP DRAWINGS SHALL BE MAINTAINED ON SITE AT ALL TIMES
- G. SHOP DRAWINGS SHALL INCLUDE COMPLETE DETAIL SCHEDULES, PROCEDURES, AND DIAGRAMS FOR FABRICATION AND ASSEMBLY OF STRUCTURAL MEMBERS AND SUBMIT PRIOR TO FABRICATION
- H. ERECTION PLANS ARE THE RESPONSIBILITY OF THE FABRICATOR.

| | OMPONENTS AN | ND CLADDING | WIND PRESSU | TRES (PSF) | | | |
|-------------------|------------------|----------------|---------------|---------------|-------------------|--|--|
| ZONE | | TRIBUTARY AREA | | | | | |
| ZONE | 10 sf or smaller | 20 sf | 50 sf | 100 sf | 150 sf or greater | | |
| WALL INTERIOR | +38.3 / -41.6 | +36.6 / -39.8 | +34.3 / -37.6 | +32.6 / -35.8 | +31.6 / -34.8 | | |
| WALL END | +38.3 / -51.3 | +36.6 / -47.9 | +34.3 / -43.3 | +32.6 / -39.8 | +31.6 / -37.8 | | |
| ROOF INTERIOR | +22.1 / -35.1 | +20.1 / -34.1 | +17.5 / -32.8 | +16.0 / -31.8 | +16.0 / -31.8 | | |
| ROOF END | +22.1 / -61.1 | +20.1 / -56.2 | +17.5 / -49.7 | +16.0 / -44.8 | +16.0 / -44.8 | | |
| ROOF CORNER | +22.1 / -90.3 | +20.1 / -84.4 | +17.5 / -76.7 | +16.0 / -70.8 | +16.0 / -70.8 | | |
| OVERHANG INTERIOR | -16 | -16 | -16 | -16 | -16 | | |
| OVERHANG END | -71.4 | -71.4 | -71.4 | -71.4 | -71.4 | | |
| OVERHANG CORNER | -120.2 | -108.4 | -92.9 | -81.2 | -81.2 | | |

REFER TO DESIGN CRITERIA FOR INFORMATION REGARDING GOVERNING BUILDING CODE. . PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES,

3. LINEAR INTERPOLATION IS PERMITTED FOR TRIBUTARY AREAS NOT SHOWN.



a = 10% OF LEAST HORIZONTAL DIMENSION OR 0.4h, WHICHEVER IS SMALLER, BUT NOT LESS THAN EITHER 4% OF LEAST HORIZONTAL DIMENSION OR 3 FEET. h = MEAN ROOF HEIGHT, IN FEET, EXCEPT THAT EAVE HEIGHT SHALL BE USED FOR ROOF ANGLES < 10°. θ = ANGLE OF PLANE OF ROOF FROM HORIZONTAL, IN DEGREES

SPECIAL INSPECTIONS

- A. SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH IBC SECTION 1704 AND 1705. THE SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER, SHALL BE THOROUGHLY KNOWLEDGEABLE OF IBC SPECIAL INSPECTION REQUIREMENTS AND SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL. THE CONTRACTOR SHALL CONTACT THE SPECIAL INSPECTOR DURING APPROPRIATE PHASES OF CONSTRUCTION SO THAT INSPECTIONS CAN BE MADE IN A TIMELY MANNER. THE SPECIAL INSPECTOR SHALL SUBMIT WRITTEN INSPECTION REPORTS TO THE ENGINEER OF RECORD'S OFFICE, WITHIN 3 WORKING DAYS OF EACH INSPECTION. ANY PROBLEMS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR. THE FOLLOWING ITEMS WILL REQUIRE SPECIAL INSPECTION: 1. STEEL
 - a. SPECIAL INSPECTIONS ARE NOT REQUIRED FOR WORK DONE IN AN APPROVED FABRICATING SHOP. THE STEEL FABRICATOR MUST BE REGISTERED AND APPROVED BY THE BUILDING OFFICIAL TO PERFORM THE WORK WITHOUT
 - SPECIAL INSPECTIONS. (IBC 1704.2.5.2). b. HIGH STRENGTH BOLTING: CONTINUOUS INSPECTIONS ARE REQUIRED FOR SLIP-CRITICAL CONNECTIONS. PERIODIC
 - INSPECTIONS ARE REQUIRED FOR BEARING-TYP. CONNECTIONS. c. FIELD WELDING: CONTINUOUS INSPECTIONS ARE REQUIRED FOR COMPLETE AND PARTIAL PENETRATION GROOVE WELDS, MULTI-PASS FILLET WELDS AND SINGLE-PASS FILLET WELDS GREATER THAN 5/16". PERIODIC INSPECTIONS ARE REQUIRED FOR FLOOR AND ROOF DECK WELDS AND SINGLE-PASS FILLET WELDS SMALLER THAN OR EQUAL TO
- 5/16". CORRECT WELD FILLER MATERIAL SHALL BE VERIFIED IN ALL CASES. d. STEEL ERECTION: PERIODIC INSPECTIONS SHALL BE MADE TO VERIFY COMPLIANCE WITH THE DESIGN DRAWINGS. e. MATERIALS: THE STEEL MANUFACTURERS CERTIFIED MILL TEST REPORTS SHALL BE SUBMITTED TO THE SPECIAL INSPECTOR OR TO THE ENGINEER OF RECORD.
- CONCRETE a. REINFORCEMENT: REINFORCING STEEL SHALL BE INSPECTED ON A PERIODIC BASIS. WELDING OF REINFORCEMENT SHALL BE CONTINUOUSLY INSPECTED. ONLY ASTM A706 REINFORCEMENT MAY BE WELDED. b. SAMPLING AND TESTING: CONTINUOUS INSPECTIONS SHALL BE PROVIDED DURING SLUMP TESTS AND WHEN
- DETERMINING THE TEMPERATURE OF FRESH CONCRETE AT THE TIME OF MAKING SPECIMENS FOR STRENGTH TESTS. c. CONCRETE PLACEMENT: CONTINUOUS INSPECTION REQUIRED. d. COLD AND HOT WEATHER CONCRETING: PERIODIC INSPECTION OF COMPLIANCE IS REQUIRED.
- 3. MASONRY LEVEL B QUALITY ASSURANCE a. BEGINNING OF CONSTRUCTION: PERIODIC INSPECTION SHALL BE MADE OF MORTAR PROPORTIONS, CONSTRUCTION OF MORTAR JOINTS AND REINFORCEMENT LOCATION AND CONNECTORS.
- b. ONGOING CONSTRUCTION: PERIODIC INSPECTION SHALL BE PROVIDED TO VERIFY SIZE AND LOCATION OF STRUCTURAL ELEMENTS, SIZE AND LOCATION OF ANCHORS, SIZE AND TYPE OF REINFORCEMENT AND COMPLIANCE
- WITH HOT OR COLD WEATHER REQUIREMENTS. c. GROUTING: PERIODIC INSPECTION SHALL BE PROVIDED TO VERIFY THAT THE GROUT SPACE IS PROPERLY POSITIONED AND SITE PREPARED GROUT IS PROPERLY PROPORTIONED. CONTINUOUS INSPECTION IS REQUIRED OF GROUT PLACEMENT.
- d. TEST SPECIMENS: CONTINUOUS INSPECTION SHALL BE MADE DURING PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS AND PRISMS. 4 SOILS
- THE SPECIAL INSPECTOR SHALL DETERMINE COMPLIANCE WITH THE SOIL REPORT FOR SITE PREPARATION, FILL PLACEMENT AND DENSITY TESTS.

B. TESTING REQUIREMENTS 1. CONCRETE:

- a. SAMPLE FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 150 CUBIC YARDS OF CONCRETE, NOR LESS THAN ONCE FOR EACH 5,000 SQUARE FEET OF SURFACE AREA FOR SLABS OR WALLS. A MINIMUM OF FIVE STRENGTH TESTS SHOULD BE MADE FOR A GIVEN PROJECT.
- MASONRY-UNIT STRENGTH METHOD:
- a. MASONRY UNITS SHALL BE SAMPLED AND TESTED ACCORDING TO ASTM C140. b. GROUT SHALL BE SAMPLED AND TESTED ACCORDING TO ASTM C1019.

FOOTINGS AND FOUNDATIONS

- A. SOIL BEARING DESIGN VALUE:
 - 5000 PSF (PER GROUND IMPROVEMENT ENGINEER) BEARING VALUE TO BE VERIFIED IN FIELD BY GEOTECHNICAL ENGINEER.
- FOUNDATION SUPPORTED ON SOIL CORRECTION PER GEOTECHNICAL REPORT. B. PROTECT FOUNDATION EXCAVATIONS FROM FROST; DO NOT PLACE CONCRETE ON FROZEN GROUND.
- C. FOUNDATION EXCAVATIONS SHALL BE KEPT FREE OF LOOSE MATERIAL AND STANDING WATER AND SHALL BE CHECKED AND APPROVED BY THE ENGINEER BEFORE THE PLACEMENT OF ANY CONCRETE.
- a. DESIGN FROST PENETRATION DEPTH: 42 INCHES (HEATED) OR 60 INCHES (UNHEATED)
- D. MINIMUM OF 6" COMPACTED GRANULAR SUBGRADE BELOW SLABS

| MATERIAL COMPACTION CRITERIA | | | | | | |
|--|---|--|--|--|--|--|
| LOCATION | MINIMUM RELATIVE COMPACTION PERCENTAGE (ASTM D698 STANDARD PROCTOR DENSITY (SPD)) | | | | | |
| 1'-0" BELOW FOUNDATION AND SLAB SUBGRADE ELEVATIONS | 98% | | | | | |
| ABOVE BOTTOM OF FOUNDATIONS AND BELOW SLAB SUBGRADE ELEVATIONS | 95% | | | | | |
| BELOW EXTERIOR SLAB, WITHIN 1'-0" OF SUBGRADE ELEVATIONS | 98% | | | | | |
| BELOW EXTERIOR SLAB, MORE THAN 1'-0" BELOW SUBGRADE ELEVATIONS | 95% | | | | | |

CONCRETE

- A. CONCRETE SHALL BE STANDARD WEIGHT MIX UNLESS NOTED OTHERWISE AND MEET THE FOLLOWING CRITERIA: LOCATIONS fc @ 28 DAYS | AIR ENTRAINMENT | MAX. WATER/CEMENT RATIO FOOTINGS / FOUNDATIONS 3500 PSI FLOORS ON GRADE 3500 PSI EXTERIOR SLABS ON GRADE | 4500 PSI 0.45 6% ± 1.5% 4500 PSI EXPOSED EXTERIOR WALLS 6% ± 1.5%
- B. CEMENT SHALL CONFORM TO ASTM C150, TYPE I / II
- C. READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94.
- D. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301 (LATEST EDITION) "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THESE NOTES.
- E. ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. ADMIXTURES SHALL COMPLY WITH ASTM C494 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT (CALCIUM CHLORIDE SHALL NOT BE USED).
- F. CONTRACTOR SHALL SUBMIT MIX DESIGNS FOR APPROVAL 10 DAYS PRIOR TO FABRICATION AND INSTALLATION. ALL CONCRETE MIXES SHALL BE DESIGNED AND CERTIFIED BY A MATERIALS TESTING COMPANY.
- G. PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC. SHALL BE FORMED WITH A 3/4" CHAMFER UNLESS
- DETAILED OR NOTED OTHERWISE.
- H. PLACE VAPOR RETARDER DIRECTLY BELOW FLOOR SLAB.
- I. CONCRETE FLOOR SHALL BE CURED IN ACCORDANCE WITH ASTM C309. CONCRETE FLOOR SHALL BE PROTECTED FROM MOISTURE LOSS FOR A MINIMUM OF 14 DAYS, USING AN APPROVED SHEET MEMBRANE IN ACCORDANCE WITH C171.
- J. FLOOR FLATNESS AND LEVELNESS TOLERANCES: 1. UNLESS NOTED OTHERWISE, FLOORS SHALL CONFORM TO THE FOLLOWING SURFACE PROFILE TOLERANCES: a. FLOOR FLATNESS NUMBER (F_F)
 - SPECIFIED OVERALL VALUE = 20 MINIMUM LOCAL VALUE = 15 b. FLOOR LEVELNESS NUMBER (FL)
 - SPECIFIED OVERALL VALUE = 20
 - MINIMUM LOCAL VALUE = 15
- 2. FLOOR TOLERANCE (FF AND FL) MEASUREMENTS SHALL BE TESTED IN ACCORDANCE WITH ASTM E 1155. ACTUAL OVERALL F-NUMBERS SHALL BE CALCULATED USING THE INFERIOR / SUPERIOR AREA METHOD. 3. CORRECT DEFECTIVE SLABS BY GRINDING OR REMOVING AND REPLACING DEFECTIVE WORK. RE-MEASURE CORRECTED AREAS BY THE SAME PROCESS.
- A. ALL ANCHOR RODS SHALL BE SUPPLIED AND INSTALLED BY THE CONCRETE CONTRACTOR, UNLESS NOTED OTHERWISE.
- B. ALL ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 HEX-HEAD, UNLESS NOTED OTHERWISE. NUTS SHALL BE ASTM A563
- GRADE A HEAVY HEX. OVER-SIZED PLATE WASHERS SHALL BE ASTM A36. C. ALL ANCHOR RODS SHALL BE SET WITH TEMPLATES.
- D. POST-INSTALLED ANCHORS SHALL BE ADHESIVE ANCHORING SYSTEM PROVIDED AND INSTALLED BY FRAMING CONTRACTOR. ADHESIVE ANCHORS SHALL BE "HILTI HIT-HY 200 ADHESIVE ANCHOR SYSTEM" OR APPROVED ALTERNATE. ANCHORS SHALL BE "HILTI HAS-E" THREADED ROD CONFORMING TO ISO 898-1 CLASS 5.8 OR SHALL BE MADE FROM ALL-THREADED ROD CONFORMING TO ASTM A572 GRADE 60, OR APPROVED ALTERNATE, UNLESS NOTED OTHERWISE.

A. BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60.

B. MINIMUM DEVELOPMENT LENGTH OF REINFORCING BARS SHALL BE AS FOLLOWS UNLESS NOTED

| OTHERWISE. | | | | | | | |
|--|-------------------|-----------|-----------------|-------------|--------------------------------|-------------------------------|--|
| MINIMUM LENGTH FOR STANDARD UN-COATED BARS IN NORMAL WEIGHT CONCRETE | | | | | | | |
| | DEVELOPMEN | NT LENGTH | (Ld) FOR STRAIG | HT BARS (MI | N. OF 12 INCHES) | FOR 90 DEGREE | |
| CONCRETE STRENGTH | TENSION CLASS A | | TENSION CLASS B | | COMPRESSION | HOOKED BARS, | |
| f'c IN PSI | #6 AND SMALLER | #7 TO #11 | #6 & SMALLER | #7 TO #11 | #18, #14, & #11 AND SMALLER | HOOK DEVELOPMENT LENGTH | |
| 3000 | 44 Db | 55 Db | 57 Db | 71 Db | 30 Db | 22 Db | |
| 3500 | 41 Db | 51 Db | 53 Db | 66 Db | 30 Db | 20 Db | |
| 4000 | 38 Db | 47 Db | 49 Db | 62 Db | 30 Db | 19 Db | |
| 4500 | 36 Db | 45 Db | 47 Db | 58 Db | 30 Db | 18 Db | |
| 5000 | 34 Db | 42 Db | 44 Db | 55 Db | 30 Db | 17 Db | |

NOTE: Db = DIAMETER OF REINFORCEMENT. Ld = DEVELOPMENT LENGTH C. TYPICAL SPLICES: CLASS B AS DEFINED IN ACI 318, UNLESS NOTED OTHERWISE

- D. ADJUSTMENT FACTORS FOR STRAIGHT BARS IN TENSION
- 1. LIGHTWEIGHT CONCRETE = 1.3. EPOXY COATED = 1.2.
- EPOXY COATED WITH COVER LESS THAN 3DB OR CLEAR SPACING LESS THAN 6 DB = 1.5. 4. HORIZONTAL "TOP" BARS WITH 12" OF CONCRETE CAST BELOW = 1.3
- 5. EPOXY COATED HORIZONTAL "TOP" BARS WITH 12" OF CONCRETE CAST BELOW = NOT GREATER THAN 1.7. E. ADJUSTMENT FACTORS FOR STRAIGHT HOOKS IN TENSION LIGHTWEIGHT CONCRETE = 1.3.
- EPOXY COATED = 1.2. F. REINFORCING STEEL SHALL BE PROVIDED WITH THE FOLLOWING AMOUNTS OF COVER FOR CAST-IN-PLACE CONCRETE **UNLESS NOTED OTHERWISE**

| MINIMUM CLEAR CONCRETE COVER FOR REINFORCING STEEL | | | | | | |
|---|----------|--|--|--|--|--|
| CONCRETE ON SOIL (DIRECT CONTACT) | 3" | | | | | |
| SLAB ON GRADE | CENTERED | | | | | |
| WALLS, STRUCTURAL SLABS EXPOSED TO SOIL OR WEATHER #6 TO #18 REBAR | 2" | | | | | |
| #5 AND SMALLER REBAR | 1 1/2" | | | | | |
| WALLS, STRUCTURAL SLABS NOT EXPOSED TO EARTH OR WEATHER | | | | | | |
| #11 AND SMALLER REBAR 3/4" | | | | | | |
| COLUMNS AND PIERS (COVER TO STIRRUPS AND TIES) | 1 1/2" | | | | | |

- G. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE SECURED IN POSITION WITH WIRE POSITIONERS, OR EQUAL, BEFORE PLACING CONCRETE OR GROUT.
- H. DOWELS BETWEEN FOOTINGS AND WALLS SHALL BE THE SAME GRADE, SIZE, AND SPACING AS VERTICAL WALL REINFORCING.
- I. CONTRACTOR SHALL SUBMIT REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL A MINIMUM OF 10 DAYS PRIOR TO FABRICATION AND INSTALLATION.
- J. BARS TO BE WELDED SHALL BE ASTM A706, GRADE 60. WELDING OF REINFORCING BARS SHALL CONFORM TO AWS D1.4.
- CONCRETE MASONRY

A. FURNISH AND CONSTRUCT MASONRY IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES AND COMMENTARY AS REPORTED BY MSJC (TMS 402 & 602 / ACI 530 & 530.1 / ASCE 5 & 6).

| LOCATIONS | TYPE | MINIMUM STRENGTH |
|---|--|------------------|
| HOLLOW CONCRETE MASONRY | NORMAL WEIGHT ASTM C90 GRADE N | f'c = 2,150 PSI |
| MASONRY CORE AND BOND BEAMS | CONCRETE FILL, ASTM C476 | f'g = 2,000 PSI |
| EXTERIOR AND LOAD-BEARING WALLS, WALLS EXPOSED TO EARTH BELOW GRADE | TYPE M MORTAR, ASTM C270 | fm = 2,500 PSI |
| LOAD-BEARING WALLS ABOVE GRADE | TYPE S MORTAR, ASTM C270 | fm = 1,800 PSI |
| INTERIOR NON-LOAD-BEARING WALLS | TYPE N MORTAR, ASTM C270 | fm = 750 PSI |
| STEEL DEFORMED REINFORCEMENT | ASTM A615, GRADE 60 | Fy = 60,000 PSI |
| STEEL DEFORMED REINFORCEMENT FOR WELDING | ASTM A706 | Fy = 60,000 PSI |
| JOINT REINFORCEMENT | LADDER TYPE, HOT-DIPPED GALVANIZED, ASTM A951/A153 | Fy = 70,000 PSI |
| WIRE REINFORCEMENT FOR CMU | W1.7 (9 GAGE), HOT-DIPPED GALVANIZED, ASTM A82/A153 | Fy = 75,000 PSI |

MASONDY MATERIAL STRENCTUS

- B. CONCRETE MASONRY WALLS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF I'm = 2.000PSI.
- C. SEE PLANS FOR LOCATION OF REINFORCED WALLS.

UNLESS NOTED OTHERWISE.

L. CONCRETE BLOCK WALL LINTELS:

VELOCITY GREATER THAN 8 MPH.

- D. MINIMUM VERTICAL REINFORCEMENT SHALL CONSIST OF (1) #5 BAR PROVIDED AT CORNERS. WITHIN 16" OF EACH SIDE OF OPENINGS, WITHIN 8" OF EACH SIDE OF MOVEMENT JOINTS, WITHIN 8" OF THE ENDS OF WALLS, AND AT A MAXIMUM SPACING OF 48" ON-CENTER. UNLESS NOTED OTHERWISE.
- E. MINIMUM HORIZONTAL REINFORCEMENT SHALL BE (2) #4 BARS PROVIDED IN BOND BEAM SPACED NOT MORE THAN 48" ON-CENTER, UNLESS NOTED OTHERWISE. F. HORIZONTAL REINFORCEMENT SHALL ALSO BE PROVIDED AT THE BOTTOM AND TOP OF WALL OPENINGS AND SHALL EXTEND
- NOT LESS THAN 48 BAR DIAMETERS PAST THE OPENINGS, CONTINUOUSLY AT STRUCTURALLY CONNECTED ROOF AND FLOOR LEVELS, AND WITHIN 16" OF THE TOP OF WALLS.
- G. CLEAR DISTANCE BETWEEN PARALLEL REINFORCEMENT SHALL NOT BE LESS THAN 2.5 x BAR DIAMETER. H. CONNECTION OF INTERSECTING WALLS SHALL CONSIST OF REINFORCED BOND BEAMS WITH (2) #4 HORIZONTAL REINFORCEMENT AT 48" ON-CENTER MAXIMUM, AND (1) #4 VERTICAL REINFORCEMENT WITHIN 12" OF INTERSECTING WALLS.
- I. VERTICAL STEEL SHALL BE CONTINUOUS WITH 24" LAP AT SPLICES, UNLESS NOTED OTHERWISE
- J. IN COLUMNS, PIERS, AND PILASTERS, THE CLEAR DISTANCE BETWEEN VERTICAL BARS SHALL NOT BE LESS THAN 3 BAR DIAMETERS, NOR LESS THAN 1 1/2".
- K. HORIZONTAL JOINT REINFORCEMENT SHALL BE CONTINUOUS WITH 8" LAP SLICES, WHERE USED.
- 1. EXTEND ALL LINTELS A MINIMUM OF 8" BEYOND EACH EDGE OF OPENING. WHERE LINTEL BEARS ON CONCRETE BLOCK, FILL TWO COURSES OF BLOCK MINIMUM WITH CONCRETE. 2. IF THE OPENING OCCURS NEXT TO CONCRETE WALL OR COLUMN, BOLT ANGLE TO COLUMN AND REST LINTEL ON ANGLE. OBTAIN ANGLE SIZE AND BOLT REQUIREMENTS FROM ENGINEER. 3. IF OPENING OCCURS NEXT TO STEEL COLUMN, WELD ANGLE TO COLUMN AND REST LINTEL ON ANGLE. OBTAIN ANGLE SIZE
- AND WELD REQUIREMENTS FROM ENGINEER. M. WALL CONSTRUCTION SHALL NOT EXCEED HEIGHTS OF 4'-8" BEFORE PLACEMENT OF CORE GROUT UNLESS CLEANOUT HOLES ARE PROVIDED AT THE BOTTOM OF EACH GROUT LIFT, THEN A MAXIMUM HEIGHT OF 8'-0" BEFORE PLACEMENT OF CORE
- N. SEE PLANS FOR SIZE AND LOCATION OF CONDUITS. PIPES. AND SLEEVES THROUGH MASONRY WALLS.
- O. FOLLOW COLD WEATHER CONSTRUCTION WHEN AMBIENT AIR TEMPERATURE IS BELOW 40° F P. FOLLOW HOT WEATHER CONSTRUCTION PROCEDURES WHEN AMBIENT AIR TEMPERATURE EXCEEDS 90° F WITH WIND
- Q. ALL VISIBLE, NON-VISIBLE, ABOVE-GRADE AND BELOW-GRADE JOINTS SHALL BE TOOLED IN A CONCAVE CONFIGURATION UNLESS SPECIFIED OTHERWISE BY ARCHITECT.

PRESTRESSED CONCRETE

- A. DESIGN PRECAST CONCRETE UNITS AND CONNECTIONS CAPABLE OF WITHSTANDING DESIGN LOAD CRITERIA. LOADS SHOWN ON PLANS AND ALL OTHER DEAD LOADS IN ACCORDANCE WITH PCI MNL 120, "PRECAST AND PRE-STRESSED CONCRETE" AND PCI MNL 123, "DESIGN AND TYPICAL DETAILS OF CONNECTIONS FOR PRECAST AND PRE-STRESSED
- B. PRECAST CONCRETE TO BE MANUFACTURED BY A PCI CERTIFIED PLANT IN ACCORDANCE WITH PCI MNL 116, "MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF STRUCTURAL CONCRETE PRODUCTS," PCI MNL 117, "MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF ARCHITECTURAL PRECAST CONCRETE PRODUCTS," AND PCI MNL
- C. PROVIDE NECESSARY CONNECTIONS TO RESTRAIN OR STABILIZE COMPONENTS. FOLLOW STRUCTURAL INTEGRITY REQUIREMENTS OF PCI MNL 120 AND ACI 318.
- D. ALL HEADERS AT OPENINGS IN PRECAST AND PRE-STRESSED CONCRETE SHALL BE FURNISHED BY SUPPLIER.

135, "TOLERANCE MANUAL FOR PRECAST AND PRE-STRESSED CONCRETE CONSTRUCTION."

- E. PLACE OPENINGS NOT SHOWN ON PLANS BETWEEN WEBS IN PRECAST UNITS. VERIFY SIZE AND LOCATION WITH PRECAST
- F. SHOP DRAWINGS
- INDICATE ALL PRECAST MEMBER DESIGNS AND THEIR DESIGN LOADS. SHOW THE ERECTION SEQUENCE, BRACING PLAN, ALL BEARING CONDITIONS AND ANCHORAGE DETAILS. 3. LOCATE AND DETAIL CONNECTIONS INCLUDING THEIR LOOSE HARDWARE AND ANCHORAGE ITEMS. INDICATE ITEMS TO BE EMBEDDED IN OR ATTACHED TO OTHER CONSTRUCTION AND WHO THEY ARE FURNISHED BY.
- 1. ALL WELDING PROCEDURES AND PERSONNEL SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1, "STRUCTURAL WELDING CODE - STEEL," AND AWS D1.4, "STRUCTURAL WELDING CODE - REINFORCING."
- 2. ALL WELDERS SHALL BE CURRENTLY CERTIFIED AND REGISTERED BY LOCAL OFFICIALS AND/OR AWS, WITH THEIR CERTIFICATION AVAILABLE UPON REQUEST. 3. WELDING PROCEDURES AND SEQUENCES SHALL BE PLANNED TO MINIMIZE SPALLING INDUCED BY STEEL EXPANSION
- 4. ALL WELD FILLER MATERIAL SHALL BE AWS E70XX, UNLESS NOTED OTHERWISE. 5. ALL FIELD WELDS SHALL BE WIRE BRUSHED AND CLEANED, THEN TOUCHED UP PAINTED UNLESS PATCHED UNDER APPROPRIATE CONCRETE COVER PER ACI 318.
- H. PRECAST ERECTION 1. ERECTOR SHALL BE PCI CERTIFIED AND HAVE A MINIMUM OF 5 YEARS EXPERIENCE IN THE ERECTION OF PRECAST
- CONCRETE SIMILAR TO THE REQUIREMENTS OF THE PROJECT. 2. ALL LIFTING, HANDLING, TRANSPORTATION AND DELIVERY, STORAGE AND SUPPORT, BRACING AND ERECTION OF PRECAST UNITS ARE TO BE PERFORMED BY QUALIFIED PERSONNEL USING METHODS AND EQUIPMENT APPROVED BY

3. ERECT PRECAST UNITS LEVEL, PLUMB, SQUARE, TRUE AND IN ALIGNMENT IN ACCORDANCE WITH PCI MNL 127,

- "STANDARDS AND GUIDELINES FOR THE ERECTION OF PRECAST CONCRETE PRODUCTS," AND THE ERECTION 4. PRECAST AND PRE-STRESSED UNITS SHALL BE ESSENTIALLY PAST THE EFFECTS OF DEFORMATION DUE TO CREEP AND SHALL NOT HAVE CAMBER OVER 1/300 OF THE SPAN. PROVIDE FOR UNIFORM CAMBER OF UNITS IN ACCORDANCE WITH
- CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI.

9. GROUT SHALL BE AS INDICATED ON DRAWINGS:

- CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR III. ADMIXTURES SHALL CONFORM TO ASTM C260 AND ASTM C494 4. AGGREGATES SHALL CONFORM TO ASTM C330 AND ASTM C33, EXCEPT THAT COARSE AGGREGATES FOR PRECAST
- CONCRETE SURFACES EXPOSED TO DAMP CONDITIONS SHALL CONTAIN ZERO IRON OXIDES. 5. READY MIX SHALL CONFORM TO ASTM C94. 6. STRAND SHALL BE GRADE 250KSI OR 270KSI, UNCOATED, 7-WIRE, STRESS RELIEVED STRAND CONFORMING TO ASTM
- 7. STRUCTURAL STEEL SHALL CONFORM TO ASTM A36. 8. SEE REINFORCING STEEL SECTION FOR REQUIREMENTS.
- 3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, AND A SAND CEMENT RATIO OF 3 TO 1 b. "NON-SHRINK" DRY PACK SHALL CONFORM TO ASTM C1107, BE TYPE III (ASTM C150) PORTLAND CEMENT, SAND AND WATER HAVING A MINIMUM OF 10,000PSI COMPRESSIVE STRENGTH AT 28 DAYS. c. TAMP DRY PACK GROUT BETWEEN BOTTOM OF PRECAST WALLS AND THEIR BEARING SURFACES FILLING THE

a. "DRY PACK," GROUT SHALL BE TYPE I (ASTM C150) PORTLAND CEMENT, SAND AND WATER HAVING A MINIMUM OF

ENTIRE AREA FREE OF VOIDS. RAKE JOINTS BACK AT LOCATIONS WHERE BACKER ROD AND SEALANT IS TO BE INSTALLED.

- 1. ALL WOOD MEMBERS SHALL BE AS FOLLOWS (UNLESS APPROVED BY THE ENGINEER):
- a. STUDS SPRUCE PINE FIR (SPF) STUD GRADE OR SOUTHERN PINE STUD GRADE. b. HEADERS/JOISTS - DOUGLAS FIR-LARCH (DF-L) NO. 2 OR BETTER, HEM-FIR NO. 2 OR BETTER, OR SOUTHERN PINE NO. 2 OR BETTER.
- 2. ALL SHEATHING SHALL BE APA RATED SHEATHING. 3. CUTTING, NOTCHING, OR DRILLING OF BEAMS OR JOISTS SHALL BE PERMITTED ONLY AS DETAILED OR APPROVED BY THE ENGINEER.

4. ALL NAILING SHALL CONFORM TO NAILING SCHEDULE IBC TABLE 2304.9.1, UNLESS NOTED OTHERWISE.

- 5. ALL SILLS OR PLATES RESTING ON CONCRETE OR MASONRY, WHICH IS IN CONTACT WITH EARTH OR RESTING ON FOUNDATIONS, SHALL BE PRESSURE TREATED SOUTHERN PINE NO. 2. ALL MEMBER SIZES GIVEN OR DRAWINGS ARE NOMINAL DIMENSIONS.
- SPACING OF BRIDGING FOR JOISTS SHALL NOT EXCEED 8'. 8. WOOD LINTELS AND HEADERS SHALL HAVE A FULL 3" LENGTH OF BEARING AT EACH END.

GABLE END TRUSS KNEE BRACING PER MANUFACTURER'S RECOMMENDATIONS.

- DOUBLE ALL JOISTS UNDER PARALLEL PARTITIONS. 10. ALL BEAMS AND JOISTS NOT BEARING ON SUPPORTING MEMBERS SHALL BE FRAMED WITH JOIST HANGERS. 11. WOOD JOISTS SHALL BEAR THE FULL WIDTH OF SUPPORTING MEMBERS (STUD WALLS, BEAMS, ETC. UNLESS
- 12. PRE-BORE HOLES FOR ALL FASTENERS GREATER THAN 1/4" Ø PER MANUFACTURER'S RECOMMENDATIONS. B. SILL PLATES 1. UNLESS NOTED OTHERWISE, SILL PLATES SHALL BE BOLTED TO FOUNDATION WALL WITH 1/2"Ø G185 HOT-DIPPED

GALVANIZED. TYPE 304 OR TYPE 316 STAINLESS BOLTS (TYPICAL FOR ALL FASTENERS / CONNECTORS IN CONTACT

WITH ACQ TREATED LUMBER) AT 4'-0" MAXIMUM O.C. BOLTS SHALL EXTEND 12" MINIMUM INTO FOUNDATION. EACH SILL

- PLATE TO HAVE A MINIMUM OF TWO BOLTS WITH ONE BOLT LOCATED WITHIN 12" OF EACH END OF EACH PIECE. C. MANUFACTURED WOOD TRUSSES
- WOOD TRUSS DESIGN SHALL BE DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF IBC WOOD SECTION 2303.4. LUMBER FOR WOOD TRUSSES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. 3. TRUSS, BRIDGING, BRACING AND/OR BLOCKING, TO PREVENT ROTATION AND PROVIDE LATERAL STABILITY, SHALL BE SUBMITTED BY TRUSS MANUFACTURER FOR ENGINEER'S REVIEW.
- LOCATIONS FOR LATERAL RESTRAINT SHALL BE IDENTIFIED ON THE TRUSS DESIGN DRAWINGS. 5. NO CUTTING, NOTCHING, AND/OR FIELD MODIFICATIONS OR REPAIRS OF TRUSSES WITHOUT ENGINEER OF RECORD AND TRUSS MANUFACTURER ENGINEER'S WRITTEN APPROVAL. 6. DAMAGED TRUSSES, INCLUDING DAMAGED AND/OR LOOSE TRUSS METAL-PLATE-CONNECTORS, MAY NOT BE USED.

PROVIDE BALLOON-FRAMED GABLE END WALL FOR DIAPHRAGM FORCE TRANSFER AND TRUSS STABILITY.

- 9. TOTAL LOAD DEFLECTION LIMITATIONS: a. ROOF TRUSSES LESS THAN L/360. b. VERTICAL SCISSOR TRUSSES LESS THAN 3/4". 10. SUBMIT COMPLETE SHOP DRAWINGS FOR APPROVAL, SHOWING THE ERECTION PLAN, ALL BEARING CONDITIONS, AND
- CONNECTIONS. CALCULATIONS CERTIFIED BY A PROFESSIONAL ENGINEER SHALL BE REQUIRED FOR ALL WOOD 11. WOOD TRUSS SUPPLIER SHALL DETAIL BEARING OF TRUSSES SO AS NOT TO EXCEED STRESS PERPENDICULAR TO GRAIN OF WOOD PLATES THAT SUPPORT THE TRUSSES. 12. DESIGN OF BOTH TEMPORARY AND PERMANENT TRUSS MEMBER RESTRAINING FOR ALL TRUSSES WHICH CLEAR SPAN
- 60 FEET OR GREATER SHALL BE PROVIDED BY TRUSS SUPPLIER. D. LAMINATED VENEER LUMBER (LVL):
- 1. DESIGN STRESSES: a. E = 2,000,000 PSIb. $F_b = 2.800 PSI$
- c. $F_v = 285 \, PSI$ E. LAMINATED STRAND LUMBER (LSL)
- DESIGN STRESSES: a. E = 1,300,000 PSI b. $F_b = 1,700 PSI$
- c. $F_v = 400 PSI$ F. PARALLEL STRAND LUMBER (PSL)

a. E = 2,000,000 PSI

1. DESIGN STRESSES:

- b. $F_b = 2,900 PSI$ c. $F_v = 290 \text{ PSI}$
- G. GLULAM (DF) DESIGN STRESSES: a. E = 1,800,000 PSI
- b. $F_b = 2,400 \text{ PSI}$ c. $F_v = 265 PSI$

NOT LESS THAN NAILING SPECIFIED IN DIMENSIONAL LUMBER SECTION OF THESE NOTES.

H. MULTIPLE MEMBER BEAMS SHALL BE ASSEMBLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, BUT

INC. AND MAY NOT BE USED, COPIED OR DUPLICATED WITHOUT PRIOR WRITTEN CONSENT.

5TH WARD

PROJECT

LA CROSSE

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RESIDENCES **72 UNIT**

WISCONSIN

REVISION SCHEDULE DESCRIPTION

PROJECT NO. 20-24403 24403 Apartments Arch- R20.rv **FILE NAME** DRAWN BY **DESIGNED BY** DCM REVIEWED BY DCM ORIGINAL ISSUE DATE 09/15/2021

TITLE

CLIENT PROJECT NO.

STRUCTURAL

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| NAILING SCHEDULE | BASED ON THE INTERNATIONAL BUILDIN | NG CODE |] | | | |
|---|--|--|---|---|---------------------|--|
| DESCRIPTION OF BUILDING ELEMENTS | NUMBER AND TYPE OF FASTENER | SPACING AND LOCATION | DESCRIPTION OF BUILDING ELEMENTS | NUMBER AND TYPE OF FASTENER | SPA | ACING AND LOCATION |
| | ROOF | | | FLOOR | | |
| BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW | 3-8D COMMON (21/2" × 0.131"); OR 3-10D BOX (3" × 0.128"); OR 3-3" × 0.131" NAILS; OR 3-3"14 GAGE STAPLES, 7/16" CROWN | EACH END, TOE NAIL | 22. JOIST TO SILL, TOP PLATE, OR GIRDER | 3-8D COMMON (21/2" × 0.131"); OR FLOOR 3-10D BOX (3" × 0.128"); OR 3-3" × 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN | TOE NAI | IL |
| BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS | 2-8D COMMON (21/2" × 0.131") 2-3" × 0.131" NAILS 2-3" 14 GAGE STAPLES 2-16D COMMON (31/2" × 0.162") | EACH END, TOE NAIL | 23. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW | 8D COMMON (21/2" × 0.131"); OR 10D BOX (3" × 0.128"); OR 3" × 0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN | 6" O.C., 7 | TOENAIL |
| | 3-3" × 0.131" NAILS 3-3" 14 GAGE STAPLES | END NAIL | 24. 1" × 6" SUBFLOOR OR LESS TO EACH JOIST | 2-8D COMMON (21/2" × 0.131"); OR 2-10D BOX (3" × 0.128") | FACE NA | AIL |
| FLAT BLOCKING TO TRUSS AND WEB FILLER | 16D COMMON (31/2" × 0.162") @ 6" O.C. 3" × 0.131" NAILS @ 6" O.C. | FACE NAIL | 25. 2" SUBFLOOR TO JOIST OR GIRDER | 2-16D COMMON (31/2" × 0.162") | FACE NA | |
| TEM BEGGMAG TO TROOGNAD WEST LEELA | 3" × 14 GAGE STAPLES @ 6" O.C. | TAGETATIE | 26. 2" PLANKS (PLANK & BEAM – FLOOR & ROOF) | 2-16D COMMON (31/2" × 0.162") | | EARING, FACE NAIL , FACE NAIL AT TOP AND |
| 2. CEILING JOISTS TO TOP PLATE | 3-8D COMMON (21/2" × 0.131"); OR 3-10D BOX (3" × 0.128"); OR 3-3" × 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN | EACH JOIST, TOE NAIL | | 20D COMMON (4" × 0.192") 10D BOX (3" × 0.128"); OR 3" × 0.131" NAILS; OR | OPPOSIT 24" O.C. | A, STAGGERED ON TE SIDES FACE NAIL AT TOP AND A, STAGGERED ON |
| 3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUST) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1) | 3-16D COMMON (31/2" × 0.162"); OR 4-10D BOX (3" × 0.128"); OR 4-3" × 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN | FACE NAIL | 27. BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS | 3" 14 GAGE STAPLES, 7/16" CROWN AND: 2-20D COMMON (4" × 0.192"); OR | OPPOSIT | TE SIDES ND AT EACH SPLICE. |
| 4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1) | PER TABLE 2308.7.3.1 | FACE NAIL | | 3-10D BOX (3" × 0.128"); OR 3-3" × 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN 3-16D COMMON (31/2" × 0.162"); OR | FACE NA | |
| 5. COLLAR TIE TO RAFTER | 3-10D COMMON (3" × 0.148"); OR 4-10D BOX (3" × 0.128"); OR 4-3" × 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN | FACE NAIL | 28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS | 4-10D BOX (3" × 0.128"); OR 4-3" × 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN | EACH JC | DIST OR RAFTER, FACE NA |
| 6. RAFTER OR ROOF TRUSS TO TOP PLATE (SEE SECTION 2308.7.5, TABLE 2308.7.5) | 3-10 COMMON (3" × 0.148"); OR 3-16D BOX (31/2" × 0.135"); OR 4-10D BOX (3" × 0.128"); OR 4-3" × 0.131 NAILS; OR | TOE NAIL (FOOTNOTE C) | 29. JOIST TO BAND JOIST OR RIM JOIST | 3-16D COMMON (31/2" × 0.162"); OR 4-10D BOX (3" × 0.128"); OR 4-3" × 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN | END NAI | IL |
| | 4-3" 14 GAGE STAPLES, 7/16" CROWN 2-16D COMMON (31/2" × 0.162"); OR 3-10D BOX (3" × 0.128"); OR 3-3" × 0.131" NAILS; OR | END NAIL | 30. BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS | 2-8D COMMON (21/2" × 0.131"); OR 2-10D BOX (3" × 0.128"); OR 2-3" × 0.131" NAILS; OR 2-3" 14 GAGE STAPLES, 7/16" CROWN | EACH EN | ND, TOENAIL |
| 7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 2-INCH RIDGE | 3-3" 14 GAGE STAPLES, 7/16" CROWN; OR 3-10D COMMON (31/2" × 0.148"); OR | | | .NELS (WSP), SUBFLOOR, ROOF & INTERIOR WALL SHEA ICLEBOARD WALL SHEATHING TO FRAMING (FOOTNOTE | | |
| BEAM | 3-16D COMMON (31/2" × 0.146"), OR 3-16D BOX (31/2" × 0.135"); OR 4-10D BOX (3" × 0.128"); OR 4-3" × 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN | TOE NAIL | | 6D COMMON OR DEFORMED (2" × 0.113") (SUBFLOOR | EDGES (INCHES) | |
| | WALL | I | 11 | AND WALL) 8D BOX OR DEFORMED (21/2" × 0.113") (ROOF) | 6 | 12 |
| | 16D COMMON (31/2" × 0.162") | 24" O.C. FACE NAIL | 31. 3/8" – 1/2" | 2 3/8" × 0.113" NAIL (SUBFLOOR AND WALL) | 6 | 12 |
| 8. STUD TO STUD (NOT AT BRACED WALL PANELS) | 10D BOX (3" × 0.128"); OR 3" × 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN | 16" O.C. FACE NAIL | | #10 SCREWS (SUBFLOOR AND ROOF) 1 3/4" 16 GAGE STAPLE, 7/16" CROWN (SUBFLOOR AND WALL) | 6 | 12 8 |
| 9. STUD TO STUD AND ABUTTING STUDS AT | 16D COMMON (31/2" × 0.162"); OR 16D BOX (31/2" × 0.135"); OR | 24" O.C. FACE NAIL 12" O.C. FACE NAIL | | 2 3/8" × 0.113" NAIL (ROOF) | 4 | 8 |
| INTERSECTING WALL CORNERS (AT BRACED WALL PANELS) | 3" × 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN | 12" O.C. FACE NAIL | | 1 3/4" 16 GAGE STAPLE, 7/16" CROWN (ROOF) 8D COMMON (21/2" × 0.131"); OR | 6 | 12 |
| 10. BUILT-UP HEADER (2" TO 2" HEADER) | 16D COMMON (31/2" × 0.162"); OR 16D BOX (31/2" × 0.135") | 16" O.C. EACH EDGE, FACE NAIL 12" O.C. EACH EDGE, FACE NAIL | 32. 19/32" – 3/4" | 6D DEFORMED (2" × 0.113") #10 SCREWS | 6 | 12 |
| 11. CONTINUOUS HEADER TO STUD | 4-8D COMMON (21/2" × 0.131"); OR 4-10D BOX (3" × 0.128") | TOE NAIL | - | 2 3/8" × 0.113" NAIL; OR 2" 16 GAGE STAPLE, 7/16" CROWN | 4 | 8 |
| | 16D COMMON (31/2" × 0.162"); OR | 16" O.C. FACE NAIL | 33. 7/8" – 1 1/4" | 10D COMMON (3" × 0.148"); OR 8D DEFORMED (21/2" × 0.131") | 6 | 12 |
| 12. TOP PLATE TO TOP PLATE | 10D BOX (3" × 0.128"); OR 3" × 0.131" NAILS; OR | 12" O.C. FACE NAIL | | OTHER EXTERIOR WALL SHEATHING | | 1 |
| 13. TOP PLATE TO TOP PLATE, AT END JOINTS | 3" 14 GAGE STAPLES, 7/16" CROWN 8-16D COMMON (31/2" × 0.162"); OR 12-10D BOX (3" × 0.128"); OR 12-3" × 0.131" NAILS; OR | EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH | 34. 1/2" FIBERBOARD SHEATHING (FOOTNOTE B) | 1 1/2" GALVANIZED ROOFING NAIL (7/16" HEAD DIAMETER); OR 1 1/4" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN 1 3/4" GALVANIZED ROOFING NAIL | 3 | 6 |
| | 12-3" 14 GAGE STAPLES, 7/16" CROWN 16D COMMON (31/2" × 0.162"); OR | EACH SIDE OF END JOINT) 16" O.C. FACE NAIL | 35. 25/32" FIBERBOARD SHEATHING (FOOTNOTE B) | (7/16" DIAMETER HEAD); OR 1 1/2" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN | 3 | 6 |
| 14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS) | 16D BOX (31/2" × 0.135"); OR 3" × 0.131" NAILS; OR | 12" O.C. FACE NAIL | WOOD STRUCTURAL PAI | NELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FR 8D COMMON (21/2" × 0.131"); OR | RAMING | T |
| (NOT AT BRACED WALL PANELS) | 3" 14 GAGE STAPLES, 7/16" CROWN 2-16D COMMON (31/2" × 0.162"); OR | | 36. 3/4" AND LESS | 6D DEFORMED (2" × 0.113") | 6 | 12 |
| 15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS | 3-16D BOX (31/2" × 0.135"); OR 4-3" × 0.131" NAILS; OR | 16" O.C. FACE NAIL | 37. 7/8" – 1" | 8D COMMON (21/2" × 0.131"); OR 8D DEFORMED (21/2" × 0.131") | 6 | 12 |
| | 4-3" 14 GAGE STAPLES, 7/16" CROWN 4-8D COMMON (21/2" × 0.131"); OR | | 38. 1 1/8" – 1 1/4" | 10D COMMON (3" × 0.148"); OR 8D DEFORMED (21/2" × 0.131") | 6 | 12 |
| | 4-10D BOX (3" × 0.128"); OR 4-3" × 0.131" NAILS; OR | TOE NAIL | | PANEL SIDING TO FRAMING | | T |
| 16. STUD TO TOP OR BOTTOM PLATE | 4-3" 14 GAGE STAPLES, 7/16" CROWN; OR 2-16D COMMON (31/2" × 0.162"); OR | | 39. 1/2" OR LESS | 6D CORROSION-RESISTANT SIDING (17/8" × 0.106"); OR 6D CORROSION-RESISTANT CASING (2" × 0.099") | 6 | 12 |
| | 3-10D BOX (3" × 0.128"); OR 3-3" × 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN 2-16D COMMON (31/2" × 0.162"); OR | END NAIL | 40. 5/8" | 8D CORROSION-RESISTANT SIDING (23/8" × 0.128"); OR 8D CORROSION-RESISTANT CASING (21/2" × 0.113") | 6 | 12 |
| 17. TOP OR BOTTOM PLATE TO STUD | 3-10D BOX (3" × 0.128"); OR 3-3" × 0.131" NAILS; OR | END NAIL | | INTERIOR PANELING | | 1 |
| | 3-3" 14 GAGE STAPLES, 7/16" CROWN | | 41. 1/4" | 4D CASING (11/2" × 0.080"); OR 4D FINISH (11/2" × 0.072") | 6 | 12 |
| 18. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS | 2-16D COMMON (31/2" × 0.162"); OR 3-10D BOX (3" × 0.128"); OR 3-3" × 0.131" NAILS; OR | FACE NAIL | 42. 3/8" | 6D CASING (2" × 0.099"); OR 6D FINISH (PANEL SUPPORTS AT 24 INCHES) | 6 | 12 |
| | 3-3" 14 GAGE STAPLES, 7/16" CROWN | | FOOTNOTES: | <u> </u> | | |
| 19. 1" BRACE TO EACH STUD AND PLATE | 2-8D COMMON (21/2" × 0.131"); OR 2-10D BOX (3" × 0.128"); OR 2-3" × 0.131" NAILS; OR 2-3" 14 GAGE STAPLES, 7/16" CROWN | FACE NAIL | COMMON, BOX OR CASING. | EAR WALLS, REFER TO SECTION 2305. NAILS FOR WALL | SHEATHING | G ARE PERMITTED TO BE |
| 20. 1" × 6" SHEATHING TO EACH BEARING | 2-8D COMMON (21/2" × 0.131"); OR 2-10D BOX (3" × 0.128") | FACE NAIL | MARKED). | INCHES IF STRENGTH AXIS IN THE LONG DIRECTION OF | THE PANEL | L, UNLESS OTHERWISE |
| 21. 1" × 8" AND WIDER SHEATHING TO EACH BEARING | 3-8D COMMON (21/2" × 0.131"); OR 3-10D BOX (3" × 0.128") | FACE NAIL | C. WHERE A RAFTER IS FASTENED TO AN ADJACENT P FASTENED TO THE TOP PLATE IN ACCORDANCE WIT REDUCED BY ONE NAIL. | ARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SC TH THIS SCHEDULE, THE NUMBER OF TOENAILS IN THE F | | |

| _ | | |
|---|---------------|--|
| | FRAMING NOTES | |

PARALLEL FLOOR TRUSS WEBS TO ALIGN. PROVIDE H2.5T SIMPSON STRONGTIE CONNECTORS AT EACH ROOF TRUSS, TYPICAL UNO. TRUSS HANGERS AT GIRDER TRUSSES BY TRUSS SUPPLIER. GENERAL CONTRACTOR TO COORDINATE TRUSS

ALL HEADERS TO BE PLACED DIRECTLY ABOVE OPENING,

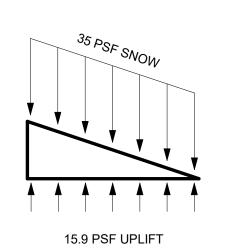
LOCATIONS WITH PLUMBING, MECHANICAL, AND ELECTRICAL. ALL ROOF TRUSSES TO BE MONOSLOPE TRUSSES BEARING ON INTERIOR WALLS AS INDICATED, UNO. TOP CHORDS TO CANTILEVER OVER CORRIDORS WHERE APPLICABLE. REFER TO SECTIONS FOR MORE INFORMATION.

1' - 0" HEEL HEIGHTS UNO.

GENERAL CONTRACTOR TO COORDINATE TRUSS AND FRAMING LAYOUT W/ MECHANICAL, ELECTRICAL, AND PLUMBING DOCUMENTS AND CONTRACTORS PRIOR TO FABRICATION AND ERECTION TO ACCOUNT FOR ALL POTENTIAL INTERFERENCES BETWEEN STRUCTURE AND FIXTURES, ETC. TRUSS MANUFACTURER TO PROVIDE ADEQUATE SUPPORT FOR POINT LOADS AT LOCATIONS WHERE COLUMNS COME DOWN ON A TRUSS.). PROVIDE STUB COLUMNS IN TRUSS SPACE TO CONTINUE

LOADS THROUGH FLOOR ASSEMBLY TO FOUNDATION.

UNBALANCED SNOW LOAD



3 CANOPY SNOW LOAD

1" = 10'-0"

FOOTING SCHEDULE THICKNESS CONT MARK LENGTH WIDTH FOOTING FOOTING REINFORCING COMMENTS 1' - 4" (2) #5 BARS CONTINUOUS 1' - 0" 2' - 0" (2) #5 BARS CONTINUOUS 3' - 0" 1' - 0" (3) #5 BARS CONTINUOUS W/ #5 BARS @ 36" OC TRANS #5 BARS @ 12" OCEW 3' - 0" 3' - 0" 5' - 0" 5' - 0" #5 BARS @ 12" OCEW 7' - 0" 7' - 0" 1' - 4" #6 BARS @ 12" OCEW 8' - 0" 8' - 0" 1' - 6" #7 BARS @ 12" OCEW 14' - 8" 13' - 0" #6 BARS @ 12" OCEW

| | | | FOUNDATION WALL SCHEDULE | |
|------|---------|----------|--------------------------------|----------|
| MARK | WIDTH | MATERIAL | REINFORCING | COMMENTS |
| FDN1 | 0' - 8" | CIP | #4 BARS @ 12" OCEW | |
| FDN2 | 1' - 0" | CIP | (2) MATS OF #5 BARS @ 12" OCEW | |
| | | | | |

| | PIER SCHEDULE | | | | | | |
|------|---------------|---------|----------|--|----------|--|--|
| IARK | LENGTH | WIDTH | DIAMETER | REINFORCING | COMMENTS | | |
| P1 | 1' - 0" | 1' - 0" | | (4) #5 BARS VERTICAL W/ #4 TIES @ 12" OC AND (3) #4 TIES IN TOP 9" | | | |
| P2 | 1' - 4" | 1' - 8" | | (6) #6 BARS VERTICAL W/ #4 TIES @ 12" OC AND (3) #4 TIES IN TOP 9" | | | |

| COLUMN SCHEDULE | | | | | | |
|-----------------|-----------------------------------|---|--|--|--|--|
| MARK | SIZE/TYPE | COMMENTS | | | | |
| C1 | 24" X 24" PRECAST | SIZE AND REINFORCING BY PRECAST SUPPLIER, TBD | | | | |
| C2 | HSS 3X3X5/16 | | | | | |
| С3 | 5 1/4" X 5 1/4" PARALLAM PSL 2.0E | WRAP COLUMNS LOCATED IN EXTERIOR WALLS WITH (1) LAYER 5/8" TYPE X EXTERIOR GYPSUM BOARD TO PROVIDE A 1 HOUR FIRE RATING, WRAP COLUMNS IN INTERIOR PARTITIONS WITH (1) LAYER 5/8" TYPE X GYPSUM BOARD TO PROVIDE A 1 HOUR FIRE RATING. SIZE AND REINFORCING BY PRECAST SUPPLIER, TBD | | | | |
| C4 | 32" X 24" CMU | #5 BAR VERTICAL IN EACH CORE, FULLY GROUTED | | | | |
| C5 | PT 6X6 DFL NO2 | PROVIDE SST ABU66Z BASE & CCQ44SDS2.5; TYP. AT EACH COLUMN | | | | |

| HEADER SCHEDULE | | | | | | | |
|-----------------|---------------------------|---------------|---------------|---------------------------|--|--|--|
| MARK | SIZE | JACK STUDS | KING STUDS | COMMENTS | | | |
| H1 | (2) 2X8 | 1 | 1 | | | | |
| НЗ | (2) 2X10 | 1 | 1 | | | | |
| H4 | (2) 2X10 | 2 | 2 | | | | |
| H5 | (2) 2X10 | 3 | 2 | | | | |
| H6 | (2) 2X12 | 1 | 1 | | | | |
| H7 | (2) 2X12 | 1 | 2 | | | | |
| H8 | (3) 2X12 | 2 | 1 | | | | |
| H9 | (3) 2X12 | 2 | 2 | | | | |
| H10 | (3) 2X12 | 3 | 2 | | | | |
| H11 | (3) 2X12 | 3 | 3 | | | | |
| H12 | (3) 2X12 | 4 | 2 | | | | |
| H13 | (3) 2X12 | 4 | 3 | | | | |
| H14 | (2) 1 3/4" X 11 7/8" | 1 | 1 | | | | |
| H16 | (3) 1 3/4" X 14" LVL | | | | | | |
| H17 | (2) 1 3/4" X 11 7/8" LVL | | | REFER TO PLAN FOR BEARING | | | |
| H18 | (3) 1 3/4" X 11 7/8" I VI | | | | | | |

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PROJECT **5TH WARD RESIDENCES**

> **72 UNIT APARTMENT BUILDING**

LA CROSSE WISCONSIN REVISION SCHEDULE

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| PROJECT NO. | | 20-24403 | |
| FILE NAME | | 24403 Apartments Arch- R20.rvt | |

DRAWN BY DCM **DESIGNED BY** DCM **REVIEWED BY** ORIGINAL ISSUE DATE 09/15/2021 CLIENT PROJECT NO.

TITLE

STRUCTURAL SCHEDULES

S1-01

| | 38.2 PSF | |
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WINDWARD LEEWARD

5' - 0"

4 ENTRANCE ROOF SNOW DRIFT LOAD

1/2" = 1'-0"

- RE-ENTRANT CORNERS CONTROL JOINTS **EXAMPLE CONTROL JOINT PLAN** BOXOUT FOUNDATION WALL CORNER FOUNDATION **EXAMPLE PILASTER JOINT PLAN** DOWELED CONSTRUCTION EXAMPLE MULTIPLE DOCK LEVELER JOINT PLAN

CONTROL JOINT PLACEMENT

GUIDELINES

SPACE JOINTS (IN FEET) NO MORE THAN 2-3 TIMES THE

SLAB THICKNESS (IN INCHES). FOR EXAMPLE, A 4" SLAB

CUT JOINTS USING GROOVING TOOLS IN FRESH CONCRETE

OR SAW CUTTING JOINTS AS SOON AS THE CONCRETE IS

IN HOT WEATHER, CONCRETE MIGHT CRACK IF JOINTS ARE

NOT CUT WITHIN 6-12 HOURS AFTER FINISHING CONCRETE.

WHERE POSSIBLE, PLACE JOINTS UNDER PROPOSED NON-

LOAD-BEARING WALL LOCATIONS OR UNDER CARPET

MINIMIZE RE-ENTRANT CORNERS AND AVOID WHERE

HARD ENOUGH THAT THE EDGES ABUTTING THE CUT

SHOULD HAVE JOINTS 8' TO 12' APART.

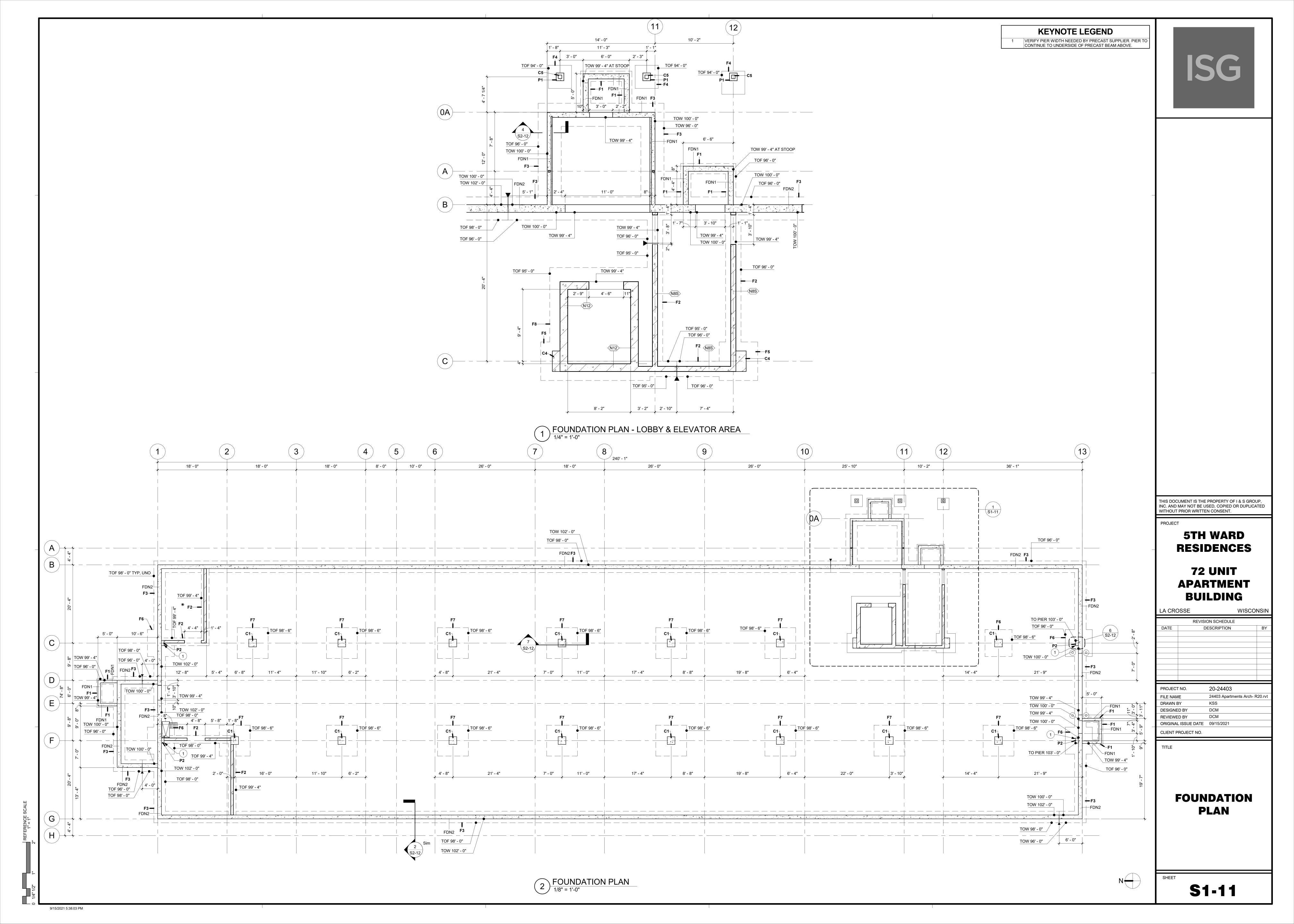
DON'T CHIP FROM THE SAW BLADE.

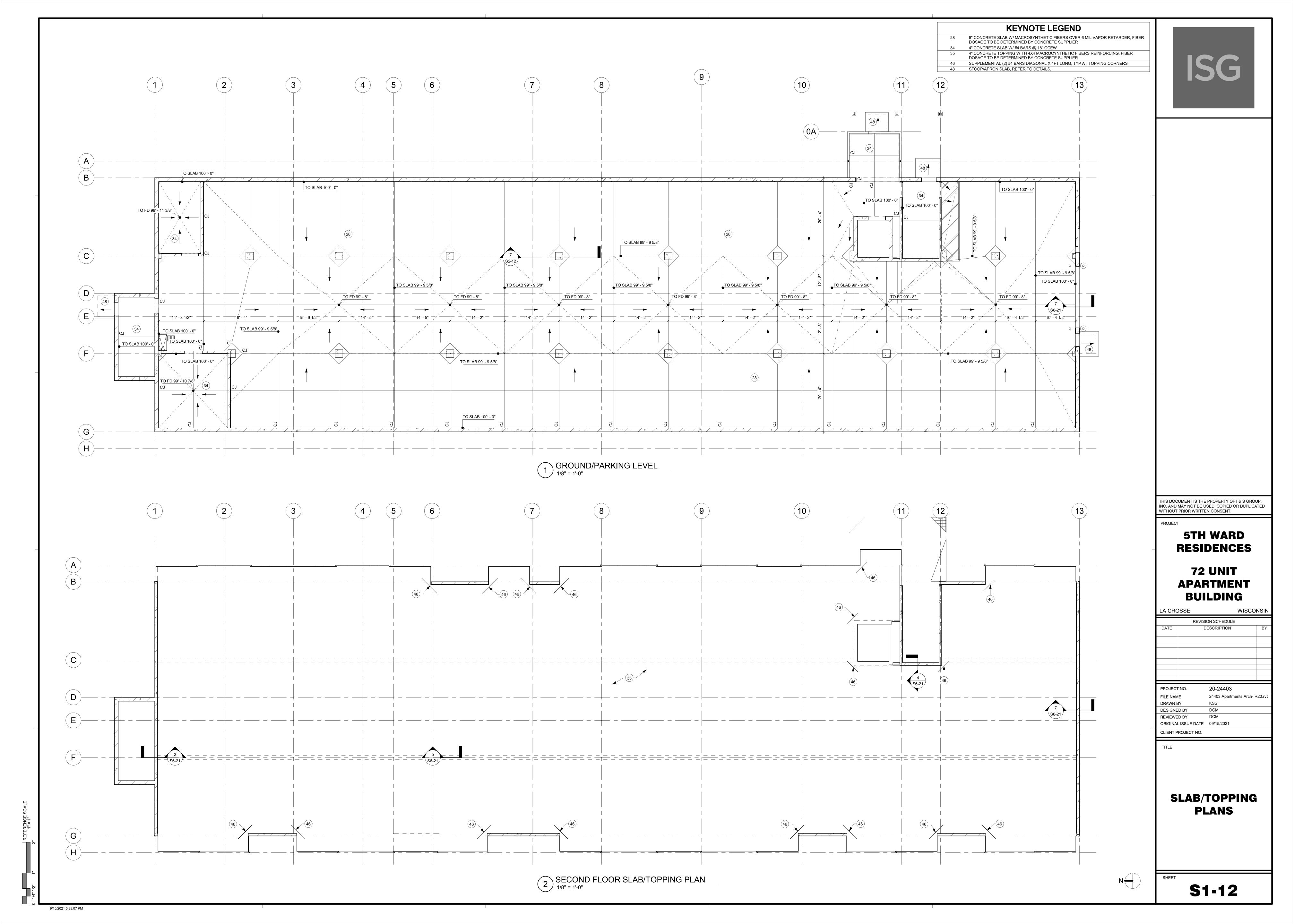
ACCORDINGLY.

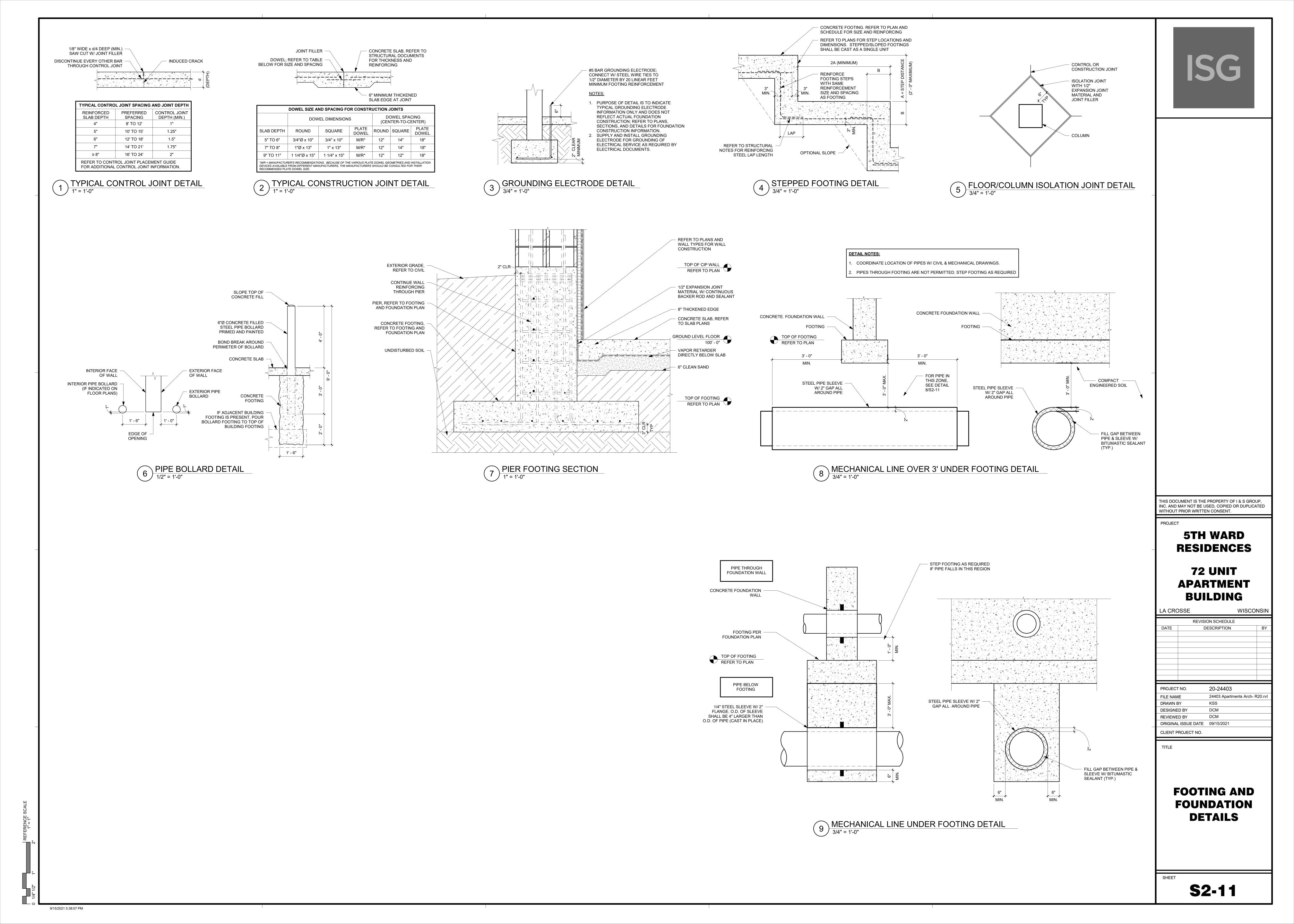
CUT JOINTS 25% OF THE DEPTH OF SLAB, MIN.

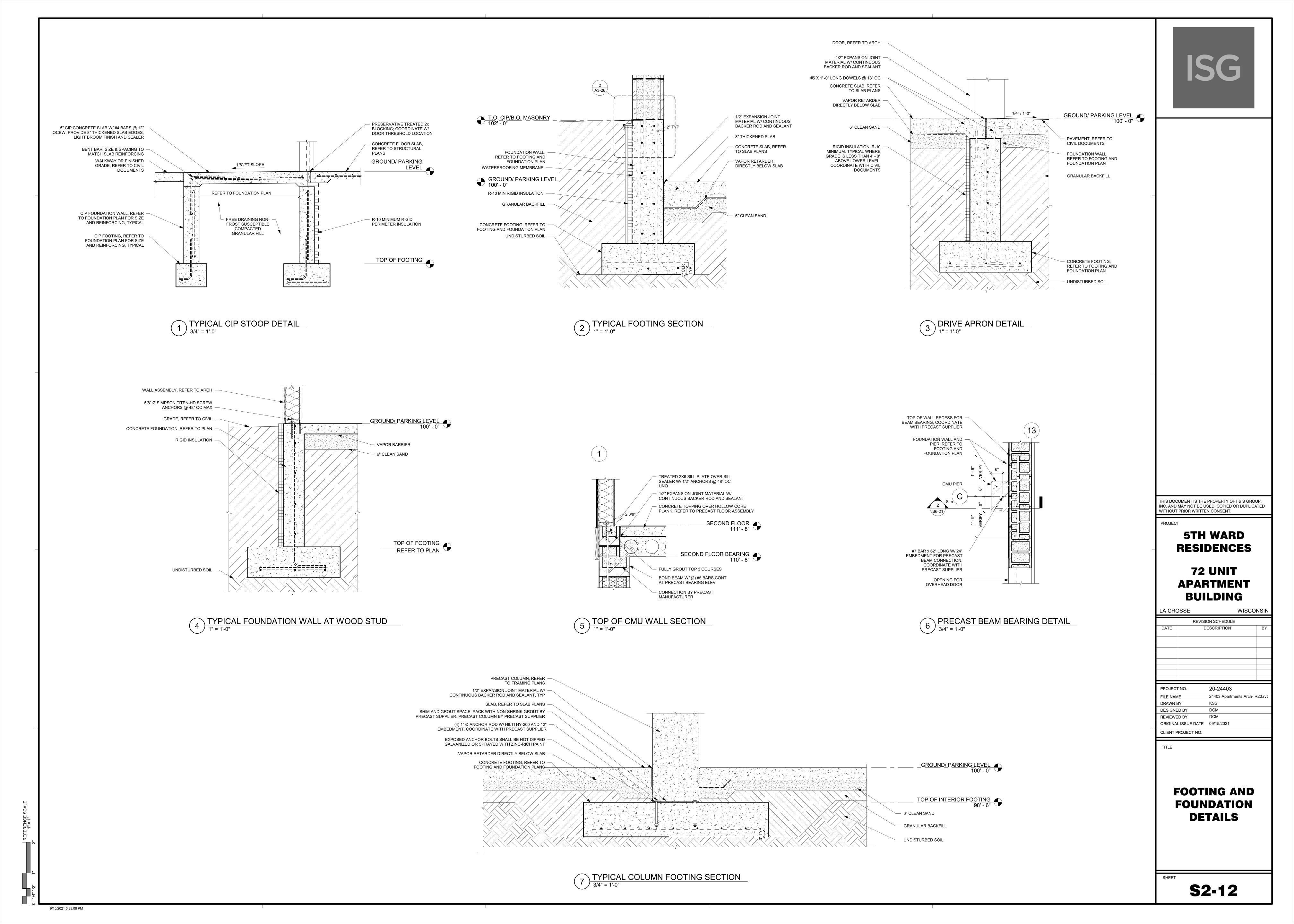
PLAN ALTERNATE JOINT CUTTING EQUIPMENT

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PRECAST LOADING LEGEND CONCENTRATED POINT LOAD MARK DEAD LOAD SNOW LOAD LIVE LOAD 5.7 K 1.9 K 6.6 K 5.1 K 2.3 K 14.4 K SUPERIMPOSED UNIFORM LINE LOAD MARK DEAD LOAD SNOW LOAD LIVE LOAD 0.8 KLF 2.4 KLF 1.5 KLF 0.0 KLF 3.1 KLF 0.2 KLF 1.1 KLF 0.8 KLF 0.25 KLF 1.1 KLF 0.7 KLF SHEAR WALL LOADING LATERAL SHEAR LOAD = 500 PLF END REACTIONS = 10 K IN UP OR DOWNWARD DIRECTIONS

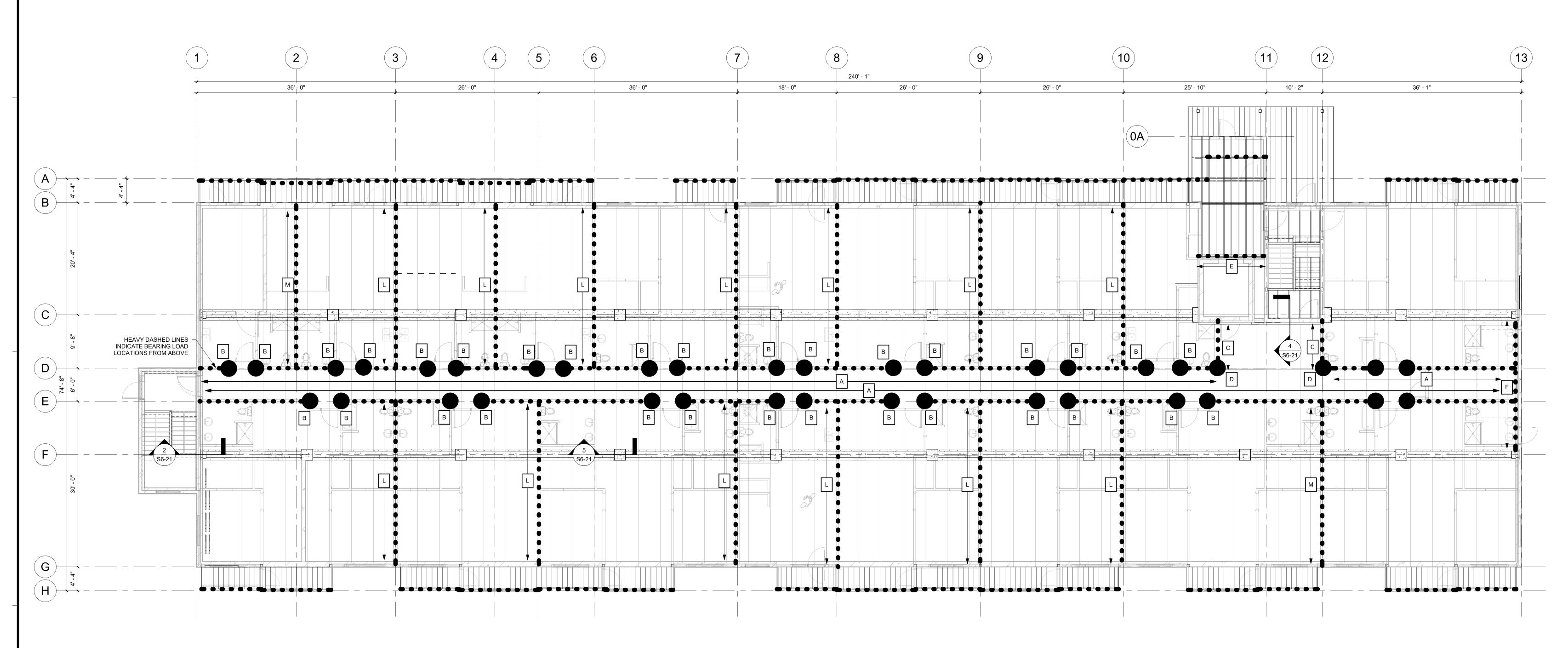
ISG

TYPICAL SUPERIMPOSED FLOOR LOADING

LATERAL SHEAR LOAD = 750 PLF END REACTIONS = 17 K IN UP OR DOWNWARD DIRECTIONS

SELF WEIGHT DL + 4" STRUCTURAL TOPPING
40 psf LL RESIDENTIAL ROOMS
100 psf LL LOBBY/CORRIDOR

132 plf DL CANTILEVERED PLANK ENDS



1 FIRST FLOOR PRECAST LOADING PLAN
1/8" = 1'-0"

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PROJECT

5TH WARD RESIDENCES

72 UNIT
APARTMENT
BUILDING

LA CROSSE WISCON

| REVISION SCHEDULE | | | | |
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| DRAWN BY | | KSS | | |
| DESIGNED BY | | DCM | | |
| REVIEWED BY | | DCM | | |
| ORIGINAL ISSUE DATE | | 09/15/2021 | | |

TITLE

CLIENT PROJECT NO.

SECOND FLOOR PRECAST LOADING PLAN

SHEE

S3-11

