DESIGN PARAMETERS

1.	BUILDING CODE	2018 INTERNATIONAL BUILDING CODE (IBC)
	OCCUPANCY CATEGORY	II
2.	LIVE LOADS	
	A. ROOF – NON–REDUCIBLE	20 PSF
	B. SLAB–ON–GRADE	350 PSF
3.	ROOF SNOW LOAD	
	A. GROUND SNOW LOAD, Pg	20 PSF
	B. FLAT ROOF SNOW LOAD, Pf	20 PSF
	C. SNOW EXPOSURE FACTOR, Ce	1.0
	D SNOW LOAD IMPORTANCE FACTOR, I	1.0
	E. THERMAL FACTOR, Ct (BUILDING)	1.0
	F. SNOW DRIFT	PER REFERENCED CODE
4.	WIND DESIGN DATA	
	A. ULTIMATE WIND SPEED (3 SECOND GUST), V	109 MPH
	B. WIND IMPORTANCE FACTOR, I	1.00
	C. WIND EXPOSURE CATEGORY	C
	D. INTERNAL PRESSURE COEFFICIENT, Gcpi	+/– 0.18
	E. DESIGN WIND PRESSURE ON COMPONENTS AND CLADDING (1.0W)	
	1) WALLS (500 SQUARE FEET EFFECTIVE WIND AREA)	
	END ZONES	23.7 PSF
	INTERIOR ZONES	23.7 PSF
	2) ROOF (10 SQUARE FEET EFFECTIVE WIND AREA FOR DECK ATTACHMENT)	
	CORNER ZONES	89.1 PSF
	END ZONES	65.4 PSF
	INTERIOR ZONE 1	49.6 PSF
	INTERIOR ZONE 2	28.5 PSF
	F. WIDTH OF END ZONES, a	18.9 FT
5.	EARTHQUAKE DESIGN DATA	
	A. SEISMIC IMPORTANCE FACTOR, I	1.0
	B. MAPPED SPECTRAL RESPONSE ACCELERATION, Ss	9.9 %
	C. MAPPED SPECTRAL RESPONSE ACCELERATION, S1	6.8 %
	D. SITE CLASS	C
	E. SPECTRAL RESPONSE COEFFICIENT, Sds	0.086
	F. SPECTRAL RESPONSE COEFFICIENT, Sd1	0.068
	G. SEISMIC DESIGN CATEGORY	B
	H. STRUCTURAL SYSTEM (DUAL SYSTEM)	
	1) BASIC SEISMIC FORCE–RESISTING SYSTEM TYPE	H. STEEL SYSTEM
	2) VERTICAL ELEMENT TYPE	1) STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
	3) BASIC SEISMIC FORCE–RESISTING SYSTEM TYPE	A. BEARING WALL SYSTEMS
	4) VERTICAL ELEMENT TYPE	2) ORDINARY PRECAST SHEAR WALLS
	5) DESIGN BASE SHEAR, LRFD	0.029 W
	6) SEISMIC RESPONSE COEFFICIENT, Cs	0.029
	7) CONTROLLING RESPONSE MODIFICATION FACTOR, R	3
	J. ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
6.	DEAD LOAD	
	A. EPDM MEMBRANE	0.3 PSF
	B. RIGID INSULATION	0.7 PSF
	C. ROOF DECK	2.0 PSF
	D. LIGHTS, PLUMBING, & HVAC	3.0 PSF
	E. SPRINKLERS	2.0 PSF
	F. STEEL JOISTS	2.0 PSF
	G. STEEL GIRDERS	2.0 PSF
	H. TOTAL DEAD LOAD ON JOISTS	10.0 PSF
	J. TOTAL DEAD LOAD ON COLUMNS	12.0 PSF

GENERAL NOTES

GENERAL

1. STRUCTURAL ELEMENTS ARE NON–SELF SUPPORTING AND REQUIRE INTERACTION WITH OTHER ELEMENTS FOR STABILITY AND RESISTANCE TO LATERAL FORCES. FRAMING AND WALLS SHALL BE TEMPORARILY BRACED BY THE CONTRACTOR UNTIL PERMANENT BRACING, ROOF DECKS, AND WALLS HAVE BEEN INSTALLED AND CONNECTIONS BETWEEN THESE ELEMENTS HAVE BEEN MADE.
2. THE STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION, UNLESS NOTED OTHERWISE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATION OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO.
3. THE SIZE AND LOCATION OF EQUIPMENT PADS AND PENETRATIONS THROUGH THE STRUCTURE FOR MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL BE VERIFIED BY THE CONTRACTOR. PENETRATIONS SHALL BE SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR OPENING LOCATIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
4. USE ONLY DIMENSIONS INDICATED ON THE DRAWINGS. DO NOT SCALE DRAWINGS OR USE ANY DIMENSIONS TAKEN FROM ELECTRONIC DRAWING FILES. CONTRACTOR SHALL COORDINATE IN–PLACE DIMENSIONS BASED ON TOLERANCES OF THE RESPECTIVE TRADES.
5. ASSUME EQUAL SPACING IF NOT INDICATED ON DRAWINGS.
6. THE GENERAL NOTES ARE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS AND SHALL BE USED IN CONJUCTION WITH THE STRUCTURAL DRAWINGS. WHERE REQUIREMENTS INDICATED ON THE STRUCTURAL DRAWINGS DIFFER FROM THE GENERAL NOTES, NOTIFY THE ARCHITECT AND THE STRUCTURAL ENGINEER.
7. THE STRUCTURAL DRAWINGS ARE NOT INTENDED TO BE AN INDEPENDENT SET OF THE CONSTRUCTION DOCUMENTS. SEE ARCHITECTURAL, MEP, CIVIL AND OTHER DRAWINGS FOR INFORMATION RELATED TO THE STRUCTURAL WORK. CONTRACTOR SHALL VERIFY COORDINATION OF THE DESIRED DETAILS PRIOR TO CONSTRUCTION AND NOTIFY THE ARCHITECT AND THE STRUCTURAL ENGINEER IF ADDITIONAL COORDINATION IS REQUIRED.
8. ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENTS AND SYSTEMS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST SEISMIC FORCES AS DETERMINED IN CHAPTER 13 OF ASCE 7.

FOUNDATIONS

1. FOUNDATION DESIGNS, SUBGRADE PREPARATION NOTES, AND STRUCTURAL EARTH MOVING SPECIFICATION ARE BASED ON THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT, BY: OLSSON, INC. OF 1700 E 123RD ST., OLATHE, KANSAS 64080 (PHONE NO. 913–829–0078) DATED: FEBRUARY 2022.
2. FOOTING DESIGNS ARE BASED ON AN ASSUMED STABLE, NON–EXPANSIVE SOIL WITH AN ALLOWABLE FOUNDATION PRESSURE OF 2500 PSF WITH A MAXIMUM DIFFERENTIAL SETTLEMENT OF 3/4 INCH. CONTRACTOR SHALL HIRE A GEOTECHNICAL ENGINEER TO DETERMINE WHETHER OR NOT SOIL MEETS THIS MINIMUM CRITERIA AND IF IT DOES NOT, SHALL NOTIFY ENGINEER SO THAT THE FOUNDATION MAY BE REDESIGNED ACCORDINGLY.
3. CONTRACTOR AND TESTING LABORATORY REPRESENTATIVE SHALL READ THE GEOTECHNICAL REPORT AND BECOME THOROUGHLY FAMILIAR WITH SITE AND SUBGRADE INFORMATION GIVEN THEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT QUANTITIES OF CUT AND FILL FOR ESTIMATING AND CONSTRUCTION. SUBGRADE SHALL BE PREPARED AS NOTED IN THE GEOTECHNICAL REPORT.
4. A QUALIFIED AND REGISTERED GEOTECHNICAL ENGINEER, LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED AND WORKING FOR THE TESTING LABORATORY, SHALL DETERMINE CONFORMANCE OF THE FOUNDATION BEARING STRATA WITH THE FOUNDATION DESIGN CRITERIA ABOVE, AND ALL OTHER CONTRACT DOCUMENTS. TESTING LABORATORY SHALL NOTIFY CONTRACTOR, ARCHITECT AND CONSULTING ENGINEER OF ANY CONDITIONS NOT IN ACCORDANCE WITH FOUNDATION DESIGN CRITERIA OR CONTRACT DOCUMENTS.
5. USE ONLY STRUCTURAL FILL MATERIAL AS NOTED IN THE GEOTECHNICAL REPORT FOR FILL BELOW BUILDING AND FIVE FEET BEYOND THE EDGES OF THE BUILDING.
6. FOUNDATION WALLS SHALL HAVE ADEQUATE TEMPORARY BRACING INSTALLED BY THE CONTRACTOR BEFORE BACKFILL IS PLACED AGAINST THEM. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL WALL IS PERMANENTLY BRACED.
7. FOOTINGS SHALL BE POURED AGAINST UNDISTURBED SOIL, UNLESS NOTED OTHERWISE.
8. AVOID DAMAGE TO UNDERGROUND UTILITIES SUCH AS WATER MAINS, SANITARY SEWERS, BURIED CABLES, ETC., WHICH MIGHT EXTEND ACROSS OR ADJOIN SITE.

CONCRETE

1. MINIMUM COMPRESSIVE STRENGTH (f'c) AT THE END OF 28 DAYS SHALL BE AS FOLLOWS:

A.	FOOTINGS (GRADE BEAMS)	3000 PSI U.N.O. ON PLAN
B.	FOUNDATION WALLS	3000 PSI
C.	SLABS–ON–GRADE	4000 PSI
D.	CONCRETE WALL PANELS (MINIMUM STRENGTH)	4000 PSI

MAXIMUM WATER/CEMENT RATIO = 0.48 TO 0.50 FOR FOOTINGS AND 0.52 FOR SLABS–ON–GRADE AND PRECAST WALLS PANELS

SLUMP LIMITS = 4" + 1"

CONCRETE SHALL BE NORMAL WEIGHT (145 PCF), UNLESS NOTED OTHERWISE.

CEMENTITOUS MATERIALS CONTENT SHALL NOT BE LESS THAN 520 POUNDS PER CUBIC YARD. USE OF ANY FLY ASH IN FLOOR SLAB MIXES SHALL BE NO MORE THAN 20%.

2. AIR–ENTRAINED IS NOT REQUIRED FOR STRUCTURAL CONCRETE.
3. AGGREGATES SHALL COMPLY WITH ASTM C 33 AND SHALL BE FREE OF DELETERIOUS MATTER AND SHALL BE MADE OF COARSE LIMESTONE OR GRANITE AGGREGATES.
4. MATERIALS OR ADMIXTURES SHALL NOT CONTAIN ANY CALCIUM CHLORIDE. IF ADMIXTURES ARE UTILIZED, THEY SHALL BE COMPATIBLE WITH OTHER ADMIXTURES AND MUST NOT CONTRIBUTE WATER–SOLUBLE CHLORIDE IONS EXCEEDING THOSE PERMITTED IN HARDENED CONCRETE.
5. REINFORCING STEEL SHALL MEET THE FOLLOWING:

A.	DEFORMED BARS	ASTM A615, GRADE 60
B.	WELDABLE DEFORMED BARS	ASTM A706, GRADE 60
C.	WELDED WIRE FABRIC	ASTM A185

6. WHERE DOWELS ARE INDICATED BUT NOT SIZED, PROVIDE DOWELS THAT MATCH SIZE AND LOCATION OF MAIN REINFORCING STEEL AND LAP SPLICE WITH THE MAIN REINFORCING STEEL. REINFORCING BARS SHALL BE SPLICED AS NOTED IN THE REINFORCING LAP SCHEDULE.
7. REFER TO ACI 318 LATEST EDITION FOR CONCRETE COVER, ACI 315 LATEST EDITION FOR DETAILING, FABRICATION, PLACEMENT AND SUPPORT PRACTICES, ACI 347 FOR FORMWORK, ACI 305 FOR HOT WEATHER CONCRETING, ACI 306 FOR COLD WEATHER CONCRETING, AND ACI 301 LATEST EDITION FOR STANDARD PRACTICE FOR MIXING AND PLACING CONCRETE. PROVIDE CONCRETE COVER DIMENSIONS IN SHOP DRAWINGS FOR STRUCTURAL ENGINEER REVIEW.
8. "C.J." INDICATES SAW CUT CONTRACTION JOINT OR DOWELED CONSTRUCTION JOINT IN SLAB–ON–GRADE. SLAB POURS SHALL BE SEPARATED BY A DOWELED CONSTRUCTION JOINT. CONTRACTION/CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN ON PLANS OR AS DIRECTED BY THE STRUCTURAL ENGINEER.
9. PROVIDE CORNER BARS THAT MATCH CONTINUOUS REINFORCMENT SIZE AND QUANTITY AT INTERSECTIONS AND CORNERS OF FOUNDATIONS.
10. REINFORCING BAR SUPPORTS SHALL BE BOLSTERS, CHAIRS, SPACERS AND OTHER DEVICES TO HOLD REINFORCING BARS AND WELDED WIRE REINFORCEMENT IN PLACE. MANUFACTURE BAR SUPPORTS FFROM STEEL, PLASTIC OR PRECAST CONCRETE ACCORDING TO CRSI'S "MANUAL OF STANDARD PRACTICE" OF GREATER COMPRESSIVE STRENGTH THAN THE CONCRETE PLACED IN.
11. FORM–FACING PANELS THAT WILL BE EXPOSED TO VIEW SHALL BE CONSTRUCTED TO MINIMIZE THE NUMBER OF JOINTS AND SHALL BE MADE OF PLYWOOD, METAL OR OTHER APPROVED PANEL MATERIAL. PLYWOOD MUST COMPLY WITH DOC PS 1 AND BE CLASS 1 OR BETTER.
12. CHAMFER EXTERIOR CORNERS AND EDGES OF PERMANENTLY EXPOSED CONCRETE.
13. THE CONCRETE SLABS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED FOR THE FINISHED STRUCTURE AND HAVE NOT BEEN DESIGNED FOR MEANS AND METHODS OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, FORK LIFTS, MAN LIFTS, AND OTHER VEHICULAR TRAFFIC.
14. A VAPOR RETARDER NOT LESS THAN 10 MILS THICK SHALL BE INSTALLED ONLY AT AREAS NOTATED ON THE CONSTRUCTION DOCUMENTS. THE RETARDER SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATION WITH JOINTS USING THE MANUFACTURER'S RECOMMENDED ADHESIVE OR PRESSURE SENSITIVE JOINT TAPE AND INCLUDING THE MANUFACTURER'S PROPRIETARY PENETRATION FLASHING FOR ALL THROUGH–SLAB PENETRATIONS. LAP VAPOR RETARDER JOINTS 6 INCHES MINIMUM.
15. CONCRETE SLABS–ON–GRADE SHALL BE CONSTRUCTED WITH A HARD TROWEL FINISH AND BE FINISHED ACCORDING TO ASTM E 1155 TO ACHIEVE THE MINIMUM TOLERANCES BELOW:

    OVERALL VALUES: FF = 50 FL = 35
    LOCAL VALUES: FF = 25 FL = 20
16. THE CONCRETE SLAB–ON–GRADE SHALL BE CURED WITH AN APPROVED CURING MATERIAL THAT HAS BEEN SUBMITTED AND APPROVED BY THE ARCHITECT AND ENGINEER OF RECORD. THE FLOOR SHALL BE CURED WITH ONE COAT OF HARDENER/DENSIFIER (ASHFORD FORMULA SEALER OR APPROVED ALTERNATE).
17. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, OPENINGS, BLOCKOUTS, RECESSES, ELEVATIONS, ANCHOR RODS AND EMBED LOCATIONS PRIOR TO CONCRETE PLACEMENT. THE CONTRACTOR SHALL VERIFY WITH ARCHITECTURAL, STRUCTURAL AND MEP DRAWINGS FOR LOCATIONS OF REQUIRED COORDINATION ITEMS. CONTRACTOR SHALL CONTACT THE ARCHITECT OR ENGINEER IF AN ERROR OR OMISSION OCCURS AFTER CONCRETE PLACEMENT.
18. ANCHOR BOLTS AND EMBED PLATES SHALL BE TIED INTO THE REBAR CAGE AND HELD IN PLACE WITH A RIGID TEMPLATE TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT.
19. NON–SHRINK GROUT SHALL BE PRE–MIXED, NON–SHRINKING WITH A MINIMUM COMPRESSIBE STRENGTH OF 5000 PSI IN 28 DAYS CONFORMING TO USACE SPECIFICATIONS NO. CRD–C621.

CONCRETE WALL PANELS

1. THE STRUCTURAL DRAWINGS REPRESENT THE REQUIRED FINAL IN PLACE LOADINGS FOR THE CONCRETE WALL PANELS. THE PANELS SHALL BE DESIGNED BY THE TILT–UP SUPPLIER FOR THE FINAL IN PLACE LOADINGS ALONG WITH BEING DESIGNED FOR ERECTION STRESSES, TEMPORARY BRACING OR LIFTING OF THE WALL PANELS. WALL PANELS SHALL BE DESIGNED AND DETAILED TO ADHERE TO ALL LOCAL CODES.
2. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE TILT–UP WALL PANELS. SHOP DRAWINGS SHALL INCLUDE CALCULATIONS FOR FINAL IN PLACE LOADINGS, ERECTION, LIFTING AND TEMPORARY BRACING OF THE WALL PANELS ALONG WITH ANY OTHER ADDITIONAL CONSTRUCTION CONSIDERATIONS. SHOP DRAWINGS AND CALCULATIONS FOR THE CONSTRUCTION CONSIDERATIONS SHALL BE DESIGNED, SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. DESIGN CALCULATIONS SHALL SHOW STRESSES IN THE PANELS FOR THE LOADS PRESCRIBED IN THE CONSTRUCTION DOCUMENTS ALONG WITH THERMAL DIFFERENTIAL AND ERECTION AND LIFTING FORCES. THE DEFERRED SUBMITTAL DOCUMENTS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL AS REQUESTED WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
3. THE CONTRACTOR SHALL VERIFY THE PROPOSED TILT–UP WALL PANELS ARE CAPABLE OF MEETING THE FINAL IN PLACE AND ERECTION REQUIREMENTS PRIOR TO BIDDING THE WORK. ANY DEVIATIONS FROM THE WALL PANELS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE QUALIFIED IN THE CONTRACTOR'S BID.
4. THE CONTRACTOR SHALL PROVIDE ADEQUATE VERTICAL AND LATERAL SYSTEM COMPONENTS TO SUPPORT THE LOADINGS STIPULATED IN THE CONSTRUCTION DOCUMENTS. THE FOUNDATIONS HAVE BEEN DESIGNED BASED ON THESE LOADING REQUIREMENTS. ANY DEVIATIONS IN THE LOADINGS SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO PROCEEDING.
5. THE CONCRETE WALL PANELS SHALL CONFORM TO ACI 301, ACI 318, ACI 551, CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE", AND AWS D1.4 STRUCTURAL WELDING CODE FOR REINFORCING STEEL. SEE THE CONCRETE GENERAL NOTES FOR ADDITIONAL CONFORMANCE SPECIFICATIONS.
6. SEE THE CONCRETE GENERAL NOTES AND SPECIFICATIONS FOR MIX DESIGN DATA AND REQUIREMENTS.
7. THE TILT–UP WALL PANEL SHALL ADHERE TO THE MECHANISMS SET FORTH IN THE STRUCTURAL CONSTRUCTION DOCUMENTS. ADDITIONALLY, THE DESIGN SHALL INCLUDE ALL BOLTS, EMBEDMENT PLATES, BLOCKOUTS, FUTURE KNOCKOUT PANEL LOCATIONS, BRACING AND SUPPORTING STRUCTURE.
8. SEE THE STEEL GENERAL NOTES AND SPECIFICATIONS FOR SECTION PROPERTY REQUIREMENTS. ALL STEEL SHAPES, PLATES, ANCHORS, BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
9. CAST–IN–PLACE ANCHORS SHALL BE HEADED STUDS OR DEFORMED BAR ANCHORS. ASTM 615 REINFORCING BARS SHALL NOT BE USED AS ANCHORS.
10. ALL WELDS SHALL BE PERFORMED BY A AWS CERTIFIED WELDER AND IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE" AND AWS D1.4 "STRUCTURAL WELDING CODE FOR REINFORCING STEEL". ALL WELDS SHALL BE PAINTED WITH ZINC RICH REPAIR PAINT AFTER WELDING.
11. ALL WELDS FOR DEFORMED BAR ANCHORS SHALL USE E90XX ELECTRODES.
12. PROVIDE BEARING PADS AND GROUT MATERIALS AS REQUIRED PER CODE AND INDUSTRY STANDARDS.
13. COORDINATE WITH THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS ANY ADDITIONAL REQUIREMENTS FOR DIMENSIONS, FINISH, REVEALS AND ANY OTHER REQUIREMENTS OF THE CONCRETE WALL PANELS.
14. CONTRACTOR SHALL ERECT THE CONCRETE WALL PANELS SUCH THAT IT IS SAFE FOR PERSONNEL AND PROPERTY AND PROVIDE BRACING TO PROTECT THE PANELS AGAINST WIND, SEISMIC AND FORCES THAT MAY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL PERMANENT BRACING, DECKING, CONNECTIONS AND WALL PANELS HAVE BEEN FULLY INSTALLED.
15. CONCRETE WALL PANELS SHALL BE ERECTED TO ADHERE TO THE TOLERANCES OF THE LATEST AMERICAN CONCRETE INSTITUTE SPECIFICATIONS. ERECTION TOLERANCES SHALL BE COORDINATED WITH THE STEEL SUPPLIER TO PROVIDE PROPER FIT–UP. DEFLECTIONS OF THE STRUCTURAL STEEL SYSTEM MAY OCCUR DURING CONCRETE WALL PANEL ERECTION. THESE DEFLECTIONS MAY REQUIRE ADJUSTMENT AND RESETTING OF CONCRETE WALL PANELS IN ORDER TO MEET THE TOLERANCES. THE CONTRACTOR SHALL BE AWARE OF THIS ITERATION PROCESS IN HIS BID AND IS RESPONSIBLE FOR THE TOLERANCES BEING MET.
16. THE CONCRETE SLABS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED FOR THE FINISHED STRUCTURE AND HAVE NOT BEEN DESIGNED FOR CRANE USE AND CONCRETE WALL PANEL BRACING. THE CONTRACTOR SHALL VERIFY THE SLAB ADEQUACY AND SUBMIT PROPOSED DESIGNED, IF REQUIRED, TO THE STRUCTURAL ENGINEER FOR REVIEW.
17. ALL CONCRETE WALL PANELS COMPONENTS SHALL ADHERE TO THE DETAILING, FABRICATION AND ERECTION REQUIREMENTS OF THE LATEST EDITIONS OF ACI 301 (SPECIFICATIONS FOR CONCRETE), ACI 318 (STRUCTURAL CONCRETE BUILDING CODE), AWS D1.4 (WELDING CODE FOR REINFORCING STEEL), CRSI (MANUAL OF STANDARD PRACTICE), PCI MNL 116 (MANUAL FOR QUALITY CONTROL FOR PLANS AND PRODUCTION OF PRECAST CONCRETE PRODUCTS), PCI MNL 120 (PCI DESIGN HANDBOOK) AND PCI MNL 135 (TOLERANCE MANUAL FOR PRECAST PRESTRESSED CONCRETE CONSTRUCTION).
18. CONCRETE WALL PANELS SHALL PROVIDE EXPANSIONS JOINTS AT THE ROOF EXPANSION JOINT TO ALLOW FOR THERMAL EXPANSION AND CONTRACTION. ADDITIONALLY, THE PRECAST SUPPLIER SHALL ALLOW FOR DIFFERENTIAL MOVEMENT BETWEEN WALL PANELS BY ALLOWING EXPANSION EVERY FIFTH WALL PANEL.
19. CONCRETE WALL PANELS SHALL BE SOLID CORE BELOW FINISH FLOOR ELEVATION.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL MEET THE FOLLOWING MINIMUM YIELD STRESS (Fy), UNLESS NOTED OTHERWISE:

		YIELD	ASTM SPECIFICATION
A.	W, WT SHAPES:	50 KSI	A992
B.	BARS, PLATES, CHANNELS, ANGLES:	36 KSI	A36
C.	SQUARE, RECTANGULAR HSS:	50 KSI	A500, GRADE C
D.	ANCHOR RODS:	36 KSI OR 55 KSI	F1554
E.	ALL–THREAD RODS:	36 KSI	A36
F.	HEADED STUD ANCHORS:	65 KSI TENSILE STRESS	A108, GRADES 1010–1020

2. ALL STRUCTURAL STEEL SHALL ADHERE TO THE DETAILING, FABRICATION AND ERECTION REQUIREMENTS OF THE LATEST EDITIONS OF THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AND THE AISC CODE OF PRACTICE.
3. BOLTS FOR STEEL BEAM AND COLUMN CONNECTIONS SHALL BE 3/4–INCH DIAMETER ASTM A325–N HIGH–STRENGTH BOLTS UNLESS NOTED OTHERWISE. ALL BOLTED CONNECTIONS ARE BEARING TYPE AND SHALL BE SNUG TIGHTENED UNLESS NOTED OTHERWISE. FOR PRETENSIONED OR SLIP–CRITICAL JOINTS, THE METHOD OF INSTALLATION SHALL BE TURN–OF–NUT WITH MATCH MARKING, TWIST–OFF–TYPE TENSION CONTROL BOLT ASSEMBLIES (ASTM F1852), OR DIRECT TENSION INDICATORS (ASTM F959).
4. WELDING SHALL MEET ANSI / AWS D1.1, STRUCTURAL WELDING CODE LATEST REVISION. ELECTRODES SHALL BE E70XX, LOW HYDROGEN. ALL STRUCTURAL STEEL WELDS SHALL BE PERFORMED BY A AWS CERTIFIED WELDER.
5. WELDS NOT SPECIFICALLY SIZED ON THE STRUCTURAL DRAWINGS SHALL BE THE MINIMUM SIZE PER THE LATEST AWS D1.1.
6. PROVIDE DOUBLE NUTS AND DOUBLE WASHERS FOR STEEL COLUMN ANCHOR BOLTS TO ALLOW FOR ADJUSTMENT IN BASE PLATE ELEVATION. PROVIDE 1 1/2 INCH NON–SHRINK GROUT UNDER BASE PLATE AFTER ERECTION. USE 2 1/2 INCHES NON–SHRINK GROUT WHEN COLUMN ANCHOR BOLTS ARE 1 1/4 INCH DIAMETER OR LARGER. NON–SHRINK GROUT SHALL BE NON–METALLIC WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
7. SHEAR CONNECTORS SHALL BE A CARBON STEEL HEADED STUD TYPE ASTM A108 GRADES 1010 THRU 1020, AWS D1.1, TYPE B WITH ARC SHIELDS.
8. ALL CONNECTIONS ON THE STRUCTURAL DRAWINGS, UNLESS NOTED OTHERWISE, SHALL BE DESIGNED AND DETAILED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED OR RETAINED BY THE STEEL FABRICATOR. THE DESIGN AND DETAILING SHALL COMPLY WITH ALL APPLICABLE CODES AND SPECIFICATION SECTIONS.
9. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING THE COSTS FOR ALL MISCELLANEOUS STEEL IN THEIR BID REGARDLESS OF WHETHER THOSE ITEMS ARE INDICATED ON THE STRUCTURAL DRAWINGS. THESE COSTS SHALL INCLUDE BUT ARE NOT LIMITED TO MISCELLANEOUS STEEL ITEMS SHOWN ON ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS SUCH AS SHELF ANGLES, GLAZING SUPPORTS AND LINTELS.
10. LEDGER ANGLES AND LINTELS IN EXTERIOR WALL SYSTEMS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123.
11. ALL STRUCTURAL STEEL SHALL HAVE A COAT OF LIGHT GRAY PAINT TO PROVIDE PROTECTION AND GOOD APPEARANCE.

STEEL JOISTS

1. STEEL JOISTS SHALL BE AS INDICATED ON THE PLANS AND SHALL BE IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI) AND MEET THE FOLLOWING:
   A. JOISTS SHALL BE DESIGNED FOR THE UNIFORM LOAD CAPACITY (AS SPECIFIED IN THE SJI STANDARD LOAD TABLES) IN ADDITION TO THE CONCENTRATED LOADS SHOWN ON PLANS AND DETAILS.
   B. JOISTS THAT SUPPORT CONCENTRATED LOADS SHALL HAVE THEIR CHORDS DESIGNED TO WITHSTAND ALL BENDING STRESSES, OR THE LOADS SHALL OCCUR WITHIN 3 INCHES OF JOIST PANEL POINTS, OR THE JOIST SHALL BE REINFORCED PER THE "JOIST REINFORCING DETAIL" SHOWN HEREIN. CONCENTRATED LOADS SHALL BE CENTERED ON JOISTS AND NOT ATTACHED TO THE EDGE OF CHORD ANGLES.
   C. JOISTS SHALL RESIST THE NET UPLIFT PRESSURE AS INDICATED ON THE DETAILS 7 & 8/S4.1. THIS PRESSURE SHALL ACT ALONE. AN ALLOWABLE STRESS INCREASE IS NOT PERMITTED.
   D FOR ALL MEMBERS THAT REQUIRE SPECIFIC ORIENTATION, PROVIDE TAG AT ONE END AND DEFINE LOCATION OF TAGGED END ON ERECTION DRAWINGS.
   E. JOIST MANUFACTURER SHALL DETERMINE THE SEAT DEPTH AND WIDTH OF BEARING AND COORDINATE THE SAME WITH THE STEEL FABRICATOR. THE FOLLOWING SEAT DEPTHS ARE ASSUMED ON THE DRAWINGS: 2 1/2 INCHES FOR K–SERIES JOISTS, 5 INCHES FOR LH SERIES JOISTS).
   F. JOISTS SHALL BE FABRICATED TO PROVIDE OPENINGS FOR DUCTS AS SHOWN IN THE REQUIRED OPENING IN JOIST DETAIL.
2. K–SERIES AMD LH–SERIES JOISTS SHALL BE WELDED TO SUPPORTING STEEL WITH MINIMUM 1/8 INCH FILLET WELDS 2 INCHES LONG EACH SIDE OR WITH TWO 1/2 INCH DIAMETER ASTM A307 BOLTS OR THE EQUIVALENT, UNLESS NOTED OTHERWISE. WHEN NEAR OR AT A COLUMN, BOLT JOIST TO SUPPORTING STEEL IN CONFORMANCE WITH OSHA.
3. JOIST BRIDGING AND ERECTION STABILITY SHALL BE PROVIDED IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HAZARD ADMINISTRATION (OSHA) AND THE SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI).
4. JOIST RTU LOADS ARE PROVIDED ON THE ROOF FRAMING PLAN, REFERENCE PLANS AND DETAILS FOR LOAD LOCATIONS, VALUES AND SUPPORT FRAMING.
5. JOIST MANUFACTURER SHALL DESIGN THE COMPRESSION CHORD OF ALL JOISTS SUPPORTING ROOF TOP UNITS, SKY LIGHTS, AND OTHER STRUCTURES FOR AN UNBRACED LENGTH APPLICABLE TO THE CONDITIONS AT THE PROJECT WHERE THE UNBRACED LENGTH IS GREATER THAN THE SJI MAXIMUM. (REFERENCE ARCHITECTURAL AND MECHANICAL DRAWINGS)
6. DESIGN JOISTS FOR INTERNAL ROOF DRAINLINE AND FIRE SPRINKLER LINE LOCATIONS, IF REQUIRED. ADD 50 PLF FOR 8 INCH DIAMETER AND SMALLER, ADD 75 PLF FOR 10 INCH DIAMETER, ADD 102 PLF FOR 12 INCH DIAMETER, ADD 122 PLF FOR 14 INCH DIAMETER, ADD 200 PLF FOR 18 INCH DIAMETER. REFERENCE MECHANICAL DRAWINGS FOR EXACT LOCATION. CONTRACTOR SHALL OBTAIN FIRE LINE LOCATIONS AND SIZES PRIOR TO SUBMITTAL OF JOIST SHOP DRAWINGS.
7. JOIST DESIGNS SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED OR RETAINED BY THE JOIST MANUFACTURER.
8. SHOP DRAWING SHALL BE REVIEWED BY THE ARCHITECT AND STUCTURAL ENGINEER OF RECORD PRIOR TO JOIST FABRICATION.
9. PROVIDE JOISTS CAPABLE OF WITH STANDING DESIGN LOADS INDICATED WITH LIVE LOAD DEFLECTIONS NO GREATER THAN L/240 OF THE SPAN.
10. JOISTS SHALL BE CAMBERED ACCORDING TO SJI'S "SPECIFICATIONS". JOIST AND JOIST GIRDERS SHALL BE SHOP PRIMED WITH MANUFACTURER'S STANDARD SHOP PRIMER.

STEEL DECK

1. ROOF DECK
   A. ROOF DECK SHALL BE GALVANIZED TYPE "B". DEPTH SHALL BE AS SHOWN ON DRAWINGS. ROOF DECK SHALL BE BOTTOM PRIMED WHITE
   B. ROOF DECK IS REQUIRED TO ACT AS A DIAPHRAGM. CONNECTIONS SHALL BE IN ACCORDANCE WITH STEEL DECK INSTITUTE SPECIFICATIONS. REFER TO THE ROOF DIAPHRAGM CONNECTION DIAGRAM FOR ATTACHMENT.
   C. DECKING SHALL BE CONTINUOUS OVER A MINIMUM OF (3) SPANS UNLESS NOTED OTHERWISE.
   D. NO HANGING LOADS SHALL BE ATTACHED TO ROOF DEC

POST INSTALLED ANCHORS:

1. ANCHORS SHALL ONLY BE INSTALLED WHERE SPECIFIED ON THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO INSTALLING POST INSTALLED ANCHORS IN PLACE OF MISSING OR MIS-PLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REINFORCING.
2. THE CONTRACTOR SHALL SUBMIT PRODUCT DATA WITH DESIGN VALUES AND PHYSICAL PROPERTIES FOR ALL POST INSTALLED ANCHORS. ADDITIONALLY, THE CONTRACTOR SHALL SUBMIT CERTIFIED ICC ES OR ESR REPORTS WHICH VERIFY COMPLIANCE WITH THE SPECIFIED CRITERIA.
3. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE SPECIFIED ON THE CONTRACT DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE SIGNED AND SEALED BY A QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION AND LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS AS REQUIRED BY THE BUILDING CODE.
4. ALL HOLES SHALL BE DRILLED, DRY AND CLEANED AND ANCHORS SHALL BE INSTALLED IN ACCORDANCE PER ANCHOR MANUFACTURER'S WRITTEN SPECIFICATIONS. THE LATEST VERSION OF THE WRITTEN SPECIFICATION SHALL BE ON-SITE AND FOLLOWED DURING THE INSTALLATION OF THE ANCHORS.
5. THE ANCHOR EMBEDMENT DEPTH SHALL BE DEFINED AS THE DEPTH FROM THE SURFACE FACE OF THE LOAD BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN DRIVEN INTO THE HOLE, BUT NOT YET EXPANDED, IF APPLICABLE.
6. ANCHORS AT ALL WEATHER EXPOSED LOCATIONS SHALL BE STAINLESS STEEL.
7. NON-EPOXY BASED ADHESIVES SHALL BE USED WHEN BASE MATERIAL TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT.
8. THE FOLLOWING CONCRETE MECHANICAL ANCHORS ARE ALLOWED FOR USE IN CRACKED AND UNCRACKED CONCRETE AND HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193.
   A. SIMPSON STRONG-TIE "STRONG BOLT 2" (ICC-ES ESR-3037)
   B. SIMPSON STRONG-TIE "TITEN HD" (ICC-ES ESR-2713)
   C. HILTI "KWIK BOLT TZ" EXPANSION ANCHOR (ICC-ES ESR 1917)
   D. HILTI "HSL-3" HEAVY DUTY EXPANSION ANCHOR (ICC-ES ESR 1545)
   E. HILTI "HDA" UNDERCUT ANCHOR (ICC-ES ESR 1546)
   F. HILTI "KWIK HUS EZ" EXPANSION ANCHOR (ICC-ES ESR 3027)
9. THE FOLLOWING CONCRETE ADHESIVE ANCHORS ARE ALLOWED FOR USE IN CRACKED AND UNCRACKED CONCRETE AND HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308.
   A. SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)
   B. HILTI "HIT-HY200" (ICC-ES ESR-1385)
   C. HILTI "HIT-RE 500 V3" (ICC-ES ESR-3814)

MASONRY

1. CONCRETE MASONRY UNITS SHALL MEET ASTM SPECIFICATION C90, WITH A MINIMUM UNIT COMPRESSIVE STRENGTH = 1900 PSI. THE SPECIFIED DESIGN COMPRESSIVE STRENGTH OF THE CONCRETE MASONRY ASSEMBLY (f'm) SHALL BE 1900 PSI.
2. MORTAR SHALL BE A PREBLENDED DRY MIX CONFORMING TO ASTM C1714 AND MEETING THE PROPERTY SPECIFICATIONS OF ASTM C270 TYPE "S" MORTAR FOR BELOW GRADE. TYPE "N" MORTAR FOR ABOVE GRADE. MASONRY CEMENT SHALL NOT BE USED FOR MORTAR.
3. GROUT SHALL MEET ASTM SPECIFICTION C476 AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI.
4. SOLID GROUT HOLLOW MASONRY CELLS AS NOTED ON STRUCTURAL DRAWINGS. USE GROUT METHOD OF CONSTRUCTION CONFORMING TO REQUIREMENTS OF CURRENT MSJC. GROUT SPACE DIMENSIONS AND MAXIMUM POUR HEIGHTS SHALL COMPLY WITH MSJC.
   A. LIMIT THE HEIGHT OF VERTICAL GROUT POURS TO 4'-0" OR THE DISTANCE BETWEEN BOND BEAMS, WHICHEVER IS LESS.
   B. GROUTING SHALL BE A CONTINUOUS PROCEDURE FOR EACH LIFT. DO NOT ALLOW HORIZONTAL CONSTRUCTION JOINT TO FORM BY DISCONTINUING GROUTING.
   C. VERTICAL GROUT POUR EXCEEDING 12 INCHES SHALL BE MECHANICALLY CONSOLIDATED USING A VIBRATOR WITH A MAXIMUM 3/4 INCH DIAMETER HEAD.
5. CONTRACTOR SHALL CLEAN THE GROUT SPACES SUCH THAT THEY ARE FREE OF MORTAR DROPPINGS, DEBRIS, LOOSE AGGREGATES AND ANY MATERIAL THAT WOULD PREVENT CONTINUITY OF THE GROUT.
6. HORIZONTAL JOINT REINFORCEMENT SHALL BE LADDER TYPE. JOINT REINFORCEMENT SHALL BE SPACED AT 8 INCHES ON CENTER BELOW FINISHED FLOOR AND IN PARAPETS, AND 16 INCHES ON CENTER ABOVE FINISHED FLOOR.
7. CONCRETE MASONRY SHALL BE LAID IN RUNNING BOND.
8. CONCRETE MASONRY BELOW FINISHED FLOOR SHALL BE NORMAL WEIGHT UNITS AND SHALL HAVE ALL THE CELLS FULLY GROUTED. CONCRETE MASONRY ABOVE FINISHED FLOOR SHALL BE MEDIUM WEIGHT AND IS TO BE GROUTED ONLY AT REINFORCED CELLS AND BOND BEAMS, UNLESS NOTED OTHERWISE. ALL CELLS WITH REINFORCING OR EMBEDDED ITEMS SHALL BE GROUTED SOLID.
9. REFERENCE WALL SECTIONS AND DETAILS FOR MISCELLANEOUS BOND BEAM LOCATIONS AND EMBEDDED ITEMS. USE OPEN KNOCK OUT BOND BEAM BLOCK. DO NOT USE TROUGH TYPE BLOCKS FOR BOND BEAMS. DO NOT CONTINUE BOND BEAM REINFORCING THROUGH CONTROL JOINTS, UNLESS NOTED OTHERWISE.
10. REINFORCING STEEL SHALL MEET ASTM SPECIFICATION A615, GRADE 60. REINFORCING STEEL SHALL BE SPLICED AS NOTED IN THE REINFORCING LAP SCHEDULE.
11. PROVIDE TEMPORARY BRACING FOR WALLS, LINTELS, AND OTHER MASONRY DURING ERECTION. BRACING SHALL BE DESIGNED IN ACCORDANCE WITH THE MASON CONTRACTORS ASSOCIATION OF AMERICA STANDARD PRACTICE FOR BRACING MASONRY WALLS UNDER CONSTRUCTION. DESIGN SHALL BE PERFORMED BY AN ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. BRACING SHALL REMAIN UNTIL ROOFING AND OTHER STRUCTURAL ELEMENTS ARE COMPLETE AND PROVIDE PERMANENT STABILITY.

DEFERRED STRUCTURAL SUBMITTALS

1. THE FOLLOWING STRUCTURAL COMPONENTS SHALL BE DESIGNED AND SUBMITTED BY OTHERS FOR APPROVAL IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
   A. STRUCTURAL STEEL CONNECTIONS OF FRAMING AND BRACING ELEMENTS
   B. STEEL JOISTS AND JOIST GIRDERS (CONTRACTOR SHALL OBTAIN FIRE LINE LOCATIONS AND SIZES PRIOR TO SUBMITTAL OF JOIST SHOP DRAWINGS.)
   C. STEEL, SELF-SUPPORTING STAIRS AND HANDRAIL FRAMING
   D. STOREFRONT AND CURTAINWALL FRAMING, ACCESSORIES AND ATTACHMENTS TO STRUCTURE
   E. EXCAVATION SUPPORT
   F. TEMPORARY BRACING AND SUPPORT
   G. CONCRETE WALL PANEL REINFORCING
   H. ROOF ACCESS LADDERS AND SAFETY CAGES
   I. SEISMIC ANCHORAGE AND BRACING OF MEP COMPONENTS
2. DOCUMENTS FOR DEFERRED STRUCTURAL SUBMITTAL ITEMS SHALL BE DESIGNED, SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE DEFERRED SUBMITTAL DOCUMENTS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL AS REQUESTED WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

SHOP DRAWINGS

1. SHOP DRAWINGS AND SUBMITTALS SHALL BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL FOR THE ENGINEER'S REVIEW. THE STRUCTURAL ENGINEER'S REVIEW IS TO CHECK THE GENERAL CONFORMANCE OF THE SHOP DRAWINGS WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ANY ALTERATIONS FROM THE CONTRACT DOCUMENTS WHICH MAY INCLUDE QUANTITIES, DIMENSIONAL ERRORS OR OTHER ERRORS AND OMISIONS IN THE SHOP DRAWINGS.
2. SHOP DRAWINGS SHALL NOT BE REPRODUCTIONS OF THE CONTRACT DOCUMENTS.
3. THE FOLLOWING STRUCTURAL COMPONENTS SHALL BE SUBMITTED AS A SHOP DRAWING FOR REVIEW:
   A. CONCRETE MIX DESIGN AND MATERIALS
   B. CONCRETE REINFORCING STEEL
   C. CONCRETE FORMWORK
   D STRUCTURAL STEEL
   E. STEEL JOISTS
   F. STEEL ROOF DECK AND THEIR ATTACHMENTS.
   G. ALL DEFERRED SUBMITTAL ITEMS

SPECIAL INSPECTIONS

1. THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS PER SECTION 1704 OF THE IBC. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN THE PROJECT SPECIFICATIONS.
2. SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO COMPLETION OF THAT PHASE OF WORK. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED AT A POINT IN TIME AGREED UPON BY THE PERMIT APPLICANT AND THE BUILDING OFFICIAL PRIOR TO THE START OF WORK.
3. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE SPECIAL INSPECTOR REGARDING INDIVIDUAL INSPECTION FOR ITEMS LISTED ON THE STATEMENT OF SPECIAL INSPECTIONS AND AS NOTED ON THE BUILDING DEPARTMENT APPROVED PLANS. ADEQUATE NOTICE AND ACCESS TO APPROVED PLANS SHALL BE PROVIDED SO THAT THE SPECIAL INSPECTOR HAS TIME TO BECOME FAMILIAR WITH THE PROJECT.
4. FABRICATORS OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES SHALL CONFORM TO THE REQUIREMENTS OF SECTION 1704.2 OF THE IBC.
5. THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION PER SECTION 1700 OF THE REFERENCED BUILDING CODE.
   A. BOLTS & ANCHORS EMBEDDED IN CONCRETE
   B. PLACEMENT OF REINFORCING STEEL IN CONCRETE
   C. CONCRETE MIX DESIGN
   D. CONCRETE FORMWORK
   E. STRUCTURAL STEEL FABRICATIONS
   F. STRUCTURAL STEEL BOLTING AND WELDING
   G. ON SITE STRUCTURAL FRAMING
   H. INSPECTION OF ROOF DECK ATTACHMENTS
   I. SHEAR WALL ATTACHMENTS AND ANCHORS
   J. POST INSTALLED ANCHORS
   K. ON SITE SOILS, EXCAVATIONS, FILLING AND COMPACTION
   L. ERECTION OF PRECAST CONCRETE MEMBERS

ABBREVIATIONS

A.B.	ANCHOR BOLTS
ACI	AMERICAN CONCRETE INSTITUTE
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
A.F.F.	ABOVE FINISHED FLOOR
ARCH.	ARCHITECTURAL
BAL.	BALANCE
B.L.	BLOCK LINTEL
BLDG.	BUILDING
B.O.	BOTTOM OF
B.O.D.	BOTTOM OF DECK
BRG.	BEARING
C.J.	CONTRACTION JOINT
C.L.	CENTER LINE
CLR.	CLEAR
CMU	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
D.B.A.	DEFORMED BAR ANCHOR
DIA.	DIAMETER
DWG.	DRAWING
E.F.	EACH FACE
E.J.	EXPANSION JOINT
ELEV.	ELEVATION
E.O.D.	EDGE OF DECK
E.O.S.	EDGE OF SLAB
EQ.	EQUAL
E.W.	EACH WAY
EXIST.	EXISTING
FDN.	FOUNDATION
F.F.E.	FINISHED FLOOR ELEV.
F.S.	FAR SIDE
FTG.	FOOTING
GA.	GAGE
GALV.	GALVANIZED
G.B.	GRADE BEAM
HORIZ.	HORIZONTAL
H.S.A.	HEADED STUD ANCHOR
IBC	INTERNATIONAL BUILDING CODE
INFO.	INFORMATION
J.B.E.	JOIST BEARING ELEVATION
JT.	JOINT
K	UNIT OF 1,000 POUNDS (KIP)
KSI	KIPS PER SQUARE INCH
LBS.	POUNDS
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG.	LONGITUDINAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
N.T.S.	NOT TO SCALE
N.S.	NEAR SIDE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.H.	OPPOSITE HAND
P.A.F.	POWER ACTUATED FASTENER
PCF	POUNDS PER CUBIC FOOT
PLF	POUNDS PER LINEAR FOOT
P.M.E.J.	PREMOLDED EXPANSION JOINT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
QTY.	QUANTITY
RE:	REFER
REINF.	REINFORCING
REQD.	REQUIRED
R.O.	ROUGH OPENING
RTU	ROOF TOP UNIT
SCHED.	SCHEDULE
S.D.S.	SELF-DRILLING SCREWS
SIM.	SIMILAR
SPECS.	SPECIFICATIONS
STD.	STANDARD
STL.	STEEL
T&B	TOP AND BOTTOM
T.O.	TOP OF
T.O.P.	TOP OF PIER
T.O.W.	TOP OF WALL
TRANS.	TRANSVERSE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
W.P.	WORK POINT
WT.	WEIGHT
W.W.R.	WELDED WIRE REINFORCEMENT

NOTE: THE CONTRACTOR SHALL PROVIDE A BASE BID PRICING BASED ON THE PANEL THICKNESS SHOWN ON THE DRAWINGS. ADDITIONALLY, THE BASE BID SHALL REFLECT 3.5 LBS PER SQUARE FEET OF REINFORCING STEEL WITH UNIT PRICING OF ANY ADD OR DEDUCT FROM AFOREMENTIONED TONNAGE. ANY VALUE ENGINEERING DEVIATIONS FOR THE WALLS PANELS FOR PANEL THICKNESS SHALL BE QUALIFIED AS A SEPARATE LINE ITEM IN THE CONTRACTOR'S BID.

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As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
06/23/2022

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CERTIFICATION

STATE OF MISSOURI
JAMES M. GRANICH
NUMBER PE-2014023909
PROFESSIONAL ENGINEER

04/15/2022
Missouri COA #001268

PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS BUILDING A LOT 1

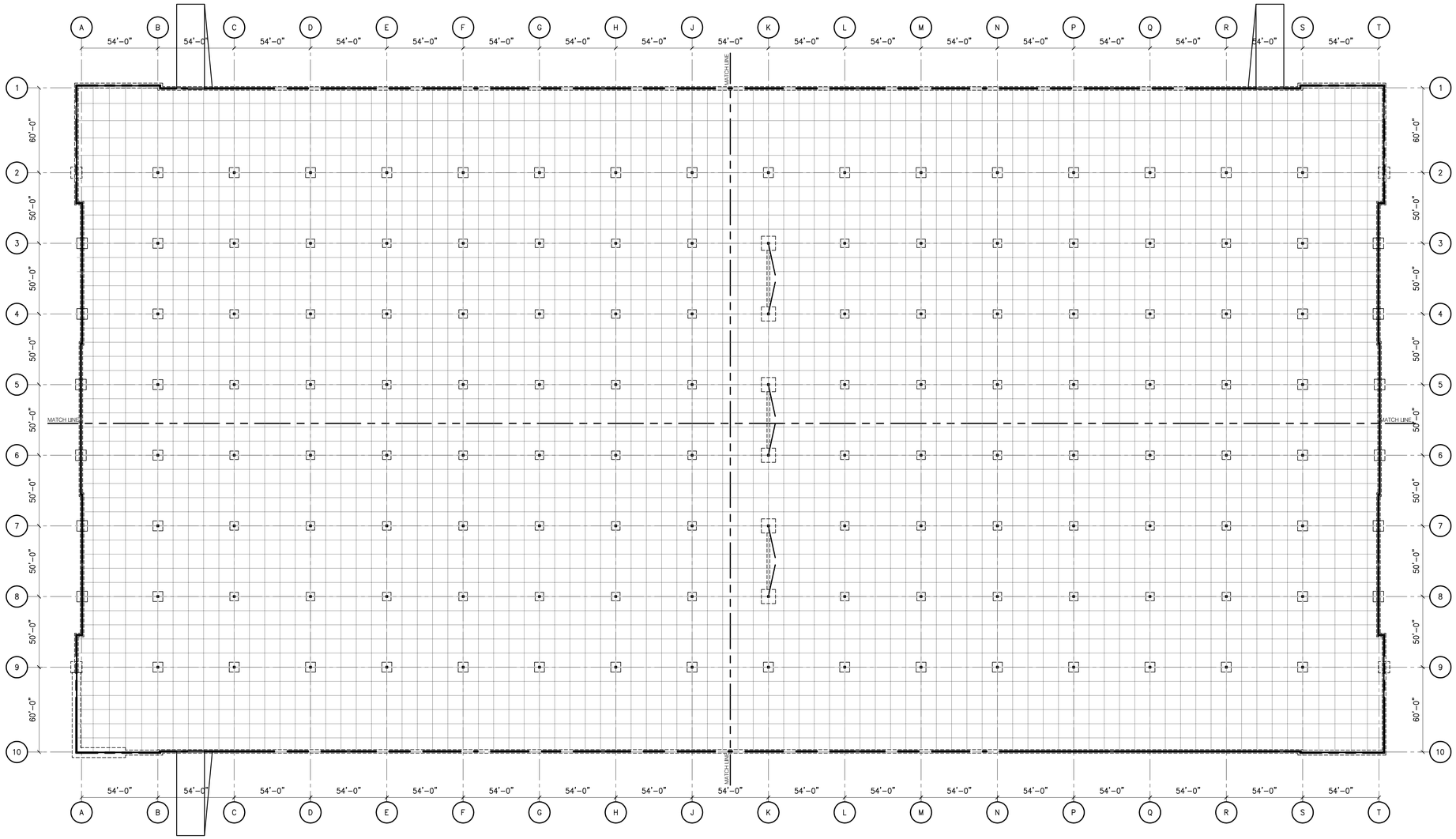
NW CORNER TUDOR RD & MAINST
LEE'S SUMMIT, MO

ISSUE DATES

ISSUE	DATE
ISSUE FOR PERMIT	02.18.2022
ISSUE FOR PERMIT	04.15.2022

210300

S0.1
GENERAL NOTES



1 OVERALL FOUNDATION PLAN
SCALE: 1"=40'-0"

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S1.0
OVERALL FOUNDATION PLAN

PLAN NOTES:

1. CONCRETE SLAB-ON-GRADE, U.N.O., SHALL BE A 7" THICK UNREINFORCED SLAB (U.N.O.) OVER 4" ROCK, RE: THE GEOTECHNICAL REPORT. T.O. SLAB ELEV = 100'-0". SLAB TO BE SEALED WITH SINGLE COAT OF ASHFORD (OR EQUAL) FLOOR SEALANT.
2. THE CONCRETE SLABS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED FOR THE FINISHED STRUCTURE AND HAVE NOT BEEN DESIGNED FOR MEANS AND METHODS OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, FORK LIFTS, MAN LIFTS, AND OTHER VEHICULAR TRAFFIC. THE CONTRACTOR SHALL VERIFY THE SLAB DESIGN MEETS THE CONSTRUCTION NEEDS AND SHALL SUBMIT TO THE ENGINEER OF RECORD FOR REVIEW.
3. TOP OF FOOTING ELEV. = 99'-0, UNLESS NOTED OTHERWISE.
4. ALL PIPING OR CONDUITS THAT OCCUR THROUGH OR UNDER A GRADE BEAM OR FOOTING SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO PLACEMENT. (RE: 4 & 5/S3.0)
5. RE: 1/S3.0 FOR REINFORCING LAP SCHEDULE.
6. RE: SHEET S3.0 FOR ADDITIONAL CONCRETE FOUNDATION DETAILS
7. ALL PRECAST PANELS SHALL BE 9 1/4" THICK, U.N.O.

PLAN REFERENCE NOTES:

- (A) DRAIN BLOCKOUT IN FOOTING, RE: 10&11/S3.0
- (B) DOCK PIT, RE: 5/S3.2. RE: ARCH. FOR LOCATIONS.
- (C) DOCK STAIRS RE: 1/S3.1. REFER TO ARCH DWGS FOR LOCATIONS AND TYPE OF STAIR
- (D) FOOTING STEP, RE: 6/S3.0
- (E) RAMP, RE: CIVIL DWGS.

LEGEND

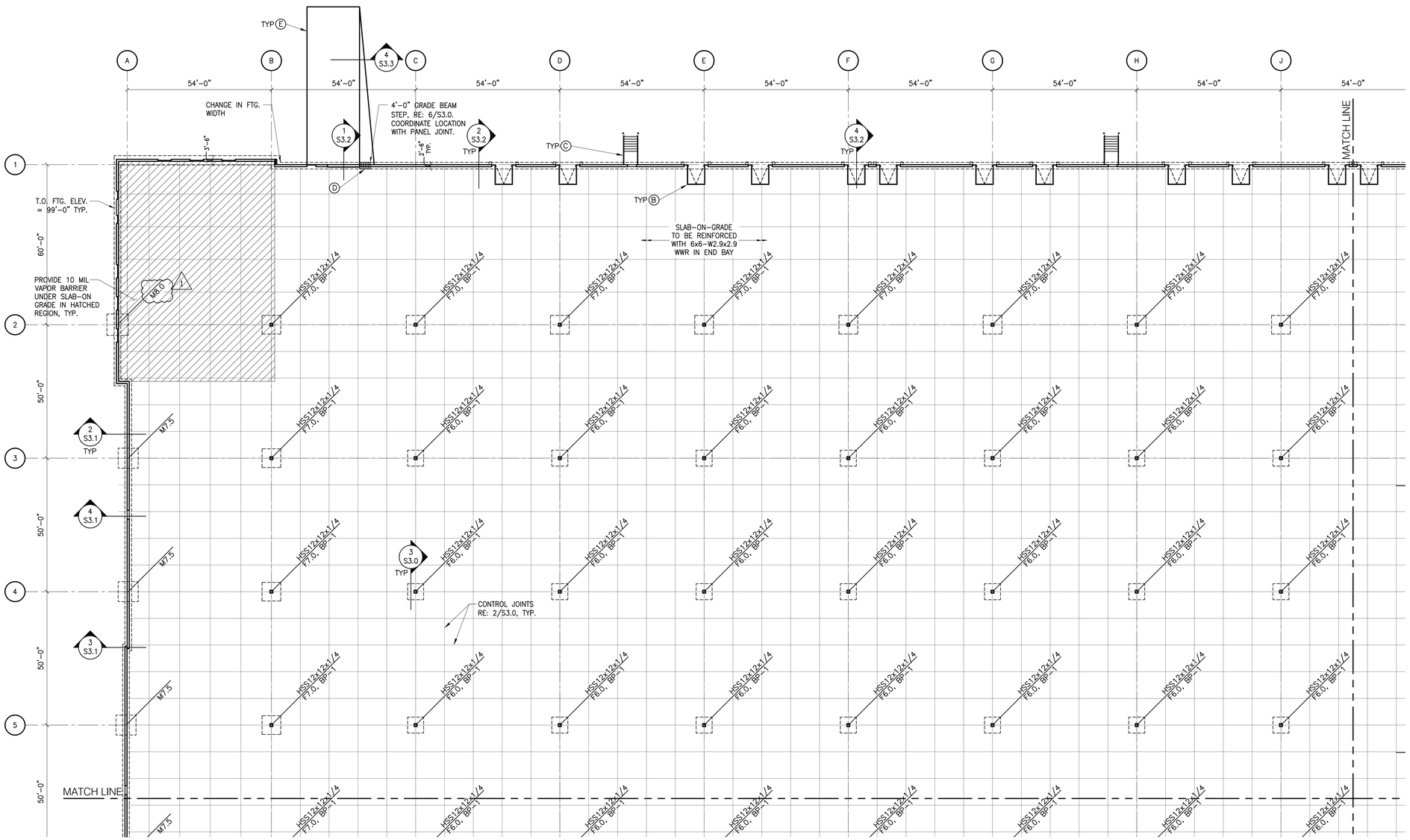
1. F# = FOOTING MARK; RE: FOOTING SCHEDULE
2. C.J. = SAW CUT CONTROL JOINT; RE: DETAIL 2/S3.0
3. B.P. = BASE PLATE; RE: DETAIL 9/S3.0

SPOT FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT
M7.5	7'-6"x7'-6"x2'-6"	NO REINF. REQUIRED
M8.0	8'-0"x8'-0"x2'-6"	NO REINF. REQUIRED
F6.0	6'-0"x6'-0"x1'-3"	(6)-#6 EA. WAY
F7.0	7'-0"x7'-0"x1'-3"	(7)-#6 EA. WAY
F10.0	10'-0"x10'-0"x3'-0"	(10)-#7 EA. WAY, TOP & BOT.

1

NOTE: PROVIDE f'c=4,000 PSI AT FOOTING TYPE F10.0



1 ENLARGED PARTIAL FOUNDATION PLAN
SCALE: 1"=20'-0"

N

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ENLARGED PARTIAL FOUNDATION PLAN

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2. THE CONCRETE SLABS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED FOR THE FINISHED STRUCTURE AND HAVE NOT BEEN DESIGNED FOR MEANS AND METHODS OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, FORK LIFTS, MAN LIFTS, AND OTHER VEHICULAR TRAFFIC. THE CONTRACTOR SHALL VERIFY THE SLAB DESIGN MEETS THE CONSTRUCTION NEEDS AND SHALL SUBMIT TO THE ENGINEER OF RECORD FOR REVIEW.
3. TOP OF FOOTING ELEV. = 99'-0, UNLESS NOTED OTHERWISE.
4. ALL PIPING OR CONDUITS THAT OCCUR THROUGH OR UNDER A GRADE BEAM OR FOOTING SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO PLACEMENT. (RE: 4 & 5/S3.0)
5. RE: 1/S3.0 FOR REINFORCING LAP SCHEDULE.
6. RE: SHEET S3.0 FOR ADDITIONAL CONCRETE FOUNDATION DETAILS
7. ALL PRECAST PANELS SHALL BE 9 1/4" THICK, U.N.O.

PLAN REFERENCE NOTES:

- (A) DRAIN BLOCKOUT IN FOOTING, RE: 10&11/S3.0
- (B) DOCK PIT, RE: 5/S3.2. RE: ARCH. FOR LOCATIONS.
- (C) DOCK STAIRS RE: 1/S3.1. REFER TO ARCH DWGS FOR LOCATIONS AND TYPE OF STAIR
- (D) FOOTING STEP, RE: 6/S3.0
- (E) RAMP, RE: CIVIL DWGS.

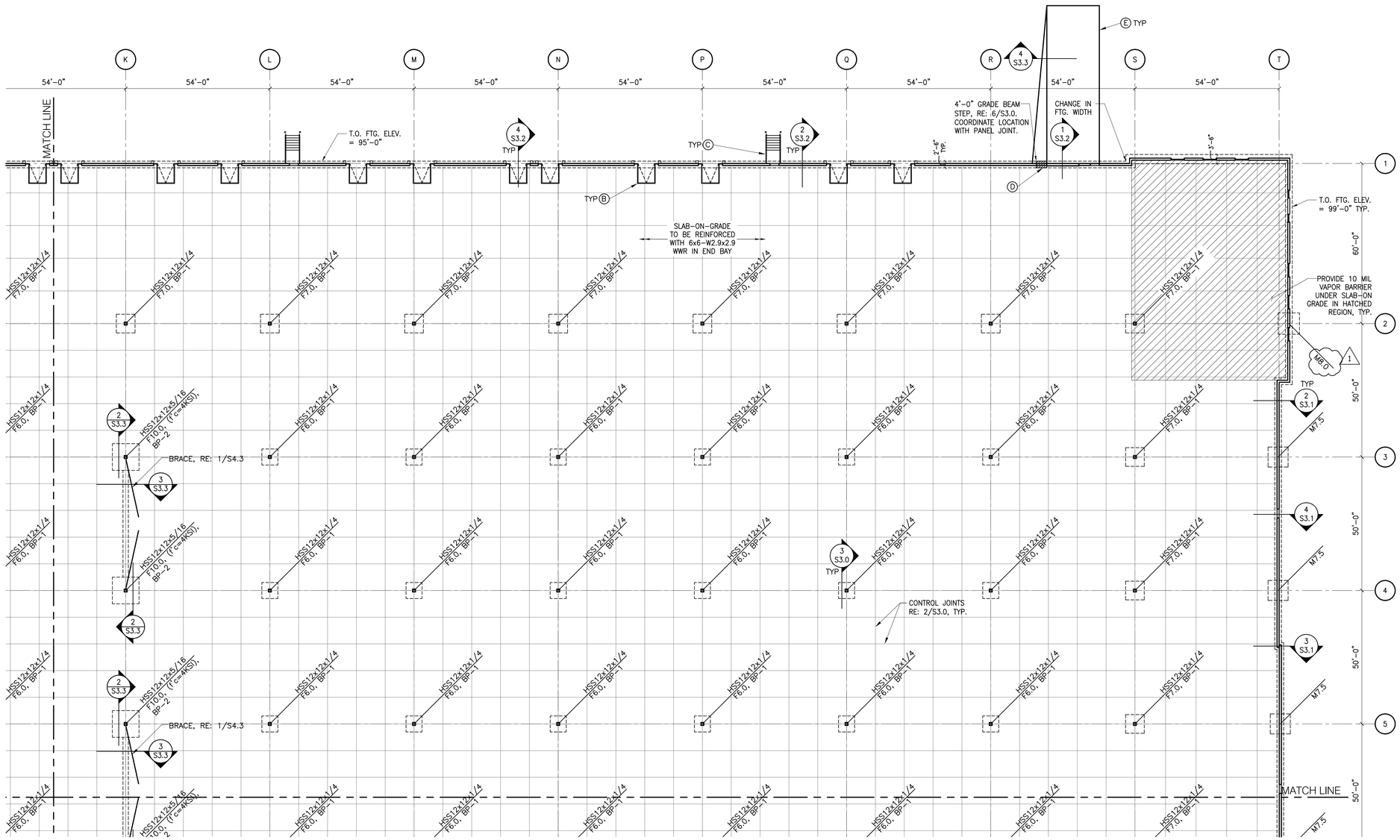
LEGEND

1. F# = FOOTING MARK; RE: FOOTING SCHEDULE
2. C.J. = SAW CUT CONTROL JOINT; RE: DETAIL 2/S3.0
3. B.P. = BASE PLATE; RE: DETAIL 9/S3.0

SPOT FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT
M7.5	7'-6"x7'-6"x2'-6"	NO REINF. REQUIRED
M8.0	8'-0"x8'-0"x2'-6"	NO REINF. REQUIRED
F6.0	6'-0"x6'-0"x1'-3"	(6)-#6 EA. WAY
F7.0	7'-0"x7'-0"x1'-3"	(7)-#7 EA. WAY
F10.0	10'-0"x10'-0"x3'-0"	(10)-#7 EA. WAY, TOP & BOT.

NOTE: PROVIDE f'c=4,000 PSI AT FOOTING TYPE F10.0



1 ENLARGED PARTIAL FOUNDATION PLAN

SCALE: 1"=20'-0"

N

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
06/23/2022

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
INDIANAPOLIS, IN 46216
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SCANNELL PROPERTIES

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Structural Consultants, Inc.

Structural and Civil Consultants
1741 McGee Street
Kansas City, Missouri 64108
816.421.8282, Fax 816.421.8338

CERTIFICATION

STATE OF MISSOURI
JAMES M. GRANICH
NUMBER PE-2014023909
PROFESSIONAL ENGINEER

04/15/2022
Missouri COA #001268

PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS BUILDING A LOT 1

NW CORNER TUDOR RD & MAINST
LEE'S SUMMIT, MO

ISSUE DATES

ISSUE	DATE
ISSUE FOR PERMIT	02.18.2022
ISSUE FOR PERMIT	04.15.2022

210300

S1.2
ENLARGED PARTIAL FOUNDATION PLAN

PLAN NOTES:

1. CONCRETE SLAB-ON-GRADE, U.N.O., SHALL BE A 7" THICK UNREINFORCED SLAB (U.N.O.) OVER 4" ROCK, RE: THE GEOTECHNICAL REPORT. T.O. SLAB ELEV = 100'-0". SLAB TO BE SEALED WITH SINGLE COAT OF ASHFORD (OR EQUAL) FLOOR SEALANT.
2. THE CONCRETE SLABS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED FOR THE FINISHED STRUCTURE AND HAVE NOT BEEN DESIGNED FOR MEANS AND METHODS OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, FORK LIFTS, MAN LIFTS, AND OTHER VEHICULAR TRAFFIC. THE CONTRACTOR SHALL VERIFY THE SLAB DESIGN MEETS THE CONSTRUCTION NEEDS AND SHALL SUBMIT TO THE ENGINEER OF RECORD FOR REVIEW.
3. TOP OF FOOTING ELEV. = 99'-0, UNLESS NOTED OTHERWISE.
4. ALL PIPING OR CONDUITS THAT OCCUR THROUGH OR UNDER A GRADE BEAM OR FOOTING SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO PLACEMENT. (RE: 4 & 5/S3.0)
5. RE: 1/S3.0 FOR REINFORCING LAP SCHEDULE.
6. RE: SHEET S3.0 FOR ADDITIONAL CONCRETE FOUNDATION DETAILS
7. ALL PRECAST PANELS SHALL BE 9 1/4" THICK, U.N.O.

PLAN REFERENCE NOTES:

- Ⓐ DRAIN BLOCKOUT IN FOOTING, RE: 10&11/S3.0
- Ⓑ DOCK PIT, RE: 5/S3.2. RE: ARCH. FOR LOCATIONS.
- Ⓒ DOCK STAIRS RE: 1/S3.1. REFER TO ARCH DWGS FOR LOCATIONS AND TYPE OF STAIR
- Ⓓ FOOTING STEP, RE: 6/S3.0
- Ⓔ RAMP, RE: CIVIL DWGS.

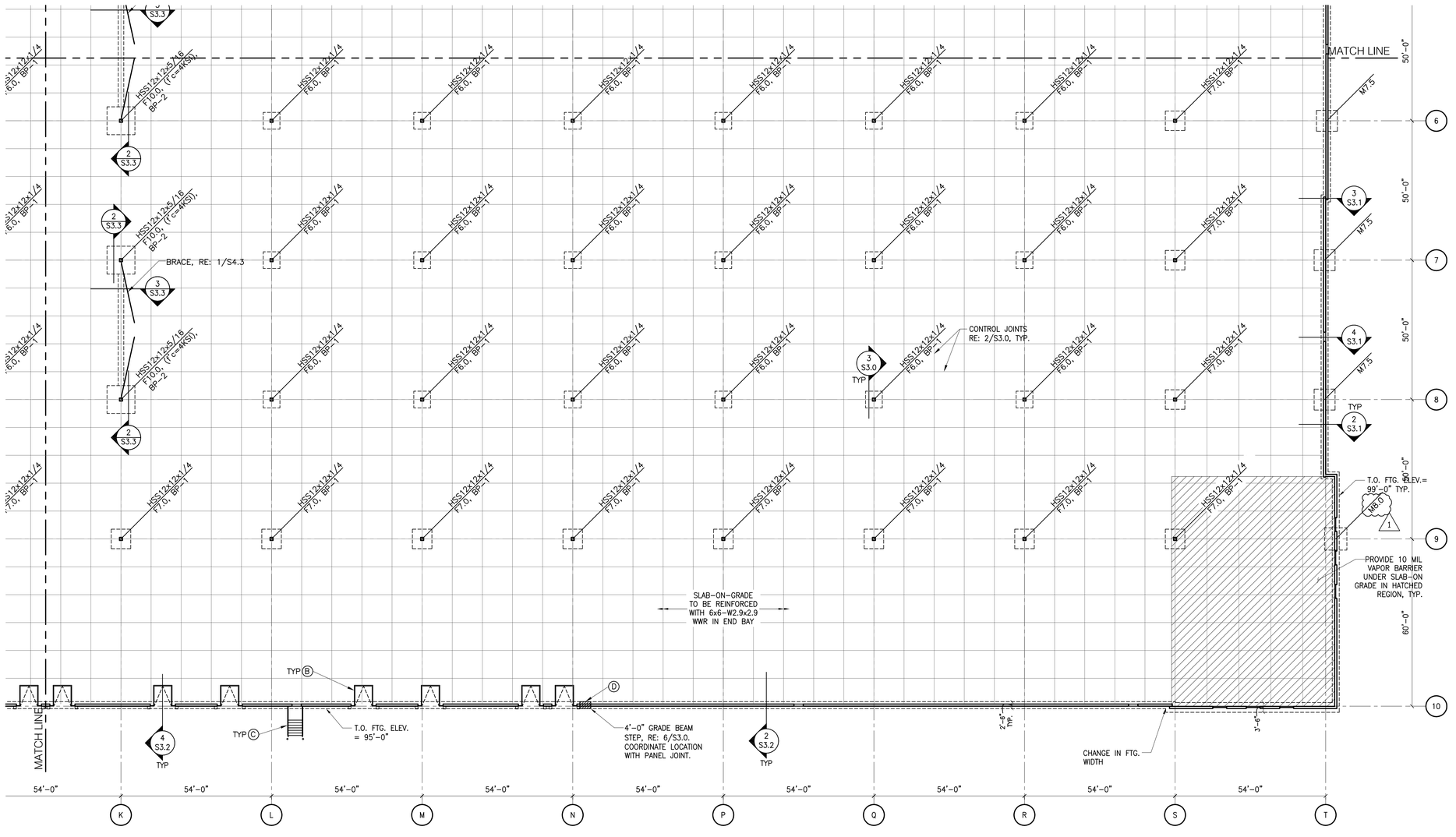
LEGEND

1. F# = FOOTING MARK; RE: FOOTING SCHEDULE
2. C.J. = SAW CUT CONTROL JOINT; RE: DETAIL 2/S3.0
3. B.P. = BASE PLATE; RE: DETAIL 9/S3.0

SPOT FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT
M7.5	7'-6"x7'-6"x2'-6"	NO REINF. REQUIRED
M8.0	8'-0"x8'-0"x2'-6"	NO REINF. REQUIRED
F6.0	6'-0"x6'-0"x1'-3"	(6)-#6 EA. WAY
F7.0	7'-0"x7'-0"x1'-3"	(7)-#6 EA. WAY
F10.0	10'-0"x10'-0"x3'-0"	(10)-#7 EA. WAY, TOP & BOT.

NOTE: PROVIDE f'c=4,000 PSI AT FOOTING TYPE F10.0



1 ENLARGED PARTIAL FOUNDATION PLAN

SCALE: 1"=20'-0"

N

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06/23/2022

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PROFESSIONAL ENGINEER

04/15/2022
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PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS BUILDING A LOT 1

NW CORNER TUDOR RD & MAINST
LEE'S SUMMIT, MO

ISSUE DATES

ISSUE	DATE
ISSUE FOR PERMIT	02.18.2022
ISSUE FOR PERMIT	04.15.2022

210300

S1.3
ENLARGED PARTIAL FOUNDATION PLAN

PLAN NOTES:

1. CONCRETE SLAB-ON-GRADE, U.N.O., SHALL BE A 7" THICK UNREINFORCED SLAB (U.N.O.) OVER 4" ROCK, RE: THE GEOTECHNICAL REPORT. T.O. SLAB ELEV = 100'-0". SLAB TO BE SEALED WITH SINGLE COAT OF ASHFORD (OR EQUAL) FLOOR SEALANT.
2. THE CONCRETE SLABS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED FOR THE FINISHED STRUCTURE AND HAVE NOT BEEN DESIGNED FOR MEANS AND METHODS OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, FORK LIFTS, MAN LIFTS, AND OTHER VEHICULAR TRAFFIC. THE CONTRACTOR SHALL VERIFY THE SLAB DESIGN MEETS THE CONSTRUCTION NEEDS AND SHALL SUBMIT TO THE ENGINEER OF RECORD FOR REVIEW.
3. TOP OF FOOTING ELEV. = 99'-0, UNLESS NOTED OTHERWISE.
4. ALL PIPING OR CONDUITS THAT OCCUR THROUGH OR UNDER A GRADE BEAM OR FOOTING SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO PLACEMENT. (RE: 4 & 5/S3.0)
5. RE: 1/S3.0 FOR REINFORCING LAP SCHEDULE.
6. RE: SHEET S3.0 FOR ADDITIONAL CONCRETE FOUNDATION DETAILS
7. ALL PRECAST PANELS SHALL BE 9 1/4" THICK, U.N.O.

PLAN REFERENCE NOTES:

- Ⓐ DRAIN BLOCKOUT IN FOOTING, RE: 10&11/S3.0
- Ⓑ DOCK PIT, RE: 5/S3.2. RE: ARCH. FOR LOCATIONS.
- Ⓒ DOCK STAIRS RE: 1/S3.1. REFER TO ARCH DWGS FOR LOCATIONS AND TYPE OF STAIR
- Ⓓ FOOTING STEP, RE: 6/S3.0
- Ⓔ RAMP, RE: CIVIL DWGS.

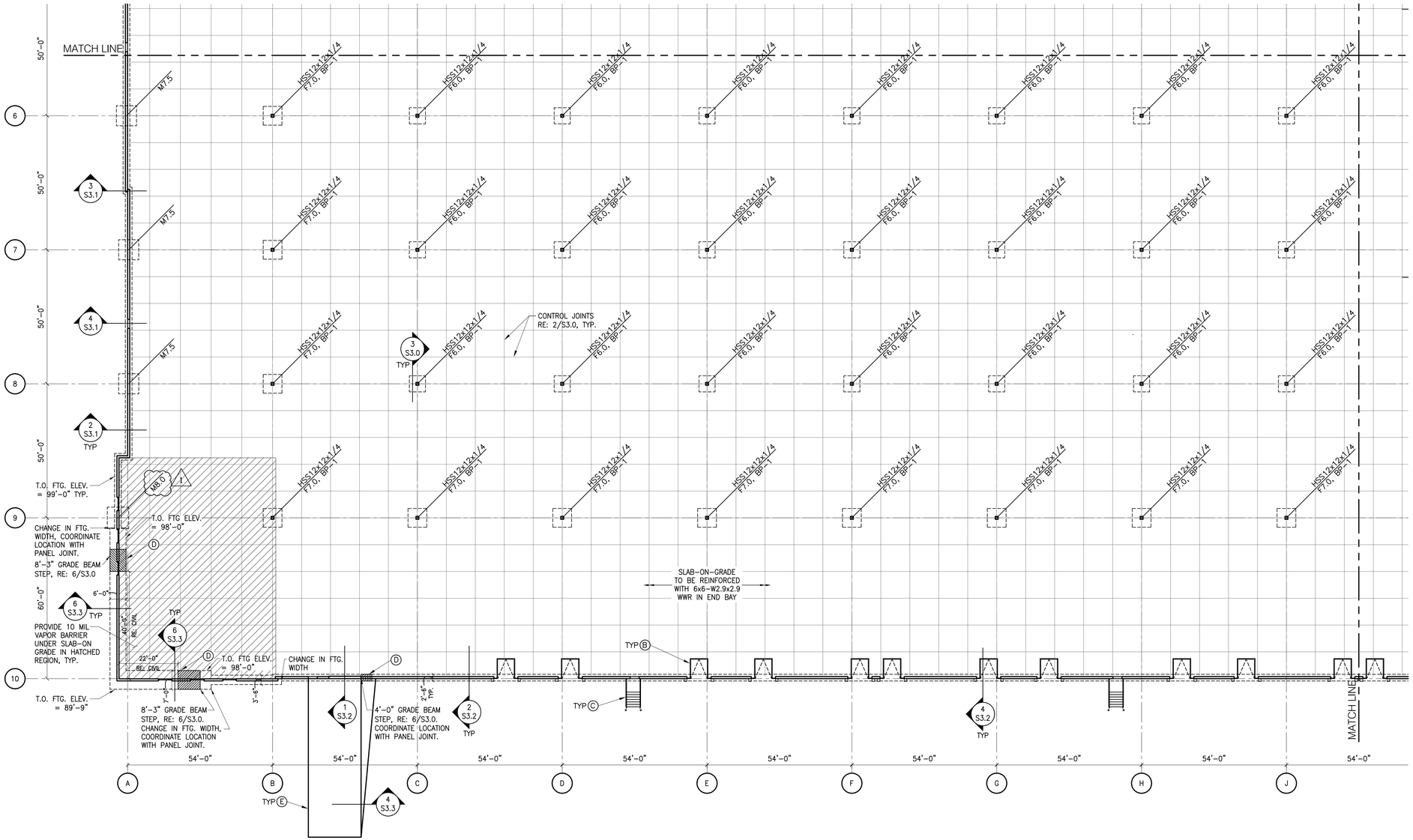
LEGEND

1. F# = FOOTING MARK; RE: FOOTING SCHEDULE
2. C.J. = SAW CUT CONTROL JOINT; RE: DETAIL 2/S3.0
3. B.P. = BASE PLATE; RE: DETAIL 9/S3.0

SPOT FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT
M7.5	7'-6"x7'-6"x2'-6"	NO REINF. REQUIRED
M8.0	8'-0"x8'-0"x2'-6"	NO REINF. REQUIRED
F6.0	6'-0"x6'-0"x1'-3"	(6)-#6 EA. WAY
F7.0	7'-0"x7'-0"x1'-3"	(7)-#7 EA. WAY
F10.0	10'-0"x10'-0"x3'-0"	(10)-#7 EA. WAY, TOP & BOT.

NOTE: PROVIDE f'c=4,000 PSI AT FOOTING TYPE F10.0



1 ENLARGED PARTIAL FOUNDATION PLAN

SCALE: 1"=20'-0"

N

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NUMBER PE-2014023909
PROFESSIONAL ENGINEER

04/15/2022
Missouri COA #001268

PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS BUILDING A LOT 1

NW CORNER TUDOR RD & MAINST
LEE'S SUMMIT, MO

ISSUE DATES

ISSUE	DATE
ISSUE FOR PERMIT	02.18.2022
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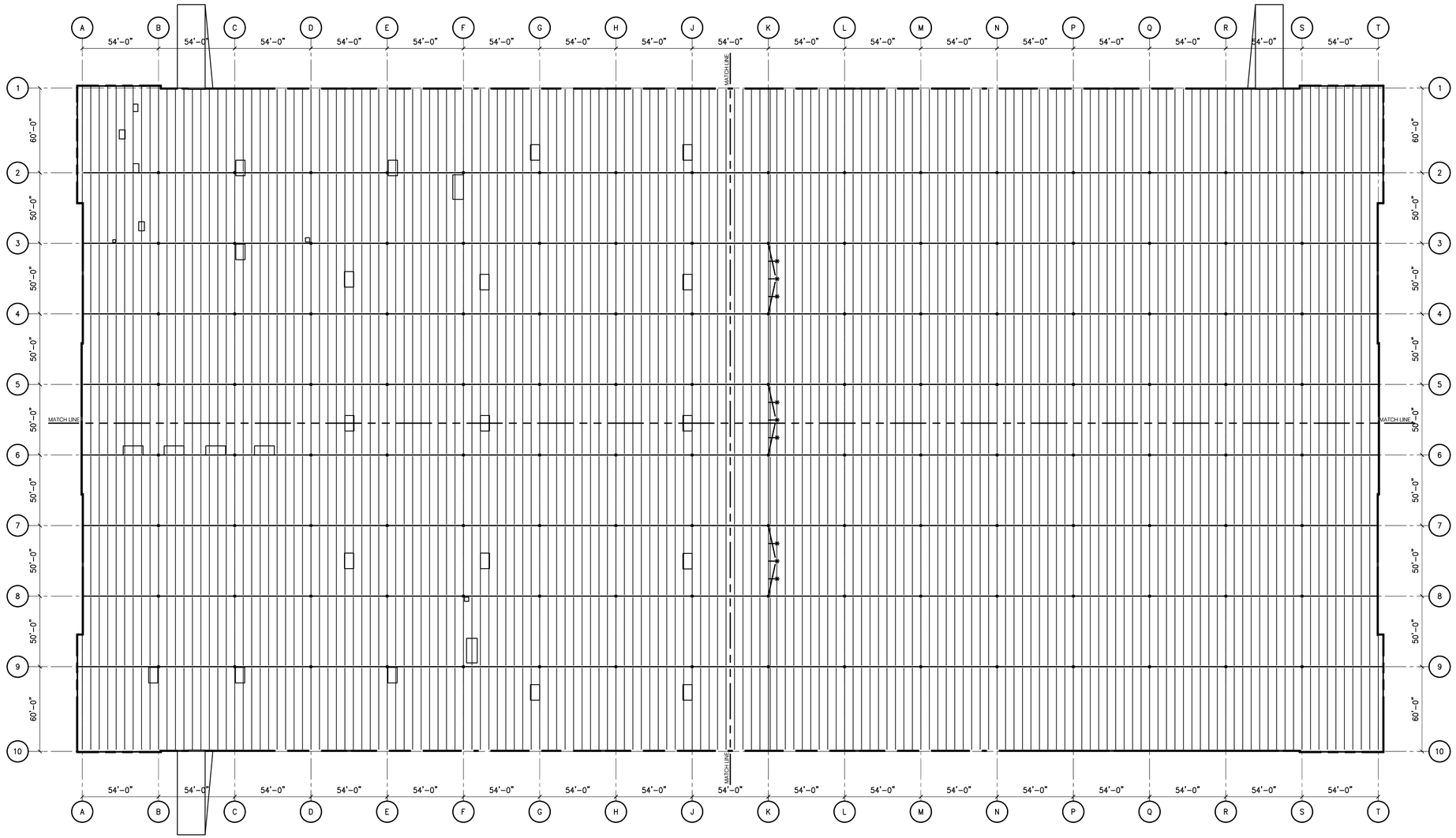
210300

S1.4
ENLARGED PARTIAL FOUNDATION PLAN



1 OVERALL FRAMING PLAN
SCALE: 1"=40'-0"

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Development Services Department
Lee's Summit, Missouri
06/23/2022

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04/15/2022
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PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS
BUILDING A LOT 1

NW CORNER TUDOR RD & MAINST
LEE'S SUMMIT, MO

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210300

S2.0
OVERALL FRAMING PLAN

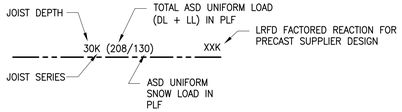
PLAN REFERENCE NOTES:

- Ⓐ ROOF HATCH, RE: ARCH. PROVIDE ANGLE FRAME AT OPENING, RE: 8/S4.0
- Ⓑ JOIST SUPPLIER SHALL DESIGN JOISTS FOR AXIAL LOAD SHOWN.
- Ⓒ DRAG STRUT SPLICE, RE: 9/S4.0.
- Ⓓ ROOF TOP EQUIPMENT, RE: ARCH./MEP. PROVIDE ANGLE FRAME AND CURB RE: 5/S4.0 JOIST SUPPLIER SHALL ACCOUNT FOR LOAD SHOWN ON PLAN IN JOIST DESIGN.
- Ⓔ CAMBER BEAM TO MATCH ADJACENT JOIST.

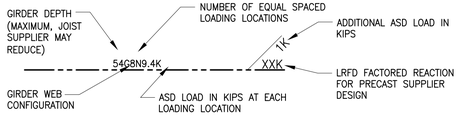
PLAN NOTES

1. ALL EDGE ANGLES SHALL BE CONTINUOUS AND SPLICED PER 6/S4.0.
2. VERIFY ALL WALL OPENING, DIMENSIONS, JOINTS, BLOCKOUTS, REVEALS AND FUTURE KNOCK OUT PANELS WITH ARCHITECTURAL DRAWINGS.
3. NOTE TO JOIST MANUFACTURER: PROVIDE STANDARD BRIDGING COMPLYING WITH THE APPLICABLE STEEL JOIST INSTITUTE SPECIFICATIONS TYPICAL FOR GRAVITY AND UPLIFT LOADS SUPERIMPOSED ON ALL JOISTS. DIAGONAL BRIDGING SHALL BE PROVIDED BETWEEN ADJACENT JOISTS WHENEVER BOTTOM CHORD HORIZONTAL BRIDGING IS DISCONTINUOUS. (RE: 1 & 2/S4.0)
4. ROOF DECK AND ROOF DECK ATTACHMENT SHALL BE PER SHEET S2.5.
5. RE: 3 AND 4/S4.1 FOR ADDITIONAL PRECAST PANEL CONNECTION DETAILS
6. JOIST SHALL BE DESIGNED FOR ROOF TOP EQUIPMENT, RE: ARCH./MEP. PROVIDE ANGLE FRAME AND CURB, RE: 5/S4.0. JOIST SUPPLIER SHALL ACCOUNT FOR LOAD SHOWN ON PLAN IN JOIST DESIGN.
7. JOIST AND JOIST GIRDER DEPTHS SHALL BE LIMITED SO THAT 36'-0" CLEAR HEIGHT TO BOTTOM OF STRUCTURE IS MAINTAINED (1)

JOIST LEGEND



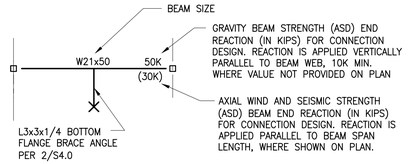
JOIST GIRDER LEGEND

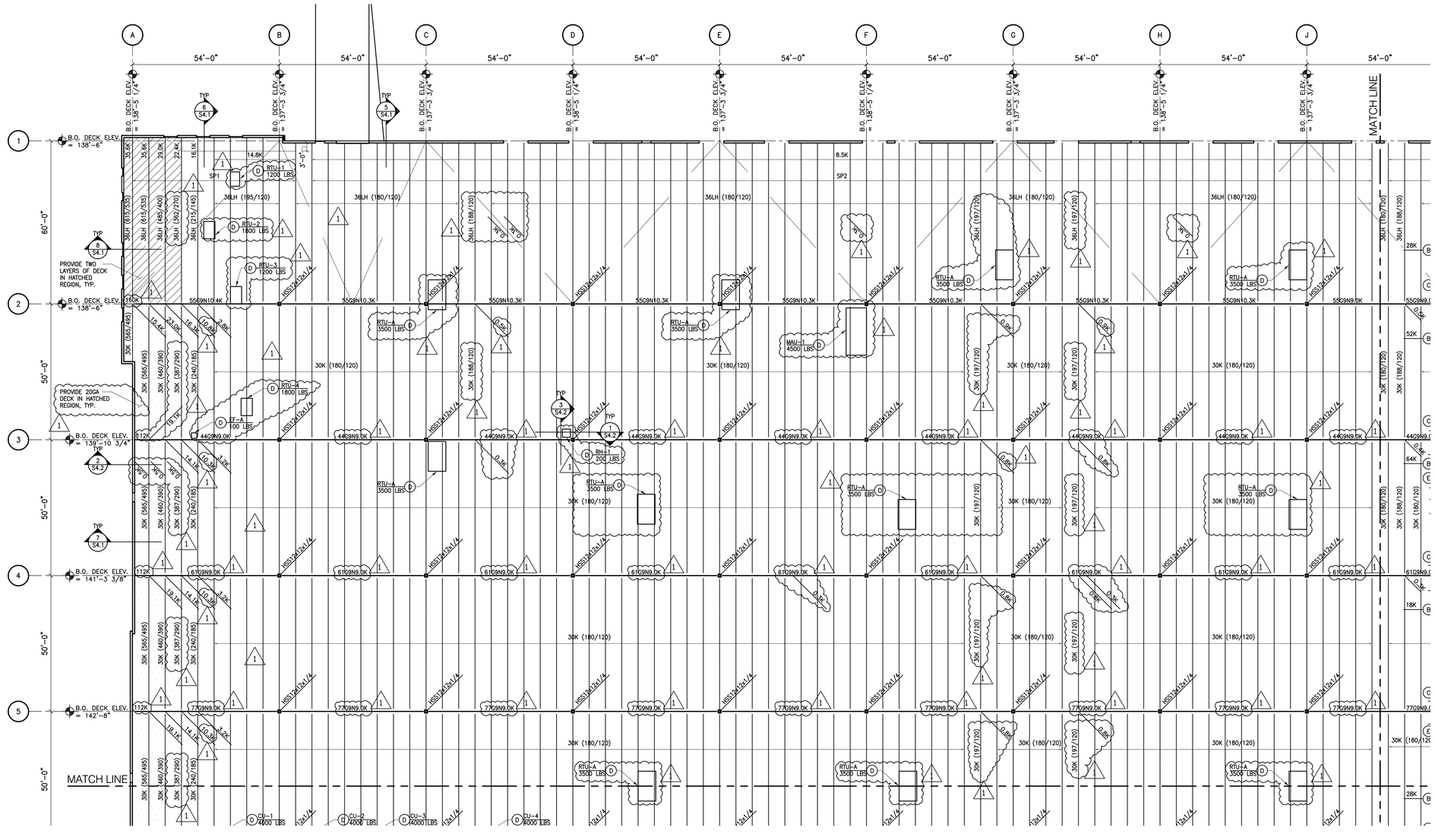


BEAM REACTION LEGEND

STEEL FABRICATOR SHALL DESIGN THE BEAM CONNECTIONS FOR THE STRENGTH LEVEL LOADS (ASD) SHOWN ON THIS PLAN, TYP. (RE: 1/S4.0)

USE MINIMUM TWO BOLT CONNECTION




A
B
C
D
E
F
G
H
J
54'-0"
B.O. DECK ELEV. = 138'-5 1/4"
B.O. DECK ELEV. = 137'-3 3/4"
B.O. DECK ELEV. = 138'-5 1/4"
MATCH LINE
1
2
3
4
5
60'-0"
50'-0"
B.O. DECK ELEV. = 138'-6"
B.O. DECK ELEV. = 139'-10 3/4"
B.O. DECK ELEV. = 141'-3 3/8"
B.O. DECK ELEV. = 142'-8"
TYP 6 S4.1
TYP 5 S4.1
TYP 8 S4.1
TYP 7 S4.1
TYP 2 S4.2
TYP 3 S4.2
TYP 1 S4.2
PROVIDE TWO LAYERS OF DECK IN HATCHED REGION, TYP.
PROVIDE 20GA DECK IN HATCHED REGION, TYP.
RTU-1 1200 LBS
RTU-2 1800 LBS
RTU-3 1200 LBS
RTU-4 1800 LBS
RTU-A 100 LBS
RTU-A 3500 LBS
RH-1 200 LBS
MAU-1 4500 LBS
CU-1 4000 LBS
CU-2 4000 LBS
CU-3 4000 LBS
CU-4 4000 LBS
SP1
SP2
36LH (195/120)
36LH (180/120)
36LH (189/120)
36LH (197/120)
36LH (160/120)
30K (180/120)
30K (188/120)
30K (197/120)
55G9N10.4K
55G9N10.3K
55G9N9.0K
44G9N9.0K
61G9N9.0K
77G9N9.0K
HSS12x12x1/4
W12x14
W12x19
W12x22
W12x26
W12x30
W12x40
W12x45
W12x50
W12x65
W12x72
W12x87
W12x96
W12x106
W12x120
W12x136
W12x152
W12x170
W12x190
W12x210
W12x230
W12x252
W12x279
W12x305
W12x336
W12x361
W12x395
W12x426
W12x454
W12x485
W12x504
W12x530
W12x550
W12x585
W12x600
W12x652
W12x696
W12x733
W12x768
W12x806
W12x840
W12x879
W12x926
W12x961
W12x1006
W12x1041
W12x1081
W12x1120
W12x1152
W12x1190
W12x1230
W12x1268
W12x1305
W12x1336
W12x1370
W12x1400
W12x1434
W12x1466
W12x1500
W12x1530
W12x1560
W12x1590
W12x1620
W12x1650
W12x1680
W12x1710
W12x1740
W12x1770
W12x1800
W12x1830
W12x1860
W12x1890
W12x1920
W12x1950
W12x1980
W12x2010
W12x2040
W12x2070
W12x2100
W12x2130
W12x2160
W12x2190
W12x2220
W12x2250
W12x2280
W12x2310
W12x2340
W12x2370
W12x2400
W12x2430
W12x2460
W12x2490
W12x2520
W12x2550
W12x2580
W12x2610
W12x2640
W12x2670

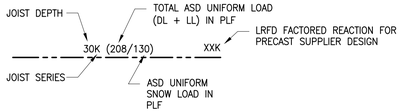
PLAN REFERENCE NOTES:

- Ⓐ ROOF HATCH, RE: ARCH. PROVIDE ANGLE FRAME AT OPENING, RE: 8/S4.0
- Ⓑ JOIST SUPPLIER SHALL DESIGN JOISTS FOR AXIAL LOAD SHOWN.
- Ⓒ DRAG STRUT SPLICE, RE: 9/S4.0.
- Ⓓ ROOF TOP EQUIPMENT, RE: ARCH./MEP. PROVIDE ANGLE FRAME AND CURB RE: 5/S4.0 JOIST SUPPLIER SHALL ACCOUNT FOR LOAD SHOWN ON PLAN IN JOIST DESIGN.
- Ⓔ CAMBER BEAM TO MATCH ADJACENT JOIST.

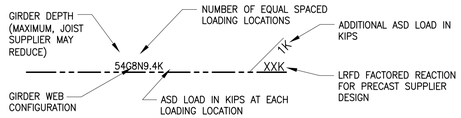
PLAN NOTES

1. ALL EDGE ANGLES SHALL BE CONTINUOUS AND SPLICED PER 6/S4.0.
2. VERIFY ALL WALL OPENING, DIMENSIONS, JOINTS, BLOCKOUTS, REVEALS AND FUTURE KNOCK OUT PANELS WITH ARCHITECTURAL DRAWINGS.
3. NOTE TO JOIST MANUFACTURER: PROVIDE STANDARD BRIDGING COMPLYING WITH THE APPLICABLE STEEL JOIST INSTITUTE SPECIFICATIONS TYPICAL FOR GRAVITY AND UPLIFT LOADS SUPERIMPOSED ON ALL JOISTS. DIAGONAL BRIDGING SHALL BE PROVIDED BETWEEN ADJACENT JOISTS WHENEVER BOTTOM CHORD HORIZONTAL BRIDGING IS DISCONTINUOUS. (RE: 1 & 2/S4.0)
4. ROOF DECK AND ROOF DECK ATTACHMENT SHALL BE PER SHEET S2.5.
5. RE: 3 AND 4/S4.1 FOR ADDITIONAL PRECAST PANEL CONNECTION DETAILS
6. JOIST SHALL BE DESIGNED FOR ROOF TOP EQUIPMENT, RE: ARCH./MEP. PROVIDE ANGLE FRAME AND CURB, RE: 5/S4.0. JOIST SUPPLIER SHALL ACCOUNT FOR LOAD SHOWN ON PLAN IN JOIST DESIGN.
7. JOIST AND JOIST GIRDER DEPTHS SHALL BE LIMITED SO THAT 36'-0" CLEAR HEIGHT TO BOTTOM OF STRUCTURE IS MAINTAINED (1)

JOIST LEGEND



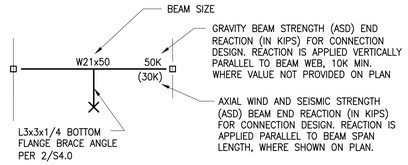
JOIST GIRDER LEGEND

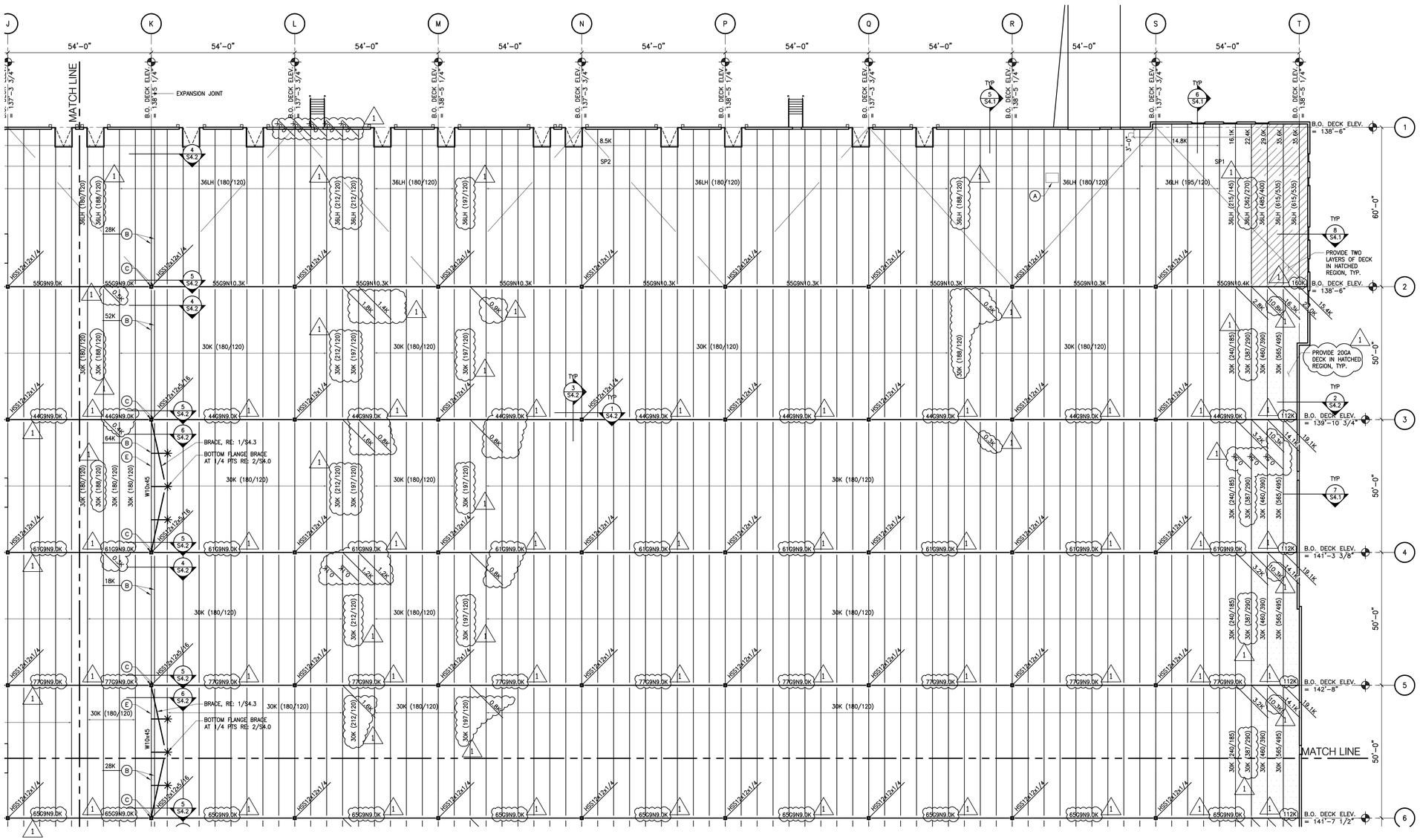


BEAM REACTION LEGEND

STEEL FABRICATOR SHALL DESIGN THE BEAM CONNECTIONS FOR THE STRENGTH LEVEL LOADS (ASD) SHOWN ON THIS PLAN, TYP. (RE: 1/S4.0)

USE MINIMUM TWO BOLT CONNECTION





1 ENLARGED PARTIAL FRAMING PLAN
SCALE: 1"=20'-0"

N

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S2.2
ENLARGED PARTIAL FRAMING PLAN

PLAN REFERENCE NOTES:

- Ⓐ ROOF HATCH, RE: ARCH. PROVIDE ANGLE FRAME AT OPENING, RE: 8/S4.0
- Ⓑ JOIST SUPPLIER SHALL DESIGN JOISTS FOR AXIAL LOAD SHOWN.
- Ⓒ DRAG STRUT SPLICE, RE: 9/S4.0.
- Ⓓ ROOF TOP EQUIPMENT, RE: ARCH./MEP. PROVIDE ANGLE FRAME AND CURB RE: 5/S4.0 JOIST SUPPLIER SHALL ACCOUNT FOR LOAD SHOWN ON PLAN IN JOIST DESIGN.
- Ⓔ CAMBER BEAM TO MATCH ADJACENT JOIST.

PLAN NOTES

1. ALL EDGE ANGLES SHALL BE CONTINUOUS AND SPLICED PER 6/S4.0.
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4. ROOF DECK AND ROOF DECK ATTACHMENT SHALL BE PER SHEET S2.5.
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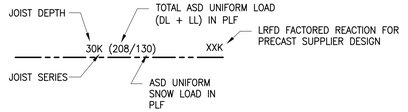
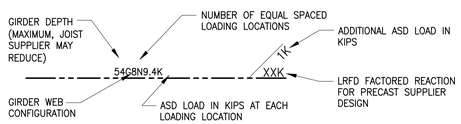
7. JOIST AND JOIST GIRDER DEPTHS SHALL BE LIMITED SO THAT 36'-0" CLEAR HEIGHT TO BOTTOM OF STRUCTURE IS MAINTAINED

JOIST LEGEND



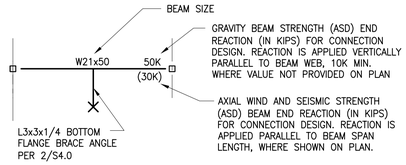
JOIST GIRDER LEGEND

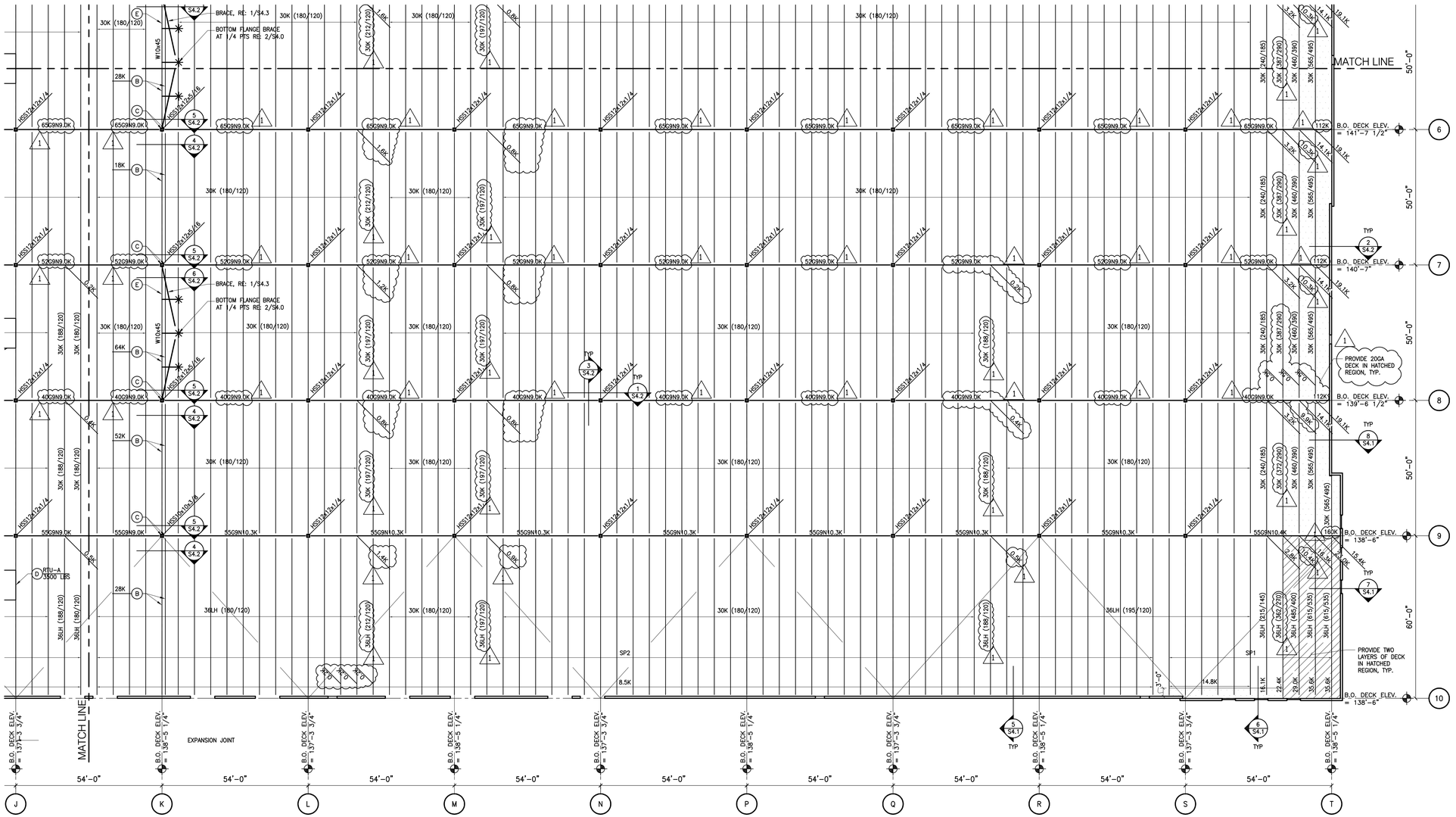


BEAM REACTION LEGEND

STEEL FABRICATOR SHALL DESIGN THE BEAM CONNECTIONS FOR THE STRENGTH LEVEL LOADS (ASD) SHOWN ON THIS PLAN, TYP. (RE: 1/S4.0)

USE MINIMUM TWO BOLT CONNECTION





1 ENLARGED PARTIAL FRAMING PLAN
SCALE: 1"=20'-0"

N

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Lee's Summit, Missouri
06/23/2022

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CERTIFICATION

STATE OF MISSOURI
JAMES M. GRANICH
NUMBER PE-2014023909
PROFESSIONAL ENGINEER

04/15/2022
Missouri COA #001268

PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS BUILDING A LOT 1

NW CORNER TUDOR RD & MAINST
LEE'S SUMMIT, MO

ISSUE DATES

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ISSUE FOR PERMIT	02.18.2022
ISSUE FOR PERMIT	04.15.2022

210300

S2.3
ENLARGED PARTIAL FRAMING PLAN

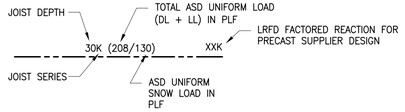
PLAN REFERENCE NOTES:

- Ⓐ ROOF HATCH, RE: ARCH. PROVIDE ANGLE FRAME AT OPENING, RE: 8/S4.0
- Ⓑ JOIST SUPPLIER SHALL DESIGN JOISTS FOR AXIAL LOAD SHOWN.
- Ⓒ DRAG STRUT SPLICE, RE: 9/S4.0.
- Ⓓ ROOF TOP EQUIPMENT, RE: ARCH./MEP. PROVIDE ANGLE FRAME AND CURB RE: 5/S4.0 JOIST SUPPLIER SHALL ACCOUNT FOR LOAD SHOWN ON PLAN IN JOIST DESIGN.
- Ⓔ CAMBER BEAM TO MATCH ADJACENT JOIST.

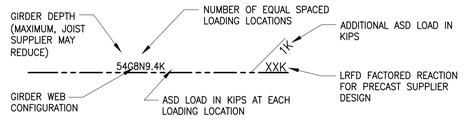
PLAN NOTES

1. ALL EDGE ANGLES SHALL BE CONTINUOUS AND SPLICED PER 6/S4.0.
2. VERIFY ALL WALL OPENING, DIMENSIONS, JOINTS, BLOCKOUTS, REVEALS AND FUTURE KNOCK OUT PANELS WITH ARCHITECTURAL DRAWINGS.
3. NOTE TO JOIST MANUFACTURER: PROVIDE STANDARD BRIDGING COMPLYING WITH THE APPLICABLE STEEL JOIST INSTITUTE SPECIFICATIONS TYPICAL FOR GRAVITY AND UPLIFT LOADS SUPERIMPOSED ON ALL JOISTS. DIAGONAL BRIDGING SHALL BE PROVIDED BETWEEN ADJACENT JOISTS WHENEVER BOTTOM CHORD HORIZONTAL BRIDGING IS DISCONTINUOUS. (RE: 1 & 2/S4.0)
4. ROOF DECK AND ROOF DECK ATTACHMENT SHALL BE PER SHEET S2.5.
5. RE: 3 AND 4/S4.1 FOR ADDITIONAL PRECAST PANEL CONNECTION DETAILS
6. JOIST SHALL BE DESIGNED FOR ROOF TOP EQUIPMENT, RE: ARCH./MEP. PROVIDE ANGLE FRAME AND CURB, RE: 5/S4.0. JOIST SUPPLIER SHALL ACCOUNT FOR LOAD SHOWN ON PLAN IN JOIST DESIGN.
7. JOIST AND JOIST GIRDER DEPTHS SHALL BE LIMITED SO THAT 36'-0" CLEAR HEIGHT TO BOTTOM OF STRUCTURE IS MAINTAINED

JOIST LEGEND



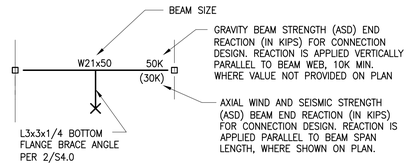
JOIST GIRDER LEGEND

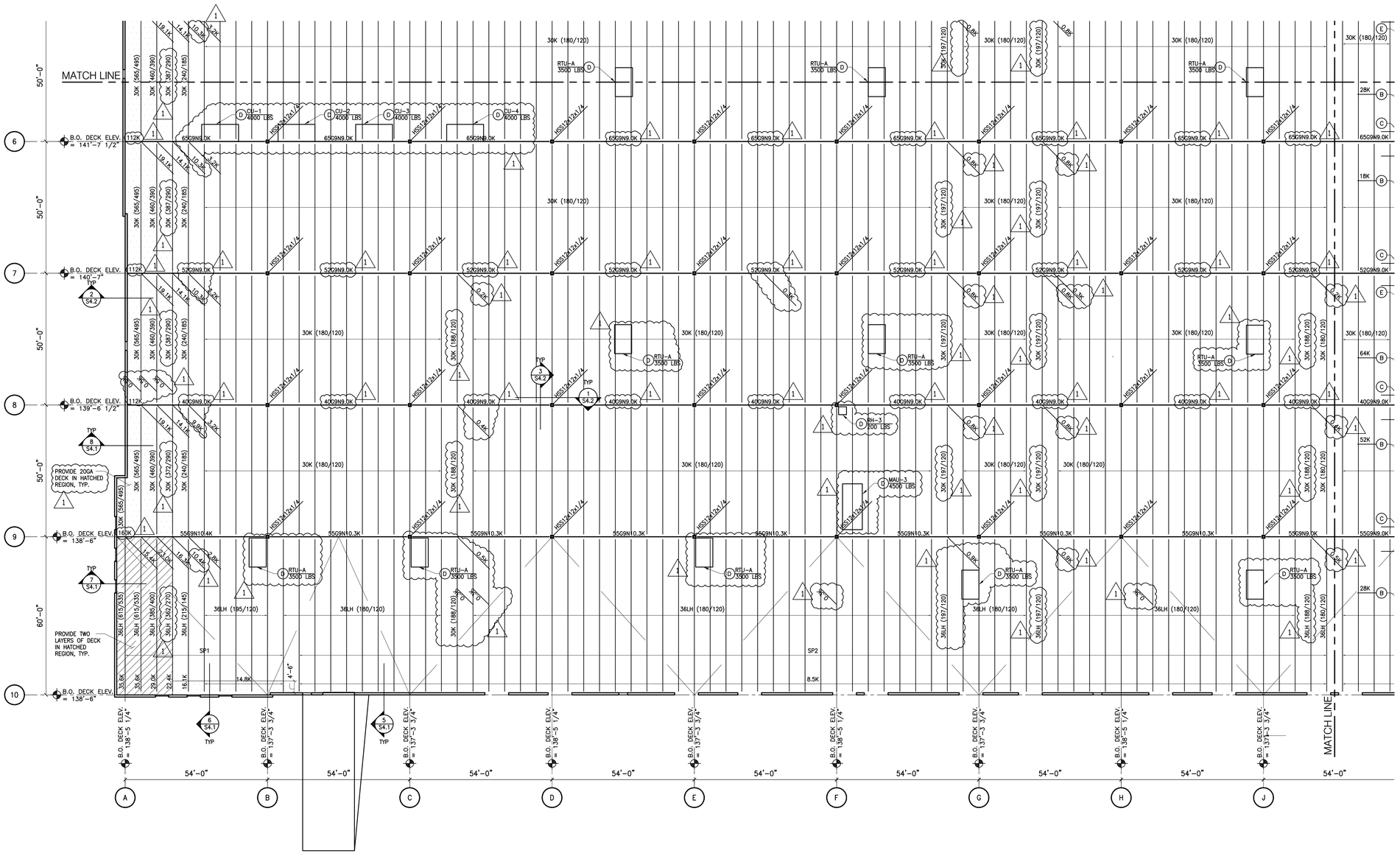


BEAM REACTION LEGEND

STEEL FABRICATOR SHALL DESIGN THE BEAM CONNECTIONS FOR THE STRENGTH LEVEL LOADS (ASD) SHOWN ON THIS PLAN, TYP. (RE: 1/S4.0)

USE MINIMUM TWO BOLT CONNECTION





1 ENLARGED PARTIAL FRAMING PLAN
SCALE: 1"=20'-0"

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06/23/2022

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PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS BUILDING A LOT I

NW CORNER TUDOR RD & MAINST
LEE'S SUMMIT, MO

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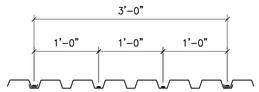
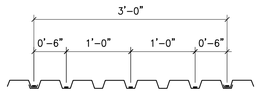
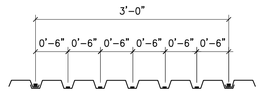
S2.4
ENLARGED PARTIAL FRAMING PLAN



CONNECTOR PATTERN DIAGRAM (36/4)



CONNECTOR PATTERN DIAGRAM (36/5)

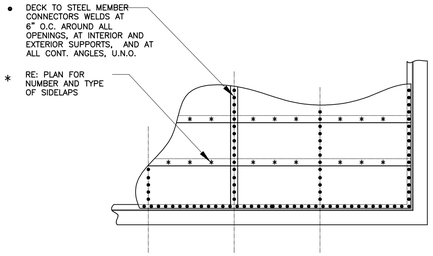


CONNECTOR PATTERN DIAGRAM (36/9)

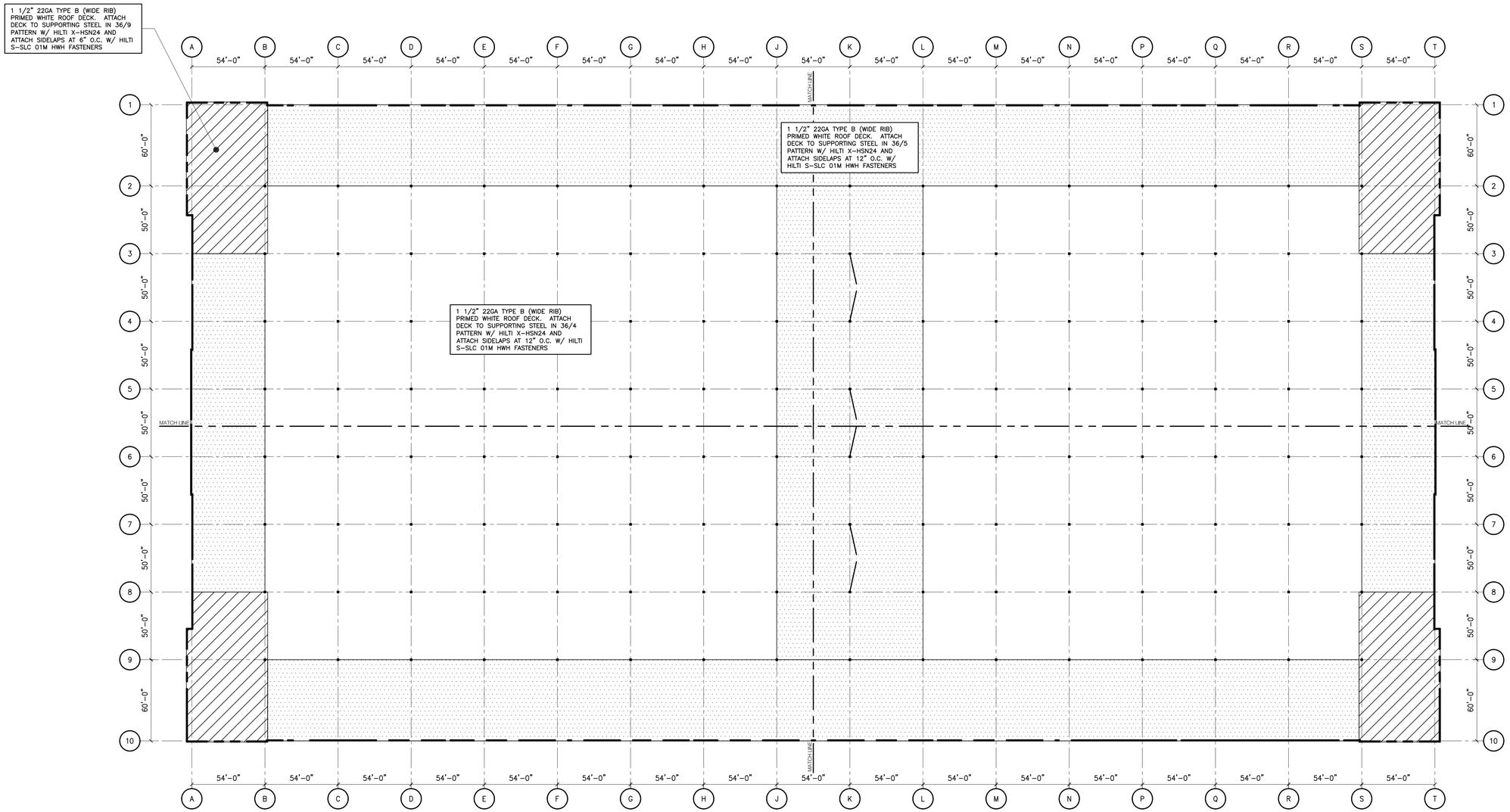
NOTE:

CONTRACTOR SHALL COORDINATE THE TYPE OF PINS USED WITH THE THICKNESS OF THE JOISTS AND JOIST GIRDERS. FOR AREAS IN WHICH THE SUPPORTING STRUCTURE IS THICKER THAN 3/8", THE X-HSN24 PINS SHALL BE SUBSTITUTED FOR X-ENP-19-L15 PINS AT THE SAME FASTENING PATTERNS SPECIFIED.

1½" TYPE B ROOF DECK



ROOF DIAPHRAGM CONNECTION DIAGRAM



1 ROOF DECK ATTACHMENT
SCALE: 1"=40'-0"

N

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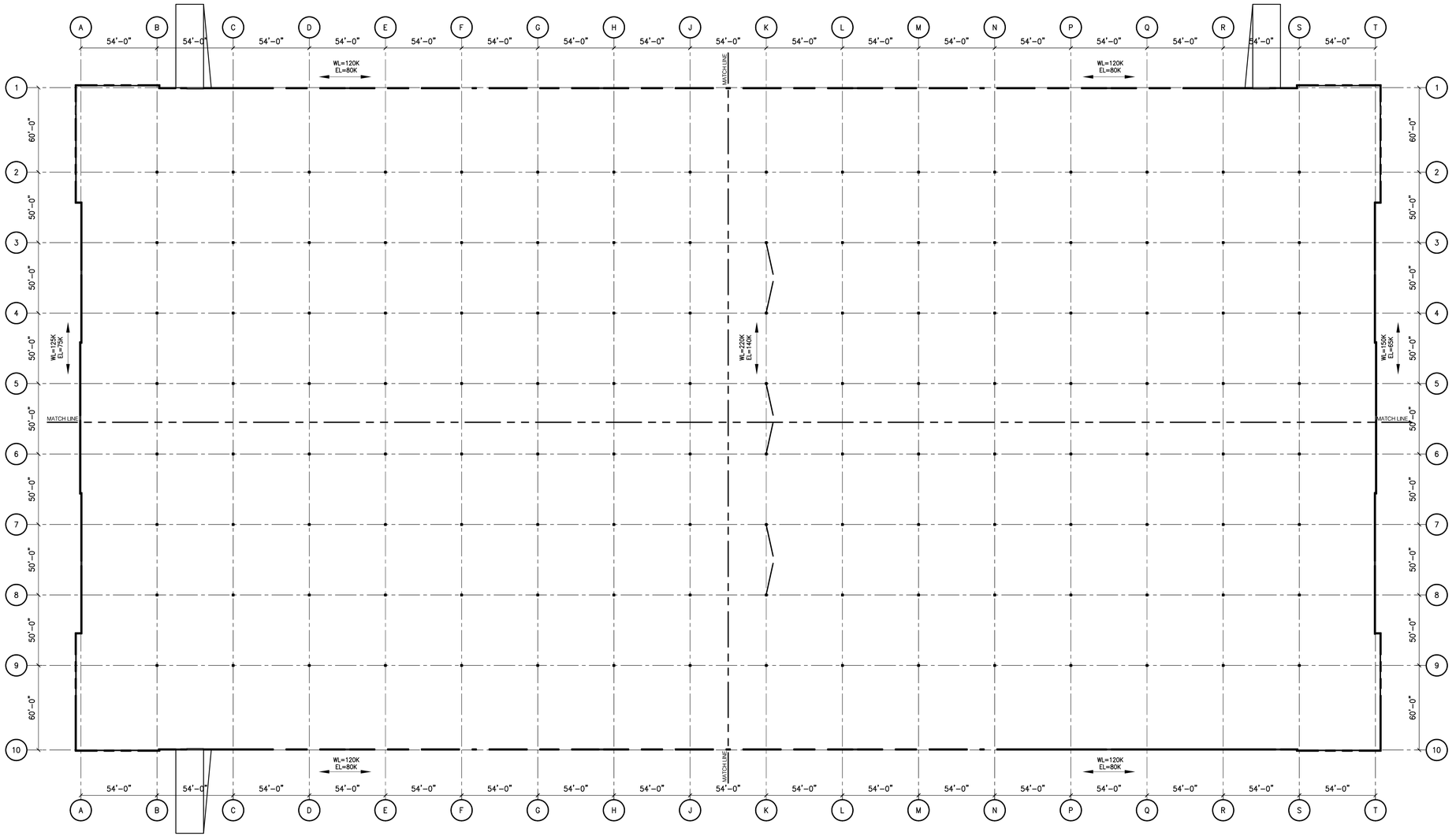
S2.5
ROOF DECK ATTACHMENT PLAN

LOAD PLAN NOTES:

THE LATERAL SYSTEM OF THE BUILDING IS A COMBINATION OF SHEAR WALLS AND BRACED FRAMES. THE LOADS SHOWN ON THIS PLAN ARE THE ASD SEISMIC AND ASD WIND LOADS THAT ARE IMPARTED ON THE CONCRETE WALL PANELS, WHICH SHALL BE DESIGN AND DETAILED AS SHEAR WALLS. THE CONCRETE WALL SUPPLIER SHALL DESIGN THE PANELS TO RESIST THE LATERAL LOADS APPLIED AT THE ROOF DIAPHRAGM ELEVATION AS SHOWN PER OTHER DETAILS. THE ADDITIONAL SEISMIC LOAD INDUCED BY THE WEIGHT OF THE IN-PLANE PANELS AND OUT-OF-PLANE PANELS HAVE BEEN ACCOUNTED FOR IN THE FORCES SHOWN ON THE PLAN. THE CONCRETE WALL SUPPLIER SHALL DESIGN AND DETAIL THE CONNECTION OF THE CONCRETE PANELS TO THE FOUNDATION IN ORDER TO RESIST THE SHEAR AND UPLIFT FORCES FROM THE CONCRETE PANEL INTO THE FOUNDATION SYSTEM. THE FOUNDATION SYSTEM HAS BEEN DESIGNED FOR THE CONCRETE PANELS SHOWN TO ACT AS A COMPLETE SYSTEM ANY DEVIATIONS FROM THIS SHALL BE APPROVED BY THE ENGINEER OF RECORD.



1 LATERAL LOAD PLAN
SCALE: 1/32"=1'-0"

N

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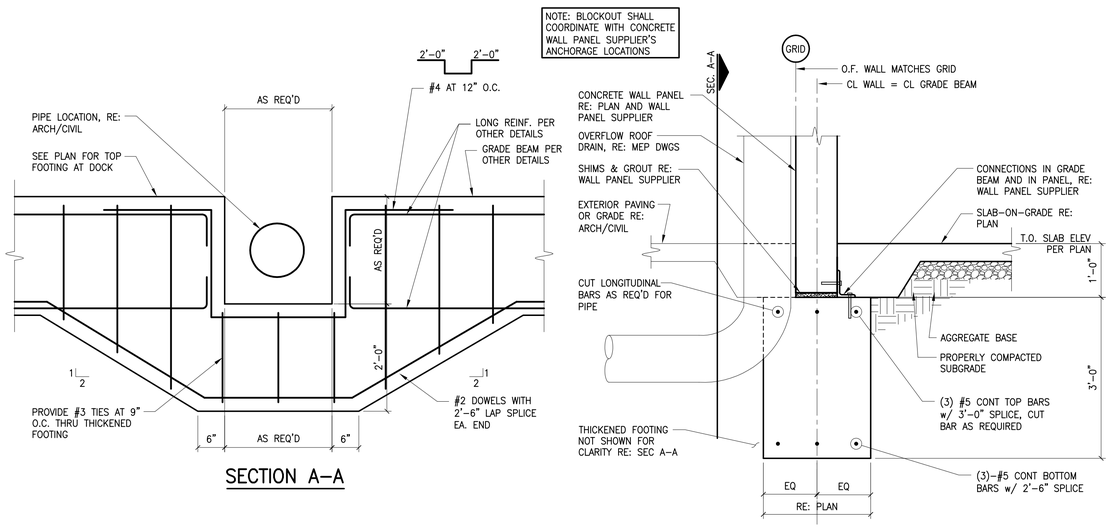
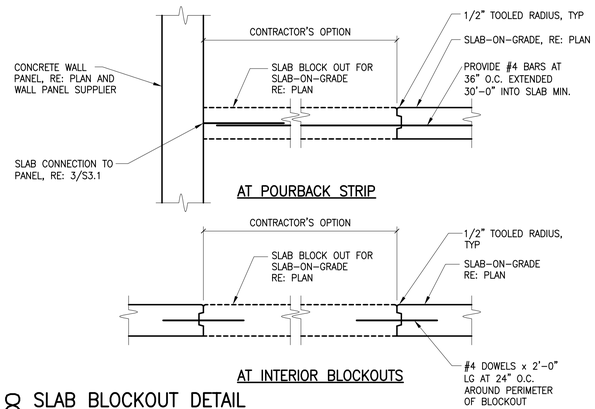
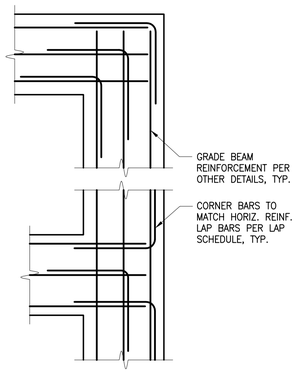
S2.6
LATERAL LOAD PLAN



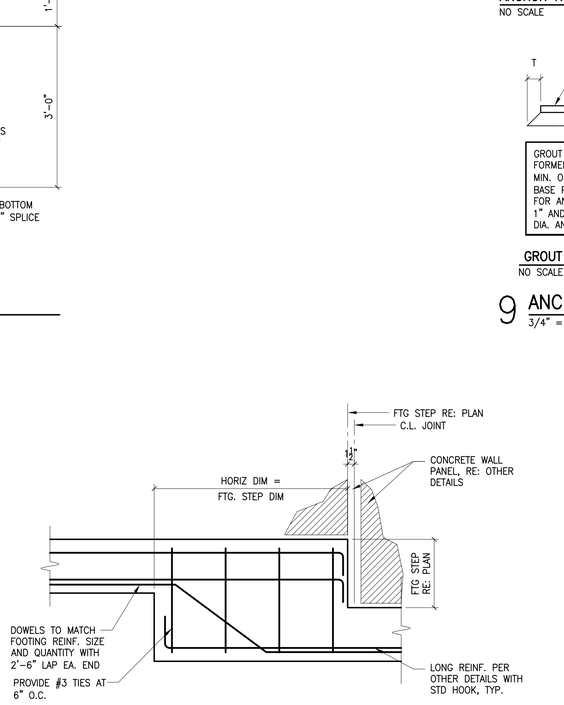
10 EXTERIOR FOOTING AT OVERFLOW DRAIN
3/4" = 1'-0"



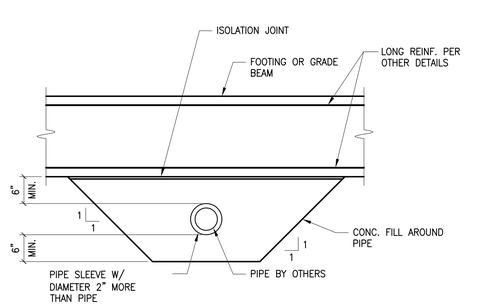
8 SLAB BLOCKOUT DETAIL
3/4" = 1'-0"



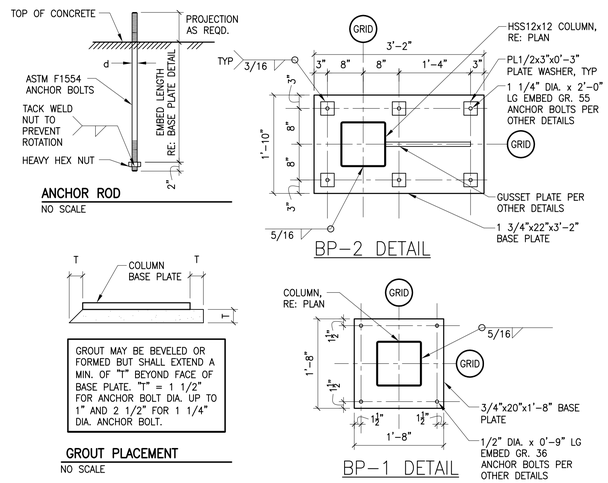
7 CORNER BAR DETAIL
3/4" = 1'-0"



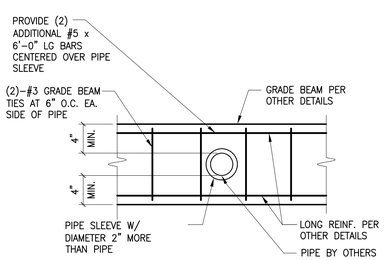
6 GRADE BEAM STEP DETAIL
3/4" = 1'-0"



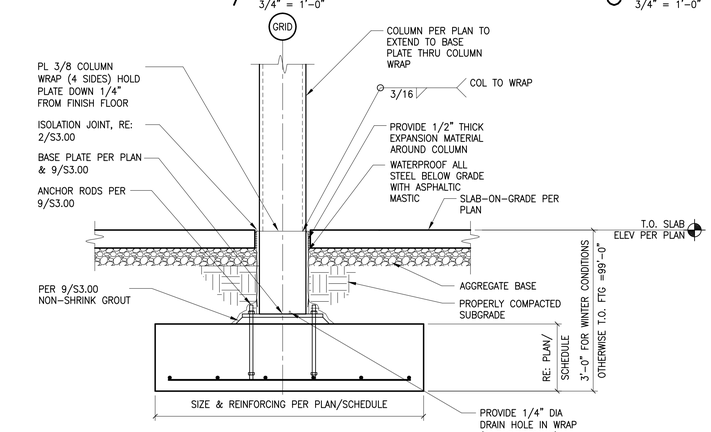
5 PIPE UNDER GRADE BEAM DETAIL
3/4" = 1'-0"



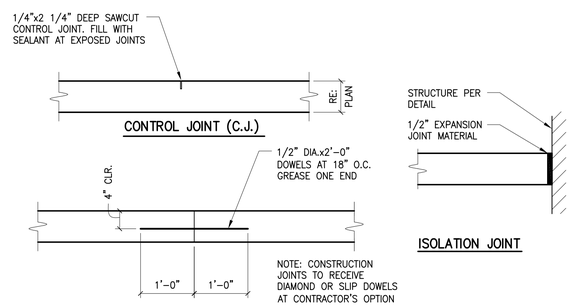
9 ANCHOR ROD BASE PLATE DIAGRAMS AND SCHEDULE
3/4" = 1'-0"



4 PIPE THRU GRADE BEAM DETAIL
3/4" = 1'-0"



3 TYPICAL INTERIOR FOOTING DETAIL
3/4" = 1'-0"



SLAB-ON-GRADE SECTION
3/4" = 1'-0"

1 CONC. LAP SCHEDULE
3/4" = 1'-0"

STEEL REINF. LAP SCHEDULE (INCHES)						
BAR SIZE	CONCRETE f'c = 3000 PSI		CONCRETE f'c = 4000 PSI		CONCRETE f'c = 5000 PSI	
	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	22	17	20	16	17	13
#4	29	22	27	21	23	17
#5	36	28	33	26	28	22
#6	43	33	40	31	34	26
#7	63	48	58	45	49	38
#8	72	55	66	51	56	43
#9	91	70	79	61	71	54

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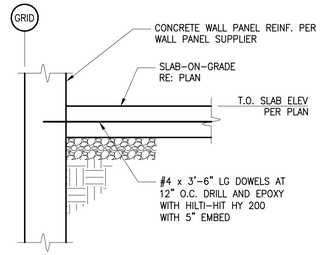
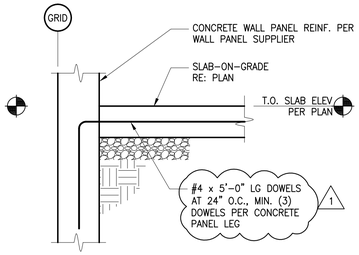
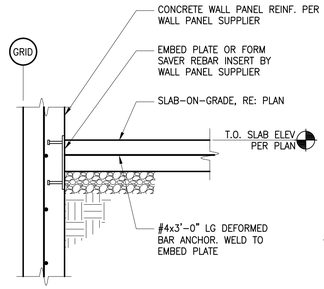
S3.0
FOUNDATION DETAILS



OPTION A

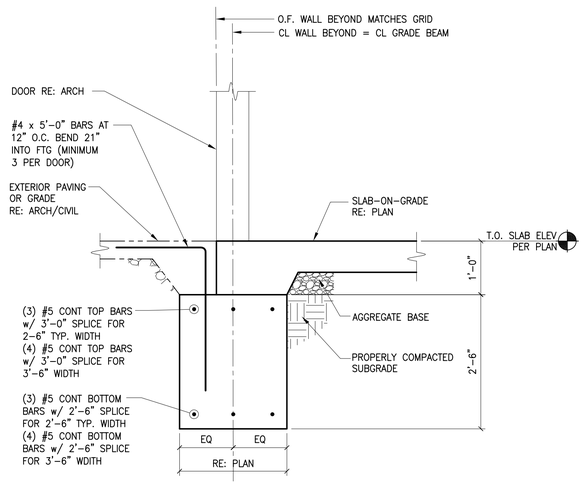


OPTION B

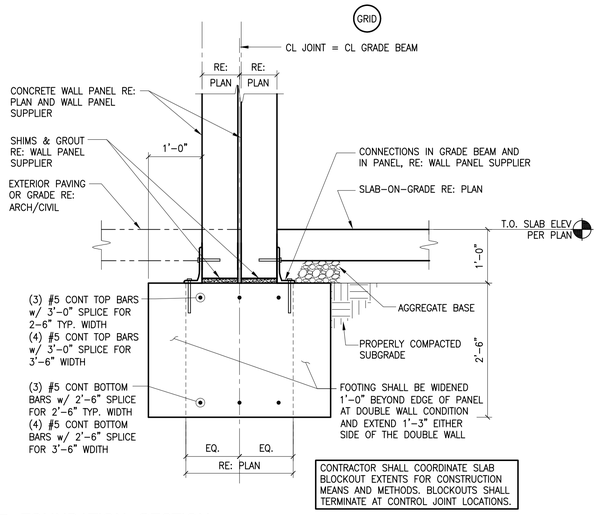


OPTION C

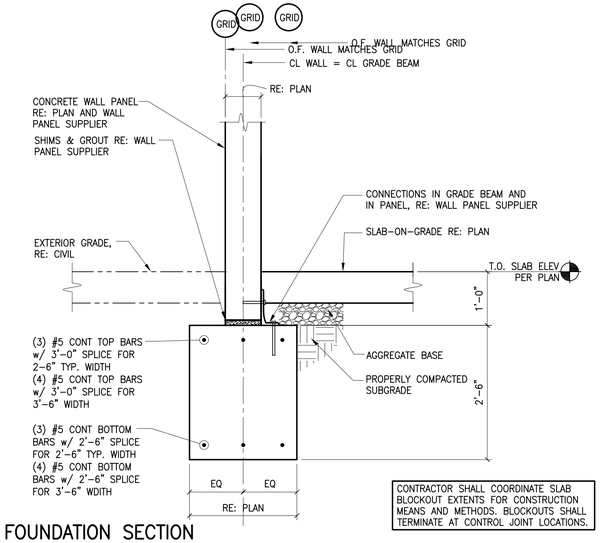
5 SLAB CONNECTION TO CONCRETE WALL PANEL OPTIONS
3/4" = 1'-0"



4 FOUNDATION SECTION
3/4" = 1'-0"



3 FOUNDATION SECTION
3/4" = 1'-0"



2 FOUNDATION SECTION
3/4" = 1'-0"

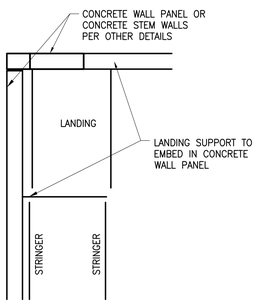
NOTE:

STAIR FRAMING IS FOR GRAPHICAL PURPOSES ONLY. STEEL FABRICATOR SHALL COORDINATE DIMENSIONS AND LOCATION OF STAIR WITH THE ENTIRE CONSTRUCTION DOCUMENTS AND NOT SOLELY THE STRUCTURAL PORTION ONLY.

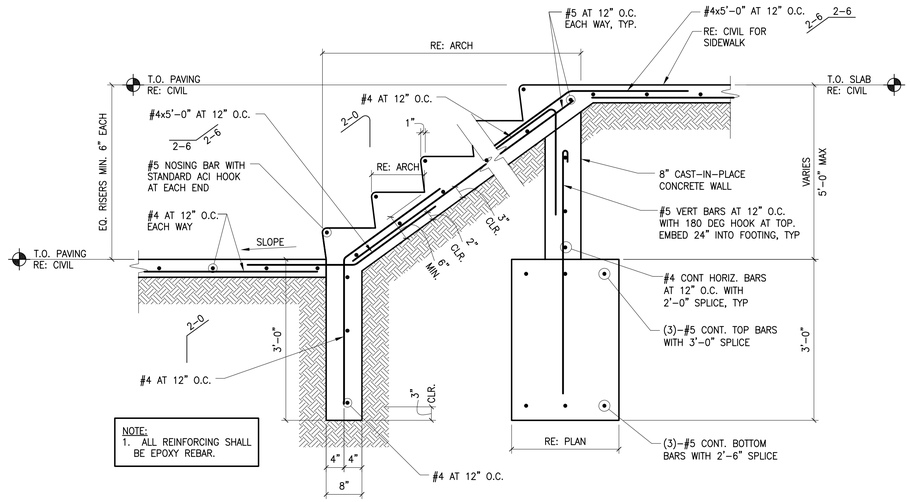
STAIR FRAMING, STRINGERS, TREADS, HANDRAILS, LANDINGS AND CONNECTION DETAILING AND DESIGN SHALL BE THE RESPONSIBILITY OF THE STEEL FABRICATOR. STEEL FABRICATOR SHALL INCLUDE THE DESIGN FOR ANY ATTACHMENTS TO THE BUILDINGS, FOUNDATIONS OR DIAPHRAGMS. DESIGN LOADS SHALL BE COORDINATED WITH THE ENGINEER OF RECORD. IF ADDITIONAL COLUMNS OR POSTS ARE REQUIRED WHERE NOT EXPLICITLY SHOWN, STEEL FABRICATOR SHALL COORDINATE ADDITIONAL FOOTINGS OR ATTACHMENT TO BEAMS WITH GENERAL CONTRACTOR AND ENGINEER OF RECORD. THE DESIGN IS A DEFERRED SUBMITTAL AND SHALL BE SUBMITTED FOR REVIEW AS SET FORTH IN THE STRUCTURAL GENERAL NOTES.

MINIMUM MEMBER SIZES ARE AS NOTED BELOW:

STRINGER:	GALV. C12x20.7
HEADER:	GALV. C12x20.7
TREADS:	1 1/4" DEEP BAR GRATING
LANDING DECK:	1 1/4" DEEP BAR GRATING



STEEL STAIR



CONCRETE STAIRS-ON-GRADE

1 STAIR DETAILS
3/4" = 1'-0"

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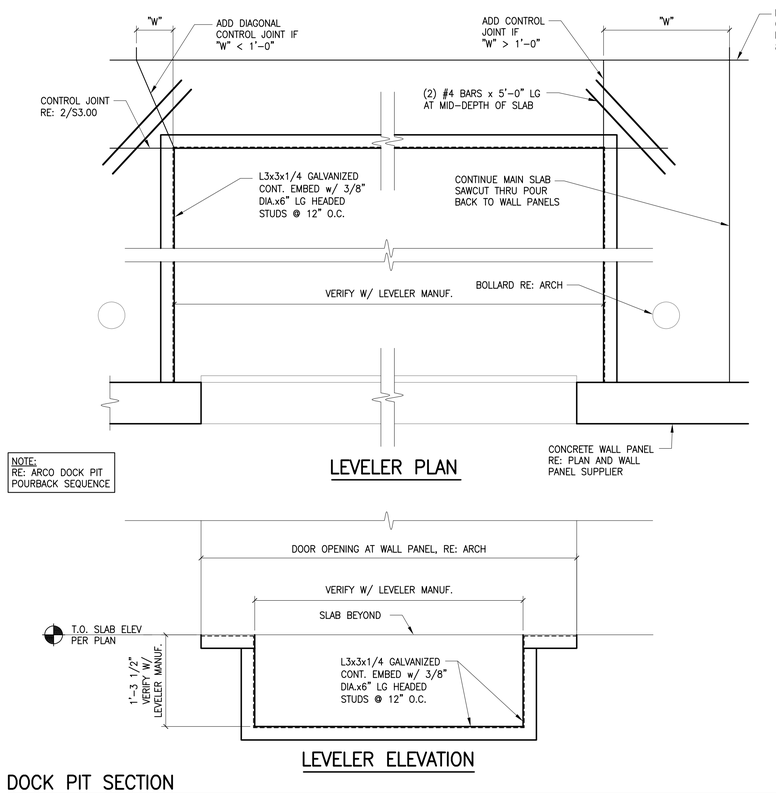
NW CORNER TUDOR RD & MAINST
LEE'S SUMMIT, MO

ISSUE DATES

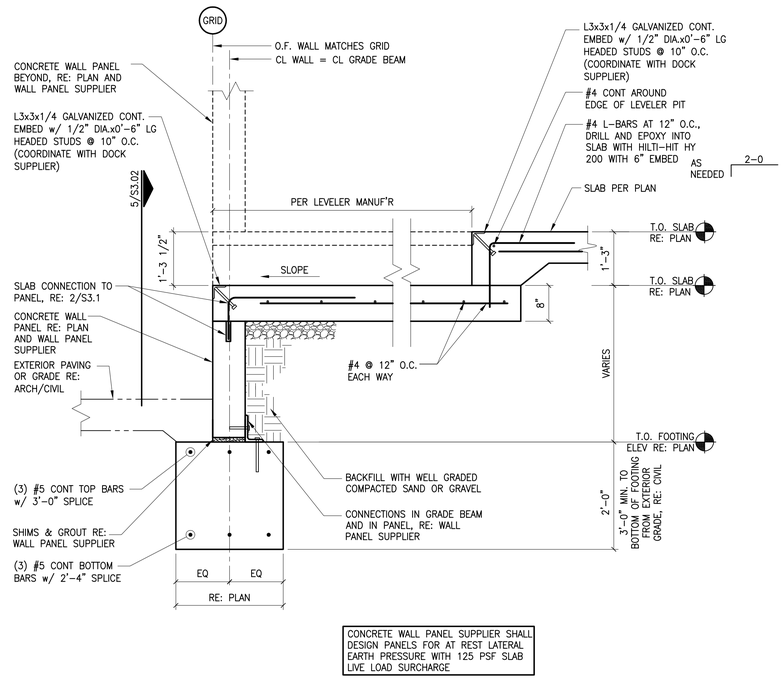
ISSUE	DATE
ISSUE FOR PERMIT	02.18.2022
ISSUE FOR PERMIT	04.15.2022

210300

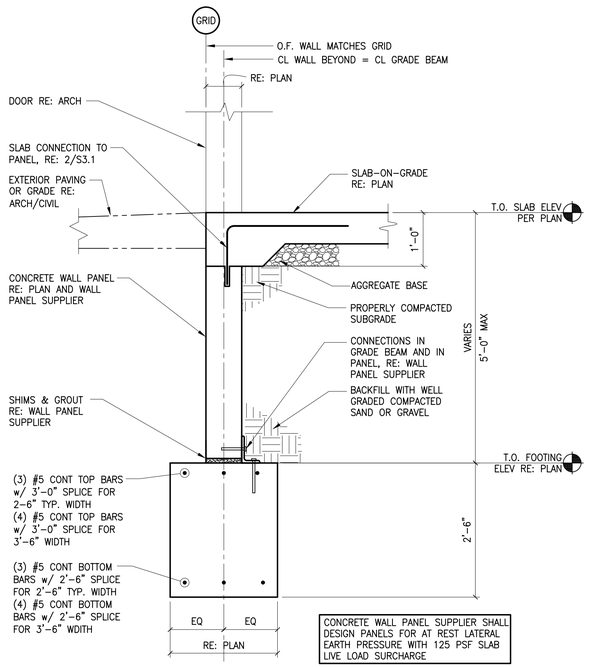
S3.1
FOUNDATION DETAILS



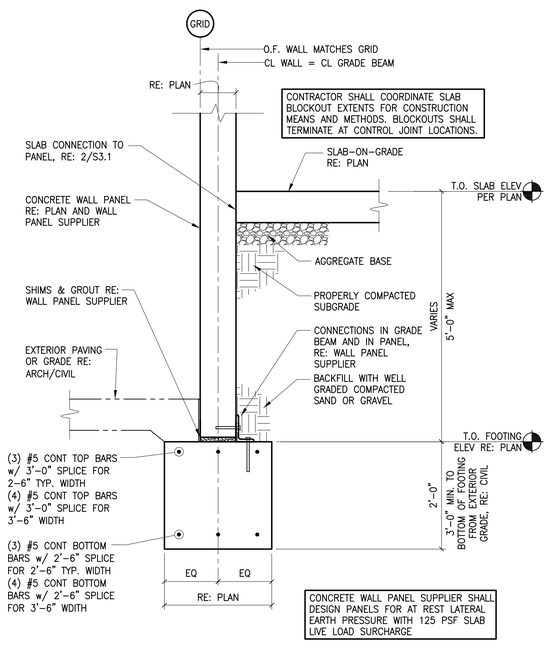
5 DOCK PIT SECTION
3/4" = 1'-0"



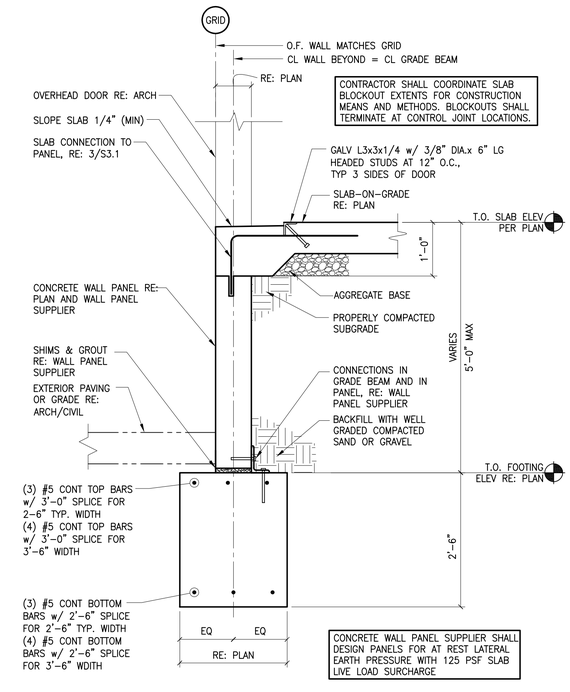
4 FOUNDATION SECTION
3/4" = 1'-0"



3 FOUNDATION SECTION
3/4" = 1'-0"



2 FOUNDATION SECTION AT DOCK WALL
3/4" = 1'-0"



1 FOUNDATION SECTION AT OVERHEAD DOOR
3/4" = 1'-0"

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
06/23/2022

CURRAN
ARCHITECTURE
5719 LAWTON LOOP E. DR. #212
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816.421.8282, Fax 816.421.8338

CERTIFICATION

STATE OF MISSOURI
JAMES M. GRANICH
NUMBER PE-2014023909
PROFESSIONAL ENGINEER

04/15/2022
Missouri COA #001268

PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS BUILDING A LOT 1

NW CORNER TUDOR RD & MAINST
LEE'S SUMMIT, MO

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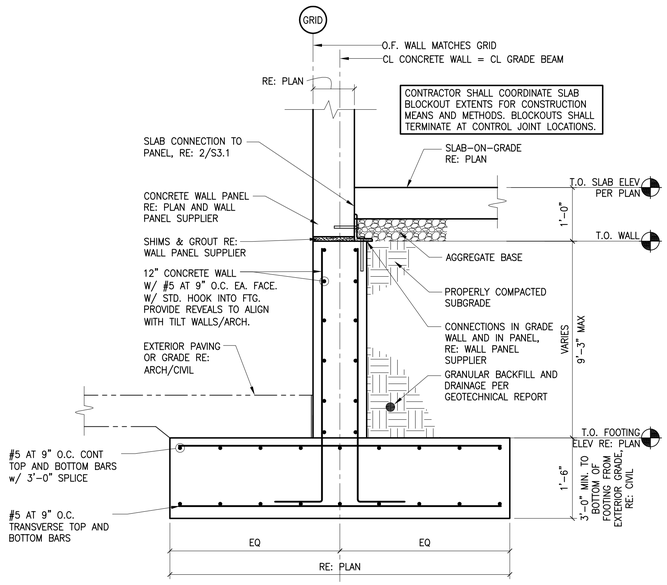
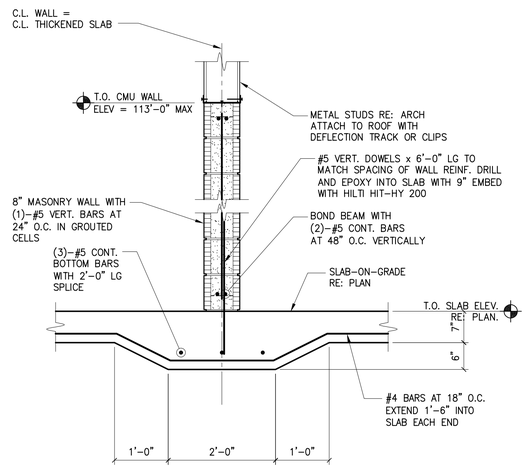
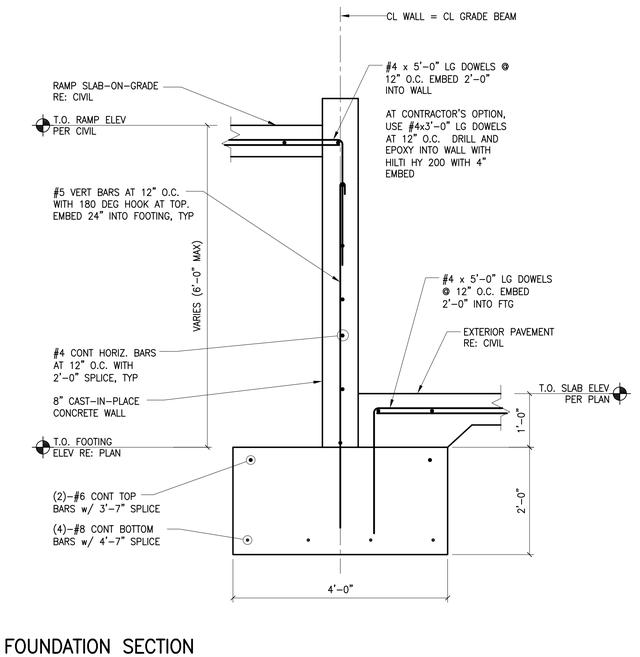
S3.2
FOUNDATION DETAILS



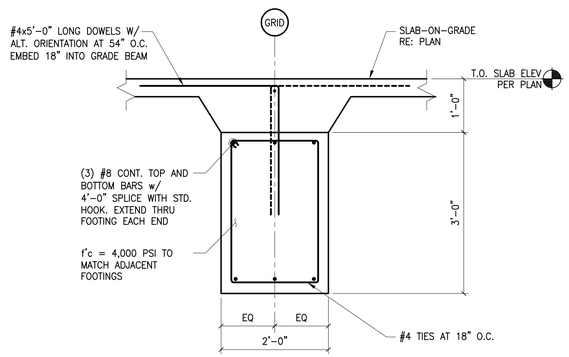
6 FOUNDATION SECTION
3/4" = 1'-0"



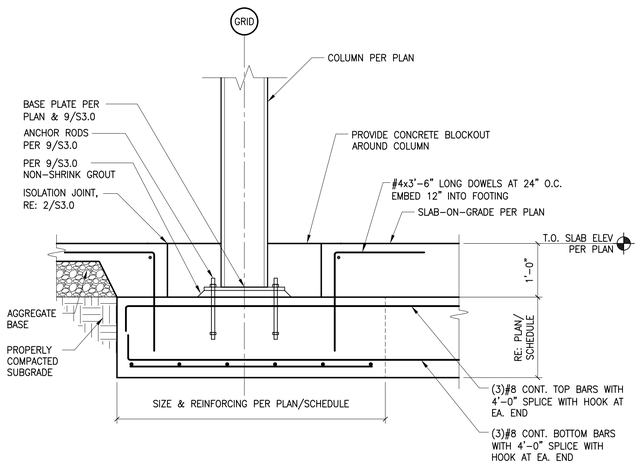
5 FOUNDATION SECTION
3/4" = 1'-0"



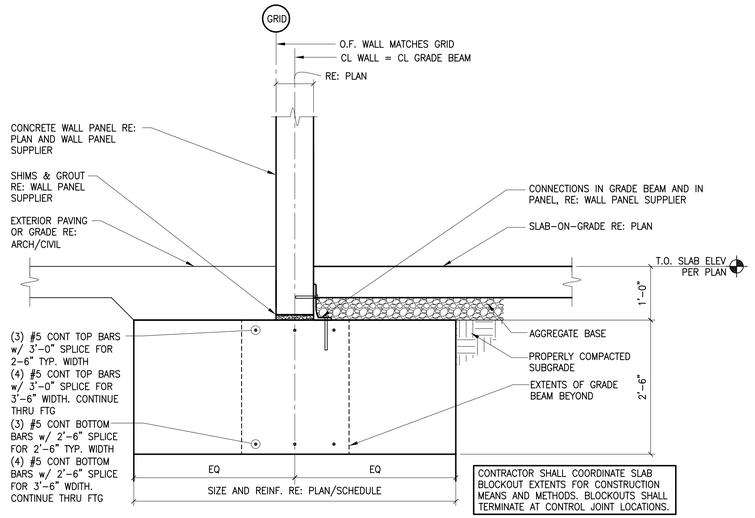
4 FOUNDATION SECTION
3/4" = 1'-0"



1
3 FOUNDATION SECTION
3/4" = 1'-0"



2 TYPICAL BRACED FRAME FOOTING DETAIL
3/4" = 1'-0"



1 FOUNDATION SECTION
3/4" = 1'-0"

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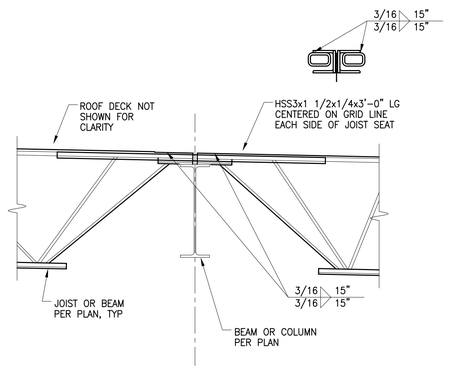
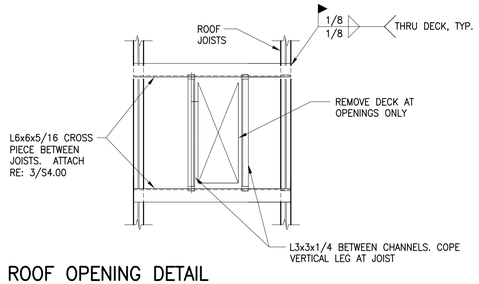
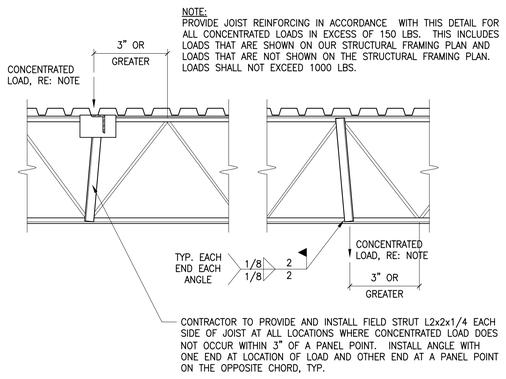
S3.3
FOUNDATION DETAILS



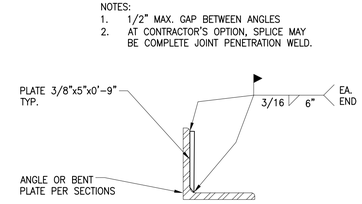
9 TYPICAL DRAG STRUT DETAIL AT EXPANSION JOINT
3/4" = 1'-0"



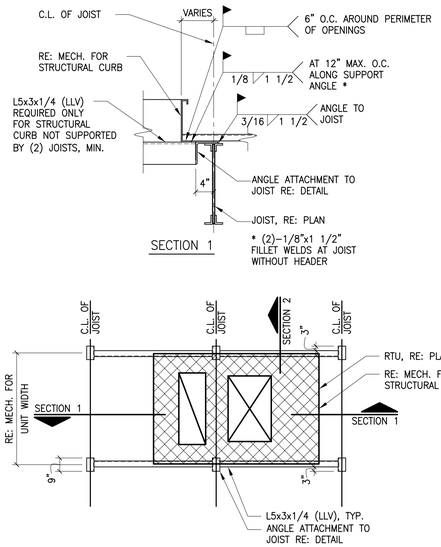
8 ROOF OPENING DETAIL
3/4" = 1'-0"



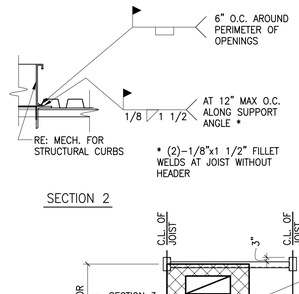
7 JOIST REINFORCING DETAIL
3/4" = 1'-0"



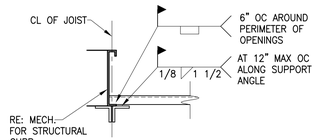
6 SPLICE DETAIL
3/4" = 1'-0"



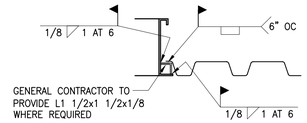
SECTION 1



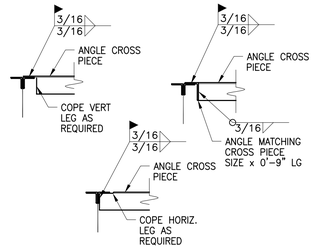
SECTION 2



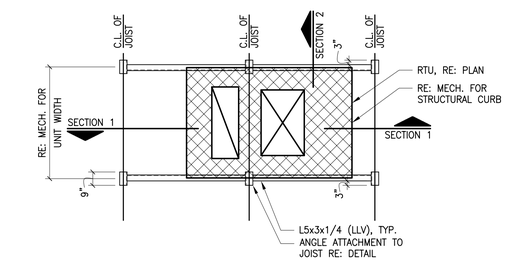
SECTION 3



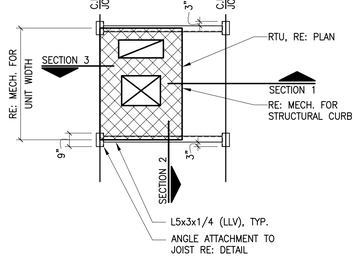
DETAIL 1



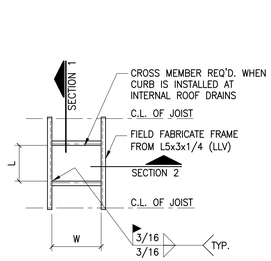
ANGLE ATTACHMENT TO JOIST DETAIL



TYP. AT UNIT SPANNING MULTIPLE JOISTS



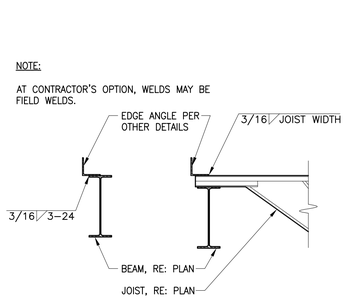
TYP. AT UNIT BETWEEN JOISTS



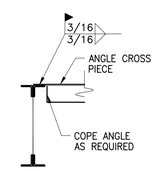
OPENING IN ROOF LARGER THAN 10"x10"

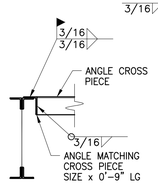
NOTES:
1. INSTALL CURBS, HEADERS, AND FRAMES AND WELD TO SUPPORT STEEL BEFORE DECK IS PLACED.
2. DESIGN JOISTS SUPPORTING RTU'S FOR TWO POINT LOADS. THE LOCATION OF THE LOADS AND THE SPACING BETWEEN THEM VARY. RE: RTU JOIST DIAGRAM THIS DETAIL AND ROOF FRAMING PLAN FOR POINT LOADS AND LOCATIONS.
3. RTU CURBS SHALL BE STRUCTURAL, DESIGNED TO SPAN BETWEEN JOISTS AND SUPPORT EDGES OF DECK. CURBS TO BE FABRICATED WITH LEDGE ANGLES (L2x2x1/4) AT MECHANICAL OPENINGS TO SUPPORT METAL DECK INSIDE OPENING NOT USED BY SUPPLY OR RETURN DUCT WORK. HEADERS ARE NOT REQUIRED FOR STRUCTURAL CURBS EXCEPT WHEN THE CURB DOES NOT SPAN BETWEEN TWO JOISTS OR THE CURB CANTILEVERS MORE THAN TWO FEET PAST JOIST.
4. ATTACH DECK AROUND OPENING PER ROOF DIAPHRAGM CONNECTION DETAIL.
5. IF CURB IS NOT PLACED WITHIN 3" OF A JOIST PANEL POINT, RE: JOIST REINFORCING DETAIL RE: 7/S4.00.
6. GENERAL CONTRACTOR SHALL COORDINATE RTU DIMENSIONS AND FRAMING LOCATIONS WITH THE STEEL FABRICATOR, MECHANICAL, AND ERECTION SUBCONTRACTORS.
7. STEEL SUPPLIER TO FURNISH STOCK ANGLE FOR FIELD FABRICATED SUPPORT FRAMES.
8. RE: DETAIL 1 FOR CONN. OF DECK PARALLEL TO CURB (WHERE REQ'D.).
9. RE: MECH. FOR ROOF TOP UNIT ANCHORAGE TO CURBS.

5 MECHANICAL UNIT SUPPORT DETAIL
3/4" = 1'-0"

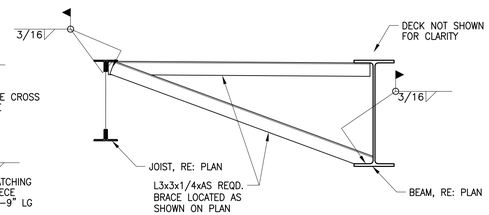


4 EDGE ANGLE CONNECTION DETAIL
3/4" = 1'-0"

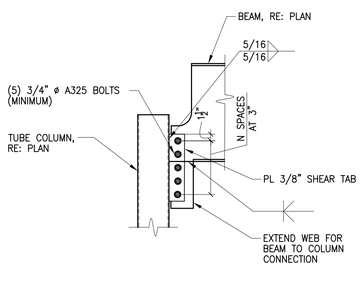




3 ANGLE CONNECTION DETAILS
3/4" = 1'-0"



2 BOTTOM FLANGE BRACING DETAIL
3/4" = 1'-0"



NOTES:

1. ALL CONNECTIONS ON THE STRUCTURAL DRAWINGS, UNLESS NOTED OTHERWISE, SHALL BE DESIGNED AND DETAILED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED OR RETAINED BY THE STEEL FABRICATOR. THE DESIGN AND DETAILING SHALL COMPLY WITH ALL APPLICABLE COES AND SPECIFICATION SECTIONS.
2. CONNECTIONS SHOWN ARE FOR REFERENCE ONLY. FABRICATOR MAY USE OTHER AISC APPROVED CONNECTIONS.
3. ALL BOLTS SHALL BE 3/4" DIAMETER A325 w/ HEAVY HEX NUTS, UNLESS NOTED OTHERWISE.
4. ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS AND SHALL BE SNUG TIGHTENED UNLESS NOTED OTHERWISE.
5. FOR BEAMS WITH AXIAL REACTIONS PER PLAN, CONNECTIONS SHALL BE DESIGNED AS FULLY TENSIONED SLIP CRITICAL PER AISC SPECIFICATIONS.

1 BEAM CONNECTION DETAIL
3/4" = 1'-0"

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S4.0
FRAMING DETAILS