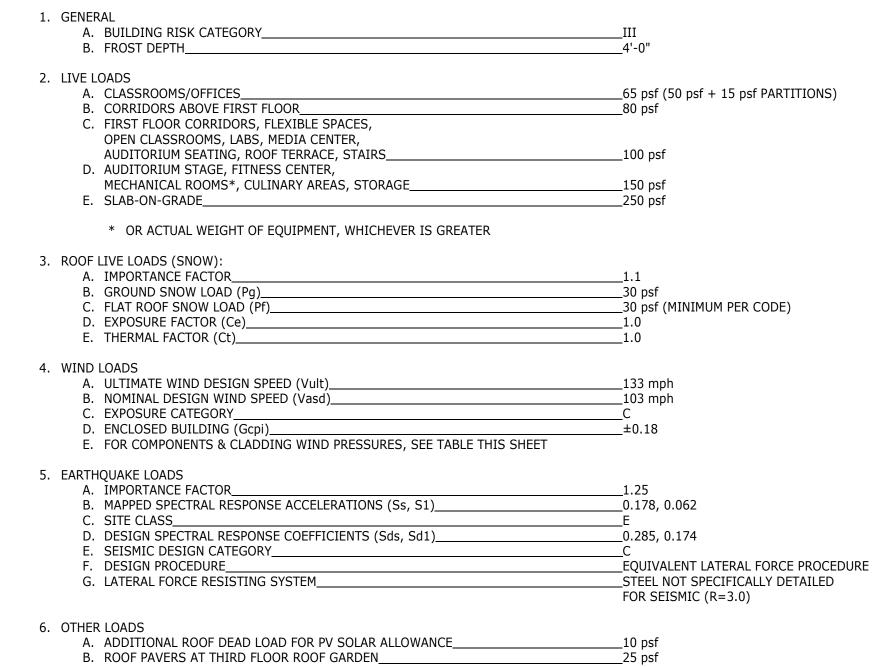
A. GENERAL STRUCTURAL REQUIREMENTS

AND CODES SHALL GOVERN.

REFERENCED STANDARDS.

- 1. ALL METHODS OF CONSTRUCTION, DETAILS, NOTES, ETC., INDICATED ON THE DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
- 2. CONSTRUCTION SHALL BE MADE FROM APPROVED SHOP DRAWINGS ONLY.
- 3. ANY DISCREPANCIES ON THESE PLANS WITH REGARD TO DIMENSIONS OR CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF WORK.
- 4. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT AND THE RHODE ISLAND STATE BUILDING CODE.
- 5. THE LATEST EDITION OF THE FOLLOWING LISTED CODES SHALL APPLY. IN CASE OF CONFLICT, THE MORE RIGID REQUIREMENTS
- A. RHODE ISLAND STATE BUILDING CODE (STATE CODE): INTERNATIONAL BUILDING CODE, 2018 EDITION AND ITS APPLICABLE
- B. AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS AND ITS CODE OF STANDARD PRACTICE (AISC).
- C. AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318.
- D. AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES, ACI 530 AND ACI
- 6. THE DESIGN LOADS ARE RESISTED BY THE COMPLETED STRUCTURE ACTING AS A UNIT. THE CONTRACTOR SHALL DESIGN AND PROVIDE ANY AND ALL TEMPORARY BRACING, SHORING, OR ADDITIONAL REINFORCEMENT NECESSARY TO RESIST LOADS IMPOSED ON ANY PORTION OF THE STRUCTURE THROUGHOUT ALL STAGES OF CONSTRUCTION. THE SHORING SHALL BE DESIGNED TO RESIST ALL DEAD LOADS AND ANY APPLICABLE CONSTRUCTION LOADS.
- 7. ALL SHORING DESIGNS AND PLANS SHALL BE STAMPED BY A RHODE ISLAND REGISTERED PROFESSIONAL ENGINEER.
- 8. COLUMN ANCHOR RODS ARE NOT DESIGNED TO TEMPORARILY CANTILEVER FROM THE FOUNDATIONS. ALL STEEL MUST BE TEMPORARILY BRACED AND GUYED UNTIL THE BUILDING IS LATERALLY STABLE.
- 9. NOTES AND TYPICAL DETAILS APPLY TO ALL STRUCTURAL WORK UNLESS OTHERWISE NOTED. FOR CONDITIONS NOT SPECIFICALLY SHOWN PROVIDE DETAILS OF SIMILAR NATURE. VERIFY APPLICABILITY BY SUBMITTING SHOP DRAWINGS FOR REVIEW.
- 10. PLANS SHALL NOT BE SCALED FOR DIMENSIONS.
- 11. ARCHITECTURAL AND MEP DRAWINGS MUST BE USED IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS DURING ALL PHASES OF CONSTRUCTION.

B. DESIGN LOADS



C. FOUNDATIONS

- 1. FOUNDATIONS HAVE BEEN DESIGNED BASED UPON AN ALLOWABLE BEARING PRESSURE OF 3.0 KSF FOLLOWING GROUND IMPROVEMENTS. REFER TO GEOTECHNICAL REPORT DATED AUGUST 4, 2023, PREPARED BY LAHLAF GEOTECHNICAL CONSULTING, INC.
- 2. NO FOOTING OR SLAB SHALL BE PLACED ON FROZEN SOIL OR IN WATER.
- 3. FOOTINGS AND FOUNDATION WALLS SHALL BEAR A MINIMUM OF 4'-0" BELOW FINISH GRADE, UNLESS NOTED OTHERWISE.
- 4. FOOTINGS AND SLABS SHALL BEAR ON GROUND IMPROVED WITH AGGREGATE PIERS AND/OR RIGID INCLUSIONS. THE GROUND IMPROVEMENTS SHALL BE INSTALLED WITHIN THE ENTIRE BUILDING FOOTPRINT AND BENEATH SITE RETAINING WALLS. THE GROUND IMPROVEMENTS SHALL EXTEND LATERALLY TO WITHIN THE ZONE OF INFLUENCE OF FOUNDATIONS. SUBGRADE PREPARATION BELOW ALL FOOTINGS, FOUNDATION WALLS, AND SLABS SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER.
- 5. ALL SURFACE WATER SHALL BE DIVERTED AWAY FROM EXCAVATION BY THE CONTRACTOR. CONTRACTOR SHALL MAINTAIN CONTINUOUS CONTROL OF SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION SO THAT WORK IS DONE UNDER DRY CONDITIONS.
- SHORING AND BRACING FOR THE LATERAL SUPPORT OF EXCAVATION SHALL REMAIN IN PLACE UNTIL ALL PERMANENT STRUCTURAL SYSTEMS ARE COMPLETE.
- 7. PERCENT COMPACTION IS DEFINED AS THE RATIO OF THE FIELD MEASURED DRY DENSITY, DETERMINED BY ASTM D-6938, COMPARED TO THE MAXIMUM DRY DENSITY, DETERMINED BY ASTM D-1557 (MODIFIED PROCTOR).
- 8. COMPACT BACKFILL UNDER ALL FOOTINGS, FOUNDATION WALLS, AND SLABS ON GRADE TO A MINIMUM OF 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557, UNLESS OTHERWISE INDICATED OR SPECIFIED. FREQUENCY OF COMPACTION TESTING SHALL BE INDICATED BY THE GEOTECHNICAL ENGINEER AND PROJECT SPECIFICATIONS.
- 9. DO NOT BACKFILL AGAINST CONCRETE WALLS UNTIL WALLS AND SUPPORTING SLABS HAVE REACHED THE 7-DAY SPECIFIED DESIGN STRENGTH. DO NOT BACKFILL AGAINST CONCRETE RETAINING WALLS (AND FOUNDATION WALLS ACTING AS RETAINING WALLS) UNTIL CONCRETE HAS REACHED 28-DAY SPECIFIED DESIGN STRENGTH.
- 10. BACKFILL SHALL BE PLACED AND COMPACTED SIMULTANEOUSLY ON BOTH SIDES OF FOUNDATION WALLS.
- 11. ANY BOULDER, LEDGE, OR ANY OTHER OBSTRUCTION LOCATED WITHIN THE BUILDING AREA SHALL BE REMOVED TO A DEPTH OF AT LEAST 6" (MIN.) BELOW FOOTINGS AND AT LEAST 24" (MIN.) BELOW SLABS. VOIDS SHALL BE BACKFILLED WITH STRUCTURAL FILL APPROVED BY THE GEOTECHNICAL ENGINEER.
- 12. NO UTILITIES SHALL BE LOCATED WITHIN A REFERENCE LINE DRAWN OUTWARD AND DOWNWARD ON A 1.5H:1V SLOPE FROM THE BOTTOM OF FOOTINGS. NEW UTILITIES SHALL BE LOCATED OUTSIDE OF THIS ZONE. EXISTING UTILITIES SHALL BE REMOVED AND/OR RELOCATED SO THEY ARE OUTSIDE OF THIS ZONE. ALL EXCAVATIONS SHALL BE BACKFILLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- 13. SLAB PROOF-COMPACTION AND SUBGRADE PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND VERIFIED BY THE GEOTECHNICAL ENGINEER. SLABS-ON-GRADE SHALL BE SUPPORTED ON A MINIUMUM OF 12 INCHES OF STRUCTURAL FILL PLACED ON GROUND IMPROVED WITH AGGREGATE PIERS AND/OR RIGID INCLUSIONS. PROVIDE A 15 MIL VAPOR BARRIER UNDER SLABS-ON-GRADE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND PROJECT SPECIFICATIONS.
- 14. FOUNDATION/FOOTING PROOF-COMPACTION AND SUBGRADE PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND VERIFIED BY THE GEOTECHNICAL ENGINEER. FOOTINGS/FOUNDATIONS SHALL BE SUPPORTED ON A MINIMUM OF 6 INCHES OF STRUCTURAL FILL PLACED DIRECTLY OVER NATURAL SAND AND GRAVEL OR ON GROUND IMPROVED WITH AGGREGATE PIERS OR RIGID INCLUSIONS PER THE GEOTECHNICAL REPORT.
- 15. COORDINATE PIPING PASSING THROUGH EXTERIOR FOUNDATION WALLS. PIPING SHALL NOT PASS THROUGH OR BELOW WALL FOOTING. FOOTING SHALL STEP AS REQUIRED TO ALLOW PIPING TO PASS THROUGH THE WALL.
- 16. FOOTINGS SHALL BE STEPPED AT A MAXIMUM SLOPE OF 2 HORIZONTAL TO 1 VERTICAL, UNLESS NOTED OTHERWISE. (SEE TYPICAL DETAILS).
- 17. ANY PLAN FOR GROUND IMPROVEMENT SHALL BE PREPARED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS AND SUBMITTED FOR REVIEW BY THE GEOTECHNICAL ENGINEER. NO GROUND IMPROVEMENT SHALL BEGIN ON THE SITE UNTIL THE SUBMITTAL HAS BEEN REVIEWED AND APPROVED BY THE GEOTECHNICAL ENGINEER. THE PROPOSED GROUND IMPROVEMENT SYSTEM SHALL IN NO WAY CHANGE OR IMPACT THE DESIGN AND/OR PERFORMANCE OF THE FOUNDATION AND THE NEW CONSTRUCTION.

D. CAST-IN-PLACE CONCRETE

- 1. CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND STATE CODE.
- 2. CONCRETE SHALL BE PROPORTIONED, MIXED, AND PLACED UNDER THE SUPERVISION OF THE APPROVED TESTING AGENCY.
- 3. UNLESS NOTED OTHERWISE, CONCRETE SHALL BE NORMAL WEIGHT, WITH TYPE II CEMENT, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:
- A. 4,000 PSI 3/4" AGGREGATE TYPICAL, U.N.O.
- B. 4,000 PSI 3/8" AGGREGATE CONCRETE FILL AT METAL PAN STAIRS
 C. 3,000 PSI 3/4" AGGREGATE EXTERIOR ROOFTOP EQUIPMENT PADS (SEE TYPICAL DETAIL ON S0.23)
- 4. CONCRETE SPECIFIED AS LIGHTWEIGHT (SLABS-ON-METAL-DECK WHERE INDICATED ON THE DRAWINGS) SHALL USE TYPE II CEMENT AND 3/4" LIGHTWEIGHT AGGREGATE CONFORMING TO ASTM C330. LIGHTWEIGHT CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. THE CALCULATED EQUILIBRIUM UNIT WEIGHT SHALL BE 115 PCF +/ 3 PCF.
- PROVIDE CONCRETE MOISTURE VAPOR REDUCTION ADMIXTURE (MVRA) AT ALL INTERIOR SLABS-ON-GRADE. REFER TO SPECIFICATIONS SECTION 03 30 00 FOR REQUIREMENTS. DO NOT PROCEED WITH CONCRETE PLACEMENTS CONTAINING "MVRA" WITHOUT "MVRA" REPRESENTATIVE PRESENT.
- 6. ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL BE AIR-ENTRAINED WITH AN AIR CONTENT OF 6%± 1%. INTERIOR SLABS ON GRADE AND INTERIOR SLAB-ON-METAL DECK THAT UTILIZES NORMAL WEIGHT CONCRETE (E.G. CONCRETE FILL AT METAL PAN STAIRS) SHALL NOT BE AIR-ENTRAINED. SLAB-ON-METAL DECK WITH LIGHTWEIGHT CONCRETE SHALL BE AIR-ENTRAINED WITH AN AIR CONTENT OF 4% TO 7%.
- 7. CALCIUM CHLORIDE SHALL NOT BE USED.
- 8. ALL CONSTRUCTION JOINT LOCATIONS MUST BE SHOWN ON SHOP DRAWINGS AND APPROVED BY THE ENGINEER. CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS SHALL BE LOCATED SO AS TO LEAST IMPAIR THE STRENGTH OF
- THE STRUCTURE AND SHOULD GENERALLY BE LOCATED AT MIDSPAN OR AT POINTS OF MINIMUM SHEAR.
- 9. ALL SHORING SHALL REMAIN IN PLACE UNTIL CONCRETE HAS ATTAINED ITS SPECIFIED 28 DAY COMPRESSIVE STRENGTH.
 10. PROVIDE A SMOOTH RUBBED SURFACE, FREE FROM BURRS, TIE HOLES, HONEYCOMBING, ETC. ON EXPOSED CONCRETE
- 11. PROVIDE A STEEL TROWELED FINISH FOR INTERIOR SLABS AND A BROOM FINISH FOR EXTERIOR SLABS. NOTE THAT LIGHTWEIGHT CONCRETE SLABS CONTAIN ENTRAINED AIR. REFER TO ACI RECOMMENDATIONS FOR FINISHING AIR-
- 12. ALL EXPOSED EDGES SHALL BE CHAMFERED 1" UNLESS NOTED OTHERWISE.
- 13. WHEN CONCRETE IS PLACED AGAINST PREVIOUSLY HARDENED CONCRETE, THE INTERFACE SHALL BE CLEAN, FREE OF LAITANCE, AND INTENTIONALLY ROUGHENED TO FULL AMPLITUDE OF APPROXIMATELY 1/4 INCH.
- 14. AT ALL CONSTRUCTION JOINTS NOT DESIGNATED TO BE CONTROL JOINTS, NEW CONCRETE SHALL BE EPOXY BONDED TO HARDENED CONCRETE WITH SIKADUR 32 H1-MOD LPL MANUFACTURED BY SIKA CORP. OR ENGINEER APPROVED EQUAL. APPLY PER MANUFACTURER'S RECOMMENDATIONS.
- 15. ELASTOMERIC JOINT SEALANT SHALL BE "SIKAFLEX 1CSL" BY SIKA CORP. OR ENGINEER APPROVED EQUAL. SEMI-RIGID EPOXY JOINT SEALANT FOR SLAB CONTROL JOINTS (OR SAWN JOINTS) SHALL BE "SIKADUR 51 SL" AS MANUFACTURED BY SIKA CORP. OR ENGINEER APPROVED EQUAL.
- 16. ALL CONCRETE SHALL BE PLACED IN THE DRY.

ENTRAINED LIGHTWEIGHT CONCRETE.

- 17. PROVIDE POUR STOPS AT THE EDGES OF CONCRETE SLAB POURS WHERE NOT OTHERWISE CONTAINED.
- 18. PROVIDE NON-SHRINK, NON-METALLIC GROUT UNDER ALL BASE PLATES. PROVIDE MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 8,000 PSI FOR GROUT.

E. REINFORCING STEEL

- REINFORCING BARS SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES AND THE STATE CODE.
- COMPLETE SHOP DRAWINGS AND SCHEDULES OF ALL REINFORCING STEEL SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF THAT PORTION OF THE WORK. ALL ACCESSORIES MUST BE SHOWN ON THE SHOP DRAWINGS.
- 3. REINFORCING BARS SHALL CONFORM TO ASTM A615 OR A706 (WELDABLE) GRADE 60.
- 4. REINFORCING STEEL SHALL BE UNCOATED, UNLESS NOTED OTHERWISE. HOWEVER, ALL SUPPORTS SUCH AS CHAIRS, BOLSTERS, SPACERS, BLOCKS AND HANGERS SHALL BE OF NON-CORROSIVE MATERIAL. PROVIDE MINIMUM #5
- 5. UNLESS NOTED ON THE DRAWINGS, THE MINIMUM CONCRETE PROTECTION (CLEAR COVER) FOR CAST-IN-PLACE CONCRETE COVER SHALL BE AS FOLLOWS:
- A. CONCRETE PLACED AGAINST EARTH_____3"
 B. FORMED CONCRETE EXPOSED TO EARTH OR WATER____2"
- ALL MECHANICAL SLEEVE CONNECTIONS SHALL CONFORM TO ACI 318 REQUIREMENTS AND DEVELOP IN TENSION AND COMPRESSION AT LEAST 125% OF THE YIELD STRENGTH OF THE BAR.
- 7. WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A1064 AND SHALL BE SUPPLIED IN FLAT SHEETS ONLY. SPLICES OF WWF SHALL BE AT LEAST 12 INCHES.
- 3. ALL REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.
- 9. UNLESS NOTED OTHERWISE, BARS SHALL BE CONTINUOUS AND SHALL RUN CONTINUOUSLY AROUND CORNERS AND LAPPED AT NECESSARY SPLICES OR HOOKED AT DISCONTINUOUS ENDS. SPLICES SHALL GENERALLY OCCUR AT MIDSPAN FOR TOP AND MIDDLE BARS, AT SUPPORT FOR BOTTOM BARS AND SHALL BE STAGGERED WHEREVER POSSIBLE.
- 10. BARS SHALL NOT BE CUT OR OMITTED FOR SLEEVE OR OPENINGS IN FLOORS. BARS MAY BE MOVED LATERALLY WITHOUT CHANGING THE DISTANCE FROM THE FACE OF CONCRETE. NO BARS SHALL BE BENT IN FIELD WITHOUT APPROVAL OF THE ENGINEER.
- I. PIPES AND SLEEVES EMBEDDED IN CONCRETE SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN 1/4 THE THICKNESS OF THE SLAB OR WALL IN WHICH THEY ARE EMBEDDED, UNLESS OTHERWISE SHOWN ON THE DRAWINGS, NOR SHALL THEY BE LOCATED SO AS TO IMPAIR THE STRENGTH OF THE CONCRETE.
- 12. MINIMUM REINFORCEMENT DEVELOPMENT LENGTH AND LAP SPLICE LENGTHS SHALL BE IN ACCORDANCE WITH ACI 318 FOR CLASS B LAPS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 13. PROVIDE ADDITIONAL #5 BAR REINFORCEMENT ALONG EACH SIDE OF OPENINGS (AND EACH FACE), UNLESS NOTED OTHERWISE. BARS SHALL EXTEND AT LEAST 1'-0" BEYOND THE OPENING PERIMETER.

F. POST-INSTALLED CONCRETE ANCHORS

- 1. EXPANSION TYPE ANCHORS SHALL CONFORM TO THE REQUIREMENTS OF ASTM E488, "STANDARD TEST METHODS FOR STRENGTH OF ANCHORS IN CONCRETE AND MASONRY ELEMENTS" AND ICBO ES AC-01, ACCEPTANCE CRITERIA FOR ADHESIVE ANCHORS IN CONCRETE AND MASONRY ELEMENTS.
- 2. ADHESIVE TYPE ANCHORS SHALL FURTHER CONFORM TO THE REQUIREMENTS OF ASTM E1512, "STANDARD TEST METHODS FOR TESTING BOND PERFORMANCE OF ADHESIVE-BONDED ANCHORS" AND ICBO ES AC-01, "ACCEPTANCE CRITERIA FOR ADHESIVE ANCHORS IN CONCRETE AND MASONRY ELEMENTS".
- PROVIDE SIZE, TYPE, AND EMBEDMENT OF ANCHOR INDICATED INSTALLED TO DEVELOP THE MAXIMUM CAPACITY FOR THE EMBEDMENT, TYPE AND ANCHOR SIZE WITH A MINIMUM SAFETY FACTOR OF FOUR.
- 4. DRILL AND EPOXY ANCHORAGES FOR CONCRETE SHALL BE HILTI "HIT-HY 200 ADHESIVE SYSTEM" WITH STANDARD "HAS" RODS, OR APPROVED EQUAL. DRILL AND EPOXY ANCHORAGE FOR MASONRY SHALL BE HILTI "HIT-HY 270 ADHESIVE SYSTEM" OR APPROVED EQUAL. ROD EMBEDMENT LENGTH AND DIAMETER SHALL BE AS INDICATED ON
- 5. ANCHOR INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S CURRENT PRINTED INSTRUCTIONS. FOR CORRESPONDING HOLE DIAMETER, REFER TO MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) AS INCLUDED WITH EACH ADHESIVE PACKAGE.
- 6. A QUALIFIED MANUFACTURER'S REPRESENTATIVE SHALL BE PRESENT DURING FIRST INSTALLATION TO ENSURE CORRECT PROCEDURE.
- 7. REMOVE DUST AND DEBRIS FROM DRILLED HOLES USING COMPRESSED AIR OR VACUUM AT BOTTOM OF HOLE.
- IMMEDIATELY REMOVE STANDING WATER FROM HOLES TO RECEIVE ADHESIVE ANCHORS.

 8. DO NOT HAMMER IN ANCHOR BOLTS. INSTALL ANCHOR BOLTS USING A WET DIAMOND DRILLING PROCESS WITH
- 9. USE ONLY DRILL TYPE AND BIT TYPE AND DIAMETER RECOMMENDED BY ANCHOR MANUFACTURER.

EXTENSION BITS ADDED AS REQUIRED. DO NOT HAMMER DRILL.

10. WHEN EMBEDDED STEEL OR REBAR IS ENCOUNTERED IN THE DRILL PATH, SLANT DRILL TO CLEAR OBSTRUCTION. IF DRILL MUST BE SLANTED MORE THAN 10 DEGREES TO CLEAR OBSTRUCTION, NOTIFY ENGINEER FOR DIRECTION ON HOW TO PROCEED.

G. MASONRY

- 1. CONCRETE MASONRY UNITS SHALL BE ASTM C90, TYPE I, NORMAL WEIGHT HOLLOW LOAD BEARING UNITS, UNLESS NOTED OTHERWISE. THE AVERAGE ASTM C1314 PRISM STRENGTH SHALL BE A MINIMUM OF 1,900 PSI.
- 2. JOINT REINFORCEMENT SHALL BE PREFABRICATED FROM 9-GAUGE DEFORMED WIRE CONFORMING TO ASTM A1064, JOINT REINFORCEMENT SHALL BE HOT-DIPPED GALVANIZED IN CONFORMANCE WITH ASTM A153. USE EXTRA HEAVY DUTY LADDER TYPE AT 16" O.C. VERTICAL 3/16" SIDE RODS AND 9 GA. CROSS RODS.
- 3. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
- 4. MORTAR SHALL BE ASTM C270, TYPE M OR S PORTLAND CEMENT MORTAR (LOAD BEARING WALLS AND ELEVATOR WALLS) AND TYPE N PORTLAND CEMENT MORTAR (NON-LOAD BEARING WALLS). DO NOT USE CALCIUM CHLORIDE IN MORTAR OR GROUT.
- 5. MASONRY SHALL BE SET ON FULL MORTAR BED.
- 6. CONCRETE FILL FOR LINTELS AND BOND BEAMS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2,500
- 7. GROUT FILL FOR MASONRY CELLS SHALL CONFORM TO ASTM C476 AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
- 8. ALL REINFORCING SHALL BE GROUTED SOLID CONTINUOUSLY IN 4" OR WIDER CELLS OR BOND BEAMS.9. ALL MASONRY WALLS SHALL BE LATERALLY BRACED AGAINST FAILURE OR COLLAPSE UNTIL ANCHORED BY THE
- STRUCTURE.

 10. INDEPENDENT THIRD PARTY SPECIAL INSPECTOR SHALL INSPECT ALL GROUTING OPERATIONS AND THE
- INSTALLATION OF REINFORCING IN LOAD BEARING CONCRETE MASONRY WALLS.

 11. REINFORCE WALLS AS SHOWN ON PLANS.

H. STEEL DECKS

- . ALL STEEL DECKING SHALL CONFORM TO THE STEEL DECK INSTITUTE (SDI) APPLICABLE SPECIFICATIONS AND REQUIREMENTS. INSTALLATION SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS IN ACCORDANCE WITH SDI SPECIFICATIONS.
- 2. STEEL DECK SHALL TYPICALLY BE STORED OFF THE GROUND AT THE JOB SITE, AND BE PROTECTED FROM THE ELEMENTS WITH A WATERPROOF COVERING WHERE REQUIRED.
- 3. DECK SHEETS SHALL BE PLACED IN ACCORDANCE WITH APPROVED ERECTION LAYOUT DRAWING (INCLUDING FASTENING SCHEDULE) SUPPLIED BY THE DECK MANUFACTURER AND IN CONFORMANCE WITH THE MANUFACTURER'S STANDARDS. UNLESS NOTED OTHERWISE, END LAPS SHALL OCCUR OVER SUPPORTS, AND SHALL NOT BE LESS THAN 2" MINIMUM.
- 4. ALL STEEL TO BE USED FOR DECKING SHALL BE GALVANIZED. TOUCH-UP ALL DAMAGED COATINGS WITH GALVANIZED REPAIR PAINT PER PROJECT SPECIFICATIONS.
- 5. DECK GAUGE, DEPTH, AND TYPE SHALL BE AS INDICATED ON THE DRAWINGS. PROVIDE MINIMUM YIELD STRESS (Fy) OF 50 KSI FOR COMPOSITE FLOOR DECK AND 40 KSI FOR ROOF DECK.
- 6. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- 7. DECK SPANS ARE DESIGNED TO MINIMIZE SHORING REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ACCOMPLISHING ANY SHORING REQUIRED TO RESIST CONSTRUCTION LOADS ON THE STEEL DECKS.
- 8. ROOF DECK WAS SELECTED ASSUMING TRIPLE SPAN CONDITION.
- 9. PROVIDE 20 GA., GALV. STEEL PLATES AT ALL RIDGES, VALLEYS AND LOCATIONS WHERE DECK CHANGES DIRECTION FOR CONTINUOUS EVEN SURFACE.
- 10. USE WELD WASHERS WHERE RECOMMENDED BY THE DECK MANUFACTURER.
- 11. USE FM-APPROVED STEEL ROOF DECK. FASTENING PATTERN OF NEW DECKING TO CONFORM TO FM-APPROVAL GUIDE FOR CLASS I-90 AND AS INDICATED BELOW (TYPICAL UNLESS NOTED OTHERWISE).
- A. 3" ROOF DECK: a. SUPPORTS: HILTI X-ENP-19 PAFs, 24/4 PATTERN
- b. SIDE LAPS: HILTI #10 DRILL SCREWS @ 4" O.C.
- B. COMPOSITE FLOOR DECK:a. SUPPORTS: 3/4" PUDDLE WELDS, 36/4 PATTERNb. SIDE LAPS: 1 1/2" LONG WELD @ 24" O.C. (MAX)

I. STRUCTURAL STEEL

- 1. DESIGN FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH AISC SPECIFICATION FOR BUILDINGS.
- 2. NEW STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

G. DRILL & EPOXY ANCHOR RODS A449

STABILITY OF THE STRUCTURE ARE COMPLETED.

A. STRUCTURAL STEEL	A572 OR A992 GR. 50	Fy=50 KSI
B. TYPICAL PLATES AND ANGLES	ASTM A36	Fy=36 KSI
C. STRUCTURAL TUBING	ASTM A1085	Fy=50 KSI
D. HIGH STRENGTH BOLTS	ASTM F3125 (GR. A325 TYPE I)	Fy=92 KSI
E. CAST-IN-PLACE ANCHOR RODS	F1554 (GRADE 36)	ry=36 KSI
F. HEADED STUDS	A108 GR. 50	, Fv=50 KSI

- 3. SHAPES NOTED "GALV." ON DRAWINGS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.
- 4. ALL STRUCTURAL STEEL CONNECTIONS NOT SPECIFICALLY DETAILED ON THE PLANS SHALL BE DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH THE CURRENT EDITION OF THE AISC "MANUAL OF STEEL CONSTRUCTION ALLOWABLE STRENGTH DESIGN (ASD)". DESIGN FOR ALL CONNECTIONS SHALL BE STAMPED BY A RHODE ISLAND PROFESSIONAL ENGINEER ENGAGED BY THE CONTRACTOR AND SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION. CONNECTIONS SHALL BE DESIGNED TO DEVELOP (1/2) OF MEMBER'S TOTAL UNIFORM LOAD CAPACITY, TYPICAL UNLESS NOTED OTHERWISE.

Fy=92 KSI

- 5. ALL BOLTED CONNECTIONS SHALL USE 3/4" DIA., A-325-N TYPE I BOLTS, UNLESS NOTED OTHERWISE.
- 6. ALL NEW STRUCTURAL STEEL SHALL BE GIVEN ONE COAT OF AN APPROVED SHOP PRIMER AND PAINT APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, UNLESS NOTED OTHERWISE (SEE NOTE 8 BELOW). DO NOT PAINT TOP FLANGES OF BEAMS THAT RECEIVE SHEAR STUDS. SHOP PAINTING OF STRUCTURAL STEEL SHALL CONFORM TO SSPC-SP2 (INTERIOR SURFACES) OR SSPC-SP6 (EXTERIOR SURFACES).
- AFTER ERECTION IS COMPLETE, TOUCH-UP ALL SHOP PRIMED COATS DAMAGED DURING TRANSPORT AND ERECTION, AND PRIME ALL FIELD WELDS USING THE SAME PAINT USED FOR SHOP PRIMING.
- . ANY STRUCTURAL STEEL TO RECEIVE SPRAY-ON FIREPROOFING SHALL BE FABRICATED WITHOUT ANY PRIMER OR PAINT COATINGS. COORDINATE WITH THE ARCHITECT REGARDING ADDITIONAL INFORMATION RELATED TO FIREPROOFING.
- 9. ALL EXPOSED STRUCTURAL STEEL AND CONNECTORS SHALL BE PRIMED AND PAINTED WITH AN APPROVED PAINT SYSTEM. COORDINATE REQUIREMENTS WITH THE ARCHITECT.
- 10. HIGH STRENGTH BOLTS SHALL BE TORQUED TO 70% OF THE MINIMUM TENSILE STRENGTH OF THE BOLT IN CONFORMANCE WITH AISC SPECIFICATION FOR STRUCTURAL JOINTS USING A-325-N TYPE I BOLTS. PROVIDE ONE HARDENED WASHER UNDER THE ELEMENT TURNED IN
- 11. WELDS SHALL BE MADE ONLY BY OPERATORS CERTIFIED BY THE STANDARD QUALIFICATION PROCEDURE OF THE AMERICAN WELDING SOCIETY.
- TOUCH UP ALL WELDS WITH THE APPROVED PAINT SYSTEM.

 12. WELDING: IN ACCORDANCE WITH LATEST EDITION OF AWS D1.1 CODE FOR WELDING IN BUILDING CONSTRUCTION. USE E70 SERIES
- ELECTRODES UNLESS NOTED OTHERWISE.

 13. FIELD WELDING OF STRUCTURAL MEMBERS IS NOT PERMITTED UNLESS SPECIFICALLY INDICATED
- 14. FURNISH AND INSTALL ONE WASHER AND ONE HEAVY HEX NUT WITH ASTM F1554 ANCHOR BOLTS UNLESS OTHERWISE INDICATED.

 15. PROVIDE FITTED WELDED 3/8" WEB STIFFENER PLATES ON EACH SIDE OF ALL BEAMS SEATED ON WALLS OR COLUMNS UNLESS NOTED
- OTHERWISE.

 16. FIELD CUTTING OR MODIFICATION OF STRUCTURAL STEEL IS PROHIBITED UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE
- 17. SURFACES OF GALVANIZED MEMBERS TO BE WELDED SHALL BE GROUND TO BARE METAL PRIOR TO WELDING, AND TOUCHED UP AFTER WELDING IN ACCORDANCE WITH PROJECT SPECIFCIATIONS.
- 18. MINIMUM FILLET WELD (LEG) SIZE SHALL BE 3/16", UNLESS NOTED OTHERWISE. FOR ALL OTHER WELDS, EFFECTIVE THROAT SHALL BE 3/16" UNLESS NOTED OTHERWISE ON THE DRAWINGS.

19. SHEARED ENDS OF GALVANIZED PRETENSIONED TWIST-OFF SPLINE BOLTS SHALL BE TOUCHED UP WITH A ZINC RICH PRIMER IN ACCORDANCE

WITH ASTM A780 AFTER INSTALLATION.

20. PROVIDE ALL NECESSARY TEMPORARY GUYING, STAYS, AND BRACING REQUIRED TO ERECT AND HOLD NEW STRUCTURE TO RESIST VERTICAL AND LATERAL LOADS. ALL LATERAL LOAD RESISTANCE AND STABILITY OF THE BUILDING IN THE COMPLETED STRUCTURE IS PROVIDED BY A COMBINATION OF MOMENT FRAMES AND BRACED FRAMES, IN EACH ORTHOGONAL DIRECTION (SEE PLAN SHEETS FOR LOCATIONS). THE COMPOSITE METAL DECK/CONCRETE FLOORS AND ROOF DECKS SERVE AS HORIZONTAL DIAPHRAGMS THAT DISTRIBUTE THE LATERAL LOADS HORIZONTALLY TO THE VERTICAL BRACED/MOMENT FRAMES AND SHEAR WALLS CARRY THE APPLIED LATERAL LOADS TO THE BUILDING FOUNDATION. PROVIDE TEMPORARY SUPPORTS UNTIL ALL ELEMENTS REQUIRED FOR THE

J. FLOOR SYSTEMS

ABBREVIATIONS

INSIDE FACE

JOIST BEARING ELEVATION

- STRUCTURAL FLOORS ON COMPOSITE METAL DECK: STRUCTURAL FLOORS, EXCEPT AS NOTED, SHALL BE METAL DECK
 ACTING COMPOSITELY WITH LIGHT-WEIGHT CONCRETE (SEE PLANS). THE COMPOSITE STEEL BEAMS SHEAR CONNECTORS
 SHALL BE 3/4"Ø, 4" LONG HEADED SHEAR STUDS.
- 2. COMPOSITE METAL DECK WAS SELECTED TO SPAN (TRIPLE SPAN CONDITION) UNSHORED TO STEEL BEAMS UNDER WET WEIGHT OF THE SLAB PLUS 20 PSF CONSTRUCTION LIVE LOAD. THE CONTRACTOR SHALL BE COGNIZANT OF ALLOWABLE CONSTRUCTION LIVE LOADS AND PLAN HIS CONCRETE PLACING OPERATIONS ACCORDINGLY SO AS NOT TO OVERSTRESS OR DAMAGE THE METAL FLOOR DECK. THE CONTRACTOR SHALL VERIFY WITH METAL FLOOR DECK MANUFACTURER THAT HIS PARTICULAR CONCRETE PLACING OPERATION IS COMPATIBLE WITH THE TYPE, GUAGE, SPAN, AND LENGTH OF THE
- METAL FLOOR DECK FURNISHED.

 3. THE CONTRACTOR SHALL INCLUDE SUFFICIENT CONCRETE AND SHALL ARRANGE PLACING AND FINISHING OPERATIONS TO ACHIEVE LEVEL FLOORS CONSIDERING THE DEFLECTION OF THE NON-COMPOSITE BEAMS, GIRDERS, AND METAL DECK UNDER THE LOAD OF ANY NEWLY PLACED CONCRETE. THE SLAB THICKNESS GIVEN ON THE DRAWING IS THE MINIMUM
- 4. CURTAINWALLS & STOREFRONT SYSTEMS ARE ASSUMED AS BEING VERTICALLY & LATERALLY SUPPORTED AT EACH FLOOR
- 5. ELECTRICAL CONDUITS MAY BE INSTALLED WITHIN THE SLABS OR DECK, SUBJECT TO THE FOLLOWING CRITERIA:
- A. CONDUITS ARE OF PVC AND NOT ALUMINUM MATERIAL.

 B. SUBMIT A LAYOUT PLAN TO ENSURE THE CONDUITS ARE NOT CONGESTED AND NO MORE THAN 2 CONDUITS CROSS
- AT THE SAME LOCATION.
 C. A MINIMUM 1 1/2" COVER IS MAINTAINED ALL AROUND THE CONDUIT.
- D. THE OUTSIDE DIAMETER OF THE CONDUIT IS NO LARGER THAN 1/3 THE CONCRETE SLAB THICKNESS.
 E. CONDUITS ARE SPACED A MINIMUM OF 18 INCHES ON CENTER APART.

F. CONDUITS SHALL NOT BE LOCATED OVER A LINE OF STUDS.

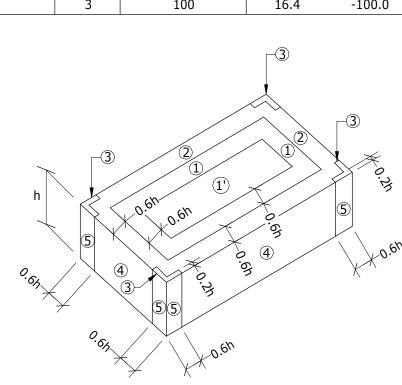
ADD'L	ADDITIONAL	LG.	LONG
ALT	ALTERNATE	LONG.	LONGITUDINAL
A.B.	ANCHOR BOLT	LLV	LONG LEG VERTICAL
ARCH	ARCHITECT	L.W.	LONG WAY
BOT.	BOTTOM	L.W.C.	LIGHT WEIGHT CONCRETE
BEW	BOTTOM EACH WAY	MAX.	MAXIMUM
BM	BEAM	MECH	MECHANICAL
BOF	BOTTOM OF FOOTING	M.M.	MISCELLANEOUS METAL
BRG	BEARING	MIN.	MINIMUM
BS	BOTH SIDES	MTL	METAL
C	CAMBER	NF	NEAR FACE
CFMF	COLD FORMED METAL FRAMING	N-S	NON SHRINK
CIP	CAST-IN-PLACE	NTS	NOT TO SCALE
CLR	CLEAR	O.C.	ON CENTER
COL	COLUMN	PL	PLATE
COMP. DK.	COMPOSITE DECK	OPNG	OPENING
CONC.	CONCRETE	R & D	REMOVE AND DISPOSE
CMU	CONCRETE MASONRY UNIT	REINF.	REINFORCING
CJ	CONTROL JOINT	SC SC	SHEAR CONNECTOR
CONST. JT.	CONSTRUCTION JOINT	SLV	SHORT LEG VERTICAL
CONT.	CONTINUOUS	SOG	SLAB ON GRADE
DIA or Ø	DIAMETER	S.S.	STAINLESS STEEL
DWL'S	DOWELS	STIFF	STIFFENER
DWG	DRAWING	STL	STEEL
EA.	EACH	SJ	SAWN JOINT
E.F.	EACH FACE	T	TOP
E.W.	EACH WAY	TCX	TOP CHORD EXTENSION
EL.	ELEVATION	THK	THICK
E.J.	EXPANSION JOINT	TOC	TOP OF CONCRETE
	EQUAL	TOF	TOP OF FOOTING
EX. or EXIST.		TOW	TOP OF WALL
F.F.	FAR FACE	TRANS.	TRANSVERSE
FFE	FINISH FLOOR ELEVATION	TSL	TOP OF SLAB
FND	FOUNDATION	TST	TOP OF STEEL
FTG	FOOTING	TYP.	TYPICAL
GA.	GAUGE	U.N.O.	UNLESS NOTED OTHERWISE
GALV.	GALVANIZED	VERT.	VERTICAL
G.C.	GENERAL CONTRACTOR	V.I.F.	VERTICAL VERIFY IN FIELD
HORIZ.	HORIZONTAL	WWF	WELDED WIRE FABRIC
		VV VV F	WELDED WIRE FADRIC

COMPONENTS & CLADDING WIND LOADS AT ROOF/WALLS

W.P.

WORKING POINT

CON	COMPONENTS & CLADDING WIND PRESSURE				
	WIND SPEED $V_{ult} = 133mph$				
	MEAN ROOF HEIGHT h = 56'				
		EXPOSURE C			
		ASCE 7-16 Ch. 30 PA	RT 2		
ZONE EFFECTIVE WIND PR				ESSURE (psf)	
	4	10	50.9	-55.2	
	4	20	48.5	-52.9	
	4	50	45.5	-49.9	
WALLS	4	100	43.3	-47.5	
WALLS	5	10	50.9	-68.1	
	5	20	48.5	-63.5	
	5	50	45.5	-57.4	
	5	100	43.3	-52.9	
	1	10	20.7	-81.0	
	1	20	19.4	-75.6	
	1	50	17.7	-68.6	
	1	100	16.4	-63.2	
	1'	10	20.7	-46.5	
	1'	20	19.4	-46.5	
	1'	50	17.7	-46.5	
DOOF	1'	100	16.4	-46.5	
ROOF	2	10	20.7	-106.9	
	2	20	19.4	-100.0	
	2	50	17.7	-90.9	
	2	100	16.4	-84.0	
	3	10	20.7	-145.7	
	3	20	19.4	-132.0	
	3	50	17.7	-113.7	
	3	100	16.4	-100.0	



IOTES:

- 1. FOR EFFECTIVE WIND AREAS BETWEEN THOSE GIVEN, VALUES MAY BE INTRPOLATED; OTHERWISE USE THE VALUES ASSOCIATED WITH THE LOWER EFFECTIVE WIND AREA.
- 2. TABLE/DIAGRAM IS VALID FOR ROOF WITH Ø \leq 7 DEGREES AND h \leq 60 FEET
- 3. VALUES GIVEN IN TABLE ARE ULTIMATE WIND PRESSURES (LFRD)

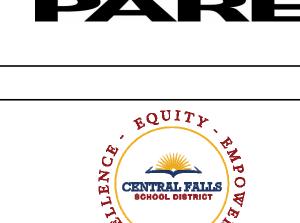
a = 10% 0

- 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.
- EXCEPTION: FOR BUILDINGS WITH $\emptyset = 0$ TO 7 DEGREES AND A LEAST HORIZONTAL DIMENSION GREATER THAN 300 FEET, 'a' SHALL BE LIMITED TO A MAXIMUM OF 0.8h.
- h = MEAN ROOF HEIGHT IN FEET, EXCEPT THAT EAVE HEIGHT SHALL BE USED FOR ROOF ANGLES LESS THAN
- \emptyset = ANGLE OF PLANE OF ROOF FROM HORIZONTAL IN DEGREES.



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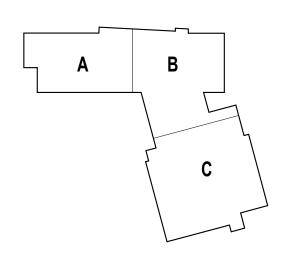


CENTRAL FALLS HIGH SCHOOL

10 HIGGINSON AVE, CENTRAL FALLS, RI

100% CONSTRUCTION DOCUMENTS
KEY PLAN NORTH ARROW |

KEYPLAN



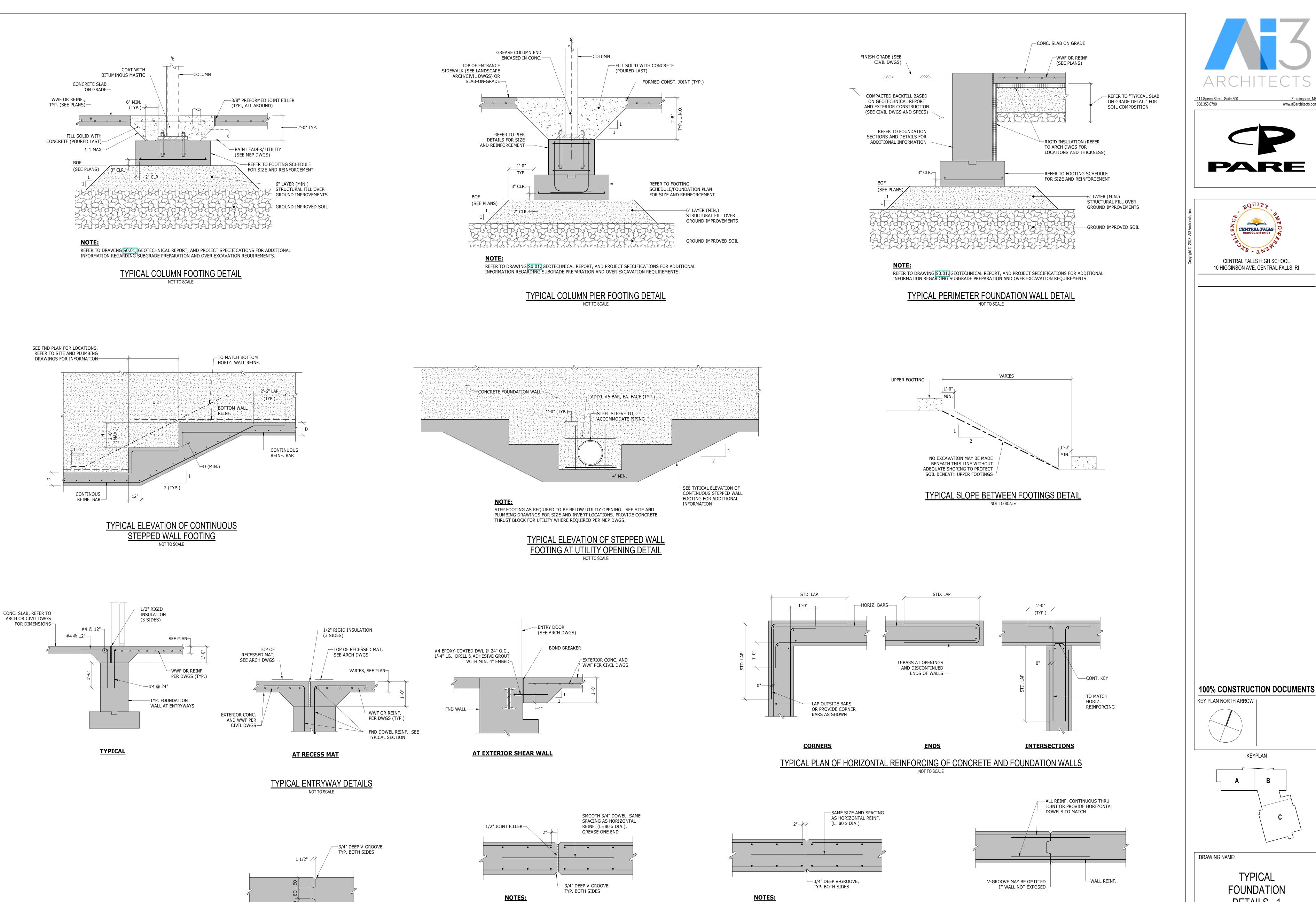
STRUCTURAL

DRAWING NAME:

SCALE: AS INDICATED DRAWING NUMBER:

JOB NO.: 2202.02
DATE: OCTOBER 13. 2023

SOLO 1



1. SPACE AT 40'-0" CENTER TO CENTER MAX.

TYPICAL CONCRETE WALL EXPANSION

JOINT DETAIL (FOR SITE WALLS ONLY)

NOT TO SCALE

2. PROVIDE AT ALL FOUNDATION STEPS.

TYPICAL KEY DETAIL

NOT TO SCALE

1. SPACE AT 20'-0" CENTER TO CENTER MAX.

2. PROVIDE AT ALL FOUNDATION STEPS (SITE WALLS ONLY).

TYPICAL CONCRETE WALL CONTROL JOINT DETAIL

3. CONSTRUCTION JOINT MAY BE SUBSTITUTED FOR A CONTROL JOINT.

TYPICAL FOUNDATION DETAILS - 1 JDB / MSS DRAWN BY: REVIEWED BY: MGM / BP SCALE: AS INDICATED | DRAWING NUMBER: DATE: OCTOBER 13, 2023

PROVIDE CONSTRUCTION JOINTS @ 60' O.C. (MAX.)

FROM THE END OF ONE POUR TO THE BEGINNING OF

ADJACENT POURS.

ALTERNATE PLACING OF PANELS, ALLOWING 36 HOURS

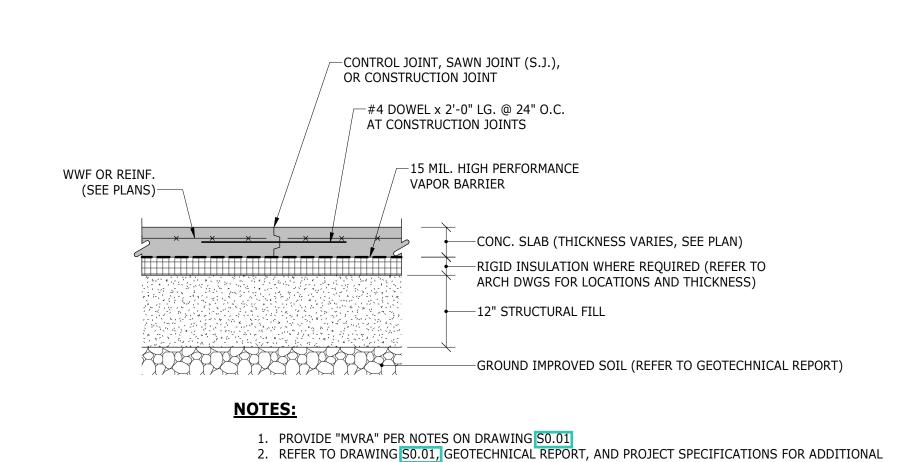
TYPICAL CONCRETE WALL CONSTRUCTION JOINT DETAIL

KEYPLAN

Framingham, MA

www.ai3architects.com

CENTRAL FALLS HIGH SCHOOL



TYPICAL SLAB ON GRADE DETAIL

INFORMATION REGARDING SUBGRADE PREPARATION AND OVER EXCAVATION REQUIREMENTS.

SLAB
THICKNESS
"T" (IN.)

SLAB
(FT.)

SAWN JOINT
T/4

T/4

5

15

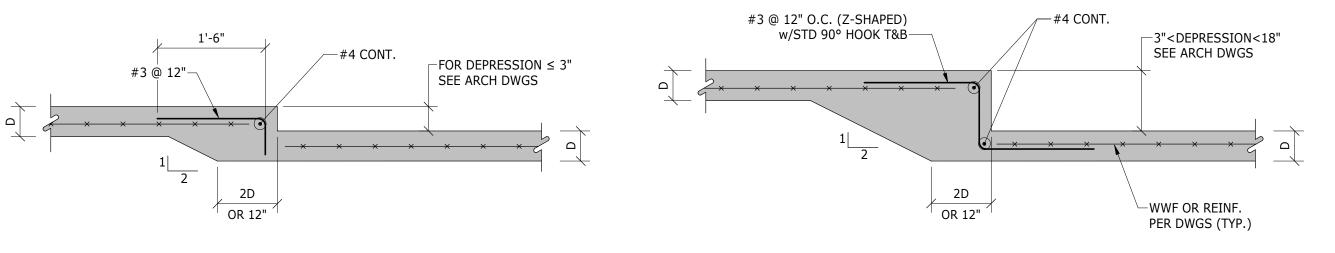
INCHES (SEE CHART).

NOTES:

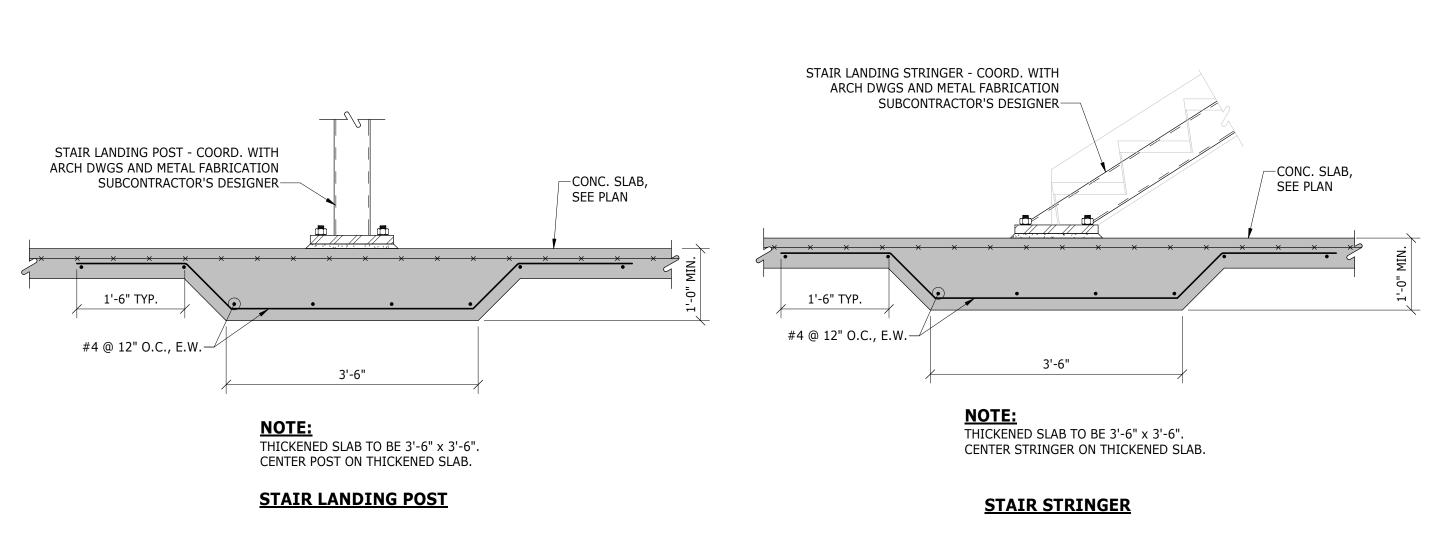
- 1. EXTEND JOINTS BY HAND TOOL WHERE VERTICAL SURFACES OBSTRUCT SAW CUTTING.
- 2. SAW CUT MINIMUM 1/4T" DEEP JOINT WITH EARLY ENTRY SAW AS SOON AS POSSIBLE AFTER FINISHING SLAB (4 TO 8 HOURS MAX. PROPER TIMING IS DICTATED BY THE RATE OF CONCRETE HARDENING).
- 3. MAXIMUM SPACING OF JOINTS IN EACH DIRECTION IN FEET IS 3-TIMES THE SLAB THICKNESS IN
- 4. LOCATE CONTROL JOINTS ON A RECTANGULAR GRID AND SUBMIT LAYOUT OF CONTROL JOINTS FOR APPROVAL UNLESS JOINT LOCATIONS ARE OTHERWISE SPECIFIED. NO RE-ENTRANT CORNERS ARE
- 5. ALTERNATE CONCRETE PLACEMENTS ALLOWING 36 HOURS BETWEEN ADJACENT POURS.
- 6. PREPARE ALL CONTROL JOINTS TO RECEIVE SEALANT BY HIGH PRESSURE WASHING AFTER SAW CUTTING, SAND BLASTING AFTER THE JOINTS ARE DRY AND THEN BLOWING OUT THE JOINTS WITH CLEAN, DRY COMPRESSED AIR.
- 7. FILL JOINTS IN EXPOSED SLABS WITH A FLEXIBLE EPOXY CONTROL JOINT RESIN (SIKADUR 51 SL OR EQUIVALENT. INSTALL 60-90 DAYS AFTER CONCRETE PLACEMENT.

CORNER COLUMN

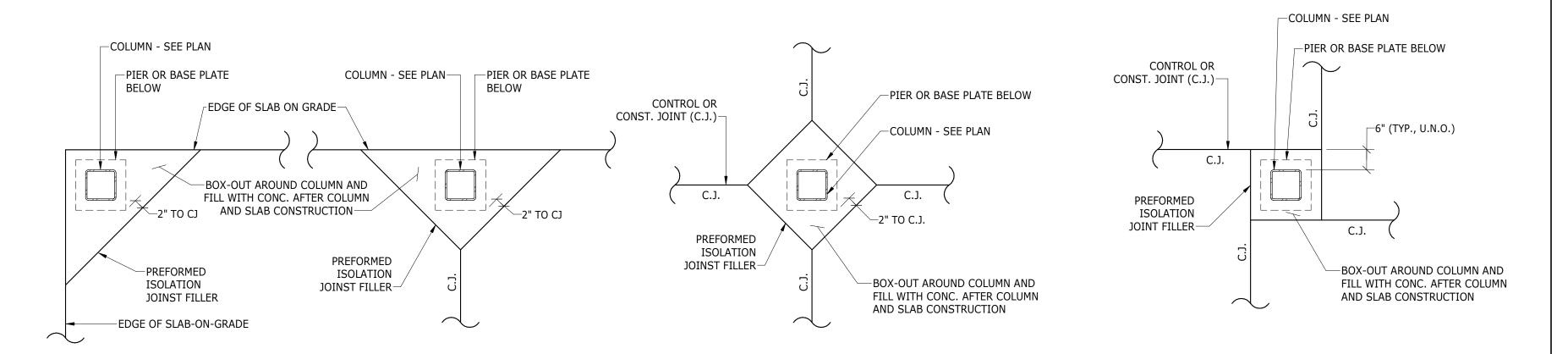
TYPICAL SLAB ON GRADE CONTROL JOINT DETAIL NOT TO SCALE



TYPICAL DEPRESSED SLAB ON GRADE DETAIL



TYPICAL THICKENED SLAB DETAILS



NOTES: 1. REMOVE TOP INCH OF PREFORMED ISOLATION JOINT FILLER AND SEAL JOINT AS REQUIRED FOR CONTROL JOINTS.

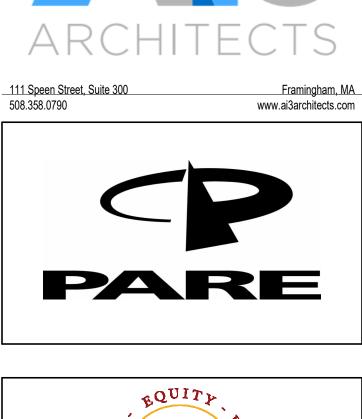
INTERIOR COLUMN - DIAMOND PATTERN

INTERIOR COLUMN - PINWHEEL PATTERN

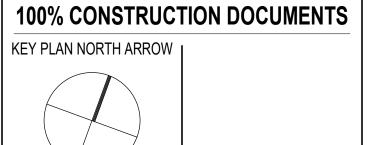
2. AT PINWHEEL PATTERN, CONTRACTOR HAS THE OPTION OF PLACING ISOLATION JOINT TIGHT TO COLUMN AND SAW CUT PINWHEEL PATTERN

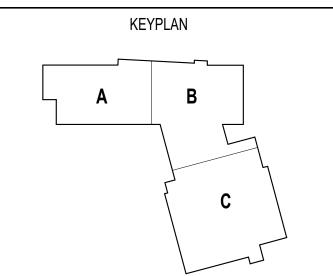
TYPICAL COLUMN AT SLAB ON GRADE ISOLATION JOINT DETAILS

EDGE COLUMN



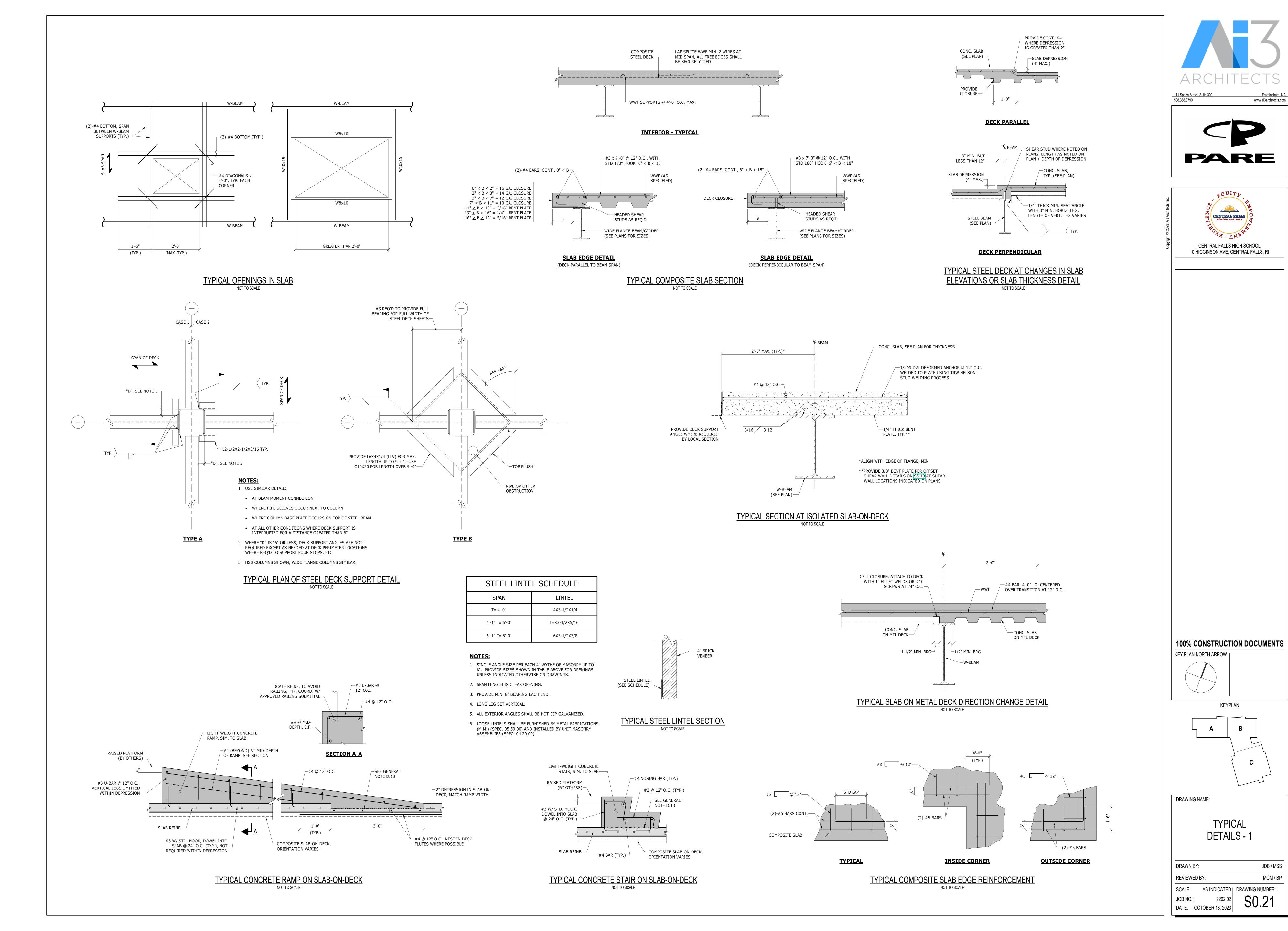






DRAWING NAME:
TYPICAL
FOUNDATION
DETAILS - 2

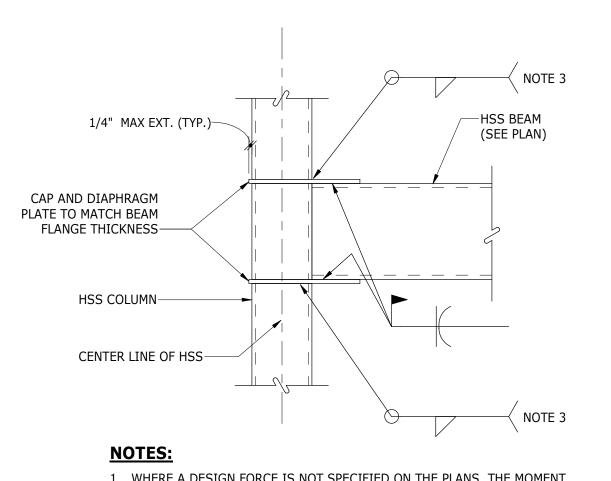
 DRAWN	BY:	JDB / MSS
REVIEW	/ED BY:	MGM / BP
SCALE:	AS INDICATED	DRAWING NUMBER:
JOB NO	.: 2202.02	SO 12
DATE:	OCTOBER 13, 2023	00.12



Framingham, MA

JDB / MSS

MGM / BP



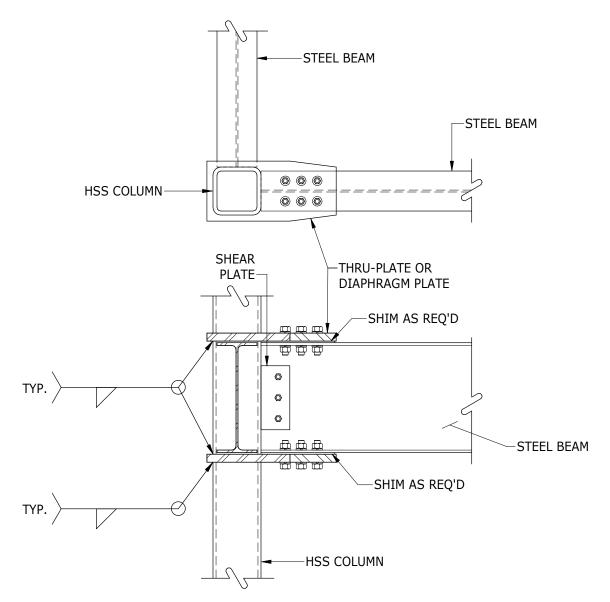
- 1. WHERE A DESIGN FORCE IS NOT SPECIFIED ON THE PLANS, THE MOMENT CONNECTIONS SHALL BE DESIGNED TO DEVELOP THE FULL MOMENT CAPACITY OF THE HSS COLUMN.
- 2. CONNECTIONS SHALL BE DESIGNED BY A P.E. REGISTERED IN RHODE ISLAND. SUBMIT STAMPED DRAWINGS AND CALCULATIONS FOR REVIEW.
- 3. SEE CONNECTION DESIGN FORCES TABLE FOR SHEAR (DEAD + LIVE) FORCE ACTING ON BEAM MEMBER.
- 4. FORCES ARE PROVIDED AT SERVICE LEVEL (ASD).

W40

HSS12 AND UNDER

HSS14 AND ABOVE

HSS BEAM TO HSS COLUMN MOMENT CONNECTION DETAIL NOT TO SCALE



- 1. IF A DESIGN FORCE IS NOT SPECIFIED ON THE PLANS, THE MOMENT CONNECTIONS SHALL BE DESIGNED TO DEVELOP THE FULL MOMENT CAPACITY OF THE HSS COLUMN.
- 2. CONNECTIONS SHALL BE DESIGNED BY A P.E. REGISTERED IN RHODE ISLAND. SUBMIT STAMPED DRAWINGS AND CALCULATIONS FOR REVIEW.
- 3. SEE CONNECTION FORCE TABLE FOR SHEAR (DEAD AND LIVE) FORCE ACTING ON BEAM MEMBER.

<u>WIDE FLANGE BEAM TO HSS COLUMN</u>

MOMENT CONNECTION DETAI

4. FORCES ARE PROVIDED AT SERVICE-LEVEL (ASD).

-HSS COLUMN/POST CONT. W-BEAM (SEE PLANS) W-BEAM (SEE PLANS)-WHERE APPLICABLE (SEE PLANS) SPLIT TUBE EA. SIDE OF WEB, TUBE TO MATCH COLUMN-STIFFENER TO MATCH 3/16 THICKNESS & STEEL GRADE OF FLANGE/WEB OF SUPPORTING COLUMN— -- WIDE-FLANGE COLUMN 3/4" STEEL PLATE (TYP.)-(SEE PLANS), TYP. 3/4" STEEL PLATE (TYP.)-€ COLUMN AND SPLIT TUBE WIDE-FLANGE COL. — HSS COLUMN-1 1/2" (TYP.) BOLT (TYP.)--1 1/2" (MIN.) FROM EDGE / 3/16 / OF PLATE OR EDGE OF CONT. W-BEAM FLANGE 1/2" (TYP.) PLATE LAYOUT PLATE BOLT LAYOUT **HSS COLUMN**

WIDE-FLANGE COLUMN

CONTINUOUS/TRANSFER BEAM CONNECTION DETAIL

SEE PLAN

-ANGLE BRACE AND

PLATE, SEE PLAN

FOR LOCATIONS

ATTACHMENT

-1" FULL-DEPTH

STIFFENER, EA. SIDE OF

COLUMN FLANGE BELOW

(AT CONT. BEAMS ONLY)

WEB, CENTERED ON

5/8" FULL-DEPTH

STIFFENER, EA. SIDE OF WEB, CENTERED ON

COLUMN FLANGE ABOVE-

COMPOSITE DECK,

W-BEAM, TYP. (SEE PLAN)—

COLUMN, TYP.

—OUTRIGGER-

CONTNUOUS BEAM SUPPORTED AT

OUTRIGGER END CONNECTION DETAIL

OPTION B

ALL OTHER CASES

OPTION A

@ SHEAR LOADS

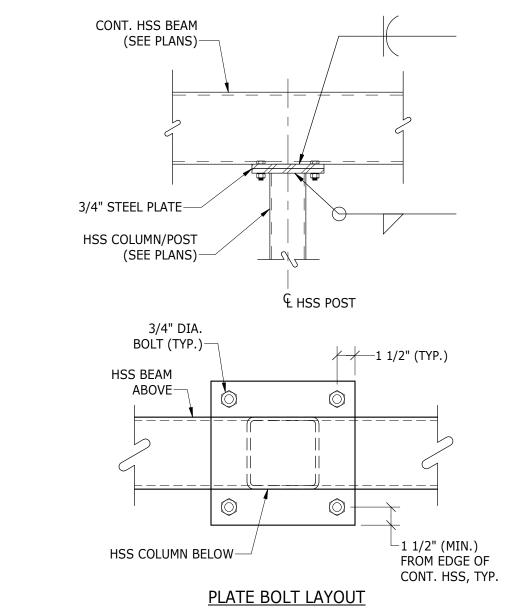
10K OR LESS

(SEE PLAN)—

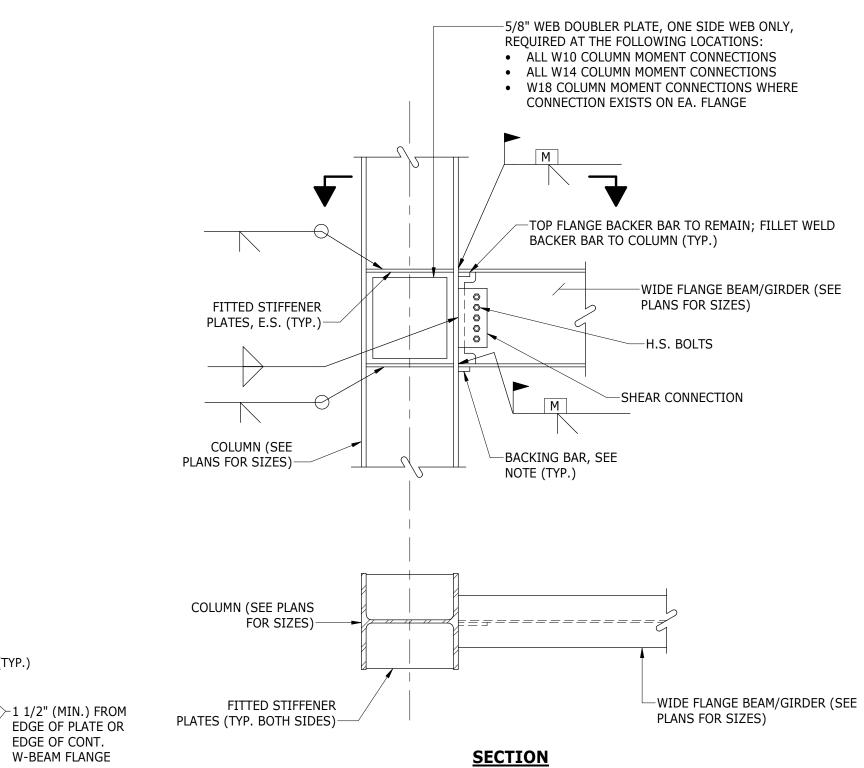
TYPICAL @

CONT. COLUMN

SEE PLAN-



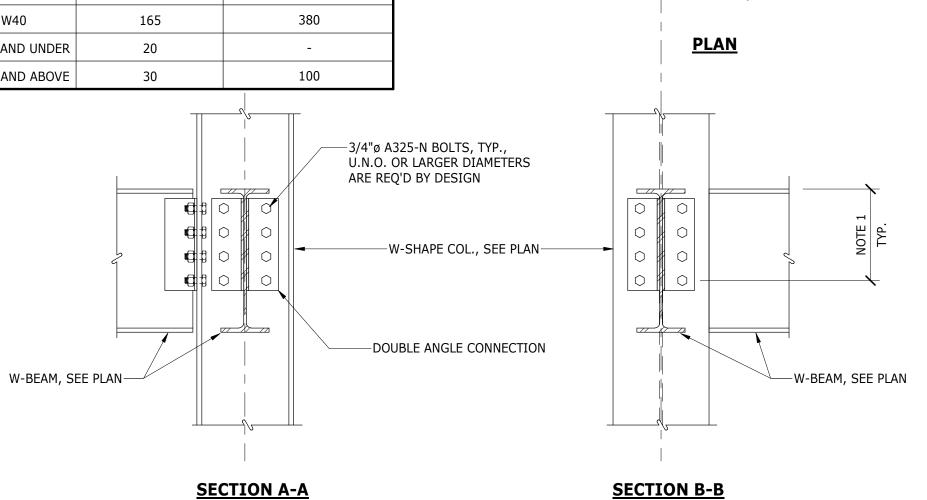
TYPICAL BOLTED HSS CONTINUOUS BEAM **CONNECTION DETAIL** NOT TO SCALE



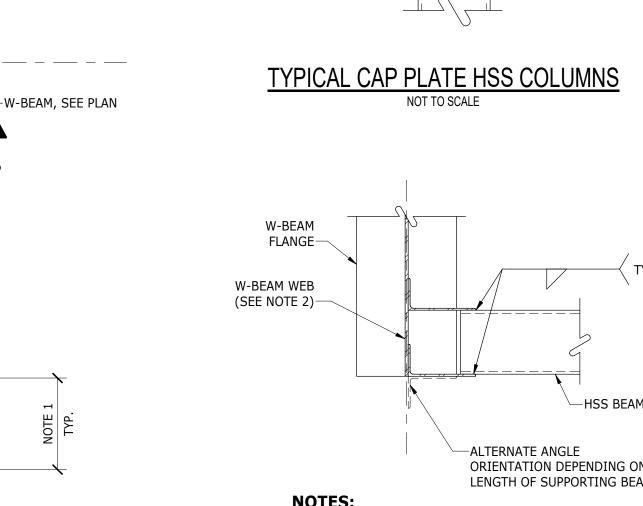
- 1. WHERE A DESIGN FORCE IS NOT SPECIFIED ON THE PLANS, THE MOMENT CONNECTIONS SHALL BE DESIGNED TO DEVELOP THE FULL MOMENT CAPACITY OF THE COLUMN.
- 2. CONNECTIONS SHALL BE DESIGNED BY A P.E. REGISTERED IN RHODE ISLAND. SUBMIT STAMPED
- 3. SEE CONNECTION DESIGN FORCES TABLE FOR SHEAR (DEAD + LIVE) FORCE ACTING ON BEAM MEMBER.
- 4. FORCES ARE PROVIDED AT SERVICE-LEVEL (ASD).
- 5. REMOVE BOTTOM FLANGE BACKER BAR AND WELD TABS AFTER WELDING BACK GOUGE AND RE-WELD.

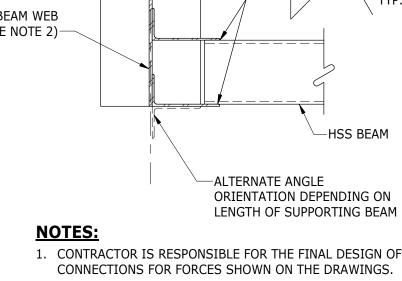
TYPICAL WIDE-FLANGE COLUMN WELDED **MOMENT CONNECTION**

CONNECTION DESIGN FORCES (UNLESS OTHERWISE NOTED ON FRAMING PLANS) MOMENT (KIP-FT) VERTICAL ALL HSS BEAM AND GIRDER CONNECTIONS SHALL BE SHAPE RANGE WHERE INDICATED (KIPS) DESIGNED FOR A HORIZONTAL FORCE (H) AND (SEE PLAN) TORSIONAL LOAD AS FOLLOWS. HORIZONTAL FORCE IS IN ADDITION TO FORCES SHOWN IN TABLE ON THIS SHEET W10 (TYP.) AND ON PLANS AND SHALL BE ATTACHED AT THE TOP AND BOTTOM FOR HORIZONTAL FORCE RESISTANCE, DIVIDE W10X33 FORCE EQUALLY BETWEEN TOP AND BOTTOM ATTACHMENT (SEE DETAIL, THIS SHEET): W12 HSS 12 & UNDER = 15 KIPS (H), 5 K-FT TORSION* W14X22-43 HSS14 & ABOVE = 20 KIPS (H), 8 K-FT TORSION W14X53-68 *HSS FRAMING AT THIRD FLOOR ROOF PLATFORM NEED NOT APPLY —W-SHAPE COL., W18 SEE PLAN W18X143 —COPE FLANGES AS REQ'D W21 W24X55-76 265 W24X84-94 300 450 W27 (TYP.) W27X129 615 W30 W33 W36X135 245 W36X150-210



WIDE FLANGE BEAM TO WIDE FLANGE COLUMN CONNECTION





-1/2" CAP PLATE

ROOF PITCH)

HSS COLUMN

(SLOPE TO MATCH

2. PROVIDE SIMILAR CONNECTION AT HSS BEAMS TO HSS BEAMS TYPICAL HSS BEAM TO WIDE-FLANGE OR HSS BEAM CONNECTION (SHEAR)

TYPICAL STIFFNER DETAIL AT SECOND-FLOOR CONTINUOUS BEAMS AND OUTRIGGERS SUPPORTING COLUMNS (SIMILAR)

TYPICAL COL. ON BEAM/OUTRIGGER

BEAM TO

EXTEND 8"

PAST GRID AN

DETAIL APPLIES ALONG GRIDS

A1, A3, A4, A5, B5 AND B7.

3/4" PL., TYP., SEE PLATE BOLT LAYOUT

1/4

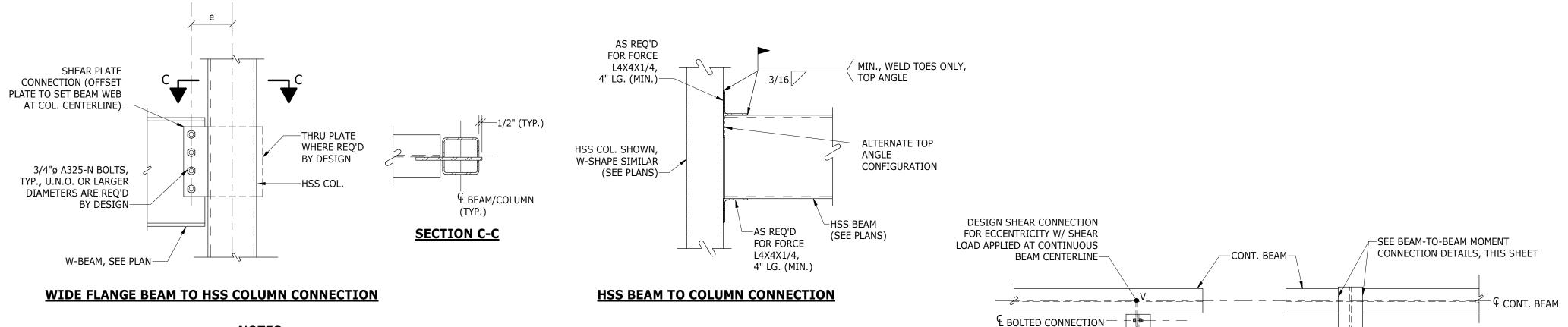
1" (TYP.)^{_}

HSS COLUMN—

PLATE BOLT LAYOUT

EDGE OF CONT.

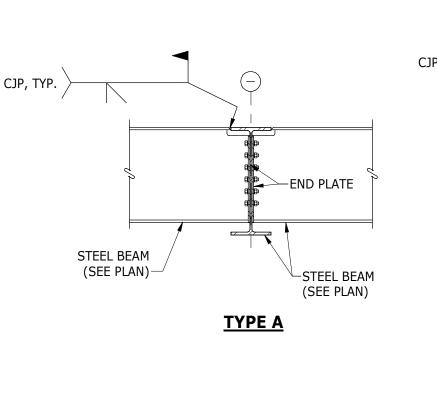
W-BEAM FLANGE

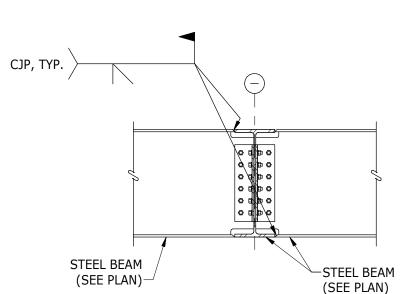


1. SPACING OF BOLTS SHALL EXTEND AT LEAST TO THE MID-DEPTH OF THE BEAM.

- 2. CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF PART 9, "CONNECTIONS" OF THE AISC MANUAL OF STEEL CONSTRUCTION AND SHALL BE DESIGNED BY A P.E. REGISTERED IN THE STATE OF RHODE ISLAND. SUBMIT STAMPED DRAWINGS AND CALCULATIONS FOR REVIEW. FORCES ARE PROVIDED AT SERVICE LEVEL (ASD).
- 3. ALTERNATE BEAM CONNECTIONS MAY BE SUBMITTED BY THE STRUCTURAL STEEL FABRICATOR FOR CONSIDERATION BY THE STRUCTURAL ENGINEER.
- 4. BOLTS FOR THRU PLATE CONNECTIONS SHALL BE DESIGNED FOR THE ECCENTRICITY e.







TYPE B

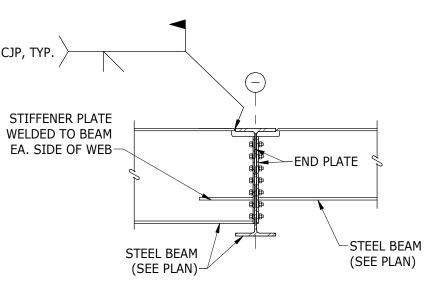
2. IF A DESIGN FORCE IS NOT SPECIFIED ON THE PLANS,

END REACTIONS GIVEN ON THE DRAWINGS.

OF THE SMALLER BEAM.

LIEU OF FLANGE WELDS.

1. SHEAR CONNECTION SHALL BE DESIGNED FOR THE BEAM



TYPE C

DRAWING NAME: (SEE PLAN)

TYPICAL DETAILS - 2

100% CONSTRUCTION DOCUMENTS

KEYPLAN

KEY PLAN NORTH ARROW

DRAWN E	BY:	JDB / MSS
REVIEWE	ED BY:	MGM / BP
SCALE:	AS INDICATED	DRAWING NUMBER:
JOB NO.:		S0 22
DATE:	OCTOBER 13, 2023	00.LL

BEAM TO BEAM MOMENT CONNECTION DETAILS

DESIGN MOMENT PLATES FOR THE FULL MOMENT CAPACITY

3. AT HSS MOMENT CONNECTIONS, PROVIDE SPLICE PLATES IN



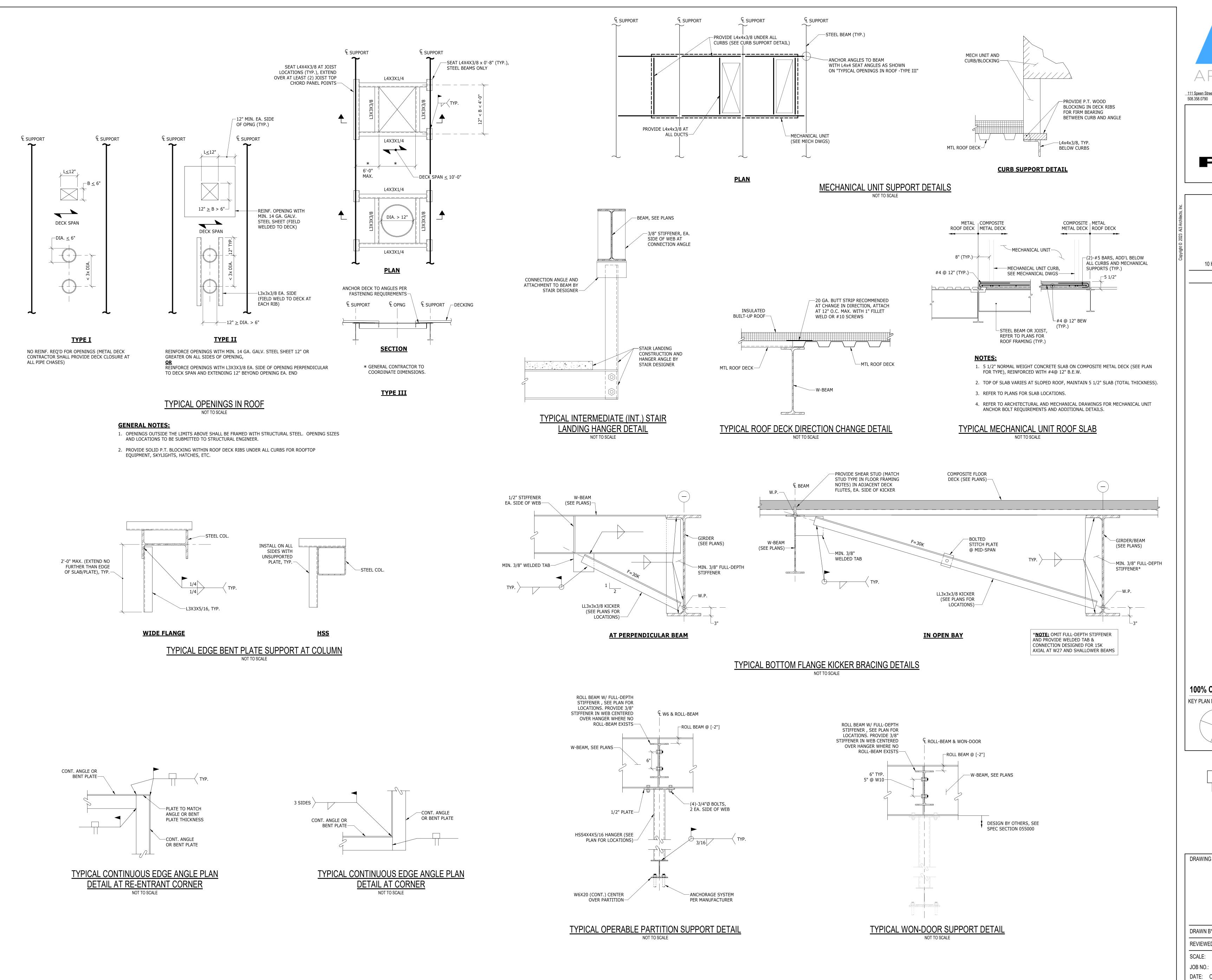
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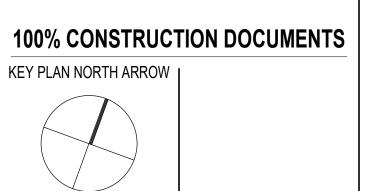


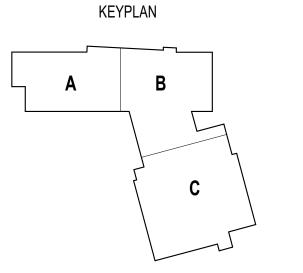






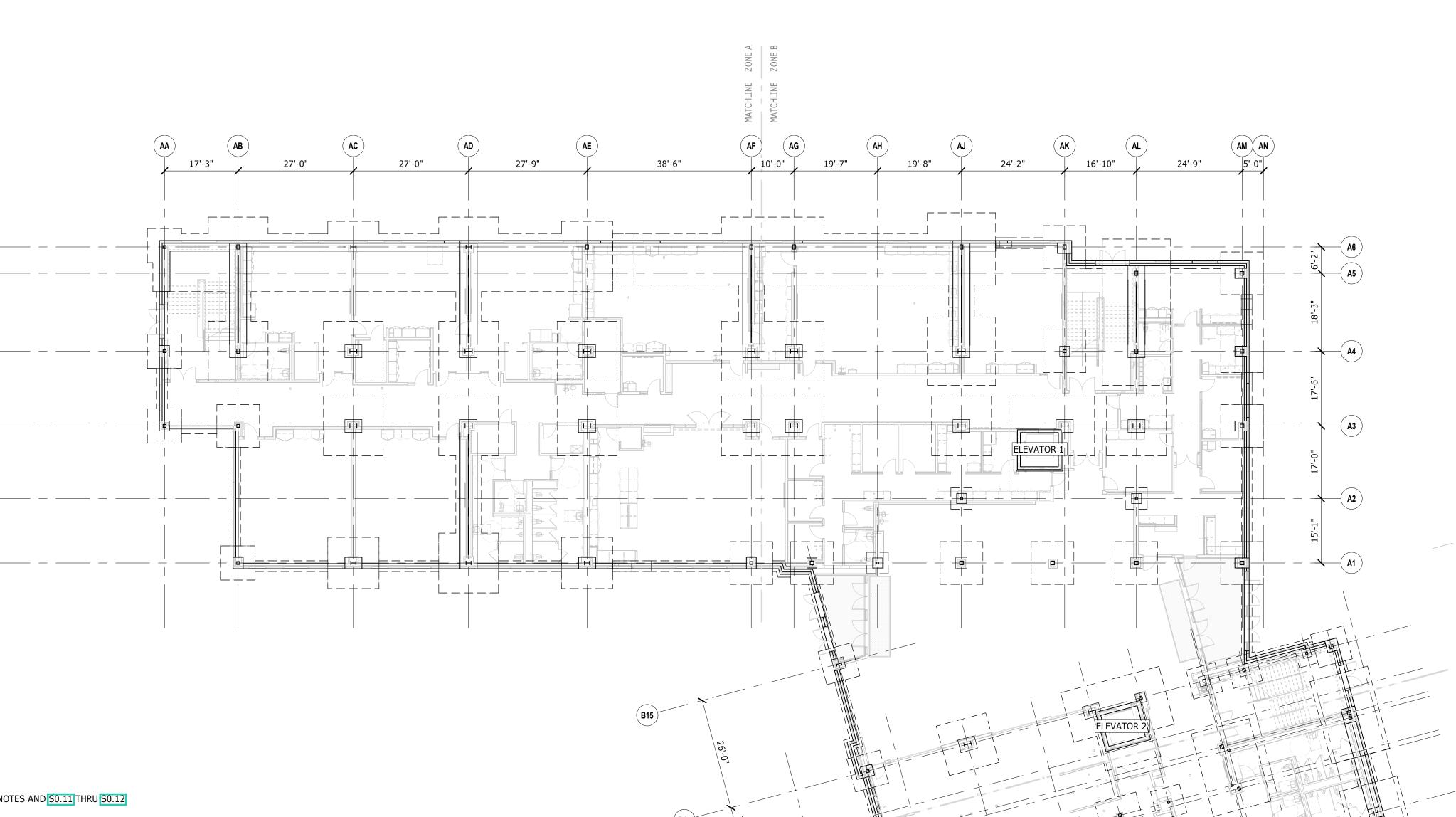






ING NAME:	
TYPICAL	
DETAILS - 3	
DETAILS - 3	

l			
	DRAWN	BY:	JDB / MSS
	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	: 2202.02	SU 23
	DATE:	OCTOBER 13, 2023	00.20



FOUNDATION NOTES:

- 1. REFER TO DRAWINGS S0.01 FOR STRUCTURAL NOTES AND S0.11 THRU S0.12 FOR ADDITIONAL DETAILS.
- 2. REFER TO PLAN FOR BOTTOM OF FOOTING (BOF) ELEVATIONS. COORDINATE FINAL BOF ELEVATIONS WITH CIVIL AND PLUMBING DRAWINGS TO PROVIDE MINIMUM CLEARANCE AT UTILITIES. STEP FOOTINGS AS REQUIRED PER TYPICAL DETAIL ON DWG SO.11.
- 3. 5" CONCRETE SLAB-ON-GRADE SHALL BE REINFORCED WITH 6x6 W2.9xW2.9 WELDED WIRE FABRIC (WWF), TYPICAL UNLESS NOTED OTHERWISE. INSTALL AT MID-DEPTH PER TYPICAL SLAB-ON-GRADE DETAIL ON DRAWING S0.12.
- 4. PROVIDE "MVRA" IN ALL SLABS PER NOTES ON S0.01.
- 5. STEP FOUNDATION AT ENTRYWAYS, SEE DETAILS ON DRAWING S0.11.
- 6. SEE ENTRYWAY AT EXTERIOR SHEAR WALL DETAIL ON DRAWING SO.11.

LEGEND:

INDICATES SLAB TO BE STEPPED FOR VESTIBULE FLOORING, EQUIPMENT, ETC. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DETAILS. FOR LARGER DEPRESSED AREAS, REFER TO PLAN AND SLAB STEP SYMBOL. LARGER AREAS ARE NOT HATCHED FOR PLAN CLARITY.

F# FOOTING MARK, SEE SCHEDULE THIS SHEET

(X'-X") INDICATES BOTTOM OF FOOTING (BOF) ELEVATION

COLUMN PIER MARK, SEE DETAILS ON DWG S2.10

P# COLUMN PIER MARK, PIER OFFSET FROM FOUNDATION WALL, SEE DETAILS ON DWG S2.21

COLUMN SIZE-(X) (X) INDICATES BASE PLATE TYPE (A, B, OR W) SEE BASE PLATE DETAILS ON DWG S2.20

THE STATE OF THE S

INDICATES SLAB STEP

COLUMN FOOTING SCHEDULE				
MARK	SIZE	REINFORCEMENT	REMARKS	
F5	5'-0" x 5'-0" x 1'-0"	(6) #6 E.W.		
F7	7'-0" x 7'-0" x 1'-6"	(8) #6 E.W.		
F8	8'-0" x 8'-0" x 1'-6"	(9) #6 E.W.		
F8A	8'-0" x 8'-0" x 2'-0"	(9) #6 E.W.		
F10	10'-0" x 10'-0" x 2'-0"	(11) #8 E.W.		
F12	12'-0" x 12'-0" x 2'-0"	(13) #8 E.W.		
F14	14'-0" x 14'-0" x 2'-0"	#8 @ 8" O.C., E.W., T & B		
F16	16'-0" x 16'-0" x 2'-0"	#8 @ 8" O.C., E.W., T & B		
F18	18'-0" x 18'-0" x 2'-6"	#8 @ 8" O.C., E.W., T & B		
F20X14	20'-0" x 14'-0" x 2'-0"	#8 @ 8" O.C., E.W., T & B		
F24X14	24'-0" x 14'-0" x 2'-0"	#8 @ 8" O.C., E.W., T & B		
F54X16	54'-0" x 16'-0" x 2'-6"	#8 @ 8" O.C., E.W., T & B		





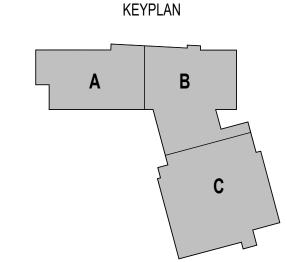
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508.358.0790 www.ai3architects.com



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KEY PLAN NORTH ARROW 1



KEY

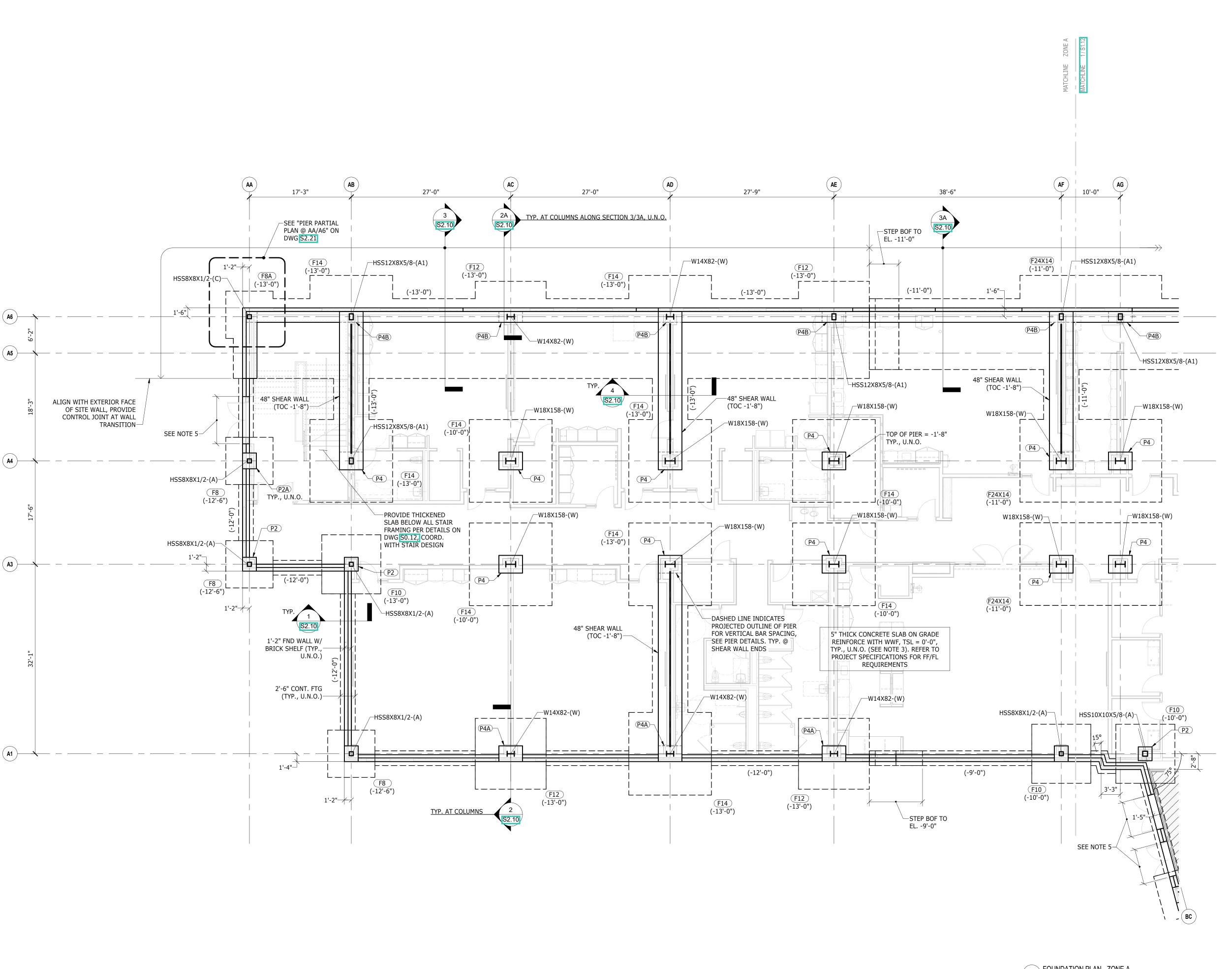


OVERALL

DRAWING NAME:

FOUNDATION PLAN

DRAWN	BY:	JDB / MS
REVIEW	ED BY:	MGM / BI
SCALE:	AS INDICATED	DRAWING NUMBER:
JOB NO.:	: 2202.02	S1 10
DATE:	OCTOBER 13, 2023	01.10



1 FOUNDATION PLAN - ZONE A
1/8" = 1'-0"



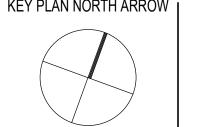
111 Speen Street, Suite 300 508.358.0790



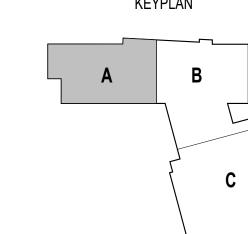
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100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW I



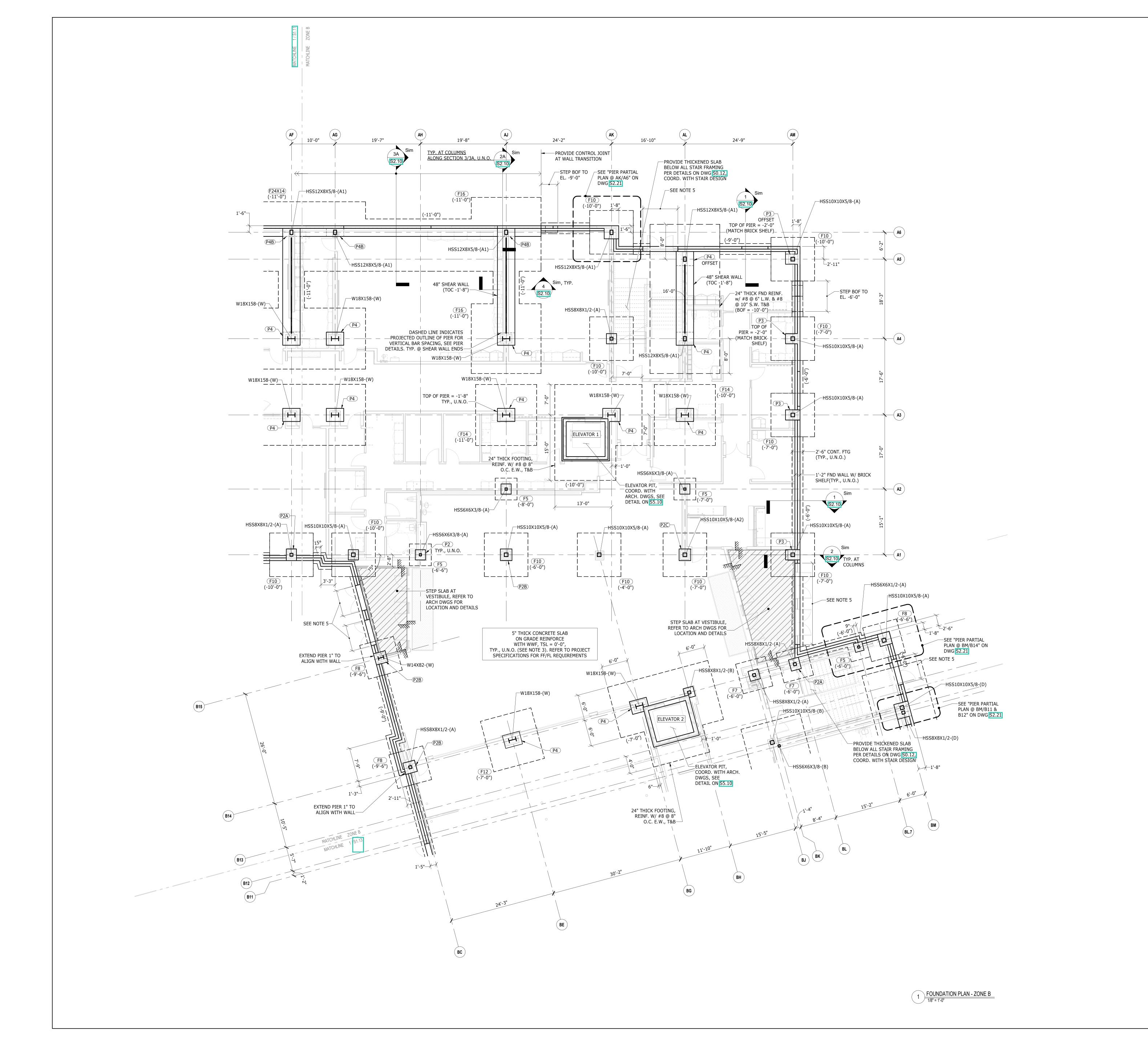
KEYPLAN



DRAWING NAME:

FOUNDATION PLAN - ZONE A

1				
	DRAWN	BY:		JDB / MSS
	REVIEWED BY:			MGM / BP
	SCALE:	AS	INDICATED	DRAWING NUMBER:
	JOB NO.	.:	2202.02	S1 11
	DATE:	OCTOBE	ER 13, 2023	01.11





508.358.0790

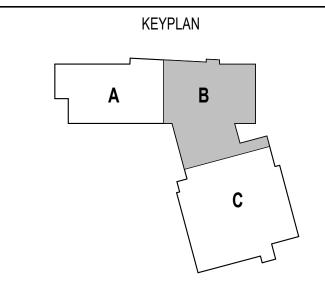


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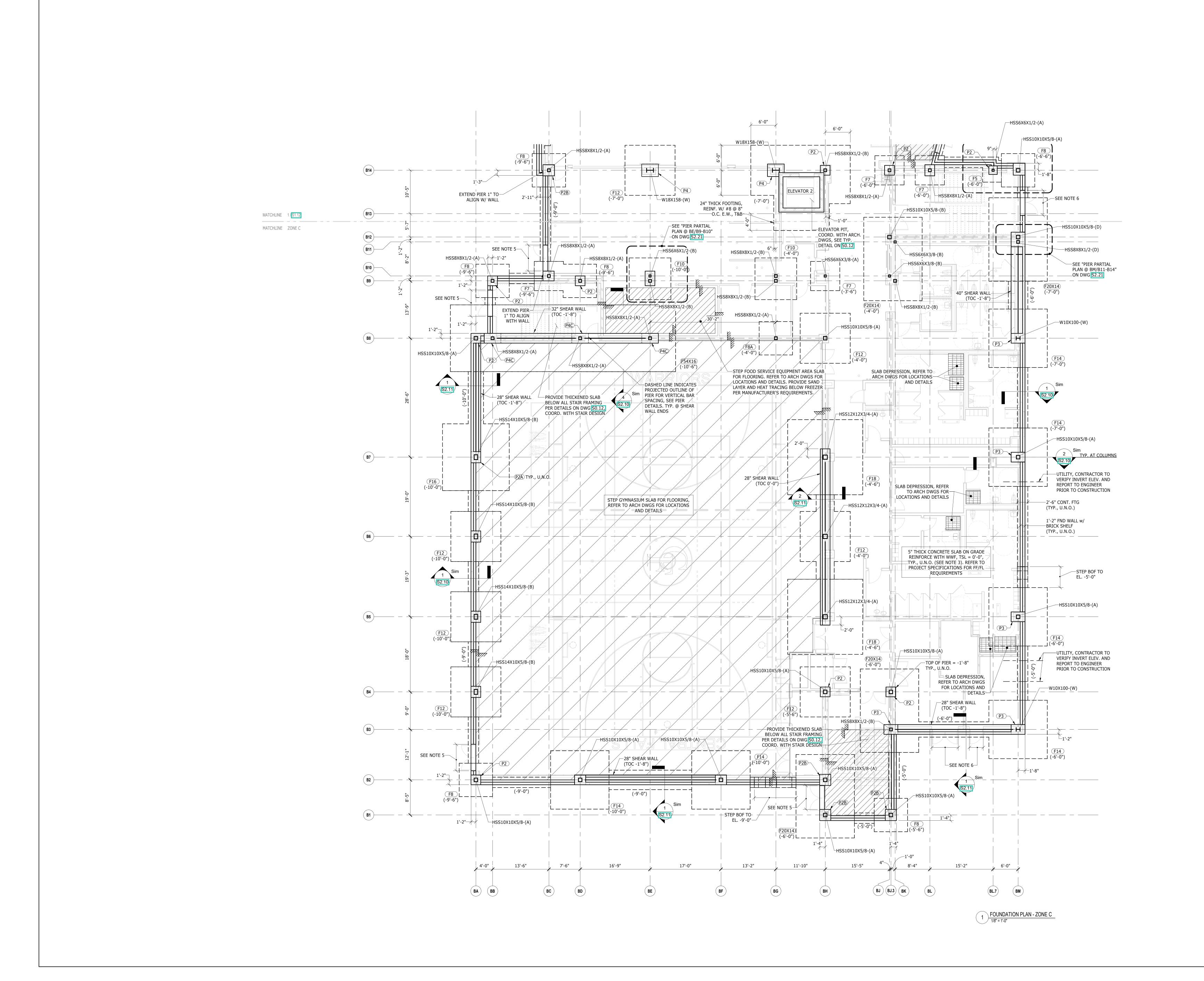
100% CONSTRUCTION DOCUMENTS

KEY PLAN NORTH ARROW

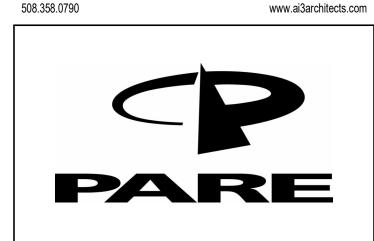


FOUNDATION
PLAN - ZONE B

	DRAWN	BY:	JDB / MSS
	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	.: 2202.02	S1 12
	DATE:	OCTOBER 13, 2023	01.12





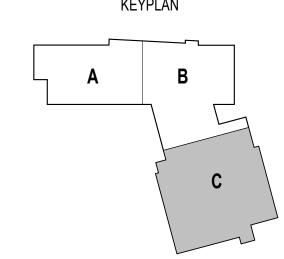




100% CONSTRUCTION DOCUMENTS

KEY PLAN NORTH ARROW

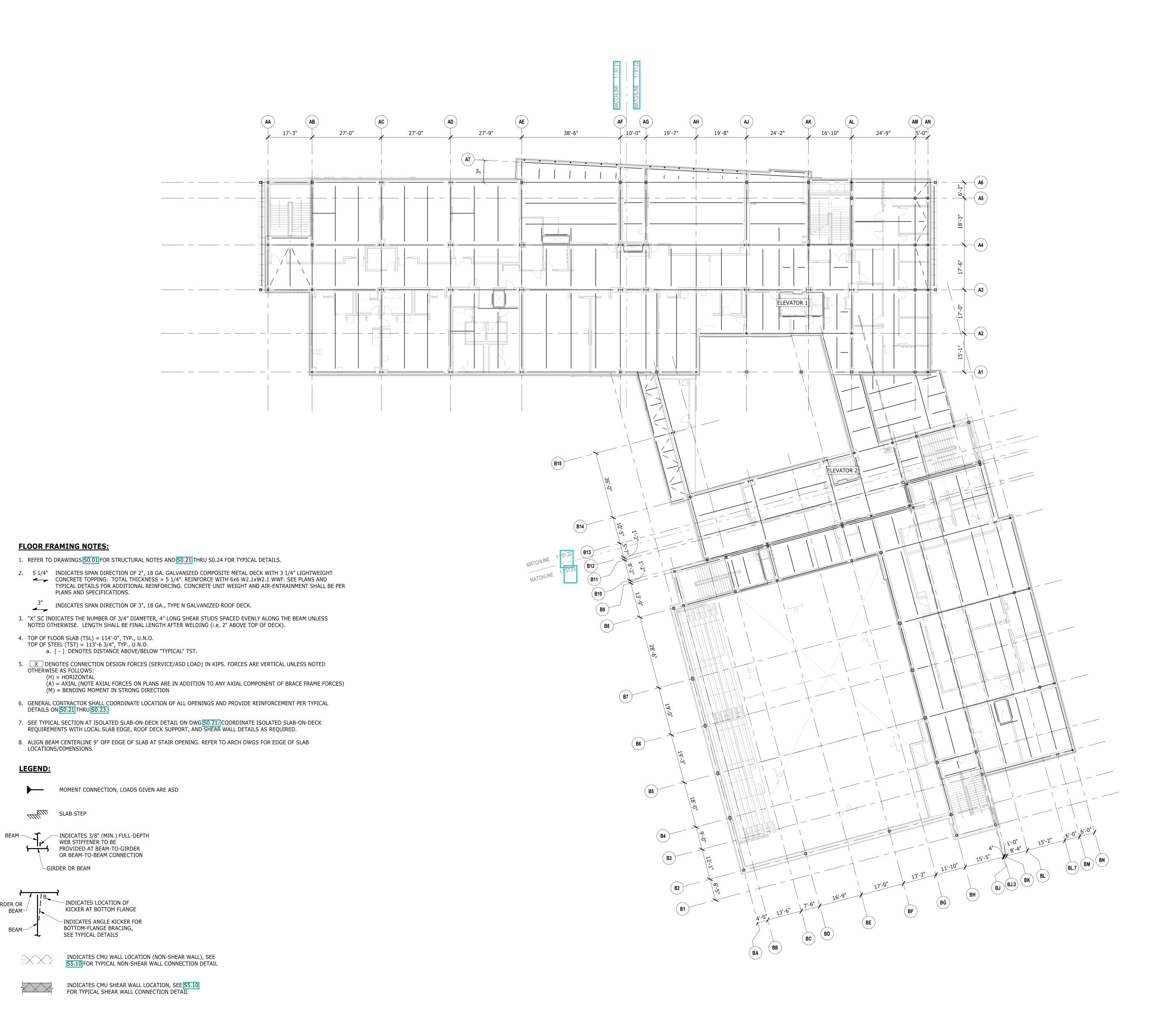
KEYPLAN



DRAWING NAME:

FOUNDATION PLAN - ZONE C

	DRAWN	BY:	JDB / MSS
	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	: 2202.02	S1 13
	DATE:	OCTOBER 13, 2023	01.10



FLOOR FRAMING NOTES:

OTHERWISE AS FOLLOWS:

LOCATIONS/DIMENSIONS.

SLAB STEP

└─GIRDER OR BEAM

LEGEND:

(H) = HORIZONTAL

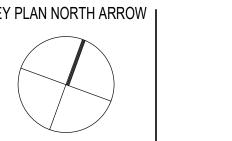
<u>111 Speen Street, Suite 300</u> 508.358.0790



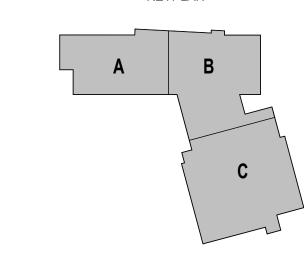
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100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW I



KEYPLAN

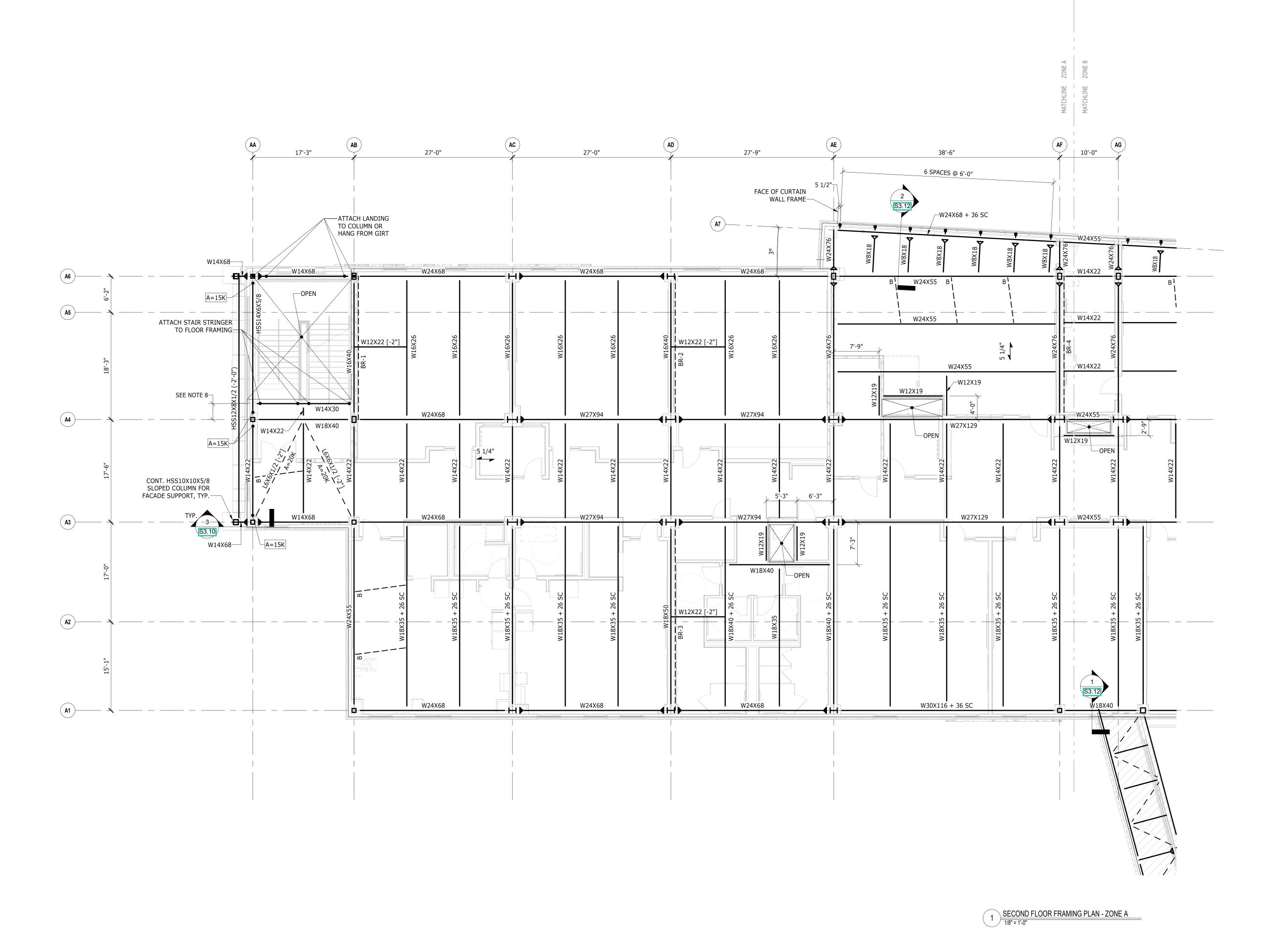


DRAWING NAME:

1 SECOND FLOOR FRAMING: OVERALL PLAN
1/16" = 1'-0"

OVERALL SECOND FLOOR FRAMING PLAN

	DRAWN	BY:	JDB / MSS
	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	: 2202.02	\$1.20
	DATE:	OCTOBER 13, 2023	01.20

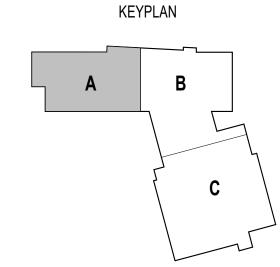








100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW |



DRAWING NAME:

REFER TO DRAWING S1.20 FOR SCHEDULES, NOTES, ETC.

SECOND FLOOR FRAMING PLAN -**ZONE A**

	DRAWN	BY:	JDB / MSS
	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.:	2202.02	S1 21
	DATE:	OCTOBER 13, 2023	01.21









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KEY PLAN NORTH ARROW

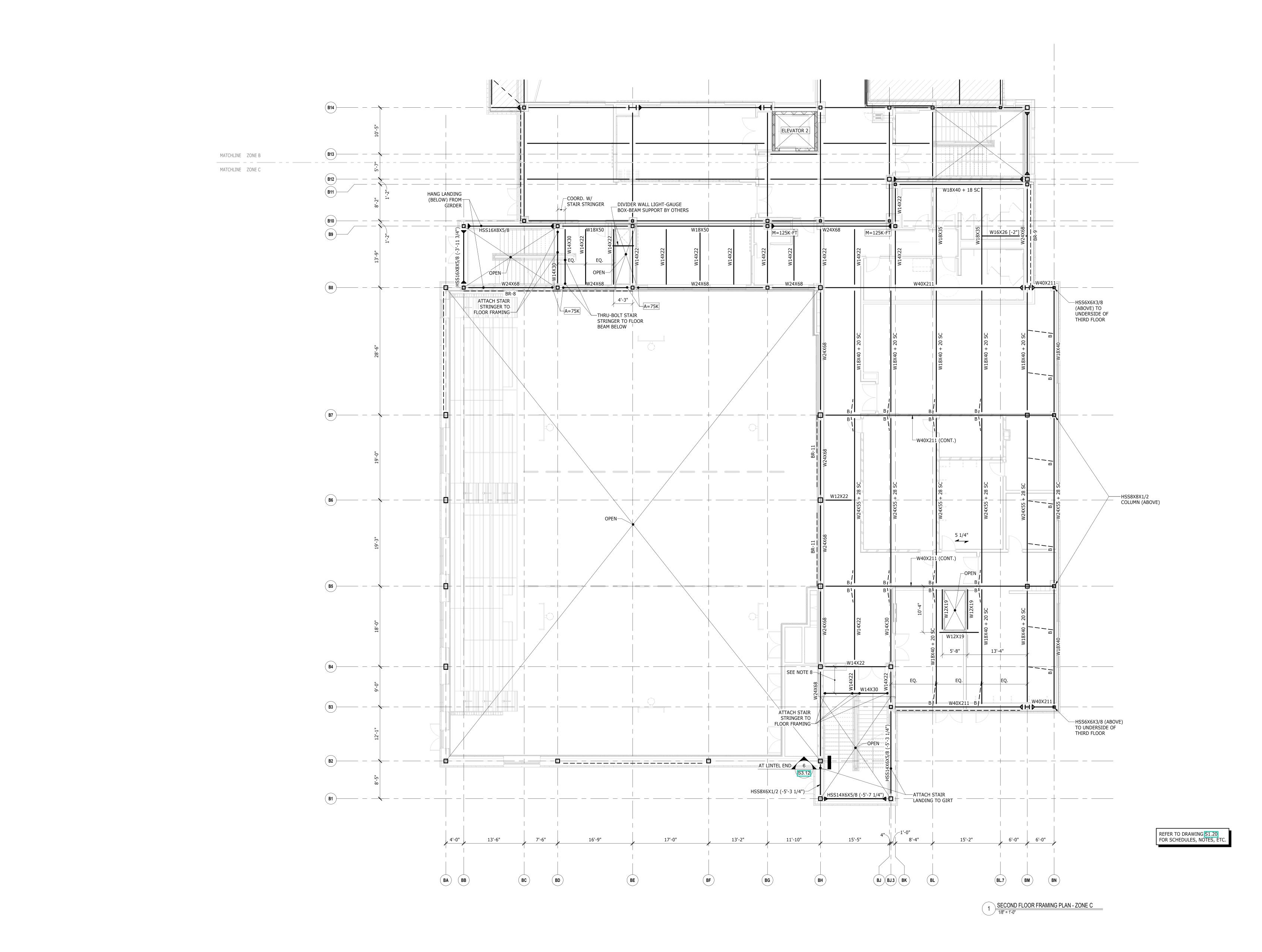
A B C

DRAWING NAME:

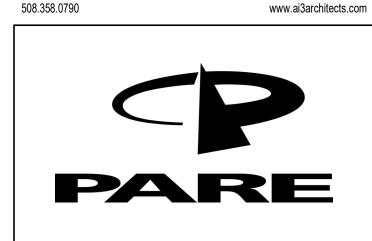
REFER TO DRAWING S1.20 FOR SCHEDULES, NOTES, ETC

SECOND FLOOR FRAMING PLAN -ZONE B

DRAWN	BY:	JDB / MSS
REVIEW	ED BY:	MGM / BP
SCALE:	AS INDICATED	DRAWING NUMBER:
JOB NO.	: 2202.02	S1 22
DATE:	OCTOBER 13, 2023	01.22



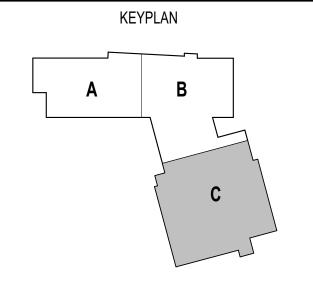






100% CONSTRUCTION DOCUMENTS

KEY PLAN NORTH ARROW



DRAWING NAME:

SECOND FLOOR FRAMING PLAN -ZONE C

	DRAWN	BY:	JDB / MSS
	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	: 2202.02	\$1.23
	DATE:	OCTOBER 13, 2023	01.20

FLOOR FRAMING NOTES:

- 1. REFER TO DRAWINGS S0.01 FOR STRUCTURAL NOTES AND S0.21 THRU S0.24 FOR TYPICAL DETAILS.
- 2. 5 1/4" INDICATES SPAN DIRECTION OF 2", 18 GA. GALVANIZED COMPOSITE METAL DECK WITH 3 1/4" LIGHTWEIGHT CONCRETE TOPPING. TOTAL THICKNESS = 5 1/4". REINFORCE WITH 6x6 W2.1xW2.1 WWF. SEE PLANS AND TYPICAL DETAILS FOR ADDITIONAL REINFORCING. CONCRETE UNIT WEIGHT AND AIR-ENTRAINMENT SHALL BE PER PLANS AND SPECIFICATIONS.
- INDICATES SPAN DIRECTION OF 2", 18 GA. GALVANIZED COMPOSITE METAL DECK WITH 6 1/4" LIGHTWEIGHT CONCRETE TOPPING. TOTAL THICKNESS = 8 1/4". REINFORCE WITH 6x6 W2.1xW2.1 WWF. SEE PLANS AND TYPICAL DETAILS FOR ADDITIONAL REINFORCING. CONCRETE UNIT WEIGHT AND AIR-ENTRAINMENT SHALL BE PER PLANS AND SPECIFICATIONS
- INDICATES SPAN DIRECTION OF 3", 18 GA., TYPE N GALVANIZED ROOF DECK
- 3. "X" SC INDICATES THE NUMBER OF 3/4" DIAMETER, 4" LONG SHEAR STUDS SPACED EVENLY ALONG THE BEAM UNLESS NOTED OTHERWISE. LENGTH SHALL BE FINAL LENGTH AFTER WELDING (i.e. 2" ABOVE TOP OF DECK).
- 4. TOP OF FLOOR SLAB (TSL) = 128'-0" (ACADEMIC SECTOR) & 132'-0" (PERFORMING SECTOR), TYP., U.N.O. TOP OF STEEL (TST) = 127'-6 3/4" (ACADEMIC SECTOR) & 131'-6 3/4" (PERFORMING SECTOR), TYP., U.N.O. a. [] DENOTES DISTANCE ABOVE/BELOW "TYPICAL" TST.
- 5. X DENOTES CONNECTION DESIGN FORCES (SERVICE/ASD LOAD) IN KIPS. FORCES ARE VERTICAL UNLESS NOTED OTHERWISE AS FOLLOWS:

 (H) = HORIZONTAL
 - (A) = AXIAL (NOTE AXIAL FORCES ON PLANS ARE IN ADDITION TO ANY AXIAL COMPONENT OF BRACE FRAME FORCES)
 (M) = BENDING MOMENT IN STRONG DIRECTION
- GENERAL CONTRACTOR SHALL COORDINATE LOCATION OF ALL OPENINGS AND PROVIDE REINFORCEMENT PER TYPICAL DETAILS ON SO.21 THRU SO.23.
- 7. SEE TYPICAL SECTION AT ISOLATED SLAB-ON-DECK DETAIL ON DWG S0.21. COORDINATE ISOLATED SLAB-ON-DECK REQUIREMENTS WITH LOCAL SLAB EDGE, ROOF DECK SUPPORT, AND SHEAR WALL DETAILS AS REQUIRED.
- 8. ALIGN BEAM CENTERLINE 9" OFF EDGE OF SLAB AT STAIR OPENING. REFER TO ARCH DWGS FOR EDGE OF SLAB LOCATIONS/DIMENSIONS.

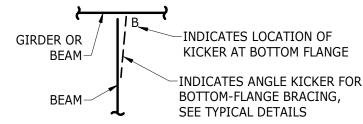
LEGEND:

MOMENT CONNECTION, LOADS GIVEN ARE ASD

SLAB STEP

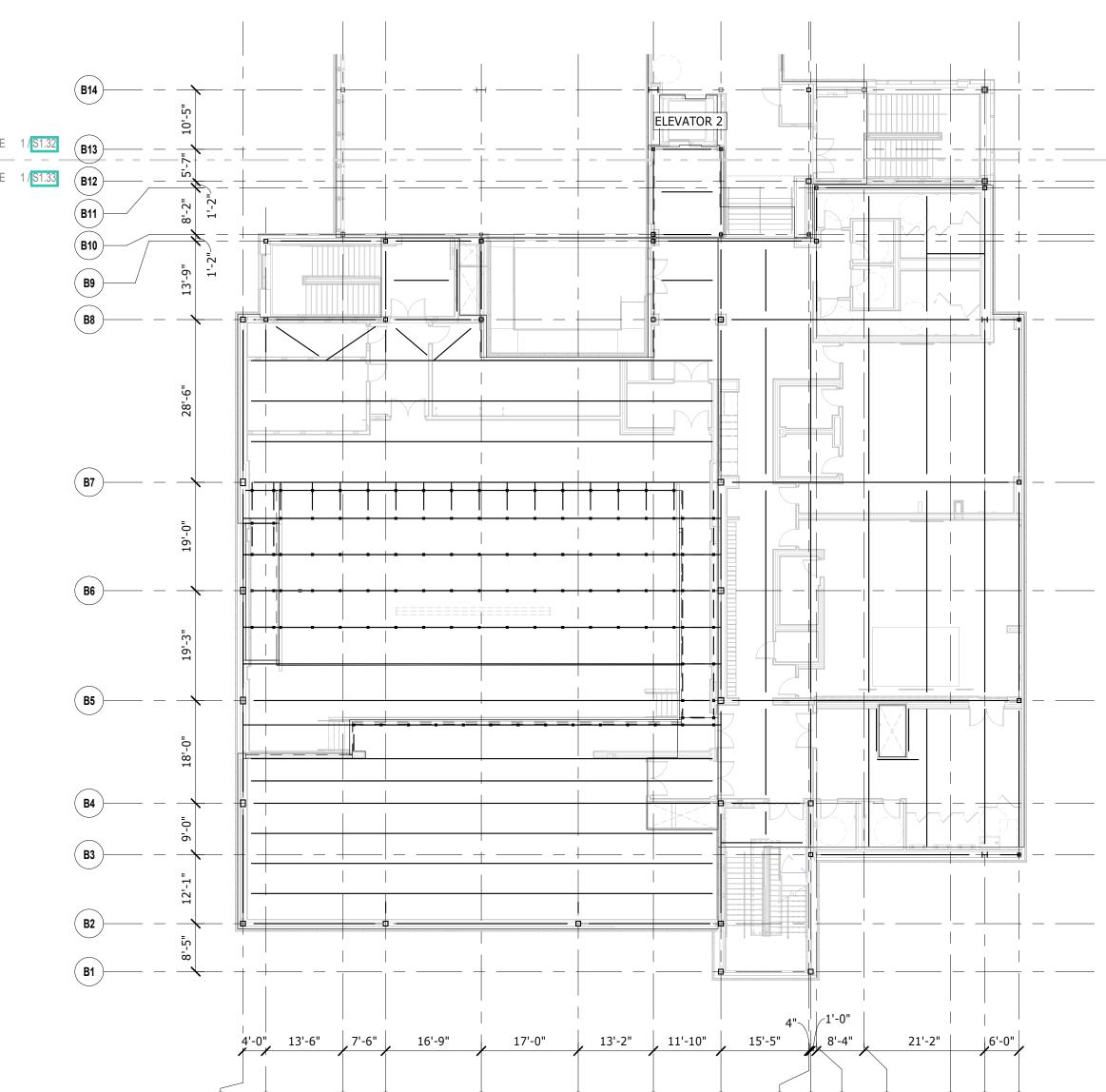
INDICATES 3/8" (MIN.) FULL-DEPTH
WEB STIFFENER TO BE
PROVIDED AT BEAM-TO-GIRDER
OR BEAM-TO-BEAM CONNECTION

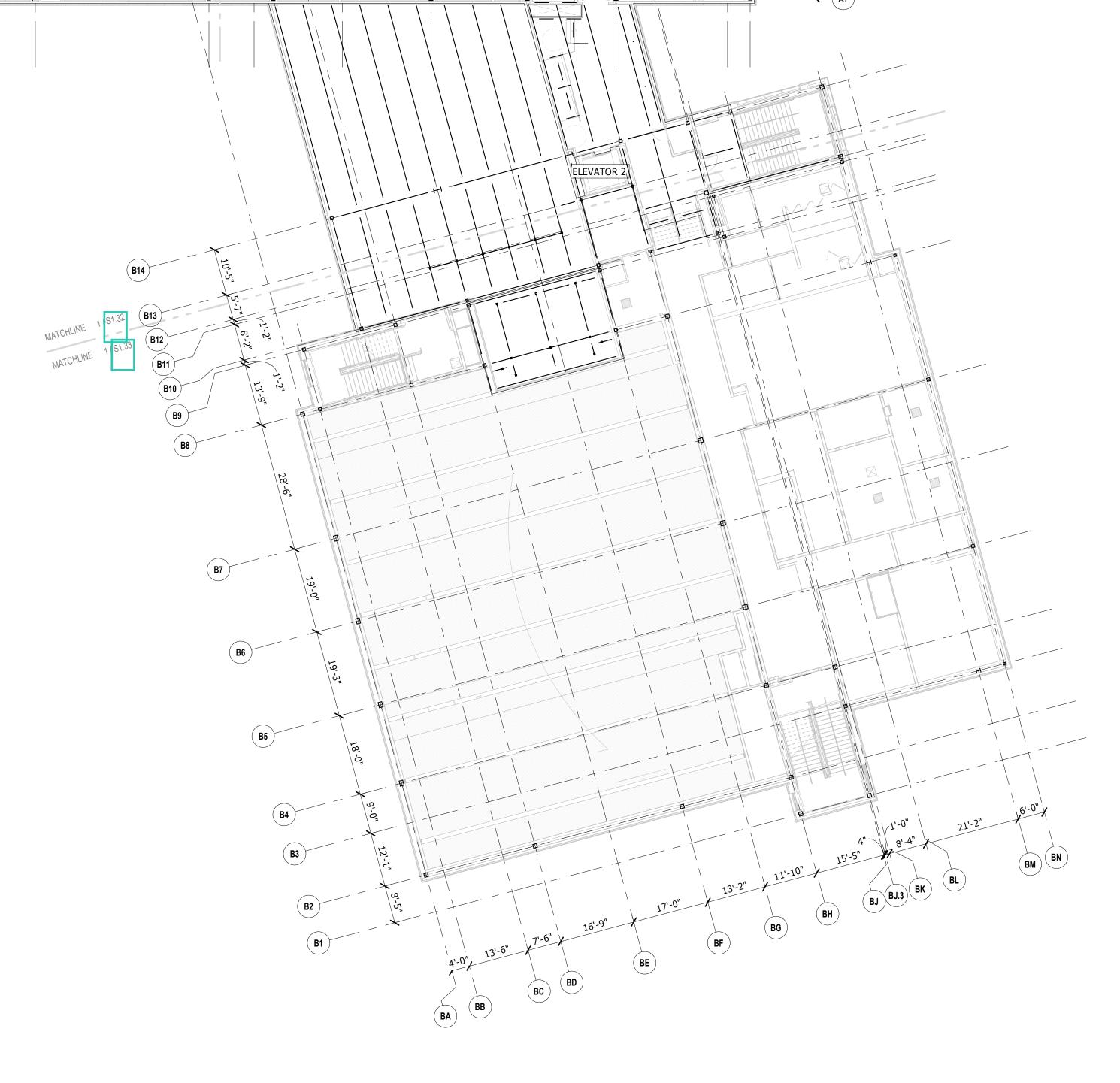
GIRDER OR BEAM



INDICATES CMU WALL LOCATION (NON-SHEAR WALL), SEE S5.10 FOR TYPICAL NON-SHEAR WALL CONNECTION DETAIL

INDICATES CMU SHEAR WALL LOCATION, SEE \$5.10 FOR TYPICAL SHEAR WALL CONNECTION DETAIL





ELEVATOR

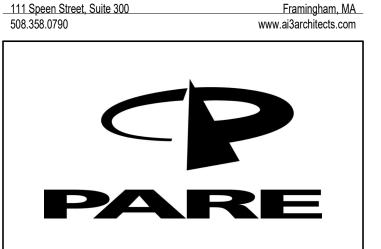
38'-6"



1 THIRD FLOOR ACADEMIC FRAMING: OVERALL PLAN

1/16" = 1'-0"



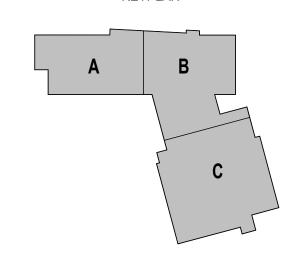




100% CONSTRUCTION DOCUMENTS

KEY PLAN NORTH ARROW

KEYPLAN



OVERALL THIRD FLOOR FRAMING

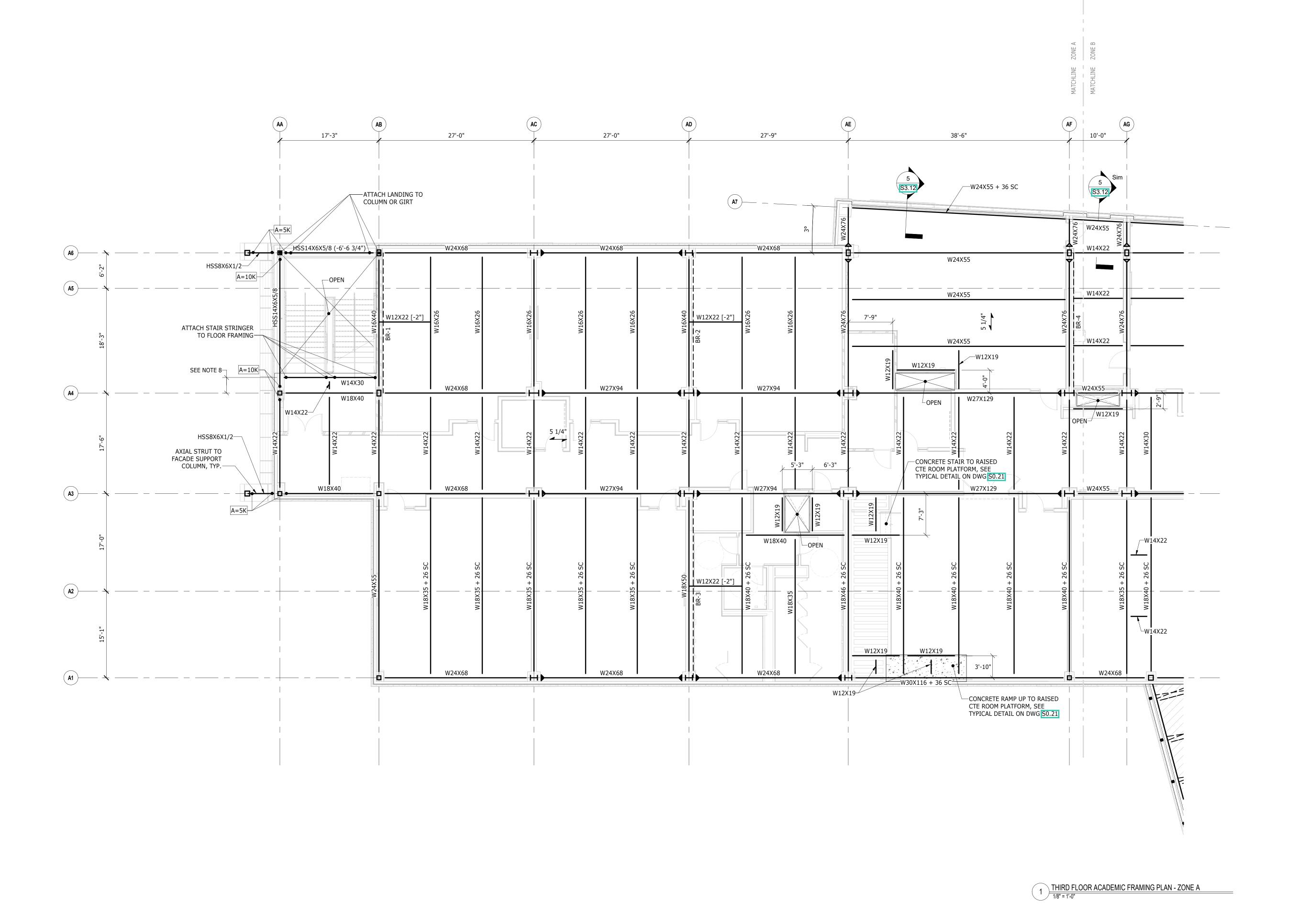
DRAWN BY: JDB / MSS

REVIEWED BY: MGM / BP

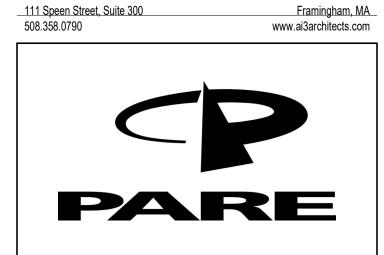
SCALE: AS INDICATED | DRAWING NUMBER:

PLAN

JOB NO.: 2202.02 DATE: OCTOBER 13, 2023 S1.3

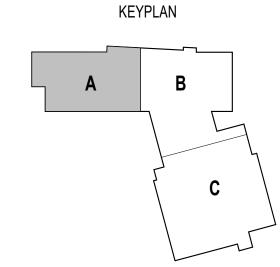








100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW |

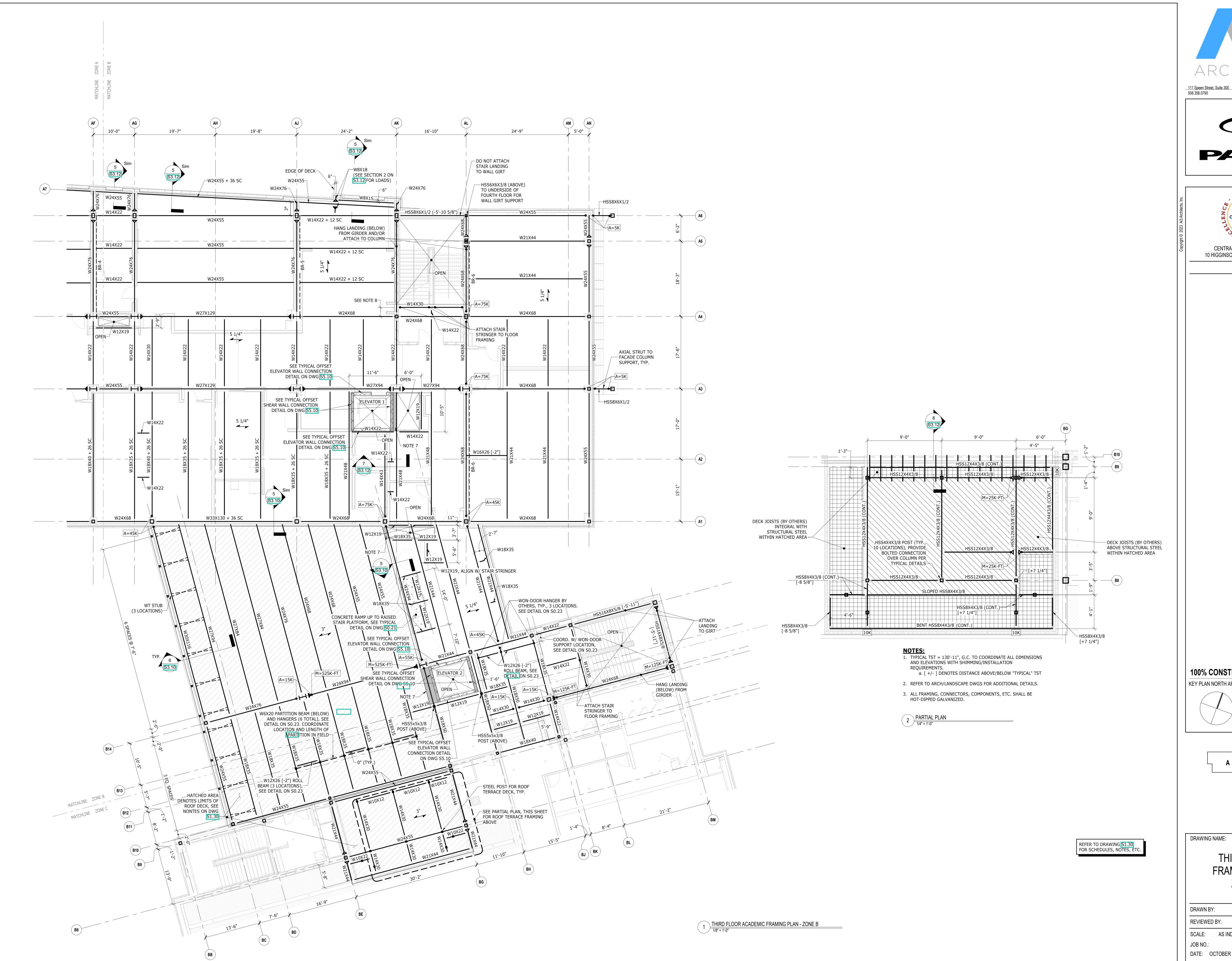


DRAWING NAME:

REFER TO DRAWING S1.30 FOR SCHEDULES, NOTES, ETC.

THIRD FLOOR FRAMING PLAN -**ZONE A**

DRAWN B	Y :	JDB / MSS
REVIEWED	DBY:	MGM / BP
SCALE:	AS INDICATED	DRAWING NUMBER:
JOB NO.:	2202.02	S1 31
DATE: C	OCTOBER 13, 2023	01.01



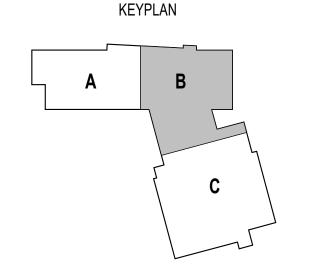




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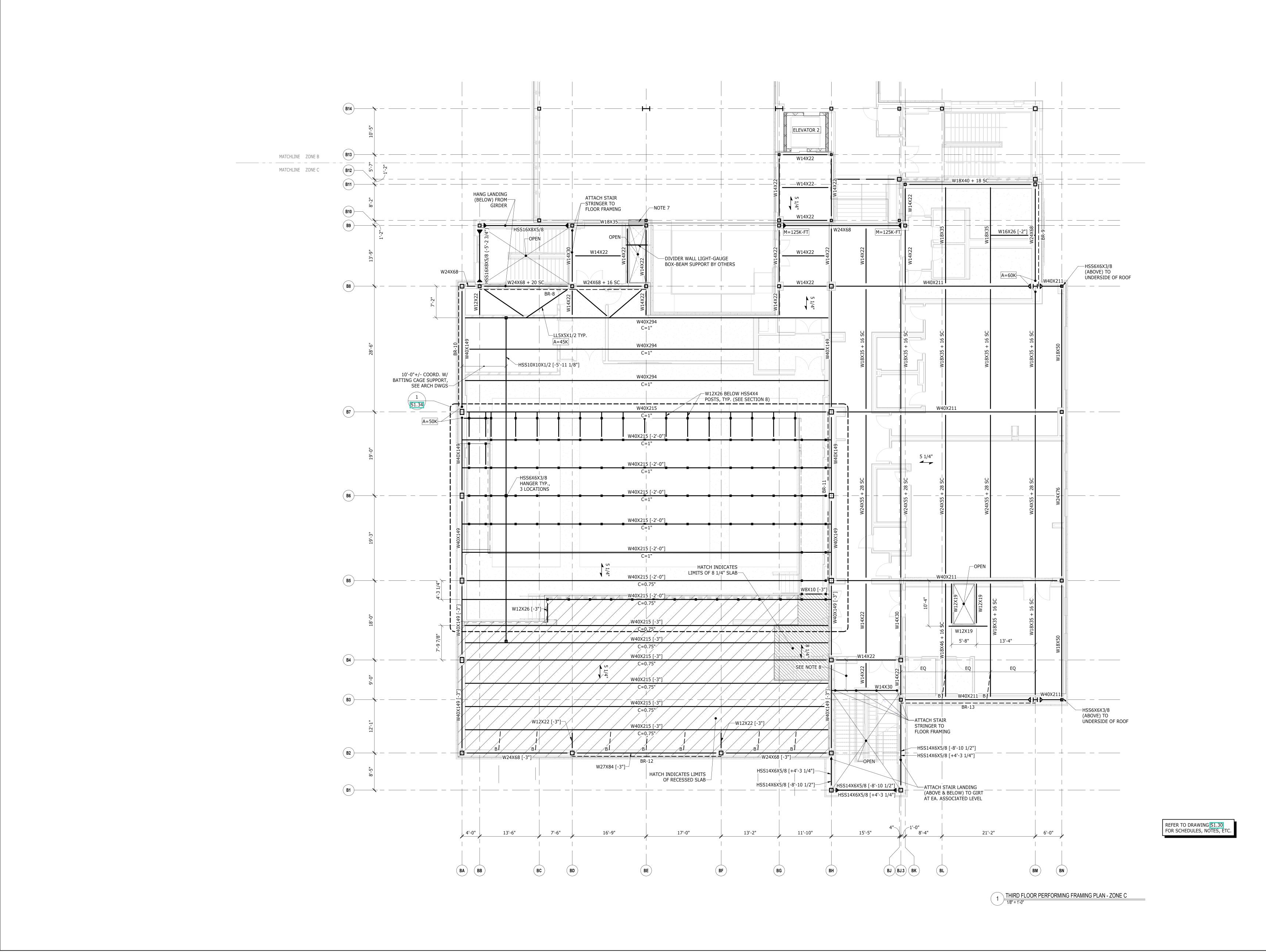
100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW I



DRAWING NAME:

THIRD FLOOR FRAMING PLAN -**ZONE B**

DRAWN	BY:	JDB / MSS
REVIEW	/ED BY:	MGM / BP
SCALE:	AS INDICATED	DRAWING NUMBER:
JOB NO	.: 2202.02	\$1.32
DATE:	OCTOBER 13, 2023	01.02



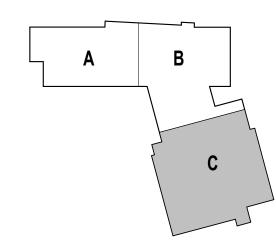






100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW I

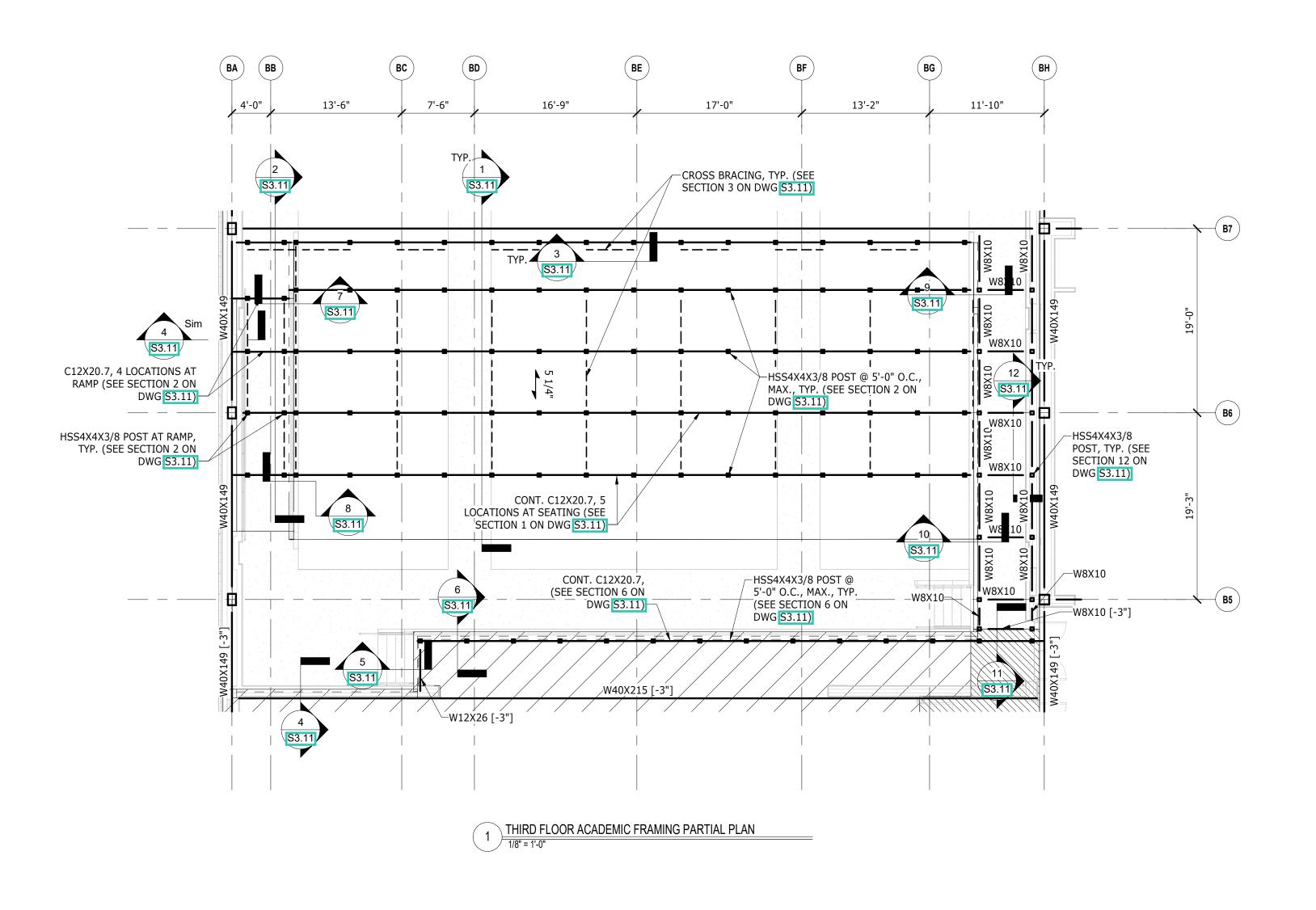
KEYPLAN



DRAWING NAME:

THIRD FLOOR FRAMING PLAN -ZONE C

	DRAWN	BY:	JDB / MSS
	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	: 2202.02	S1 33
	DATE:	OCTOBER 13, 2023	01.00





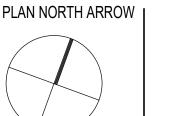
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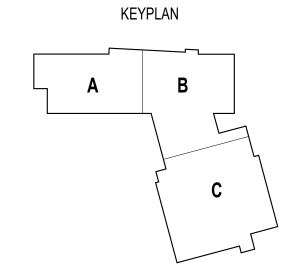




KEYNOTE LEGEND:

100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW |

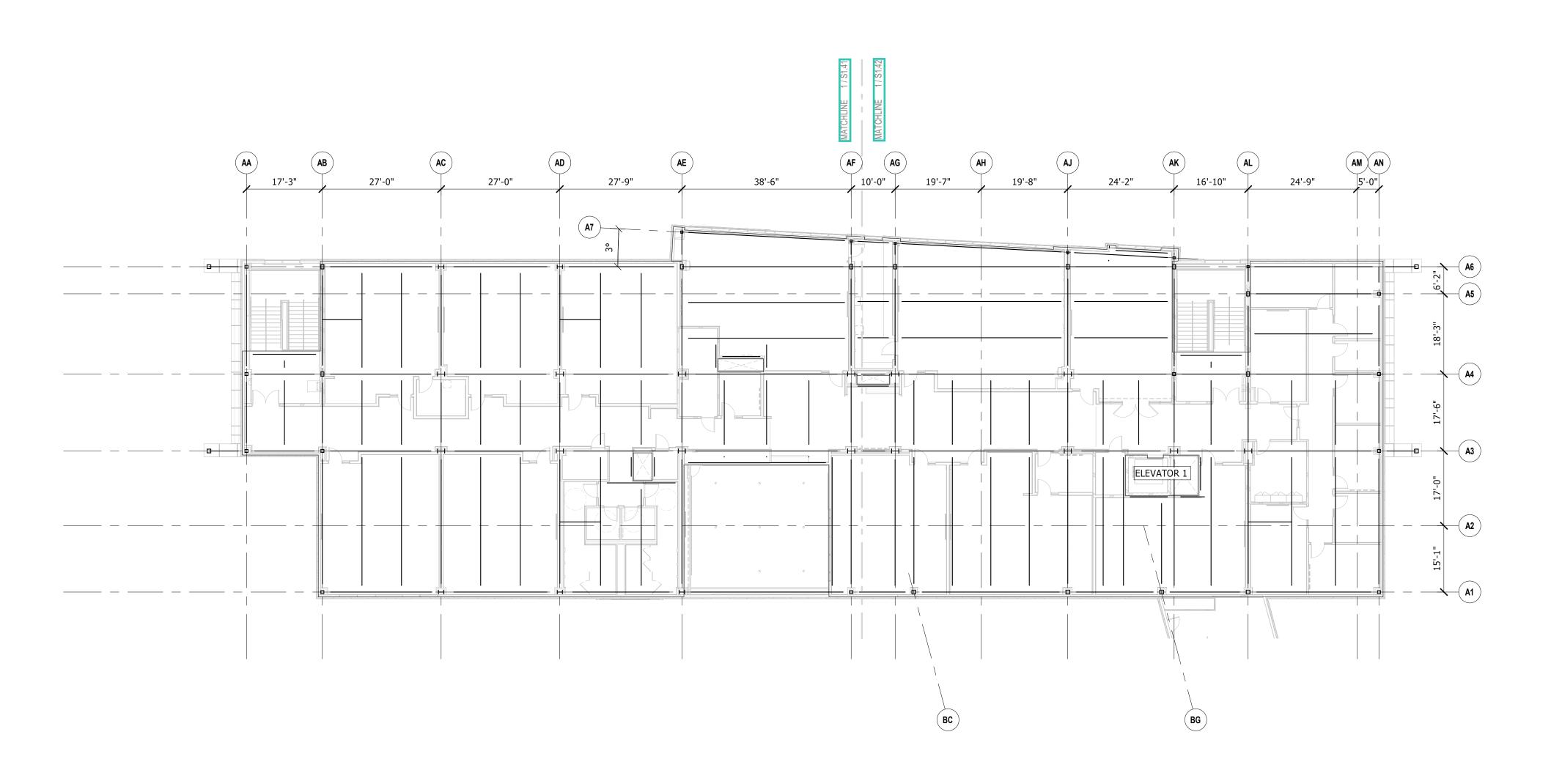




DRAWING NAME:

THIRD FLOOR **FRAMING** PARTIAL PLANS

	DRAWN	BY:	JDB / MSS
	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	: 2202.02	S1 34
	DATE:	OCTOBER 13, 2023	O 1.0 T



FLOOR FRAMING NOTES:

- 1. REFER TO DRAWINGS S0.01 FOR STRUCTURAL NOTES AND S0.21 THRU S0.24 FOR TYPICAL DETAILS.
- 2. 5 1/4" INDICATES SPAN DIRECTION OF 2", 18 GA. GALVANIZED COMPOSITE METAL DECK WITH 3 1/4" LIGHTWEIGHT CONCRETE TOPPING. TOTAL THICKNESS = 5 1/4". REINFORCE WITH 6x6 W2.1xW2.1 WWF. SEE PLANS AND TYPICAL DETAILS FOR ADDITIONAL REINFORCING. CONCRETE UNIT WEIGHT AND AIR-ENTRAINMENT SHALL BE PER PLANS AND SPECIFICATIONS.
- 3. "X" SC INDICATES THE NUMBER OF 3/4" DIAMETER, 4" LONG SHEAR STUDS SPACED EVENLY ALONG THE BEAM UNLESS NOTED OTHERWISE. LENGTH SHALL BE FINAL LENGTH AFTER WELDING (i.e. 2" ABOVE TOP OF DECK).
- 4. TOP OF FLOOR SLAB (TSL) = 141'-4", TYP., U.N.O. TOP OF STEEL (TST) = $140'-10 \ 3/4''$, TYP., U.N.O.
 - a. [] DENOTES DISTANCE ABOVE/BELOW "TYPICAL" TST.
- 5. X DENOTES CONNECTION DESIGN FORCES (SERVICE/ASD LOAD) IN KIPS. FORCES ARE VERTICAL UNLESS NOTED OTHERWISE AS FOLLOWS: (H) = HORIZONTAL
 - (A) = AXIAL (NOTE AXIAL FORCES ON PLANS ARE IN ADDITION TO ANY AXIAL COMPONENT OF BRACE FRAME FORCES) (M) = BENDING MOMENT IN STRONG DIRECTION
- 6. GENERAL CONTRACTOR SHALL COORDINATE LOCATION OF ALL OPENINGS AND PROVIDE REINFORCEMENT PER TYPICAL DETAILS ON S0.21 THRU S0.23.
- 7. SEE TYPICAL SECTION AT ISOLATED SLAB-ON-DECK DETAIL ON DWG S0.21. COORDINATE ISOLATED SLAB-ON-DECK REQUIREMENTS WITH LOCAL SLAB EDGE, ROOF DECK SUPPORT, AND SHEAR WALL DETAILS AS REQUIRED.
- 8. ALIGN BEAM CENTERLINE 9" OFF EDGE OF SLAB AT STAIR OPENING. REFER TO ARCH DWGS FOR EDGE OF SLAB LOCATIONS/DIMENSIONS.

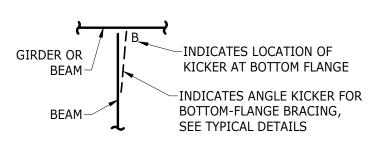
LEGEND:

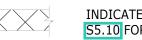


SLAB STEP

BEAM——INDICATES 3/8" (MIN.) FULL-DEPTH WEB STIFFENER TO BE PROVIDED AT BEAM-TO-GIRDER OR BEAM-TO-BEAM CONNECTION

-GIRDER OR BEAM





INDICATES CMU WALL LOCATION (NON-SHEAR WALL), SEE S5.10 FOR TYPICAL NON-SHEAR WALL CONNECTION DETAIL



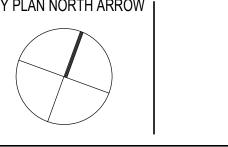
INDICATES CMU SHEAR WALL LOCATION, SEE S5.10 FOR TYPICAL SHEAR WALL CONNECTION DETAIL

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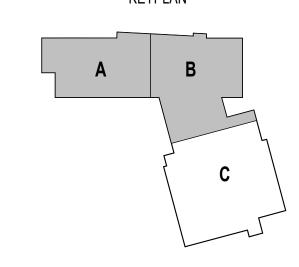




100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW |



KEYPLAN



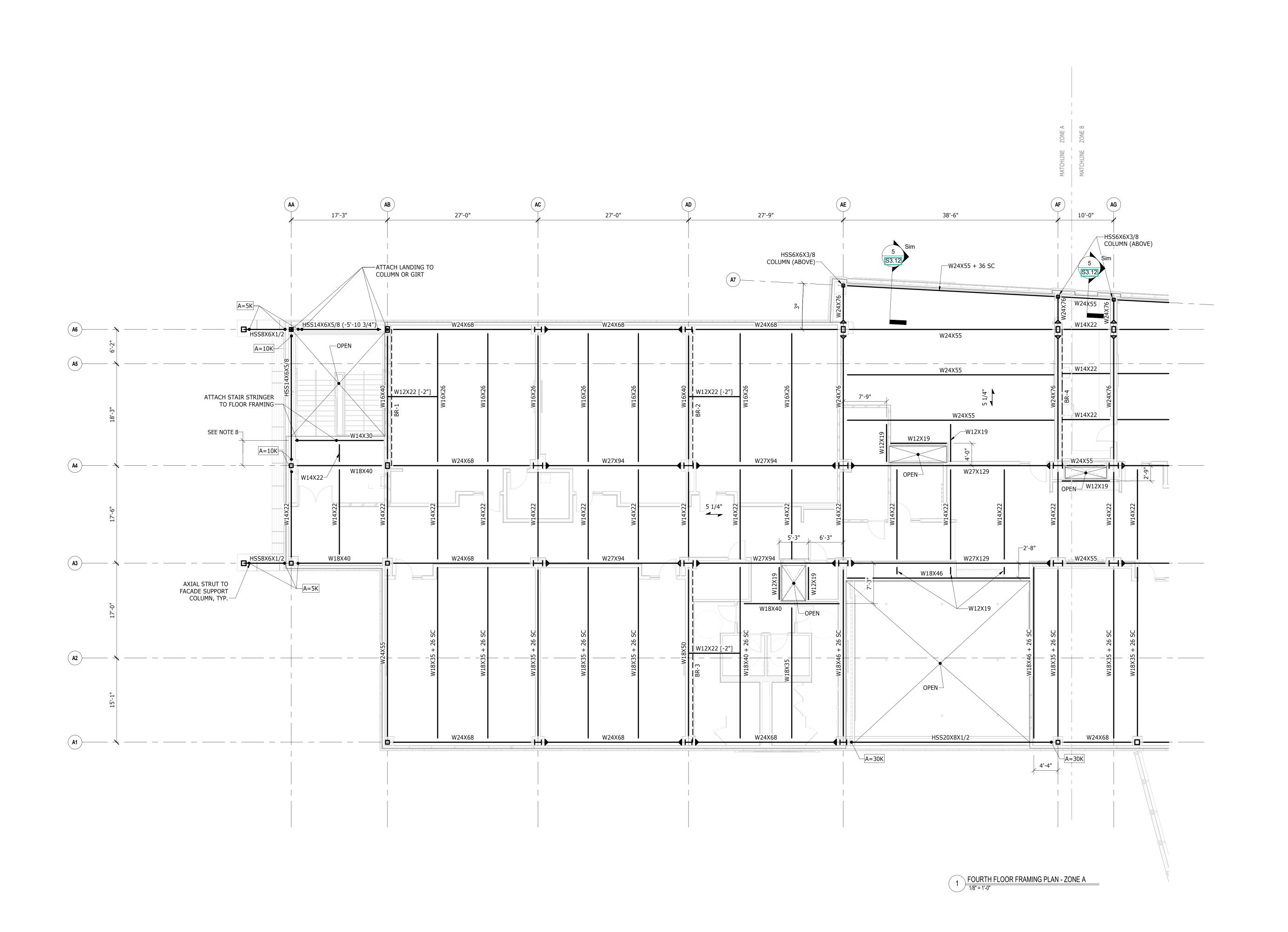
DRAWING NAME: **OVERALL**

1 FOURTH FLOOR FRAMING: OVERALL PLAN
1/16" = 1'-0"

FOURTH FLOOR FRAMING PLAN

JDB / MSS DRAWN BY: REVIEWED BY: MGM / BP SCALE: AS INDICATED | DRAWING NUMBER:

DATE: OCTOBER 13, 2023



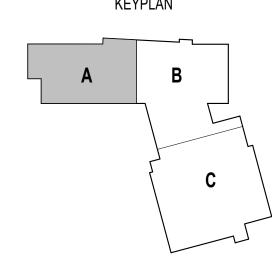






100% CONSTRUCTION DOCUMENTS
KEY PLAN NORTH ARROW

KEYPLAN

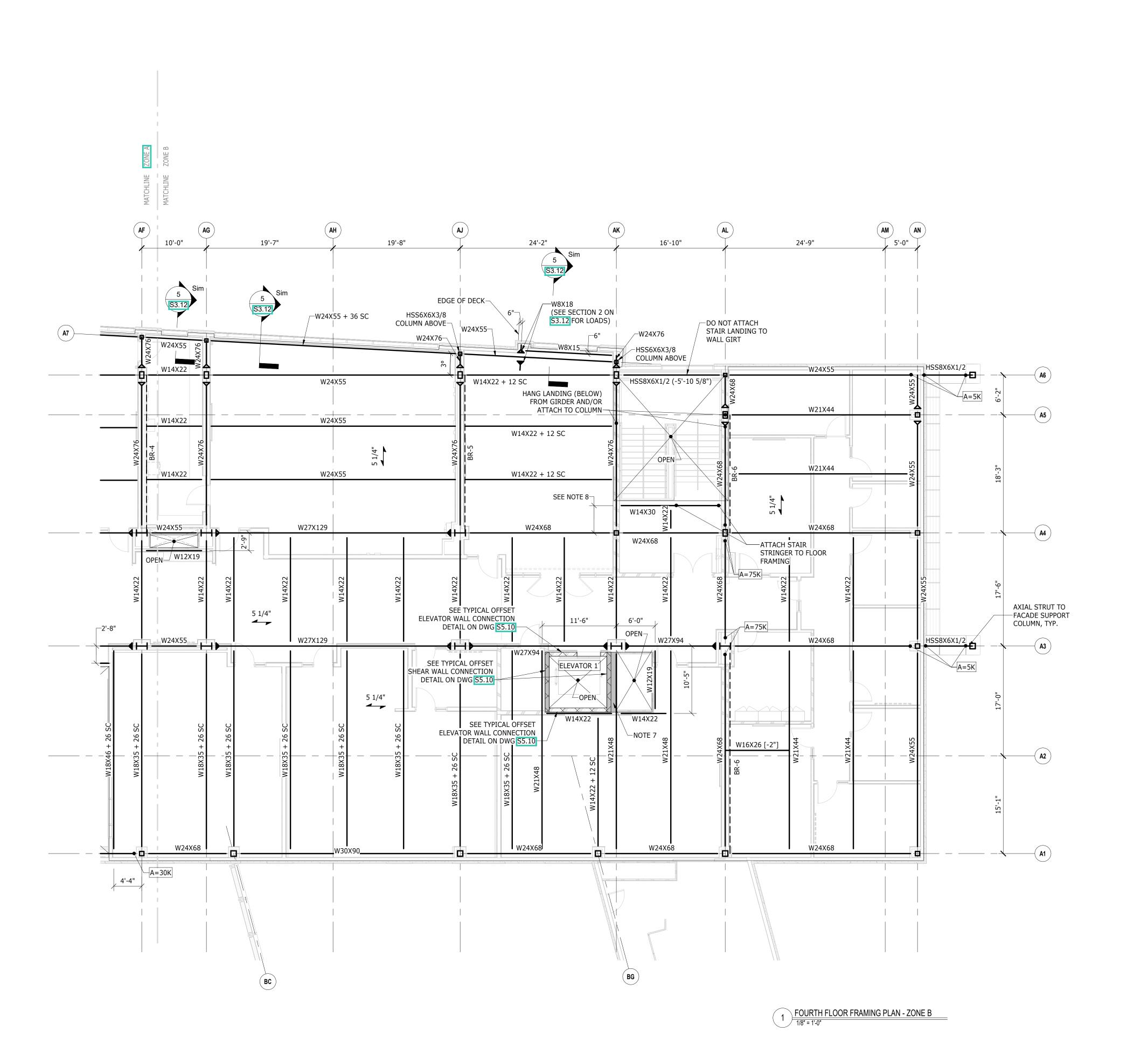


DRAWING NAME:

REFER TO DRAWING S1.40 FOR SCHEDULES, NOTES, ETC.

FOURTH FLOOR FRAMING PLAN -ZONE A

	DRAWN	BY:	JDB / MSS
	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	: 2202.02	S1.41
	DATE:	OCTOBER 13, 2023	01.71



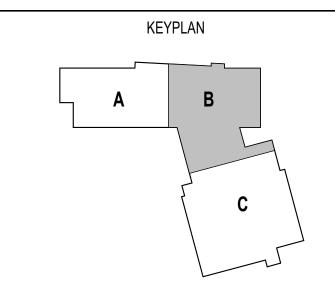






100% CONSTRUCTION DOCUMENTS

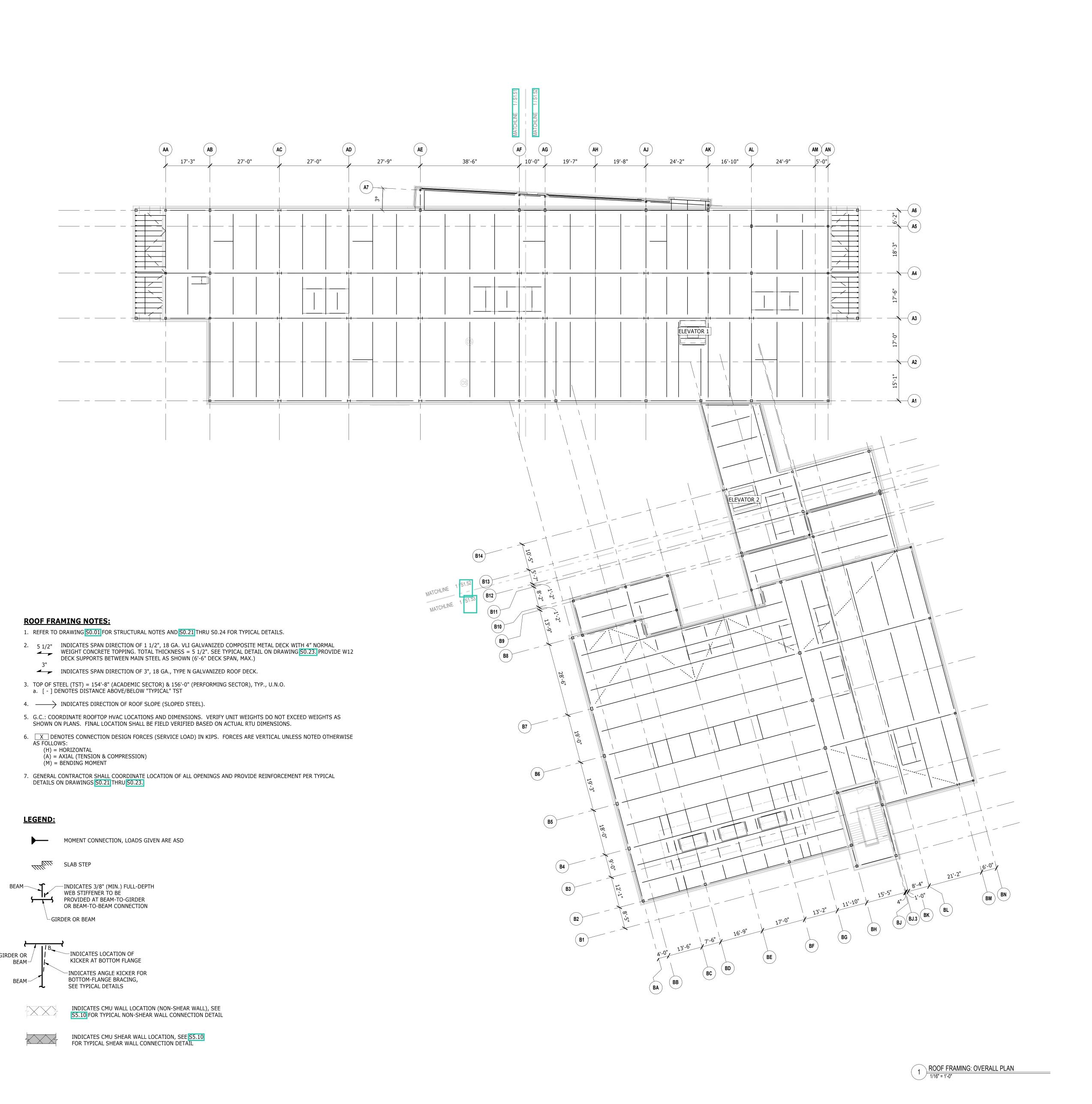
KEY PLAN NORTH ARROW



REFER TO DRAWING \$1.40 FOR SCHEDULES, NOTES, ETC.

FOURTH FLOOR
FRAMING PLAN ZONE B

	DRAWN	BY:	JDB / MSS
	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.:	2202.02	S1 42
	DATE:	OCTOBER 13, 2023	O 1.72



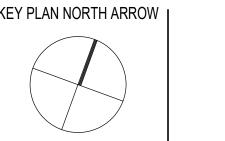




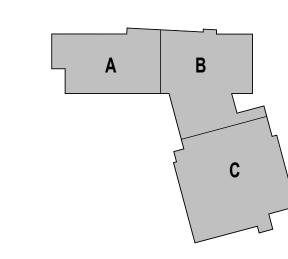


100% CONSTRUCTION DOCUMENTS

KEY PLAN NORTH ARROW |



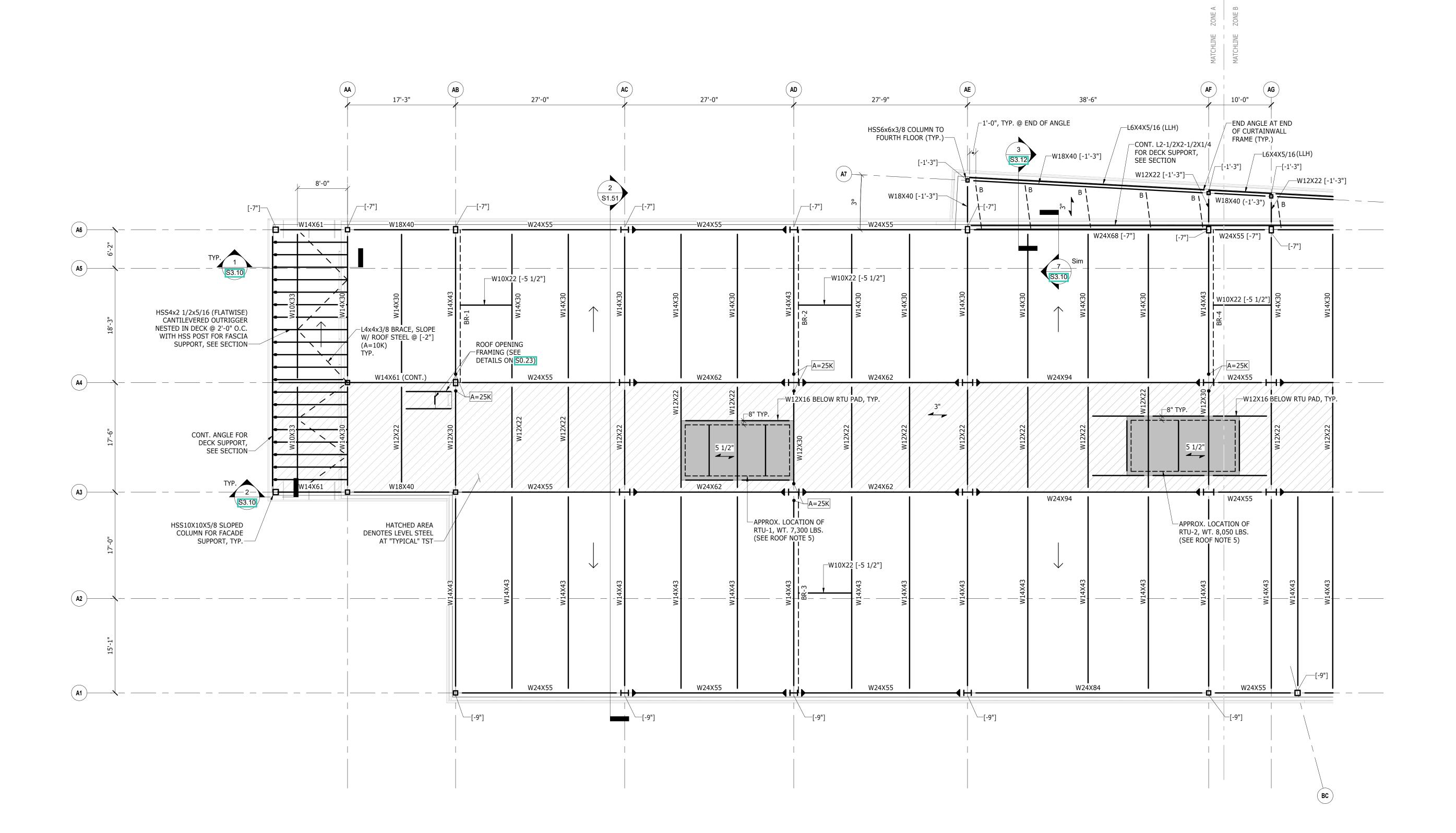
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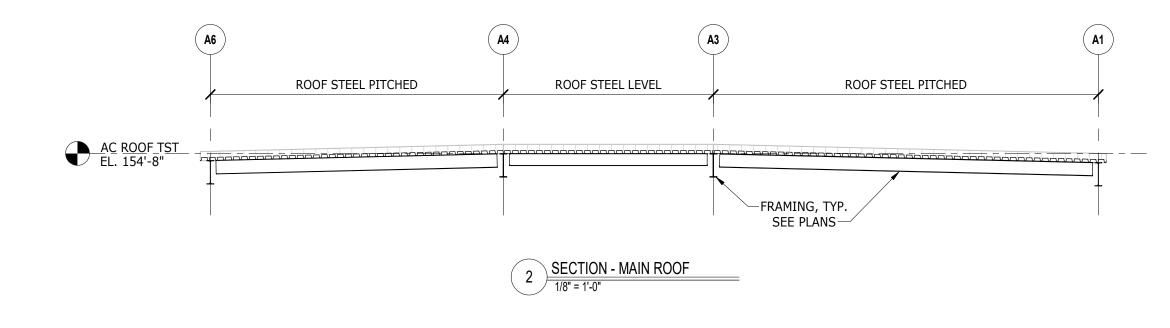
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	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	: 2202.02	S1.50
	DATE:	OCTOBER 13, 2023	01.00



1 ROOF FRAMING PLAN - ZONE A
1/8" = 1'-0"



REFER TO DRAWING S1.50 FOR SCHEDULES, NOTES, ETC.

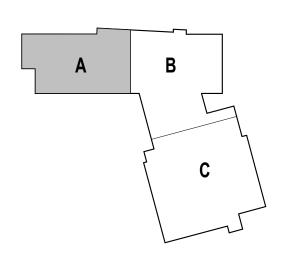






100% CONSTRUCTION DOCUMENTS
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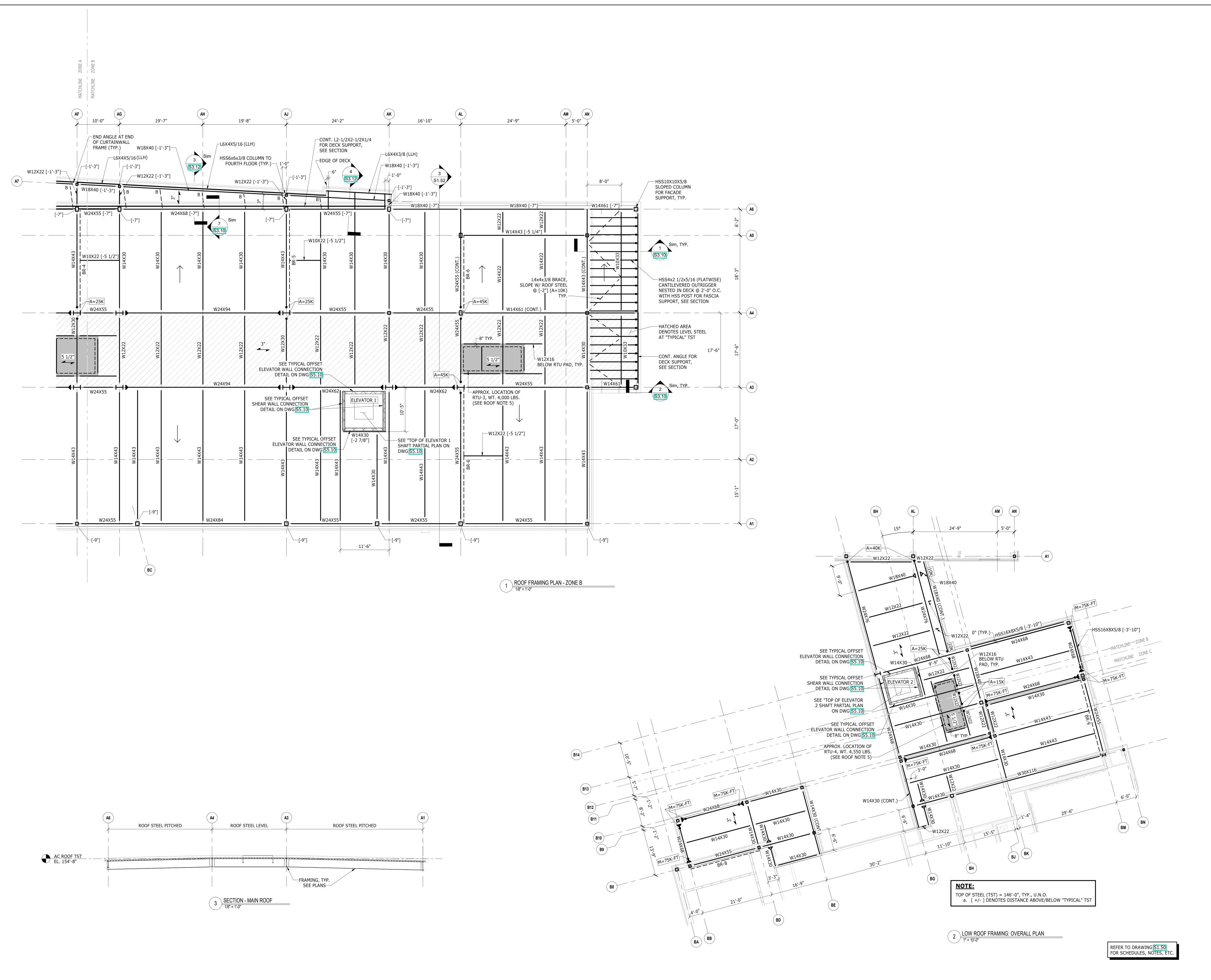
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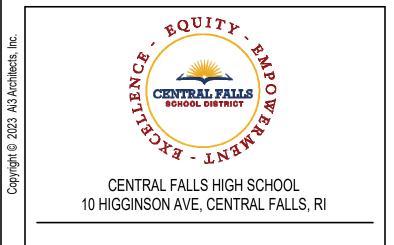
ROOF FRAMING PLAN - ZONE A

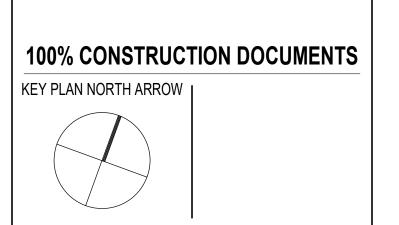
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DATE:	OCTOBER 13, 2023	01.01

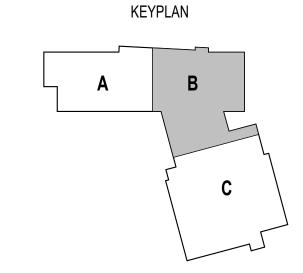






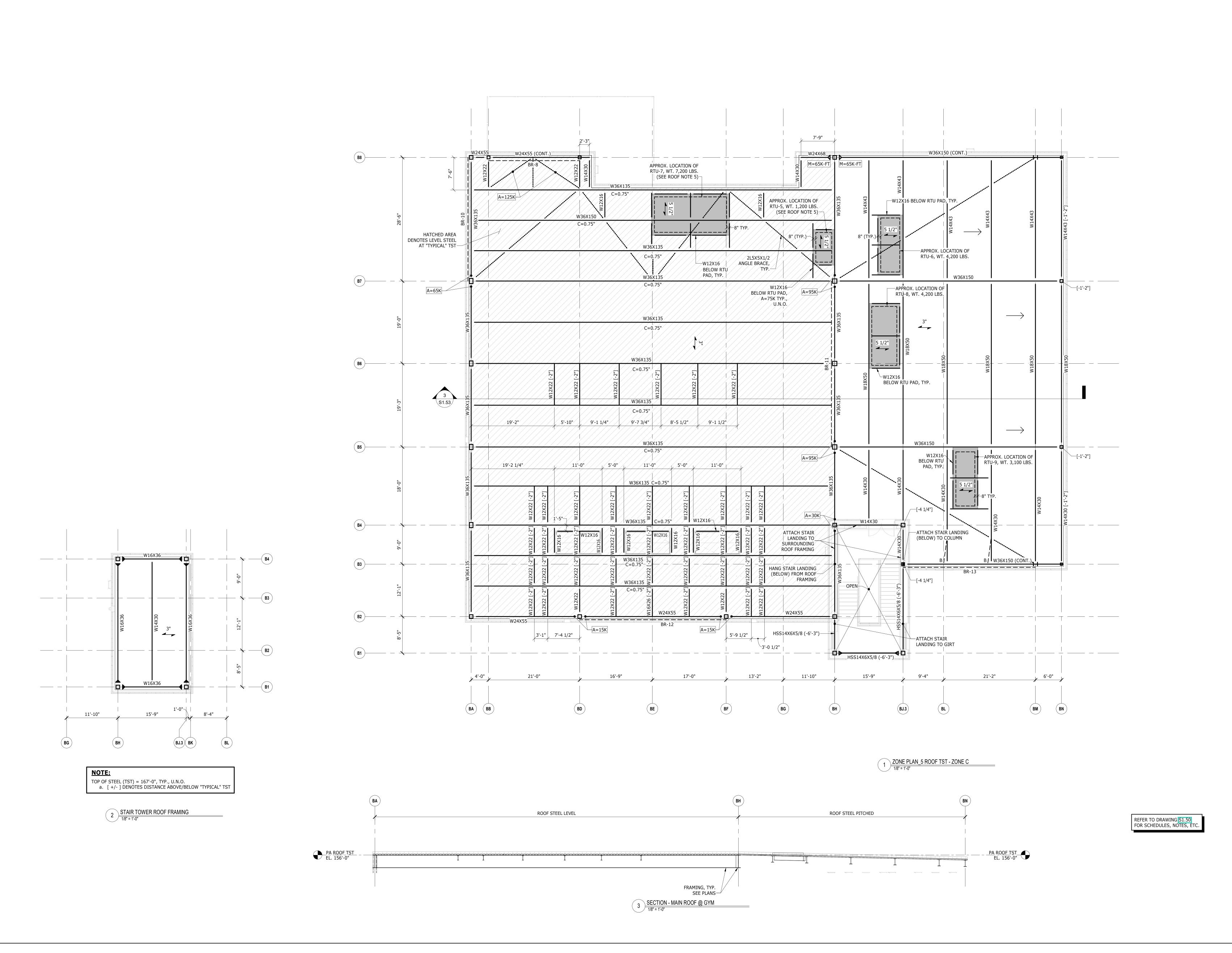




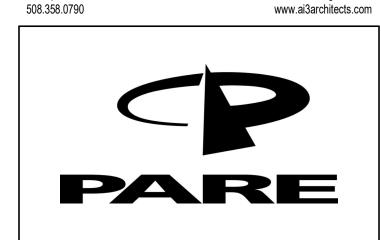


DRAWING NAME:							
ROOF FRAM PLAN - ZON							

	DRAWN BY	/ :	JDB / MSS				
	REVIEWED	BY:	MGM / BP				
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	JOB NO.:	2202.02	S1 52				
	DATE: O	CTOBER 13, 2023	01.02				

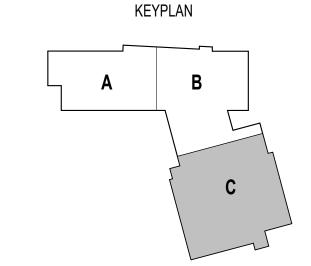








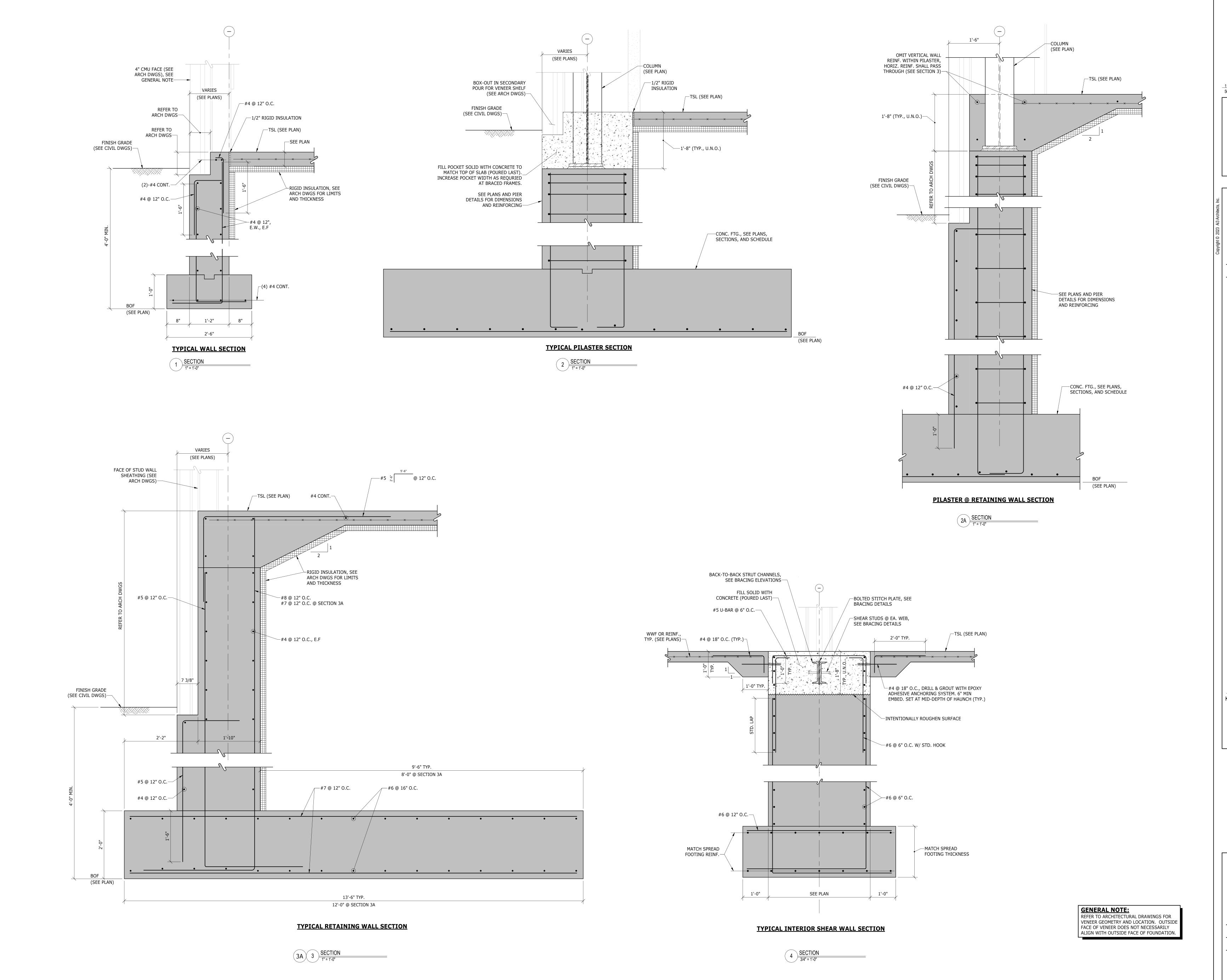
100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW |



DRAWING	NAME:	

ROOF FRAMING PLAN - ZONE C

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SCALE:	AS INDICATED	DRAWING NUMBER:
JOB NO.:	2202.02	S1.53
DATE:	OCTOBER 13, 2023	U 1100



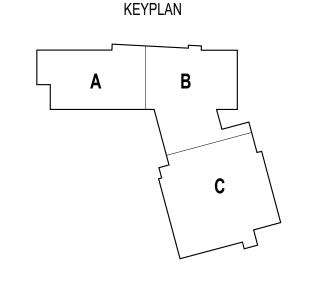






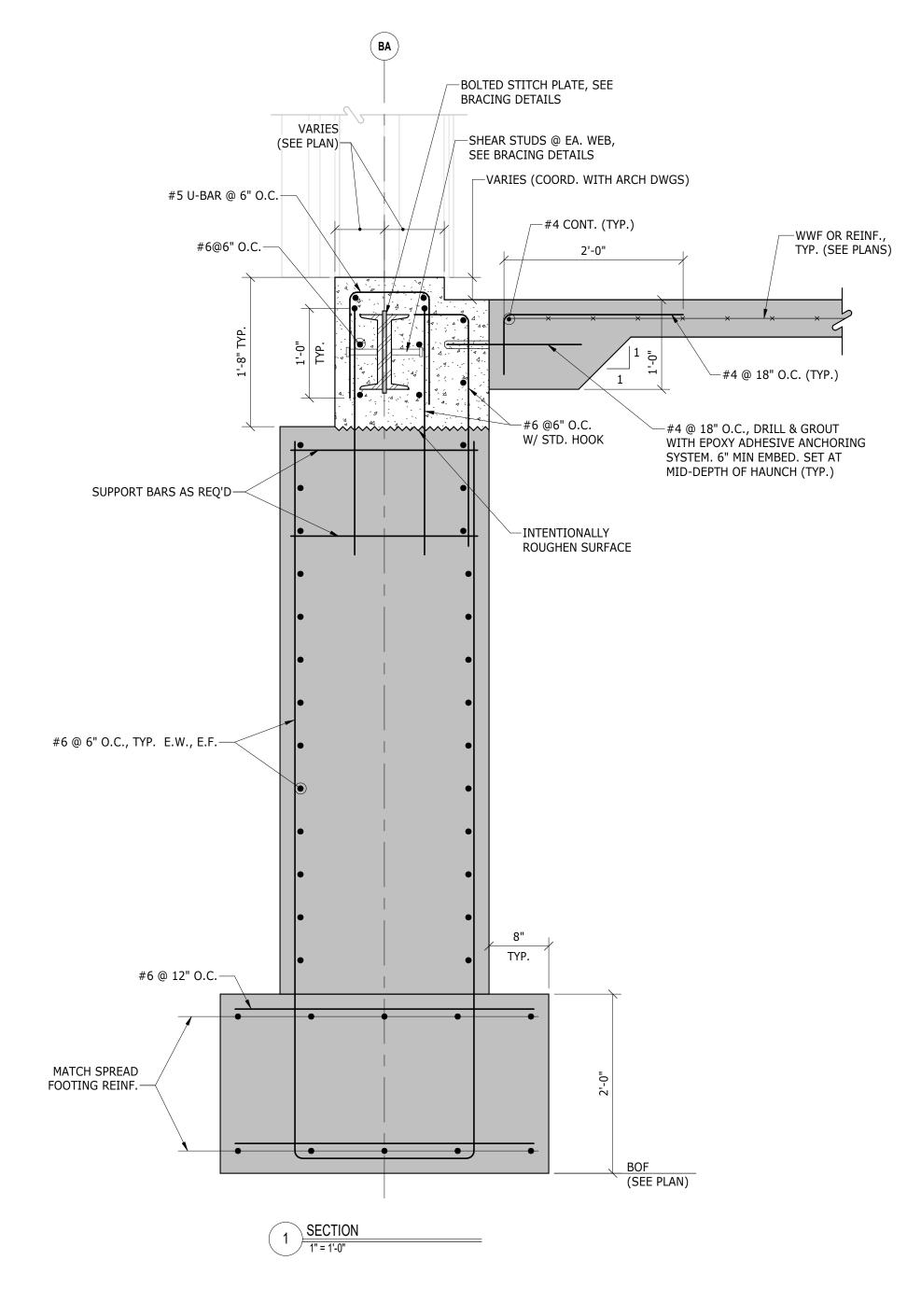
100% CONSTRUCTION DOCUMENTS

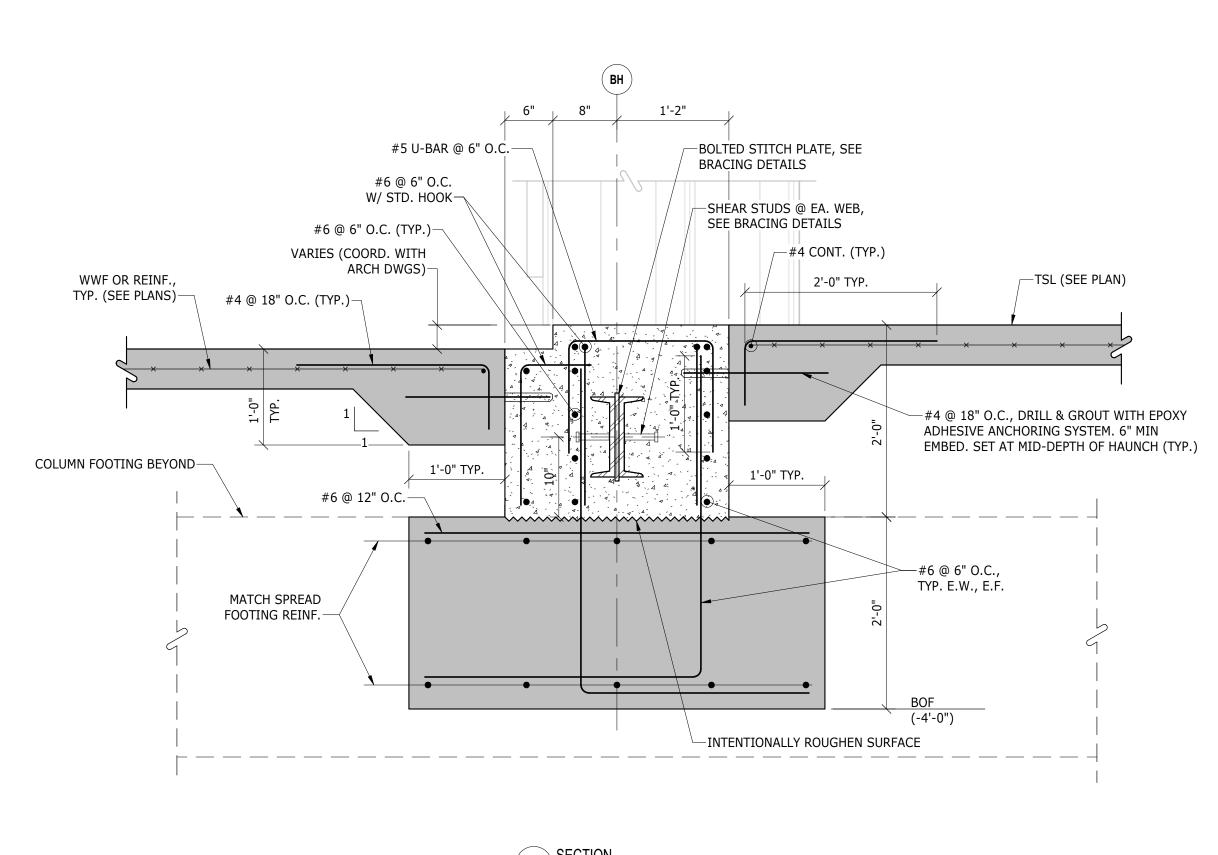
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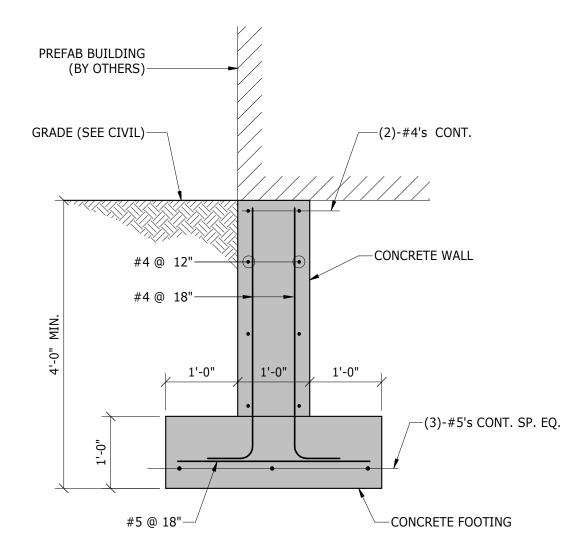


FOUNDATION
SECTIONS AND
DETAILS - 1

	DRAWN	BY:		JDB / MSS				
	REVIEW	ED BY	′ :	MGM / BP				
	SCALE:	l	AS INDICATED	DRAWING N	NUMBER:			
	JOB NO.	.:	2202.02	S2	10			
	DATE:	OCTO	OBER 13, 2023		. 10			







CONCESSIONS BUILING FOUNDATION

NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS.

2. REFER TO CIVIL DRAWINGS FOR UTILITY LOCATION AND INVERTS.
UTILITIES SHALL NOT PASS THROUGH FOOTINGS. CONTRATOR SHALL
COORDINATE FOUNDSATION STEPS AS REQUIRED, REFER TO DRAWING
SO.11 "TYPICAL ELEVATION OF STEPPED WALL FOOTING AT UTILITY
OPENING DETAIL" FOR STEP REQUIREMENTS AND DETAILS.

CONCESSION BUILDING FOUNDATION SECTION



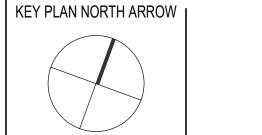
111 Speen Street, Suite 300 Framingham, MA
508.358.0790 www.ai3architects.com



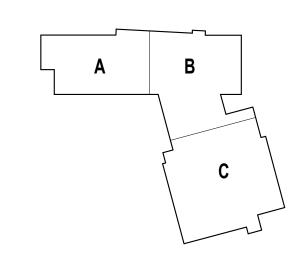


KEYNOTE LEGEND:

100% CONSTRUCTION DOCUMENTS



KEYPLAN



DRAWING NAME:

FOUNDATION SECTIONS AND DETAILS - 2

DRAWN BY:

REVIEWED BY:

SCALE: AS INDICATED | DRAWING NUMBER:

JOB NO.: 2202.02
DATE: OCTOBER 13, 2023

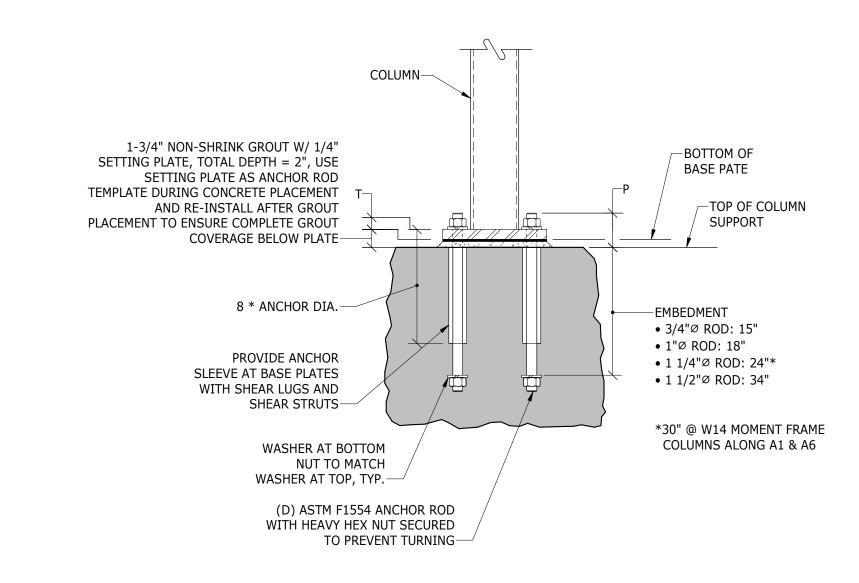
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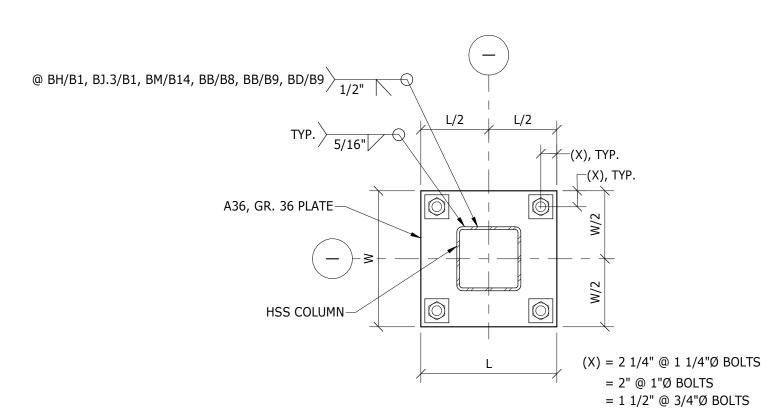
- 1. THE DIMENSIONS NOTED IN THE BASE PLATE SCHEDULE ARE TYPICAL, UNLESS NOTED OTHERWISE.
- 2. PROVIDE HOLES WITH ASTM A36 (TYP., A572 GR. 50 @ BRACED & MOMENT FRAMES) HEAVY PLATE WASHER IN BASE PLATES AS FOLLOWS:
- 3/4"Ø ROD: 1 5/16"Ø HOLE, 2" X 2" X 1/4" WASHER • 1"Ø ROD: 1 13/16"Ø HOLE, 3" X 3" X 3/8" WASHER • 1 1/4"Ø ROD: 2 1/16"Ø HOLE, 3" X 3" X 1/2" WASHER • 1 1/2"Ø ROD: 2 5/16"Ø HOLE, 3 1/2" X 3 1/2" X 1/2" WASHER • 1 3/4"Ø ROD: 2 3/4"Ø HOLE, 4" X 4" X 5/8" WASHER
- SETTING/LEVELING PLATES SHALL BE USED AS AN ANCHOR ROD TEMPLATE AND SHALL BE FABRICATED WITH STANDARD HOLES (ROD DIAMETER + 1/16").
- 3. PLATE WASHERS SHALL BE WELDED TO THE BASE PLATES WITH TACK WELDS, TYP. ALL FOUR SIDES. AT BRACED AND MOMENT FRAME COLUMNS, USE 1/4" WELD ALL AROUND PLATE WASHER, EXCEPT AT COLUMN BASE PLATES WITH SHEAR LUGS OR SHEAR STRUTS - DO NOT WELD PLATE WASHER TO BASE PLATE AT THESE LOCATONS.
- 4. ANCHOR RODS ARE NOT PERMITTED TO BE TORQUED DURING COLUMN LEVELING OR INSTALLATION PROCESS. PROVIDE SNUG-TIGHT CONNECTION ONLY.

								BAS	SE PLA	ATE S	CHED	ULE									
		TYPE A			TYPE A1	1		TYPE A2	2		TYPE B			TYPE C		TYPE D			TYPE W		
	D		Р	D		Р	D		Р	D		Р	D		Р	D		Р	D		Р
	*		7 1/2"	*		7 1/2"	*		7 1/2"	*		7 1/2"	*		7 1/2"	*		7 1/2"	*		8 1/2"
COLUMN SIZE	L	W	Т	L	W	Т	L	W	Т	L	W	Т	L	W	Т	L	W	Т	L	W	Т
HSS6X6	1'-0"	1'-0"	1"	-	-	-	-	-	-	1'-1"	7"	1 1/2"	-	-	-	-	-	-	-	-	-
HSS8X8	1'-4"	1'-4"	1 1/2"	-	-	-	-	-	-	1'-5"	9"	1 1/2"	1'-1"	9"	1 1/4"	1'-3"	1'-6"	1 3/4"	-	-	-
HSS10X10	1'-6"	1'-6"	1 3/4"	-	-	-	1'-7"	1'-7"	1 3/4"	1'-8"	1'-0"	2"	-	-	-	1'-3"	1'-8"	1 3/4"	-	-	-
HSS12X8	ı	-	-	1'-6"	1'-6"	1 3/4"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HSS12X12	-	-	-	-	-	-	1'-11"	1'-11"	1 3/4"	1'-9"	1'-2"	1 1/2"	-	-	-	-	-	-	-	-	-
HSS14X10	-	-	-	-	-	-	-	-	-	1'-11"	1'-0"	1 1/2"	-	-	-	-	-	-	-	-	-
W10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1'-10"	1'-5"	1 3/4"
W14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2'-3"	1'-3"	2"
W18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2'-8"	1'-11"	2 1/4"

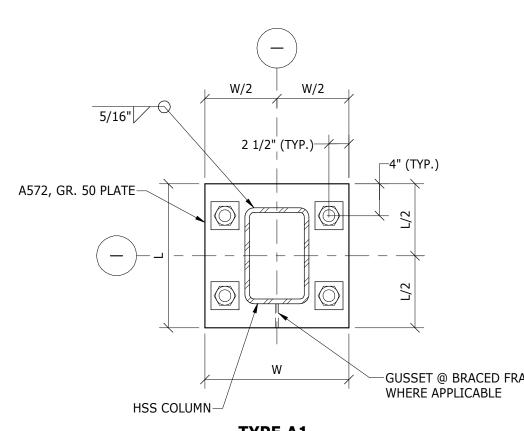




BASE PLATE ANCHORAGE



(4 - 1"Ø F1554 GR.36 A. BOLTS, TYP.) (4 - 1 1/4"Ø F1554 GR.55 A. BOLTS @ BH/B1, BJ.3/B1, BM/B14, BB/B8, BB/B9, BD/B9, BR-7, BR-8, BR-9, BR-10, BR-12) (4 - 3/4"Ø F1554 GR.36 A. BOLTS @ HSS6X6)

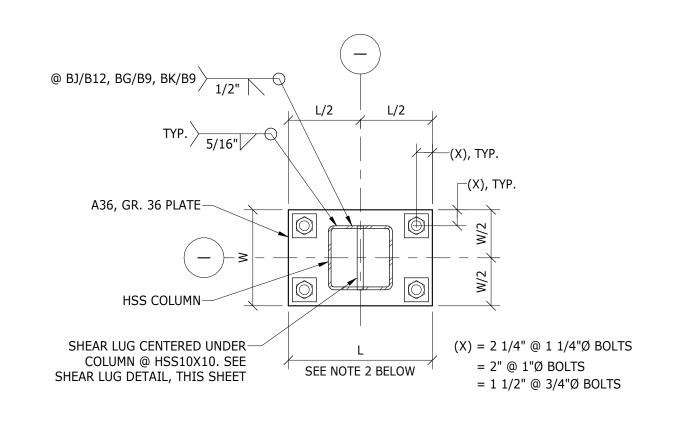


(4 - 1 1/4"Ø F1554 GR.55 A. BOLTS)

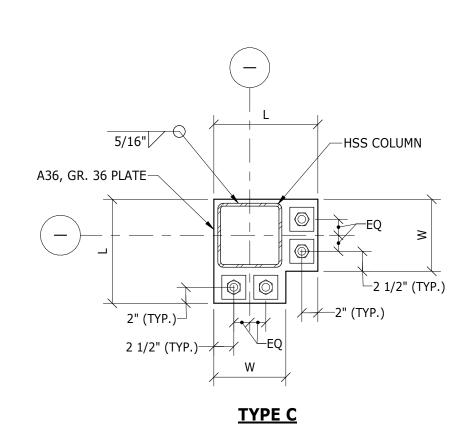
A572, GR. 50 PLATE— —GUSSET @ BRACED FRAME HSS COLUMN-

(8 - 1 1/4"Ø F1554 GR.55 A. BOLTS, 4 BOLTS PER SIDE)

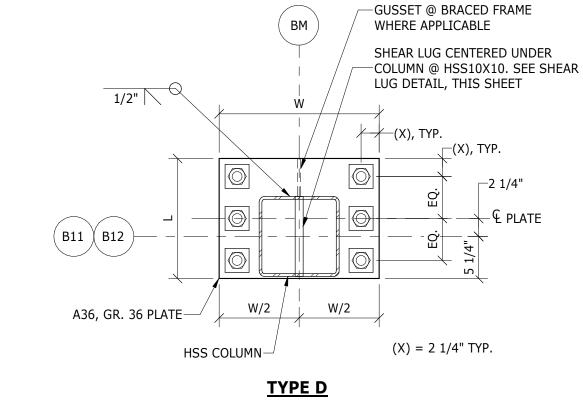
—GUSSET @ BRACED FRAME WHERE APPLICABLE



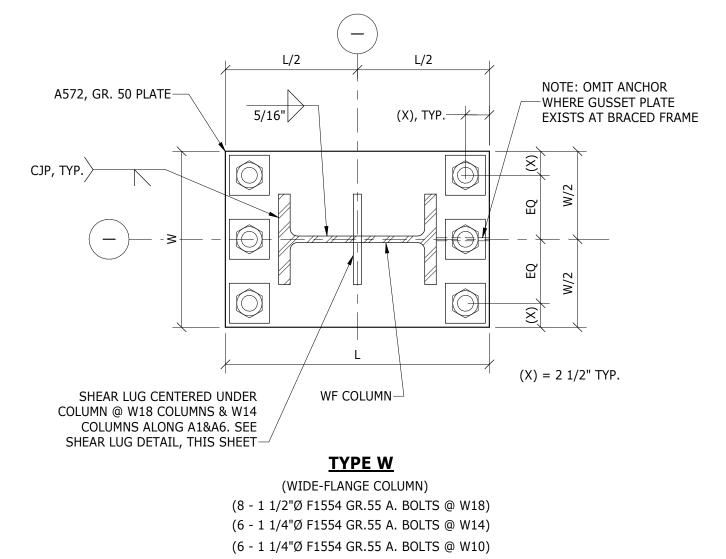
(4 - 1"Ø F1554 GR.36 A. BOLTS, TYP.) (4 - 1"Ø F1554 GR.55 A. BOLTS @ HSS10X10) (4 - 3/4"Ø F1554 GR.36 A. BOLTS @ HSS6X6) (4 - 1 1/4"Ø F1554 GR.55 A. BOLTS @ HSS12X12 & HSS 14X10)

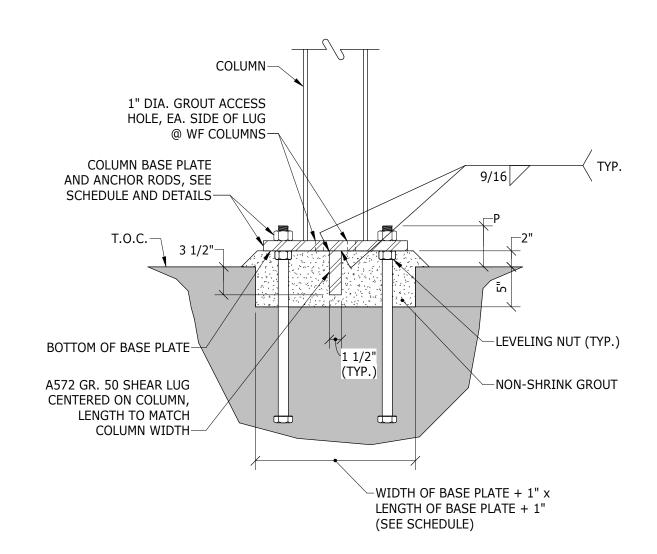


(4 - 1"Ø F1554 GR.36 A. BOLTS, TYP.)



(6 - 1 1/4"Ø F1554 GR.55 A. BOLTS, TYP.)





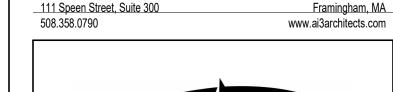
SHEAR LUG DETAIL

- PLATE WASHERS SHALL BE WELDED TO BASE PLATES PER NOTE 3 OF BASE PLATE SCHEDULE.
- 2. LENGTH ("L") OF TYPE B BASE PLATE SHALL TYPICALLY BE ORIENTED PARALLEL TO FOUNDATION OR AS SHOWN IN DETAILS AT BRACED FRAME LOCATIONS (SEE GUSSET PLATE ORIENTATION). AT LOCATIONS LISTED BELOW, ORIENT AS FOLLOWS: • BH/B14: ALONG B14 COLUMNS ALONG B9&B10: ALONG B9&B10 • COLUMNS ALONG B11&B12: ALONG B11&B12

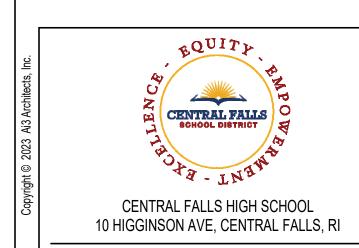
TYPICAL BASE PLATE DETAILS NOT TO SCALE

- 1. DETAIL ONLY APPLIES AT LOCATIONS SHOWN IN BASE PLATE DETAILS.
- 2. SEE BASE PLATE DETAILS FOR ORIENTATION OF SHEAR LUG (TYP.)
- 3. PIER REINFORCEMENT WITHIN FOOTPRINT OF SHEAR LUG BOX-OUT SHALL BEGIN BELOW BOX-OUT.



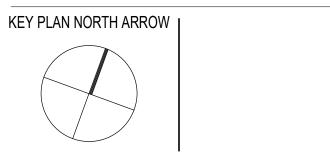




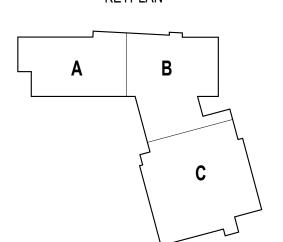


KEYNOTE LEGEND:

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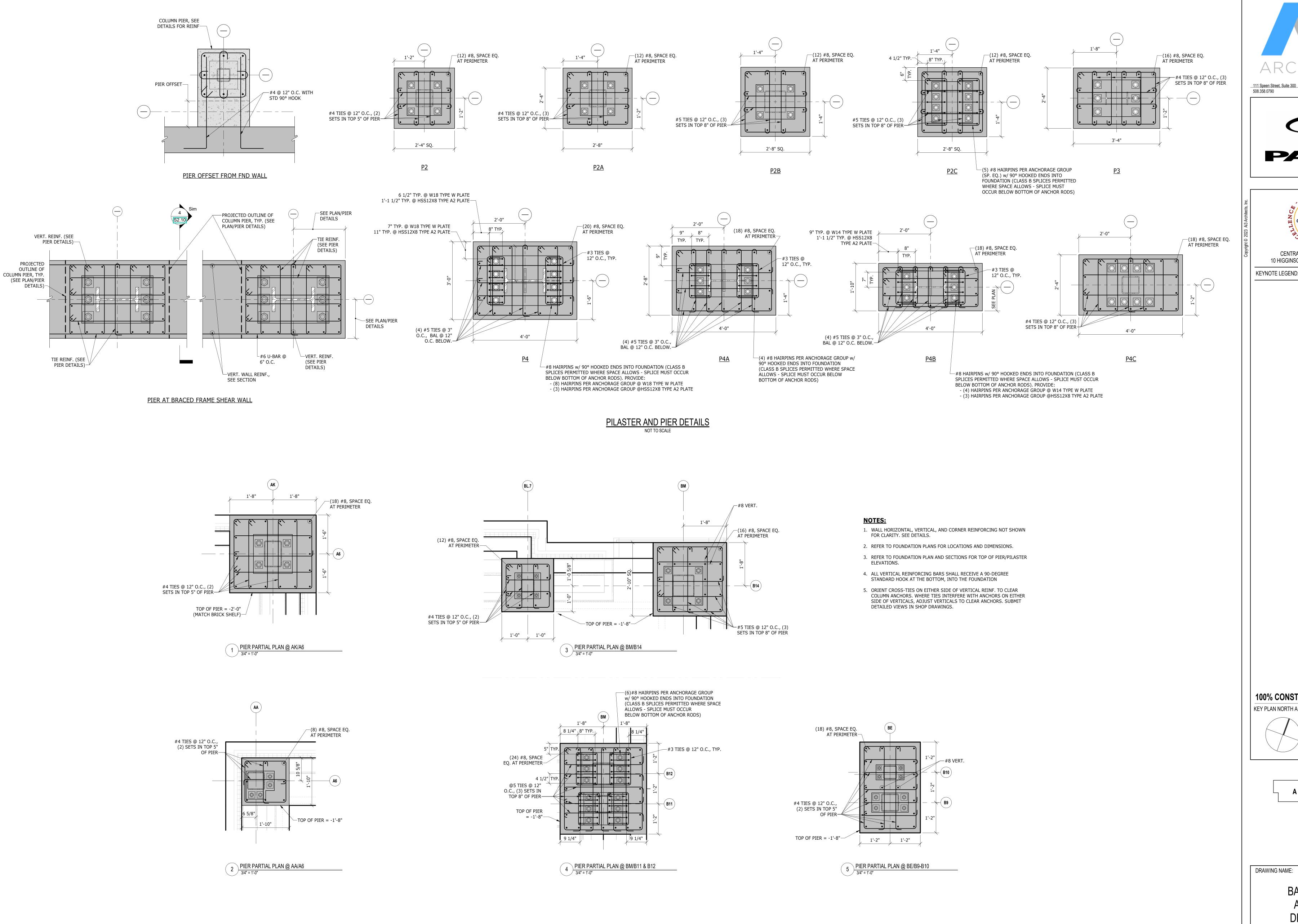
KEYPLAN



DRAWING NAME:

BASE PLATE AND PIER DETAILS - 1

JDB / MSS DRAWN BY: REVIEWED BY: MGM / BP SCALE: AS INDICATED | DRAWING NUMBER: DATE: OCTOBER 13, 2023



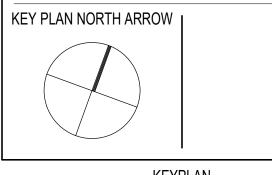




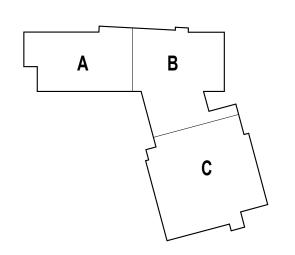


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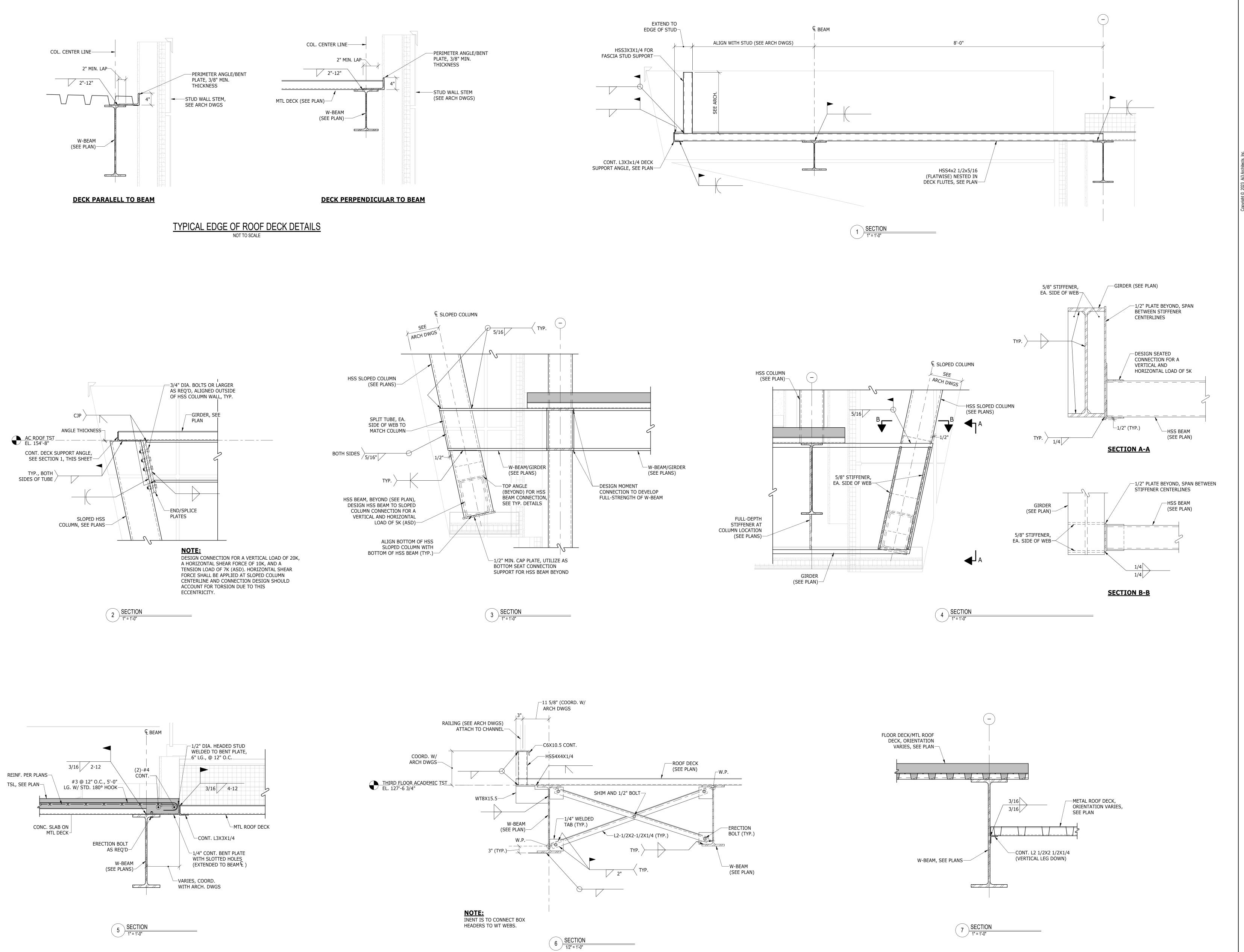
KEYPLAN



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BASE PLATE AND PIER DETAILS - 2

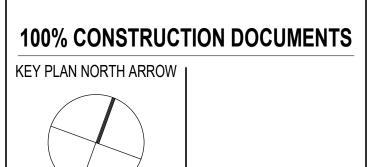
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	REVIEW	ED BY:	MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	: 2202.02	S2 21
	DATE:	OCTOBER 13, 2023	

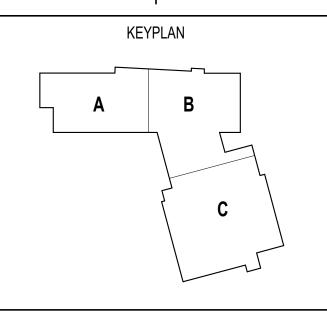






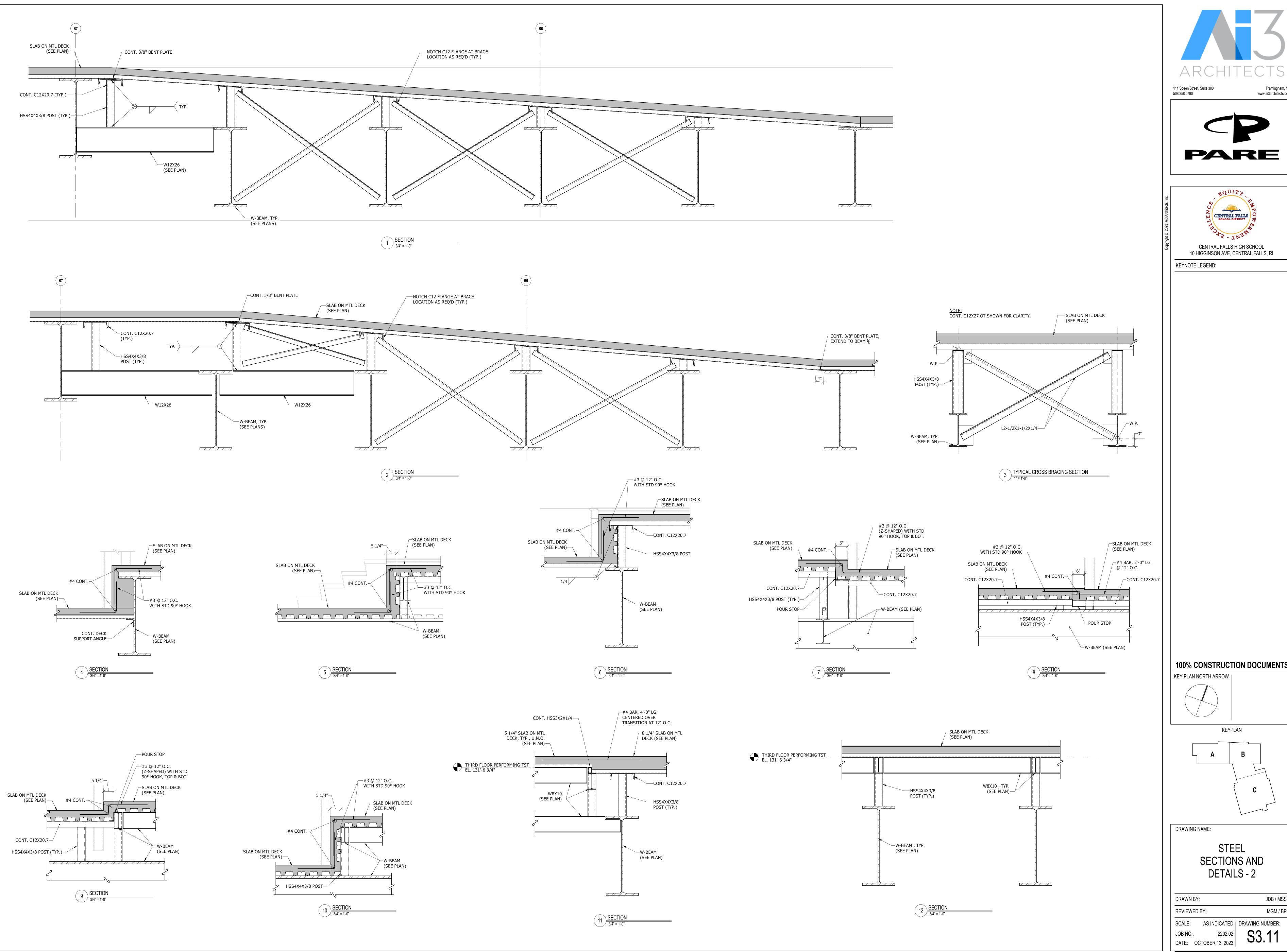






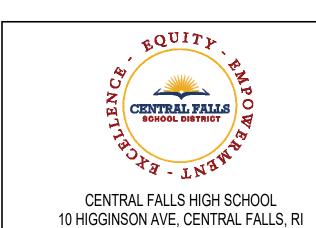
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STEEL
SECTIONS AND
DETAILS - 1

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REVIEW	ED BY:	MGM / BP
SCALE:	AS INDICATED	DRAWING NUMBER:
JOB NO	.: 2202.02	S3 10
DATE:	OCTOBER 13, 2023	00.10



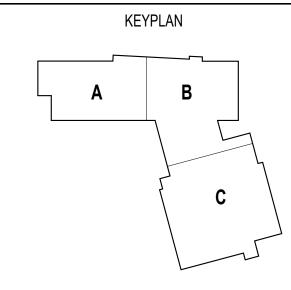


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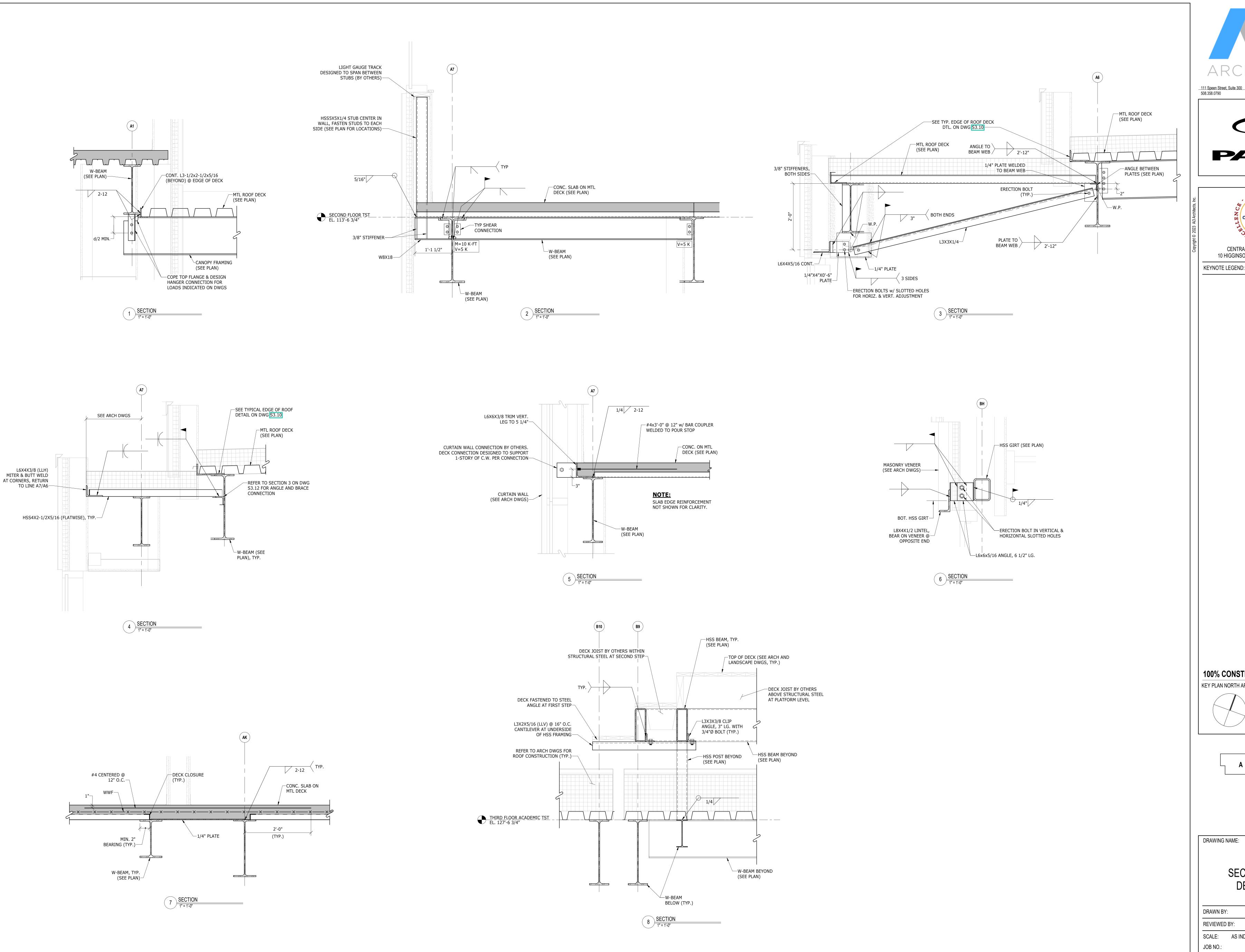
KEYNOTE LEGEND:

100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW |



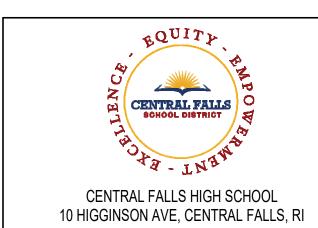
DRAWING NAME: STEEL SECTIONS AND DETAILS - 2

DRAWN BY	· ·	JDB / MSS
REVIEWED	BY:	MGM / BP
SCALE:	AS INDICATED	DRAWING NUMBER:
JOB NO.:	2202.02	C 3 11



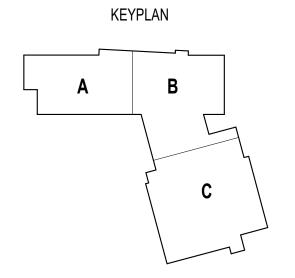






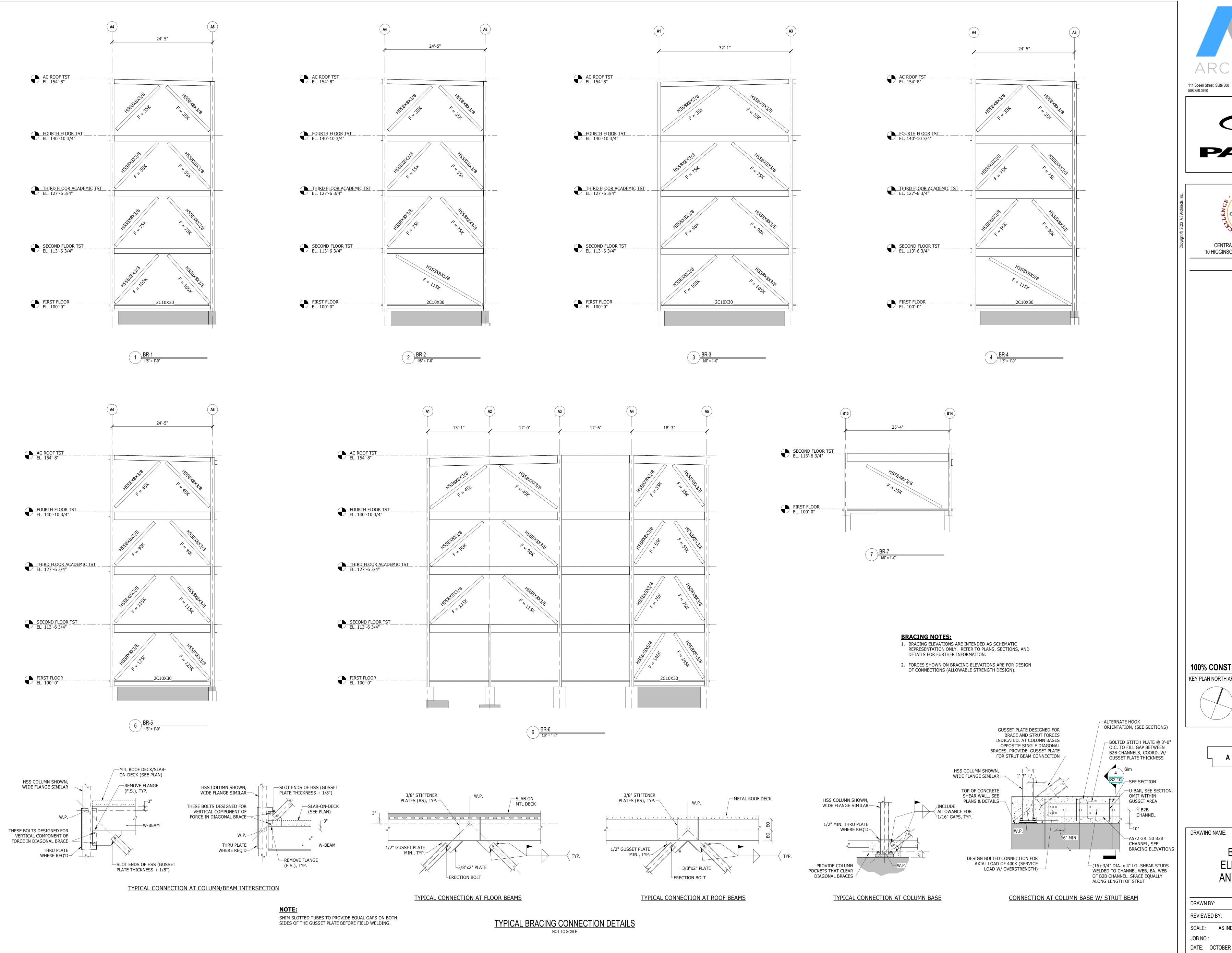
KEYNOTE LEGEND:

100% CONSTRUCTION DOCUMENTS KEY PLAN NORTH ARROW I



STEEL SECTIONS AND DETAILS - 3

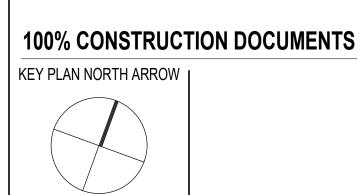
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JOB NO.	.: 2202.02	S3 12
DATE:	OCTOBER 13, 2023	00.12

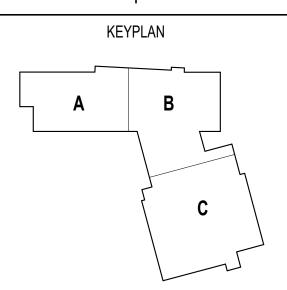








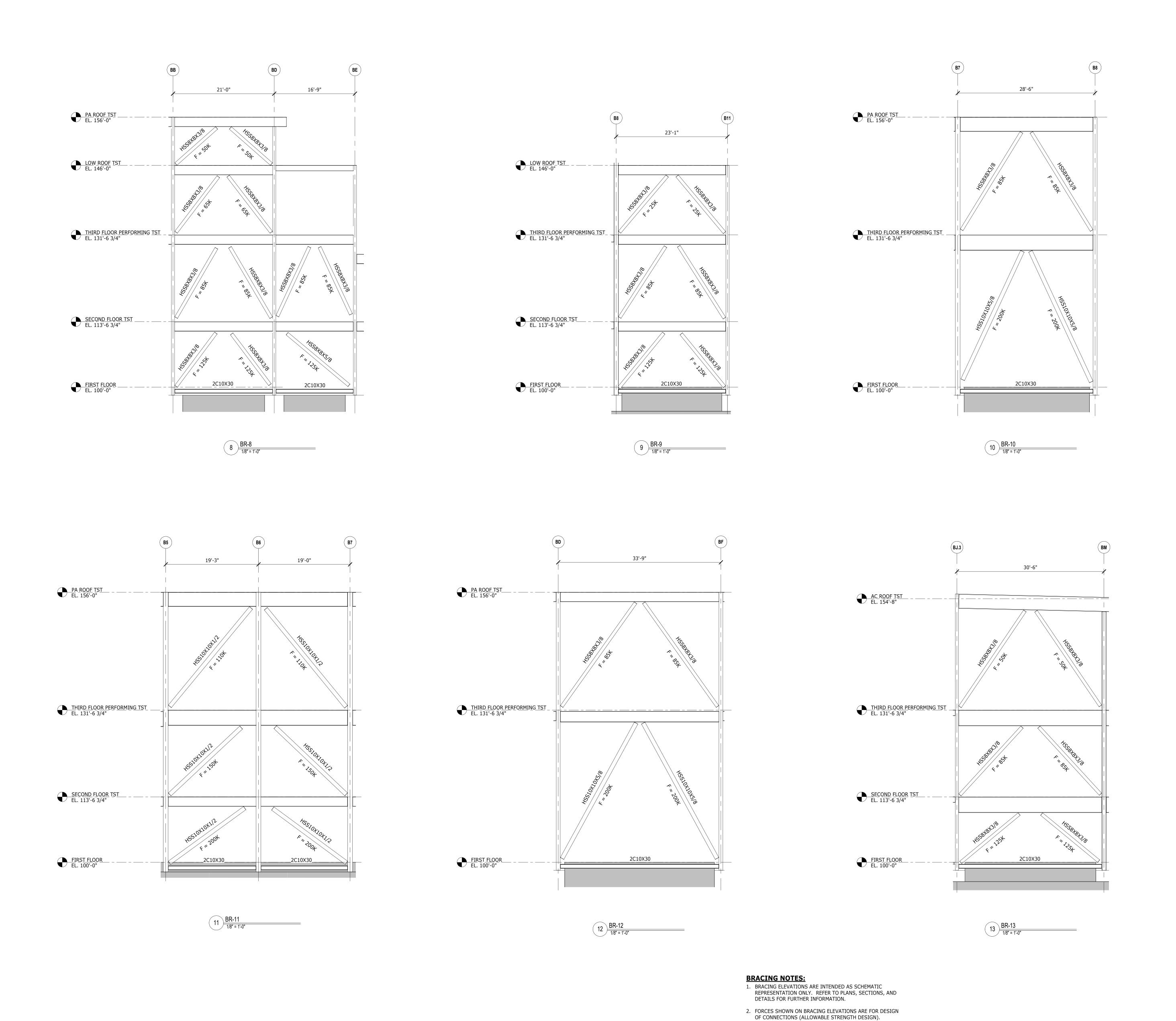




DRAWING NAME:

BRACING **ELEVATIONS** AND DETAILS

	DRAWN E	BY:	JDB / MSS
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	JOB NO.:	2202.02	S4 10
	DATE:	OCTOBER 13, 2023	OT. 10



DRAWING NAME:

BRACING

BRACING ELEVATIONS

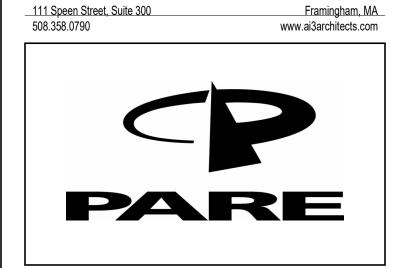
100% CONSTRUCTION DOCUMENTS

KEYPLAN

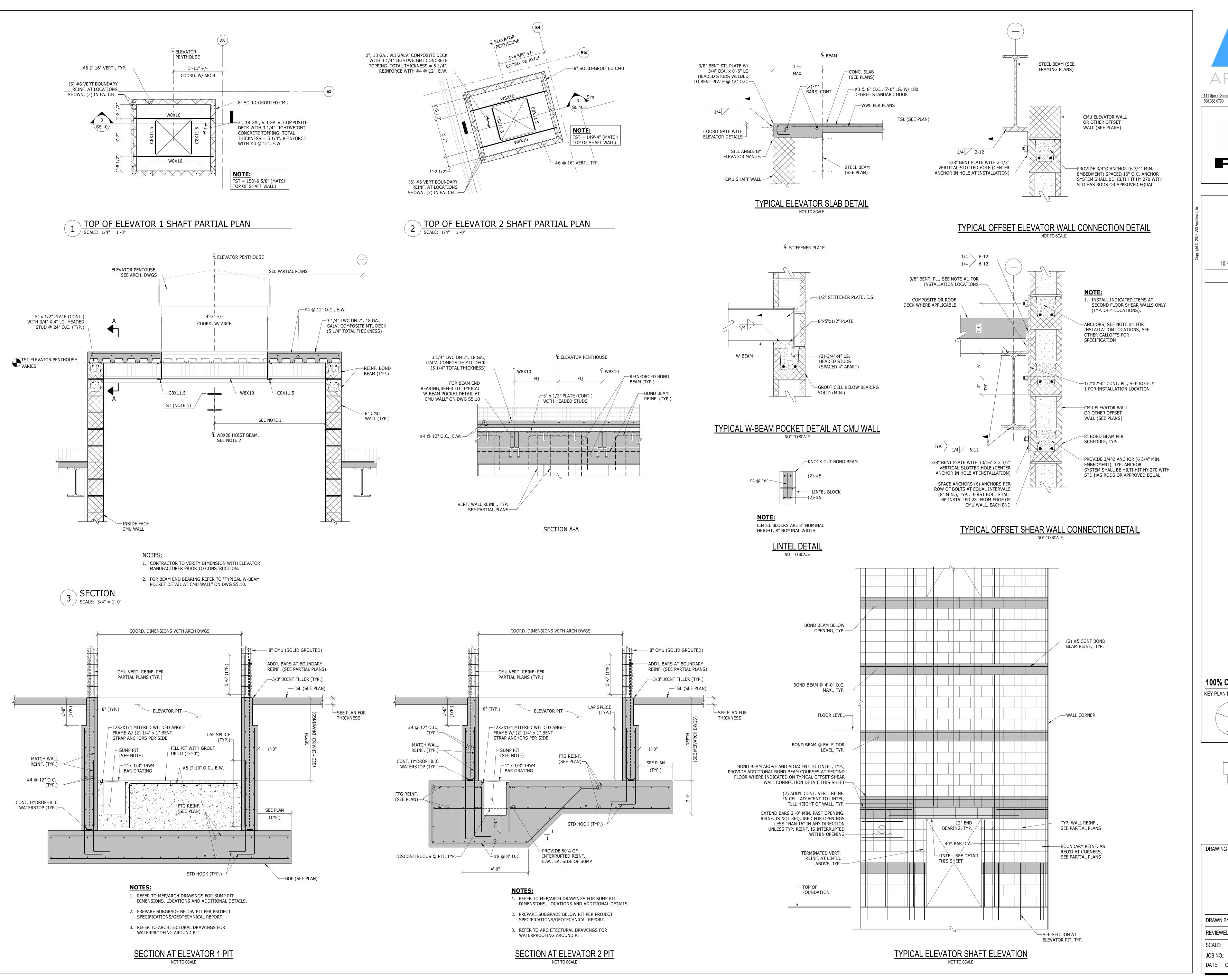
KEY PLAN NORTH ARROW

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REVIEWE	ED BY:	MGM /
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JOB NO.:	2202.02	SA 11
DATE:	OCTOBER 13, 2023	O T . 1 1

ARCHITECTS







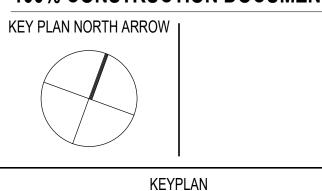


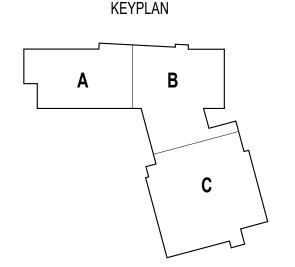


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DRAWING NAME: **ELEVATOR** SHAFT PARTIAL PLANS AND **DETAILS**

			_
	DRAWN	BY:	JDB / MSS
	REVIEWED BY:		MGM / BP
	SCALE:	AS INDICATED	DRAWING NUMBER:
	JOB NO.	: 2202.02	S5.10
	DATE:	OCTOBER 13, 2023	00.10