D2 DESIGN LOAD VALUES ARE INDICATED ON THE APPROPRIATE SHEETS AS FOLLOWS:

FOUNDATION DESIGN - \$1.0, \$1.1 ROOF FRAMING DESIGN - \$1.2,51,3 WIND DESIGN - \$5.0, \$5.1

- D3 TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE STRUCTURAL PLANS AND SPECIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE.
- D4 EVERY REASONABLE EFFORT HAS BEEN MADE TO ENSURE COORDINATION BETWEEN THESE DRAWINGS AND THE BOUND STRUCTURAL SPECIFICATIONS. SHOULD THERE BE ANY DISCREPANCIES, THE CONTRACTOR SHALL THEN REQUEST A CLARIFICATION IN WRITING.

#### GENERAL

- GI THE GENERAL CONTRACTOR SHALL REVIEW AND DETERMINE THAT DIMENSIONS ARE COORDINATED BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO FABRICATION OR START OF CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL PROVIDE ALL MEASURES
  NECESSARY TO PROTECT THE STRUCTURE, THE WORK PERSONS AND
  OTHER PEOPLE DURING CONSTRUCTION. HE SHALL SUPERVISE AND
  DIRECT THE WORK AND BE RESPONSIBLE FOR ALL CONSTRUCTION.
- G3 NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED OR OTHERWISE REDUCED IN STRENGTH.
- G4 THE GENERAL CONTRACTOR SHALL COORDINATE ARCHITECTURAL,
  MECHANICAL AND ELECTRICAL DRAWINGS FOR ANCHORED, EMBEDDED
  AND SUPPORTED ITEMS WHICH AFFECT THE STRUCTURAL DRAWINGS AND
  NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
- G5 ALL SHOP DRAWING SUBMITTALS SHALL BE SUBMITTED VIA ELECTRONIC MEDIA (i.e. PDF OR DWF FORMAT). HARD COPY SUBMITTALS WILL NOT BE ACCEPTED.
  - 1. SUBMITTALS SHALL NOT BE SECURED IN ANY FORMAT THAT WILL PREVENT COMMENTS FROM BEING ADDED.
  - 2. SUBMITTALS THAT ARE REQUIRED TO BE SIGNED AND SEALED SHALL BE SUBMITTED WITH A VISIBLE INK SEAL OR SHADED RAISED SEAL AT TIME OF FIRST SUBMITTAL.
- G6 ANY SUBMITTALS RECEIVED BY ARCH/ENG THAT HAVE NOT BEEN CHECKED BY THE GC AND HIS SUBCONTRACTOR SHALL BE RETURNED WITHOUT REVIEW.
- GT ALL SECTIONS AND DETAILS SHALL BE CONSTRUED TO BE TYPICAL OR SIMILAR UNLESS ANOTHER SECTION OR DETAIL IS NOTED.
- ANY CONFLICTS NOTICED, OR OBSERVED, BETWEEN THE WRITTEN SPECIFICATIONS AND THE CONSTRUCTION DOCUMENTS DURING PROJECT BIDDING OR PROJECT CONSTRUCTION SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE STRUCTURAL ENGINEER-OF-RECORD. IF SUCH DISCREPANCY IS NOT NOTICED OR BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER-OF-RECORD FOR WRITTEN CLARIFICATION, THE CONTRACTOR/SUBCONTRACTOR SHALL PROVIDE, AT PROJECT BID OR DURING PROJECT CONSTRUCTION, THE MORE STRINGENT AND/OR MORE COSTLY OF THE TWO ITEMS IN THE BID AND/OR FINAL INSTALLATION.
- G9 <u>"BBM STRUCTURAL ENGINEERS"</u> ASSUMES NO RISK OR LIABILITY FOR THE SITE SAFETY OR WELL-BEING OF ANY CONTRACTOR, SUBCONTRACTOR NOR THEIR EMPLOYEES DURING THE CONSTRUCTION OF THE PROJECT CONTAINED IN THESE DOCUMENTS.
- GIØ GENERAL CONTRACTOR/CONSTRUCTION MANAGER SHALL SUPPLY ALL SUB-CONTRACTORS WITH THE STRUCTURAL GENERAL NOTE SHEETS AS WELL AS THE STRUCTURAL DRAWINGS.
- THE STRUCTURAL STEEL AND OPEN WEB STEEL JOISTS SHALL BE FABRICATED AND ERECTED IN FULL CONFORMANCE WITH THE "OSHA STEEL ERECTION STANDARD". IF THE CONSTRUCTION DRAWINGS DEVIATE FROM THE OSHA STANDARD THEN THE FABRICATOR SHALL PROVIDE SUBMITTALS THAT CLEARLY INDICATE THE DEVIATION WITH A REVISION CLOUD AND REQUEST APPROVAL FROM "BBM" TO MAKE THE CHANGE SO THAT CONFORMANCE WITH THE OSHA STANDARD IS ASSURED.
- GI2 THE CONTRACTOR'S MEANS AND METHODS SHALL FULLY CONFORM TO THE REQUIREMENTS OF SEI/ASCE 37 (DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION) UNTIL ALL OF THE STRUCTURAL ELEMENTS ARE IN PLACE AND HAVE RECEIVED THE INSPECTOR'S APPROVAL.
- GI3 REFER TO ARCHITECTURAL DRAWINGS FOR ROOF COVERINGS. ROOF
  COVERINGS FOR ENHANCED HURRICANE PROTECTION AREA (EHPA)
  FACILITIES SHALL BE PROVIDED IN ACCORDANCE WITH THE LATEST ASTM
  AND FACTORY MUTUAL STANDARDS FOR MATERIALS AND WIND UPLIFT
  FORCES. ROOFS SHALL BE INSPECTED BY A LICENSED ENGINEER/
  ARCHITECT AND A REPRESENTATIVE OF THE ROOFING MANUFACTURER
  AND REPORTS SHALL BE SUBMITTED TO THE OWNER AND ARCHITECT.
- GI4 DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING CONSTRUCTION ARE APPROXIMATE. DIMENSIONS AND ELEVATIONS SHOWN ARE NOT FIELD MEASURED. CONTRACTOR SHALL FIELD VERIFY AND/OR DETERMINE DIMENSIONS, ELEVATIONS AND GEOMETRY OF EXISTING CONSTRUCTION. REPORT DISCREPANCIES TO ARCHITECT IMMEDIATELY.

#### CONCRETE AND REINFORCING

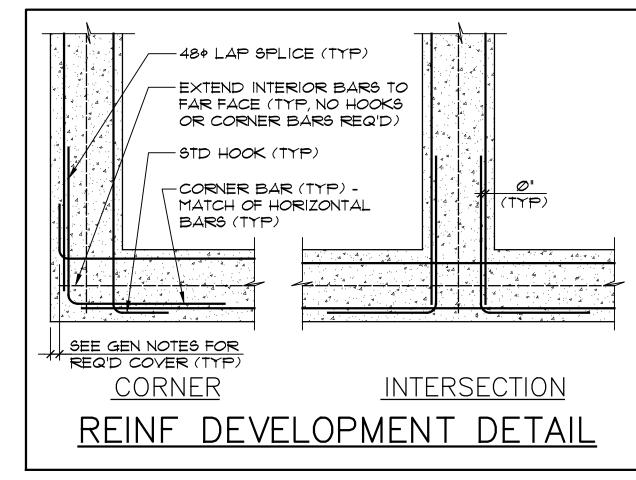
- A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD TESTING INCLUDING SLUMP TESTS AND CYLINDER BREAKS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.
- CONCRETE WORK SHALL CONFORM TO ACI 318-05 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
- C3 ALL CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES:

LOCATION	28 DAY STRENGTH	SLUMP	COARSE AGGREGATE(S)	
FOUNDATIONS	3000 PSI	4" +/- 1"	1"	
SLAB-ON-GRADE: FOOT TRAFFIC	3000 PSI	4" +/- 1"	1"	
SLAB-ON-GRADE: INDUSTRIAL VEHICULAR TRAFFIC	4000 PSI (MIN CEMENT CONTENT = 520 lb/yd <sup>3</sup> )	4" +/- 1"	3/8" \$ 1"	
ALL OTHER CONCRETE	3000 PSI	6" +/- 1"	3/8"	
TILT PANELS	4000 PSI	4" +/- 1"	1"	
GROUT UNDER TILT-UP PANELS	4000 PSI	8" TO 11"	NONE	
NOTE: 1. SLUMP FOR RAMPS AND SLOPING SURFACES SHALL NOT EXCEED 4".				

- C4 CONCRETE MIX DESIGN SUBMITTALS:
- 1. EACH MIX DESIGN SHALL BE LABELED TO INDICATE THE AREA IN WHICH THE CONCRETE IS TO BE PLACED (I.E. FOUNDATIONS, SLAB-ON-GRADE, COLUMNS, ETC.). FAILURE TO DO SO WILL CAUSE DELAY AND/OR REJECTION OF SUBMITTALS.
- 2. PROPOSED MIX DESIGN SHALL BE IN ACCORDANCE WITH METHOD I OR METHOD 2 OF ACI 301. PROVIDE SUPPORTING DATA IN TABULAR FORM FOR EACH SEPARATE PROPOSED MIX.
- 3. SUBMIT CONCRETE MIX DESIGN FOR EACH PROPOSED CLASS OF CONCRETE.
- C5 REBAR SHALL CONFORM TO ASTM-615 GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND SHALL BE LAPPED MINIMUM ONE MESH + 2" WHERE SPLICED. ALL REINFORCING SHALL BE DOMESTICALLY PRODUCED.
- C6 SPLICES AND ANCHORAGE OF REINFORCING SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):

WELDED WIRE FABRIC: 8"
ALL OTHER: 48 DIA (12" MIN)

CT REINFORCEMENT IN WALLS, FOOTINGS AND BEAMS SHALL BE CONTINUOUS AND LAPPED 48 BAR DIA AT SPLICE UNLESS OTHERWISE NOTED. HOOK AND LAP ALL CORNER AND INTERSECTING BARS. (SEE REINF DEVELOPMENT DETAIL).



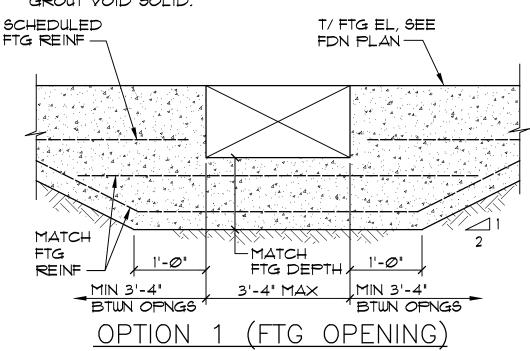
#### C8 COVER FOR REINFORCING SHALL BE AS FOLLOWS:

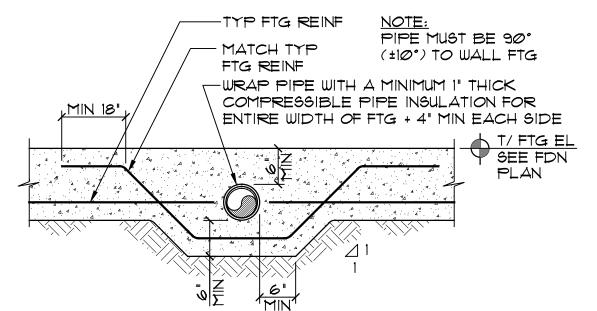
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3'
CONCRETE EXPOSED TO EARTH OR WEATHER:  #6 THRU #18 BARS:  #5 BAR, W31 OR D31 WIRE AND SMALLER:	2" 1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:	
SLABS, WALLS, JOISTS: #14 AND #18 BARS: #11 BAR AND SMALLER:	1 1/2" 3/4"
SHELLS, FOLDED PLATE MEMBERS: #6 BAR AND LARGER: #5 BAR, W31, OR D31 WIRE AND SMALLER:	3/4" 1/2"
TILT-UP CONCRETE PANELS - FACE COVER: PANELS EXPOSED TO EARTH OR WEATHER: #11 BAR AND SMALLER:	1" (EXCEPT 3/4" ALLOWED AT REVEALS)
PANELS NOT EXPOSED TO EARTH OR WEATHER: #11 BAR AND SMALLER:	3/4"

#### C9 FOOTING PENETRATION DETAILS:

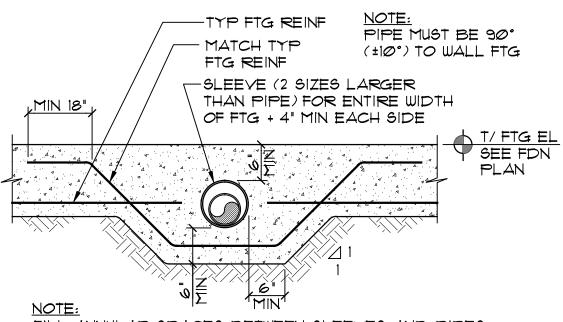
#### NOTES:

- 1. GC SHALL CONTACT ENGINEER IF OPENING SIZE AND/OR SPACING EXCEEDS THAT SHOWN.
- WRAP PIPE(S) WITH A MINIMUM 1" THICK COMPRESSIBLE PIPE INSULATION FOR ENTIRE WIDTH OF FTG + 4" MIN EACH SIDE. GROUT VOID SOLID.





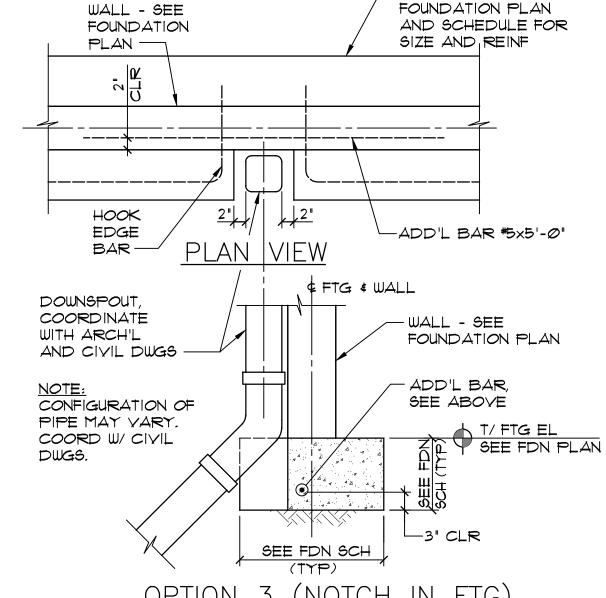
## OPTION 2A (FTG AFTER PIPE)



FILL ANNULAR SPACES BETWEEN SLEEVES AND PIPES WITH A COMPRESSIBLE MATERIAL AS REQUIRED BY THE PLUMBING CODE.

WALL FOOTING, SEE

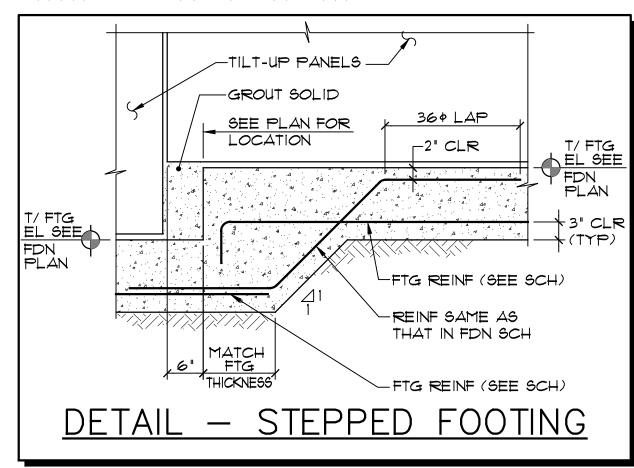
#### OPTION 2B (FTG BEFORE PIPE)



<u>option 3 (notch in ftg)</u>

<u>DETAIL — FOOTING</u> PENETRATIONS

#### CIØ STEPPED FOOTING DETAIL (IF REQUIRED)



CII BASE CONSTRUCTION PRICE SUBMITTED BY CONTRACTOR/SUBCONTRACTOR SHALL INCLUDE 1000# OF BOTH #5 AND #6 REINFORCING STEEL AND 1000 MAN HOURS (TOTAL) OF LABOR FOR INSTALLATION OF THIS REINFORCING AS DIRECTED BY THE ARCHITECT/ENGINEER.

#### FOUNDATIONS

- A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY-STANDARD SOIL DENSITY TESTS TO ENSURE CONFORMANCE WITH GEOTECHNICAL SOILS REPORT. SUBMIT REPORTS TO ARCHITECT AND ENGINEER.
- F2 CONTRACTOR, IN CONJUNCTION WITH GEOTECHNICAL FIELD REPRESENTATIVE, SHALL DETERMINE IF ANY UNSUITABLE CONDITIONS ARE DISCOVERED DURING EXCAVATION WHICH WOULD PREVENT ATTAINMENT OF THE DESIGN SOIL PRESSURE RECOMMENDED BY THE SOILS REPORT.
- F3 FOR FOUNDATION DESIGN VALUES, SEE FOUNDATION SCHEDULE.

#### SLAB ON GRADE

- SOGI UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT, COMPACT INTERIOR FILL TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM DISST). SOIL COMPACTION SHALL BE FIELD-CONTROLLED BY A REPRESENTATIVE TECHNICIAN OF A QUALIFIED LABORATORY. EACH LAYER OF FILL SHALL NOT EXCEED 12" THICK AND SHALL BE COMPACTED PRIOR TO PLACEMENT OF NEXT LAYER.
- SOG2 MAXIMUM SPACING OF CONTROL JOINTS (I.E. SAWCUT JOINT OR CONSTRUCTION JOINT) SHALL BE AS SET IN THE TABLE BELOW, OR AS NOTED ON PLANS. THE MORE STRINGENT SHALL APPLY. PATTERNS SHALL BE APPROXIMATELY SQUARE WITH A RATIO OF LONG SIDE TO SHORT SIDE NOT EXCEEDING 1.5 TO 1.

SLAB THICKNESS (IN)	*3/4" OR LARGER AGGREGATE SPACING (FT)
4	12
Ð	13
6	14
T AND GREATER	Œ

- \* MIX DESIGNS CONTAINING AGGREGATE LESS THAN 3/4" ARE NOT ACCEPTABLE.
- \* \* SAWCUT SLAB AS SOON AS AGGREGATE DOES NOT DISLODGE (MUST BE WITHIN 12 HOURS OF CONCRETE PLACEMENT).
- SOG3 GENERAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF SJ'S AND CJ'S WITH ARCHITECTURAL FLOOR FINISHES TO ENSURE SLAB JOINTS DO NOT READ THROUGH.
- SOG4 SLAB THICKNESS SHALL BE INCREASED AS REQUIRED TO PROVIDE ADEQUATE SUPPORT FOR CRANE LOADS WITHOUT CRACKING SLAB.
- SOG5 WAREHOUSE SLABS SHALL BE POWER-TROWELLED TO A HARD, SMOOTH, BURNISHED FINISH. THE FINAL TROWEL PASS SHALL BE DONE BY MACHINE, NOT BY HAND. A SPECIAL METALLIC OR MINERAL AGGREGATE SURFACE HARDENER SHALL BE PROVIDED FOR HARD WHEELED INDUSTRIAL VEHICULAR TRAFFIC FLOORS. WET CURE THE SLAB FOR A MINIMUM OF 1 DAYS.

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Orlando • Boca Raton

P. 561•750•1916

F. 561•750•1918

3998 FAU Boulevard

Boca Raton, FL 33431

Dbma.com
EB5343
Joel R. Middlebrooke P.E. \*35422

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JOEL MIDDLEBROOK
P.E. 35422

DRAWING NO.

SEAL

DESIGNA DEVELOR BEVELOR BEVELOR

tology Circle
ut Creek, Fl.

Phn: (954) 725-9499

&T Design and Develc 6810 Lyons Technolog Suite 140, Coconut Cl

FORTS

LOGY CENTERFOR EK, FLORIDA. 33073

NSON TECHNOI COCONUT CREE

**FORTS** 

TECHNOL

HN

### STRUCTURAL ABBREVIATIONS



WORKING POINT

WELDED WIRE FABRIC

WATERSTOP

WITH

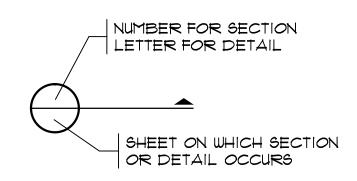
JST

JOIST

KNOCK OUT

KIP

#### SYMBOL LEGEND



## SECTION CUTS



## GRID BUBBLE



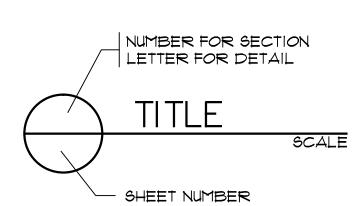
## NORTH ARROW



## REVISION MARK



## TYP. PLAN CALL OUT



## SECTION & DETAIL TITLE

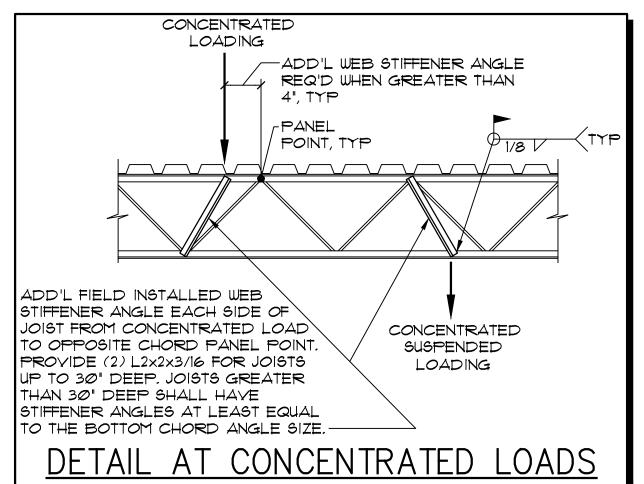
#### TYPICAL LINETYPES

 GRID LINE
 EXISTING
 MATCH LINE
 HIDDEN
 DASHED

CONTINUOUS

#### STEEL JOISTS

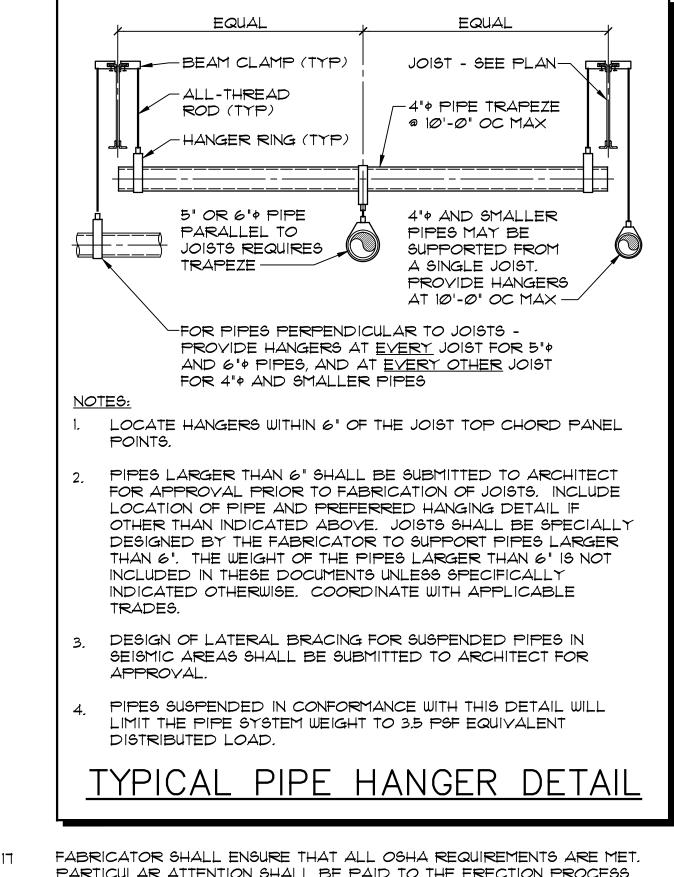
- A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER
- ALL DESIGN, FABRICATION AND ERECTION OF STEEL JOISTS AND BRIDGING SHALL BE IN STRICT ACCORDANCE WITH THE CURRENT SPECIFICATIONS OF STEEL JOIST INSTITUTE AND RECOMMENDED CODE OF STANDARD PRACTICE.
- THE ENDS OF ALL BRIDGING LINES TERMINATING AT WALLS OR BEAMS SHALL BE ANCHORED TO THE WALL OR BEAM.
- ALL STEEL JOISTS ARE TO BE CAMBERED AS SPECIFIED BY STEEL JOIST
- PROVIDE BOTTOM AND/OR TOP CHORD EXTENSIONS AS SHOWN ON DRAWINGS.
- UNLESS NOTED OTHERWISE, MINIMUM JOIST BEARING SHALL BE 2 1/2" FOR K-SERIES JOISTS, 4" FOR LH, DLH AND SLH 15-18, AND 6" FOR SLH 19-25 ON A STEEL MEMBER OR EMBED PLATE.
- BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET THE SIZE AND SPACING REQUIREMENTS OF THE SJI STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE CONSTRUCTION LOADS ARE PLACED ON THE JOISTS.
- ALL HANGERS, CURBS AND/OR ROOFTOP FRAMES TO SUPPORT MECHANICAL EQUIPMENT, ETC., TO BE SUPPORTED BY THE JOISTS SHALL BE LOCATED AT THE PANEL POINTS OF THE JOISTS IF POSSIBLE. HOWEVER, IF THE CONCENTRATED LOAD MUST BE LOCATED FURTHER THAN 4" FROM A PANEL POINT, PROVIDE WEB STIFFENER ANGLES. WEB STIFFENERS MUST BE INSTALLED EACH SIDE OF JOIST FROM CONCENTRATED LOAD TO OPPOSITE CHORD PANEL POINT BEFORE LOAD IS APPLIED. SEE DETAIL BELOW:



- CONTRACTOR TO FURNISH BAR JOIST CERTIFICATIONS SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. THE SPECIALTY ENGINEER FOR THE STEEL JOIST SUPPLIER SHALL ALSO CERTIFY THAT THE STEEL JOIST BOTTOM CHORDS WILL SAFELY RESIST THE WIND UPLIFTS, CONSIDERING THE SPACING OF BRIDGING.
- PROVIDE UPLIFT BRIDGING PER TABULATED PRESSURES ON SHEET S500
- ALL ITEMS SUSPENDED FROM JOISTS (I.E. CATWALKS, BALCONIES, OPERABLE PARTITIONS, ETC.) SHALL BE INSTALLED AFTER DEAD LOAD HAS BEEN APPLIED.
- BOLTED TIE JOISTS (BTJ) ARE USED IN STEEL FRAMES WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS. JOIST(S) AT COLUMN LINES SHALL BE FIELD BOLTED AT THE COLUMNS WITH TWO 1/2" & BOLTS TO PROVIDE LATERAL STABILITY DURING CONSTRUCTION.
- STEEL JOISTS SHALL RECEIVE SHOP COAT OF PRIMER (COLOR AS DIRECTED BY ARCHITECT) EXCEPT THOSE AREAS WHICH WILL RECEIVE SPRAY-ON FIRE PROTECTION.
- ANY STEEL JOIST WITHIN A 4'-O" DISTANCE FROM A PARALLEL SUPPORT SHALL BE FABRICATED IN SUCH A WAY THAT CAMBER OF THE JOIST WILL NOT CAUSE A PROBLEM INSTALLING THE METAL DECK.
- IN THE EVENT THAT FIRE SPRINKLERS ARE REQUIRED FOR THIS PROJECT, THE STEEL FABRICATOR SHALL PROVIDE A DIMENSIONED JOIST BRIDGING AND JOIST GIRDER BOTTOM CHORD BRACE PLAN ALONG WITH DETAILS TO THE SPRINKLER CONTRACTOR. THE FABRICATOR AND SPRINKLER CONTRACTOR SHALL COORDINATE WITH EACH OTHER TO ENSURE THAT ANY CONFLICTS ARE RESOLVED BEFORE ANY FABRICATION BEGINS.

#### STEEL JOISTS CONT:

ALL PIPES MUST BE SUPPORTED AS SHOWN BELOW:



- PARTICULAR ATTENTION SHALL BE PAID TO THE ERECTION PROCESS BOLTED CONNECTIONS MAY BE REQUIRED. SUBMIT DETAILS FOR APPROVAL.
- THE JOIST MANUFACTURER MAY NOT INCREASE ALLOWABLE STRESSES.
- THE OPEN WEB STEEL JOISTS SHALL BE FABRICATED AND ERECTED IN FULL CONFORMANCE WITH THE "OSHA STEEL ERECTION STANDARD". IF THE CONSTRUCTION DRAWINGS DEVIATE FROM THE OSHA STANDARD THEN THE FABRICATOR SHALL PROVIDE SUBMITTALS THAT CLEARLY INDICATE THE DEVIATION WITH A REVISION CLOUD AND REQUEST APPROVAL FROM BBM TO MAKE THE CHANGE SO THAT CONFORMANCE WITH THE OSHA STANDARD IS ASSURED.
- THE SUPPORTS FOR SCISSOR, ARCHED CHORDS OR ANY OTHER SIMILAR TYPE JOIST, UNLESS NOTED OTHERWISE, SHALL BE DESIGNED WITH A PINNED CONNECTION AT ONE END AND A HORIZONTAL ROLLER AT THE OTHER END. THE SUPPORTING STRUCTURE, UNLESS NOTED OTHERWISE, HAS NOT BEEN DESIGNED FOR ANY GRAVITY LOAD HORIZONTAL FORCE DUE TO DEFLECTION. DO NOT DESIGN THESE TYPE OF JOISTS WITH PINNED SUPPORTS EACH END.
- K-SERIES STEEL JOISTS WITH SPANS 40'-0" AND LONGER SHALL BE ERECTED IN PANELS SO THAT BOLTED CONNECTIONS ARE NOT REQUIRED (EXCEPT AT THE COLUMN LINES). THE GC SHALL INSURE THAT ALL RELATED JOIST FRAMING COMPONENTS ARE COORDINATED TO MEET THIS REQUIREMENT.
- ALL ROOFS THAT EXCEED 1/4"/FT SLOPE SHALL HAVE THE JOIST BEARING SEATS SLOPED AS REQUIRED PER STEEL JOIST INSTITUTE.

ISSUE FOR PERMIT 05/22/2013



STRUCTURAL ENGINEERS

P. 561·750·1916

F. 561·750·1918

3998 FAU Boulevard

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- SSI A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER
- 552 FABRICATE AND ERECT STRUCTURAL STEEL IN CONFORMANCE WITH THE LATEST VERSION OF AISC 360 'SPECIFICATION OF STRUCTURAL STEEL BUILDINGS".
- 563 MATERIAL SPECIFICATIONS:
  - ALL STEEL SHALL BE PRODUCED DOMESTICALLY.
  - ROLLED SHAPES, PLATES AND BARS: ASTM A36, EXCEPT WIDE-FLANGE & WT SECTIONS, WHICH SHALL BE ASTM A992.
  - HOLLOW STRUCTURAL SECTION (HSS): ASTM A500, GRADE B.
  - ANCHOR BOLTS, RODS, NUTS AND WASHERS: PER BASE PLATE SCHEDULE.
  - HEADED STUDS: ASTM A108, GRADE 1015 THROUGH 1020, COLD-FINISHED CARBON STEEL, AWS DI.I, TYPE B.
  - BOLTED STRUCTURAL CONNECTIONS: UNLESS NOTED OTHERWISE, ALL BOLTS SHALL BE 3/4" ASTM A325, TYPE N. BOLTS INDICATED LESS THAN 5/8" P SHALL BE ASTM A3Ø7.
  - WELDED CONNECTIONS: ELECTRODES ETØXX UNO (LOW HYDROGEN). FILLET WELDS SHALL BE 3/16" UNO.
- SS4 HIGH-STRENGTH FIELD-BOLTED CONNECTIONS SHALL BE INSTALLED, TIGHTENED, TESTED AND INSPECTED ACCORDING TO "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC). ALL BOLTS IN STEEL TO STEEL CONNECTIONS SHALL BE BROUGHT TO A "SNUG-TIGHT" CONDITION, AS DEFINED IN THE SPECIFICATION. ALL BOLTS IN STEEL TO EMBED CONNECTIONS SHALL BE FINGER-TIGHT WITH PEENED THREADS. SLIP-CRITICAL (SC) BOLTS MUST BE FULLY TENSIONED PER SPECIFICATION.
- SS5 STANDARD NON-SLOPED AND NON-SKEWED SHEAR CONNECTIONS HAVE BEEN DESIGNED AND THE NECESSARY INFORMATION MAY BE FOUND IN THE SCHEDULES. THE ULTIMATE (I.E. FACTORED) REACTIONS HAVE BEEN PROVIDED AT EACH END OF EACH MEMBER SHOULD THE FABRICATOR WISH TO RE-ENGINEER THE CONNECTIONS TO THEIR PREFERENCES. SHOULD THE FABRICATOR WISH TO RE-ENGINEER THE CONNECTIONS, THEY MUST PROVIDE SUBMITTALS THAT HAVE BEEN PREPARED AND SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE SAME STATE AS THE PROJECT LOCATION.
- 556 NON-STANDARD SLOPED AND/OR SKEWED SHEAR CONNECTIONS SHALL BE DESIGNED & DETAILED BY THE FABRICATOR'S ENGINEER PROVIDE SIGNED & SEALED CONNECTION SUBMITTAL FOR REVIEW.
- ALL WIDE FLANGE ROOF MEMBERS SHALL BE CONNECTED TO THE SUPPORTING STRUCTURE AS DETAILED IN THE CONNECTION SCHEDULES ON SHEET S500. UNLESS SPECIFICALLY NOTED OTHERWISE ON PLAN.
- 568 BRACE AND MAINTAIN ALL STEEL IN ALIGNMENT UNTIL OTHER PARTS OF CONSTRUCTION NECESSARY FOR PERMANENT SUPPORT ARE COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TEMPORARY SHORING AS REQUIRED FOR THE STABILITY OF THE STEEL FRAME UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN COMPLETED AND BUILDING IS ENCLOSED.
- 559 ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF "THE STANDARD CODE FOR WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN WELDING SOCIETY.
- 5510 GROUT FOR COLUMN BASE PLATES AND PRESET BEARING PLATES SHALL BE NON-SHRINK, NON-METALLIC GROUT (5000 PSI MIN).
- SSII SUBMIT SHOP DRAWINGS INDICATING ALL SHOP AND ERECTION DETAILS INCLUDING PROFILES, SIZES, SPACING AND LOCATIONS OF STRUCTURAL MEMBERS, CONNECTION ATTACHMENTS, FASTENERS, LOADS AND TOLERANCES.
- SS12 ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 FOR MEMBERS AND ASTM A153 FOR CONNECTION ELEMENTS, EXCEPT THAT ALL ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) SHALL BE BLAST CLEANED AND COATED IN ACCORDANCE WITH THE STRUCTURAL STEEL AND PAINT SPECIFICATIONS.
- SSI3 STRUCTURAL STEEL SHALL RECEIVE A SHOP COAT OF PRIMER (COLOR AS DIRECTED BY ARCHITECT) EXCEPT THOSE AREAS WHICH WILL RECEIVE SPRAY-ON FIRE PROTECTION, OR WHERE HEADED STUDS ARE TO BE WELDED.
- 5514 PROVIDE ALLOWANCE FOR 300 FEET OF L3x3x1/4 AND LABOR TO INSTALL SAME AT ARCHITECT OR ENGINEER'S DIRECTION, CREDIT OWNER WITH ALL MATERIAL AND LABOR NOT USED.
- 5615 STEEL BEAMS SHALL BE CAMBERED AS INDICATED ON THE FRAMING PLAN(S). IF NO CAMBER IS SPECIFIED, THE FABRICATOR SHALL ENSURE THAT THE "NATURAL" CAMBER IN ALL ERECTED BEAMS OCCURS IN AN UPWARD DIRECTION.
- 5616 ALL STEEL BEAMS THAT ARE PARALLEL TO BAR JOISTS SHALL BE CAMBERED TO MATCH THE JOIST CAMBER AND THE TOP OF THE BEAM SHALL MATCH THE TOP OF THE JOIST, TYP UNO.
- SSIT THE STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN FULL CONFORMANCE WITH THE "OSHA STEEL ERECTION STANDARD". IF THE CONSTRUCTION DRAWINGS DEVIATE FROM THE OSHA STANDARD THEN THE FABRICATOR SHALL PROVIDE SUBMITTALS THAT CLEARLY INDICATE THE DEVIATION WITH A REVISION CLOUD AND REQUEST APPROVAL FROM BBM TO MAKE THE CHANGE SO THAT CONFORMANCE WITH THE OSHA STANDARD IS ASSURED.
- SSIS STEEL PAN STAIRS SHALL BE DESIGNED BY THE FABRICATOR AND SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE SAME STATE AS PROJECT LOCATION. DESIGN FOR 100 PSF LIVE

#### SPECIALTY ENGINEERING REQUIREMENTS

- STEEL PAN STAIRS SHALL BE DESIGNED BY THE FABRICATOR'S SPECIALTY ENGINEER AND SHALL INCLUDE STRINGERS, TREADS, HAND RAILINGS, PLATFORMS (AS REQUIRED), PAN INSERTS AND MISCELLANEOUS SUPPORTS AND CONNECTIONS. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. MINIMUM DESIGN LIVE LOAD SHALL BE 100 PSF.
- GUARDRAILS, HANDRAILS, POSTS AND SUPPORT CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR'S SPECIALTY ENGINEER. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. DUE CONSIDERATION SHALL BE GIVEN TO EXPANSION & CONTRACTION BY PROVIDING SLIP JOINTS AS REQUIRED. DESIGN LOADING(S) SHALL CONFORM TO ALL REQUIREMENTS OF THE BUILDING CODE (SEE DESIGN CRITERIA FOR THE APPLICABLE BUILDING
- SPECIALTY ENGINEER AND SHALL INCLUDE FRAME, GLAZING AND CONNECTIONS. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. DESIGN LOADING(S) SHALL CONFORM TO ALL REQUIREMENTS OF THE BUILDING CODE (SEE DESIGN CRITERIA FOR APPLICABLE BUILDING CODE). THE VENDOR SHALL PROVIDE WINDOW WALL REACTIONS TO THE ARCHITECT
- ALUMINUM AUNINGS, SHALL BE DESIGNED BY THE FABRICATOR'S SPECIALTY ENGINEER AND SHALL INCLUDE FRAME, COVERING AND CONNECTIONS, SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER IN THE SAME STATE AS THE PROJECT LOCATION. (UNLESS PRODUCT INSTALLED PER APPLICABLE N.O.A.) DESIGN LOADING(S) SHALL CONFORM TO ALL REQUIREMENTS OF THE BUILDING CODE. (SEE DESIGN CRITERIA FOR THE APPLICABLE BUILDING CODE)...

#### TILT-UP PANELS

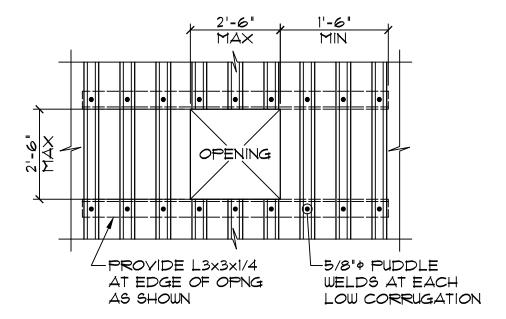
- TUP! ALL PANELS ARE VIEWED FROM THE INSIDE
- TUP2 PANEL THICKNESS SHALL BE AS INDICATED ON PLANS. SPECIAL ATTENTION MUST BE GIVEN THE LOCATION AND PLACEMENT OF THE REINFORCING.
- TUP3 REFER TO THE ARCHITECTURAL DRAWINGS FOR FINISH REQUIREMENTS, CHAMFERS, ETC.
- TUP4 PANELS SHALL NOT BE LIFTED UNTIL CONCRETE HAS ATTAINED THE MINIMUM MODULUS OF RUPTURE AND COMPRESSIVE STRENGTH AS REQUIRED BY LIFTING ENGINEER.
- TUP5 THE CONTRACTOR SHALL HIRE A SPECIALTY ENGINEER TO PROVIDE DESIGN OF ALL ASPECTS OF THE LIFTING, BRACING AND TEMPORARY ERECTION STAGES FOR TILT-UP PANELS, THE ENGINEERING SHALL INCLUDE LIFTING INSERTS, BRACING DESIGN, BRACE CONNECTIONS, VERIFICATION OF ADJOINING SURFACES WHICH BRACES ATTACH, TEMPORARY CONNECTIONS AT THE BASE OF PANEL WHILE PANEL I TEMPORARILY BRACED & ANY ADDITIONAL REINFORCING STEEL REQUIRED FOR LIFTING OR BRACING OPERATION. PROVIDE SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE SAME STATE AS PROJECT LOCATION. HOWEVER, NO ADDITIONAL REINFORCING SHALL BE ADDED WITHOUT THE EXPRESSED APPROVAL OF THE ENGINEER. THE DESIGNERS OF THE LIFTING INSERTS MUST CONSIDER THE REINFORCING ALREADY PRESENT IN THE PANELS AS INDICATED IN THIS SET OF CONSTRUCTION DRAWINGS. IN NO INSTANCE DOES ENGINEER OF RECORD IMPLY OR ACCEPT ANY RESPONSIBILITY FOR ANY MEANS, METHODS OR ADDITIONAL REQUIREMENTS AS RELATED TO TECHNIQUE, OR SAFETY OF THE PANEL LIFTING OPERATION.
- TUP6 THE CONTRACTOR SHALL PROVIDE PANEL SHOP DRAWINGS THAT ACCURATELY SHOW THE LOCATION OF ALL EMBEDDED ITEMS, (I.E. PLATES, ANGLES, ETC.) THE LOCATION OF ALL OPENINGS AND THE CORRESPONDING DIMENSIONS, NO PANEL WORK SHALL BE PERFORMED WITHOUT APPROVED SHOP DRAWINGS.
- TUPT MISCELLANEOUS OPENINGS MAY BE REQUIRED FOR FIRE LINES, PLUMBING, SANITARY LINES, ELECTRICAL CONDUITS, ETC. CORE DRILLING AFTER ERECTION OF THE PANELS MUST HAVE THE APPROVAL OF THE ARCHITECT AND ENGINEER PRIOR TO PERFORMANCE OF THE WORK.
- TUPS THE REINFORCING STEEL SUPPLIER SHALL PROVIDE SHOP DRAWINGS INDICATING ALL THE NECESSARY INFORMATION REQUIRED TO ACCURATELY POSITION THE REBAR AS INDICATED, INCLUDING ANY ADDITIONAL REINFORCING AS REQUIRED BY SPECIALTY LIFTING/BRACING ENGINEERING AS NOTED IN TUP5 ABOVE. ENSURE CHAIRS. BOLSTERS OR OTHER MEANS OF SUPPORTING REBARS ARE PROVIDED AND ACCURATELY DETAILED. ALL REINFORCING BARS SHALL HAVE 48 BAR DIAMETER LAP.
- TUP9 ALL REINFORCING STEEL AND EMBEDDED ITEMS SHALL BE ACCURATELY POSITIONED AND ADEQUATELY SECURED PRIOR TO PLACEMENT OF CONCRETE. DO NOT WET-SET ITEMS AS THE CONCRETE IS PLACED.
- TUPIØ THE TILT-UP CONTRACTOR/SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE TEMPORARY PANEL BRACING AND THE SAFETY OF THE WORKERS DURING BRACING INSTALLATION AND REMOVAL BRACING REMOVAL SHALL ONLY OCCUR AFTER ALL STRUCTURAL MEMBERS ARE INSTALLED, FULLY SECURED AND INSPECTED.

#### STEEL ROOF DECK

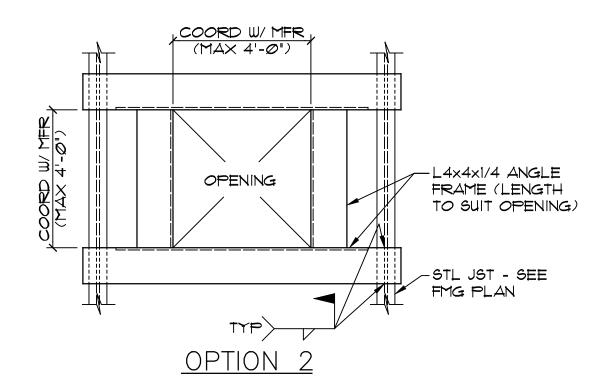
- SEE ROOF FRAMING PLAN(S) FOR STEEL DECK ATTACHMENT TO STRUCTURE.
- STEEL ROOF DECK UNITS SHALL BE FABRICATED FROM STEEL CONFORMING TO SECTION A3 OF THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE, SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS. THE STEEL USED SHALL HAVE A MINIMUM YIELD STRENGTH OF 80 KSI.
- ALL FIELD WELDING OF DECK SHALL BE IN STRICT CONFORMANCE WITH ANSI/AWSD1.3 STRUCTURAL WELDING CODE.
- GALYANIZING SHALL CONFORM TO ASTM-A653, STRUCTURAL QUALITY AND FEDERAL SPEC. QQ-5-175.
- SEE CHART BELOW FOR MINIMUM SECTION PROPERTIES REQUIRED FOR STEEL DECK. PROPERTIES SHOWN ARE REPRODUCED FROM THE YULCRAFT MANUAL.

ROOF DECK					
DECK PE PE	DESIGN THICK	Ip in <sup>4</sup> /ft	Sp in³/ft	In in <sup>4</sup> /ft	Sn in <sup>3</sup> /ft
B22	0.0295	Ø.155	Ø.186	Ø.183	Ø.192
B2Ø	Ø.Ø358	<i>Ø.</i> 2 <i>Ø</i> 1	<i>Ø.</i> 234	Ø.222	Ø.24T
Bis	Ø.Ø474	Ø.289	Ø.318	Ø.295	Ø.327
F22	Ø.Ø295	Ø.113	Ø.112	Ø.129	Ø.121
F2Ø	Ø.Ø358	Ø.145	Ø.139	Ø.15T	Ø.148
Fis	Ø.Ø474	0.206	Ø.19Ø	0.208	Ø.195
A22	0.0295	Ø.1Ø4	Ø.Ø98	Ø.12Ø	0.106
A2Ø	Ø.Ø358	Ø.134	Ø.122	Ø.145	Ø.13Ø
Als	Ø.Ø474	Ø.19Ø	0.167	Ø.193	Ø.1 <b>7</b> 2
N22	0.0295	0.659	Ø.382	Ø.884	Ø.433
N2Ø	Ø.Ø358	Ø.848	Ø.5Ø1	1.Ø79	Ø.552
218	Ø.Ø474	1.238	0.688	1.43Ø	Ø.749
E24	0.0239	Ø.Ø57	0.098	0.059	Ø.1Ø3
<b>E</b> 22	0.0295	Ø.ØT3	Ø.13Ø	Ø.Ø73	Ø.134
E2Ø	0.0358	Ø.Ø88	Ø.16T	0.088	Ø.165

SEE PARTIAL PLAN BELOW FOR METAL DECK OPENING FRAMING:



#### OPTION



- A. FOR OPENINGS WITH A MAXIMUM DIMENSION OF 6" TO 1'-0", REINFORCE OPENING WITH A 200a GALY FLAT PLATE 1'-0" LARGER THẨN THE OPENING. ATTACH WITH I' WELDS AT EACH RIB ALL AROUND.
- B. FOR OPENINGS WITH A MAX DIMENSION OF 1'-0" TO 2'-6", SEE DETAIL OPTION 1 ABOVE
- C. FOR OPENINGS WITH A MAX DIMENSION OF 4'-0", SEE DETAIL OPTION 2 ABOVE.
- NO ITEMS SHALL BE HUNG DIRECTLY FROM THE ROOF DECK UNLESS INDICATED OTHERWISE IN THE DRAWINGS.

#### MECHANICAL FASTENERS

- MFI EXPANSION ANCHORS SHALL BE "POWER-STUD" BY RAWL, "TRUBOLT BY ITW RAMSET/REDHEAD OR "KWIK BOLT" BY HILTI OR ENGINEER-APPROVED EQUAL
- ADHESIVE ANCHORS SHALL BE THE HILTI HIT-RE 500 ADHESIVE ANCHORING SYSTEM OR STRUCTURAL ENGINEER APPROVED ALTERNATE PRODUCT CONSIDERING SUITABILITY, LOAD RESISTANCE IN-SERVICE AND INSTALLATION TEMPERATURE, AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS AND CREEP. AT THE ONSET OF EACH APPLICATION, A MANUFACTURER'S REPRESENTATIVE MUST BE PRESENT TO WITNESS AT LEAST FIVE COMPLETE INSTALLATIONS. INSTALLERS MUST BE TRAINED BY THE MANUFACTURER. EACH CERTIFIED INSTALLER WILL BE ISSUED A CERTIFICATION CARD TO VERIFY THEIR TRAINING AND SHALL BE REQUIRED TO CARRY THEIR CERTIFICATION CARD ON THEIR PERSON. CERTIFIED INSTALLERS SHALL PROVIDE WRITTEN DOCUMENTATION THAT ALL ANCHORS HAVE BEEN INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS.
- MF3 MASONRY SCREWS SHALL BE "TAPPERS" BY RAWL, "TAPCON" BY ITW RAMSET/REDHEAD OR "KWIK-CON" BY HILTI OR ENGINEER-APPROVED
- MF4 POWDER-ACTUATED FASTENERS (PAF) SHALL BE BY ITW RAMSET/ REDHEAD, HILTI OR ENGINEER-APPROVED EQUAL
- MF5 REFER TO LIGHT-GAGE FRAMING NOTES (IF APPLICABLE) FOR ADDITIONAL INFORMATION.
- MF6 CARBON-STEEL EXPANSION ANCHORS SHALL HAVE A ONE-PIECE ANCHOR BODY WITH A LENGTH IDENTIFICATION CODE. THE ANCHORS SHALL HAVE AN EXPANSION MECHANISM WHICH CONSISTS OF A PAIR OF INTERLOCKING INDEPENDENT WEDGES. CARBON STEEL COMPONENTS SHALL BE PLATED ACCORDING TO ASTM SPECIFICATION B 6.33. EXPANSION ANCHORS MUST MEET THE DESCRIPTION IN FEDERAL SPECIFICATION FF-8-325 FOR CONCRETE EXPANSION
- MFT ALL FASTENERS SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. REFER TO LIGHT GAGE METAL FRAMING NOTES (IF APPLICABLE) FOR ADDITIONAL INFORMATION.

#### PLYWOOD ROOF DECKING:

- PLYWOOD USED AS ROOF DECKING OVER WOOD TRUSSES TO BE 19/32" CDX STRUCTURAL, 40/20 SPAN RATED.
- ATTACH PLYWOOD TO SUPPORTING MEMBERS WITH 10d COMMON NAILS AS FOLLOWS #10 STPH SCREWS 4"o.c. @ edges 6"o.c. IN FIELD

#### LIGHTGAGE METAL FRAMING

- A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.
- CONNECT STEEL STUDS AND TRACKS TO A36 STEEL OR CONCRETE WITH (2) POWDER ACTUATED FASTENERS (PAF) AT EACH STUD AND CONNECT STEEL STUDS AND TRACKS TO EACH OTHER WITH (2) #8-18 SCREWS AT EACH STUD (TYPICAL UNLESS NOTED OTHERWISE). SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND EXTENTS OF STEEL STUD WORK.

NOTE: "POWDER ACTUATED FASTENER (PAF)" REFERS TO 0.145+ SHANK DOMED-HEAD, LOW-VELOCITY POWDER ACTUATED FASTENERS AS MANUFACTURED BY POWERS RAWL OR APPROVED EQUAL WITH MINIMUM CAPACITIES AS FOLLOWS:

IN 3000 PSI

1 1/2" PENETRATION = 185# PULLOUT & 225# SHEAR CONCRETE: IN A36 STEEL: 1/4" MATERIAL = 430# PULLOUT & 660# SHEAR (PIN MUST FULLY PENETRATE THE MATERIAL BY

STEEL STUDS SHALL MEET FOLLOWING DESIGN CRITERIA: GALY G-60 ASTM A525, MINIMUM YIELD STRESS SHALL BE 50,000 PSI FOR 12ga, 14ga, 16ga AND 33,000 PSI FOR 18ga \$ 20ga.

1/4" MINIMUM)

STUD SIZE	EFFECTIVE MINIMUM I	EFFECTIVE MINIMUM S
6"x18 GA	2.2675	.T328

EXTERIOR SHEATHING: ATTACH 5/8" EXT PLYWOOD SHEATHING TO EXTERIOR OF EACH STUD WITH 1" TYPE(S) S-12 COATED SCREWS SPACED 4"o.c. AT EDGES AND 6"o.c. IN FIELD

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## FOUNDATION PLAN NOTES:

- 1. FLOOR SLAB SHALL BE 6" THICK CONCRETE REINF WITH 6x6-W2.9xW2.9 WWF OVER 10 MIL (MIN) VAPOR BARRIER (ASTM E 1745) ON COMPACTED SUBGRADE. SEE "SLAB-ON-GRADE DETAILS" ON SHEET S200 FOR PLACEMENT OF REINF.
- 2. T/ SLAB EL = Ø'-Ø" (TYP, UNO). REFERENCE ONLY SEE CIVIL DWGS FOR ACTUAL ELEVATION.
- 3. T/ WALL FTG EL = (VARIES) SEE PLAN
- 4. T/ COL FTG EL = 0'-0" (TYP, UNO).
- 5. SEE SHEET S601 FOR TILT-UP PANEL THICKNESSES. PANEL DESIGN INCLUDES UP TO A 3/4" DEEP REVEAL ALLOWANCE, TYP.
- 6. ALL TILT-UP PANELS ARE VIEWED FROM THE INSIDE OF THE BUILDING.
- 7. STEP AND/OR LOWER FOUNDATIONS WHERE SHOWN AND AS NECESSARY TO AVOID INTERFERENCE WITH OTHER TRADES. SEE CONCRETE GENERAL NOTES FOR DETAILS AND SECTIONS. PARTICULAR ATTENTION SHALL BE PAID TO DOWNSPOUTS ENSURING THAT PROPER ACTIONS HAVE BEEN TAKEN TO PREVENT PIPES FROM CONFLICTING WITH THE FOUNDATION SYSTEM.
- 8. ALL FTGS ARE CENTERED BENEATH THE BEARING WALLS AND COLUMNS (TYP, UNO).
- 9. SEE SHEET 5600 FOR PANEL REINF, EMBEDDED ITEMS AND JOINT DETAILS.
- 13. SEE SHEETS SOO1-SOO3 FOR STRUCTURAL GENERAL NOTES.
- 14. MAINTAIN STRUCTURAL SLAB THICKNESS AT ALL FLOOR SLOPES AND DEPRESSIONS.
- 15. THE CONTRACTOR SHALL COORDINATE ALL UNDERGROUND UTILITIES, PIPES, ETC... WITH THE FOUNDATION PLAN AND FOUNDATION ELEVATIONS. FOOTING PENETRATION DETAILS MAY BE FOUND IN THE CONCRETE AND REINFORCING SECTION OF THE STRUCTURAL GENERAL NOTES.

#### FOUNDATION PLAN KEY NOTES:

- (2) #4x4'-0" LONG @ 3" OC PLACED 2" CLR FROM CORNER, CENTERED IN SLAB (TYP WHERE SHOWN).
- DENOTES EXIST'G O.H. DOOR OPEN'G TO BE INFILLED W/
- DENOTES EXIST'G MANDOOR OPEN'G TO BE INFILLED W/ 8" CMU BLOCK REINF W/ #5@24"o.c. (MAX)

-3/4" CHAMFER AT ALL EXPOSED EDGES

-BUTYL ROD

BACKING \$

DO NOT WET SET DOWELS IN PANELS.

TIE IN PLACE SO THEY ARE I' CLEAR

3. SEE ARCH'L DWGS FOR BOLLARDS AND

GATE DETAILS.

FROM THE OUTSIDE FACE OF PANEL. 2. (PANEL THICKNESS + 3") WIDE  $\times$  3" DEEP CONT KEY WITH I" SHIM SPACE AT BOT OF PNL. GROUT SOLID FULL LENGTH OF WALL.

SEALANT \_\_\_

-TILT-UP PNL

EQ ,

1" CLR HOLD

-6×6-W2.9×W2.9 WWF

-#4 @ 12" OC (HORIZ)

-1/2" WIDE x 1" DEEP SEALANT

#### ROOF FRAMING PLAN NOTES:

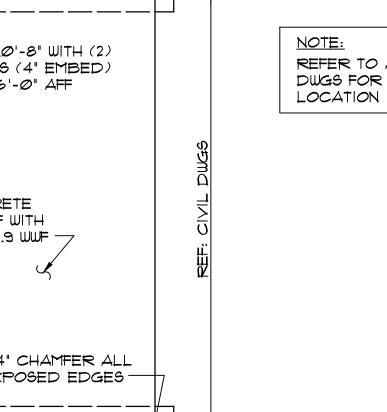
- RIGID INSULATION ROOFING ON 1 1/2 "X18ga, TYPE "B" GALY G90 METAL DECK SECURED WITH 5/8" PUDDLE WELDS AT SUPPORTS AND #10 TEK SCREWS AT SIDELAPS ON OPEN WEB BAR JOISTS AND/OR STRUCTURAL STEEL MEMBERS. PROVIDE A 36/7 PATTERN AT SUPPORTS WITH SPACING AT EXTREME SIDES OF 6"O.C. (5) SCREWS PER SPAN SHALL BE PROVIDED AT SIDELAPS.
- SEE STRUCTURAL GENERAL NOTES FOR BRIDGING REQUIREMENTS FOR OPEN-WEB STEEL JOISTS.
- 3. JOISTS DESIGNATED "KCS" (K-SERIES CONSTANT SHEAR PER "YULCRAFT" TABLES) SHALL BE UTILIZED (IF REQ'D) AT CONCENTRATED LOADS (SEE FRAMING PLAN).
- 4. SEE FRAMING PLAN FOR JOIST BEARING ELEVATIONS.
- REF: ARCH'L DWGS FOR INTERIOR DRAINS, SCUPPERS, CRICKETS AND SCUTTLES.
- 6. "BTJ" INDICATES BOLTED TIE JOIST PER OSHA REQUIREMENTS (TYP). SEE GENERAL NOTE SJ12 FOR ADDITIONAL INFORMATION.
- 7. COORDINATE SIZE AND LOCATION OF ROOFTOP UNITS
- WITH MECHANICAL DWGS. BEAM END REACTIONS AS SHOWN ON PLAN ARE
- ULTIMATE REACTIONS (ALREADY FACTORED). ALL ROOF DRAINS (WHERE REQUIRED) SHALL BE SUPPORTED BY A L3x3x1/4 ANGLE FRAME, TYP.
- 10. ALL WIDE FLANGE MEMBERS SHALL BE CONNECTED TO THE SUPPORTING STRUCTURE AS DETAILED IN THE CONNECTION SCHEDULES ON SHEET S500. UNLESS SPECIFICALLY NOTED OTHERWISE ON PLAN, ALL ROOF MEMBERS SHALL BE CONNECTED AS DETAILED IN THE SINGLE SHEAR SCHEDULES 1/8500 AND 2/8500.

ROOF DESI	GN LOADS	
DEAD (PSF)	LIVE (PSF)	
2Ø	3Ø	
5 (*)		

(\*) COOLER CEILING ALLOWANCE

#### ROOF FRAMING PLAN KEY NOTES:

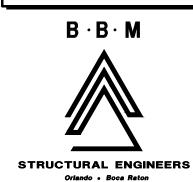
- CONT L 3x3x1/4
- CONT L 5x3x1/4 (LLH)
- CONT L 6x4x1/4 (LLV)



REFER TO ARCH'L/CIVIL DWGS FOR DUMPSTER

-GALY L4x4x3/8xØ'-8" WITH (2) 3/4" PEXP BOLTS (4" EMBED) @ 2'-Ø", 4'-Ø" \$ 6'-Ø" AFF  $\angle$  6" CONCRETE SLAB REINF WITH 6×6-W2.9×W2.9 WWF 3/4" CHAMFER ALL EXPOSED EDGES -

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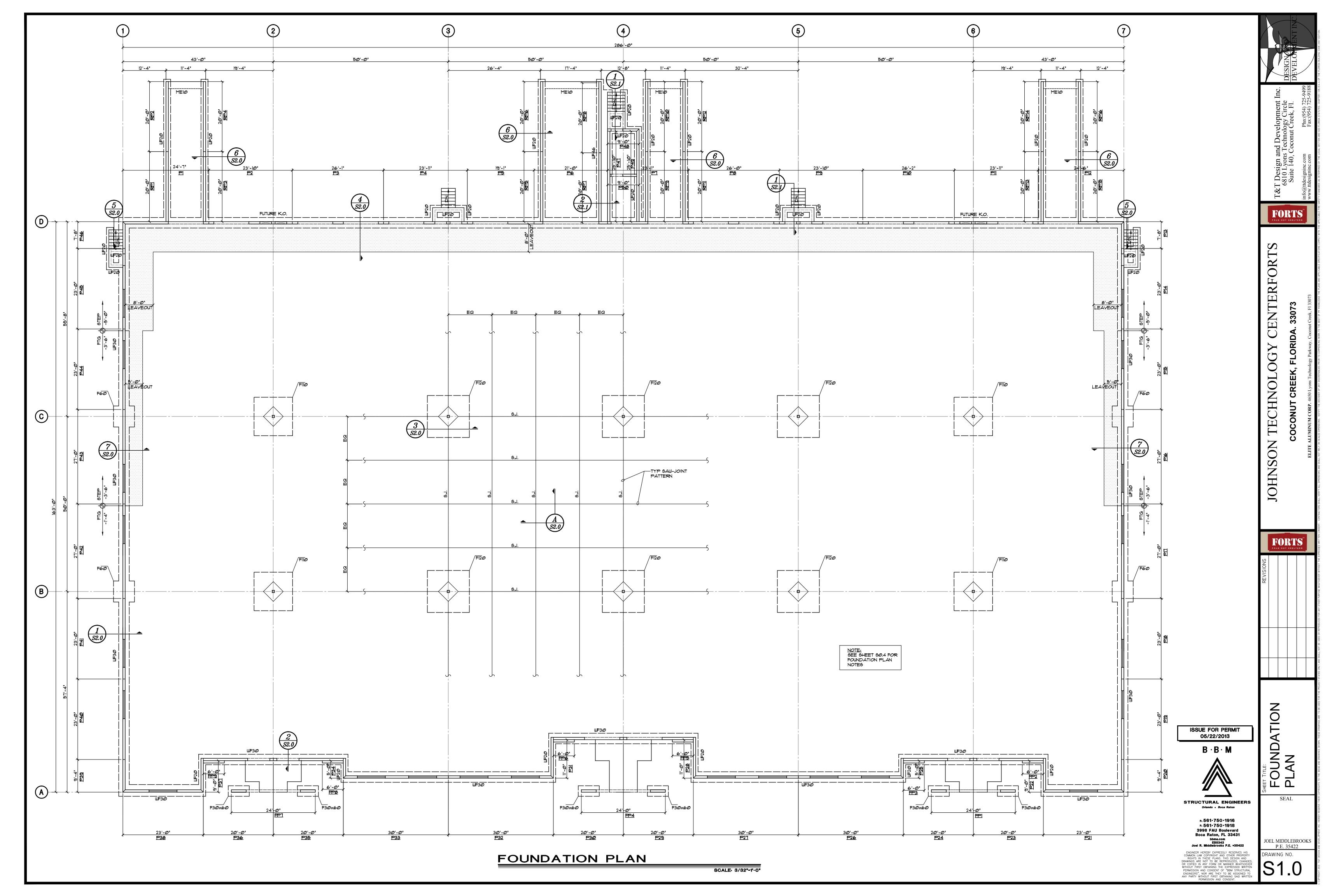
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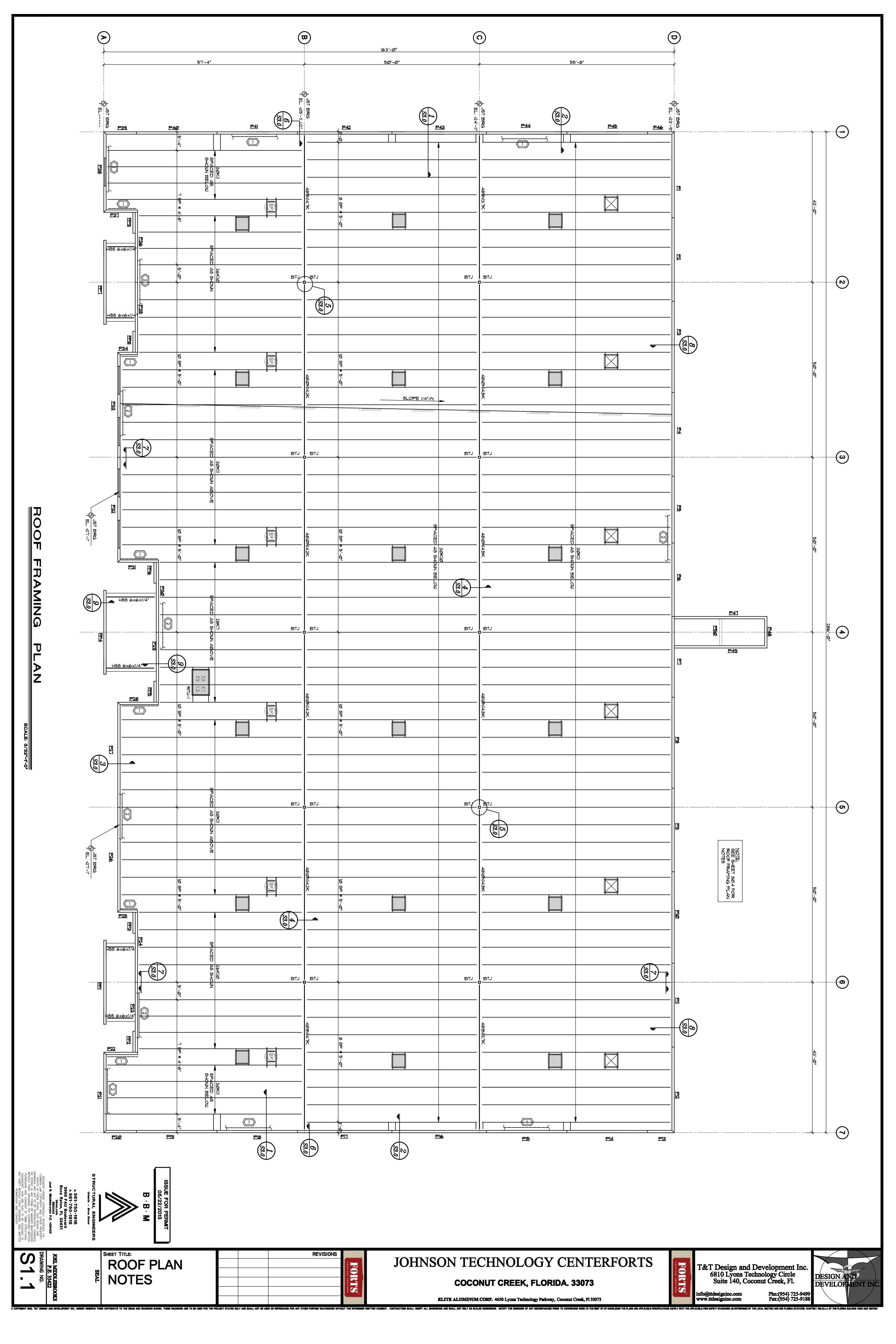
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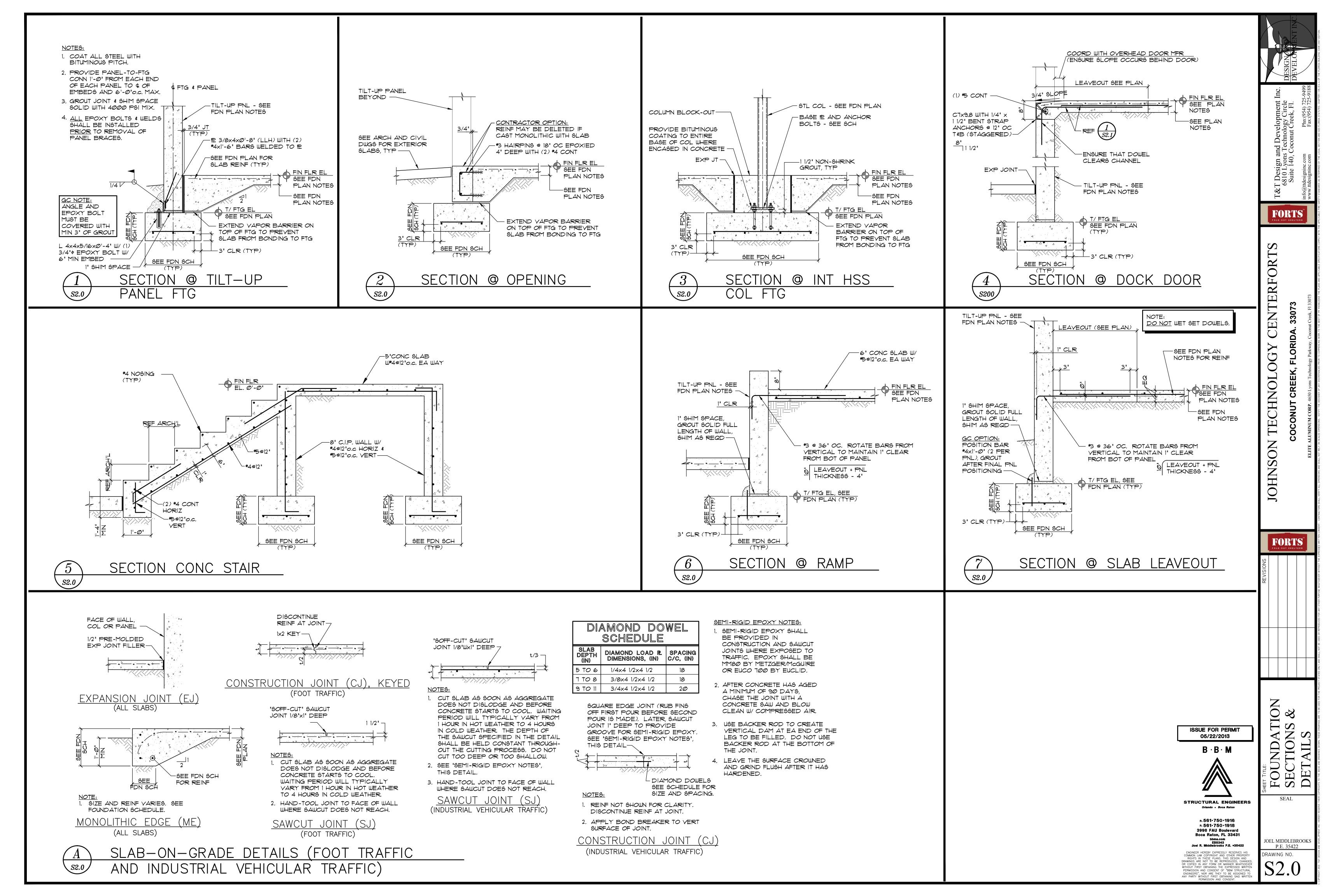
SECTION @ DUMPSTER WALL S0.4

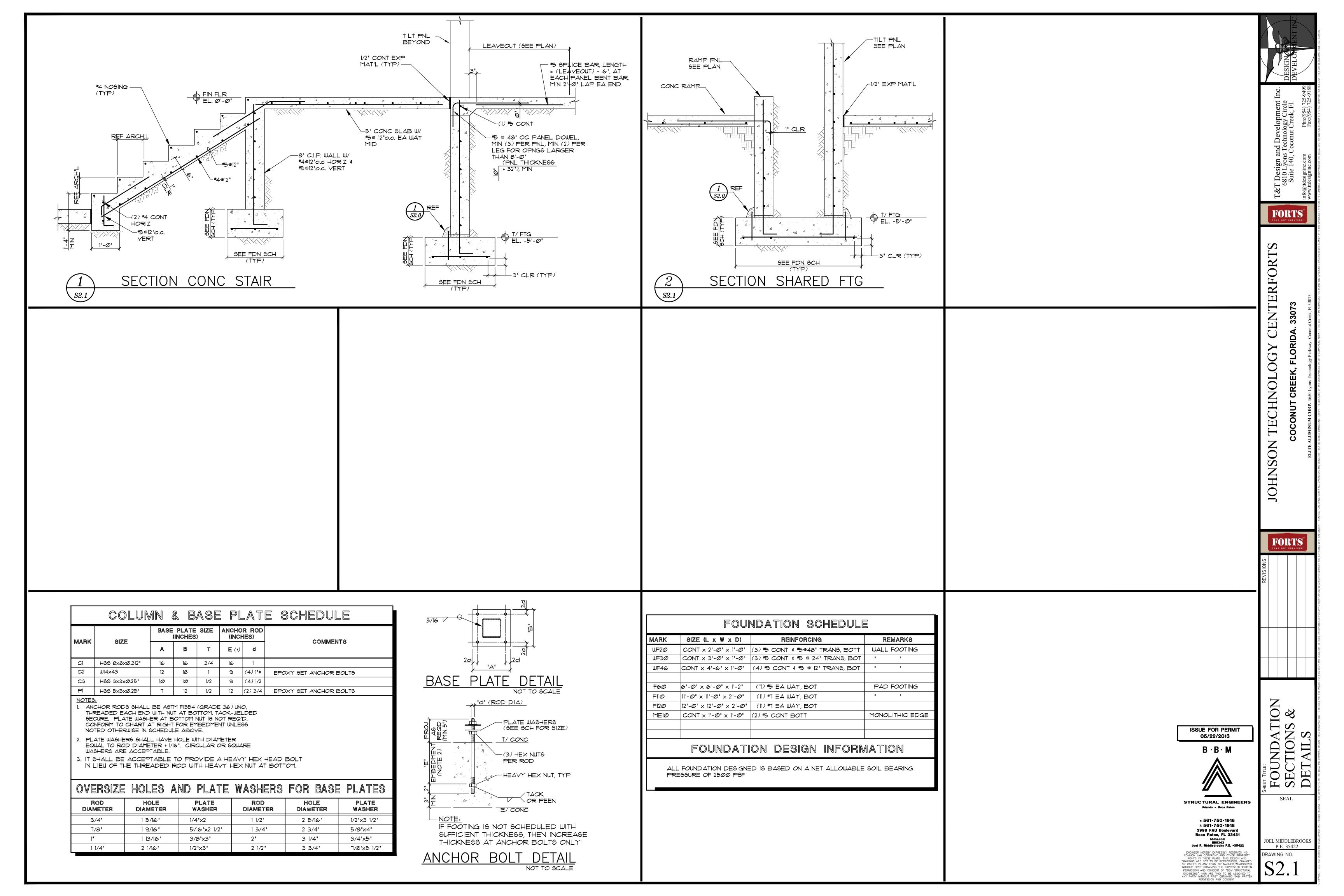
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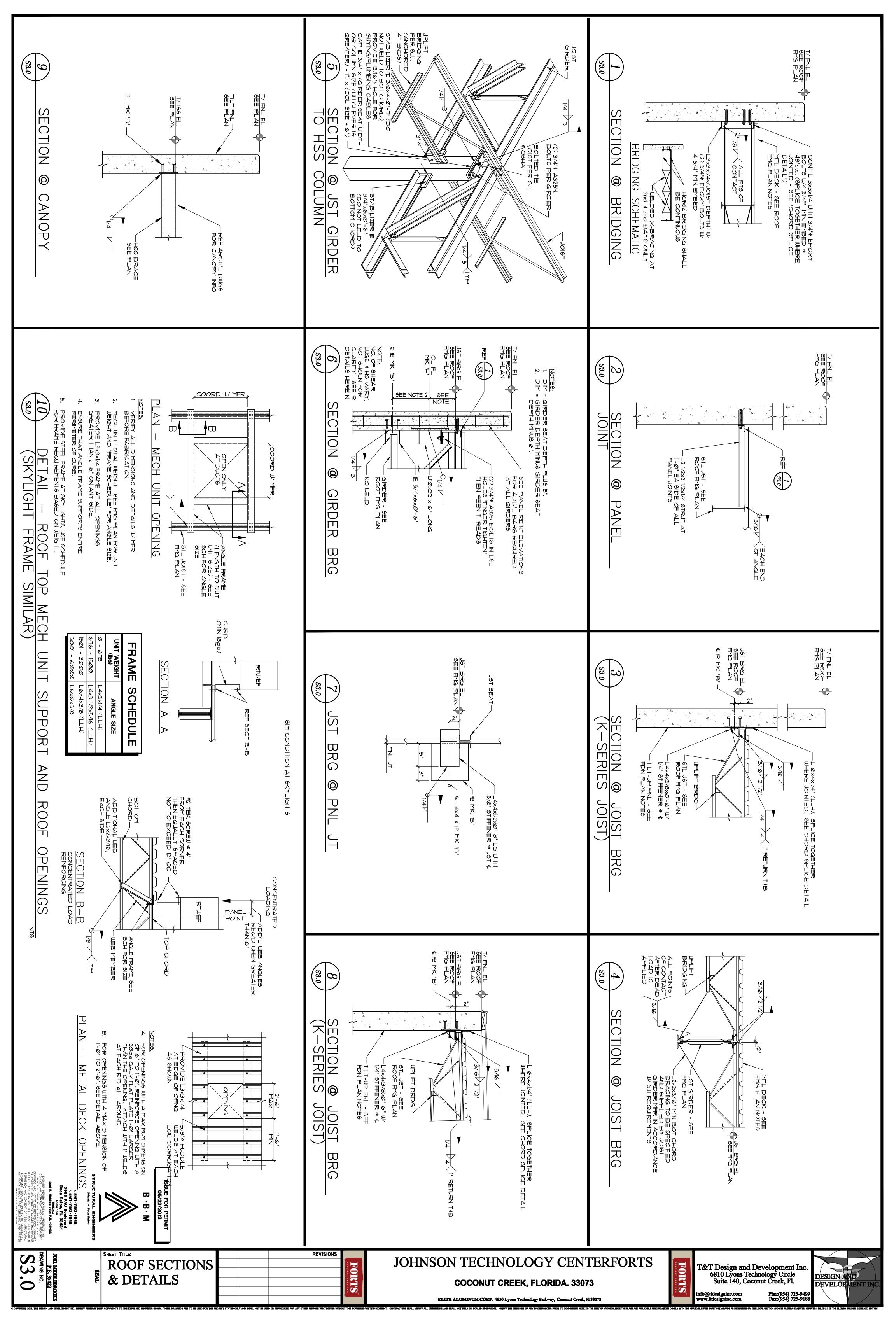
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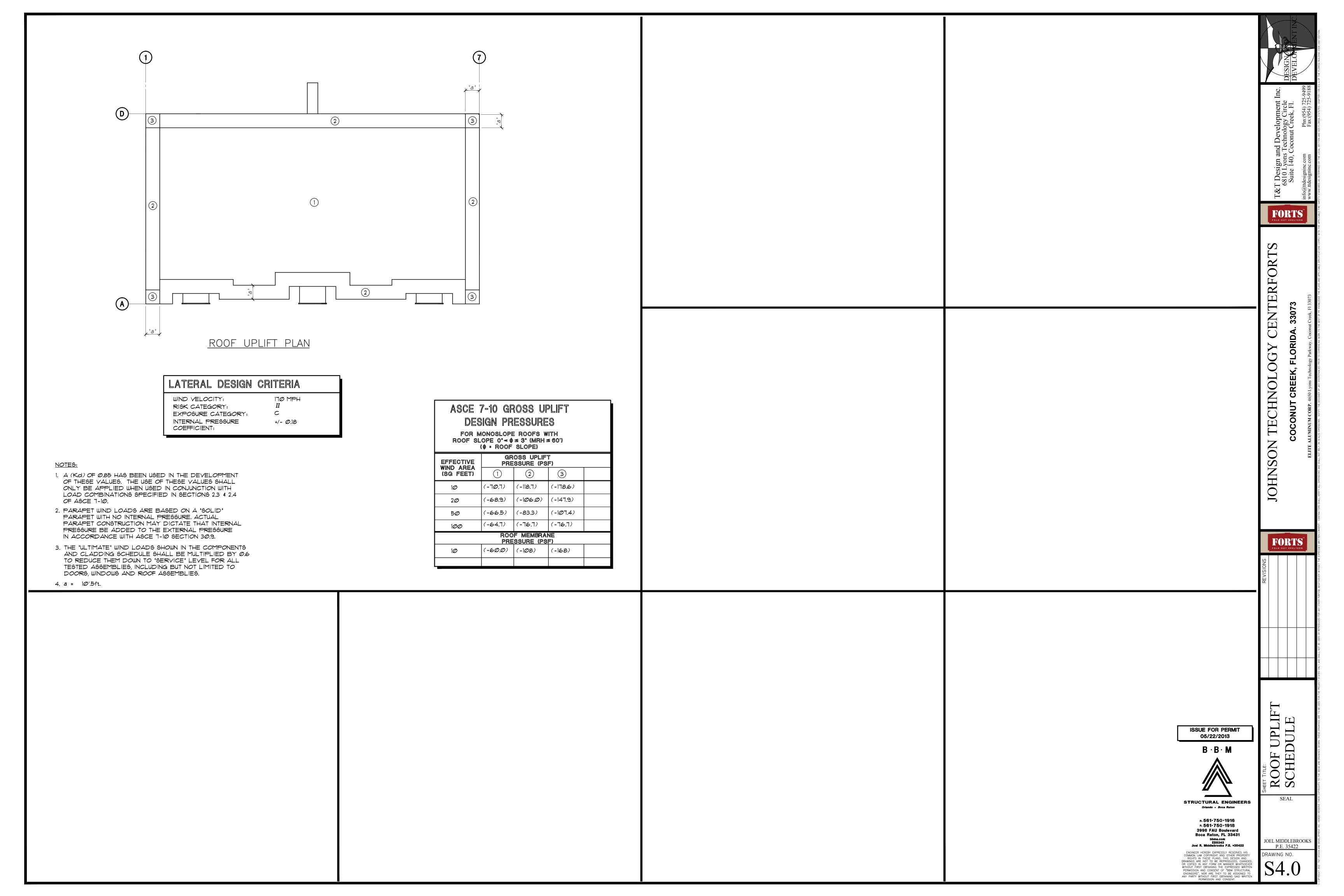












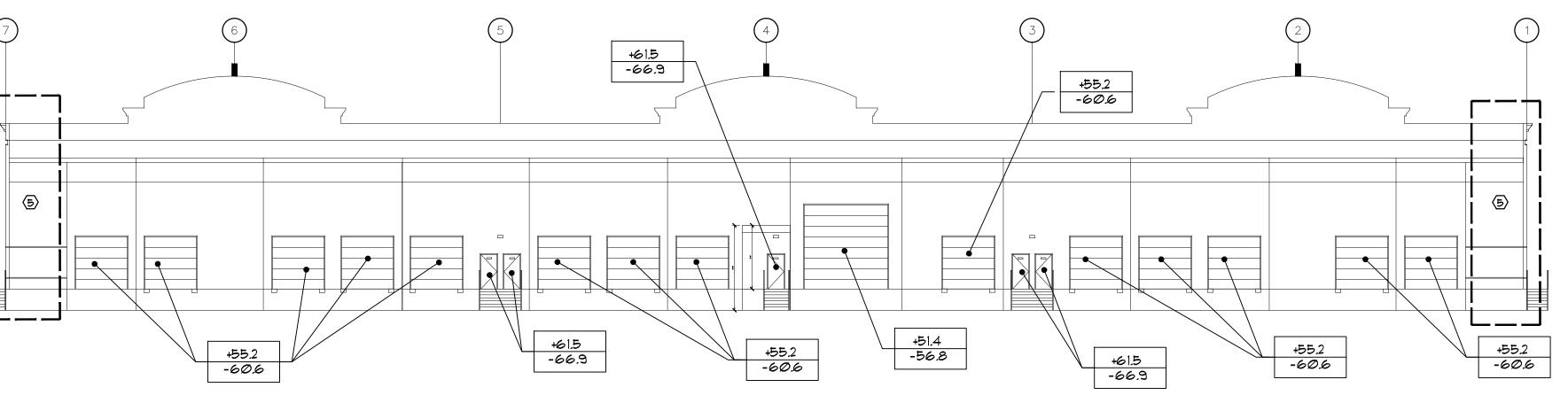
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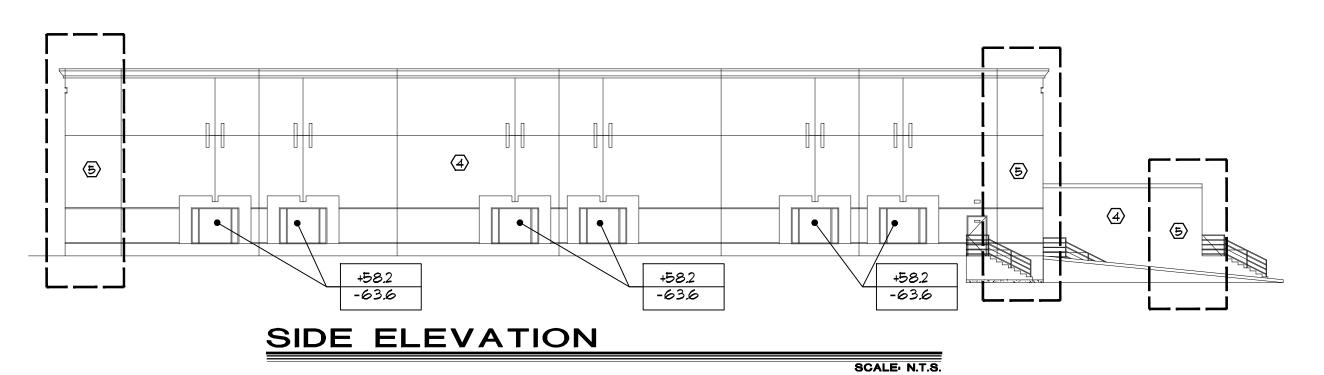
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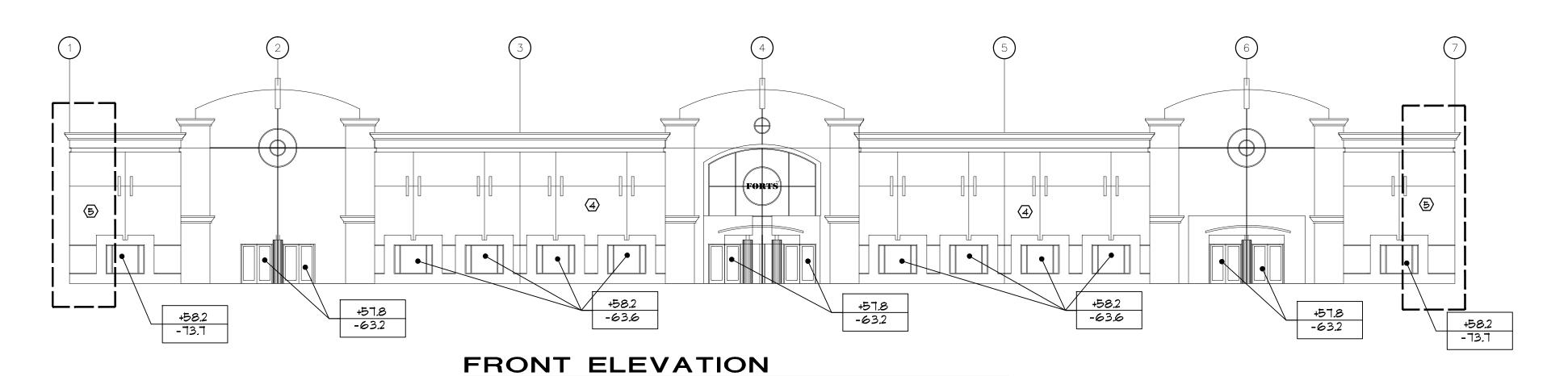


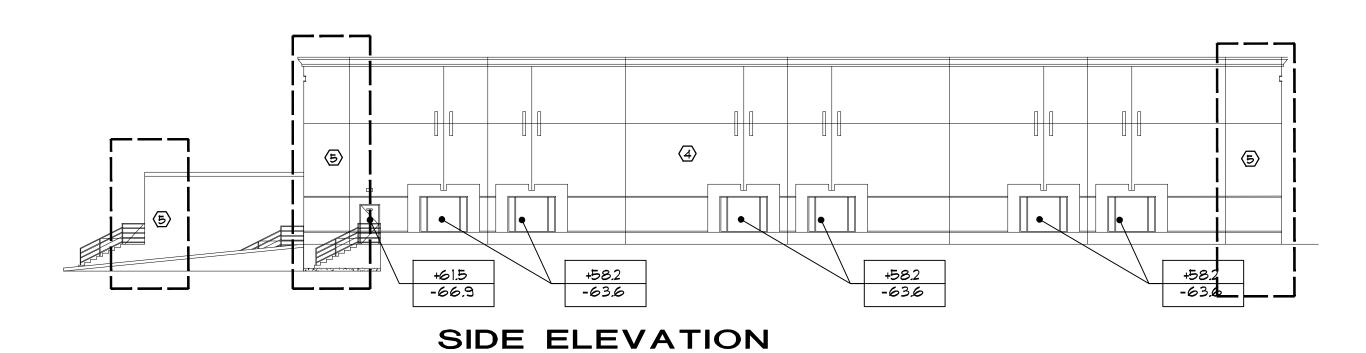
## REAR ELEVATION

SCALE: N.T.S.

SCALE: N.T.S.







## LATERAL DESIGN CRITERIA

WIND YELOCITY: RISK CATEGORY EXPOSURE CATEGORY: C

ASCE 7-10

INTERNAL PRESSURE COEFFICIENT: +/- Ø.18 THIS STRUCTURE HAS BEEN DESIGNED AS

AN ENCLOSED STRUCTURE AS DEFINED BY

# WIND PRESSURES & SUCTIONS

NOTES:

1. A (Kd) OF Ø.85 HAS BEEN USED IN THE

DEVELOPMENT OF THESE VALUES. THE USE OF THESE VALUES SHALL ONLY BE

WITH LOAD COMBINATIONS SPECIFIED IN

SHALL BE THE SAME AS CORRESPONDING

3. IF THE STRUCTURE IS AN EHPA OR IS INSURED

4. THE "ULTIMATE" WIND LOADS SHOWN IN THE COMPONENTS AND CLADDING SCHEDULE SHALL BE MULTIPLIED BY 0.6 TO REDUCE THEM DOWN TO "SERVICE" LEVEL FOR ALL TESTED ASSEMBLIES, INCLUDING BUT NOT

LIMITED TO DOORS, WINDOWS AND ROOF

5 PARAPET WIND LOADS ARE BASED ON

CONSTRUCTION MAY DICTATE THAT

PRESSURE. ACTUAL PARAPET

WITH ASCE 7-10 SECTION 30.9.

A "SOLID" PARAPET WITH NO INTERNAL

INTERNAL PRESSURE BE ADDED TO THE EXTERNAL PRESSURE IN ACCORDANCE

BY FACTORY MUTUAL (FM) THE GROSS UPLIFT DESIGN PRESSURES SHOWN HEREIN SHALL BE

APPLIED WHEN USED IN CONJUNCTION

2. PRESSURES AND SUCTIONS ON SOFFITS

SECTIONS 2.3 \$ 2.4 OF ASCE 7-10.

DOUBLED FOR ROOF COVERINGS.

WALL ZONES 4 \$ 5.

ASSEMBLIES.

6 a = 10.5 ft.

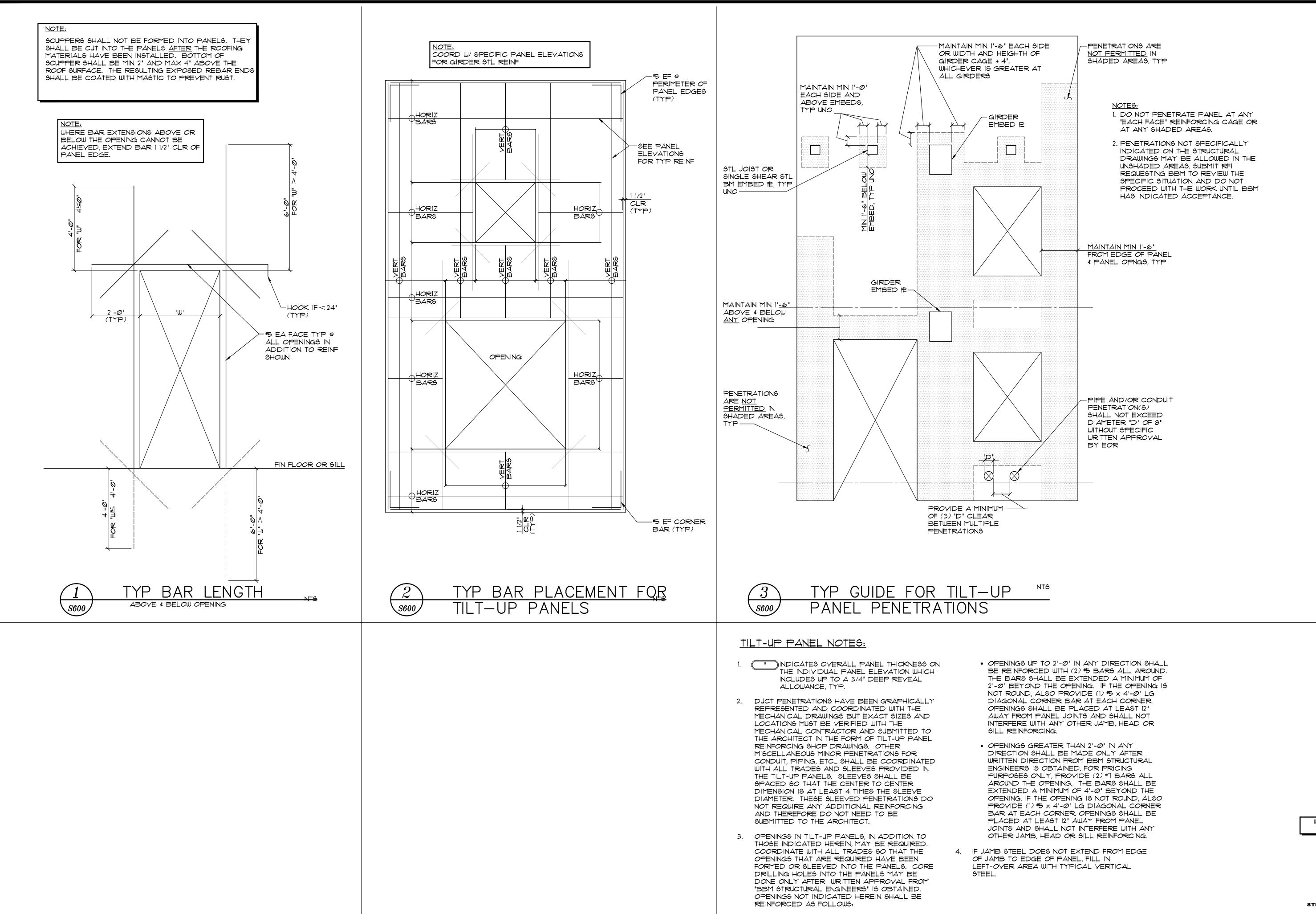
4

FOR MEAN ROOF HEIGHT ≤ 60 ft						
EFFECTIVE WIND AREA		(+) V	WIND PRESSUR ND SUCTION (F ALUE DENOTES PRE VALUE DENOTES SU	SF) Essure		
(SQ FEET)			PARAPETS (SOLID) <sup>3</sup> CASE A CASE B			
	(4)	5	EDGE	CORNERS	EDGE	CORNERS
10	(+64.7) (-71.1)	(+64.7) (-86.3)	(+181.5)	(+181.5)	(-127.0)	(145.2)
2Ø	(+61.9) (-67.31)	(+61.9) (-80.6)				
5Ø	(+58.1) (-63.5)	(+58.1) (-73.0)				
100	(+55.2) (-60.6)	(+55.2) (-67.3)				
200	(+52.3) (-57.7)	(+52.3) (-61.5)				_
500	(+48.5) (-53.9)	(+48.5) (-53.9)				

# ASCE 7-10 COMPONENTS & CLADDING WALL DESIGN

## WIND PRESSURE ELEVATIONS

SCALE: N.T.S.



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P. 561·750·1916 F: 561·750·1918 3998 FAU Boulevard Boca Raton, FL 33431

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