A NEW CHAPEL FOR

JONES & WASHINGTON

508 E. MARTIN LUTHER KING JR. ST.

BRYAN, TEXAS

GENERAL NOTES:

1. COMPLY WITH APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS PERTAINING TO SAFETY OF PERSONS, PROPERTY, AND ENVIRONMENTAL PROTECTION.
2. ALL WORK TO CONFORM TO CITY OF BRYAN, 2021 ICC BUILDING CODES & 2012 TEXAS ACCESSIBILITY STANDARDS.
3. THESE DRAWINGS SHOW THE GENERAL INTENT TO RECEIVE A QUALITY FINISHED PRODUCT. CONTRACTOR SHALL BE RESPONSIBLE TO INCLUDE ALL ITEMS REQUIRED TO COMPLETE THIS PROJECT IN A FINISHED MANNER, WHETHER ALL CONDITIONS ARE SHOWN OR NOT.
4. ALL DOOR NUMBERS, ROOM NAMES AND ROOM NUMBERS PROVIDED ON ARCHITECTURAL SHEETS ARE FOR CONTRACTOR COORDINATION ONLY. VERIFY ALL NAMES AND NUMBERS WITH OWNER PRIOR TO FABRICATING ANY & ALL SIGNAGE.
5. PLANS, SECTIONS & DETAILS ARE NOT TO BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR FIT OF MATERIALS. IN THE EVENT OF AN OMISSION OF NECESSARY DIMENSIONS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT.
6. USE MOISTURE RESISTANT GYPSUM BOARD IN WET AREAS.
7. ALL DIMENSIONS SHOWN ARE TAKEN TO THE FACE OF STUDS, MASONRY, FOUNDATION EDGE, OR CENTERLINE OF COLUMN UNLESS NOTED OTHERWISE.
8. PROVIDE A MINIMUM 1'-6" CLEAR DIMENSION AT THE PULL SIDE OF ALL DOORS ON THE LATCH SIDE. PROVIDE A MINIMUM 1'-0" CLEAR DIMENSION AT THE PUSH SIDE OF ALL DOORS ON THE LATCH SIDE WHEN DOOR IS EQUIPPED WITH BOTH A CLOSER & A LATCH.
9. DOOR FRAMES SHALL BE LOCATED 4" FROM ADJACENT WALL TO THE BACK SIDE OF FRAME, UNLESS OTHERWISE NOTED/DIMENSIONED.
10. CONTRACTOR TO PROVIDE SUPPORT BLOCKING IN WALL FOR WALL HUNG FIXTURES (WASH ROOM ACCESSORIES.
11. ANY CHANGES TO THE PLANS DURING CONSTRUCTION NEED TO BE APPROVED BY THE ARCHITECT AND/OR ENGINEER OF RECORD AND THE CITY. THE CHANGES WILL NEED TO BE SUBMITTED AS AN AMENDED SET OF CONSTRUCTION DOCUMENTS. SEE SECTION 107.4 OF THE 2021 IBC. 1

NOTE: DEFERRED SUBMITTALS INCLUDE: 1
- THIRD PARTY/ SPECIAL INSPECTIONS
- METAL PLATE CONNECTED WOOD TRUSSES
- SUPPORT TO STRUCTURE FOR: HVLS FANS, OPERABLE PARTITIONS, MEP UTILITIES/ EQUIPMENT
- STAIRS, GUARDRAIL, HANDRAILS, GRAB BARS, LADDERS, ETC. (NOT REQUIRED IF USING CERTIFIED AND TESTED PRODUCTS/ASSEMBLIES)
- EXTERIOR CLADDING SYSTEMS (NOT REQUIRED IF USING CERTIFIED AND TESTED PRODUCTS/ASSEMBLIES)
- CURTAINWALL , STOREFRONT, WINDOWS (NOT REQUIRED IF USING CERTIFIED AND TESTED PRODUCTS/ASSEMBLIES)
- ELECTRICAL PANEL: MAXIMUM AVAILABLE FAULT CURRENT CALCULATION

2 VICINITY MAP
SCALE: 1" = 100'-0"

THETFORD ARCHITECTURE, LLC
ARCHITECT
COLLEGE STATION, TEXAS

DUDLEY
STRUCTURAL ENGINEER
COLLEGE STATION, TEXAS

SWOBODA ENGINEERING
CONSULTING ENGINEER
BRYAN, TEXAS

REGISTERED ARCHITECT
Aaron Thetford
24267
STATE OF TEXAS
02/21/24

DRAWING INDEX

21 FEB. 2024

ISSUED FOR CONSTRUCTION

DESIGN CRITERIA

1. THE CONSTRUCTION DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE *INTERNATIONAL BUILDING CODE* WITH LOCAL AMENDMENTS FROM THE AUTHORITY HAVING JURISDICTION.
   A. BUILDING CODE VERSION:........ **2021** INTERNATIONAL BUILDING CODE W. LOCAL AHJ AMENDMENTS
   B. AUTHORITY HAVING JURISDICTION:........ CITY OF BRYAN
   C. RISK CATEGORY:........ II
2. DEAD LOADS:
   A. DEAD LOADS ARE BASED UPON THE ACTUAL WEIGHTS OF MATERIALS OF CONSTRUCTION AND FIXED SERVICE EQUIPMENT. ASSUMPTIONS FOR WALL AND ROOF ASSEMBLIES ARE SHOWN BELOW:
      a. METAL PANELS - 3 PSF
      b. CURTAIN WALLS - 10 PSF
      c. STONE / BRICK VENEER - 40 PSF
      d. ADHERED STONE/BRICK - 10 PSF
      e. SINGLE PLY MEMBRANE ROOF WITH INSULATION ASSEMBLY - 0.3 PSF TPO MEMBRANE | POLYISO "RIGID" INSULATION 0.25 PSF/INCH | COVER BOARD (1/2" POLYISO WITH GLASS FIBER 0.15 PSF
   B. EQUIPMENT
      a. ASSUMED LOADS FOR KNOWN EQUIPMENT ARE INDICATED ON THE STRUCTURAL DRAWINGS. ANY CHANGES IN THE TYPE, SIZE, LOCATION OR WEIGHT OF EQUIPMENT SHALL BE REPORTED TO THE EOR FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO THE SUBMISSION OF SHOP DRAWINGS.
      b. ASSUMED EQUIPMENT WEIGHTS INCLUDE THE WEIGHT OF CONCRETE PADS OR CURBS (IF APPLICABLE)
      c. FOR EQUIPMENT NOT INDICATED ON THE STRUCTURAL DRAWINGS IN WHICH THE WEIGHT OF THE EQUIPMENTS DIVIDED BY ITS SURFACE AREA EXCEEDS THE INDICATED LIVE LOAD FOR THE LOCATION, THE CONTRACTOR SHALL NOTIFY THE EOR PRIOR TO SUBMISSION OF SHOP DRAWINGS.
   C. HANGING CEILING AND MECHANICAL LOADS: AN ALLOWANCE OF 10 PSF HAS BEEN MADE FOR HANGING CEILING AND MECHANICAL EQUIPMENTS SUCH AS DUCT WORK AND SPRINKLER PIPES.
3. LIVE LOADS:
   A. INTERIOR WALLS AND PARTITIONS........ 5 PSF LATERAL LIVE LOAD
      a. MINIMUM LEVEL OF RESISTANCE TO NOMINAL IMPACT LOADS THAT COMMONLY OCCUR IN THE USE OF A FACILITY, SUCH AS IMPACTS FROM MOVING FURNITURE OR EQUIPMENT, AS WELL AS TO RESIST HEATING, VENTILATING AND AIR-CONDITIONING (HVAC) PRESSURIZATION.
   B. ASSEMBLY........ 100* PSF, EXCEPT 150* PSF FOR STAGE FLOORS

(*) = LIVE LOAD REDUCTION NOT ALLOWED EXCEPT PER §1607
- INDICATED CONCENTRATED LOADS (LBS) ARE ASSUMED TO BE UNIFORMLY DISTRIBUTED OVER AN AREA OF 2.5' x 2.5'.

4. ROOF LIVE LOAD
   a. ORDINARY, FLAT, PITCHED AND CURVED UNOCCUPIED ROOFS: .... 20 PSF, 300 LB
5. SNOW LOAD:
   A. GROUND SNOW LOAD, Pg:........ 5 PSF
6. WIND:
   A. BASIC DESIGN WIND SPEED V:........ 109 MPH (3-SEC PEAK GUST)
   B. ALLOWABLE STRESS DESIGN WIND SPEED, [Vasd = V x sqrt (0.6)]:........ 84 MPH (3-SEC PEAK GUST)
   C. WIND EXPOSURE CATEGORY:........ C
   D. INTERNAL PRESSURE COEFFICIENT:........ ± 0.18
   E. COMPONENTS AND CLADDING PRESSURES:........ SEE SCHEDULE
7. RAIN
   A. 60-MIN DURATION (100-YEAR RECURRENCE INTERVAL) RAINFALL INTENSITY (IN/HR):........ 3.82
   B. MAXIMUM ROOF RAIN LOAD:........ 20 PSF
   C. MAXIMUM RAINWATER LEVEL - PONDING (STATIC + HYDRAULIC HEAD):........ 4"
   D. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE TOTAL RAIN WATER LEVEL EXCEEDS THE DESIGNED RAIN ROOF LOAD.
8. SEISMIC:
   MAPPED SPECTRAL RESPONSE VALUES, DESIGN SPECTRAL RESPONSE VALUES, AND AS SITE CLASS, HAVE BEEN PROVIDED BY :
   A. GEOTECHNICAL COMPANY AND REPORT NO.:........ REFER TO FOUNDATION DESIGN CRITERIA SECTION
   B. MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS, S_S & S_1........ 0.066 & 0.040
   C. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS, S_{DS} & S_{D1}:........ 0.071 & 0.065
   D. SITE CLASS:........ D (STIFF SOIL)
   E. SEISMIC DESIGN CATEGORY, SDC:........ A
   F. RESPONSE MODIFICATION FACTOR, R:........ REFERENCE LATERAL LOAD RESISTING SYSTEM SECTION
   G. IMPORTANCE FACTOR (SEISMIC), I_e:........ 1.0
   H. SEISMIC RESPONSE COEFFICIENT, $C_S = S_{DS} / [R / I_e]$:........ 0.011
   I. DESIGN BASE SHEAR:........ 1.1% SEISMIC WEIGHT
   J. ANALYSIS PROCEDURE USED:........ EQUIVALENT LATERAL FORCE

LATERAL LOAD RESISTING SYSTEM

1. ALL LATERAL LOAD RESISTANCE AND STABILITY OF THE BUILDING IS PROVIDED EXCLUSIVELY BY VERTICAL LATERAL LOAD RESISTING SYSTEM. THE HORIZONTAL DIAPHRAGMS DISTRIBUTE THE LATERAL WIND AND SEISMIC FORCES HORIZONTALLY TO THE VERTICAL LATERAL LOAD RESISTING SYSTEM. WHERE MULTIPLE VLLRS's ARE USED, THE LOWEST R-VALUES WAS USED FOR DESIGN.
   A. VERTICAL LATERAL LOAD RESISTING SYSTEM (VLLRS): LIGHT-FRAME WOOD WALL SHEATHED W. WOOD STRUCTURAL SHEAR PANELS (R = 6½)
   B. HORIZONTAL LATERAL LOAD RESISTING SYSTEM (HLLRS): WOOD ROOF DECK

C&C - GROSS ULTIMATE WIND PRESSURES

Region	Effective Area (sf)	Coefficients +GCp	Coefficients -GCp	Wind pressures +p (psf)	Wind pressures -p (psf)
4	**10**	1.00	-1.10	+27.3	-29.7
	25	0.93	-1.03	+25.7	-28.0
	50	0.88	-0.98	+24.5	-26.8
	100	0.82	-0.92	+23.2	-25.6
	500	0.70	-0.80	+20.4	-22.7
5	10	1.00	-1.40	+27.3	-36.6
	25	0.93	-1.26	+25.7	-33.4
	50	0.88	-1.15	+24.5	-30.9
	100	0.82	-1.05	+23.2	-28.5
	500	0.70	-0.80	+20.4	-22.8
1	10	0.70	-2.00	+20.4	-50.5
	25	0.44	-1.98	+16.0	-50.1
	50	0.37	-1.93	+16.0	-48.9
	100	0.30	-1.88	+16.0	-47.8
	500	0.30	-1.80	+16.0	-45.9
2r	10	0.54	-3.00	+16.6	-73.7
	25	0.44	-2.73	+16.0	-67.4
	50	0.37	-2.52	+16.0	-62.7
	100	0.30	-2.32	+16.0	-57.9
	500	0.30	-2.20	+16.0	-55.1
2e	10	0.54	-2.00	+16.6	-50.5
	25	0.44	-1.98	+16.0	-50.1
	50	0.37	-1.93	+16.0	-48.9
	100	0.30	-1.88	+16.0	-47.8
	500	0.30	-1.80	+16.0	-45.9
2n	10	0.54	-3.00	+16.6	-73.7
	25	0.44	-2.73	+16.0	-67.4
	50	0.37	-2.52	+16.0	-62.7
	100	0.30	-2.32	+16.0	-57.9
	500	0.30	-2.20	+16.0	-55.1
3r	10	0.54	-3.60	+16.6	-87.6
	25	0.44	-2.96	+16.0	-72.7
	50	0.37	-2.47	+16.0	-61.4
	100	0.30	-1.98	+16.0	-50.2
	500	0.30	-1.70	+16.0	-43.6
3e	10	0.54	-3.83	+16.6	-92.9
	25	0.44	-2.96	+16.0	-72.7
	50	0.37	-2.30	+16.0	-57.5
	100	0.30	-2.30	+16.0	-57.5
	500	0.30	-2.30	+16.0	-57.5

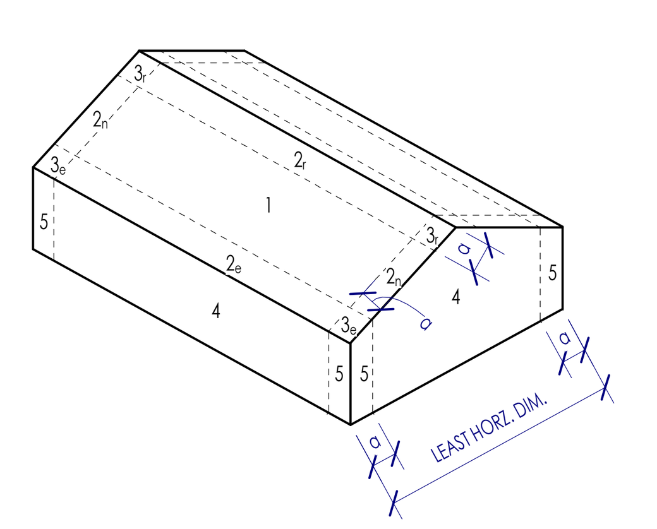
a = MINIMUM OF (10% OF LEAST HORIZONTAL DIMENSION OR 0.4h) BUT NOT LESS THAN 4% OF LEAST HORIZONTAL DIMENSION OR 3FT

h = MEAN ROOF HEIGHT OF A BUILDING, EXCEPT THAT EAVE HEIGHT SHALL BE USED FOR ROOF ANGLES LESS THAN OR EQUAL TO 10° (~2:12 ROOF PITCH)

MEAN ROOF HEIGHT = THE AVERAGE OF THE ROOF EAVE HEIGHT AND HEIGHT TO THE HIGHEST POINT ON THE ROOF SURFACE.

COMPONENTS AND CLADDING ZONES[1]	
DESCRIPTION	ZONE
ROOF INTERIOR	1
ROOF EDGE	2e
ROOF RIDGE	2r,3r
ROOF CORNER	3e
WALL INTERIOR	4
WALL EDGE	5

NOTES:
1. REFER TO FIGURE FOR ZONE LOCATIONS/APPLICATIONS.



GABLE ROOF - h ≤ 60'
20° (4.4:12) < SLOPE ≤ 27° (6.1:12)

SCOPE OF DRAWINGS:

SCOPE	DESCRIPTION	INCLUDED?
REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPiRC)	REGISTERED DESIGN PROFESSIONAL OR PRIME CONSULTANT WORKING DIRECTLY FOR THE REGISTERED DESIGN PROFESSIONAL WHO IS RESPONSIBLE FOR ENSURING THE PROJECT CONSTRUCTION DOCUMENTS ARE IN COMPLIANCE WITH THE APPLICABLE REQUIREMENTS OF ANY GOVERNING BUILDING AUTHORITIES. RESPONSIBLE FOR REVIEWING AND COORDINATING SUBMITTAL DOCUMENTS PREPARED BY OTHERS, INCLUDING PHASED AND DEFERRED SUBMITTAL ITEMS, FOR COMPATIBILITY WITH THE DESIGN OF THE BUILDING. TYPICALLY THIS IS THE ARCHITECT OR CIVIL ENGINEER-OF-RECORD.	NO
STRUCTURAL ENGINEER-OF-RECORD	STRUCTURAL CONSULTANT UNDER THE RDPiRC WHO IS RESPONSIBLE FOR ENSURING THE PRIMARY STRUCTURAL SYSTEM IS DESIGNED IN ACCORDANCE WITH THE APPLICABLE STRUCTURAL REQUIREMENTS OF ANY GOVERNING AUTHORITIES.	YES

STRUCTURAL DEFERRED SUBMITTALS:

1. STRUCTURAL DEFERRED SUBMITTALS ARE THOSE PORTIONS OF THE DESIGN WHICH REQUIRE STRUCTURAL ENGINEERING THAT ARE NOT SUBMITTED AT THE TIME OF THE APPLICATION BUT ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL AT A LATER DATE. DEFERRED SUBMITTALS SHALL BE SUBMITTED TO AND APPROVED BY THE BUILDING OFFICIAL PRIOR TO INSTALLATION OF ANY SAID WORK.
2. COMPLETE STRUCTURAL SHOP DRAWINGS FOR CONSTRUCTION OF EACH BUILDING COMPONENT NOT DESIGNED BY THE SER AND NOT SPECIFIED ON THE PROJECT CONSTRUCTION DOCUMENTS SHALL BE SEALED AND SIGNED BY A SSE WHO IS A REGISTERED DESIGN PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS BEING CONSTRUCTED WHO IS QUALIFIED TO PERFORM SAID WORK. A SEAL BY A LICENSED PROFESSIONAL ENGINEER IS NOT REQUIRED FOR EITHER PRODUCTS WHICH HAVE BEEN TESTED AND CERTIFIED BY AN APPROVED AGENCY SUCH AS THE ICC NOR FOR COMPONENTS WHICH ARE FABRICATED BY A FABRICATOR THAT IS CERTIFIED BY AN APPROVED AGENCY IN WHICH THE AGENCY SPECIFIED THAT SEALING OF THE SHOP DRAWINGS IS NOT REQUIRED (E.G. STEEL JOIST INSTITUTE IN REGARDS TO OPEN WEB STEEL JOISTS)
3. THE SSE SHALL SPECIFICALLY INDICATE IN A COVER PAGE AT THE FRONT OF THE SHOP DRAWING THAT THEY ARE THE SSE IN RESPONSIBLE CHARGE FOR THE DEFERRED SUBMITTAL AND THAT THEY HAVE REVIEWED THE SHOP DRAWING TO ENSURE COMPLIANCE WITH THEIR DESIGN AND CALCULATIONS.
4. METAL STAIRS, GUARDRAILS, AND HANDRAILS DEFERRED SUBMITTAL SHALL BE ACCOMPANIED BY A CALCULATION PACKAGE FOR ALL OF THE COMPONENTS ALONG WITH A SEALED LETTER BY THE SSE ATTESTING THE FOLLOWING:
   - *"I [SPECIALTY STRUCTURAL ENGINEER] HAVE REVIEWED THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS, SENT ANY CLARIFICATION QUESTIONS TO THE STRUCTURAL ENGINEER-OF-RECORD FOR REVIEW, PERFORMED ANALYSIS AND DESIGN ON THE [SPECIAL STRUCTURAL ENGINEERING SCOPE], PROVIDED THIS INFORMATION TO THE FABRICATOR AND HAVE REVIEWED THE SHOP DRAWINGS TO ENSURE THAT THE DESIGN HAS BEEN PROPERLY IMPLEMENTED AND MEETS ALL CRITERIA OF THE BUILDING CODE AND CONSTRUCTION DOCUMENTS."*
5. ALL STRUCTURAL DEFERRED SUBMITTALS SHALL BE REVIEWED BY THE SER AND MARKED AS EITHER NO EXCEPTIONS OR EXCEPTION NOTED, PRIOR TO SUBMITTING TO THE "FOR CONSTRUCTION" VERSION TO THE AUTHORITY HAVING JURISDICTION (AHJ) AND PRIOR TO RELEASE FOR FABRICATION.
6. STRUCTURAL DEFERRED SUBMITTALS ON THIS PROJECT INCLUDE:
   A. METAL PLATE CONNECTED WOOD TRUSSES
   B. SUPPORT TO STRUCTURE FOR: HVLS FANS, OPERABLE PARTITIONS, MEP UTILITIES/EQUIPMENT
   C. STAIRS, GUARDRAIL, HANDRAILS, GRAB BARS, LADDERS, ETC. (NOT REQUIRED IF USING CERTIFIED AND TESTED PRODUCTS/ASSEMBLIES)
   D. EXTERIOR CLADDING SYSTEMS (NOT REQUIRED IF USING CERTIFIED AND TESTED PRODUCTS/ASSEMBLIES)
   E. CURTAINWALL , STOREFRONT, WINDOWS (NOT REQUIRED IF USING CERTIFIED AND TESTED PRODUCTS/ASSEMBLIES)

GENERAL CONDITIONS

1. THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE SCOPE AND DESIGN INTENT. MEANS, METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION. THE PURPOSE OF THESE DRAWING AND SPECIFICATIONS ARE NOT TO SERVE AS AN INSTRUCTION MANUAL SHOWING THE CONTRACTOR HOW TO ASSEMBLE A STRUCTURE, BUT INSTEAD DEFINE PROJECT SCOPE AND DESIGN INTENT. THE CONTRACTOR'S WORK PLAN FOR THE MEANS-AND-METHODS OF CONSTRUCTION (I.E. SHOP DRAWINGS, SCHEDULES, SUBCONTRACTS, ETC.) MUST DEFINE WHEN AND HOW THE STRUCTURE WILL BE CONSTRUCTED.
2. REVIEW AND/OR ANALYSIS OF EQUIPMENT, MATERIAL STOCKPILING, ETC. TO BE PLACED ON THE STRUCTURE ARE NOT WITHIN THE STRUCTURAL ENGINEER OF RECORDS BASIC SCOPE OF SERVICES. THESE SERVICES CAN BE PROVIDED AS AN ADDITIONAL SERVICE OR THE CONTRACTOR CAN ENGAGE A SPECIALTY STRUCTURAL ENGINEER TO CONDUCT THE REVIEW/ANALYSIS.
3. REFER TO DRAWINGS/SPECIFICATIONS OTHER THAN STRUCTURAL FOR COMPLETE INFORMATION REGARDING: SLEEVES, CURBS, INSERTS, DEPRESSIONS, OPENINGS, ETC.
4. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST REVISIONS/ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS OR MATERIAL PROCUREMENT.
5. THE USE OR REPRODUCTIONS OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, DUE TO ANY ERRORS THAT MAY OCCUR HEREON.
6. ALL WORK SHALL CONFORM TO OSHA STANDARDS.
7. THE CONTRACTOR SHALL COMPARE ALL DESIGN DISCPLINE DRAWINGS AND REPORT ANY DISCREPANCIES BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE DESIGN TEAM PRIOR TO THE BUY-OUT, FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.
8. WHERE MEMBER LOCATIONS ARE NOT SPECIFICALLY DIMENSIONED, MEMBERS ARE EITHER LOCATED ON COLUMN LINES OR ARE EQUALLY SPACED BETWEEN THE LOCATED MEMBERS.
9. IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SHOWN OR SPECIFIED IN SIMILAR CONDITIONS.
10. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.
11. ANY CHANGE ORDERS OR CONSTRUCTION CHANGE DIRECTIVES RELEVANT TO THE STRUCTURAL ENGINEER'S SCOPE OF WORK MUST BE PROMPTLY SENT TO THE STRUCTURAL ENGINEER FOR REVIEW & APPROVAL PRIOR TO ISSUANCE.
12. THE STRUCTURAL ENGINEER'S ROLE DURING CONSTRUCTION
    A. THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
       a. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF THE STRUCTURAL ENGINEER IS SOLELY FOR THE PURPOSE OF BECOMING GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF THE WORK COMPLETED AND DETERMINING, IN GENERAL, IF THE WORK OBSERVED IS BEING PERFORMED IN A MANNER INDICATING THAT THE WORK, WHEN FULLY COMPLETED, WILL BE IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION(S) BY THE ENGINEER SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK, AS THAT IS THE RESPONSIBILTY OF INSPECTIONS & SPECIAL INSPECTIONS. THE ENGINEER'S PERIODIC OBSERVATIONS ARE IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.
       b. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE STRUCTURAL ENGINEER OF SCHEDULED DATES FOR CONSTRUCTION INCLUDING BUT NOT LIMITED TO THE FOLLOWING, IF APPLICABLE:
          - FIRST STRUCTURAL CONCRETE POUR
          - FIRST ELEVATED CONCRETE POUR ON STRUCTURE
          - FRAMING COMPLETION AFTER MEP ROUGH-IN.
       c. THE CONTRACTOR MUST PROVIDE A MINIMUM 48-HOURS NOTICE TO THE STRUCTURAL ENGINEER.
13. THE OWNER/PROPERTY MANAGER IS RESPONSIBILE FOR SOLICITING A STRUCTURAL ENGINEER TO EVALUATE ANY EQUIPMENT OR PENETRATIONS THAT ARE TO BE COMPLETED DURING TENANT FINISH-OUT AND/OR FUTURE RENOVATIONS/ADDITIONS. WE RECOMMEND THAT DUDLEY BE SOLICITED FOR THIS SERVICE.
14. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXTEND LIFESPAN AND ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. A PLANNED PROGRAM OF MAINTENANCE SHALL BE ESTABLISHED BY THE BUILDING OWNER. THIS PROGRAM SHALL INCLUDE SUCH ITEMS AS, BUT NOT LIMITED TO, PAINTING OF STRUCTURAL STEEL, PROTECTIVE COATING FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTRACTION (CONTROL) JOINTS, SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS EXPOSED TO A SALT ENVIRONMENT OR OTHER HARSH CHEMICALS.
15. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH ALL CODES AND REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
16. THE FLOOR DESIGN LIVE LOAD FOR EACH ELEVATED FLOOR STRUCTURE OR PORTION THEREOF THAT EXCEEDS 50 POUNDS PER SQUARE FOOT (PSF) SHALL BE STATED ON DURABLE SIGNS AND CONSPICUOUSLY POSTED BY THE OWNER IN THE APPLICABLE AREA(S) OF THE BUILDING.
17. FRAMING LAYOUTS ARE PROVIDED TO REPRESENT DESIGN CONCEPTS AND SYSTEMS CONSTRUCTION. THE CONTRACTOR AND SUBCONTRACTORS ARE RESPONSIBLE FOR MATERIAL QUANTITIES AND ANY AND ALL UNSPECIFIED COMPONENTS REQUIRED FOR CONSTRUCTION.
18. WATERPROOFING OF THE BUILDING ENVELOPE IS OF CRITICAL IMPORTANCE TO LONG-TERM STRUCTURAL PERFORMANCE. WATERPROOFING DESIGN SHALL BE THE RESPONSIBILITY OF THE ARCHITECT/CONTRACTOR AND SHALL BE IN ACCORDANCE WITH BEST PRACTICES FOR THE LOCALITY AND THE PARTICULAR ASSEMBLY.
19. ANY SUSPENDED EQUIPMENT, CEILING, ETC. TO BE HUNG FROM THE STRUCTURE, SHALL NOT EXCEED THE ALLOWABLE HANGING CEILING & MECHANICAL LOAD IDENTIFIED IN THE DESIGN CRTIERA. FURTHERMORE, ANY CONNECTION TO THE STRUCTURE SHALL BE DONE TO WHERE THE LOAD IS CONCENTRIC TO THE MEMBER (I.E. BEAM CLAMPS ONLY ON ONE SIDE OF THE MEMBER ARE NOT ALLOWED).
20. FLATWORK (SIDEWALK, PAVEMENT, STOOPS, ETC.) ADJACENT TO THE STRUCTURE IS NOT WITHIN THE SCOPE OF THE STRUCTURAL ENGINEER-OF-RECORD. THE CIVIL ENGINEER & CONTRACTOR SHALL FOLLOW ALL RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT AND REQUIREMENTS OF THE BUILDING CODE (IMPERVIOUS SURFACE SHALL BE PERMITTED TO BE SLOPED LESS THAN 2% WHERE THE SURFACE IS A DOOR LANDING OR RAMP. THE PROCEDURE USED TO ESTABLISH THE FINAL GROUND LEVEL ADJACENT TO THE FOUNDATION SHALL ACCOUNT FOR ADDITIONAL SETTLEMENT OF BACKFILL, FREEZE/THAW DUE TO FROST, AND HEAVE/SUBSIDENCE DUE TO EXPANSIVE SOIL

CONTRACTOR QUALIFICATION

1. WORK SHALL BE PERFORMED BY A QUALIFIED CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR EXPERIENCED IN THIS TYPE OF WORK. SUCH KNOWLEDGE SHALL INCLUDE MAKING ALLOWANCES FOR PERFORMING WORK OF THIS NATURE FOLLOWING INDUSTRY STANDARDS OF CARE.
2. THE CONSTRUCTION CONTRACTOR AND SUBCONTRACTORS SHALL UNDERSTAND THE NATURE OF DRAWING PRODUCTION AND COORDINATION BETWEEN CONSULTANTS AND SHALL NOT ENTER INTO A CONTRACT BASED ON DRAWINGS THAT ARE BELIEVED TO CONTAIN DISCREPANCIES OR ARE OTHERWISE INCOMPLETE UNLESS PROPER ALLOWANCES HAVE BEEN MADE FOR COST IMPLICATIONS THAT MAY ARISE DUE TO FUTURE DRAWING CHANGES MADE IN PREPARATION OF FINAL CONSTRUCTION DOCUMENTS.
3. IN THE COURSE OF PRODUCING AND ISSUING DRAWINGS, VARIOUS STAGES OF COMPLETION ARE DEVELOPED. THE CONSTRUCTION CONTRACTOR AND SUBCONTRACTORS SHALL UNDERSTAND THE PURPOSE AND CONTENT CONTAINED IN PERMIT, PRICING, AND CONSTRUCTION DRAWINGS. COST IMPLICATIONS AND CONTRACTIBILITY ARE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR AND SUBCONTRACTORS UNLESS PRIOR ARRANGEMENTS HAVE BEEN MADE WITH THE OWNER.

SUBSTITUTIONS:

1. ALL REQUESTS FOR SUBSTITUTIONS OF MATERIALS OR DETAILS SHOWN IN THE CONTRACT DOCUMENTS SHALL BE SUBMITTED FOR APPROVAL DURING THE BIDDING PERIOD. AFTER BIDS ARE ACCEPTED, PROPOSED SUBSTITUTIONS WILL BE CONSIDERED ONLY WHEN THEY ARE OFFICIALLY SUBMITTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE REQUIREMENTS BELOW:
   A. SUBMITTED A MINIMUM OF 21 CALENDAR DAYS PRIOR TO THE REQUIRED PURCHASE DATE AND/OR INSTALLATION DATE.
   B. CONTRACTOR STATEMENT INDICATING WHY SUBSTITUTION IS BEING REQUESTED.
   C. CONTRACTOR DETAILED COMPARISON OF THE SUBSTITUTION AND CONTRACT DOCUMENT
   D. REQUIREMENTS FOR COMPATIBILITY INCLUDING COST SAVINGS TO THE OWNER AND
   E. CONSTRUCTION/DELIVERY TIME REDUCTION TO THE PROJECT SCHEDULE.
   F. CONTRACTOR TO INDICATE THAT THE SUBSTITUTION HAS BEEN COORDINATED WITH OTHER CONTRACTOR WORK, IF APPLICABLE.
   G. CONTRACTOR TO PROVIDE SIMILAR SUBMITTAL SUBMISSION AS REQUIRED BY THE CONTRACT DOCUMENTS.
   H. SUBMITTAL REVIEW TIME FRAME.
2. SUBMISSION OF SUBSTITUTIONS AS RFI'S WILL BE NOT BE REVIEWED.

REQUEST FOR INFORMATION (RFI)

1. RFI'S MUST INCLUDE A TRANSMITTAL SHEET THAT INDICATES THE FOLLOWING:
   A. RFI NUMBER
   B. RFI CATEGORY:
      a. REQUEST FOR SUBSTITUTION
      b. CORRECTIVE REPAIR
      c. ADDITIONAL INFORMATION REQUIRED
      d. DISCREPANCY BETWEEN CONSTRUCTION DOCUMENTS
   C. DATE SUBMITTED
   D. DATE RESPONSE NEED BY
   E. SUBMITTED BY (INCLUDE EMAIL AND PHONE NUMBER)
   F. RFI DESCRIPTION INCLUDING:
      a. SHEET NUMBER, DETAIL AND/OR SPECIFICATION NUMBER IF APPLICABLE
      b. SKETCHES IF APPLICABLE
      c. PHOTOS IF APPLICABLE.

FOUNDATION DESIGN CRITERIA

1. GEOTECHNICAL REPORT: THIS FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS PROVIDED IN SITE-SPECIFIC GEOTECHNICAL REPORT. IN DESIGNING THE FOUNDATION FOR THE PROPOSED STRUCTURE, THE FOUNDATION DESIGN ENGINEER DOES NOT ASSUME RESPONSIBILITY FOR THE ACCURACY OF THE GEOTECHNICAL ENGINEER'S REPORT OR ANY INFORMATION CONTAINED THEREIN. INFORMATION CONTAINED IN THE GEOTECHNICAL REPORT(S) REFLECTS CONDITIONS AS FOUND AT THE LOCATION OF THE BORINGS. ACTUAL CONDITIONS AT LOCATIONS BETWEEN AND SURROUNDING THE BORINGS MAY DIFFER FROM THE SOIL STRATIGRAPHY DEPICTED BY THE BORINGS. IF THERE ARE ANY CONDITIONS DIFFERING FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT, OR IF ANY CHANGES HAVE BEEN IMPOSED ON THE SOILS IN QUESTION SINCE THE REPORT WAS WRITTEN, THEN THE DESIGN ENGINEER OF RECORD SHOULD BE NOTIFIED IN WRITING PRIOR TO CONSTRUCTION OF THE FOUNDATION IN ORDER TO REVIEW THE EFFECTS ON THE PERFORMANCE OF THE DESIGNED FOUNDATION.
   A. GEOTECHNICAL ENGINEER:........ ***DUDLEY***
   B. REPORT NUMBER: ***22-00288***
   C. REPORT DATE:........ ***APRIL 17, 2023***
2. THE FOUNDATION DESIGN PARAMETERS PROVIDED WILL NOT ELIMINATE POST-CONSTRUCTION FOUNDATION MOVEMENT. AS SUCH, MEASURES SHALL BE TAKEN TO INCREASE THE TOLERANCE OF THE STRUCTURE SUPPORTED BY THE FOUNDATION. MEASURES INCLUDE BUT ARE NOT LIMITED TO FREQUENT CONTRACTION (CONTROL) JOINTS FOR MASONRY/BRICK/STONE/STUCCO EXTERIOR VENEER (15'-0 MAXIMUM), VERTICALLY SLOTTED CLIPS TO ATTACH ROOF TRUSSES TO NON-LOAD BEARING WALLS, ETC.
3. **ABNORMAL CONDITIONS:** IF THE FOUNDATION IS INSTALLED DURING A DRY OR WET PERIOD, WHICH IS CONSIDERED EXTREME OR ABNORMAL, THEN THE BUILDER SHALL NOTIFY THE GEOTECHNICAL ENGINEER AND FOUNDATION ENGINEER PRIOR TO CONSTRUCTION FOR POSSIBLE SOIL CONDITIONING OR FOUNDATION RE-DESIGN .
4. **FOUNDATION MOVEMENT:** THE FOUNDATION HAS BEEN DESIGNED WITH THE ASSUMPTION THAT MOVEMENT CAN BE TOLERATED WITHIN A STANDARD PERFORMANCE LIMIT:
   A. STANDARD PERFORMANCE DEFLECTION LIMIT: ***L/360***
   B. STANDARD PERFORMANCE TILT LIMIT: ***1%***
5. **SOIL MOISTURE LEVEL:** A REASONABLY UNIFORM SOIL MOISTURE LEVEL IS REQUIRED TO BE MAINTAINED AROUND THE FOUNDATION FOR THE LIFE OF THE STRUCTURE.
6. **FOUNDATION MAINTENANCE:** POSITIVE DRAINAGE AWAY FROM THE STRUCTURE SHALL BE MAINTAINED FOR THE LIFE OF THE STRUCTURE AND THE CONTRACTOR SHALL CONVEY THIS REQUIREMENT TO THE OWNER. THE INITIAL AND ALL SUBSEQUENT OWNERS MAINTAIN THE FOUNDATION IN ACCORDANCE WITH THE LATEST REVISION OF DOCUMENT NO. FPA-SC-07, "FOUNDATION MAINTENANCE AND INSPECTION GUIDE FOR RESIDENTIAL AND OTHER LOW-RISE BUILDINGS", AVAILABLE ON THE FOUNDATION PERFORMANCE ASSOCIATION'S WEBSITE: WWW.FOUNDATIONPERFORMANCE.ORG. CONTRACTOR SHALL PROVIDE THIS DOCUMENT TO OWNER.
7. **EXPIRATION:** PLANS ARE VALID FOR 6-MONTHS FROM THE DATE THE PLANS ARE ISSUED OR REVISED BY THE ENGINEER. CONTACT ENGINEER FOR REVIEW IF PLANS HAVE EXPIRED OR IF CONSTRUCTION OF THE FOUNDATION HAS NOT COMMENCED WITHIN THIS TIME FRAME.
8. **GEOTECHNICAL LOAD BEARING VALUES OF SOIL**
   A. • ***SHALLOW FOOTING BEARING PRESSURE:***
      1. ***1250 PSF (SUSTAINED)***
      2. ***1875 PSF (TOTAL)***

INSPECTIONS:

1. CONSTRUCTION OR WORK FOR WHICH A PERMIT IS REQUIRED SHALL BE SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL AND SUCH CONSTRUCTION OR WORK SHALL REMAIN ACCESSIBLE AND EXPOSED FOR INSPECTION PURPOSES UNTIL APPROVED. REQUIRED TESTING INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:
   A. FOUNDATION INSPECTION:
      a. FOOTING AND FOUNDATION INSPECTIONS SHALL BE MADE AFTER EXCAVATIONS FOR FOOTINGS ARE COMPLETE AND ANY REQUIRED REINFORCING STEEL IS IN PLACE. FOR CONCRETE FOUNDATIONS, ANY REQUIRED FORMS SHALL BE IN PLACE PRIOR TO INSPECTION. MATERIALS FOR THE FOUNDATION SHALL BE ON THE JOB, EXCEPT WHERE CONCRETE IS READY MIXED IN ACCORDANCE WITH ASTM C94, THE CONCRETE NEED NOT BE ON THE JOB.
   B. CONCRETE SLAB AND UNDER-FLOOR INSPECTION:
      a. CONCRETE SLAB AND UNDER-FLOOR INSPECTIONS SHALL BE MADE AFTER IN-SLAB OR UNDER-FLOOR REINFORCING STEEL AND BUILDING SERVICE EQUIPMENT, CONDUIT, PIPING ACCESSORIES AND OTHER ANCILLARY EQUIPMENT ITEMS ARE IN PLACE, BUT BEFORE ANY CONCRETE IS PLACED OR FLOOR SHEATHING INSTALLED, INCLUDING THE SUBFLOOR.
   C. FRAME INSPECTION:
      a. FRAMING INSPECTIONS SHALL BE MADE AFTER THE ROOF DECK OR SHEATHING, ALL FRAMING, FIREBLOCKING AND BRACING ARE IN PLACE AND PIPES, CHIMNEYS AND VENTS TO BE CONCEALED ARE COMPLETE AND THE ROUGH ELECTRICAL, PLUMBING, HEATING WIRES, PIPES AND DUCTS ARE APPROVED.
   1. SPECIAL INSPECTIONS - REFER TO THE STATEMENT OF SPECIAL INSPECTION FOR REQUIRED STRUCTURAL SPECIAL INSPECTIONS
   2. ADDITIONAL INSPECTIONS/OBSERVATIONS REQUIRED BY STRUCTURAL ENGINEER: REFERENCE SPECIFICATIONS / GENERAL CONDITIONS

SUBMITTALS

1. SUBMITTAL LIST AND SCHEDULE
   A. THE GENERAL CONTRACTOR SHALL PREPARE A DETAILED LIST AND SCHEDULE OF ALL STRUCTURAL SUBMITTALS TO BE SENT TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THIS LIST SHALL BE UPDATED AND REVISED AS THE JOB PROGRESSES. SUBMITTALS SHALL BE LISTED IN CHRONOLOGICAL ORDER BY DATES REQUIRED FOR CONSTRUCTION. ESTABLISH REVIEW DATES BASED ON TIME REQUIRED FOR REVIEW, ORDERING, FABRICATION, AND DELIVERY OF MATERIALS. THE SCHEDULE SHALL INCLUDE ADDITIONAL TIME FOR ADDITIONAL REVIEWS OF SUBMITTALS WHEN CORRECTIONS OR REVISIONS ARE NEEDED. SUBMITTAL REVIEW PERIODS MAY NOT OVERLAP BY MORE THAN ONE WEEK. THE SER IS NOT RESPONSIBLE FOR DELAYS RESULTING FROM SUBMITTING OF OVERLAPPING SUBMITTAL SCHEDULES AND/OR SUBMITTALS SUBMITTED LATER THAN IDENTIFIED IN THE APPROVED SUBMITTAL SCHEDULE.
2. SUBMITTAL REQUIREMENTS:
   A. ALL SUBMITTALS MUST BE REVIEWED AND ELECTRONICALLY STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO THE DESIGN TEAM AS NO EXCEPTIONS. BY SUBMITTING TO THE DESIGN TEAM, THE CONTRACTOR IS AFFIRMING THAT THE WORK, AS THE CONTRACTOR HAS DIVIDED IT AMONG THE TRADES, WILL COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS INCLUDING VERIFICATION OF MATERIALS, FIELD MEASUREMENTS, COORDINATION WITH OTHER SUBMITTALS, ETC.
   B. ANY DEVIATION/CLARIFICATION FROM THE CONSTRUCTION DOCUMENTS IN A SUBMITTAL SHALL BE CLEARLY INDICATED AS A DEVIATION, FOR SPECIFIC REVIEW BY THE DESIGN TEAM. A NON-RESPONSE TO A NOTED DEVIATION/CLARIFICATION DOES NOT INDICATE APPROVAL. IF NOT ADDRESSED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF THE OUTSTANDING ITEMS THAT REQUIRE REVIEW.
   C. ALL SUBMITTALS MUST INCLUDE A TRANSMITTAL SHEET WHICH INDICATES:
      a. SUBMITTAL NUMBER PER THE FOLLOWING FORMAT: E.G. 03 30 00-01.00 (DIVISION, SUBMITTAL # FOR DIVISION, ISSUE # - THE EXAMPLE INDICATES THE FIRST SUBMITTAL, FIRST ISSUE OF A CONCRETE SUBMITTAL)
      b. BRIEF DESCRIPTION OF SUBMITTAL CONTENTS
      c. DATE ISSUED
      d. REQUESTED RETURN DATE
      e. ISSUING PARTY INCLUDING NAME, PHONE NUMBER AND EMAIL
   D. CONTRACTOR SHALL PROVIDE THE SUBMITTAL IN ELECTRONIC (PDF) FORMAT. SUBMITTALS SHALL NOT BE SCANNED COPIES OF PRINTED DOCUMENTS.
   E. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS REQUIRED BY THE CONTRACT DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER SHOWN OR COMMENTED IN THE SHOP DRAWING
   F. THE CONTRACTOR MUST ALLOW A MINIMUM OF **10** BUSINESS DAYS FOR STRUCTURAL REVIEW OF ALL SUBMITTALS. THE CONTRACTOR CAN REQUEST AN EXPEDITED REVIEW AT AN AGREED UPON FEE WITH THE STRUCTURAL ENGINEER AS AN ADDITIONAL SERVICE.
   G. RESUBMITTALS REQUIRE THE SAME MINIMUM REVIEW TIME AS THE ORIGINAL SUBMITTAL.
   H. STRUCTURAL STEEL SUBMITTALS MUST BE ACCOMPANIED BY THE SDS/2, IFC OR TEKLA MODEL OF THE STRUCTURAL STEEL FABRICATION MODEL WHICH WILL BE USED BY THE DESIGN TEAM AS A VISUAL AID TO THE SHOP DRAWINGS.
   I. SHOP DRAWING SUBMITTALS SHALL BE PROPORTIONED INTO REASONABLY SIZED PACKAGES, CONTAINING NOT MORE THAN 150 SHEETS PER SUBMITTAL, UNLESS APPROVED BY THE SER PRIOR TO SUBMISSION.
3. ENGINEER REVIEW STAMP DESIGNATIONS: ALL DESIGNATIONS ARE INDICATIVE OF A REVIEW FOR THE LIMITED PURPOSE OF CHECKING FOR GENERAL CONFORMANCE WITH THE INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED GENERAL IN THE STRUCTURAL CONSTRUCTION DOCUMENTS. REVIEW OF SUCH SUBMITTALS IS NOT FOR THE PURPOSE OF DETERMINING THE ACCURACY AND COMPLETENESS OF OTHER INFORMATION SUCH AS DIMENSIONS, QUANTITIES, AND INSTALLATION OR PERFORMANCE OF EQUIPMENT OR SYSTEMS, WHICH ARE THE CONTRACTOR'S RESPONSIBILITY. THE ENGINEERS'S REVIEW SHALL NOT CONSTITUTE APPROVAL OF SAFETY PRECAUTIONS OR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES. THE ENGINEERS'S REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT.
   A. NO EXCEPTIONS
      a. NO EXCEPTIONS WITH THE STRUCTURAL CONSTRUCTION DOCUMENTS WERE IDENTIFIED IN OUR LIMITED REVIEW FOR GENERAL CONFORMANCE. THIS DOES NOT CONSTITUTE APPROVAL FOR ANY NON-CONFORMING ITEMS THAT WERE NOT IDENTIFIED IN OUR REVIEW. NO "FOR REVIEW" RESUBMITTAL IS REQUIRED.
   B. EXCEPTIONS NOTED
      a. EXCEPTIONS WITH THE STRUCTURAL CONSTRUCTION DOCUMENTS WERE IDENTIFIED IN OUR LIMITED REVIEW FOR GENERAL CONFORMANCE AND NEED TO BE REVISED PRIOR TO SUBMITTING THE "FOR CONSTRUCTION" SUBMITTAL. THIS DOES NOT CONSTITUTE APPROVAL FOR ANY NON-CONFORMING ITEMS THAT WERE NOT IDENTIFIED IN OUR REVIEW.
   C. REVISE AND RESUBMIT
      a. SIGNIFICANT ITEMS WERE FOUND IN CONFLICT WITH THE STRUCTURAL CONSTRUCTION DOCUMENTS. THE SUBMITTAL NEEDS TO BE RESUBMITTED "FOR REVIEW".
      b. THE CONTRACTOR SHALL DIRECT SPECIFIC ATTENTION, IN WRITING OR ON RESUBMITTED SHOP DRAWINGS, PRODUCT DATA, SAMPLES, OR SIMILAR SUBMITTALS, TO REVISIONS OTHER THAN THOSE REQUESTED BY THE ENGINEER ON PREVIOUS SUBMITTALS. IN THE ABSENCE OF SUCH NOTICE, THE ENGINEER'S APPROVAL OF A RESUBMISSION SHALL NOT APPLY TO SUCH REVISIONS.
   D. FOR INFORMATION ONLY
      a. THE SUBMITTAL DID NOT REQUIRE STRUCTURAL REVIEW AND THUS HAS BEEN FILED FOR RECORD ONLY. IF THE CONTRACTOR BELIEVES IT DOES REQUIRE STRUCTURAL REVIEW, THEY SHALL NOTIFY DUDLEY IN WRITING.
   E. IMPACT TO STRUCTURE
      a. THE SUBMITTAL HAS BEEN REVIEWED FOR THE IMPACT TO THE STRUCTURE SHOWN IN THE CONSTRUCTION DOCUMENTS ONLY.

STAIR, HANDRAILS, RESTROOM ACCESSORIES AND GUARDRAIL SPECIFICATIONS:

1. THE STRUCTURE FOR ALL STAIRS, GUARDRAILS AND HANDRAILS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER BASED ON THE FOLLOWING DESIGN CRITERIA:
   A. STAIRS:
      a. STRUCTURAL DESIGN CRITERIA:
         - THE STAIR STRUCTURAL DESIGN SHALL BE IN ACCORDANCE WITH AISC DESIGN GUIDE 34: STEEL-FRAMED STAIRWAY DESIGN., NAAMM METAL STAIRS MANUAL, & AISC CODE OF STD PRACTICE. SEE ARCH AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION INCLUDING BUT NOT LIMITED TO REGULATORY REQUIREMENTS (IBC AND/OR OSHA), DIMENSIONS, STAIR WIDTH, STAIR SLOPE, HEIGHT OF STAIR FLIGHTS AND GUARDRAIL, HANDRAIL AND/OR STAIR RAIL SYSTEM REQUIREMENTS.
         - HANGERS ARE NOT ALLOWED UNLESS NOTED OTHERWISE ON THE DRAWINGS.
      b. VERTICAL LOADS:
         - INTERNATIONAL BUILDING CODE (IBC)
           1. STAIR STRINGERS, TREADS AND RISERS SHALL BE DESIGNED TO SUPPORT A UNIFORM LOAD OF 100 PSF LIVE LOAD.
           2. INDIVIDUAL STAIR TREADS & LANDINGS SHALL BE DESIGNED TO SUPPORT A 300 LB CONCENTRATED LOAD [APPLIED TO AN AREA OF 4 IN^2] PLACED IN A POSITION THAT WOULD CAUSE THE MAX STRESS.
           3. CONCENTRATED AND UNIFORM LOADS NEED NOT BE APPLIED SIMULTANEOUSLY.
         - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)
           1. CONCENTRATED LOAD = 5X THE NORMAL ANTICIPATED LIVE LOAD BUT NEVER LESS THAN 1,000 LBS APPLIED AT ANY POINT.
      c. LATERAL LOADS (IBC AND OSHA):
         - NOMINAL 12 PSF LIVE LOAD OF THE STAIR SURFACE AREA , IN ADDITION TO NOTIONAL/WIND/SEISMIC LOADS, AS APPLICABLE.
         - THE STAIR DESIGNER MUST ACCOUNT FOR THE REQUIREMENTS OF ASCE/SEI 7, SECTION 1.4, FOR NOTIONAL LOADS, LOAD COMBINATIONS, LOAD PATH CONNECTIONS, LATERAL FORCES, AND CONNECTION TO SUPPORTS.
      d. DEFLECTION
         - STRINGERS AND LANDING MEMBERS (NOT SUPPORTING BRITTLE FINISHES) - LIVE LOAD DEFLECTION LIMIT (L/360) - TOTAL DEFLECTION LIMIT (L/240)
         - STRINGERS AND LANDING MEMBERS (SUPPORTING BRITTLE FINISHES) - LIVE LOAD DEFLECTION LIMIT (L/600) - TOTAL DEFLECTION LIMIT (L/240)
   B. HANDRAIL AND GUARDS
      a. LOADING CRITERIA:
         - IBC:
           1. GUARD TOP RAIL AND HANDRAILS: THE TOP RAIL OF GUARDRAILS AND HANDRAILS SHALL BE DESIGNED TO WITHSTAND A LIVE LOAD OF 50 PLF APPLIED HORIZONTALLY AT RIGHT ANGLES, OR A 200 LB CONCENTRATED LIVE LOAD IN ANY DIRECTION.
           2. INTERMEDIATE RAILS, PANEL FILLER AND THEIR CONNECTIONS SHALL BE DESIGNED TO WITHSTAND A LIVE LOAD OF 50 PSF APPLIED HORIZONTALLY AT RIGHT ANGLES OVER THE ENTIRE TRIBUTARY AREA, INCLUDING OPENINGS AND SPACES BETWEEN RAILS.
         - OSHA
           1. GUARD TOP RAIL AND HANDRAILS: CONCENTRATED LOAD OF 200 LBS APPLIED IN A DOWNWARD OR OUTWARD DIRECTION WITHIN 2" OF THE TOP EDGE AT ANY POINT. THE RAIL SYSTEM SHALL NOT DEFLECT TO A HEIGHT LESS THAN 39" ABOVE THE WALKING/WORKING SURFACE WHEN APPLIED IN A DOWNWARD DIRECTION.
           2. INTERMEDIATE RAILS, PANEL FILLER AND THEIR CONNECTIONS: CONCENTRATED LOAD OF 150 LBS IN ANY DOWNWARD OR OUTWARD DIRECTION AT ANY POINT.
      b. LIVE LOAD DEFLECTION CRITERIA:
         - CANTILEVER GUARD POST - H/60
         - INFILL RAILS, HANDRAIL, AND INFILL PANEL - SPAN/120
   C. RESTROOM ACCESSORIES:
      a. GRAB BARS, TUB AND SHOWER SEATS, FASTENERS, AND MOUNTING DEVICES SHALL BE DESIGNED TO RESIST A CONCENTRATED LOAD OF 250 POUNDS AT ANY LOCATION AND IN ANY DIRECTION.
      b. COUNTERTOPS SHALL BE DESIGNED TO RESIST A 50 PSF UNIFORM LIVE LOAD IN ADDITION TO A NON-CONCURRENT 250 LB CONCENTRATED LOAD ANY LOCATION AND IN ANY DIRECTION. THE DEFLECTION IN BOTH CASES SHALL BE LIMITED TO L/480.

FUTURE EXPANSION

1. NO PROVISIONS FOR ANY FUTURE EXPANSION HAVE BEEN MADE IN THE STRUCTURAL DESIGN.

DRAWING INTERPRETATION:

1. DRAWING VIEWS LABELED AS TYPICAL
   A. PARTIAL PLANS, ELEVATIONS, SECTIONS, DETAIL OR SCHEDULES LABELED WITH "TYPICAL" AT THE BEGINNING OF THEIR TITLE SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THE THOSE SPECIFICALLY SHOWN. THE APPLICABILITY OF THE CONTENT OF THESE VIEWS TO LOCATIONS ON THE PLAN CAN BE DETERMINED FROM THE TITLE OF THE VIEW. SUCH VIEWS SHALL APPLY WHETHER OR NOT THEY ARE KEYED IN AT EACH LOCATION. DECISIONS REGARDING APPLICABILITY OF THESE "TYPICAL" VIEWS SHALL BE DETERMINED BY THE STRUCTURAL ENGINEER.
2. COLOR: THESE DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. IF THE FOLLOWING COLORS ARE NOT RED GREEN BLUE THEN THIS DRAWING SET IS NOT BEING VIEWED AS INTENDED.
3. SCALE: IF THE FOLLOWING LINE IS NOT EXACTLY 1" LONG, THEN THIS SET HAS BEEN SCALED. 1"

BUILDING MOVEMENT AND DEFLECTION CRITERIA

1. THE BUILDING MOVEMENT SPECIFIED HEREIN IS ANTICIPATED TO OCCUR AND SHOULD BE CONSIDERED BY THE CONTRACTOR IN PERFORMANCE OF THE WORK.
   A. **LATERAL FRAME WIND DEFLECTION (DRIFT)**: THE FOLLOWING PROVISION FOR LATERAL FRAME DEFLECTION IN THE PLANE OF THE WALL OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR SHALL BE MADE IN THE DESIGN, FABRICATION AND INSTALLATION FOR THE BUILDING CLADDING.
      a. TYPICAL FLOOR TO FLOOR DRIFT:........ H/400
         - H = FLOOR TO FLOOR HEIGHT
   B. **DEFLECTIONS**: THE FOLLOWING PROVISION FOR SUPERIMPOSED LOAD DEFLECTIONS SHALL BE MADE IN THE DESIGN, FABRICATION, AND INSTALLATION OF ALL PARTITIONS, GLASS WALLS, AND OTHER ELEMENTS SUPPORT BY AND ATTACHED TO THE STRUCTURE:
      a. TYPICAL FLOOR MEMBERS:........ SPAN / 360 BUT NOT MORE THAN 1/2"
      b. TYPICAL ROOF MEMBERS:........ SPAN / 360 BUT NOT MORE THAN 1/2"
   C. **EXTERIOR WALL DEFLECTIONS**: THE FOLLOWING PROVISION FOR SUPERIMPOSED LOAD DEFLECTIONS SHALL BE MADE IN THE DESIGN, FABRICATION, AND INSTALLATION OF ALL PARTITIONS, GLASS WALLS, AND OTHER ELEMENTS SUPPORT BY AND ATTACHED TO THE STRUCTURE:
      a. EXTERIOR WALLS SUPPORTING MASONRY VENEER:........ SPAN / 600
      b. EXTERIOR WALLS SUPPORTING FLEXIBLE FINISHES (METAL PANEL, FIBER-CEMENT SIDING, ETC.):........ SPAN /360
      c. EXTERIOR WALLS SUPPORTING CURTAINWALL / STOREFRONT SYSTEMS:........ SPAN /240 (MAX 1¼")

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STATE OF TEXAS
DREW S DUDLEY
123798
LICENSED PROFESSIONAL ENGINEER
1/30/2024

A NEW CHAPEL FOR
JONES & WASHINGTON
508 E. MARTIN LUTHER KING JR. ST. BRYAN, TX

REVISIONS	
1	01/30/2024

DUDLEY
GEOTECHNICAL | STRUCTURAL | ENVIRONMENTAL
Dudley Engineering LLC dba DUDLEY
6102 Imperial Loop Drive | College Station, Texas 77845
(o) 979.777.0720 | TBPE Firm No. F-18677

DATE
12/01/2023

SHEET
S0.0
OF

EXISTING CONDITIONS / DEMOLITION

1. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE EXISTING BUILDING AT THE JOB SITE AND REPORT ANY DISCREPANCIES FROM ASSUMED CONDITIONS SHOWN ON THE DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND ERECTION OF ANY MEMBERS. OFTEN, BUT NOT ALWAYS DIMENSIONS THAT REQUIRE FIELD VERIFICATION BY THE CONTRACTOR ARE INDICATED AS 'FV' OR 'FIELD VERIFY'.
2. WORK SHOWN ON THE DRAWINGS IS NEW, UNLESS NOTED AS EXISTING OR SHOWN IN HALFTONE. SHOULD EXISTING DRAWINGS DIFFER FROM THAT SHOWN ON THE DRAWINGS, NOTIFY THE DESIGN TEAM PRIOR TO CONTINUATION OF WORK.
3. DEMOLITION, CUTTING, DRILLING, ETC. OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE SO AS NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDING. IF ANY ARCHITECTURAL, STRUCTURAL, OR MEP MEMBERS NOT DESIGNATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND APPROVAL OBTAINED PRIOR TO REMOVAL OF THOSE MEMBERS.
4. THE CONTRACTOR SHALL SAFELY SHORE EXISTING CONSTRUCTION WHEREVER EXISTING SUPPORTS ARE REMOVED TO ALLOW THE INSTALLATION OF NEW WORK. ALL SHORING METHODS AND SEQUENCING OF DEMOLITION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HIS ENGINEER. THE SHORING SHALL BE IN COMPLIANCE WITH ASCE/SEI 37 (LATEST ED.) "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION". EXISTING STRUCTURAL MEMBERS SHALL NOT BE CUT OR MODIFIED UNLESS SPECIFICALLY SHOWN HEREIN OR UNLESS APPROVED IN WRITING BY THE SER.
5. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TAKE CARE TO PROTECT EXISTING UTILITIES THAT ARE TO REMAIN IN SERVICE.
6. THE CONTRACTOR SHALL REPAIR ALL DAMAGE CAUSED DURING CONSTRUCTION WITH SIMILAR MATERIALS AND WORKMANSHIP TO RESTORE CONDITIONS TO LEVELS ACCEPTABLE TO THE ARCHITECT/OWNER.
7. EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS WAS OBTAINED FROM THE FOLLOWING:
   A. THE ARCHITECTUAL CAD FILES/DRAWINGS

WOOD FRAMING SPECIFICATIONS (06 10 00):

1. WOOD FRAMING SIZES, FIRESTOPS, ANCHORAGE, FURRING AND CONNECTORS NOT SHOWN ON THE CONSTRUCTION DOCUMENTS SHALL AT A MINIMUM ADHERE TO THE PRESCRIPTIVE DESIGN PER THE BUILDING CODE.
2. **STUD CONTINUITY:** STUDS SHALL BE CONTINUOUS BETWEEN HORIZONTAL SUPPORTS, INCLUDING BUT NOT LIMITED TO: GIRDERS, FLOOR DIAPHRAGM ASSEMBLIES, CEILING DIAPHRAGM ASSEMBLIES, AND ROOF DIAPHRAGM ASSEMBLIES.
3. STRUCTURAL LUMBER IN *PERMANENTLY CONDITIONED SPACE* SHALL MEET OR EXCEED THE FOLLOWING GRADES, PRODUCT LINE OR CRITERIA:
   A. STUDS:
      a. STUD GRADE SOUTHERN YELLOW PINE
      b. STUD GRADE DOUGLAS FIR-LARCH
      c. VERTICAL STUD USE ONLY CERTIFIED FINGER-JOINTED OF HEM-FIR, SOUTHERN PINE OR DOUGLAS-FIR
         - HRA DESIGNATION (HEAT RESISTANT ADHESIVE) REQUIRED FOR STUDS IN FIRE-RESISTANCE RATED ASSEMBLIES.
   B. JOISTS:
      a. NO.2 GRADE SOUTHERN YELLOW PINE
      b. NO.2 GRADE DOUGLAS FIR-LARCH
   C. LAMINATED VENEER LUMBER (LVL) BEAM / HEADER / GIRDER
      a. WEYERHAEUSER 2.0E MICROLAM LVL
      b. BOISE CASCADE VERSA-LAM 2.0E 3100Fb
   D. GLUED LAMINATED (GLULAM) BEAM / HEADER / GIRDER:
      a. 3½" & 5½" WIDE: ANTHONY POWER BEAM 3000Fb - 2.1E - 300Fv
      b. 7" WIDE: ANTHONY POWER BEAM 2800Fb - 2.1E - 300Fv
   E. RAFTERS:
      a. NO.2 GRADE SOUTHERN YELLOW PINE
      b. NO.2 GRADE DOUGLAS FIR-LARCH
      c. NO.2 STRUCTURAL FINGER-JOINTED OF HEM-FIR, SOUTHERN PINE OR DOUGLAS FIR
         - HRA DESIGNATION (HEAT RESISTANT ADHESIVE) REQUIRED FOR STUDS IN FIRE-RESISTANCE RATED ASSEMBLIES
   F. POSTS:
      a. DIMENSIONAL LUMBER/TIMBERS: NO.2 GRADE SOUTHERN YELLOW PINE OR DOUGLAS FIR-LARCH
      b. PARALLEL STRAND LUMBER (PSL): TRUSJOIST 1.8E PARALLAM PSL POSTS
   G. PLATES:
      a. NO.3 GRADE SOUTHERN YELLOW PINE
      b. NO.3 GRADE DOUGLAS FIR-LARCH
   H. BLOCKING
      a. NO.3 GRADE SOUTHERN YELLOW PINE
      b. NO.3 GRADE DOUGLAS FIR-LARCH
4. STRUCTURAL LUMBER *NOT IN PERMANENTLY CONDITIONED SPACE* SHALL ADHERE TO THE FOLLOWING SPECIFICATIONS:
   A. DIMENSION LUMBER :
      a. SAME SPECIES AND GRADES AS LISTED ABOVE, HOWEVER THEY MUST BE PRESSURE-TREATED PER THE TABLE BELOW BASED UPON THE CONDITION:
         - **USE CATEGORY CONDITION**
         - UC3B EXTERIOR ABOVE GROUND
         - UC4C GROUND CONTACT (IN CONTACT WITH SOIL)
         - UC5C MARINE USE, SOUTHERN WATERS (SALT OR BRACKISH WATER)
   B. GLUED LAMINATED BEAM / HEADERS / GIRDER:
      a. POWER PRESERVED GLULAM BEAM (24F-V5M1/SP) TREATED WITH COPPER GUARD AT 0.04 PCF OR CLEAR-GUARD AT 0.055 PCF.
5. WOOD STRUCTURAL PANEL
   A. WOOD STRUCTURAL PANELS, WHEN USED STRUCTURALLY (INCLUDING THOSE USED FOR SIDING, ROOF AND WALL SHEATHING, SUBFLOORING, DIAPHRAGMS AND BUILT-UP MEMBERS), SHALL BE APA PERFORMANCE-RATED CONFORMING TO DOC PS 1, DOC PS 2 OR ANSI/APA PRP 210. EACH PANEL OR MEMBER SHALL BE IDENTIFIED FOR GRADE, BOND CLASSIFICATION, AND PERFORMANCE CATEGORY BY THE TRADEMARKS OF AN APPROVED TESTING AND GRADING AGENCY. THE PERFORMANCE CATEGORY VALUE SHALL BE USED AS THE "NOMINAL PANEL THICKNESS" OR "PANEL THICKNESS".
      a. SUBFLOOR: 23/32 PERFORMANCE CATEGORY APA RATED STURD-I-FLOOR, 24 o.c., EXPOSURE 1
      b. SHEATHING/DECKING: 7/16 (UNLESS NOTED OTHERWISE, REF SHEAR WALL SCHEDULE) PERFORMANCE CATEGORY APA RATED SHEATHING, 32/16, EXPOSURE 1
   B. WOOD STRUCTURAL PANELS WHEN PERMANENTLY EXPOSED IN OUTDOOR APPLICATIONS SHALL BE OF EXTERIOR TYPE, EXCEPT THAT WOOD STRUCTURAL PANEL ROOF SHEATHING EXPOSED TO THE OUTDOORS ON THE UNDERSIDE IS PERMITTED TO BE EXPOSURE 1 TYPE.
6. ALL LUMBER SHALL BE KILN DRIED WITH A MAXIMUM MOISTURE CONTENT OF 19%.
7. ALL GLUED-LAMINATED (GLULAM) MEMBERS SHALL ADHERE TO ANSI A 190.1 & ASTM D 3737 AND BE MANUFACTURED BY ANTHONY POWER BEAM (3000Fb - 2.1E).
8. ALL LUMBER SHALL BE IDENTIFIED BY THE GRADE MARK OF A LUMBER GRADING OR INSPECTION AGENCY THAT HAS BEEN APPROVED BY AN ACCREDITATION AGENCY THAT COMPLIED WITH DOC PS 20.
9. ALL WOOD IN CONTACT WITH CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESERVATIVE TREATED WOOD. ALL FASTENERS INCLUDING ANCHOR BOLTS, POWER-ACTUATED FASTENERS, NAILS, CLIPS, AND HANGERS ATTACHED TO PRESERVATIVE TREATED SHALL BE APPROVED FOR THE ENVIRONMENT.
10. NAILS AND STAPLES
    A. NAILS AND STAPLES SHALL CONFORM TO REQUIREMENTS OF ASTM F 1667. NAILS USED FOR FRAMING AND SHEATHING CONNECTIONS SHALL HAVE MINIMUM AVERAGE BENDING YIELD STRENGTHS AS FOLLOWS: 80 KIPS PER SQUARE INCH (KSI) (551 MPA) FOR SHANK DIAMETERS LARGER THAN 0.177 INCH (4.50 MM) BUT NOT LARGER THAN 0.254 INCH (6.45 MM), 90 KSI (620 MPA) FOR SHANK DIAMETERS LARGER THAN 0.142 INCH (3.61 MM) BUT NOT LARGER THAN 0.177 INCH (4.50 MM) AND 100 KSI (689 MPA) FOR SHANK DIAMETERS OF AT LEAST 0.099 INCH (2.51 MM) BUT NOT LARGER THAN 0.142 INCH (3.61 MM).
11. FASTENERS FOR FIRE-RETARDANT TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED STEEL OR STAINLESS STEEL.

WOOD TRUSS SPECIFICATIONS (06 17 60):

1. TRUSSES SHALL BE DESIGNED BY THE TRUSS MANUFACTURER IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" (ANSI/TPI 1-LATEST ED.) AND SHALL CONFORM TO IBC §2303.4. THE DESIGN SHALL INCLUDE ALL TEMPORARY AND PERMANENT BRACING. TEMPORARY BRACING MAY REMAIN IN-PLACE IF IT DOES NOT INTERFERE WITH ARCHITECTURAL REQUIREMENTS. TRUSSES SHALL BE PERMANENTLY BRACED TO PREVENT ROTATION AND PROVIDE LATERAL STABILITY IN ACCORDANCE WITH ACCEPTED INDUSTRY PRACTICE SUCH AS THE SBCA BUILDING COMPONENT SAFETY INFORMATION (BCSI) GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
2. ALL ANCHORAGE DESIGNS AND CONNECTIONS TO THE STRUCTURAL ELEMENTS AND THE PERMANENT BUILDING STABILITY BRACING REQUIRED TO RESIST UPLIFT, GRAVITY, AND LATERAL LOADS, AND TRUSS-TO-STRUCTURAL ELEMENT CONNECTIONS, BUT NOT TRUSS-TO-TRUSS CONNECTIONS, ARE BY THE BUIDLING DESIGNER (EOR).TRUSSES SHALL BE PERMANENTLY BRACED TO PREVENT ROTATION AND PROVIDE LATERAL STABILITY IN ACCORDANCE WITH ACCEPTED INDUSTRY PRACTICE SUCH AS THE SBCA BUILDING COMPONENT SAFETY INFORMATION (BCSI) GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
3. SUBMITTALS: THE TRUSS MANUFACTURER SHALL PREPARE AND SUBMIT A TRUSS SUBMITTAL PACKAGE (PRODUCT DATA AND SHOP DRAWINGS) FOR THE WOOD TRUSSES TO THE CONTRACTOR. THE CONTRACTOR AFTER REVIEWING AND APPROVING THE TRUSS SUBMITTAL PACKAGE, SHALL FORWARD THE TRUSS SUBMITTAL PACKAGE TO DUDLEY FOR REVIEW. DUDLEY WILL REVIEW THE TRUSS SUBMITTAL PACKAGE FOR GENERAL CONFORMANCE WITH THE STRUCTURAL DRAWINGS. TRUSS SUBMITTAL PACKAGES SHALL BE PREPARED, SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE TRUSS SUBMITTAL PACKAGE SHALL INCLUDE AT A MINIMUM:
   A. PRODUCT DATA AND ICC APPROVAL FOR FRAMING MEMBERS AND FASTENERS THAT HAVE BEEN DESIGNED BY OTHERS.
   B. SHOP DRAWINGS SHALL INCLUDE AT A MINIMUM:
      a. PROJECT NAME, LOCATION AND BUILDING CODE
      b. LAYOUTS INCLUDING TEMPORARY AND PERMANENT BRIDGING REQUIREMENTS.
      c. PROFILES INCLUDING ALL JOINTS, BEARING POINTS, DEFLECTION RATIOS, AND REACTIONS.
      d. BLOCKING REQUIREMENTS
      e. REQUIRED BEARING WIDTHS
      f. NUMBER OF PLIES IF GREATER THAN ONE
      g. LUMBER SPECIES AND GRADE
      h. SIZE, GAUGE AND LOCATION OF PLATES
      i. TRUSS TO TRUSS HARDWARE REQUIREMENTS
      j. NAME AND TRADEMARK OF PLATE MFR AND TRUSS FABRICATOR
      k. CAMBER
      l. PERMANENT AND TEMPORARY BRACING FOR TRUSSES
   C. CALCULATIONS INCLUDING BUT NOT LIMITED TO:
      - BUILDING CODE
      - DESIGN LOADS
      - STRESS REDUCTION FACTORS USED FOR PLATES
4. DRAG TRUSS SHALL BE PROVIDED ABOVE AND BELOW ALL INTERIOR SHEAR WALLS. THE DRAG TRUSSES SHALL BE DESIGNED TO SUPPORT AN ALLOWABLE LINEAR LOAD EQUAL TO THAT OF THE SHEAR WALL (IF SHEAR WALLS ARE ABOVE AND BELOW THE LARGE ALLOWABLE SHEAR LOAD SHALL APPLY).
5. TRUSS RESTRAINT/BRACING METHODS SHALL BE IN ACCORDANCE WITH BCSI-B3 (PERMANENT RESTRAINT/BRACING OF CHORDS AND WEB MEMBERS) & B7 SUMMARY - GUIDE FOR HANDLING, INSTALLING & BRACING OF 3X2 & 4X2 PARALLEL CHORD TRUSSES, UNLESS NOTED OTHERWISE
   A. THE TRUSS DESIGNER SHALL INDICATE ANY AND ALL TRUSS TO TRUSS CONNECTIONS INCLUDING PERMANENT AND TEMPORARY BRACING
6. TRUSS DEFLECTION LIMITS: TRUSSES SHALL BE LIMITED TO THE FOLLOWING DEFLECTION LIMITS:
   A. FLOOR TRUSSES LIVE LOAD (L/360) TOTAL LOAD (L/240)
   B. PITCHED ROOF TRUSS : LIVE LOAD (L/240) TOTAL LOAD (L/180)
   C. SHALLOW (< = 4 : 12) PITCHED ROOF TRUSSES : LIVE LOAD (L/360) TOTAL LOAD (L/240)
7. CAMBER SHALL BE BUILT INTO ROOF TRUSSES TO COMPENSATE FOR VERTICAL DEFLECTION. THE CAMBER SHALL BE LARGEST AT THE MID-SPAN OF THE TRUSS.
   A. PITCHED ROOF TRUSS: 1.00 X DEFLECTION FROM ACTUAL DEAD LOAD.
8. TRUSSES SPANNING 60 FEET OR FURTHER
   A. THE TRUSS MFR. SHALL CONTRACT WITH A QUALIFIED REGISTERED DESIGN PROFESSIONAL FOR THE DESIGN OF THE TEMPORARY INSTALLATION RESTRAINT/BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING FOR ALL TRUSSES WITH CLEAR SPANS 60 FEET OR GREATER.

REINFORCING STEEL - 03 20 00

1. THE CONTRACTOR MUST SUBMIT PLACING DRAWINGS COMPLETE WITH LAYOUT, SYMBOLS AND NOTATION, AND SCHEUDLES WITH THE REINFORCING STEEL SHOP DRAWINGS. IF THE CONTRACTOR ONLY SUBMITS SCHEDULES (BAR LISTS, CUT AND BEND INFORMATION), THE SUBMITTAL WILL NOT BE REVIEWED AND WILL BE RETURNED REVISE AND RESUBMIT. DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL CONFORM TO THE FOLLOWING: ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT", CRSI "REINFORCING BAR DETAILING" , AND CRSI "MANUAL OF STANDARD PRACTICE". ALL REFERENCES SHALL BE THE LATEST EDITION AVAILABLE.
2. PLACING DRAWINGS ARE DETAILED WORKING DRAWINGS THAT SHOW THE QUANTITY, SIZE, DIMENSIONS, SPACING, LOCATIONS, AND OTHER INFORMATION REQUIRED FOR REINFORCEMENT FABRICATION AND INSTALLATION. PLACING DRAWINGS SHALL BE USED BY THE IRONWORKERS ON THE PROJET TO PLACE (INSTALL) THE REINFORCING STEEL.
   A. LAYOUT: THE PLACING DRAWINGS MUST INCLUDE PLANS, DETAILS, ELEVATIONS, GRAPHICS, SCHEDULES, MATERIAL LISTS, AND BENDING DETAILS OF REINFORCEMENT AND REINFORCEMENT SUPPORTS, AS APPLICABLE TO THIS PROJECT.
   B. FIELD CONDITIONS, FIELD MEASUREMENTS, LOCATION OF CONSTRUCTION, CONTRACTION (CONTROL), AND EXPANSION JOINTS SHALL BE IMPLEMENTED INTO THE PLACING DRAWINGS.
   C. THE PLACING DRAWINGS MUST BE PREPARED BASED UPON THE LATEST CONSTRUCTION DOCUMENTS ALONG WITH SHOP DRAWINGS FOR OTHER TRADES THAT EFFECT THE REINFORCEMENT.
   D. THE PLACING DRAWINGS MUST BE COMPUTER GENERATED.
3. COMPLETE REINFORCING PLACING DRAWINGS PREPARED IN ACCORDANCE WITH ACI 315 SHALL BE REVIEWED BY THE ENGINEER AND AVAILABLE ON THE JOB SITE PRIOR TO & DURING THE PLACING OF CONCRETE.
4. CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60, WITH SUPPLEMENTARY REQUIREMENTS.
5. WELDED WIRE REINFORCEMENT (WWR) SHALL CONFORM TO ASTM 1064 GR.80 AND SHALL BE PROVIDED IN SHEET FORM. SHEETS SHALL BE MFRD WITH SUFFICIENT OVERHANG LENGHTS TO ACHIEVE A LAP SPLICE EQUAL TO THE GREATER OF 12" OR THE LAP SPLICE DIMENSION SHOWN IN THE REBAR LAP SCHEDLE FOR BAR OF EQUAL OR GREATER DIAMETER AND GRADE. UNO SHEETS SHALL BE INSTALLED COPLANAR SO AS TO NOT "STACK".
6. ALL REINFORCING STEEL SHALL BE SUPPORTED AT DESIGNED DEPTH USING PLASTIC OR METALLIC CHAIRS SPACED AT 48" OC IN ALL DIRECTIONS TO SUPPORT FULL LENGTH OF REINFORCEMENT. IF ALTERNATE IS TO BE USED, PROPOSED CHAIR IS TO BE SUBMITTED IN WRITING AND APPROVED BY EOR
   A. PRECAST CONCRETE SUPPORTS (UTILITY BRICKS) MAY ONLY BE USED AT THE BOTTOM OF GRADE BEAMS WITH A DEPTH OF AT LEAST 18" OR WITH WRITTEN PERMISSION FROM THE EOR. WHEN PERMITTED, PRECAST SUPPORTS SHALL HAVE A SURFACE AREA OF NOT LESS THAN 4 IN^2 AND HAVE A COMPRESSIVE STRENGTH EQUAL TO OR GREATER THAN THE CONCRETE STRENGTH.
7. END HOOKS, DEVELOPMENT LENGTHS, AND SPLICES SHALL CONFORM TO THE REQUIREMENTS OF ACI 318.
8. REINFORCEMENT MAY BE PLACED IN BUNDLES OF NOT MORE THAN TWO W/ THE CLEAR DISTANCE BETWEEN BUNDLES OF REINFORCEMENT OR TENDONS OF 3 INCHES MINIMUM. CONCRETE COVER NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH ACI 318.
9. COVERAGE: THE FOLLOWING SHALL BE THE MINIMUM REINFORCEMENT CONCRETE COVERAGE (INCLUDING TENDONS):
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH .... 3"
   B. CONCRETE EXPOSED TO EARTH OR WEATHER:
      a. NO. 6 AND LARGER .... 2"
      b. NO. 5 BAR AND SMALLER .... 1½"
   C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND .... ¾"
10. UNO, ALL LAP SPLICES OF REINFORCEMENT IN GROUND SUPPORTED ELEMENTS (GRADE BEAMS, FOOTINGS, TURN DOWNS) SHALL BE A MINIMUM OF 48Ø, WHERE Ø = THE DIAMETER OF THE BAR, REINFORCEMENT IN STRUCTURAL SLABS, WALLS OR ELEVATED STRUCTURES SHALL REFER TO THE TYPICAL LAP SPLICE DETAIL.
11. HEADED CONCRETE STUD ANCHORS ("HSA") FASTENED TO AN EMBED PLATE SHALL BE NELSON OR KSM HEADED CONCRETE ANCHORS (OR APPROVED ALTERNATIVE). ANCHORS SHALL BE AUTOMATICALLY END WELDED WITH SUITABLE STUD WELDING EQUIPMENT IN THE SHOP OR IN THE FIELD. WELDING SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE NELSON STUD WELDING COMPANY OR THE KSM WELDING SYSTEMS COMPANY.

REINFORCED CONCRETE - 03 30 00

1. GENERAL
   A. CONCRETE WORK SHALL CONFORM TO THE LATEST ED. OF ACI 301 (SPECIFICATIONS FOR STRUCTURAL CONCRETE) UNO IN THESE CONSTRUCTION DOCUMENTS.
   B. POINT OF DELIVERY = AT DISCHARGE FROM THE CONCRETE MIX TRUC (END OF THE CHUTE)
   C. POINT OF PLACEMENT = AT THE LOCATION WHERE CONCRETE IS PLACED TO HARDEN. IF PUMPING, THIS WILL BE AT THE END OF THE PUMP HOSE
   D. WELDING OF REINFORCEMENT IS NOT ALLOW WITHOUT WRITTEN PERMISSION FROM ENGINEER.
2. CONCRETE MIX DESIGN & PLACEMENT:
   A. ALL CONCRETE MIXES SHALL CONFORM TO ACI 301, UNO. MIX DESIGN DATA RESULTS EITHER COMPLYING WITH THE FIELD EXPERIENCE OR TRIAL MIXTURE METHOD PER ACI 301/318 SHALL BE SUBMITTED FOR EACH CONCRETE MIX. PROPORTIONS OF MATERIALS FOR CONCRETE SHALL BE ESTABLISHED TO:
      a. PROVIDE WORKABILITY AND CONSISTENCY TO PERMIT CONCRETE TO BE WORKED READILY INTO FORMS AND AROUND REINFORCEMENT UNDER CONDITIONS OF PLACEMENT TO BE EMPLOYED, WITHOUT SEGREGATION OR EXCESSIVE BLEEDING.
      b. MEET REQUIREMENTS FOR APPLICABLE EXPOSURE REQUIREMENTS.
      c. MEET OR EXCEED THE REQUIRED F'C.
      d. NOT EXCEED THE MAXIMUM W/C RATIO.
   B. ADHERE TO THE MINIMUM CEMENTITOUS MATERIAL CONTENT FOR FLOORS (REF ACI 301 TABLE 4.2.2.1).
   C. THE CONTRACTOR MUST INDICATE THE PLANNED PLACEMENT METHOD FOR EACH CONCRETE MIX.
   D. THE CONTRACTOR MUST PROVIDE THE APPROVED MIX DESIGNS TO THE SPECIAL INSPECTOR (OWNER'S TESTING & INSPECTION AGENCY).
   E. NO WATER SHALL BE ADDED AT THE SITE (RE-TEMPERING) WITHOUT THE SPECIAL INSPECTOR PRESENT TO ENSURE THAT THE W/C IS NOT EXCEEDED. THE READY-MIX COMPANY MUST INDICATE THE WATER WITHHELD AT THE PLANT ON EACH BATCH TICKET. WHEN THE SLUMP IS BELOW REQUIRED, WATER CAN BE ADDED, BUT MUST BE DONE IN ACCORDANCE WITH ACI 301 AND ASTM C94, SEE BELOW. IF ADDITIONAL SLUMP BEYOND THAT INDICATED IN THE CONCRETE MIX SUBMITTAL IS REQUIRED FOR PLACEMENT AND FINISH OF THE CONCRETE, THEN THE CONTRACTOR SHALL COORDINATE WITH THE CONCRETE SUPPLIER TO ADD ADDITIONAL WORKABILITY VIA PLASTICIZER, SUPERPLASTICIZER, ETC. WITHOUT INCREASING THE W/C RATIO. EXCEEDING THE W/C RATIO HAS DETRIMENTAL EFFECTS OUTSIDE OF LOWERING THE COMPRESSIVE STRENGTH INCLUDING HIGHER FRENQUENCY OF SHRINKAGE CRACKS, MORE POROUS CONCRETE AND LESS DURABLE CONCRETE
      a. ACI 301 §4.3.2.1 SLUMP ADJUSTMENT—WHEN CONCRETE SLUMP TEST RESULTS ARE BELOW THE REQUIRED SLUMP, THE SLUMP MAY BE ADJUSTED BY ADDING WATER UP TO THE AMOUNT ALLOWED IN THE ACCEPTED MIXTURE PROPORTIONS. ADDITION OF WATER SHALL BE IN ACCORDANCE WITH ASTM C94/ C94M. DO NOT EXCEED THE SPECIFIED W/CM, SLUMP OR ADD WATER IN EXCESS OF THAT WITHHELD AT THE BATCH PLANT
      b. ASTM C94 REQUIREMENTS
         - DO NOT EXCEED THE MAXIMUM WATER CONTENT FOR THE BATCH AS ESTABLISHED BY THE ACCEPTED CONCRETE MIXTURE PROPORTIONS.
         - NO CONCRETE HAS BEEN DISCHARGED FROM THE MIXER EXCEPT FOR SLUMP TESTING.
         - ALL WATER ADDITIONS SHALL BE COMPLETED WITHIN 15 MINUTES FROM THE START OF THE FIRST WATER ADDITION.
         - WATER SHALL BE INJECTED INTO THE MIXER WITH SUCH PRESSURE AND DIRECTION OF FLOW TO ALLOW FOR PROPER DISTRIBUTION WITHIN THE MIXER.
         - THE DRUM SHALL BE TURNED AN ADDITIONAL 30 REVOLUTIONS OR MORE AT MIXING SPEED TO ENSURE A HOMOGENOUS MIXTURE.
   F. SLUMP TESTS SHALL BE PERFORMED AT THE POINT OF PLACEMENT WITH THE EXCEPTIONS NOTED BELOW:
      a. IF THE POINT OF DELIVERY IS THE SAME AS THE POINT OF PLACEMENT (CONCRETE IS PLACED DIRECTLY FROM TRUCK)
      b. IF THE CONTRACTOR HAS DEVELOPED AN ACCEPTABLE (APPROVED BY SPECIAL INSPECTOR AND EOR) CORRELATION BETWEEN FRESH CONCRETE PROPERTIES AT THE POINT OF DELIVERY AND POINT OF PLACEMENT.
   G. AIR-ENTRAINED CONCRETE SHALL NOT BE USED IN ANY NORMALWEIGHT CONCRETE FLOOR SLAB THAT IS TO RECEIVE A HARD-TROWELED FINISH.
3. CONCRETE CONSTRUCTION MATERIALS: (FOR ALL MATERIALS APPROVED EQUIVALENTS ARE ACCEPTABLE - IT IS THE CONTRACTORS RESPONSIBILTY TO ESTABLISH THE THAT SUBSITUTE PRODUCT IS EQUAL TO OR BETTER THAN THE SPECIFIED PRODUCT)
   A. HYDRAULIC CEMENT:
      a. USE ASTM C150 TYPE I/II OR TYPE III OR ASTM C595 TYPE IL, EXCEPT WHERE SPECFICALLY INDICATED OTHERWISE IN TABLE BELOW.
   B. FLY ASH:
      a. FLY ASH MAY BE USED TO REPLACE A PORTION OF THE PORTLAND CEMENT, SUBJECT TO THE APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER NOT TO EXCEED THE AMOUNTS LISTED IN THE CONCRETE TABLE.
      b. USE ASTM C618 CLASS C OR F.
   C. NORMAL WEIGHT AGGREGATE:
      a. USE ASTM C33.
      b. MATERIAL CERTIFICATES FROM THE AGGREGATE SUPPLIER MUST BE SUBMITTED WITH THE CONCRETE MIX DESIGN.
      c. PEA STONE (PEA GRAVEL) AGGREGATES ARE NOT ACCEPTABLE.
   D. WATER
      a. COMPLY WITH THE REQUIREMENTS OF ASTM C1602.
   E. COMPRESSIBLE (JOINT) FILLER AT ISOLATION AND/OR EXPANSION JOINTS
      a. MUST ADHERE TO ASTM D1751 ASPHALT-SATURATED CELLULOSIC FIBER
   F. ADHESIVE ANCHORING SYSTEMS
      a. TWO-COMPONENT SYSTEMS THAT ADHERE TO ASTM C881 (HILTI HY-200, SIMPSON SET-XP, POWERS PE 1000+)
4. CHLORIDE ION
   A. FOR CORROSION PROTECTION OF REINFORCEMENT IN CONCRETE, MAXIMUM WATER SOLUBLE ION CONCENTRATIONS IN HARDENED CONCRETE AT AGES FROM 28 TO 42 DAYS CONTRIBUTED FROM THE THE INGREDIENTS INCLUDING WATER, AGGREGATES, CEMENTITIOUS MATERIALS, AND ADMIXTURES SHALL NOT EXCEED THE LIMITS INDICATED IN THE TABLE BELOW.
5. PLACEMENT:
   A. CONCRETE SHALL BE PLACED CAREFULLY SO AS NOT TO DEVIATE REINFORCEMENT FROM THE DESIGN LOCATION.
   B. CONCRETE SHALL BE PROPERLY VIBRATED, ESPECIALLY AROUND POST-TENSIONED ANCHORAGES AND CONGESTED AREAS SUCH AS COLUMN JOINTS.
   C. PLACEMENT OF CONCRETE SHALL BE COMPLETED WITHIN 90 MINUTES AFTER THE INTRODUCTION OF THE MIXING WATER (BATCH TIME), IN ACCORDANCE WITH ASTM C94.
   D. TOLERANCES FOR CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST ED. OF ACI 117 (SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS).
6. FORMWORK - NOT APPLICABLE TO GROUND SUPPORTED FORMWORK
   A. THE CONTRACTOR SHALL SUBMIT FORMWORK DRAWINGS, PREPARED UNDER THE SUPERVISION AND SEALED BY THE FORMWORK DESIGN ENGINEER, SHALL BE SUBMITTED FOR OWNER'S RECORD AND SHALL BE REVIEWED BY THE ENGINEER FOR CONFORMANCE TO STRUCTURAL LAYOUT ONLY. SUCH SHOP DRAWINGS SHALL INDICATE ALL DIMENSIONS AND TYPES OF MATERIALS, SIZES, LENGTHS, CONNECTION DETAILS, DESIGN ALLOWANCE FOR CONSTRUCTION LOADS, ANCHORS, FORM TIES, SHORES, BRACES, CONSTRUCTION JOINTS, REVEALS, CAMBER, OPENINGS, FORMWORK COATINGS, AND ALL OTHER PERTINENT INFORMATION.
   B. THE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE FOR FORMWORK REMOVAL SHALL BE 75% OF THE SPECIFIED f'_c.
   C. ANY EXPOSED SURFACES OF GROUND SUPPORTED GRADE BEAMS SHALL HAVE A SMOOTH SURFACE FORMED BY EITHER PLYWOOD OR STEEL FORMS.
7. ANY CONCRETE ELEMENTS IN WHICH TEMPERATURE & SHRINKAGE CRACKS ARE TO BE MITIGATED (ARCHITECTUALLY EXPOSED CONCRETE, WATER-RETAINING CONCRETE, ETC.), SHALL HAVE MACRO SYNTHETIC FIBERS INCLUDED IN THE CONCRETE MIX AT A DOSAGE OF ___**4.0**___ LB/CY IN ADDITION TO THE TYPICAL REINFORCEMENT. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, THE FIBER INSTALLATION AND PRODUCT DATA. MIXING AND PLACEMENT SHALL FOLLW THE MFRS INTRUCTIONS. INCLUSION OF FIBERS MAY DECREASE SLUMP, HOWEVER, ADDITIONAL WATER SHOULD NOT BE ADED. ONLY A WATER REDUCING OR HIGH RANGE WATER REDUCING ADMIXTURE SHOULD BE USED TO ADJUST CONCRETE TO THE DESIRED WORKABIITY PRIOR TO THE ADDITION OF THE FIBERS. PRE-APPROVED PRODUCTS INCLUDE THE FOLLOWING:
   a. SikaFiber-800 Stealth.
   b. MasterFiber MAX 2200 CB

CONCRETE MIX REQUIREMENTS

ELEMENT	f'c	EXPOSURE CATEGORY	MAX CL-	MAX FLY ASH	MAX W/CM RATIO	MAX COARSE AGG. SIZE	MIN. AIR CONTENT[E]
SLABS-ON-GROUND[A] (W.OUT FREEZE/THAW)	3,500	F0,S0,P(W)0,C1	0.30	20%	0.45	1"	N/A (3% MAX)

1. CONCRETE SLAB IS PLANNED TO BE ARCHITECTURALLY EXPOSED CONCRETE, REFERENCE NOTE 7 ABOVE

N/A = MINIMUM AIR CONTENT FOR FREEZE/THAW REQUIREMENTS IS NOT APPLICABLE (APPLIES TO F0 EXPOSURE CATEGORY ONLY)

NOTES:

A. CONCRETE MIXES FOR SLABS SHALL HAVE A MAXIMUM LENGTH OF CHANGE OF 0.035% AS TESTED PER ASTM C 157 "STANADARD TEST METHOD FOR LENGTH OF CHANGE OF HARDENED HYDRAULIC-CEMENT MORTAR AND CONCRETE". THE CONTRACTOR SHALL SUBMIT CERTIFICATION THAT THE PROPOSED MIX DESIGN COMPLIES. IT IS ESSENTIAL THAT THE CONCRETE USED IN THESE TESTS BE MADE WITH THE SAME MATERIALS THAT WILL BE USED IN THE ACTUAL CONSTRUCTION. THE PORTLAND CEMENT CONTENT AND THE CONTENT OF OTHER CEMENTITIOUS PRODUCTS, IF USED, SHOULD BE SUFFICIENT TO PERMIT SATISFACTORY FINISHABILITY UNDER THE ANTICIPATED FIELD CONDITIONS. THE SETTING CHARACTERISTICS OF THE CONCRETE SHOULD BE RELATIVELY PREDICTABLE. THE CONCRETE SHOULD NOT EXPERIENCE EXCESSIVE RETARDATION, DIFFERENTIAL SET TIME, OR SURFACE CRUSTING DIFFICULTIES UNDER THE CONDITIONS OF TEMPERATURE AND HUMIDITY EXPECTED ON THE PROJECT. IF A HISTORY OF FINISHING PROPERTIES IS NOT AVAILABLE FOR A CONCRETE MIXTURE, A TEST SLAB SHOULD BE PLACED UNDER JOB CONDITIONS TO EVALUATE THE WORKABILITY, FINISHABILITY, SETTING TIME, SLUMP LOSS, AND APPEARANCE OF THE CONCRETE PROPOSED FOR USE. MATERIALS, INCLUDING ALL ADMIXTURES, EQUIPMENT, AND PERSONNEL PROPOSED FOR THE PROJECT, SHOULD BE USED. THE TEST PANEL SHOULD BE AS LARGE AS POSSIBLE AND AT LEAST 20 X 20 FT, PLACED AT THE SPECIFIED PROJECT THICKNESS. A FLOOR SLAB AREA IN A NONCRITICAL SECTION IS OFTEN CHOSEN AS THE TEST PANEL.THE CONCRETE CONTRACTOR SHOULD REVIEW THE PROPOSED MIXTURE PROPORTIONS BEFORE THE PRECONSTRUCTION MEETING AND PLACEMENT OF THE TEST SLAB. IF A PUMP WILL BE USED FOR THE PLACEMENT OF CONCRETE MATERIALS, THE TEST SLAB SHOULD BE PLACED WITH THE SAME PUMP EQUIPMENT.
B. "P(W)X" REFERS TO PERMEABILITY REQUIREMENTS OF THE CONCRETE. WHEN REFERENCING ACI318-11, CATEGORY SHOULD BE READ AS "PX". WHEN REFERENCING ACI318-14 OR ACI318-19, CATEGORY SHOULD BE READ AS "WX".
C. SLUMP REQUIREMENTS SHALL BE DETERMINED BY THE CONTRACTOR AND CONCRETE PRODUCER BASED UPON HANDLING, PLACING, FINISHING AND CURING CRITERIA FOR CONCRETE CONSTRUCTION. IF THE CONTRACTOR IS NOT ABLE TO DETERMINE SLUMP REQUIREMENTS, THEN IT SHALL BE IN ACCORDANCE WITH ACI 301 (SLUMP = 4" ± 1" AT THE POINT OF PLACEMENT). PUMPED CONCRETE LIKLEY WILL A REQUIRE A SLUMP GREATER THAN 4 AT THE POINT OF DELIVERY TO ACCOUNT FOR SLUMP LOSS DURING PUMPING.
D. UNLESS NOTED OTHERWISE, REMOVAL OF SHORING, BRACING, FORMWORK OR BACKFILLING OF STRUCTURES SHALL NOT OCCUR UNITL THE CONCRETE HAS OBTAINED A MINIMUM OF 75% OF f'c. SHORING, BRACING, FORMWORK AND BACKFILLING OPERATIONS ARE MEANS AND METHOD OF CONSTRUCTION AND THUS THE CONTRACTOR IS SOLEY RESPONSIBLE FOR THESE OPERATIONS. QUESTIONS ON CAPACITY OF THE STRUCTURE TO SUPPORT TEMPORARY LOADING CONDITIONS SHALL BE ADDRESSED IN WRITING TO THE ENGINEER. IN MANY CASES, THE CONTRACTOR WILL NEED TO CONSULT A SPECIALITY STRUCTURAL ENGINEER TO DESIGN SHORING, BRACING, ETC., TO FACIILATE THEIR SELECTED MEANS AND METHODS OF CONSTRUCTION.
E. MAXIMUM LIMITS APPLY TO SLABS THAT ARE TO RECEIVE A HARD TROWEL FINISH. THE TOLERANCE FOR AIR CONTENT IS ± 1%.

BELOW SLAB VAPOR RETARDER - SLAB-ON-GRADE (07 26 17)

A. REFER TO SPECIFICATION 07 26 17, IF APPLICABLE.
B. PRODUCT QUALITY STANDARD: ASTM E 1745, CLASS A, EXCEPT WATER VAPOR PERMEANCE PROPERTY SHALL NOT EXCEED 0.03 PERMS ACCORDING TO ASTM E 96, METHOD B.
C. DESCRIPTION: PREFABRICATED, FLEXIBLE, LIGHTWEIGHT MATERIAL MANUFACTURED FROM RAW OR VIRGIN POLYETHYLENE OR POLYOLEFIN RESINS (POST-CONSUMER, RECYCLED RESINS ARE NOT PERMITTED);
D. THICKNESS: REFER TO PLAN AND/OR ARCHITECTUAL DRAWINGS/SPECIFICATIONS FOR THE MINIMUM THICKNESS.

CONCRETE FINISHING AND CURING

1. FINISHING: FINISHING OPERATIONS AND BULL FLOATING SHALL BE COMPLETED PRIOR TO THE ACCUMULATION OF BLEED WATER ON THE SURFACE. FINAL FINISHING SHOULD NOT BEGIN UNTIL THE BLEED WATER HAS EVAPORATED AND THE WATER SHEEN HAS DISAPPEARED FROM THE SURFACE. TROWELLING THE WET SURFACE WILL WEAKEN IT AND CAN RESULT IN SURFACE CRAZING AND DUSTING. REFER TO ARCHITECTURE FOR FINAL FINISHING REQUIREMENTS (STEEL TROWEL, BROOM FINISH, ETC.).
2. EXCESSIVE BLEED WATER REMOVAL: BLEEDING (FREE SURFACE WATER) OCCURS AS AGGREGATES SETTLE IN THE PLACED CONCRETE, DISPLACING WATER TO THE SURFACE. IF ALLOWED TO REMAIN ON THE SURFACE, IT DILUTES THE CEMENT CONTENT, SIGNIFICANTLY REDUCING THE STRENGTH NEAR THE SURFACE. THE CONTRACTOR SHALL REMOVE BLEED WATER. ONE METHOD OF REMOVING BLEED WATER IS TO DRAG THE SURFACE WITH A GARDEN HOSE.
3. CONTRACTION (CONTROL) JOINTS (SAW CUTS) IF REQUIRED, SHALL BE MADE AS SOON AS THE CONCRETE CAN SUPPORT THE WEIGHT OF WORKER AND THE EQUIPMENT.
4. CURING: IMMEDIATELY AFTER FINISHING THE SLAB, THE SLAB MUST BE CURED FOR A MINIMUM OF 7 DAYS. IF MITIGATING CRACKS IS A PRIORITY THEN WET CURING IS REQIRED, OTHERWISE A CURING COMPOUND MAY BE USED.
   A. WET-CURED BY PONDING, CONTINUOUS FOGGING, OR CONTINUOUS SPRINKLING OR A COMBINATION THEREOF.

CONCRETE CRACKS

1. EVEN WITH PROPER DESIGN AND CONSTRUCTION ALL CONCRETE WILL CRACK. PLASTIC SHRINKAGE CRACKS CONTINUE TO OPEN AS THE SLAB AGES UP TO APPROXIMATELY ONE YEAR, AND REACH 50% OF THEIR FINAL SIZE IN APPROXIMATELY 30 DAYS. MANY PLASTIC SHRINKAGE CRACKS ARE VERY SMALL WHICH MAKE THEM BARELY NOTICEABLE AND INCONSEQUENTIAL TO THE STRUCTURAL PERFORMANCE OF THE CONCRETE. CRACKS WIDER THAN APPROXIMATELY 0.06" ARE LIKELY INDICATIVE OF CONCRETE THAT DID NOT ADHERE TO THE CONCRETE MIX REQUIREMENTS, PLACEMENT, FINISHING AND CURING REQUIREMENTS. IN ADDITION TO BEING VISIBLY OBJECTIONABLE, IF THESE CRACKS EXIST IN REGULAR CONSISTENCY, THEY MAY REDUCE THE STRUCTURAL PERFORMANCE OF THE CONCRETE AND REQUIRE STRUCTURAL REPAIR (FILL CRACKS WITH EPOXY PRODUCT) OR REPLACEMENT.
2. PLASTIC SHRINKAGE CRACKS: OCCUR SOON AFTER THE CONCRETE IS PLACED AND WHILE IT IS STILL PLASTIC. IT IS CAUSED BY OVERLY RAPID DRYING OF THE SURFACE, USUALLY DUE TO HOT WEATHER, HIGH WIND, LOW HUMIDITY, OR A DELAY IN APPLYING THE CURING MEMBRANE.

RETEMPERING (ADDING WATER TO CONCRETE ON-SITE)

1. WATER SHALL NOT BE ADDED TO THE MIX TRUCKS ON THE JOB SITE IN EXCESS OF THE VOLUME OF WATER THAT IS SPECIFICALLY INDICATED TO HAVE BEEN WITHHELD FROM THE READY MIX SUPPLIER.
2. PRIOR TO ADDING WATER, THE CONTRACTOR SHALL CONFIRM THAT THE MIX IS NOT ALREADY WITHIN TOLERANCE ON SLUMP. WATER SHALL ONLY BE ADDED IF THE SLUMP IS BELOW TOLERANCE AND THE READY MIX SUPPLIER HAD INDICATED THE VOLUME OF WITHHELD (TRIM) WATER.

WOOD SHRINKAGE

A. WOOD SHRINKAGE:
   a. REGARDLESS OF THE BUILDING TYPE, BUILDING DESIGNS MUST COMPENSATE FOR THE FACT THAT WOOD SHRINKS AS IT DRIES. SHRINKAGE CONTINUES UNTIL WOOD REACHES IT EQUILIBRIUM MOISTURE CONTENT (EMC), WHICH AVERAGES 8-12% OF MOISTURE CONTENT FOR MOST STRUCTURES IN THE U.S.. THE CONTRACTOR SHALL PREPARE AND ENFORCE A PLAN TO MINIMIZE MOISTURE IN THE WOOD FRAMING. DRYWALL SHALL NOT BE INSTALLED UNTIL THE MOISTURE CONTENT OF ALL WOOD FRAMING IS BELOW 15%.
   b. THE CONSTRUCTION OF A WOOD FRAMED BUILDING REQUIRES AN UNDERSTANDING OF FRAMING TOLERANCES, SHRINKAGE, AND INTERACTION WITH DISSIMILAR MATERIALS.
   c. ROUGH OPENINGS IN EXTERIOR WALLS SHALL BE UPSIZED APPROXIMATELY 1/2" TO ACCOMMODATE SHRINKAGE.
   d. PROVIDE 1/8" WIDE JOINTS IN SHEATHING.
   e. THE CONTRACTOR SHALL INCORPORATE DIFFERENTIAL VERTICAL MOVEMENT INTO THE DESIGN OF THE PLUMBING SYSTEM INCLUDING VERTICAL EXPANSION JOINTS, GAPS AROUND HORIZONTAL PLUMBING RUNS, AVOIDING HORIZONTAL PLUMBING RUNS IN LOAD BEARING STUDS.
   f. CARE SHALL BE TAKEN DURING CONSTRUCTION TO LIMIT THE MOISTURE EXPOSURE OF THE LUMBER. IF THE LUMBER DOES BECOME WET, MEASURES SHALL BE TAKEN TO BRING THE MOISTURE CONTENT BACK TO OR BELOW 15% PRIOR TO INSTALLING ARCHITECTURAL FINISHES.
   g. THE APPROXIMATE WOOD SHRINKAGE ASSUMING ALL LUMBER IS SOUTHERN PINE WITH AN INSTALLED MOISTURE CONTENT OF 19% AND A FINAL MOISTURE CONTENT OF 10% IS AS FOLLOWS:
      - 1ST STORY [0.034"]
        - BOTTOM PLATE: 0.034"
      - TOTAL ESTIMATED SHRINKAGE: **[0.034"]**

MECHANICAL EQUIPMENT / PLUMBING UTILITIES SUPPORTED BY FRAMING

1. GENERAL
   A. REFER TO **DESIGN CRITERIA** FOR ALLOWANCES FOR SUSPENDED LOADS FROM STRUCTURE. REFER TO FRAMING PLANS FOR ALLOWANCES MADE FOR EQUIPMENT. THE CONTRACTOR SHALL INCLUDING SECONDARY FRAMING AS REQUIRED TO SUPPORT ALL EQUIPMENT / UTILITIES WITHIN THESE ALLOWANCES, WITHOUT DETRIMENTAL IMPACT TO THE STRUCTURE AND IN ACCORDANCE WITH INDUSTY BEST PRACTICE.
2. MECHANICAL EQUIPMENT:
   A. ALL EQUIPMENT CURBS, MECHANICAL EQUIPMENT, EQUIPMENT TIE DOWNS, AND CONNECTIONS OF ALL EQUIPMENT TO BUILDING STRUCTURE FOR WIND/SEISMIC LOADING ARE TO BE DESIGNED AND ENGINEERED BY A REGISTERED SPECIALTY ENGINEER RETAINED BY THE MECHANICAL EQUIPMENT SUPPLIER. SIGNED AND SEALED DRAWINGS AND CALCULATIONS ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. THE EQUIPMENT MANUFACTURER SHALL PROVIDE THE ATTACHMENT OF THE UNIT TO THE STRUCTURE AND SUBMIT TO THE ENGINEER LOADS, LOCATIONS, AND METHODS OF ATTACHMENT.
   B. THE GENERAL CONTRACTOR SHALL SUBMIT ACTUAL WEIGHTS OF EQUIPMENT TO BE USED IN THE PROJECT TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF LOADS USED IN THE DESIGN AT LEAST THREE WEEKS PRIOR TO FABRICATION AND CONSTRUCTION OF THE SUPPORTING STRUCTURE.
3. PLUMBING UTILITIES:
   A. THE SUPPORT OF ALL PLUMBING UTILITIES (ROOF DRAIN PIPES, HYDRONIC PIPING, SPRINKLER LINES, ETC.) TO FRAMING SHALL BE SEALED AND ENGINEERED BY A REGISTERED SPECIALTY ENGINEER RETAINED BY THE INSTALLING SUBCONTRACTOR. SIGNED AND SEALED DRAWINGS AND CALCULATIONS ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL.

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STATE OF TEXAS
DREW S DUDLEY
123798
LICENSED PROFESSIONAL ENGINEER
1/30/2024

A NEW CHAPEL FOR
JONES & WASHINGTON
508 E. MARTIN LUTHER KING JR. ST. BRYAN, TX

REVISIONS	
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GEOTECHNICAL | STRUCTURAL | ENVIRONMENTAL
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(o) 979.777.0720 | TBPE Firm No. F-18677

DATE
12/01/2023

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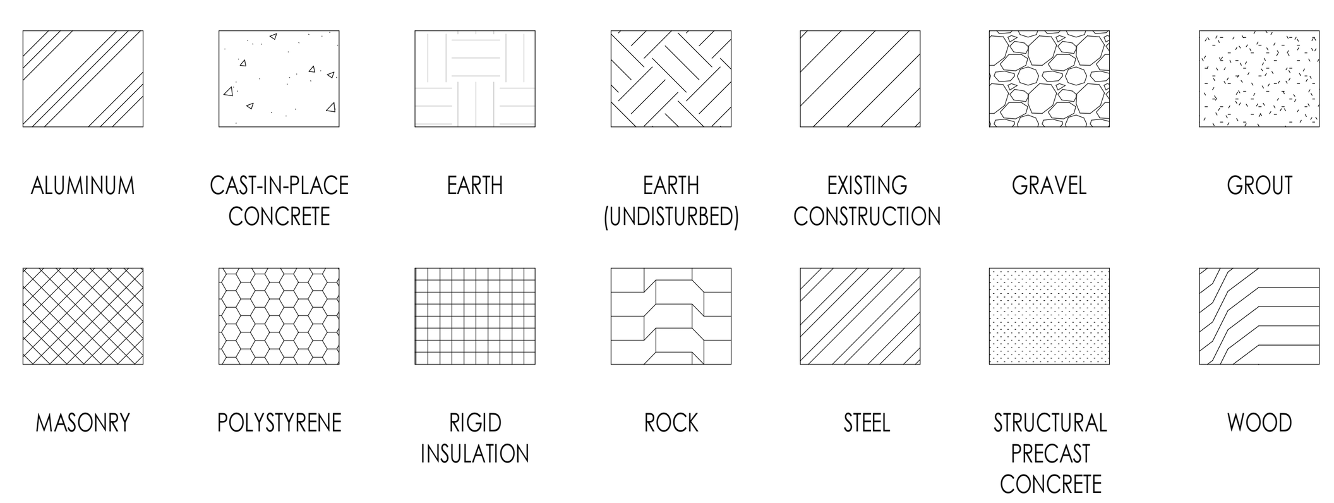
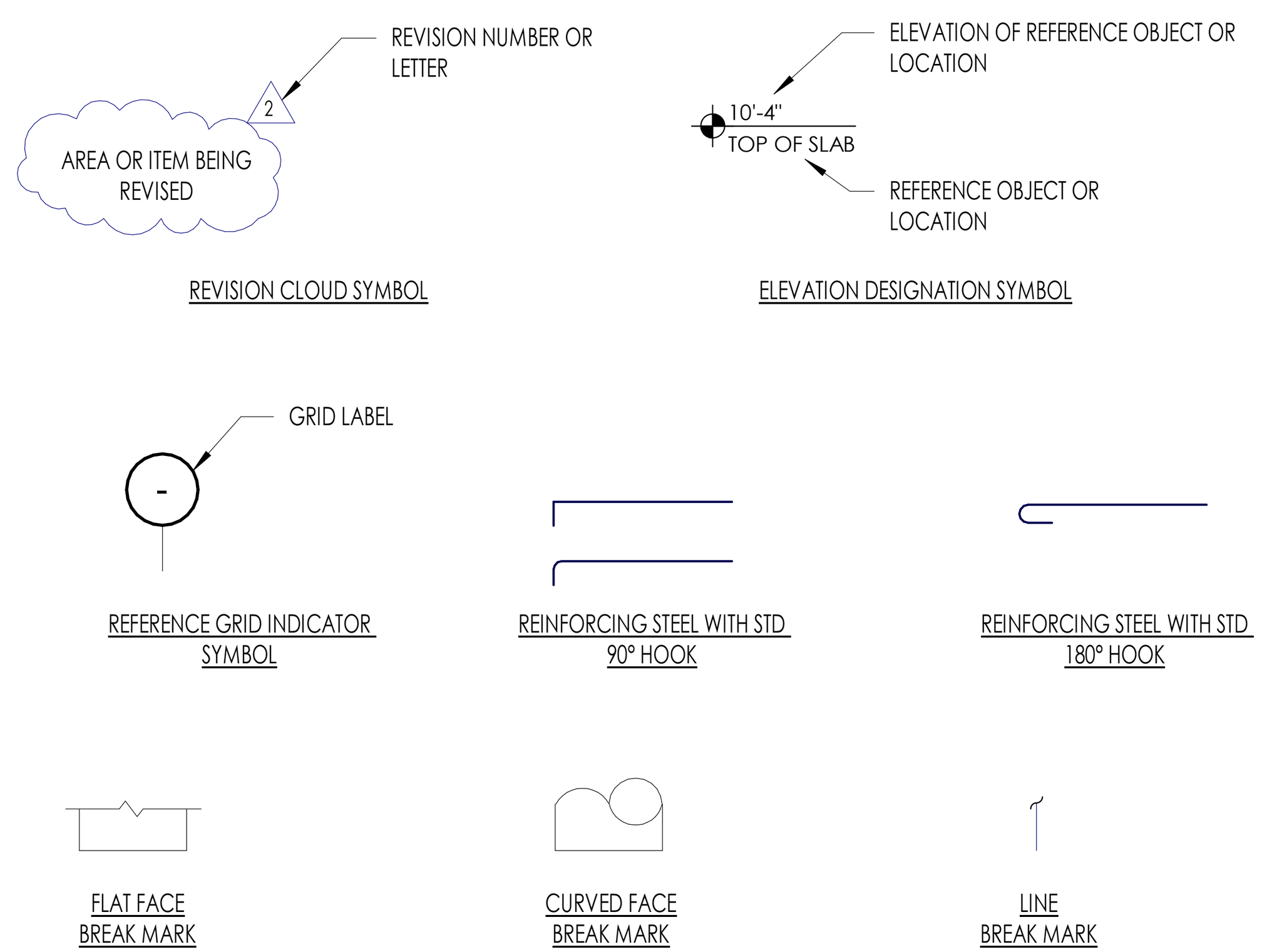
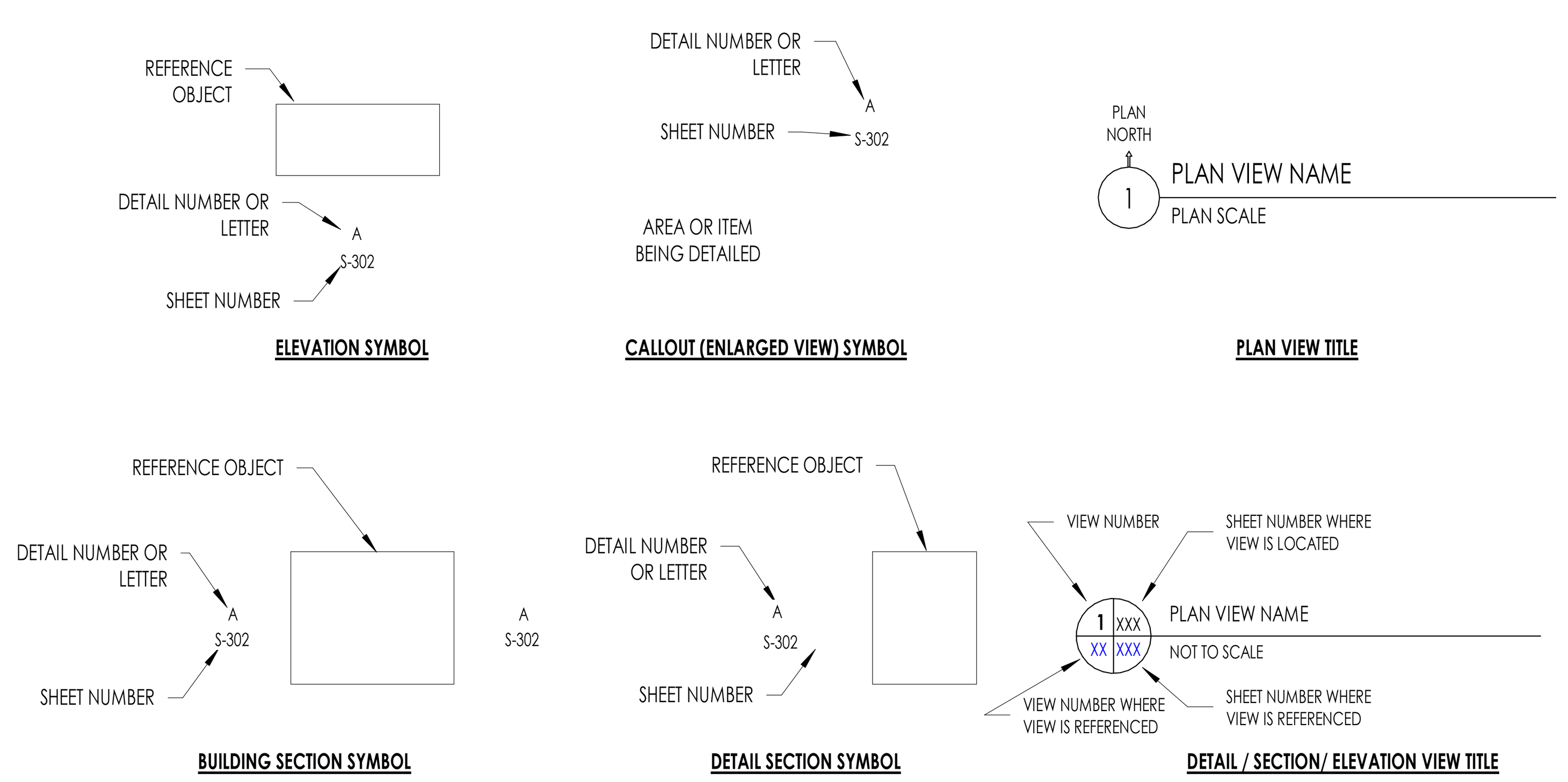
MATERIAL IDENTIFICATION SYMBOLS



UNIVERSAL SYMBOLS



VIEW REFERENCE SYMBOLS



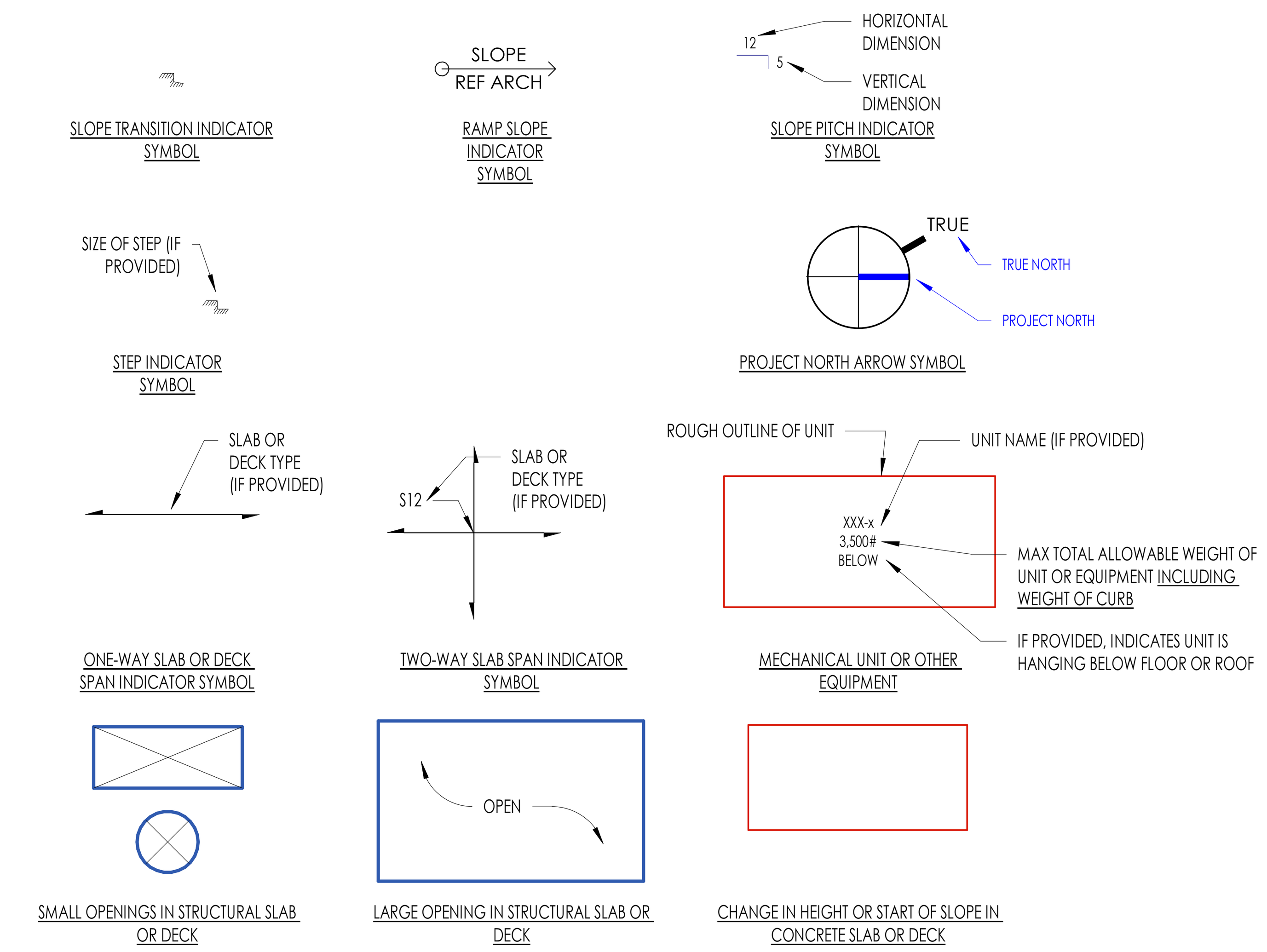
NOTE

- TYP = TYPICAL
  - TYPICAL CONDITION. SECTION (DETAIL) WILL NOT BE CUT AT EACH CONDITION
- SIM = SIMILAR
  - CONDITION AT THIS LOCATION IS SIMILAR TO ANOTHER CONDITION
- OPH = OPPOSITE HAND
  - THE CONDITION AT THIS LOCATION IS A MIRROR IMAGE TO WHAT IS SEEN IN THE DETAIL, SECTION OR ENLARGED VIEW

ABBREVIATIONS

@	AT	LSH	LONG SIDE HORIZONTAL
&	AND	LSV	LONG SIDE VERTICAL
#	NUMBER	LWC	LIGHTWEIGHT CONCRETE
Ø	ROUND, DIAMETER	M	MOMENT
ADDL	ADDITIONAL	MAX	MAXIMUM
AESS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL	MC	MOMENT CONNECTION
AFF	ABOVE FINISHED FLOOR	MECH	MECHANICAL
AHU	AIR HANDLING UNIT	MEZZ	MEZZANINE
ALT	ALTERNATE	MFR	MANUFACTURER
APPROX	APPROXIMATE	MH	HORIZONTAL MOMENT
ARCH	ARCHITECTURAL	MIN	MINIMUM
BLDG	BUILDING	MISC	MISCELLANEOUS
BO	BOTTOM OF	MTL	METAL
BOD	BOTTOM OF DECK	NF	NEAR FACE
BOT	BOTTOM	NIC	NOT IN CONTRACT
BRDG	BRIDGING	NS	NEAR SIDE
BRG	BEARING	NTS	NOT TO SCALE
BTWN	BETWEEN	NWC	NORMALWEIGHT CONCRETE
C	CAMBER	N/A	NOT APPLICABLE
CANT	CANTILEVER	N/R	NOT REQUIRED
CFS	COLD-FORMED STEEL	OC	ON CENTER
CIP	CAST-IN-PLACE	OD	OUTSIDE DIAMETER
CJ	CONSTRUCTION/CONTRACTION (CONTROL) JOINT	OPH	OPPOSITE HAND
CJP	COMPLETE JOINT PENETRATION	OPNG	OPENING
CL	CENTERLINE	OPP	OPPOSITE
CMU	CONCRETE MASONRY UNIT	OSB	ORIENTED STRAND BOARD (WOOD)
COL	COLUMN	OVS	OVERSIZED HOLE
CONC	CONCRETE	P	AXIAL LOAD
CONN	CONNECTION	PAF	POWDER ACTUATED FASTENER
CONSTR	CONSTRUCTION	PAR	PARALLEL
CONT	CONTINUOUS	PCC	PRECAST CONCRETE
COORD	COORDINATE	PCF	POUNDS PER CUBIC FOOT
CTRS	CENTERS	PCY	POUNDS PER CUBIC YARD
db	BAR DIAMETER	PERP	PERPENDICULAR
DBA	DEFORMED BAR ANCHOR	PL	PLATE
DF	DOUGLAS FIR (WOOD)	PLF	POUNDS PER LINEAR FOOT
DIA (Ø)	DIAMETER	PJP	PARTIAL JOINT PENETRATION
DIM	DIMENSION	PRELIM	PRELIMINARY
DWG	DRAWING	PROP	PROPERTY
EA	EACH	PSF	POUNDS PER SQUARE FOOT
EF	EACH FACE	PSI	POUNDS PER SQUARE INCH
EJ	EXPANSION JOINT	PT	POST-TENSION(ED)
EL (ELEV)	ELEVATION	QTY	QUANTITY
EMBED	EMBEDMENT, EMBEDDED	V	VERTICAL SHEAR REACTION
ENGR	ENGINEER	RAD	RADIUS
EQ	EQUAL	REF	REFERENCE
EQUIP	EQUIPMENT	REINF	REINFORCEMENT
EQUIV	EQUIVALENT	REQD	REQUIRED
EW	EACH WAY	REV	REVISION
EXIST	EXISTING	RTU	ROOF TOP UNIT
EXP	EXPANSION	SC	SLIP CRITICAL
EXT	EXTERIOR	SCHED	SCHEDULE(D)
FAB	FABRICATE	SECT	SECTION
f'c	28 DAY CONCRETE STRENGTH	SER	STRUCTURAL ENGINEER OF RECORD
f'm	28 DAY MASONRY STRENGTH	SHT	SHEET
FD	FLOOR DRAIN	SIM	SIMILAR
FDN	FOUNDATION	SLBB	SHORT LEG BACK TO BACK
FF	FAR FACE	SLRS	SEISMIC LOAD RESISTING SYSTEM
FFE	FINISHED FLOOR ELEVATION	SOG	SLAB-ON-GRADE
FIN	FINISH(ED)	SPA	SPACING
FLR	FLOOR	SPEC	SPECIFICATION
FS	FAR SIDE	SQ	SQUARE
FTG	FOOTING	SSE	SPECIALTY STRUCTURAL ENGINEER
FUT	FUTURE	STD	STANDARD
FV	FIELD VERIFY	STIF	STIFFENER
Fy	YIELD STRENGTH	STL	STEEL
GALV	GALVANIZE(D)	STRUCT (STR)	STRUCTURE, STRUCTURAL
GEN	GENERAL	SW	SHEAR WALL
GR	GRADE	SYMM	SYMMETRIC, SYMMETRICAL
H	HORIZONTAL REACTION	SYP	SOUTHERN YELLOW PINE
HGR	HANGER	T	TORSION
HORIZ	HORIZONTAL	TC	TOP OF COLUMN
HSA	HEADED STUD ANCHOR	TO	TOP OF
HSS	HOLLOW STRUCTURAL SECTION	TOC	TOP OF CONCRETE
ID	INSIDE DIAMETER	TOM	TOP OF MASONRY
INFO	INFORMATION	TOS	TOP OF STEEL, TOP OF SLAB
INT	INTERIOR	TRANS	TRANSVERSE
JT	JOINT	TYP	TYPICAL
K	KIPS (1000 LBS)	UNO	UNLESS NOTED OTHERWISE
KSF	KIPS PER SQUARE FOOT	VERT	VERTICAL
KSI	KIPS PER SQUARE INCH	WF (W)	WIDE FLANGE
LBS	POUNDS	WP	WORK POINT
Ld	DEVELOPMENT LENGTH	WS	WATERSTOP
LLBB	LONG LEG BACK TO BACK	WSP	WOOD STRUCTURAL PANEL
LLH	LONG LEG HORIZONTAL	WT	WEIGHT
LLV	LONG LEG VERTICAL	WWR	WELDED WIRE REINFORCEMENT
LONG	LONGITUDINAL	XS	EXTRA STRONG (SCH. 40 PIPE)
		XXS	DOUBLE EXTRA STRONG (SCH. 80 PIPE)

PLAN SYMBOLS



DEFINITIONS

1. **HORIZONTAL LATERAL LOAD RESISTING SYSTEM (DIAPHRAGM):** A STRUCTURAL ELEMENT WHICH TRANSMITS LATERAL LOADS TO THE VERTICAL LATERAL LOAD RESISTING SYSTEM.
2. **PRIMARY STRUCTURAL SYSTEM** IS THE COMPLETED COMBINATION OF ELEMENTS WHICH SERVE TO SUPPORT THE BUILDING'S SELF-WEIGHT, THE APPLICABLE LIVE LOAD WHICH IS BASED UPON THE OCCUPANCY AND USE OF THE SPACES AND THE ENVIRONMENTAL LOADS SUCH AS WIND, SEISMIC, AND THERMAL. CURTAIN WALL MEMBERS, NON-LOAD BEARING WALLS AND EXTERIOR FAÇADE ARE EXAMPLES OF ITEMS WHICH ARE NOT PART OF THE PRIMARY STRUCTURAL SYSTEM.
3. **PRIME DESIGN PROFESSIONAL** IS THE LEADER OF THE DESIGN TEAM CHARGED WITH THE DESIGN OF A FACILITY, EITHER AN ARCHITECT OR AN ENGINEER. THE PRIME DESIGN PROFESSIONAL IS RESPONSIBLE FOR DETERMINING AND INTERPRETING THE NEEDS OF THE CLIENT AND FOR COORDINATING THE WORK OF THE OTHER MEMBERS OF THE DESIGN TEAM. PRIME DESIGN PROFESSIONAL IS ALSO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPIRC) AND MUST FULFILL THE DUTIES OUTLINED AS SUCH IN THE BUILDING CODE ADOPTED BY THE RELEVANT AUTHORITY HAVING JURISDICTION.
4. **REGISTERED DESIGN PROFESSION IN RESPONSIBLE CHARGE (RDPIRC)** OR PRIME DESIGN PROFESSIONAL WORKING DIRECTLY FOR THE REGISTERED DESIGN PROFESSIONAL WHO IS RESPONSIBLE FOR ENSURING THE PROJECT CONSTRUCTION DOCUMENTS COMPLY WITH THE APPLICABLE REQUIREMENTS OF ANY GOVERNING BUILDING AUTHORITIES. RESPONSIBLE FOR REVIEWING AND COORDINATING SUBMITTAL DOCUMENTS PREPARED BY OTHERS, INCLUDING PHASED AND DEFERRED SUBMITTAL ITEMS, FOR COMPATIBILITY WITH THE DESIGN OF THE BUILDING. TYPICALLY, THIS IS THE ARCHITECT OR CIVIL ENGINEER-OF-RECORD.
5. **REGISTERED DESIGN PROFESSIONAL** IS AN INDIVIDUAL WHO IS REGISTERED OR LICENSED TO PRACTICE THEIR RESPECTIVE DESIGN PROFESSION AS DEFINED BY THE STATUTORY REQUIREMENTS OF THE PROFESSIONAL REGISTRATION LAWS OF THE STATE OR JURISDICTION IN WHICH THE PROJECT IS TO BE CONSTRUCTED.
6. **SECONDARY STRUCTURAL ELEMENTS** ARE ELEMENTS THAT ARE STRUCTURALLY SIGNIFICANT FOR THE FUNCTION THEY SERVE BUT DO NOT CONTRIBUTE TO THE STRENGTH OR STABILITY OF THE PRIMARY STRUCTURE. EXAMPLES MAY INCLUDE BUT ARE NOT LIMITED TO: SUPPORT BEAMS ABOVE THE PRIMARY ROOF STRUCTURE WHICH CARRY A CHILLER OR OTHER EQUIPMENT, EXTERIOR NON-LOAD BEARING WALLS OR CLADDING SYSTEMS, STAIRS, ELEVATOR SUPPORT RAILS AND BEAMS, RETAINING WALLS INDEPENDENT OF THE PRIMARY BUILDING, AND FLAGPOLE OR LIGHT POLE FOUNDATIONS.
7. **SPECIALTY STRUCTURAL ENGINEER (SSE**) IS A LICENSED PROFESSIONAL ENGINEER, NOT THE STRUCTURAL ENGINEER OF RECORD, WHO PERFORMS ADDITIONAL STRUCTURAL ENGINEERING FUNCTIONS FOR SOME OF THE ELEMENTS OF A PROJECT NOT DESIGNED BY THE SER AS LIMITED IN THIS AGREEMENT.
8. **STRUCTURAL ENGINEER OF RECORD (SER)** IS THE ENGINEER LEGALLY ELIGIBLE TO SEAL THE STRUCTURAL DOCUMENTS FOR THE PROJECT. THIS SEAL ACKNOWLEDGES THAT HE OR SHE HAS PERFORMED OR SUPERVISED THE ANALYSIS, DESIGN AND DOCUMENT PREPARATION FOR THE BUILDING STRUCTURE AND HAS KNOWLEDGE OF THE REQUIREMENTS FOR THE LOAD CARRYING STRUCTURAL SYSTEM. THE SER IS RESPONSIBLE FOR THE DESIGN OF THE PRIMARY STRUCTURAL SYSTEM.
9. **VERTICAL LATERAL LOAD RESISTING SYSTEM**: ELEMENTS OF THE PRIMARY STRUCTURAL SYSTEM WHICH TRANSFER THE LATERAL LOADS INDUCED UPON THE STRUCTURE TO THE FOUNDATION AND ULTIMATELY INTO THE EARTH.

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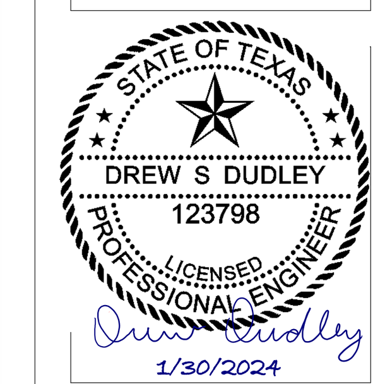

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STRUCTURAL STATEMENT OF SPECIAL INSPECTIONS & TESTING

1. SPECIAL INSPECTIONS AND STRUCTURAL TESTING SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER FOR THE ITEMS IDENTIFIED IN THIS SECTION AND IN OTHER AREAS OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS. (SEE IBC CHAPTER 17).
2. THE NAMES AND CREDENTIALS OF THE SPECIAL INSPECTORS TO BE USED SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND THE BUILDING OFFICIAL FOR APPROVAL. DUDLEY ENGINEERING CAN BE SOLICITED TO PROVIDE SPECIAL INSPECTIONS. WE RECOMMEND THAT THE PROJECT GEOTECHNICAL ENGINEER BE SOLICITED TO PROVIDE SPECIAL INSPECTIONS FOR THE SOILS AND TESTING FOR THE SOIL AND CONCRETE.
3. DUDLEY ENGINEERING IS NOT THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.
4. DUTIES OF THE SPECIAL INSPECTOR:
   A. THE SPECIAL INSPECTOR SHALL REVIEW ALL WORK LISTED BELOW FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DRAWINGS, SPECIFICATIONS AND THE IBC.
   B. THE SPECIAL INSPECTOR SHALL FURNISH SPECIAL INSPECTION REPORTS TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, STRUCTURAL ENGINEER-OF-RECORD, CONTRACTOR, OWNER AND BUILDING OFFICIAL ON A WEEKLY BASIS, OR MORE FREQUENTLY AS REQUIRED BY THE BUILDING OFFICIAL. ALL ITEMS NOT IN COMPLIANCE SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND IF UNCORRECTED, TO THE EOR AND THE BUILDING OFFICIAL.
   C. ONCE CORRECTIONS HAVE BEEN MADE BY THE CONTRACTOR, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT TO THE BUILDING OFFICIAL STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS AS WELL AS THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.
5. DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:
   A. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER AND THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF WORK. IN ACCORDANCE WITH IBC 1704.4, THE STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF THE SPECIAL INSPECTION REQUIREMENTS CONTAINED WITHIN THIS "STATEMENT OF SPECIAL INSPECTIONS".
   B. THE CONTRACTOR SHALL NOTIFY THE RESPONSIBLE SPECIAL INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST ONE WORKING DAY (24 HOURS MINIMUM) BEFORE SUCH INSPECTION IS REQUIRED.
   C. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED BY THE SPECIAL INSPECTOR.
6. PLEASE SEE THE SPECIAL INSPECTION SCHEDULES BELOW FOR THE TYPES, EXTENTS AND FREQUENCY OF SPECIFIC ITEMS REQUIRING STRUCTURAL SPECIAL INSPECTIONS AND STRUCTURAL TESTS AS PART OF THIS PROJECT.
7. REFER TO ARCHITECTURAL AND/OR MEP DRAWINGS FOR ADDITIONAL SPECIAL INSPECTION REQUIRED. DUDLEY ENGINEERING HAS LISTED THE STRUCTURAL SPECIAL INSPECTIONS AND TESTING WITHIN OUR SCOPE ONLY.
8. IN SOME JURISDICTIONS, THE AHJ REQUIRES THAT THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE COMPLETE THEIR SPECIFIC STATEMENT OF SPECIAL INSPECTIONS FORM. IN THIS CASE, THIS SHOULD SHOULD BE USED AS THE OFFICIAL FORM.

REQUIRED VERIFICATION AND INSPECTION OF SOILS (TABLE 1705.6)

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REQUIRED
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	-	X	YES
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIALS	-	X	YES
PERFORM CLASSIFICATION AND TESTING OF COMPACTED MATERIALS	-	X	YES
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL. CONTINUOUS VERIFICATION REQUIRES A MINIMUM OF (1) TEST EVERY 2,000 SF, WITH A MINIMUM OF (3) TESTS PER LIFT, UNLESS MORE STRINGENT REQUIREMENTS ARE REQUIRED BY APPROVED GEOTECHNICAL REPORT AND/OR THE SOILS ENGINEER.	X	-	YES
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THE SITE HAS BEEN PREPARED PROPERLY	-	X	YES

REQUIRED VERIFICATION AND INSPECTION OF GRADING AND DRAINAGE FOR FOUNDATIONS ON EXPANSIVE SOILS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REQUIRED
AFTER BUILDING CONSTRUCTION AND LANDSCAPING HAVE BEEN COMPLETED, FINAL GRADES SHALL BE VERIFIED TO DOCUMENT REQUIRED DRAINAGE	-	X	YES
AFTER BUILDING CONSTRUCTION AND LANDSCAPING HAVE BEEN COMPLETED, DOWNSPOUTS SHALL BE INSPECTED TO CONFIRM CONFORMANCE.	-	X	YES
GRADES AROUND THE STRUCTURE SHALL BE PERIODICALLY INSPECTED AND ADJUSTED AS PART OF THE BUILDING'S MAINTENANCE PROGRAM	-	X	YES
PLUMBING LEAK "HYDROSTATIC" TEST PERFORMED BY A LICENSED PLUMBER. TEST TO OCCUR AFTER ROUGH PLUMBING INSTALL	-	X	YES
WHERE PAVING/FLATWORK ABUT THE FOUNDATION, A MAINTENANCE PROGRAM SHALL BE ESTABLISHED TO EFFECTIVELY SEAL AND MAINTAIN JOINTS AND PREVENT SURFACE WATER INFILTRATION.	-	X	YES

REQUIRED VERIFICATION AND INSPECTION OF WOOD CONSTRUCTION (§1705.5)

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REQUIRED
PREFABRICATED WOOD STRUCTURAL ELEMENTS (METAL PLATE CONNECTED WOOD TRUSSES) FABRICATION AND IMPLEMENTATION PROCEDURES (NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION	-	X	YES
HIGH-LOAD DIAPHRAGMS A. INSPECT GRADE AND THICKNESS OF WOOD STRUCTURAL PANEL SHEATHING. B. VERIFY NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES, THE NAILS OR STAPLE DIAMETER AND LENGTH, THE NUMBER OF FASTENER LINES AND THAT THE SPACING BETWEEN FASTENERS IN EACH LINE AND AT EDGE MARGINS AGREES WITH THE APPROVED BUILDING PLANS	-	X	NO
METAL-PLATE-CONNECTED WOOD TRUSSES WITH OVERALL HEIGHTS OF 60' OR GREATER A. VERIFY THAT INSTALLATION OF THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAIN/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE	-	X	YES
METAL-PLATE-CONNECTED WOOD TRUSSES SPANNING 60 FT OR GREATER A. VERIFY THAT TEMPORARY INSTALLATION RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE	-	X	NO
INSPECTION OF NAILING, BOLTING, ANCHORING AND OTHER FASTENING COMPONENTS WITHIN THE SEISMIC / MAIN WIND FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR WALLS AND HOLD-DOWNS. [EXCEPTION: SPECIAL INSPECTIONS ARE NOT REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING AND OTHER FASTENING TO OTHER ELEMENTS OF THE MAIN WIND/FORCE-RESISTING SYSTEM, WHERE THE **SPECIFIED FASTENER SPACING AT PANEL EDGES IS MORE THAN 4 INCHES ON CENTER**.]	-	X	YES
MOISTURE CONTENT OF LOAD BEARING WOOD FRAMING: • MOISTURE CONTENT JUST PRIOR TO INSTALLING SHEET ROCK SHOULD BE AT OR BELOW 15%. SPECIAL ATTENTION SHALL BE PAID TO MEMBERS ORIENTED WITH THEIR VERTICAL AXIS PERPENDICULAR TO THE VERTICAL PLANE (PLATES, JOISTS, TRUSS CHORDS, ETC.)	-	X	YES

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION (TABLE 1705.3)

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REQUIRED
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS AND PLACEMENT.	-	X	YES
INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN USED OR STRENGTH DESIGN IS USED.	-	X	YES
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	-	X	YES
VERIFYING USE OF REQUIRED MIX DESIGN		X	YES
AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	-	YES
INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	YES
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURES AND TECHNIQUES	-	X	YES
INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES	X	-	NO
ERECTION OF PRECAST CONCRETE MEMBERS	-	X	NO
VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES, BRACING AND/OR FORMS FROM BEAMS, WALLS, STRUCTURAL SLABS, ETC.	-	X	NO
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X	YES

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1/30/2024

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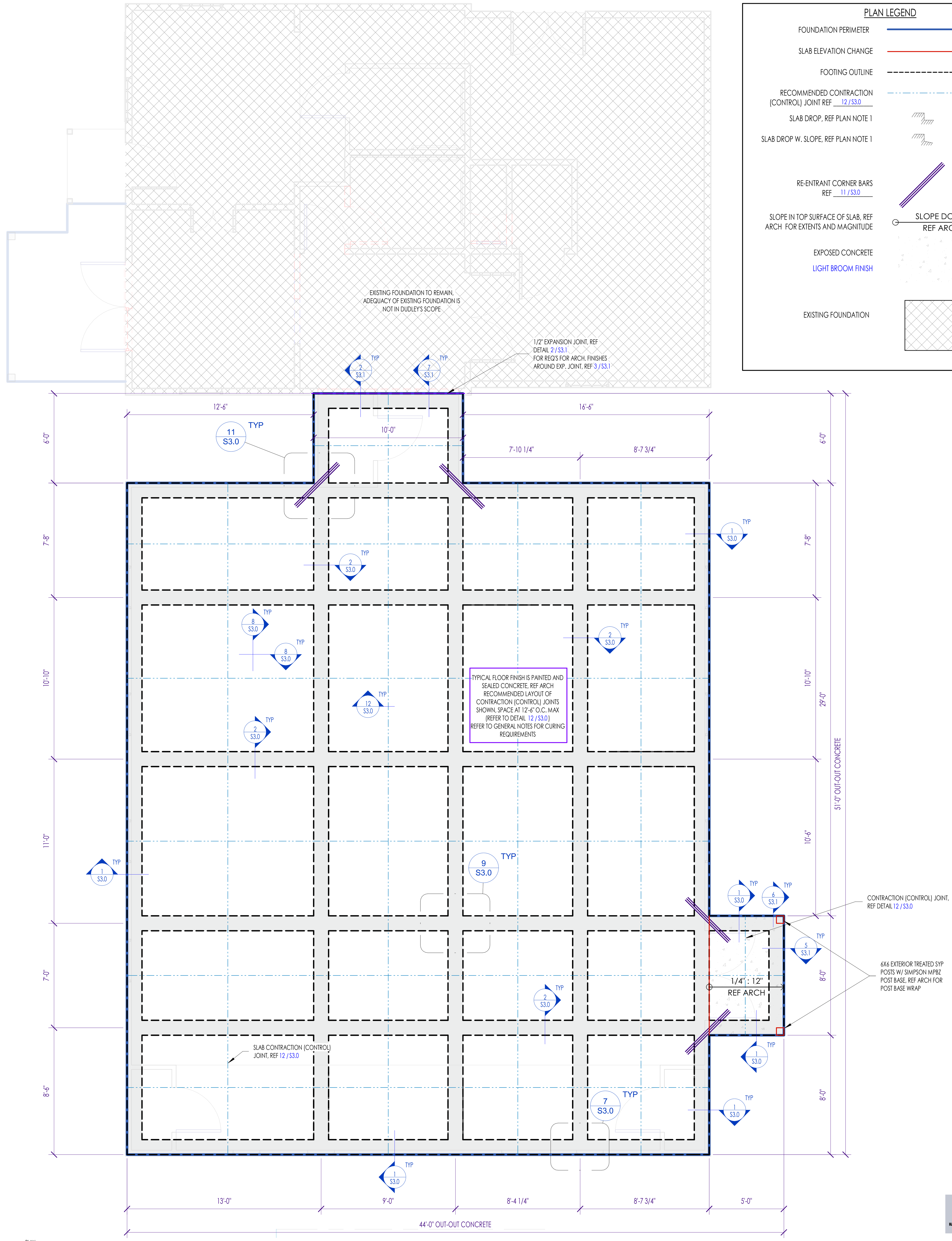

1 FOUNDATION PLAN
1/4" = 1'-0"

PLAN NORTH

TRUE

PLAN LEGEND

- FOUNDATION PERIMETER
- SLAB ELEVATION CHANGE
- FOOTING OUTLINE
- RECOMMENDED CONTRACTION (CONTROL) JOINT REF 12 / S3.0
- SLAB DROP, REF PLAN NOTE 1
- SLAB DROP W. SLOPE, REF PLAN NOTE 1
- RE-ENTRANT CORNER BARS REF 11 / S3.0
- SLOPE IN TOP SURFACE OF SLAB, REF ARCH FOR EXTENTS AND MAGNITUDE — SLOPE DOWN REF ARCH
- EXPOSED CONCRETE
  LIGHT BROOM FINISH
- EXISTING FOUNDATION

STRUCTURAL REFERENCE SHEETS

FOUNDATION DETAILS: S3.0 , S3.1

PLAN NOTES

1. VERIFY ALL EDGE OF FOUNDATION DIMENSIONS WITH FINAL ARCHITECTURE FLOOR PLANS.
2. FORM DIMENSIONS: SLAB DROPS, SLOPES, ETC. ARE SHOWN AS AN AID TO THE CONTRACTOR ONLY. VERIFY EXACT DIMENSIONS AND LOCATIONS WITH ARCH/OWNER.
3. DIMENSIONS ARE TO CL OF GRADE BEAMS OR EDGE OF SLAB UNLESS NOTED OTHERWISE.
4. REFER TO MEP DRAWINGS FOR PENETRATIONS AND UNDERGROUND UTILITIES. ALL PENETRATIONS SHALL BE SHOWN IN REBAR PLACEMENT DRAWINGS.
5. CONTRACTION (CONTROL) JOINTS (GROOVED OR SAW-CUTS) ARE RECOMMENDED TO REDUCE CRACKS IN SLAB WHICH WILL BE VISIBLE, BUT ARE NOT REQUIRED FOR STRUCTURAL REQUIREMENTS. FOR THE RECOMMENDED MAXIMUM JOINT SPACING, REF DETAIL 12 / S3.0
6. FOR FLATWORK OR PAVEMENT ABUTTING THE BUILDING FOUNDATION, REF DETAIL 1 / S3.1
7. CONCRETE IS ASSUMED TO RECEIVE A STEEL TROWEL FINISH UNLESS NOTED OTHERWISE. NOTIFY ENGINEER IF ARCHITECTURALLY EXPOSED CONCRETE (STAINED, POLISHED, ETC.) IS PLANNED FOR ADDITIONAL SHRINKAGE CRACKING MITIGATION METHODS.
8. FOR THE TYPICAL SUBGRADE PREPARATION DETAIL, REF 6 / S3.0

FOUNDATION & SLAB NOTES

FOUNDATION TYPE:	BRAB TYPE III - STIFFENED NON-STRUCTURAL SLAB-ON-GROUND
SUBGRADE MODULUS	175 PCI
SLAB THICKNESS:	5" — DESIGN CONCENTRATED LOAD: 4,500 LBS OVER 2.5'x2.5' (900IN^2)AREA
SLAB REINFORCEMENT:	#4 @ 16" OC EACH WAY - REF DETAIL 8 / S3.0
DESIGN METHOD:	ACI 318, ACI 360
VAPOR RETARDER:	MINIMUM 10 MIL (UNLESS THICKER REQ'D BY ARCHITECT)

BEAM ID[1]	DESCRIPTION	WIDTH	DEPTH[3]	TOP BARS	BOTTOM BARS	STIRRUPS[2]
B1	TYPICAL BEAM	12"	30"	(2) - #6	(3) - #6	#3 @ 24" OC

NOTES:
1. BEAMS ARE TYPE B1 UNO.
2. LOCATE THE FIRST STIRRUP A MAXIMUM OF 3" FROM FACE OF SUPPORT.
3. BEAM DEPTH INDICATED IN THE SCHEDULE IS A STRUCTURAL MINIMUM THAT THE BEAM REINFORCEMENT CAGE MAY BE BASED UPON. REFERENCE GEOTECHNICAL REPORT FOR MINIMUM GRADE BEAM EMBEDMENT BELOW ADJACENT FINAL GRADE OR FLATWORK/PAVEMENT. FOR VERTICAL MOISTURE BARRIERS THE DEPTH PROVIDED ARE AS FOLLOWS:
   A. (BEAM CAGE DEPTH / MINIMUM EMBEDMENT BELOW FINAL GRADE)
4. N/R = NOT REQUIRED
5. FOR ALLOWABLE SPLICE LOCATIONS, REF 9 / S3.0

REFERENCE DRAWING(S):
SLAB DIMENSIONS SHOWN ARE BASED UPON THE FOLLWING CAD (COMPUTER-AIDED DESIGN) REFERENCE FILE(S), BY OTHERS.
- FILE FORMAT: REVIT
- FILE NAME: Jones & Washington 230711
- DATE OF FILE: 08/28/2022
- FILE AUTHOR: THETFORD ARCHITECTURE

SLAB GEOMETRY

AREA (SF)	1871
PERIMETER (FT)	190
SHAPE FACTOR	19

AREA AND PERIMETER OF THE SLAB ARE PROVIDED FOR PURPOSES OF CALCULATING THE SHAPE FACTOR FOR THE SLAB ONLY AND SHALL NOT BE USED FOR ANY OTHER PURPOSE.

PTI PARAMETERS

e_m - CENTER	7.5'
e_m - EDGE	3.9'
Y_m - CENTER	1.25"
Y_m - EDGE	1.75"
EFFECTIVE PLASTICITY INDEX	35
ALLOW. MAX BEARING (PSF)	1875
MIN **PERIMETER** BEAM EMBEDMENT BELOW **FINAL** GRADE / FLATWORK	12"

SUBGRADE AND BUILDING PAD NOTES (PER GEOTECHNICAL REPORT):
THE EARTHWORK AND BUILDING PAD NOTES CONTAINED BELOW ARE INTENDED TO PROVIDE A SUMMARY OF THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL REVIEW AND BE THOROUGHLY FAMILIAR WITH ALL RECOMMENDATIONS OF THE REPORT. OMISSIONS OR RESTATEMENTS DO NOT RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH THE GEOTECHNICAL REPORT.

1. SUBGRADE IMPROVEMENT:
   A. PROVIDE MINIMUM **2** FEET SELECT FILL TO TOP OF BUILDING PAD ELEVATION. THE SELECT FILL PAD MUST BE OF UNIFORM THICKNESS UNO BY GEOTECHNICAL ENGINEER.
2. **DRAINAGE**
   A. ROOF DRAINAGE SHOULD BE COLLECTED BY A SYSTEM OF GUTTERS AND DOWNSPOUTS AND TRANSMITTED A MINIMUM DISTANCE OF 10' AWAY FROM THE FOUNDATION TO AN AREA WITH POSITIVE DRAINAGE AWAY FROM THE FOUNDATION, PREFERABLY TO A PAVED SURFACE WHERE WATER CAN DRAIN RAPIDLY AWAY FROM THE STRUCTURE. SIDEWALKS, PARKING AREAS, BUILDING ACCESS DRIVES, AND THE GENERAL GROUND SURFACE SHOULD BE SLOPED SO THAT WATER WILL DRAIN AWAY FROM THE STRUCTURE. WATER SHOULD NOT BE ALLOWED TO POND NEAR THE BUILDING FOUNDATIONS.
   B. FINAL GRADES SHALL SLOPE A MINIMUM OF 5% (6") FOR THE FIRST 10 FEET AWAY FROM THE FOUNDATION IN ALL DIRECTIONS, WITH THE EXCEPTIONS BELOW. [NOTE: THIS SLOPE SHALL OCCUR IN THE SELECT FILL OR IN-SITU SOIL. MERELY SLOPING TOPSOIL IS NOT SUFFICIENT.] REFER TO CIVIL DRAWINGS FOR ALL DRAINAGE REQUIREMENTS.
      a. EXCEPTIONS:
         - WHERE LOT LINES, WALLS, SLOPES OR OTHER PHYSICAL BARRIERS PROHIBIT 6 INCHES OF FALL WITHIN 10 FEET, A 5% SLOPE SHALL BE PROVIDED TO EITHER DRAINS OR SWALES TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE.
           1. SWALES USE FOR THIS PURPOSE SHALL BE SLOPED NOT LESS THAN 2% WHERE LOCATED WITHIN 10' OF THE BUILDING FOUNDATION.
         - IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF 2% AWAY FROM THE BUILDING.
3. **LANDSCAPING**
   A. DO NOT USE METAL EDGING OR OTHER DAMMING DEVICES WITHIN FIVE FEET OF THE FOUNDATION. THE ROOTS OF TREES AND LARGE PLANTS REMOVE LARGE QUANTITIES OF WATER FROM THE SOIL. IF THESE TREES AND SHRUBS ARE NEAR THE FOUNDATION AND IF SUFFICIENT WATER IS NOT SUPPLIED, THE SOILS MAY SHRINK IF EXPANSIVE, CAUSING SUBSIDENCE IN THE FOUNDATION. DURING DRY PERIODS, ENOUGH WATER SHOULD BE SUPPLIED TO TREES TO MINIMIZE SHRINKING OF EXPANSIVE SOILS AROUND THEM. MOST OF THE IRRIGATION WATER SHOULD BE APPLIED WELL AWAY FROM THE FOUNDATION TO ATTRACT THE TREE ROOTS IN THAT DIRECTION. WHEN TREES MATURE TO THE POINT OF SHADING THE ENTIRE LOT, REGULAR PRUNING WILL BE NEEDED TO REDUCE THEIR WATER UPTAKE. LANDSCAPING (PLANTS, SHRUBS, FLOWERS, ETC.) SHOULD NOT TRAP WATER AGAINST THE FOUNDATION. PROVIDE A SLOPE IN SOILS BELOW LANDSCAPE BEDDING AND IN THE BEDDING AWAY FROM THE FOUNDATION. ALTERNATIVELY, PROVIDE SWALES AROUND AND THROUGH THE LANDSCAPING TO DRAIN WATER AWAY. PROVIDE UNIFORM GROUND COVER AROUND THE FOUNDATION. THIS WILL HELP KEEP THE MOISTURE EVAPORATION RATE UNIFORM. IN AREAS THAT ARE NOT PLANTED, USE MULCH. EXTEND THE GROUND COVER AT LEAST FIVE FEET FROM THE FOUNDATION.
   B. ANY/ALL TREES SHALL BE PLANTED AT A MINIMUM DISTANCE EQUIVALENT TO THE HEIGHT OF THE TREE OR THE DRIP LINE PLUS 10 FEET WHICHEVER IS GREATER.
4. **UTILITIES**
   A. CONNECTIONS FOR UTILITIES (PLUMBING, ELECTRICAL, GAS, ETC.) THAT ARE UNDERNEATH, GO THROUGH OR ARE ATTACHED TO THE FOUNDATION SHALL HAVE BE FLEXIBLE TO ACCOMMODATE FOUNDATION MOVEMENT OF AT LEAST 2". ALL DRAINAGE PIPING, AND GENERAL PLUMBING SYSTEMS ASSOCIATED WITH THE FOUNDATION OR IN PROXIMITY TO THE FOUNDATION SHALL BE LEAK TESTED FOLLOWING INSTALLATION AND ON AN ANNUAL BASIS.
5. **ARCHITECTURAL FINISHES**
   A. FLOORING FINISHES SHALL BE JOINTED AT CONSTRUCTION, EXPANSION OR CONTROL JOINTS IN THE CONCRETE.
   B. BRITTLE FLOOR FINISHES SUCH AS CERAMIC, STONE, ETC. FLOORS SHALL HAVE AN UNCOUPLING POLYETHYLENE MEMBRANE BENEATH THE TILE THAT ALLOWS IN-PLANE MOVEMENT. EXAMPLE PRODUCTS: SCHLUTER-DITRA, NUHEAT UNCOUPLING MEMBRANE
   C. WALL COVERINGS (DRYWALL, GYPSYM BOARD, MASONRY VENEER, ETC.) SHALL BE JOINTED ON EACH SIDE OF DOOR AND WINDOW OPENINGS.
   D. ALL ARCHITECTURAL FINISHES SHALL MIRROR CONTROL, EXPANSION OR CONSTRUCTION JOINTS IN THE FOUNDATION.
6. **SITE PREPARATION**
   A. SOFT SOILS SHOULD BE REMOVED UNTIL FIRM SOIL IS REACHED. THE SOFT SOILS CAN BE AERATED AND PLACED BACK IN SIX-INCH LOOSE LIFTS AND COMPACTED TO 95% AS SPECIFIED BY ASTM D-698. TREE STUMPS, TREE ROOTS, OLD SLABS, OLD FOUNDATIONS AND EXISTING PAVEMENTS SHOULD BE REMOVED FROM THE STRUCTURE AREA. IF THE TREE STUMPS AND ROOTS ARE LEFT IN PLACE, SETTLEMENT AND TERMITE INFESTATION MAY OCCUR. ONCE A ROOT SYSTEM IS REMOVED, A VOID IS CREATED IN THE SUBSOIL. IT IS RECOMMENDED TO FILL THESE VOIDS WITH STRUCTURAL FILL OR CEMENT-STABILIZED SAND AND COMPACT TO 95% AS SPECIFIED BY ASTM D-698.
   B. ANY LOW-LYING AREAS INCLUDING RAVINES, DITCHES, SWAMPS, ETC. SHOULD BE FILLED WITH STRUCTURAL FILL AND PLACED IN EIGHT-INCH LIFTS. EACH LIFT SHOULD BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS SPECIFIED BY ASTM D-698.
   C. THE EXPOSED SUBGRADE SHOULD BE SCARIFIED TO A MINIMUM DEPTH OF SIX (6) INCHES FOUNDATION AREAS OR PER SUBGRADE IMPROVEMENT REQUIREMENTS. THE SUBGRADE SHOULD THEN BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD MOISTURE DENSITY RELATIONSHIP (ASTM D-698). IN THE EVENT THAT THE UPPER SIX (6) INCHES CANNOT BE COMPACTED DUE TO EXCESSIVE MOISTURE, WE RECOMMEND THAT THESE SOILS BE EXCAVATED AND REMOVED OR CHEMICALLY STABILIZED TO PROVIDE A FIRM BASE FOR FILL PLACEMENT. PROOF ROLLING SHOULD BE PERFORMED USING A HEAVY TIRED LOADED TRUCK OR PNEUMATIC RUBBER-TIRED WEIGHING 15 TONS.
   D. THE SELECT FILL SOILS SHALL BE LIMITED TO THE FOOTPRINT OF THE FOUNDATION. IF OVERBUILD IS REQUIRED, INSTALL HORIZONTAL CLAY CAP TO COVER THE FILL OVERBUILD.
   E. THE FLOOR SLAB SHOULD BE PLACED AS SOON AS POSSIBLE AFTER THE BUILDING PAD IS PREPARED. IF THE BUILDING PAD IS LEFT EXPOSED TO RAINFALL, PERCHED GROUNDWATER CONDITIONS MAY DEVELOP WHICH WILL UNDERMINE THE INTEGRITY OF THE FLOOR SLAB. ALL TRENCHES (WATER, CABLE, ELECTRICAL) SHOULD BE PROPERLY BACKFILLED AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITIES. SAND OR PERMEABLE MATERIALS SHOULD NOT BE USED AS BACKFILL. IMPROPERLY BACKFILLED AND IMPROPERLY COMPACTED TRENCH, IF LEFT EXPOSED WILL ALSO BE ANOTHER SOURCE FOR PERCHED GROUNDWATER CONDITIONS. IN GENERAL PERCHED WATER TENDS TO BE TRAPPED WITHIN THE FILL. THE TRAPPED GROUNDWATER TENDS TO SOFTEN THE SUBGRADE. POSITIVE DRAINAGE SHOULD BE MAINTAINED ACROSS THE ENTIRE BUILDING PAD.
   F. A QUALIFIED SOIL TECHNICIAN SHOULD MONITOR ALL EARTHWORK OPERATIONS. FIELD DENSITY TESTS SHOULD BE CONDUCTED ON EACH LIFT USING A NUCLEAR DENSITY GAUGE. THE GAUGE SHOULD BE CALIBRATED EVERY DAY. PRIOR TO FIELD DENSITY TESTS, A 50-POUND SAMPLE FROM THE SUBGRADE SOILS SHOULD BE OBTAINED. A SIMILAR SAMPLE SHOULD BE OBTAINED FROM THE FILL SOILS. A STANDARD MOISTURE DENSITY RELATIONSHIP (ASTM D-698) SHOULD BE PERFORMED ON EACH SAMPLE IN ORDER TO OBTAIN AN OPTIMUM MOISTURE CONTENT AND A MAXIMUM DRY DENSITY. THE FIELD DENSITY TESTS SHOULD BE COMPARED TO THESE RESULTS EVERY TIME THE SOILS ARE TESTED IN THE FIELD.
7. **STRUCTURAL FILL (SELECT FILL)**
   A. LOW SWELL POTENTIAL SELECT FILL SHOULD CONSIST OF COHESIVE SOILS FREE OF ORGANICS OR OTHER DELETERIOUS MATERIALS AND SHOULD HAVE A PLASTICITY INDEX NOT LESS THAN **7 OR MORE THAN 20**. SANDY CLAYS ARE RECOMMENDED FOR USE. THE LOW SWELL POTENTIAL SELECT FILL SHOULD BE CLEANED AND FREE OF ORGANIC MATTER OR OTHER DELETERIOUS MATERIAL. THE FILL SHOULD BE PLACED IN MAXIMUM 8-INCH LOOSE LIFTS AND COMPACTED TO A MINIMUM OF **95** PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698 (STANDARD PROCTOR). THE MOISTURE CONTENT AT THE TIME OF COMPACTION SHOULD BE **-2%, +3%** OF THE OPTIMUM VALUE AS DEFINED BY ASTM D 698. THE REFERENCED MOISTURE CONTENT AND DENSITY SHOULD BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
8. **HORIZONTAL MOISTURE BARRIER**
   A. WHERE THE PERIMETER OF THE FOUNDATION DOES NOT HAVE LOW PERMEABILITY FLATWORK (SIDEWALK, PAVEMENT, PATIO, ETC.) ABUTTING THE FOUNDATION, A HORIZONTAL MOISTURE BARRIER VIA CLAY CAP AND VAPOR RETARDER MUST BE PROVIDED.
      a. CLAY CAP: A MINIMUM 5' WIDE LOW PERMEABILITY CLAY "CAP" SHALL BE PLACED ALONG THE EXTERIOR OF THE FOUNDATION TO HELP MINIMIZE MOISTURE INFILTRATION INTO THE SELECT FILL SOIL PADS. THE LOW PERMEABILITY, 1-FOOT THICK CLAY "CAP" SHALL HAVE A PLASTICITY INDEX (PI) BETWEEN 20 & 35.
      b. VAPOR RETARDER: BELOW THE CLAY CAP, A MIN 10 MIL VAPOR RETARDER MUST BE PROVIDED ON A MINIMUM 5% SLOPE. RETARDER MUST BE SECURED TO THE FOUNDATION.
9. **SOIL MOISTURE**
   A. EXPANSIVE SOILS HEAVE AND SUBSIDE DUE TO CHANGES IN MOISTURE CONTENT. CHANGES IN MOISTURE CONTENT CAN CAUSE VERY LARGE CHANGES IN SOIL VOLUME WHEN GOING FROM A DRY TO A SATURATED CONDITION, AND VICE VERSA. THIS MOVEMENT DOES NOT MEAN THE FOUNDATION IS IMPROPERLY DESIGNED OR THAT IT HAS FAILED. THE FOUNDATION DESIGN ENGINEER CANNOT CONTROL THE MOISTURE CONTENT OF THE SOIL, BUT OFTEN THE OWNER/TENANT CAN. UNIFORMITY IS THE KEY: UNIFORM MOISTURE CONTENT IN THE SOIL, UNIFORMLY MAINTAINED IN ALL AREAS AROUND THE FOUNDATION. IF CHANGES IN MOISTURE CONTENT ARE UNIFORM, THEN MOVEMENT OF THE FOUNDATION WILL BE UNIFORM AND LESS DISTRESS WILL BE CREATED IN THE STRUCTURE. IF CHANGES IN MOISTURE CONTENT ARE NON-UNIFORM, THEN THERE MAY BE DIFFERENTIAL MOVEMENT IN THE FOUNDATION. DIFFERENTIAL MOVEMENT CAN CAUSE GREATER (AND MORE OBVIOUS) DISTRESS IN THE STRUCTURE. LEAKING POOLS, LEAKING PLUMBING LINES, LEAKING DRAINS, DRIPPING FAUCETS, DRIPPING AIR CONDITIONING CONDENSATE LINES, AND MISDIRECTED WATER FROM CLOGGED AND BROKEN GUTTERS AND DOWNSPOUTS CAN CAUSE LOCAL HIGH MOISTURE CONTENTS THAT CAN RESULT IN DIFFERENTIAL MOVEMENT IN AREAS OF EXPANSIVE SOILS. THESE CONDITIONS SHOULD BE REMEDIED AS SOON AS POSSIBLE. TREES IN OR NEAR THE FOOTPRINT OF THE FOUNDATION, EITHER REMOVED OR PLANTED DURING CONSTRUCTION, CAUSE THE MAJORITY OF FOUNDATION PROBLEMS REQUIRING REPAIR IN THIS AREA. TREES REMOVED DURING CONSTRUCTION TEND TO CAUSE HEAVE OF EXPANSIVE SOILS DURING THE FIRST FEW YEARS, WITH INITIAL DISTRESS OFTEN EVIDENT AT THE TIME OF MOVE-IN. TREES PLANTED DURING OR AFTER CONSTRUCTION TEND TO CAUSE SUBSIDENCE OF EXPANSIVE SOILS. HOWEVER, SIGNIFICANT SUBSIDENCE DISTRESS WILL USUALLY NOT OCCUR FOR TEN TO TWENTY YEARS AS THE TREES MATURE.
10. **CLIMATE**
    A. DURING PERIODS OF DRY WEATHER, THE SOIL AROUND THE FOUNDATION SHOULD BE IRRIGATED IF THE BUILDING IS LOCATED IN AN AREA WHERE EXPANSIVE SOILS ARE KNOWN TO OCCUR. THE MOST COMMONLY USED IRRIGATION SYSTEM IS ABOVEGROUND TIMED SPRINKLERS WITH A MANUAL OVERRIDE SO THEY CAN BE TURNED OFF IN RAINY WEATHER. AN AUTOMATIC BELOWGROUND IRRIGATION SYSTEM THAT SENSES THE MOISTURE CONTENT OF THE SOIL MAY ALSO BE USED. TEND TO KEEP THE IRRIGATION SYSTEM SET ON "MANUAL", AND ONLY USE IT IN DRIER PERIODS WHEN WILTING OF THE LAWN GRASSES AND OTHER VEGETATION OCCURS. THE IRRIGATION SHOULD BE DONE AT LEAST ONE TO TWO FEET AWAY FROM THE FOUNDATION, AND THEN LIGHTLY SO THAT TREE ROOTS ARE NOT ATTRACTED THERE. DO NOT ALLOW SPRINKLERS TO SPRAY WATER AGAINST THE STRUCTURE. IN EXTENDED DRY PERIODS, SHOULD THE SOIL CRACK AND PULL AWAY FROM THE FOUNDATION, DO NOT WATER DIRECTLY INTO THE GAP.

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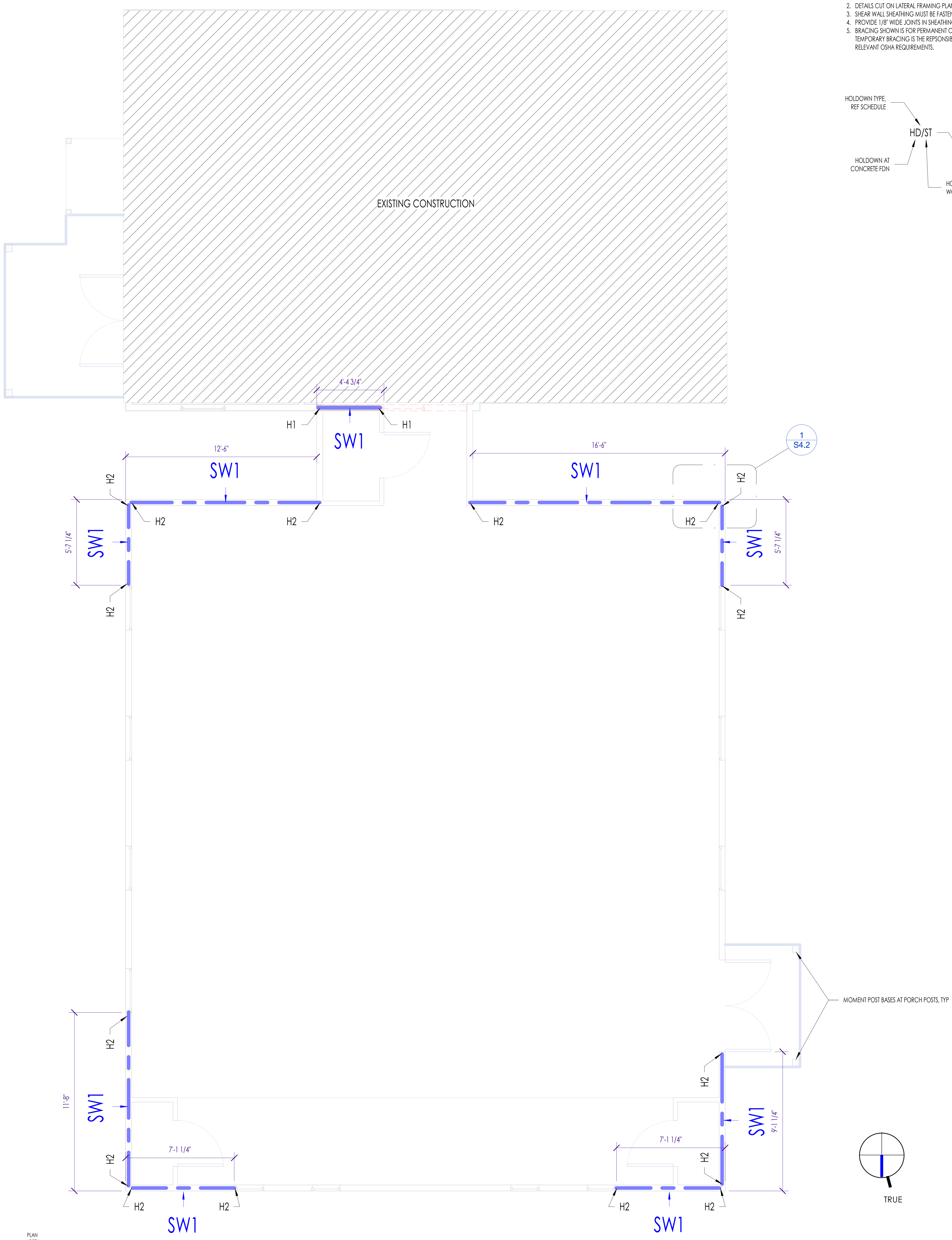


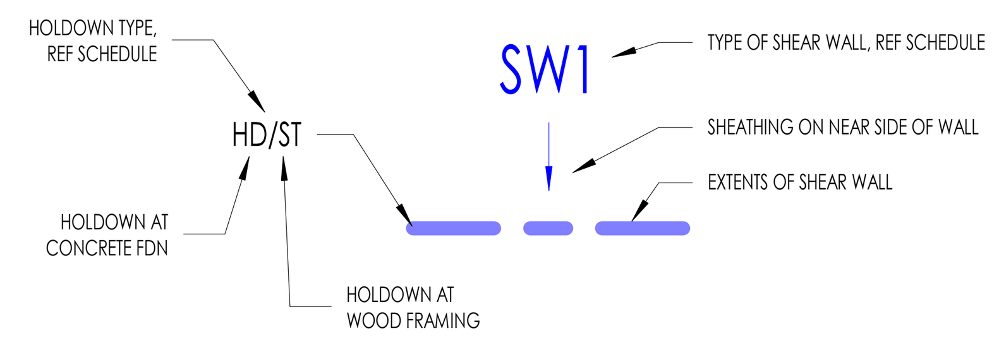
PLAN NORTH

1 LATERAL FRAMING PLAN
1/4" = 1'-0"

LATERAL FRAMING PLAN NOTES:

1. ALL EXTERIOR WALLS SHALL BE SHEATHED WITH MIN 7/16" STRUCTURAL SHEATHING AND FASTENED TO FRAMING WITH A MIN OF 8d NAILS @ 12" OC
2. DETAILS CUT ON LATERAL FRAMING PLANS ARE LOOKING UP (REFLECT CEILING PLAN)
3. SHEAR WALL SHEATHING MUST BE FASTENED DIRECTLY TO STUDS.
4. PROVIDE 1/8" WIDE JOINTS IN SHEATHING TO ALLOW FOR SHRINKAGE AND EXPANSION OF THE PANELS.
5. BRACING SHOWN IS FOR PERMANENT CONDITION ONLY [ONCE ALL STRUCTURAL ELEMENTS HAVE BEEN INSTALLED]. TEMPORARY BRACING IS THE REPSONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO ASCE 37, LATEST ED. AND RELEVANT OSHA REQUIREMENTS.

LATERAL FRAMING LEGEND:



SHEAR WALL SCHEDULE

SHEAR WALL TYPE	SHEATHING TYPE	PANEL EDGE NAILING	FIELD NAILING	BOTTOM PLATE ANCHORAGE (CONCRETE)[3]	BOTTOM PLATE FASTENING (WOOD)	ALLOWABLE WIND SHEAR CAPACITY
SW1	7/16" WSP	6"	12"	5/8"Ø @ 40" OC	0.131"Ø X 3" LONG NAILS @ 3" OC	335 PLF
SW2	7/16" WSP	4"	12"	5/8"Ø @ 32" OC	0.131"Ø X 3" LONG NAILS @ 3" OC	490 PLF

1. ALL FASTENERS FOR WOOD STRUCTURAL PANEL SHALL BE FLAT HEAD NAILS CONSISTING OF THE FOLLOWING UNO:
   A. 0.131"Ø X 2½" LONG
   B. 0.148"Ø X 3" LONG
2. BOTTOM PLATE ANCHORAGE INTO CONCRETE SHALL EITHER BE CAST-IN-PLACE J-BOLTS OR ADHESIVE ANCHORS WITH A MINIMUM EMBEDMENT OF 8".
3. ALL PANEL EDGES SHALL BE BLOCKED.
4. WSP = WOOD STRUCTURAL PANEL. REF GENERAL NOTES FOR SPECIFICATIONS.
5. IF WALL IS SHEATHED ON BOTH SIDES, THEN SILL PLATE ANCHORAGE AND CONNECTION OF BOTTOM PLATE TO TOP PLATE SHALL BE DOUBLED.
6. PANELS MUST BE INSTALLED DIRECTLY TO FRAMING.
7. VALUES CALCULATED ARE FOR SOUTHERN PINE OR DOUGLAS-FIR LARCH FRAMING. CONTACT EOR IF OTHER SPECIES ARE USED.
8. PROVIDE 1/8" WIDE JOINTS IN SHEATHING TO ALLOW FOR SHRINKAGE AND EXPANSION OF THE PANELS.
9. FASTENERS FOR GYPSUM WALLBOARD SHALL BE ONE OF THE FOLLOWING:
   A. 6d COOLER NAILS (0.092" X 1 7/8" LONG, 1/4" HEAD)
   B. WALLBOARD NAIL (0.0915" x 1 7/8" LONG, 19/64" HEAD)
   C. 0.120" NAIL x 1-3/4" LONG, MIN 3/8" HEAD
   D. NO.6 TYPE S OR W DRYWALL SCREWS 1-1/4" LONG
10. **ABOVE SHEAR WALLS (BRACED WALLS), BLOCKING IS REQUIRED B/T EVERY FLOOR/ROOF TRUSS/RAFTER/JOIST/ETC.**

SHEAR WALL HOLDOWN AT FOUNDATION

HOLDOWN ID	TYPE	HARDWARE	END POST	ATTACHMENT TO END POST	ANCHORAGE TO FOUNDATION[5]	DETAIL	CAPACITY (LBS)
H1	POST-INSTALLED	SIMPSON LTT19	(2) - 2X	(8) 0.148 x 2 NAILS	5/8"Ø GR.36 ALL-THREAD WITH 6" EMBEDMENT WITH NUT AND WASHER	7 / S4.2	1,310
	POST-INSTALLED	SIMPSON LTTI31	(2) - 2X	(18) 0.148 x 2 NAILS	5/8"Ø GR.36 ALL-THREAD WITH 6" EMBEDMENT WITH NUT AND WASHER	7 / S4.2	1,350
H2	POST-INSTALLED	SIMPSON HTT5	(2) - 2X	(26) 0.148 x 3 NAILS	5/8"Ø GR.36 ALL-THREAD WITH 8" EMBEDMENT WITH NUT AND WASHER	5 / S4.2	4,670
	CAST-IN-PLACE	SIMPSON STHD14	(2) - 2X	(30) 0.148 x 3 NAILS	ANCHOR CAST INTO FOUNDATION	6 / S4.2	4,210
H3	POST-INSTALLED	SIMPSON HDU8-SDS2.5	(3) - 2X	(20) 1/4" x 2 1/2" SDS SCREWS	7/8"Ø GR.36 ALL-THREAD WITH 17 1/2" EMBEDMENT WITH NUT AND WASHER	3 / S4.2	6,200
H4	CAST-IN-PLACE	SIMPSON HDU14-SDS2.5	6X6	(36) 1/4" x 2 1/2" SDS SCREWS	1"Ø GR.36 ANCHOR ROD WITH 18" EMBEDMENT	4 / S4.2	10,000

1. NOTES:
2. MINIMUM EDGE DISTANCE TO CENTERLINE OF BOLT IS 3". AT CORNERS, THE OPPOSING EDGE DISTANCE MUST BE ≥ 6".
3. MINIMUM #4X36" LONG REINFORCING BAR LOCATED 3"-5" BELOW THE TOP OF THE SLAB IS REQUIRED TO BE CENTERED ON THE HOLDOWN, AT CORNER, BEND THE BAR 90° AT THE CENTER
4. REFERENCE MECHANICALLY LAMINATED BUILT-UP COLUMN FOR NAILING REQUIREMENTS FOR END POST.
5. SIMPSON ATR (REQUIRED Ø) WITH SIMPSON SET-3G IS AN ACCEPTABLE OPTION.

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STATE OF TEXAS
DREW S DUDLEY
123798
LICENSED PROFESSIONAL ENGINEER
1/30/2024

A NEW CHAPEL FOR
JONES & WASHINGTON
508 E. MARTIN LUTHER KING JR. ST.
BRYAN, TX

REVISIONS	
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12/01/2023

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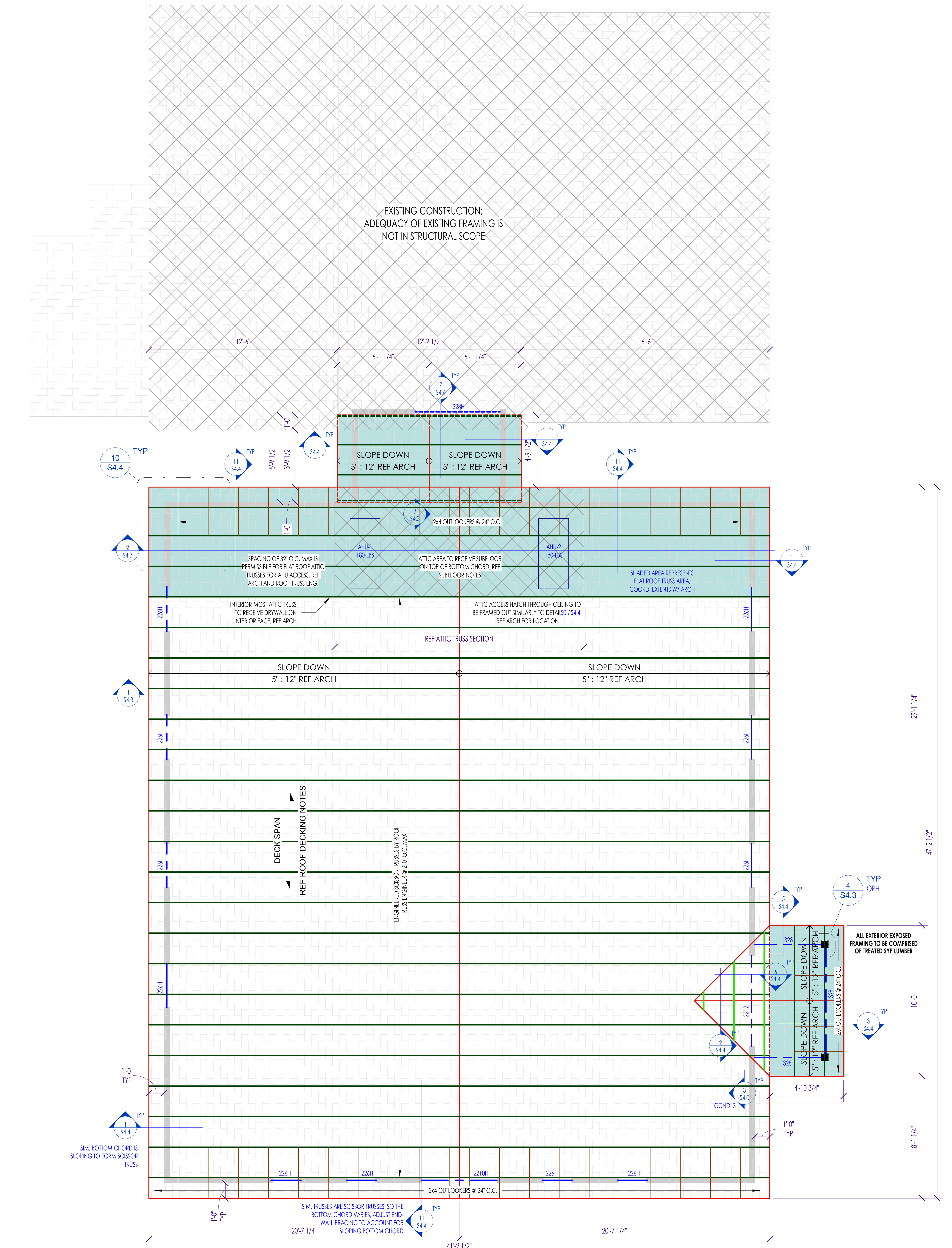
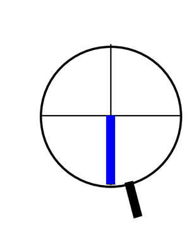


ROOF FRAMING PLAN

1/4" = 1'-0"



WOOD BEAM - HEADER SCHEDULE				
BEAM LEGEND		STUD PACK	FACE-MOUNT HANGER	TOP-FLANGE HANGER
BEAM TAG	BEAM SIZE	NO STUDS[3,4,5,6]		
226	(2)-2X6[1]	2	LUS26-2	HU26-2TF
228	(2)-2X8[1]	2	LUS26-2	HU28-2TF
2210	(2)-2X10[1]	2	HU210-2	HU210-2TF
2212	(2)-2X12[1]	2	HU212-2	HU212-2TF
326	(3)-2X6[1]	2	LUS26-3	HUS46TF
328	(3)-2X8[1]	2	LUS26-3	HUS48TF
3210	(3)-2X10[1]	3	HU210-3	HU210-3TF
3212	(3)-2X12[1]	3	HU210-3	HU212-3TF
4212	(4)-2X12[1]	3	HU210-4	N/A
B409	3½"X9¼	3	HHUS410	HB3.56/9.5
B411	3½"X11¼	3	HHUS410	HB3.56/11.25
B412	3½"X11⅞"	3	HHUS410	HB3.56/11.88
B414	3½"X14"	4	HGUS414	GLTV3.514
B416	3½"X16"	4	HGUS414	GLTV3.516
B418	3½"X18"	4	HGUS414	HGLTV3.518
B611	5½"X11¼"	4	HHUS5.50/10	GLTV5.50/11.25
B612	5½"X11⅞"	4	HHUS5.50/10	GLTV5.50/11.88
B614	5½"X14"	4	HGUS5.50/14	EGQ5.50-SDS3
B616	5½"X16"	6X6 RS/P66 PSL	HGUS5.50/14	EGQ5.50-SDS3
B618	5½"X18"	6X6 RS/P66 PSL	HGUS5.50/14	EGQ5.50-SDS3
B711	7"X11¼"	6X6 RS/P66 PSL	HHUS7.25/10	HGLTV411.25-2
B712	7"X11⅞"	6X6 RS/P66 PSL	HHUS7.25/10	EGQ7.25-SDS3
B714	7"X14"	6X6 RS/P66 PSL	HGUS7.25/14	EGQ7.25-SDS3
B716	7"X16"	6X6 RS/P66 PSL	HGUS7.25/14	EGQ7.25-SDS3
B718	7"X18"	6X6 RS/P66 PSL	HGUS7.25/14-SDS	EGQ7.25-SDS3
GIRDER TRUSS	REF TRUSS MFR	4 (UNO ON PLAN)	PER TRUS MFR	PER TRUS MFR

BEAM LEGEND NOTES:

1. "H" INDICATES FOR USE IN HEADERS, MULTIPLE PLY DIMENSIONAL LUMBER BEAMS SHALL RECEIVE 1/2" PLYWOOD SHEATHING. SEE TYPICAL DETAIL.
2. ALL "B" BEAMS SHALL BE ANTHONY POWER BEAM GLUE LAMINATED BEAMS OR APPROVED EQUAL.
3. STUD PACKS ARE REQUIRED WHEN BEAM IS BEARING ON A WALL ASSEMBLY. STUD PACKS MUST CONTINUE ALL THE WAY TO THE FOUNDATION UNLESS TRANSFERRED BY A BEAM.
4. ALL STUDS IN STUD PACK SHALL BE NO.2 SOUTHERN PINE OR BETTER.
5. SHEATHING AND/OR DRYWALL MUST BE ATTACHED TO EACH INDIVIDUAL STUD IN THE STUD PACK.
6. ALL STUDS IN STUD PACK MUST BE FASTENED PER MECHANICALLY LAMINATED BUILT-UP COLUMN-NAILED.
7. HANGER SPECIFIED ARE THE MINIMUM REQUIRED UNO ON PLAN.

ASSUMED ROOF COVERING WEIGHTS:

ROOF COVERING TYPE	ROOF COVERING WEIGHT, PSF	ASSUMED TOTAL ROOF DEAD LOAD INCLUDING FRAMING
ASPHALT SHINGLES	3 PSF	10 PSF

NOTES:

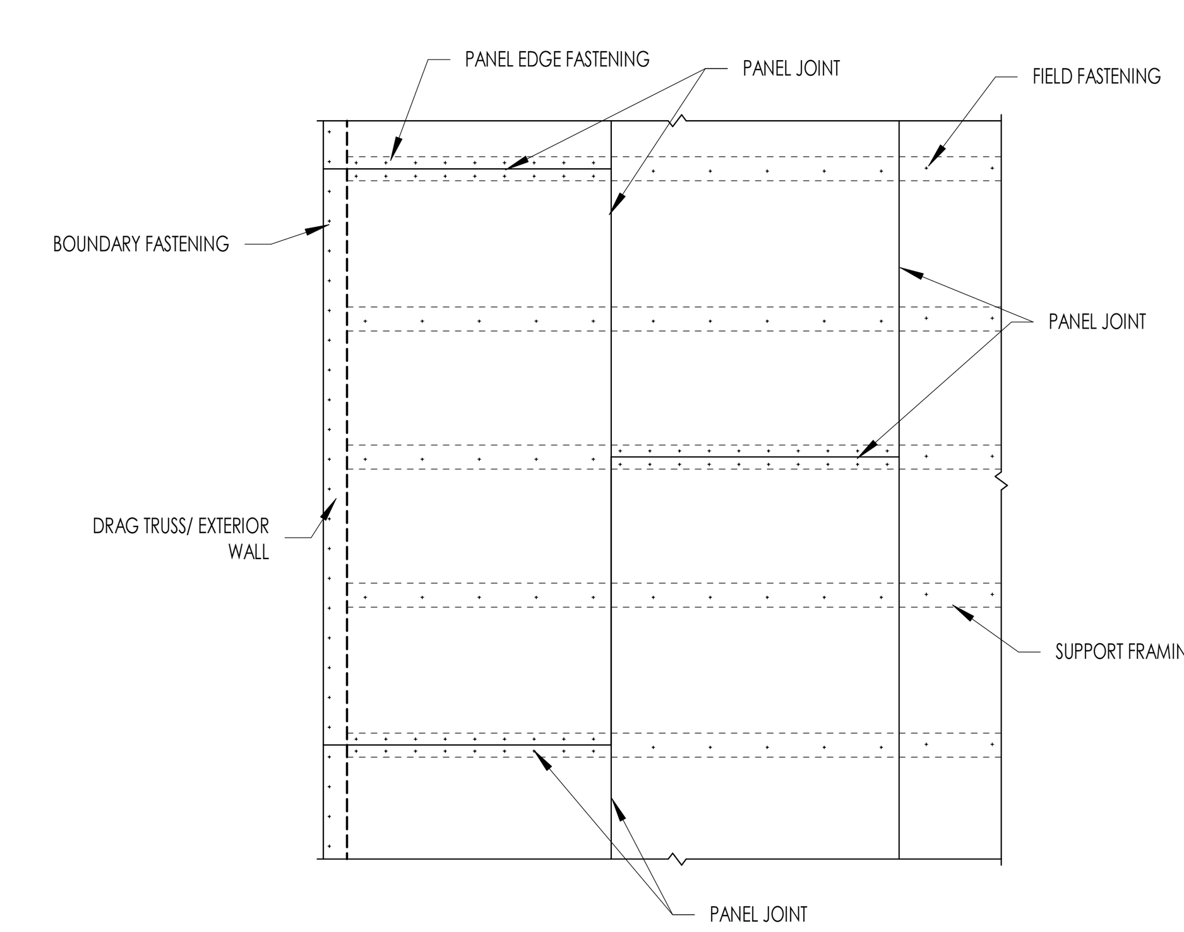
1. THE CONTRACTOR SHALL SUBMIT PRODUCT DATA FOR THE SELECTED ROOF SYSTEM INCLUDING TOTAL SYSTEM WEIGHT FOR REVIEW BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION

SUBFLOOR NOTES:

1. THE SUBFLOOR SHALL BE MIN 23/32" APA RATED TONGUE AND GROOVE WOOD STRUCTURAL SHEATHING WITH A FLOOR SPAN RATING OF 24.
2. FASTEN TO FRAMING SHALL CONSIST OF #8 X 2" LONG WOOD SCREWS. ALTERNATIVELY, 0.131x2" NAILS MAY BE USED IF SCREWS ARE ADDED @ 12" OC MAX ADDITIONALLY.
3. THE SUBFLOOR SHALL BE GLUED TO THE SUPPORTING FRAMING WITH POLYURETHANE OR SOLVENT-BASED SUBFLOOR ADHESIVES CONFORMING TO APA-AFG-01 OR ASTM D 3498.
   A. APPLY A 1/4" BEAD OF ADHESIVE TO THE TOP OF SUPPORTING MEMBERS. APPLY TWO BEADS WHERE PANELS JOINTS MEET.
   B. APPLY ONLY ENOUGH ADHESIVE TO LAY ONE OR TWO PANELS AT A TIME TO KEEP THE ADHESIVE FROM CURING OR SKINNING.
   C. FLOOR PANELS SHALL BE FULLY FASTENED WITHIN 10 MINUTES OF APPLYING ADHESIVE.
   D. EXCESS ADHESIVE SHALL BE REMOVED IMMEDIATELY.
4. PANELS SHALL SPAN ACROSS 3 OR MORE SUPPORTING MEMBERS WITH THE LONG DIMENSION PERPENDICULAR TO THE FLOOR FRAMING. STAGGER END JOINT OF PANEL A MINIMUM OF 2'.

FLOOR DIAPHRAGM FASTENING SCHEDULE

LOCATION	MAX SPACING
BOUNDARY	6"
PANEL EDGE / BOUNDARY	6"
FIELD	12"



ROOF FRAMING NOTES:

METAL PLATE CONNECTED ROOF TRUSS FRAMING:

1. METAL PLATE CONNECTED WOOD TRUSSES SHALL BE SPACED @ 24" OC UNLESS NOTED OTHERWISE. LOADING CRITERIA SHALL BE AS FOLLOWS:
   A. TOP CHORD LIVE LOAD (TCLL):.......... 20 PSF
   B. TOP CHORD DEAD LOAD (TCDL):.......... 10 PSF - ASPHALT SHINGLES (NOT INCLUDING SELF-WEIGHT)
   C. BOTTOM CHORD LIVE LOAD (BCLL):.......... 10 PSF (NON-CONCURRENT WITH TCLL & WIND UPLIFT) U.N.O. ON PLAN
   D. BOTTOM CHORD DEAD LOAD (BCDL):.......... 10 PSF
   E. TOP CHORD WIND LOAD:.......... REF COMPONENTS AND CLADDING SCHEDULE
   F. TOP CHORD DEAD LOAD FOR WIND UPLIFT:.......... 5 PSF (NOT INCLUDING SELF-WEIGHT)
2. TRUSS DEFLECTION LIMITS: TRUSSES SHALL BE LIMITED TO THE FOLLOWING DEFLETION LIMITS:
   A. PITCHED ROOF TRUSS : LIVE LOAD (L/240) TOTAL LOAD (L/180)
   B. SHALLOW (< = 4 : 12) PITCHED ROOF TRUSSES : LIVE LOAD (L/360) TOTAL LOAD (L/240)
3. CAMBER SHALL BE BUILT INTO ROOF TRUSSES TO COMPENSATE FOR VERTICAL DEFLECTION. THE CAMBER SHALL BE LARGEST AT THE MID-SPAN OF THE TRUSS.
   A. PITCHED ROOF TRUSS: 1.00 X DEFLECTION FROM ACTUAL DEAD LOAD.
4. DRAG TRUSSES SHALL BE PROVIDED DIRECTLY OVER INTERIOR SHEAR WALLS AND SHALL BE DESIGNED FOR A TOTAL FORCE EQUAL TO THE LENGTH OF THE SHEAR WALL MULTIPLED BY THE ALLOWABLE SHEAR VALUE PROVIDED IN THE SHEAR WALL SCHEDULE FOR THAT SHEAR WALL TYPE.
5. TRUSS RESTRAINT/BRACING METHODS SHALL BE IN ACCORDANCE WITH BCSI-B3 UNLESS NOTED OTHERWISE.
6. TRUSSES SHALL BE BLOCKED AND BRACED TO PREVENT ROTATION & PROVIDE LATERAL STABILITY IN ACCORDANCE WITH THE SBCA BCSI GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.

GENERAL ROOF FRAMING NOTES:

1. ROOF FRAMING MAY ONLY BEAR UPON THE TOP PLATE OF LOAD BEARING WALLS OR BEAMS.

ATTIC TRUSSES:

1. PROVIDE 23/32" SUBFLOOR ON TOP OF THE BOTTOM CHORD IN ATTIC SPACE, REF ARCH/MEP
2. LOCATE ATTIC ACCESS LOCATION WITH ARCH/MEP

ROOF PLAN LEGEND:

- DECK SPAN / REF ROOF DECKING NOTES — ROOF DECK SPAN (ORIENTATION OF LONG DIRECTION OF PANELS)
- ROOF OUTLINE
- COMMON ROOF TRUSS
- OVERBUILD ROOF TRUSS
- DROP TOP GABLE END WALL TRUSS
- DIMENSIONAL LUMBER (RAFTER, OUTLOOKER, ETC.)
- HEADER
- RAFTER / TRUSS HIDDEN BELOW HIGHER ROOF
- LOAD BEARING WALL BELOW
- FLAT ROOF TRUSS AREA, REF PLAN
- SLOPE DOWN / REF ARCH — SLOPE SYMBOL

ROOF DECKING NOTES:

1. ROOF DECKING SHALL BE **15/32"** APA RATED SHEATHING (SPAN RATING: **32/16**).
2. PANELS SHALL SPAN 3 MORE RAFTERS IN THE LONG DIMENSION.
3. PANEL CLIPS:
   A. SINGLE-PLY OR MODIFIED BITUMEN ROOFING SYSTEMS:
      a. LOW SLOPE ROOF (LESS THAN OR EQUAL TO 2:12)
         - DECKING SHALL HAVE PANEL EDGE CLIPS (H-CLIPS) LOCATED MIDWAY BETWEEN EACH SUPPORT.
      b. SLOPE GREATER THAN 2:12
         - DECKING SHALL HAVE PANEL EDGE CLIPS (H-CLIPS) LOCATED MIDWAY BETWEEN EACH SUPPORT FOR ANY SPAN GREATER THAN 19.2" OC.
   B. ANY OTHER TYPE OF ROOFING SYSTEM
      a. DECKING SHALL HAVE PANEL EDGE CLIPS (H-CLIPS) LOCATED MIDWAY BETWEEN EACH SUPPORT.

ROOF DECKING FASTENING:

ZONE	PANEL EDGE / BOUNDARY	FIELD
ZONE 1	@ 6" OC MAX	@ 12" OC MAX
ZONE 2	@ 6" OC MAX	@ 6" OC MAX
ZONE 3	@ 4" OC MAX	@ 6" OC MAX
ZONE 3 OVERHANG	@ 3" OC MAX	@ 6" OC MAX

NOTES:

1. ALL NAILS SHALL BE 0.131"Ø X 2½" RING SHANK NAILS.
2. EDGE SPACING ALSO APPLIES OVER THE TOP OF SHEARWALLS.

WALL STUD SCHEDULE

TOP OF WALL	MAX PLATE HT	EXTERIOR WALL	INTERIOR NON-LOAD BEARING	INTERIOR BEARING
ROOF	8'-0"	2X4 NO.2 @ 16" OC	2X4 STUD @ 16" OC	N/A
NOTES				

EXPOSED WOOD FRAMING PROTECTION

1. ANY WOOD FRAMING EXPOSED TO EITHER MOISTURE OR ULTRAVIOLET RADIATION (SUN) SHALL BE TREATED WITH A WOOD PROTECTOR THAT MEET OR EXCEEDS INDUSTRY STANDARD FOR WATERPROOFING WOOD (ASTM-D-4446).
2. APPLICATION OF WOOD PROTECTOR SHALL BE MFR. RECOMMENDATIONS.
3. SUBMIT THE PROPOSED PRODUCT TO THE DESIGN TEAM FOR REVIEW AND APPROVAL.
4. THE CONTRACTOR SHALL NOTIFY THE BUILDING OWNER/PROPERTY MANAGEMENT OF THE REQUIRED MAINTENANCE AND RE-APPLICATION SCHEDULE.
5. THE EXPOSED END-GRAIN OF ANY WOOD MEMBERS SHALL BE CAPPED WITH A WATERTIGHT COPPER, STAINLESS STEEL OR GALVANIZED SHEET METAL CAP, REF ARCH FOR FINISH REQUIREMENTS.

EXAMPLE WOOD BEAM SHEET METAL CAP

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1/30/2024

DUDLEY

A NEW CHAPEL FOR
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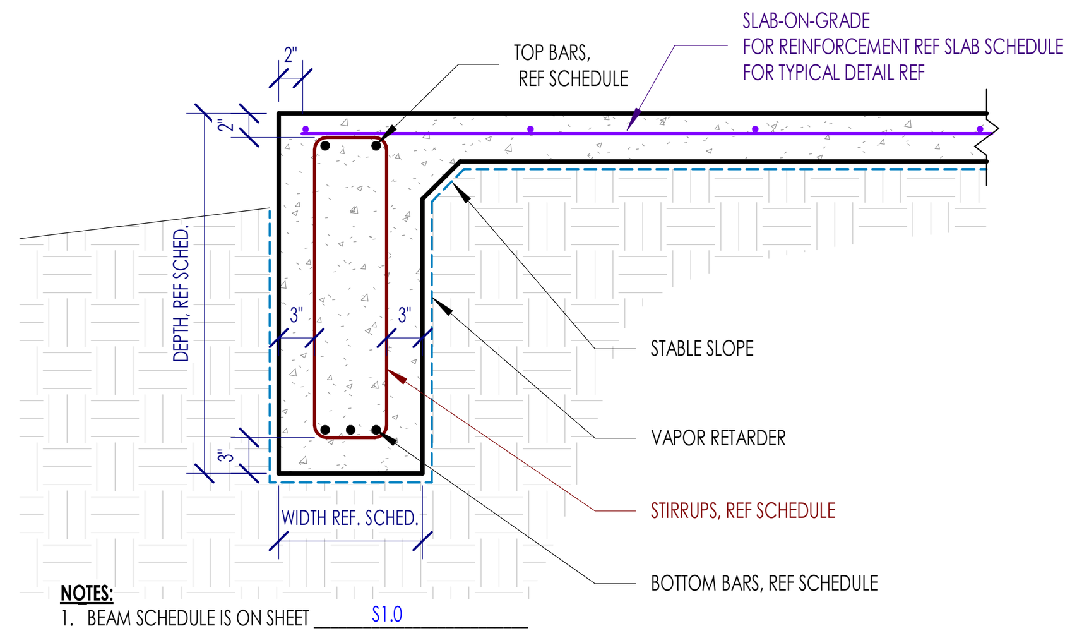
508 E. MARTIN LUTHER KING JR. ST.
BRYAN, TX

REVISIONS	
1	01/30/2024

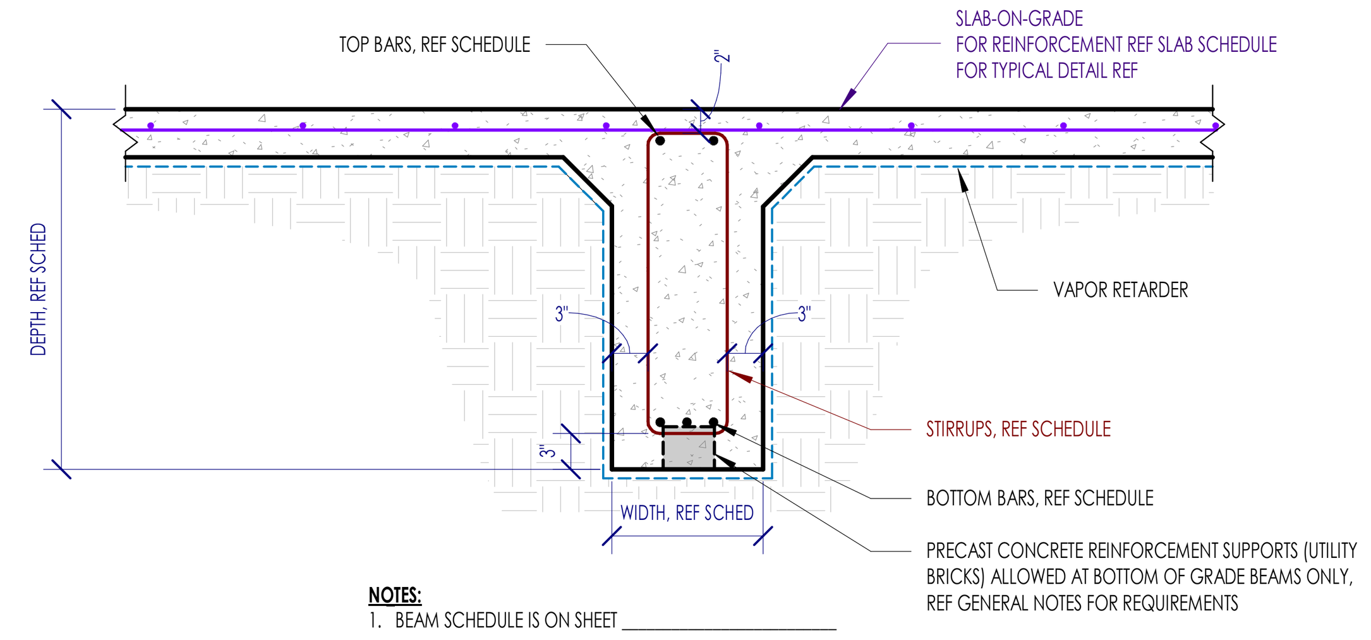
DATE 12/01/2023

SHEET S2.1 OF



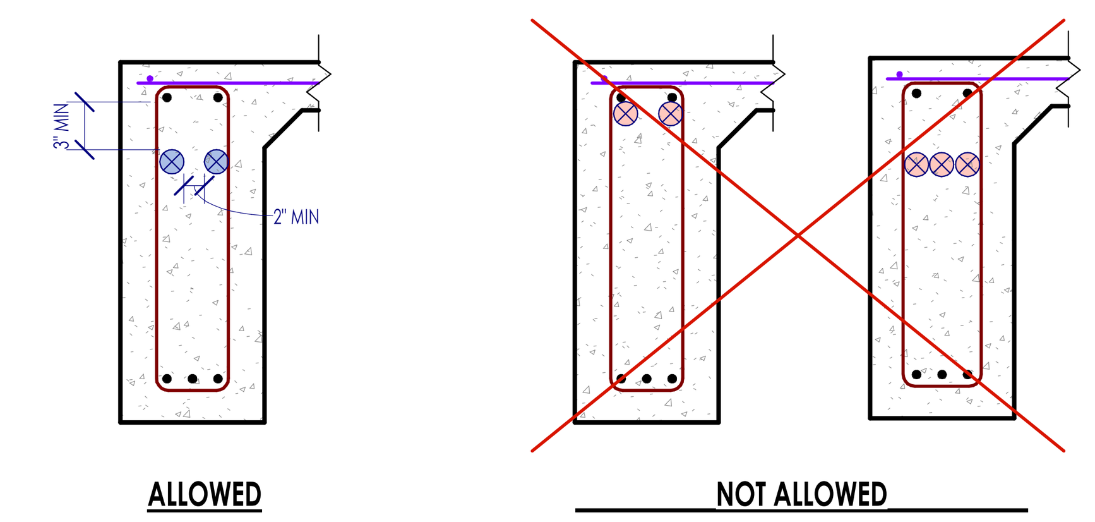
NOTES:
1. BEAM SCHEDULE IS ON SHEET S1.0

1 S3.0 / 1 S1.0 TYPICAL EXTERIOR GRADE BEAM
NOT TO SCALE

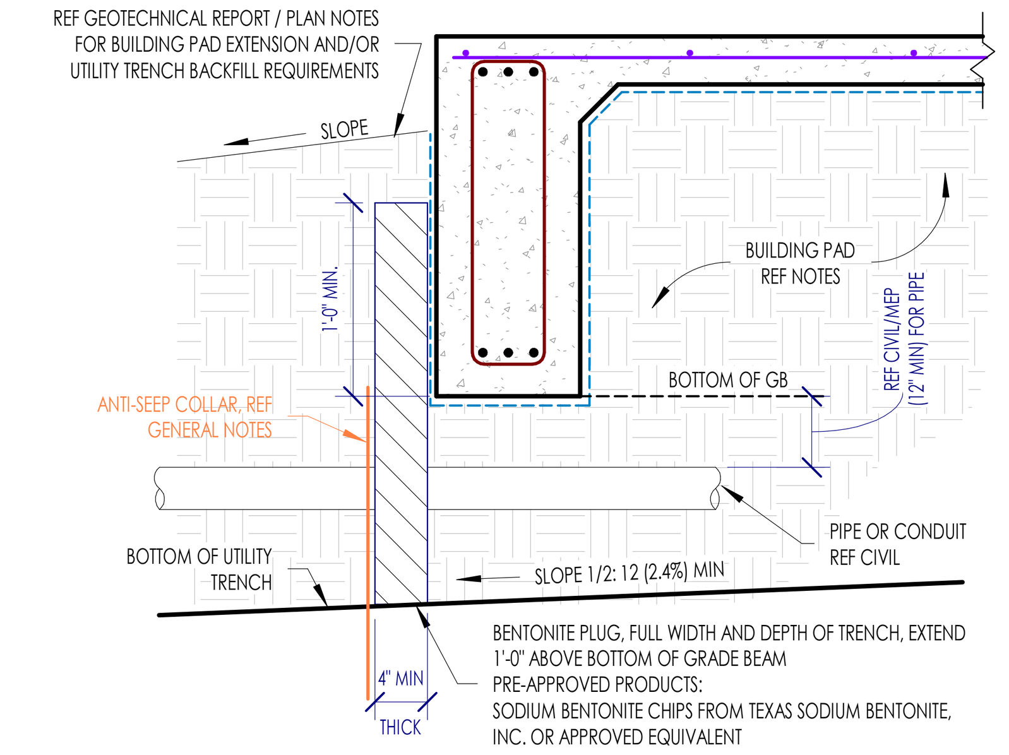


NOTES:
1. BEAM SCHEDULE IS ON SHEET

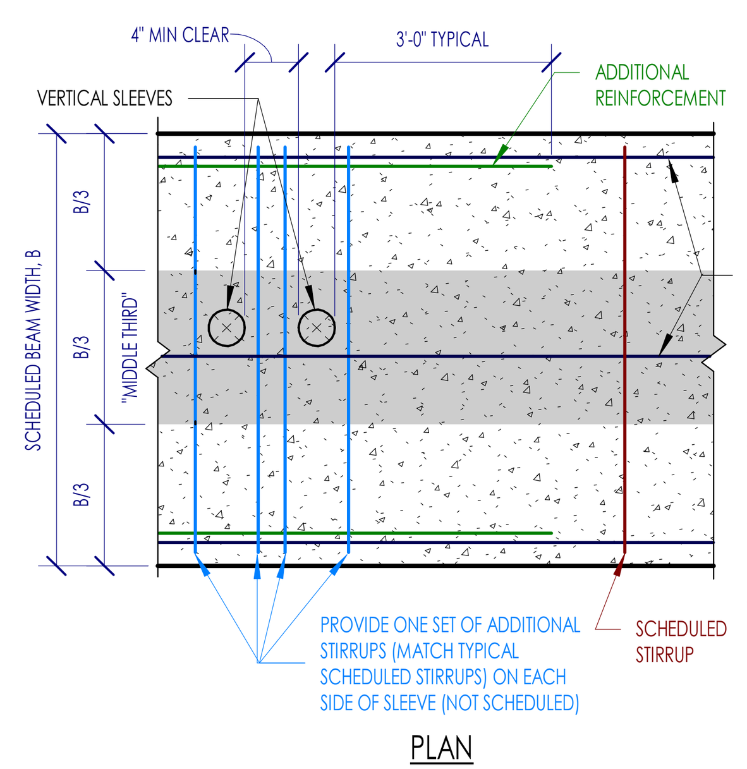
2 S3.0 / 1 S1.0 TYPICAL INTERIOR GRADE BEAM & TYPICAL CLEAR COVER FOR BEAM REINFORCEMENT
NOT TO SCALE

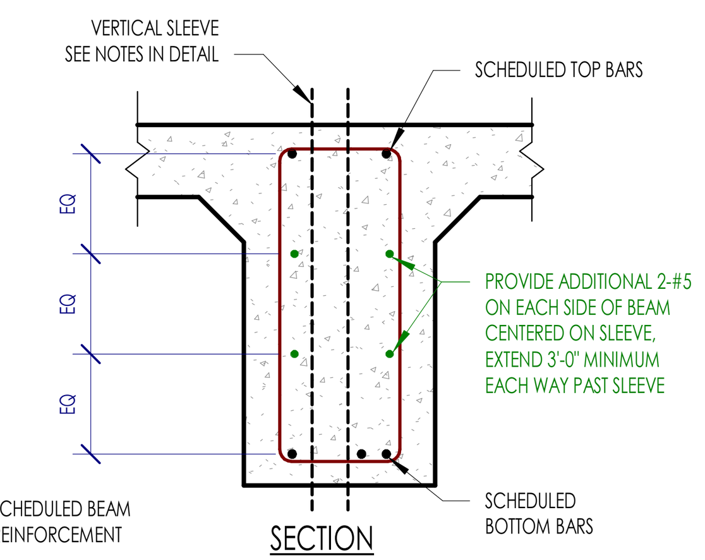


3 S3.0 ALLOWABLE CONDUIT WITH BEAM CAGE PARALLEL TO LONGITUDINAL REINFORCEMENT
NOT TO SCALE



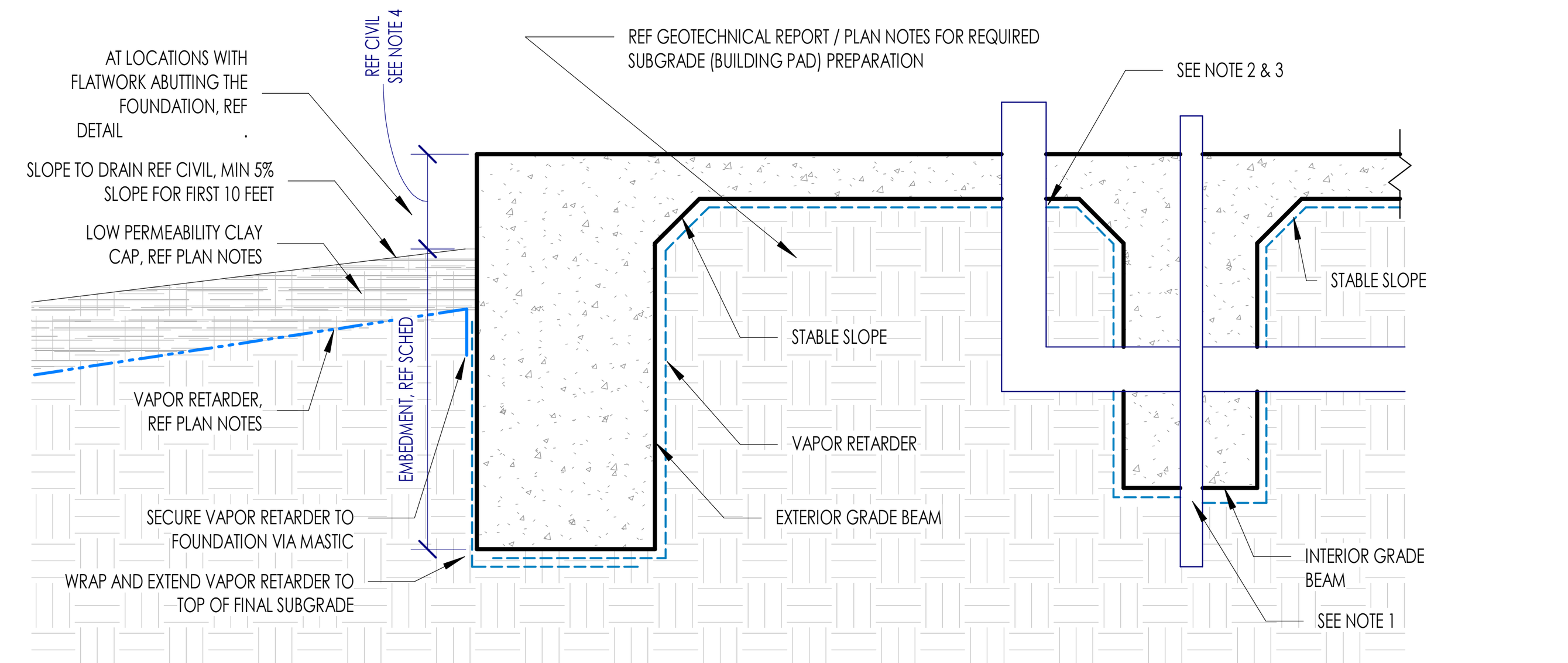
4 S3.0 TYPICAL UTILITY TRENCH UNDER BLDG ANTI-SEEP COLLAR / PLUG AT EXTERIOR
NOT TO SCALE





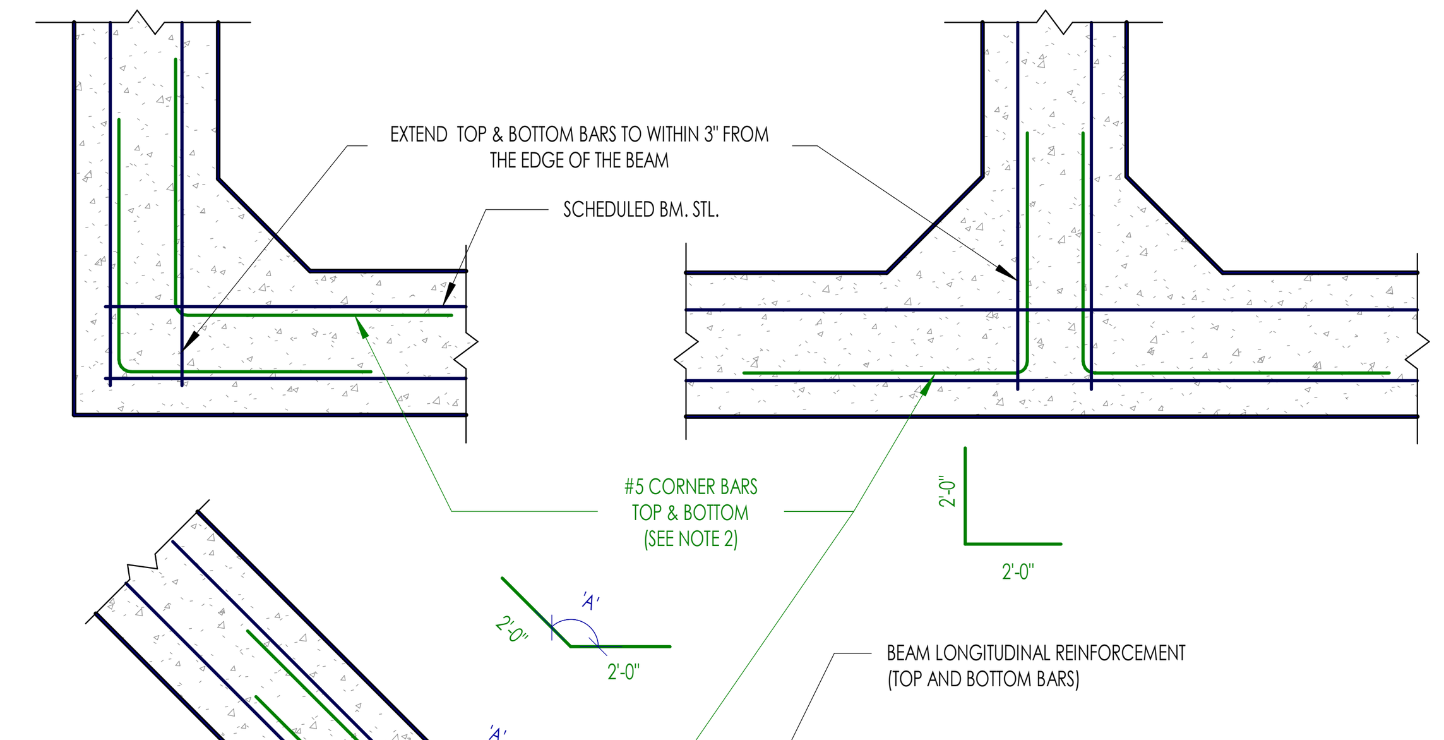
NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT PLAN SHOWING LAYOUT OF ALL SLEEVES WITH FORMWORK SHOP DRAWING SUBMITTAL.
2. SLEEVES SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SCHEDULED BEAM WIDTH.
3. GENERAL CONTRACTOR SHALL COORDINATE REQUIRED BEAM SLEEVES WITH MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS. REQUIRED SLEEVES MAY OR MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.
4. CONTINUOUS BEAM REINFORCEMENT MAY BE SLIGHTLY DISPLACED (3" MAXIMUM) OR ADJACENT BARS BUNDLED (2 BAR BUNDLES MAXIMUM) TO FACILITATE SLEEVE INSTALLATION. DO NOT CUT, OFFSET, OR BEND REINFORCEMENT.
5. SLEEVES OCCURRING ON OPPOSITE SIDES OF A COLUMN MUST BE IN LINE.
6. THE OUTSIDE DIAMETER OF A SLEEVE MAY NOT EXCEED 20% OF THE SCHEDULED WIDTH OF THE BEAM THROUGH WHICH IT MUST PASS.
7. THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD WHEN A SLEEVE SIZE OR LOCATION DOES NOT MEET THE ABOVE CONDITIONS.
8. SCHEDULED BEAM STIRRUPS NOT SHOWN FOR CLARITY.

5 S3.0 TYPICAL VERTICAL PENETRATION IN GRADE BEAM
NOT TO SCALE



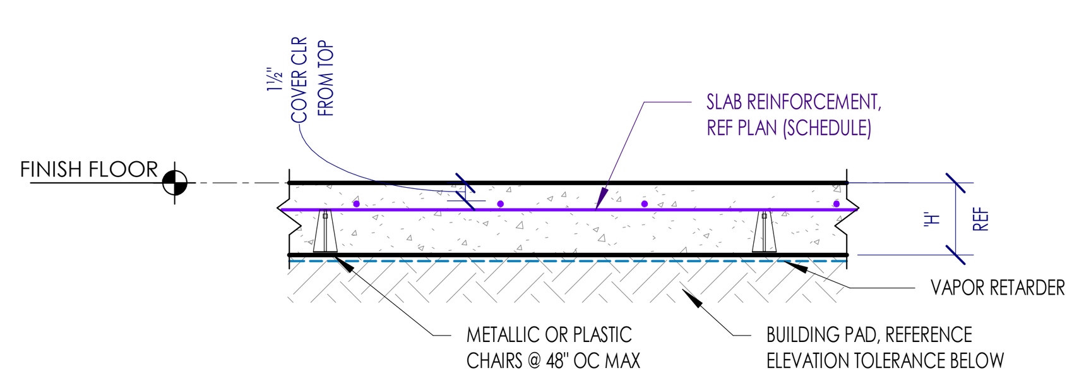
NOTES:
1. CUT AND/OR LAP THE VAPOR RETARDER AT THE BOTTOM OF INTERIOR GRADE BEAMS. THE VAPOR RETARDER SHALL BE SECURED TO THE SIDES OF THE GRADE BEAM. IF LAPS ARE REQUIRED ON TOP OF THE SLAB, THEY MUST BE TAPED PER MFR RECOMMENDATIONS.
2. ALL PIPE, DUCTING, REBAR, WIRE PENETRATIONS AND BLOCK OUTS SHOULD BE SEALED USING MFR RECOMMENDED WRAP, TAPE AND/OR MASTIC
3. IN THE EVENT THAT THE VAPOR RETARDER IS DAMAGED DURING OR AFTER INSTALLATION, REPAIRS MUST BE MADE. FOR HOLES, CUT A PIECE OF VAPOR RETARDER TO A SIZE AND SHAPE THAT COVERS ANY DAMAGE BY A MINIMUM OVERLAP OF 6" IN ALL DIRECTIONS. CLEAN ALL ADHESION AREAS OF DUST, DIRT, MOISTURE, AND FROST. TAPE DOWN ALL EDGES USING MFR RECOMMENDED TAPE.
4. THE FINISH FLOOR ELEVATION SHALL BE A MINIMUM OF 6" ABOVE FINAL GRADE (GROUND) UNLESS IMPERVIOUS COVER IS PROVIDED. THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN 5% FOR A MINIMUM DISTANCE OF 10' MEASURED PERPENDICULAR TO THE FACE OF THE FOUNDATION. IF PHYSICAL OBSTRUCTIONS OR LOT LINES PROHIBIT 10' OF HORIZONTAL DISTANCE, A 5% SLOPE SHALL BE PROVIDED TO AN APPROVED ALTERNATIVE SYSTEM OF DIVERTING WATER AWAY FROM THE FOUNDATION. SWALES USED FOR THIS PURPOSE SHALL BE SLOPED NOT LESS THAN 2% WHERE LOCATED WITHIN 10' OF THE BUILDING FOUNDATION. IMPERVIOUS SURFACES WITHIN 10' OF THE BUILDING FOUNDATION SHALL BE SLOPED NOT LESS THAN 2% AWAY FROM THE BUILDING. IMPERVIOUS SURFACE SHALL BE PERMITTED TO BE SLOPED LESS THAN 2% WHERE THE SURFACE IS A DOOR LANDING OR RAMP. THE PROCEDURE USED TO ESTABLISH THE FINAL GROUND LEVEL ADJACENT TO THE FOUNDATION SHALL ACCOUNT FOR ADDITIONAL SETTLEMENT OF BACKFILL, FREEZE/THAW DUE TO FROST, AND HEAVE/SUBSIDENCE DUE TO EXPANSIVE SOIL. FLATWORK (SIDEWALK, PAVEMENT, STOOPS, ETC.) IS NOT WITHIN THE SCOPE OF THE STRUCTURAL ENGINEER-OF-RECORD, REFER TO CIVIL.

6 S3.0 TYPICAL SUBGRADE AND VAPOR RETARDER PREPARATION
NOT TO SCALE



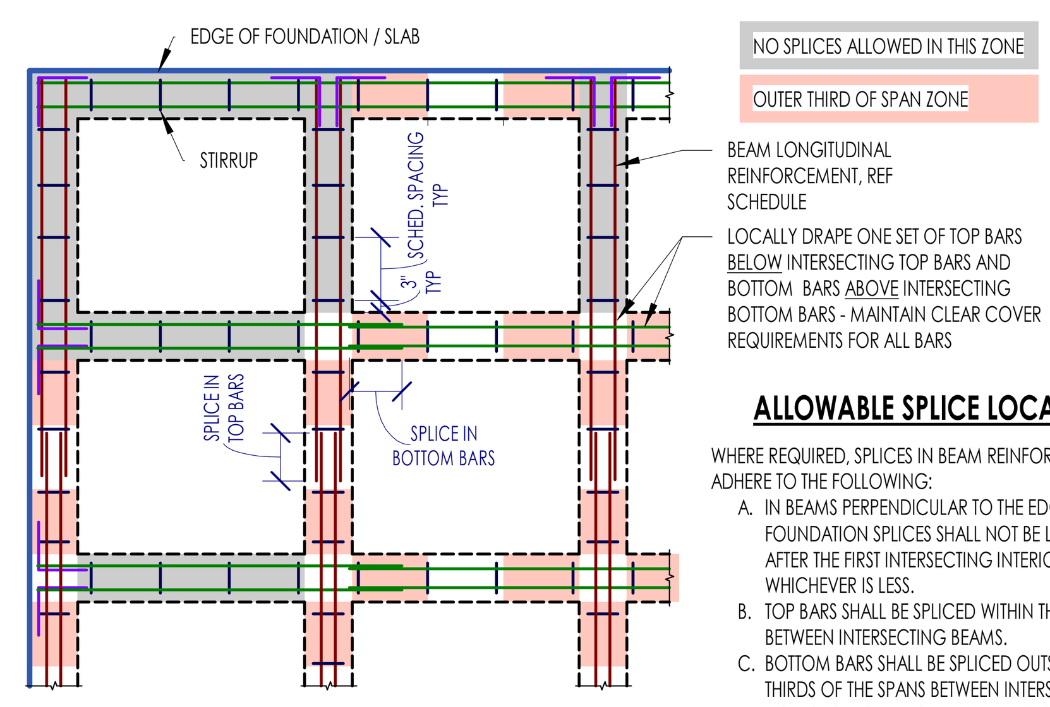
NOTES:
1. BEAMS SHALL BE POURED MONOLITHICALLY UNLESS JOINTS ARE ALLOWED BY WRITTEN PERMISSION BY THE EOR.
2. LOCATE TOP CORNER BARS BELOW TOP LONGITUDINAL BARS. LOCATE BOTTOM CORNER BARS ABOVE BOTTOM LONGITUDINAL BARS.

7 S3.0 / 1 S1.0 TYPICAL GRADE BEAM (CONTINUOUS FOOTING) CORNER BARS
NOT TO SCALE



TOLERANCES FOR SLAB-ON-GRADE CONSTRUCTION (BASED ON ACI 117-10):
1. DEVIATION FROM ELEVATION:
   A. TOP SURFACE OF SLAB: ± 1/4", REFER TO FLOOR FLATNESS & LEVELNESS CRITERIA IF APPLICABLE
   B. FINE GRADE OF SOIL IMMEDIATELY BELOW SLABS-ON-GROUND: ± 1/2"
      a. DEVIATIONS IN ELEVATIONS OF FINE GRADE CAN LEAD TO RESTRAINT TO SHRINKAGE AND THUS ADDITIONAL CRACKING IN THE SLAB.
2. PLASTIC OR STEEL WIRE CHAIR ONLY (NO MASONRY) IN ACCORDANCE WITH CRSI
3. FOR CONTRACTION (CONTROL) JOINTS IN SLAB-ON-GRADE, REF
4. LAP SPLICES IN SLAB REINFORCEMENT SHALL BE STAGGERED A MINIMUM OF 5' APART

8 S3.0 / 1 S1.0 TYPICAL NON-STRUCTURAL SLAB-ON-GRADE SECTION
NOT TO SCALE



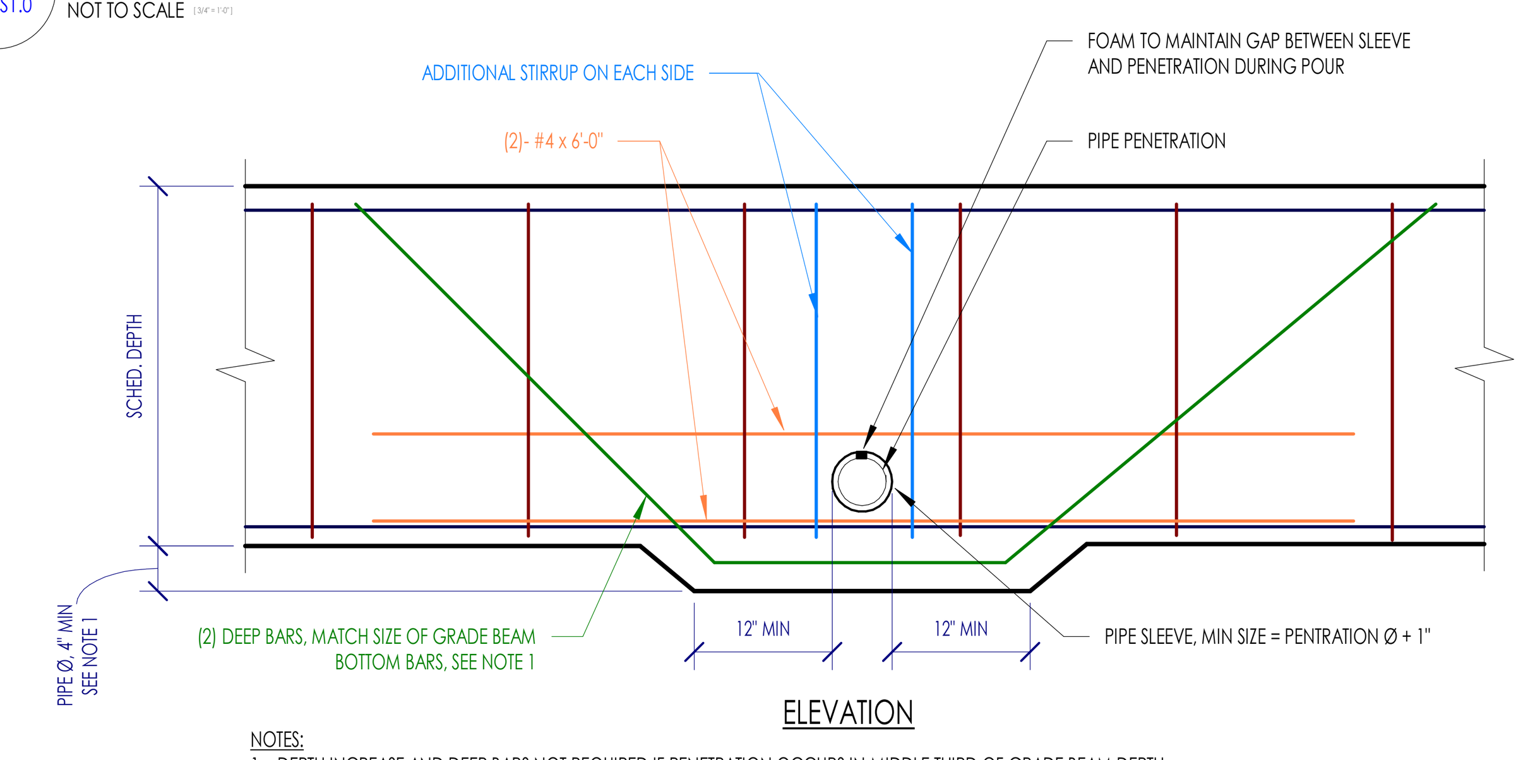
BEAM LONGITUDINAL REINFORCEMENT, REF SCHEDULE

LOCALLY DRAPE ONE SET OF TOP BARS BELOW INTERSECTING TOP BARS AND BOTTOM BARS ABOVE INTERSECTING BOTTOM BARS - MAINTAIN CLEAR COVER REQUIREMENTS FOR ALL BARS

ALLOWABLE SPLICE LOCATIONS

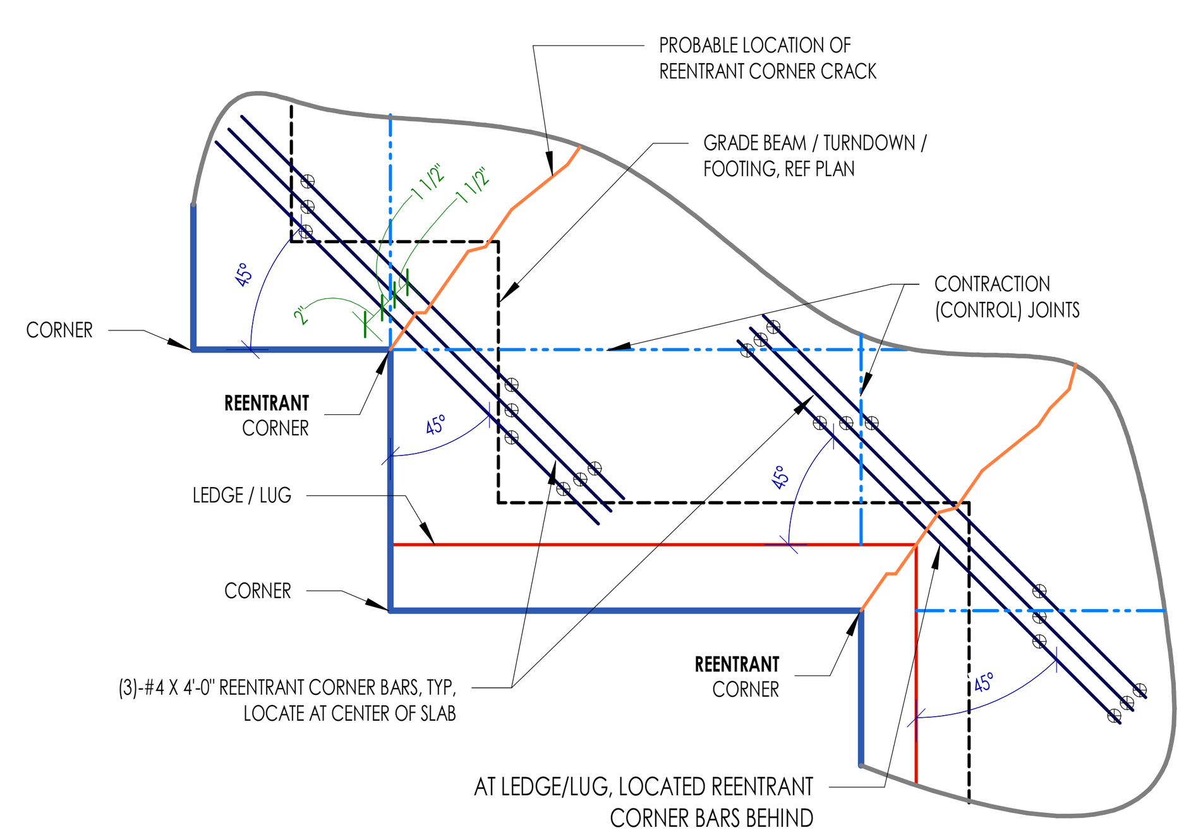
WHERE REQUIRED, SPLICES IN BEAM REINFORCMENT SHALL ADHERE TO THE FOLLOWING:
A. IN BEAMS PERPENDICULAR TO THE EDGE OF THE FOUNDATION SPLICES SHALL NOT BE LOCATED UNTIL AFTER THE FIRST INTERSECTING INTERIOR BEAM OR 15' WHICHEVER IS LESS.
B. TOP BARS SHALL BE SPLICED WITHIN THE MIDDLE THIRD BETWEEN INTERSECTING BEAMS.
C. BOTTOM BARS SHALL BE SPLICED OUTSIDE THE OUTER-THIRDS OF THE SPANS BETWEEN INTERSECTING BEAMS.
D. DO NOT SPLICE BARS AT BEAM INTERSECTIONS

9 S3.0 / 1 S1.0 TYPICAL BEAM LONGITUDINAL BAR SPLICE & INTERIOR BEAM INTERSECTION - SCHEMATIC LAYOUT
NOT TO SCALE



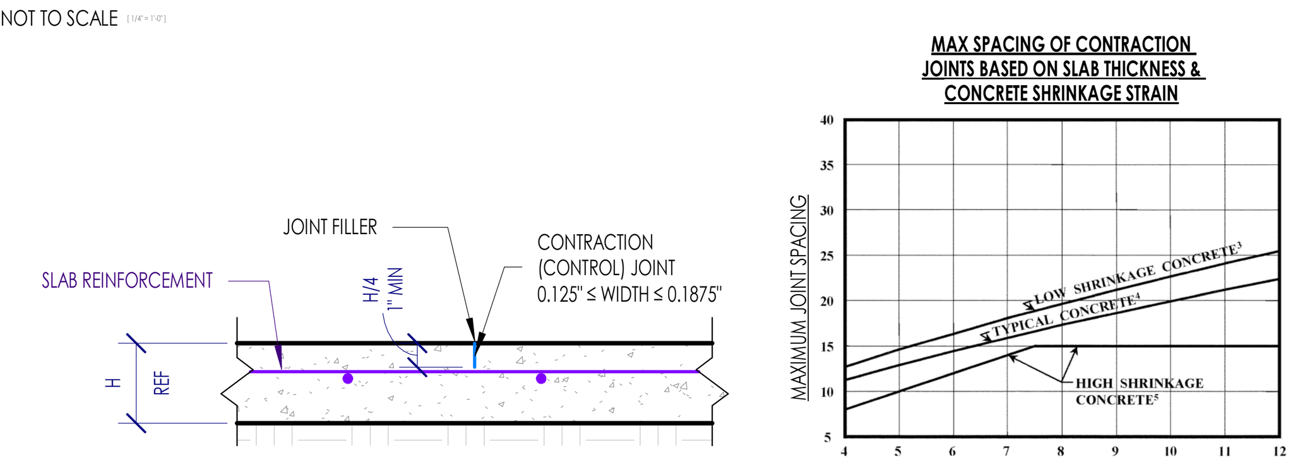
NOTES:
1. DEPTH INCREASE AND DEEP BARS NOT REQUIRED IF PENETRATION OCCURS IN MIDDLE THIRD OF GRADE BEAM DEPTH

10 S3.0 TYPICAL HORIZONTAL PENETRATION IN BEAM
NOT TO SCALE



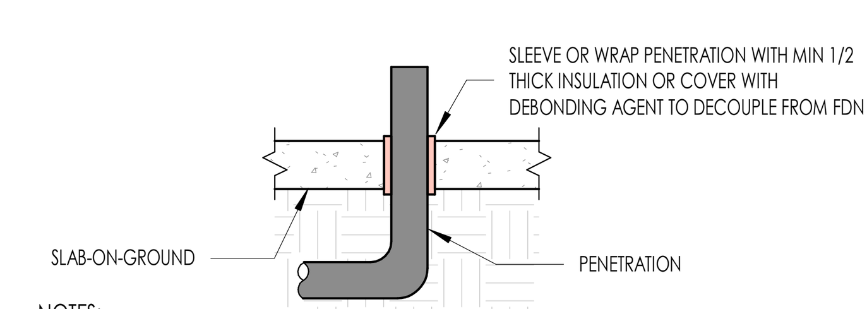
NOTES:
1. REENTRANT CORNER BARS WILL NOT ELIMINATE REENTRANT CORNER CRACKS. THEY WILL MITIGATE THE WIDTH OF THE CRACKS. FOR OPTIMAL MITIGATION OF CRACKS, PLACE CONTRACTION (CONTROL) JOINTS AS SOON AS POSSIBLE.

11 S3.0 / 1 S1.0 TYPICAL REENTRANT CORNER BARS
NOT TO SCALE



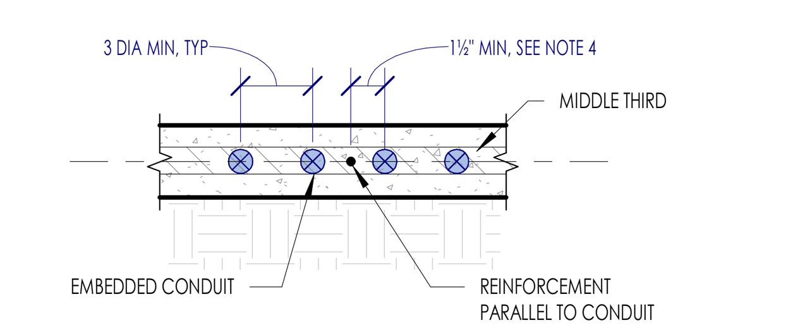
NOTES:
1. **CONTRACTION (CONTROL) JOINTS SHALL BE PLACED AS SOON AS THE CONCRETE BEGINS TO COOL, AS SOON AS THE CONCRETE SURFACE IS FIRM ENOUGH TO NOT BE TORN OR DAMAGED BY THE BLADE (IF SAW CUTTING) AND HAS SET ENOUGH TO SUPPORT THE WEIGHT OF THE EQUIPMENT AND WORKER**
2. CONTRACTION (CONTROL) JOINT CAN EITHER BE TOOLED OR SAW-CUT (WITH AN EARLY ENTRY DRY-CUT SAW WITH DEPTH INDICATOR) INTO THE CONCRETE
3. THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER WRITTEN CONFIRMATION WITH SUPPORTING PHOTOS OF WHEN AND HOW JOINTS WERE PLACED INTO THE SLAB.
4. CONTRACTION (CONTROL) JOINTS WHICH ARE USED TO CONTROL CRACKING ARE INAFFECTIVE IF THE FOLLOWING OCCUR:
   A. PLACED TOO LATE | NOT DEEP ENOUGH | SUBGRADE HAS ABRUPT CHANGES IN ELEVATION OUTSIDE OF ACI 117 TOLERANCES
5. REFERENCE CONCRETE MATRIX FOR WHETHER LOW SHRINKAGE CONCRETE IS SPECIFIED. (ULTIMATE DRY SHRINKAGE STRAIN LESS THAN 520 MILLIONTHS PLACED ON A DRY BASE MATERIALS)
6. UNLESS NOTED OTHERWISE, CONCRETE IS ASSUMED TO BE OF NORMAL SHRINKAGE (ULTIMATE DRY SHRINKAGE STRAIN OF 520 TO 780 MILLIONTHS PLACED ON A DRY BASE MATERIALS)
7. HIGH SHRINKAGE CONCRETE SHALL NOT BE USED. ADDING WATER OVER THE W/C CAN LEAD TO A HIGH SHRINKAGE RATE.
8. JOINT FILLER
   A. FILLER MATERIAL SHALL ADHERE TO ASTM D2240 AND HAVE A MINIMUM SHORE (A) HARDNESS OF 80. MFR. PRODUCTS SHALL BE MM-80 BY METZGER/MCGUIRE, EUCO 700 BY EUCLID OR APPROVED EQUIVALENT.
   B. FILLER MATERIAL SHALL BE APPLIED A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION AND PREFERRABLY AFTER SHELL CONSTRUCTION IS COMPLETE.
   C. ALL VISIBILY EXPOSED SLAB JOINTS SHALL BE FILLED WITH FILLER MATERIAL UNO BY ARCH.
   D. WHERE WET CONDITIONS OR HYGIENIC REQUIREMENTS EXIST, JOINTS SHALL BE SEALED WITH AN ELASTOMERIC LIQUID SEALANT.
9. NON-FLEXIBLE FLOOR FINISHES PLACED OVER THE JOINT SHALL BE INSTALLED TO ACCOMODATE UP TO 1/8" OF HORIZONTAL MOVEMENT.
10. THE MAXIMUM SPACING OF CONTRACTION JOINTS SHALL FOLLOW THE CHART ABOVE UNLESS TIGHTER SPACINGS ARE INDICATED ON PLAN.

12 S3.0 / 1 S1.0 TYPICAL CONTRACTION (CONTROL) JOINT IN SLAB-ON-GRADE
NOT TO SCALE



NOTES:
1. DECOUPLING PENETRATIONS FROM THE SLAB IS CRITICAL AS THE FOUNDATION HAS NOT BEEN DESIGNED FOR SOIL MOVEMENT DUE TO PLUMBING LEAKS.

13 S3.0 TYPICAL VERTICAL PENETRATION THOUGH FOUNDATION
NOT TO SCALE



NOTES:
1. EMBEDDED CONDUIT MUST BE PVC OR OTHER PRE-APPROVED PRODUCT THAT WILL NOT CHEMICALLY REACT WITH THE CONCRETE.
2. EMBEDDED CONDUIT MUST BE CHAIRED AND RESTRAINED @ 48" OC MAX IN ORDER TO PREVENT FLOATING OF THE CONDUIT DURING POURING.
3. PLACE ALL CONDUIT WITHIN THE MIDDLE THIRD OF THE OVERALL SLAB DEPTH.
4. DO NOT PLACE CONDUIT ADJACENT TO NOR TIE CONDUIT TO PARALLEL REINFORCEMENT.

14 S3.0 TYPICAL CONDUITS EMBEDDED IN SLAB-ON-GRADE
NOT TO SCALE

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LICENSED PROFESSIONAL ENGINEER
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A NEW CHAPEL FOR
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REVISIONS	
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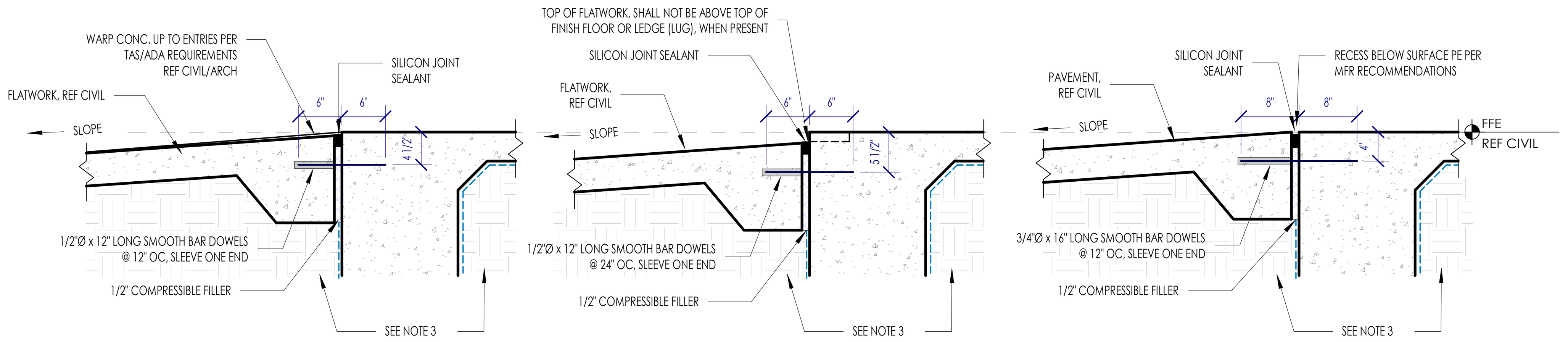


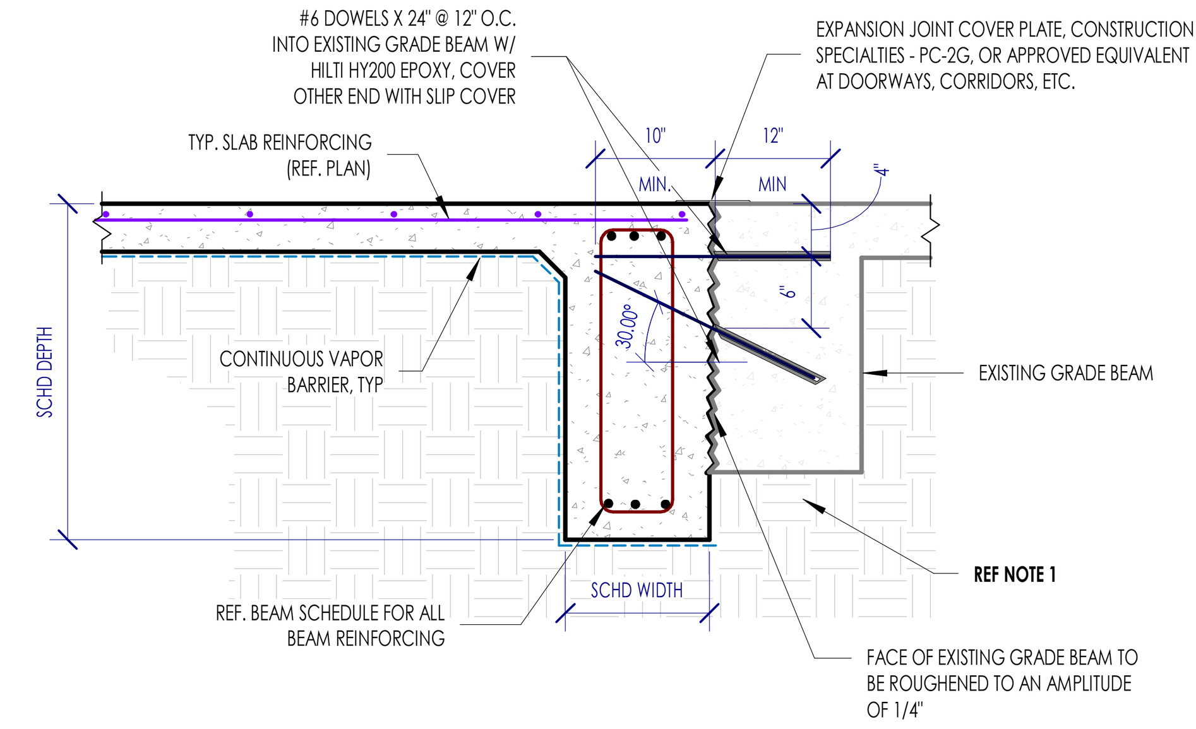
FLATWORK AT ENTRY DOOR

FLATWORK **NOT** AT ENTRY DOOR

AT PAVEMENT (DRIVE-IN)

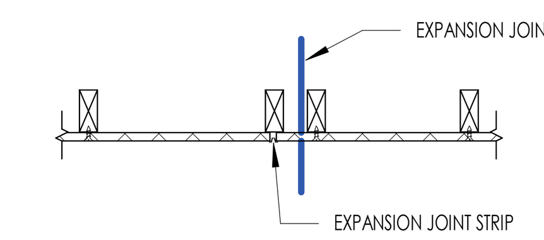
NOTES:
1. CONTRACTOR TO SUBMIT TO OWNER, ARCHITECT AND ENGINEER THE PRODUCT DATA FOR THE ELASTOMERIC JOINT SEALANT WHICH MUST INCLUDE A RECOMMENDED MAINTENANCE PROGRAM FOR THE SEALANT.
2. REFERENCE ARCHITECTURE / CIVIL FOR ADA REQUIREMENTS, TOP OF FLATWORK / PAVEMENT.
3. BUILDING PAD AND FLATWORK/PAVEMENT SUBGRADE IMPROVEMENT TO ADHERE TO THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.
4. FLATWORK (SIDEWALK, PAVEMENT, STOOPS, ETC.) ADJACENT TO THE STRUCTURE IS NOT WITHIN THE SCOPE OF THE STRUCTURAL ENGINEER-OF-RECORD. THE CIVIL ENGINEER & CONTRACTOR SHALL FOLLOW ALL RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT AND REQUIREMENTS OF THE BUILDING CODE (IMPERVIOUS SURFACE SHALL BE PERMITTED TO BE SLOPED LESS THAN 2% WHERE THE SURFACE IS A DOOR LANDING OR RAMP. THE PROCEDURE USED TO ESTABLISH THE FINAL GROUND LEVEL ADJACENT TO THE FOUNDATION SHALL ACCOUNT FOR ADDITIONAL SETTLEMENT OF BACKFILL, FREEZE/THAW DUE TO FROST, AND HEAVE/SUBSIDENCE DUE TO EXPANSIVE SOIL.)
5. ELASTOMERIC JOINT SEALANT
   A. ADHERE TO ASTM D5893 - STANDARD SPECIFICATION FOR COLD-APPLIED, SINGLE-COMPONENT, CHEMICALLY CURING SILICONE JOINT SEALANT FOR PORTLAND CEMENT CONCRETE PAVEMENTS
   B. INSTALL FOAM BACKER RODS AS REQUIRED FOR INSTALLATION.
   C. PRE-APPROVED PRODUCTS -
      a. DOW - DOWSIL 890-SL SILICON JOINT SEALANT.
      b. Sikasil®-728 SL

1 S3.1 TYPICAL FLATWORK/PAVEMENT DOWELS AT BUILDING
NOT TO SCALE [3/4" = 1'-0"]



NOTES:
1. IF NEW GRADE BEAM IS DEEPER THAN EXISTING GRADE BEAM, THEN CONTRACTOR SHALL PROVIDE TEMPORARY SHORING TO KEEP THE SOIL BENEATH THE EXISTING GRADE BEAM FROM SLOUGHING AND UNDERMINING THE FOUNDATION. IF SLOUGHING DOES OCCUR THEN THE AREA SHALL BE IMMEDIATELY BACKFILLED WITH LEAN CONCRETE OR CEMENT STABILIZED SAND (TYP. TO ALL GRADE BEAMS ADJACENT TO THE EXISTING FOUNDATION)

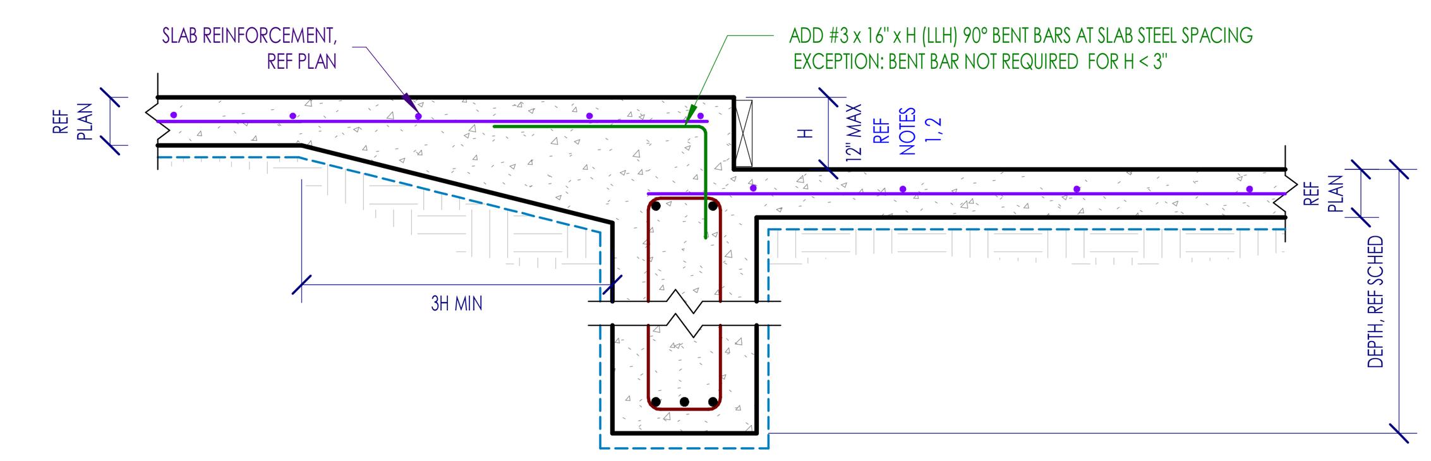
2 S3.1 TYPICAL CONNECTION INTO EXISTING FOUNDATION
1 S1.0 NOT TO SCALE [3/4" = 1'-0"]



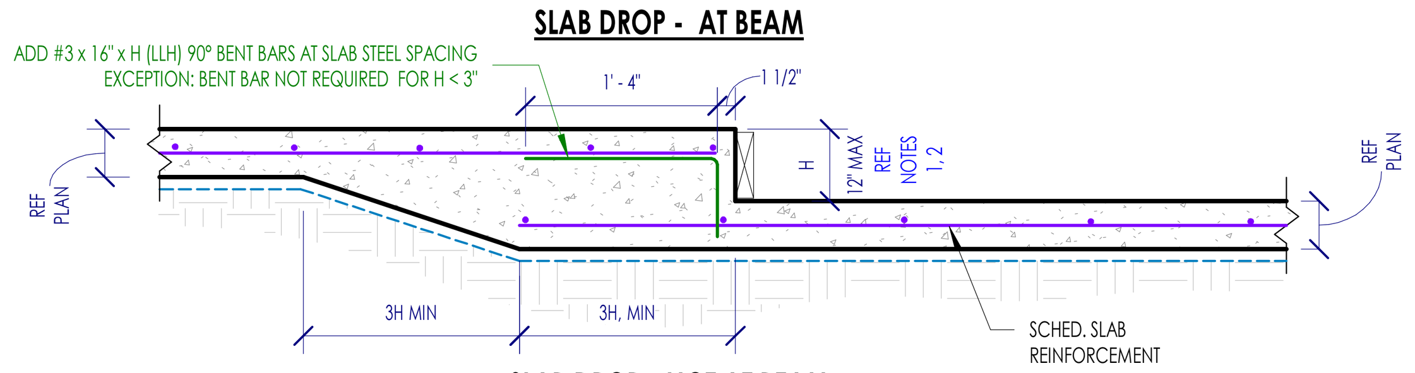
PLAN VIEW

NOTES:
1. ARCHITECTURAL FINISHES MUST BE DETAILED TO ACCOMODATE 1/4" OF PERPETUAL HORIZONTAL MOVMEMENT AT EXPANSION JOINT.
   A. AT **DRYWAL**L - WE RECOMMEND USING A 093V EXPANSION JOINT BY TRIM-TEX
   B. AT **MASONRY VENEER** (STONE OR BRICK) WE RECOMMEND A FULL HEIGHT CONTRACTION (CONTROL) JOINT FILLED WITH ELASTOMERIC CAULK
   C. AT **FLOOR COVERINGS BESIDES CARPET**: MIRROR THE EXPANSION JOINT IN THE CONCRETE IN THE FLOOR COVERING.
2. IF PERPETUAL HORIZONTAL MOVEMENT INDICATED ABOVE IS NOT ACCEPTABLE OR CAN NOT BE ACCOMODATED IN THE FINISHES, THEN THE FOLLOWING OPTIONS CAN BE TAKEN TO MITIGATE THE HORIZONTAL MOVEMENT.
   A. ADD A SHRINKAGE REDUCING ADMIXTURE TO THE CONCRETE
   B. WITHOLD POURING ONE SIDE OF THE EXPANSION JOINT UNTIL THE OTHER SIDE HAS HAD TIME TO UNDERGO THE MAJORITY OF ITS SHRINKAGE (TYPICALLY 14 DAYS)

3 S3.1 TYPICAL EXPANSION JOINT REQUIREMENTS
NOT TO SCALE [3/4" = 1'-0"]



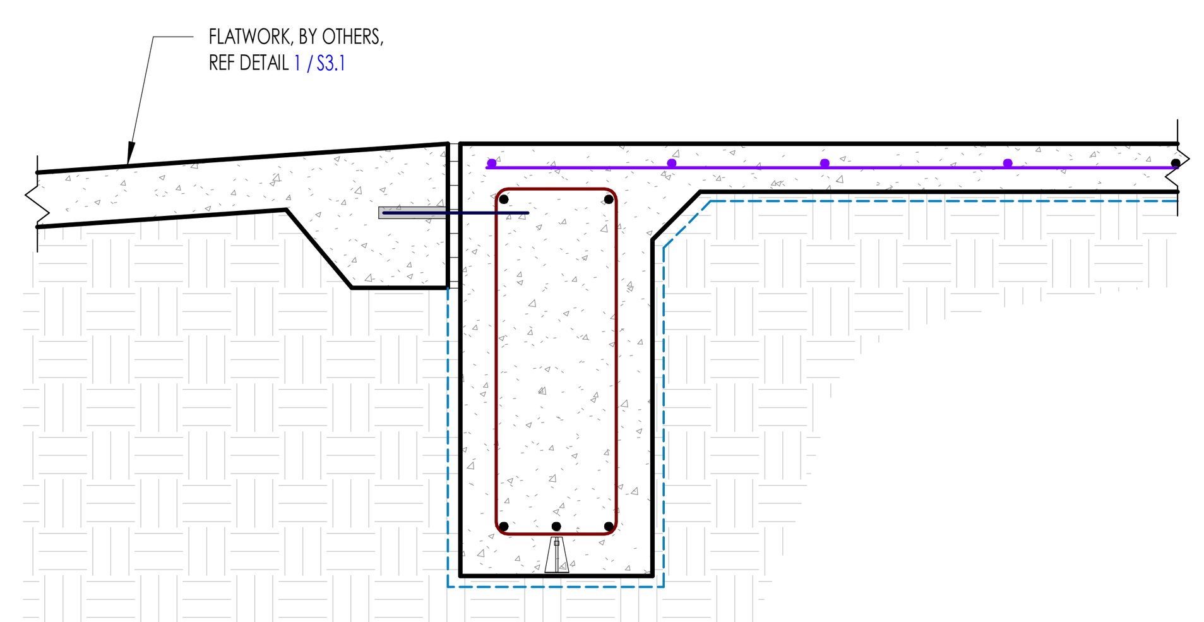
SLAB DROP - AT BEAM



SLAB DROP - NOT AT BEAM

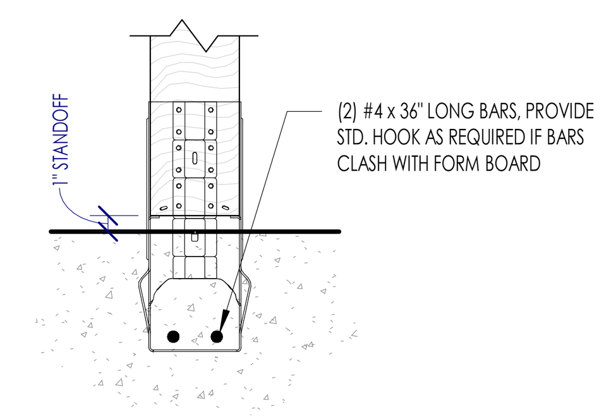
NOTES:
1. NOTIFY ENGINEER IF DROP EXCEED MAX LIMIT.
2. ADDITIONAL REINFORCEMENT/LAP NOT REQUIRED FOR DROPS LESS THAN OR EQUAL TO 1½". REINFORCEMENT SHALL BE GRADUALLY BENT TO ADJUST TO ELEVATION CHANGE IN THESE CASES.

4 S3.1 TYPICAL SLAB DROP - MAX DROP OF 12"
NOT TO SCALE [3/4" = 1'-0"]



NOTES:
1. FOR INFORMATION NOT SHOWN, REFER TO DETAIL 1 / S3.0

5 S3.1 TYPICAL EXTERIOR GRADE BEAM @ FLATWORK
1 S1.0 NOT TO SCALE [3/4" = 1'-0"]

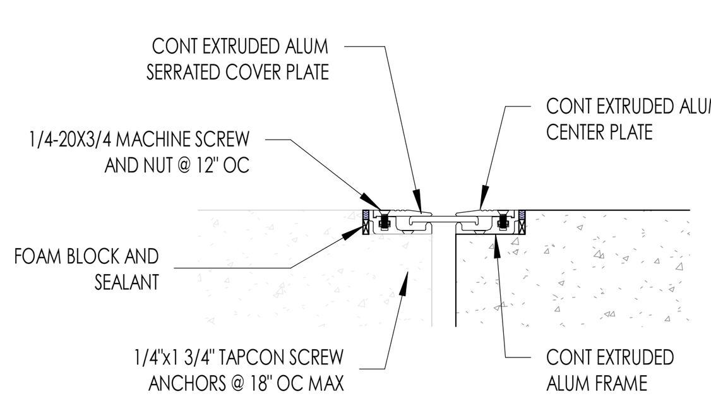


TYPICAL POST BASE HARDWARE

POST TYPE	HARDWARE	FASTENERS	MOMENT (FT-LB)	UPLIFT (LBS)
4X4 SAWN	MPB44Z	(16) 1/4"x 2 1/2" SIMPSON SDS SCREWS	1,350	4,900
6X6 SAWN	MPB66Z	(24) 1/4"x 2 1/2" SIMPSON SDS SCREWS	2,680	5,815
8X8 SAWN	MPB88Z	(36) 1/4"x 2 1/2" SIMPSON SDS SCREWS	4,160	9,945

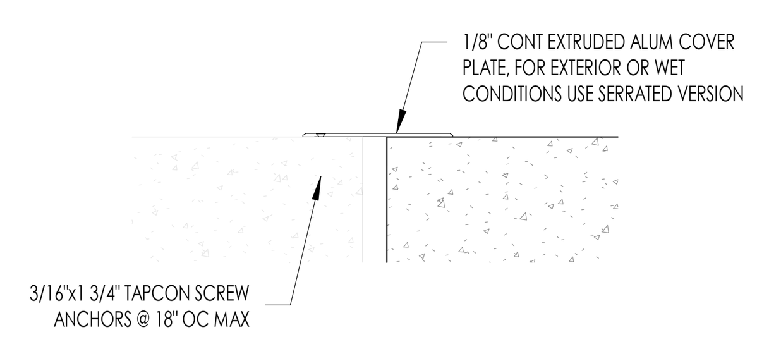
NOTES:
1. FOLLOW ALL MFR. INSTRUCTIONS. HARDWARE SHALL NOT BE "WET-SET"

6 S3.1 TYPICAL LATERAL WOOD POST BASE
1 S1.0 NOT TO SCALE [1" = 1'-0"]



EXAMPLE PRODUCT: CONSTRUCTION SPECIALTIES - AL-100HDS/B

RECESSED COVER PLATE



EXAMPLE PRODUCT: CONSTRUCTION SPECIALTIES - PC-2G

SURFACE MOUNTED COVER PLATE

7 S3.1 TYPICAL EXPANSION JOINT COVER IN SLAB
1 S1.0 NOT TO SCALE [1 1/2" = 1'-0"]

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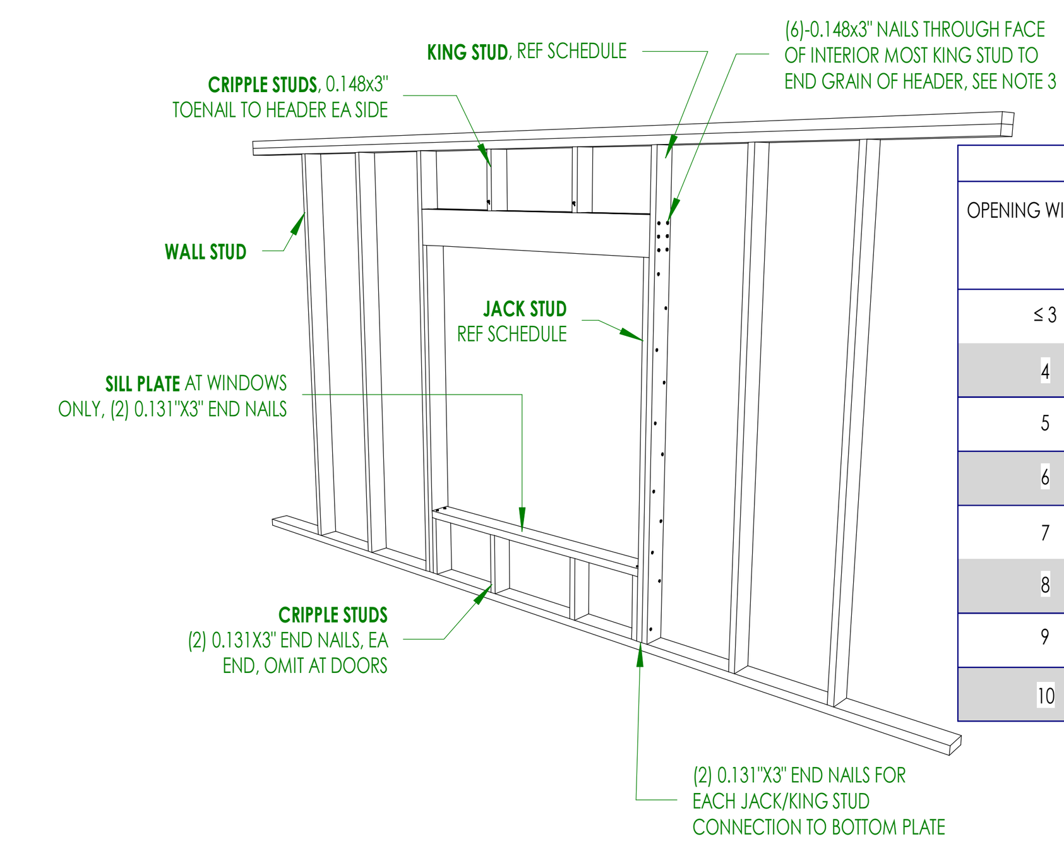


LOAD BEARING WALL

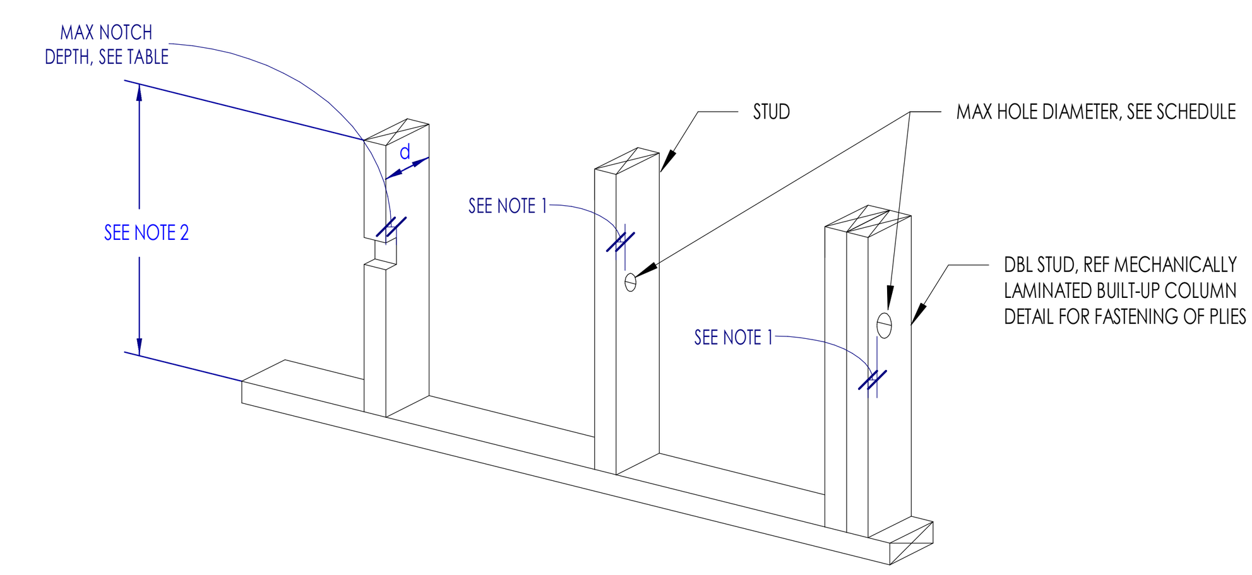
OPENING WIDTH (FT)	REQUIRED NO. OF KING STUDS — PLATE HEIGHT (FT) 8	9	10	11	12	NO. JACK STUDS
≤ 3	1	1	1	1	1	1
4	1	1	1	1	1	1
5	1	1	1	2	2	1
6	1	1	2	2	2	1
7	1	1	2	2	3	1
8	2	2	2	3	3	2
9	2	2	3	3	3	2
10	2	2	3	3	3	2

NON-LOAD BEARING WALL

OPENING WIDTH (FT)	REQUIRED NO. OF KING STUDS — PLATE HEIGHT (FT) 8	9	10	11	12	NO. JACK STUDS	HEADER SIZE 2X4 STUD WALL	2X6 STUD WALL
≤ 3	1	1	1	1	1	1	226H	326H
4	1	1	1	1	1	1	226H	326H
5	1	1	1	2	2	1	226H	326H
6	1	1	2	2	2	1	226H	326H
7	1	1	2	2	3	1	226H	326H
8	2	2	2	3	3	1	2210H	3210H
9	2	2	3	3	3	1	2210H	3210H
10	2	2	3	3	3	1	2210H	3210H

NOTES:
1. LOAD BEARING WALLS AND ASSOCIATED HEADERS ARE INDICATED ON PLAN.

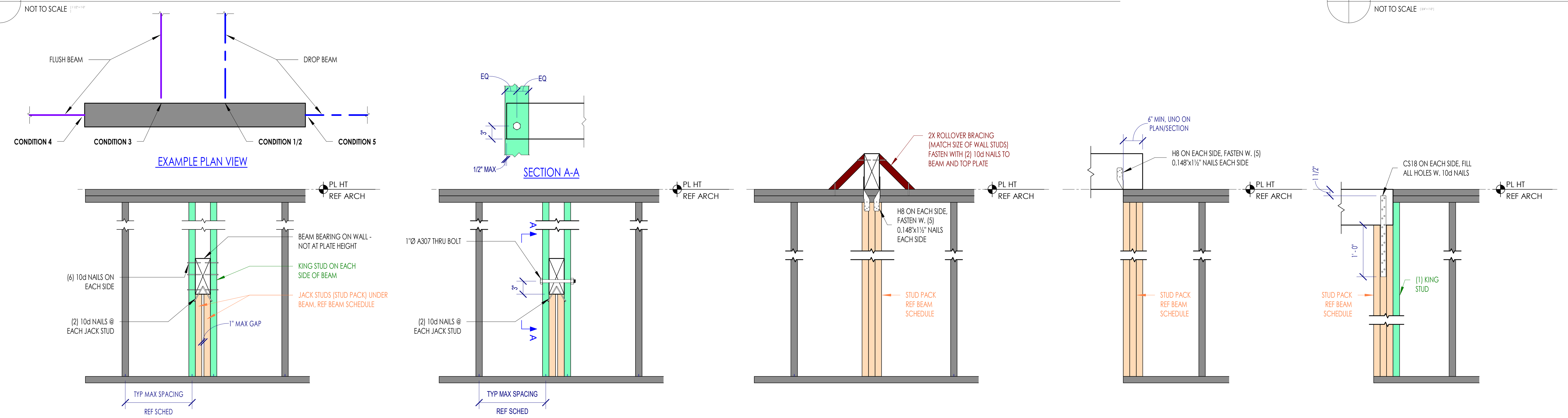
1 S4.0 TYPICAL INTERIOR OPENING FRAMING
NOT TO SCALE



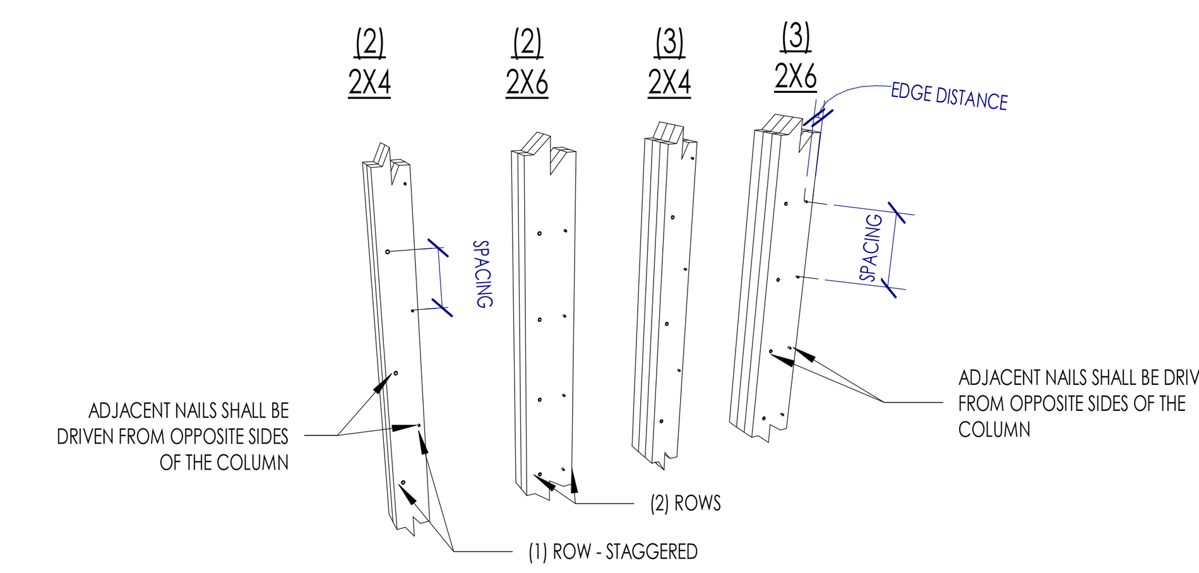
ALLOWABLE NOTCHING AND BORING SCHEDULE		
STUD SIZE	MAX HOLE Ø	MAX NOTCH
2X4	2"	1 3/8"
2X6	3 1/4"	2 3/16"
DBL - 2X4	2"	1 3/8"
DBL - 2X6	3 1/4"	2 3/16"

NOTES:
1. MIN 5/8" CLEAR EDGE DISTANCE
2. NOTCHES IN EITHER SIDE OF A STUD SHALL NOT BE LOCATED WITHIN THE MIDDLE THIRD OF THE STUD LENGTH.
3. NOTCHES AND BORINGS SHALL NOT OCCUR IN THE SAME CROSS SECTION.

2 S4.0 ALLOWABLE STUD NOTCHING AND BORING IN INTERIOR NON-LOAD BEARING WALLS
NOT TO SCALE



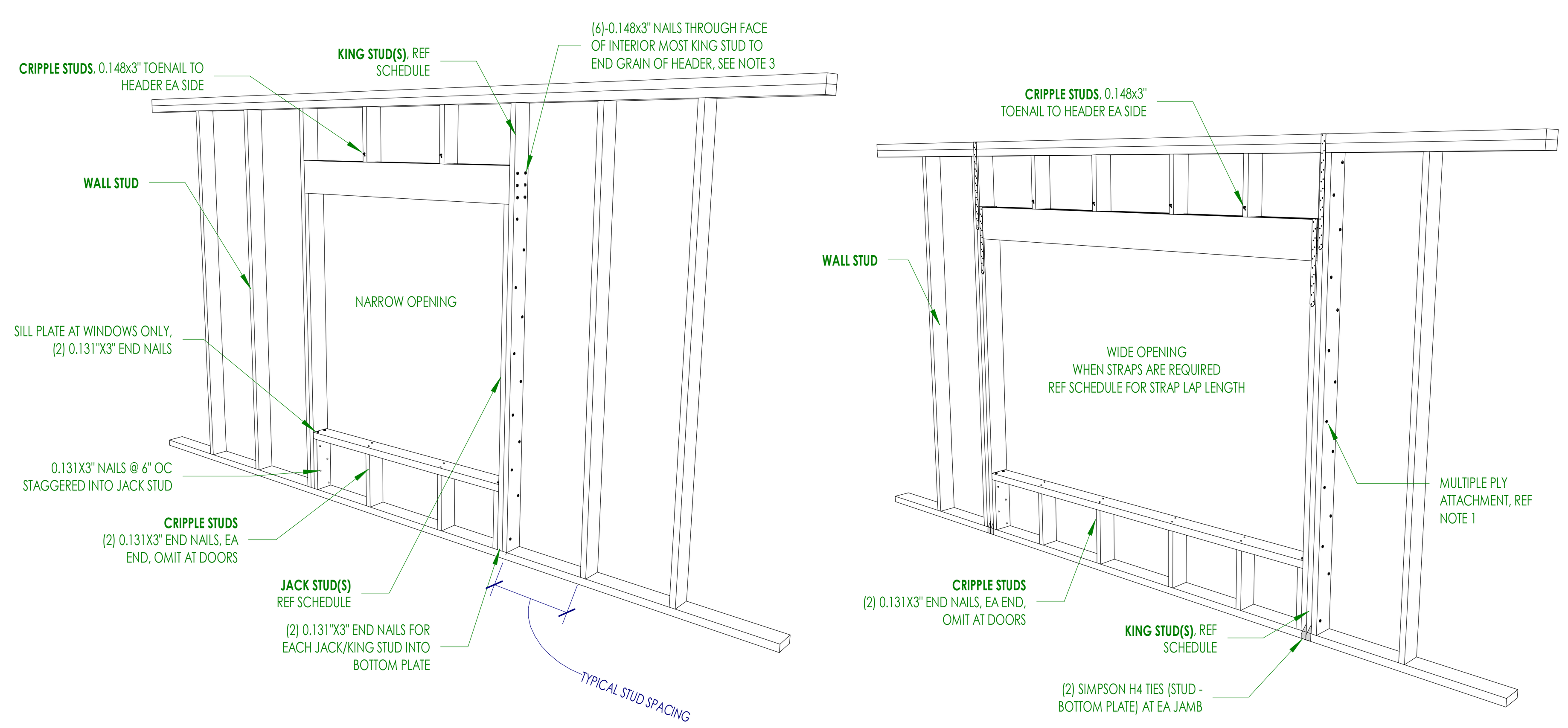
3 S4.0 TYPICAL BEAM CONNECTION AT WALL
1 S2.1 NOT TO SCALE



BUILT-UP SECTION	NAIL SIZE	SPACING	NO. ROWS	NOTES
(2) - 2X4	0.148 x 3"	6"	1	STAGGERED
(2) - 2X6	0.148 x 3"	8"	2	
(3) - 2X4	0.207 x 4½"	6"	1	STAGGERED
(3) - 2X6	0.207 x 4½"	8"	2	

NOTES:
1. END DISTANCE: THE FIRST FASTENERS SHALL BE LOCATED 2" FROM THE END OF THE COLUMN ON EACH END.
2. EDGE DISTANCE: 3/4"≤ EDGE DISTANCE ≤ 1½"

4 S4.0 MECHANICALL LAMINATED BUILT-UP COLUMN (STUD PACK) -NAILED
NOT TO SCALE

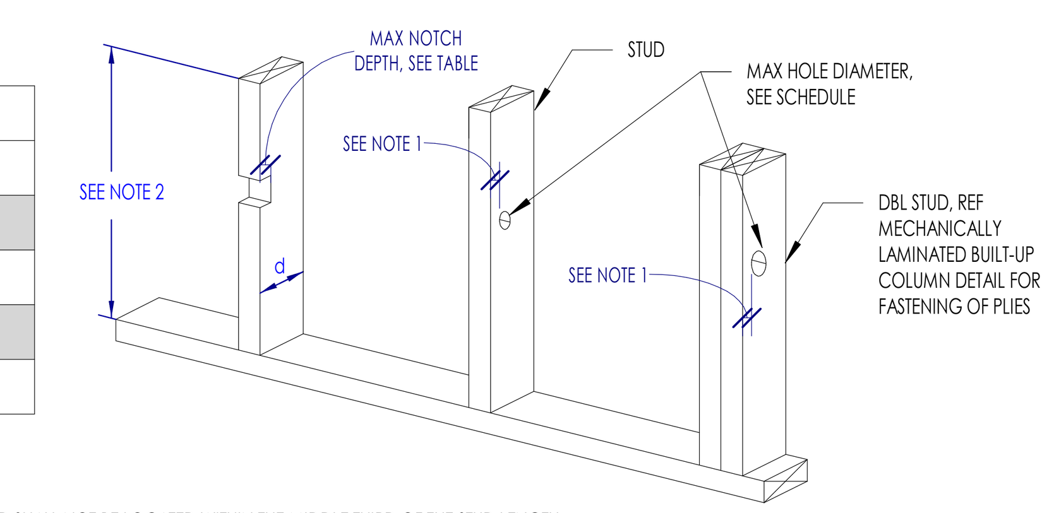


2X6 STUD WALL							
OPENING WIDTH (FT)	REQUIRED NO. OF KING STUDS — PLATE HEIGHT (FT) 8	9	10	11	12	NO. JACK STUDS	STRAP LAP[4] (IN)
≤ 3	1	1	1	1	1	1	N/R
4	1	1	1	1	1	1	N/R
5	1	1	1	1	2	1	N/R
6	1	1	1	2	2	1	N/R
7	1	1	2	2	2	1	N/R
8	1	1	2	2	2	2	8
9	1	2	2	2	2	2	8
10	1	2	2	2	3	2	8

NOTES:
1. MULTIPLE PLIES MUST BE ATTACHED PER THE MECHANICALLY LAMINATED BUILT-UP COLUMN_NAILED DETAIL.
2. NAILS MUST BE CENTERED ON THE INDIVIDUAL PLIES OF THE HEADER.
3. NOT USED
4. N/R = NOT REQUIRED. IF N/R, THEN REFERENCE NARROW OPENING DIAGRAM FOR CONNECTION REQUIREMENTS, OTHERWISE REFERENCE THE WIDE OPENING DIAGRAM.

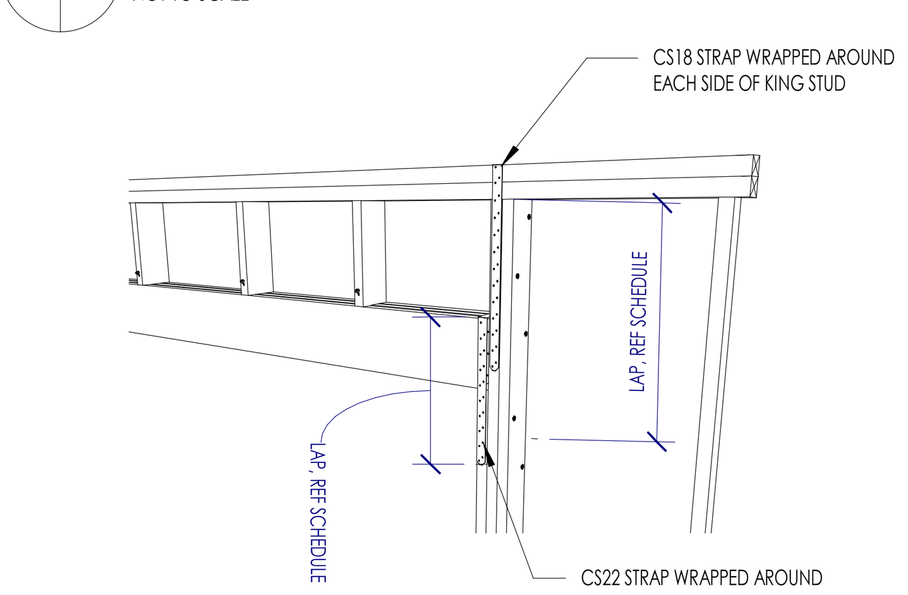
5 S4.0 TYPICAL EXTERIOR OPENING FRAMING
NOT TO SCALE

ALLOWABLE NOTCHING AND BORING SCHEDULE		
STUD SIZE	MAX HOLE Ø	MAX NOTCH
2X4	1 3/8"	7/8"
2X6	2 3/16"	1 3/8"
DBL - 2X4	2"	7/8"
DBL - 2X6	3 1/4"	1 3/8"



NOTES:
1. MIN 5/8" CLEAR EDGE DISTANCE
2. NOTCHES IN EITHER SIDE OF A STUD SHALL NOT BE LOCATED WITHIN THE MIDDLE THIRD OF THE STUD LENGTH.
3. NOTCHES AND BORINGS SHALL NOT OCCUR IN THE SAME CROSS SECTION.

6 S4.0 ALLOWABLE STUD NOTCHING AND BORING IN EXTERIOR & LOAD BEARING WALLS
NOT TO SCALE



7 S4.0 TYPICAL STRAP AT WIDE EXTERIOR OPENINGS
NOT TO SCALE

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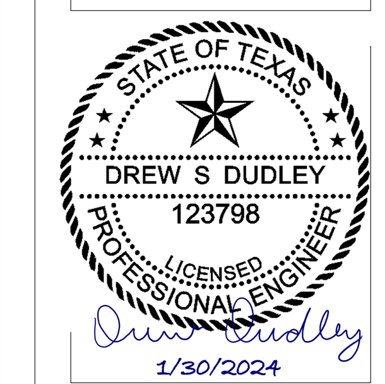

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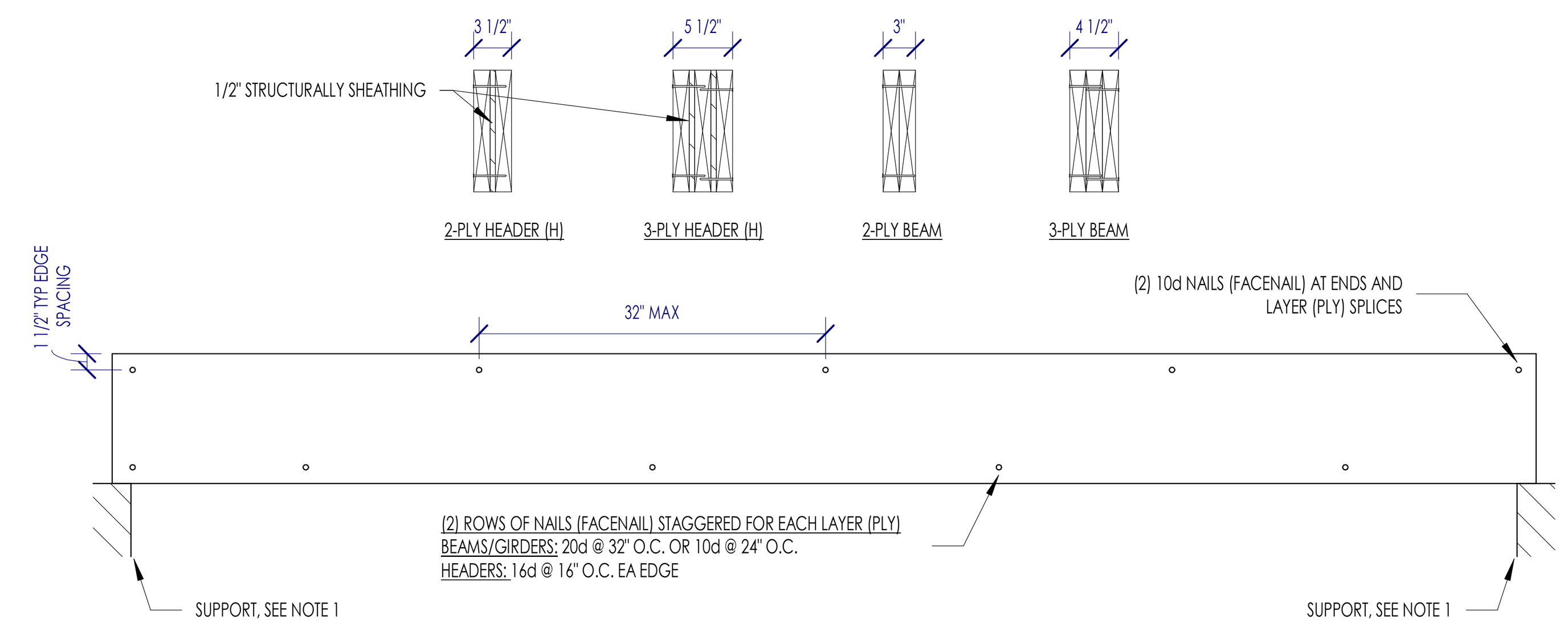
TYPICAL FASTENING SCHEDULE			
CONNECTION ID	CONNECTION TYPE	FASTENING	FASTENING ORIENTATION
1	JOIST TO SILL OR GIRDER	(3) - 0.131"Ø X 3"	TOENAIL
2	SOLE PLATE TO JOIST OR BLOCKING	0.162"Ø X 3½" NAILS @ 12" OC NAILS	FACE NAIL
3	TOP PLATE TO STUD	(3) - 0.131"Ø X 3" NAILS	END NAIL
4	STUD TO SOLE PLATE - OPTION 1	(2) - 16d COMMON | (3) - 0.131"Ø X 3" NAILS	END NAIL
5	STUD TO SOLE PLATE - OPTION 2	(4) 0.131"Ø X 3" NAILS	TOENAIL
6	DOUBLE/MULTIPLE STUDS	REFERENCE DETAIL	FACE NAIL
7	DOUBLE TOP PLATES	0.131"Ø X 3" NAILS @ 12" OC	FACE NAIL
8	DOUBLE TOP PLATE SPLICE	REFERENCE DETAIL	FACE NAIL
9	BLOCKING BETWEEN JOISTS/RAFTERS TO TOP PLATE	(3) - 0.131"Ø X 3" NAILS	TOENAIL
10	RIM JOIST TO TOP PLATE	0.131"Ø X 3" NAILS @ 6" OC	TOENAIL
11	CEILING JOIST TO TOP PLATE	(5) - 0.131"Ø X 3" NAILS	TOENAIL
12	CEILING JOIST LAP OVER PARTITIONS	(4) - 0.131"Ø X 3" NAILS	FACE NAIL
13	CEILING JOIST TO PARALLEL RAFTERS	(4) - 0.131"Ø X 3" NAILS	FACE NAIL
14	RAFTER TO TOP PLATE	(4) - 0.131"Ø X 3" NAILS	TOENAIL
15	BUILT-UP CORNER STUDS	0.162"Ø X 3½" NAILS @ 16" OC	FACE NAIL
16	BUILT-UP BEAMS	REFERENCE DETAIL	FACE NAIL
17	COLLAR TIE TO RAFTER	(4) - 0.131"Ø X 3" NAILS	FACE NAIL
18	JACK RAFTER TO HIP	(4) - 0.131"Ø X 3" NAILS	TOENAIL
19	RAFTER TO RIDGE BOARD/BEAM	(4) - 0.131"Ø X 3" NAILS	TOENAIL
20	BLOCKING B/T STUDS	(3) - 0.131"Ø X 3" NAILS EACH SIDE	TOENAIL

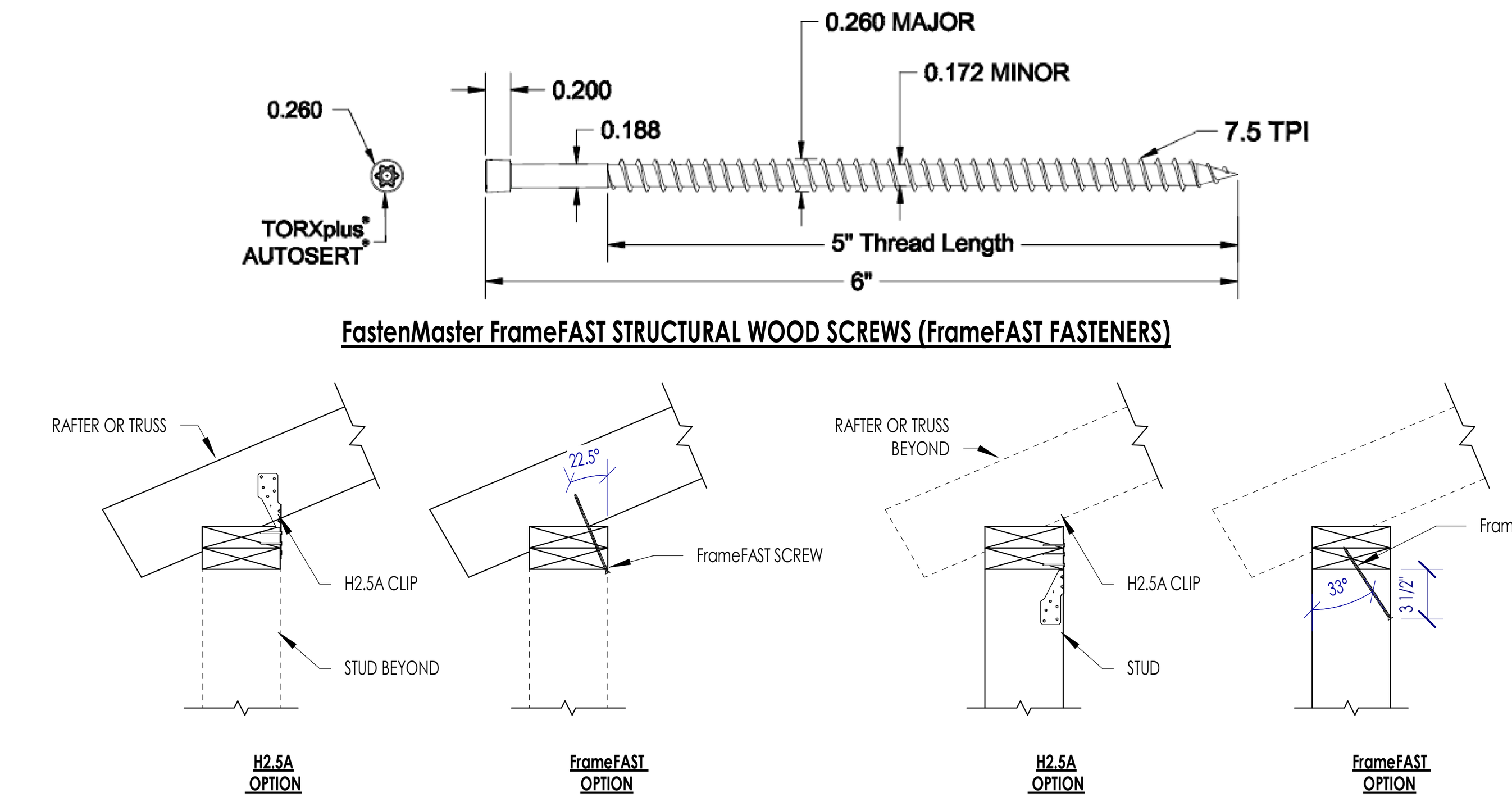
NOTES:
1. THESE CONNECTIONS ARE TO BE APPLIED UNLESS NOTED OTHERWISE IN PLAN, SECTION, ELEVATION OR DETAIL VIEWS.

1 S4.1 TYPICAL WOOD FASTENING SCHEDULE
NOT TO SCALE



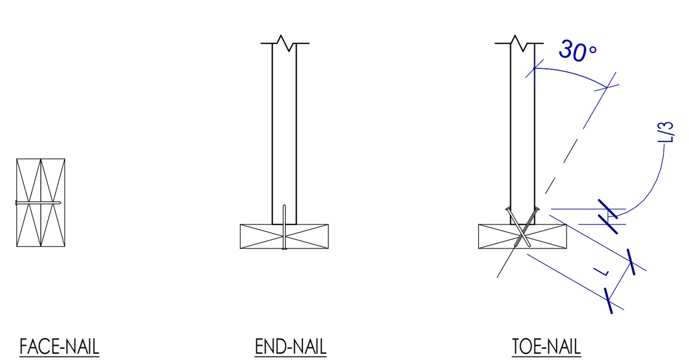
NOTES:
1. UNLESS NOTED OTHERWISE ON PLAN, REFER TO THE FOLLOWING DETAILS FOR THE SUPPORT FRAMING:
   A. SUPPORT FOR HEADERS IN EXTERIOR WALLS:
   B. SUPPORT FOR HEADERS IN INTERIOR WALLS:
   C. SUPPORT FOR BEAMS & GIRDERS SUPPORTED BY WALL - REFERENCE BEAM SCHEDULE

2 S4.1 TYPICAL NAILING BUILT UP BEAMS, GIRDERS & HEADERS
NOT TO SCALE

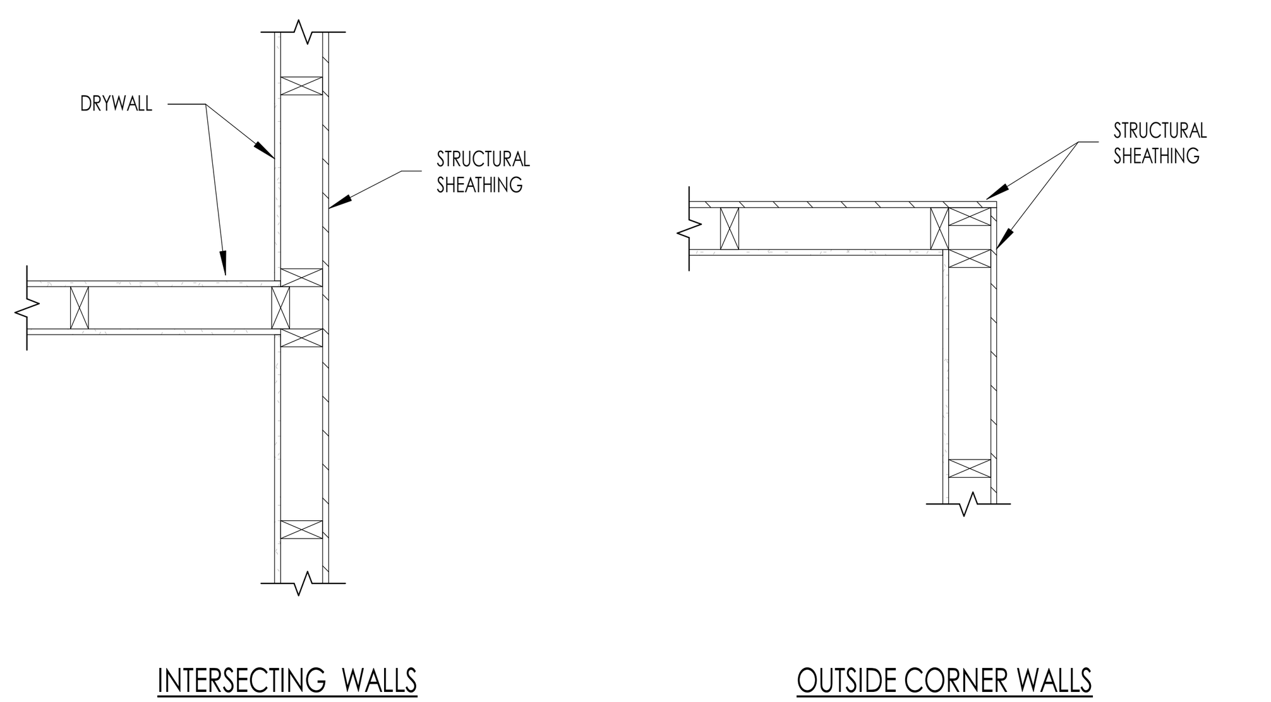


NOTES:
1. FastenMaster FrameFAST STRUCTURAL WOOD SCREWS (FrameFAST FASTENERS) MAY BE SUBSTITUED 1 FOR 1 WITH H2.5A CLIPS.

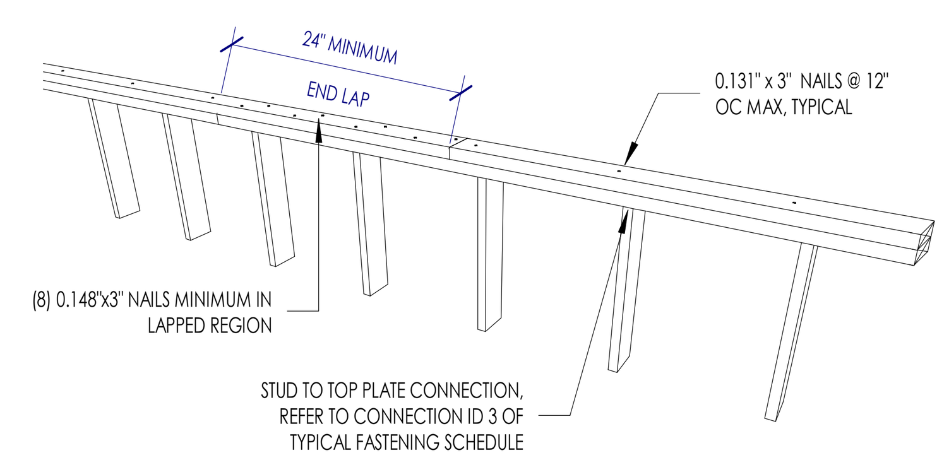
3 S4.1 ALLOWABLE SUBSTITION OF H2.5A CLIPS WITH FrameFAST SCREWS - UPLIFT LOAD PATH
NOT TO SCALE



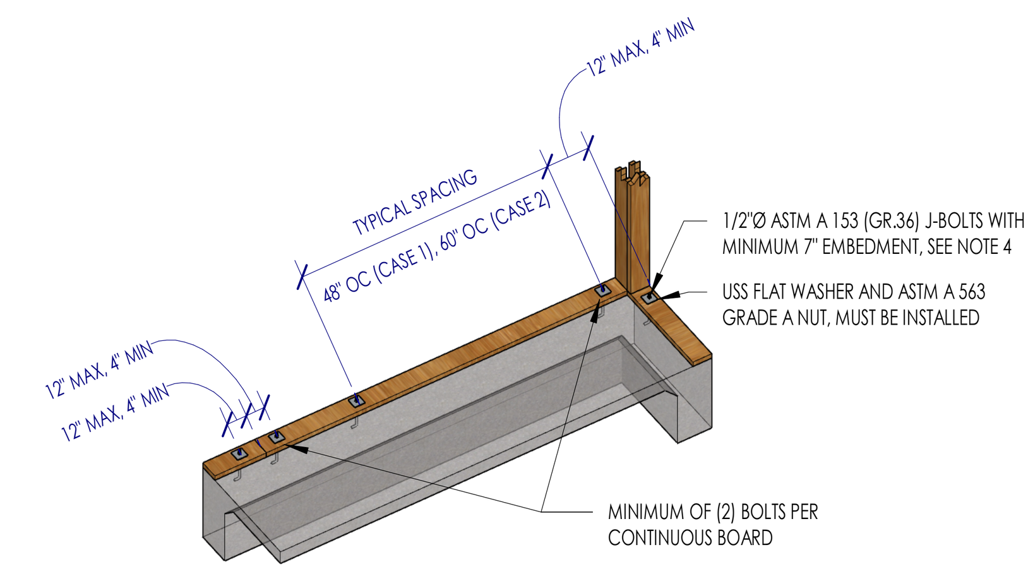
4 S4.1 TYPICAL NAILING CONFIGURATIONS
NOT TO SCALE



5 S4.1 TYPICAL CORNER AND INTERSECTION WALL STUDS (NOT AT SHEAR WALL)
NOT TO SCALE



6 S4.1 TYPICAL LOAD BEARING / SHEAR WALL DOUBLE TOP PLATE SPLICE
NOT TO SCALE



NOTES:
1. CASE 1 = EXTERIOR WALLS THAT ARE NOT SHEAR WALLS.
2. CASE 2 = INTERIOR LOAD BEARING WALLS THAT ARE NOT SHEAR WALLS.
3. FOR WALLS THAT ARE INDICATED TO BE SHEAR WALLS, REFER TO THE SHEAR WALL SCHEDULE FOR ANCHORAGE REQUIREMENTS.
4. SIMPSON 1/2"Øx6" TITEN-HD SCREW ANCHORS ARE AN ACCEPTABLE ALTERNATIVE TO THE J-BOLTS.

7 S4.1 TYPICAL BOTTOM PLATE ANCHORAGE
NOT TO SCALE

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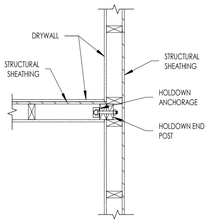
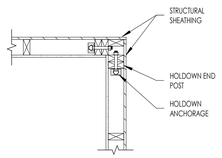
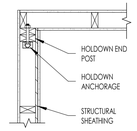


INTERSECTING SHEAR WALLS

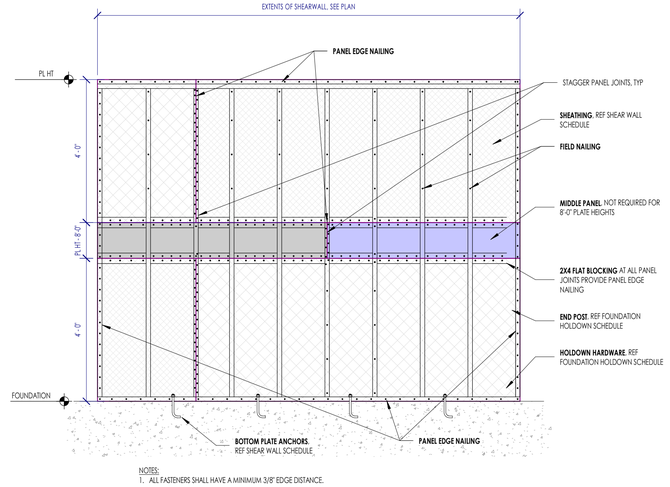


OUTSIDE CORNER SHEAR WALLS



INTERIOR SHEAR WALL INTERSECTION WITH NON-SHEAR WALL

1 S4.2 / 1 S2.0 SHEAR WALL - END POST CONFIGURATIONS
NOT TO SCALE



NOTES:
1. ALL FASTENERS SHALL HAVE A MINIMUM 3/8" EDGE DISTANCE.

2 S4.2 TYPICAL SINGLE STORY SHEARWALL FRAMING AND FASTENING
NOT TO SCALE

3 S4.2 HDU8-SDS2.5 HOLDOWN
NOT TO SCALE

4 S4.2 HDU14-SDS2.5 HOLDOWN
NOT TO SCALE

5 S4.2 HTT5 HOLDOWN
NOT TO SCALE

6 S4.2 STHD14 HOLDOWN
NOT TO SCALE

7 S4.2 LTT HOLDOWN
NOT TO SCALE

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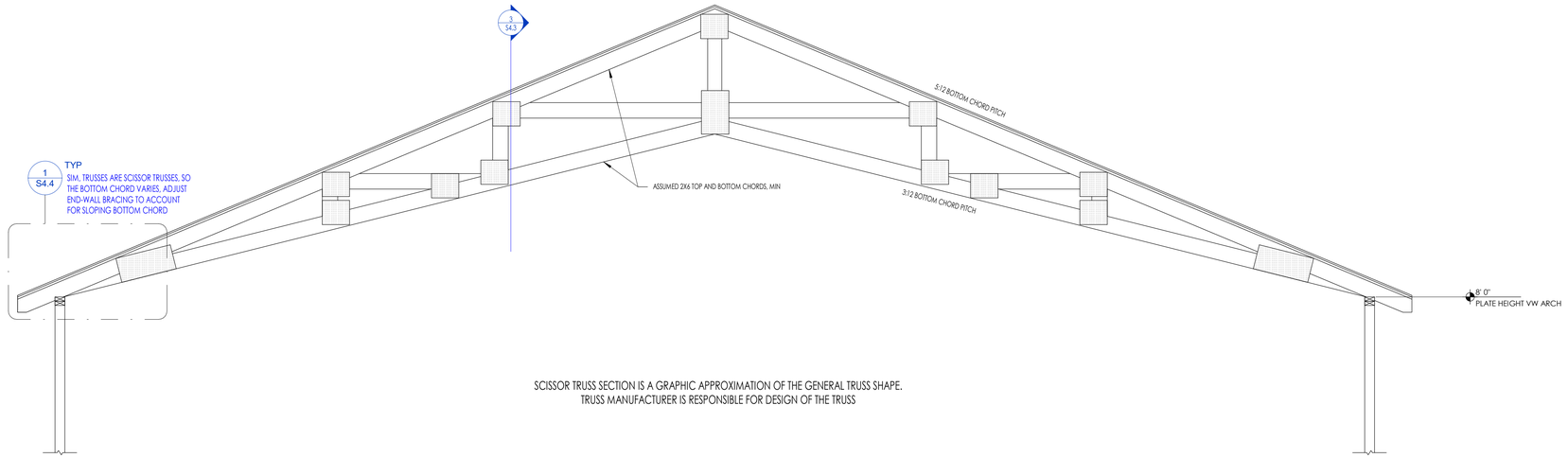
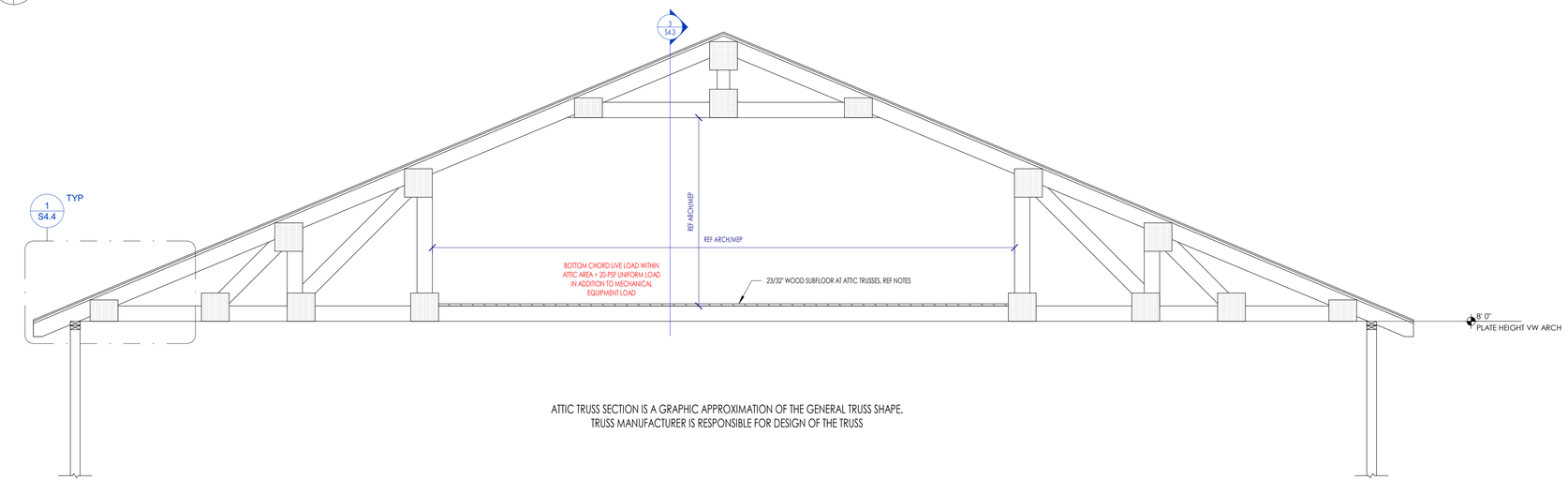


SCISSOR TRUSS SECTION IS A GRAPHIC APPROXIMATION OF THE GENERAL TRUSS SHAPE.
TRUSS MANUFACTURER IS RESPONSIBLE FOR DESIGN OF THE TRUSS

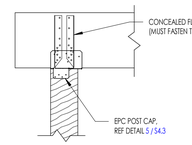
1 S4.3 / 1 S2.1 SCHEMATIC TYPICAL ROOF TRUSS BUILDING SECTION
NOT TO SCALE



ATTIC TRUSS SECTION IS A GRAPHIC APPROXIMATION OF THE GENERAL TRUSS SHAPE.
TRUSS MANUFACTURER IS RESPONSIBLE FOR DESIGN OF THE TRUSS

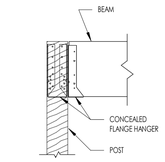
2 S4.3 / 1 S2.1 SCHEMATIC ATTIC TRUSS BUILDING SECTION
NOT TO SCALE

3 S4.3 / 1 S2.1 ROOF TRUSS TRANSITION
NOT TO SCALE

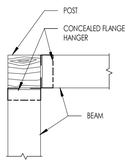


ELEVATION (ALTERNATE OPTION)

ISOMETRIC
CONCEALED FLANGE HANGER



ELEVATION



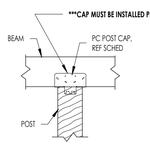
PLAN VIEW

TYPICAL BEAM TO POST CONNECTION AT CORNER - SCHEDULE				
POST SIZE	BEAM SIZE	CONCEALED FLANGE HANGER	FASTENERS INTO POST	FASTENERS INTO BEAM
4X4	226H	HUC46	(8) -16d	(4) -10d
4X4	228H	HUC48	(10) - 16d	(4) - 10d
4X4	2210H / B409	HUC410	(14) -16d	(6) -10d
4X4	2212H / B411	HUC412	(16) - 16d	(6) - 10d
6X6	326H	HUC66	(8) -16d	(4) -10d
6X6	328H	HUC68	(10) - 16d	(4) - 10d
6X6	3210H / B609	HUC610	(14) -16d	(6) -10d
6X6	3212H / B611	HUC612	(16) - 16d	(6) - 10d

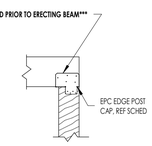
4 S4.3 / 1 S2.1 TYPICAL WOOD BEAM TO POST CONNECTION AT CORNER
NOT TO SCALE

ISOMETRIC
PC (INTERIOR POST)

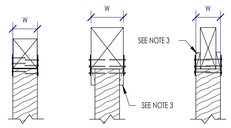
ISOMETRIC
EPC (EDGE POST)



FRONT VIEW (PC)



FRONT VIEW EPC)



SIDE VIEW(S)

TYPICAL BEAM TO POST CONNECTION AT CORNER - SCHEDULE			
W	POST CAP[1, 2]	FASTENERS INTO POST	FASTENERS INTO BEAM
3 9/16"[2]	[PC4Z]	(8) -0.148 X 3"	(10) -0.148 X 3"
5 1/2"[2]	[PC6Z]	(8) -0.148 X 3"	(10) -0.148 X 3"
7 1/4"[2]	[PC8Z]	(8) -0.148 X 3"	(10) -0.148 X 3"

NOTE:
1. [] = FOR END CONDITIONS, USE EPC2 POST CAPS.
2. [] = FOR ROUGH SAWN LUMBER - SPECIFY RZ SUFFIX, ROUGH SAWN WIDTH INCREASES TO NOMINAL DIMENSIONS

5 S4.3 TYPICAL BEAM TO POST CAP CONNECTION - INTERIMEDIATE AND EDGE CONDITIONS
NOT TO SCALE

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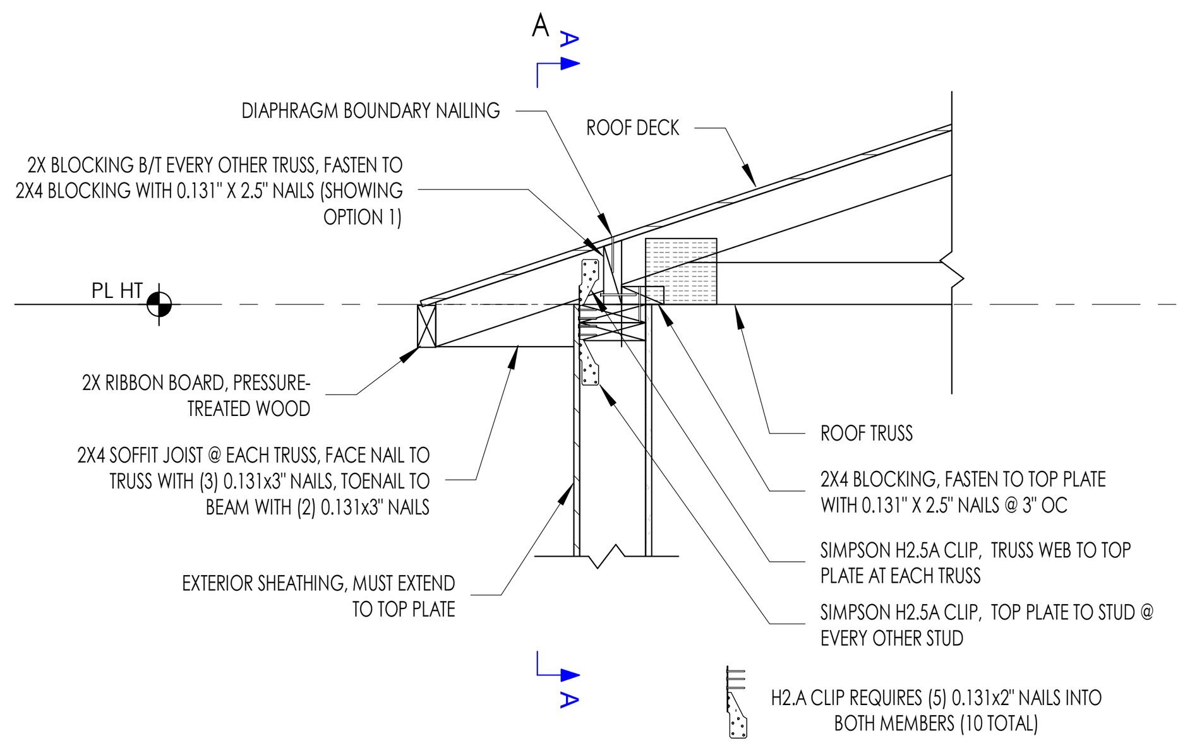
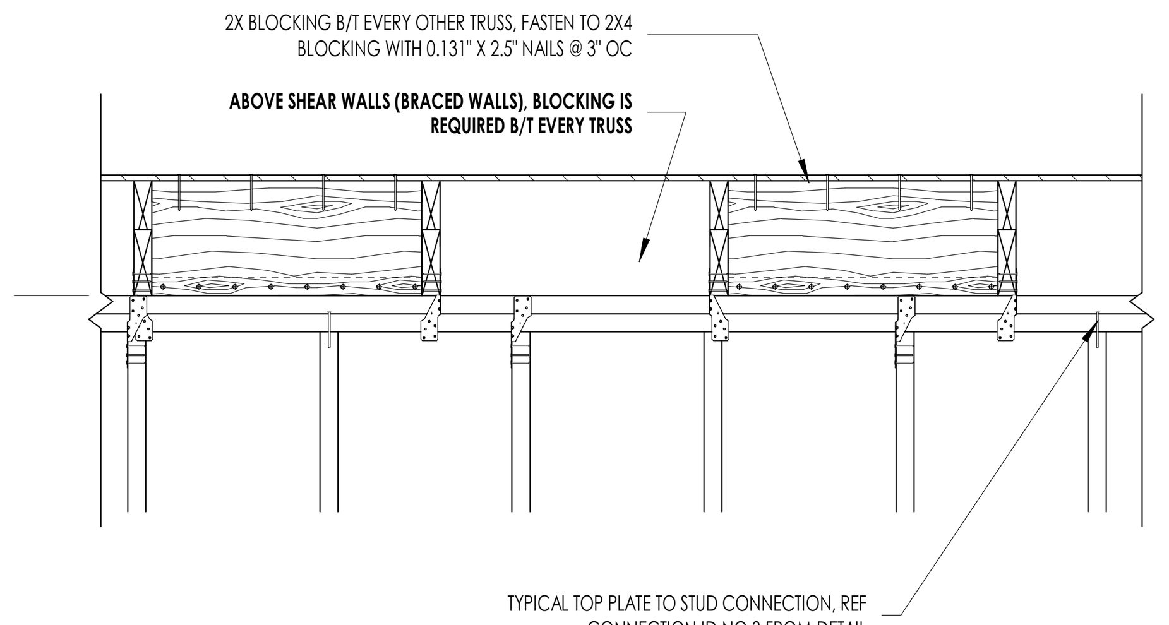
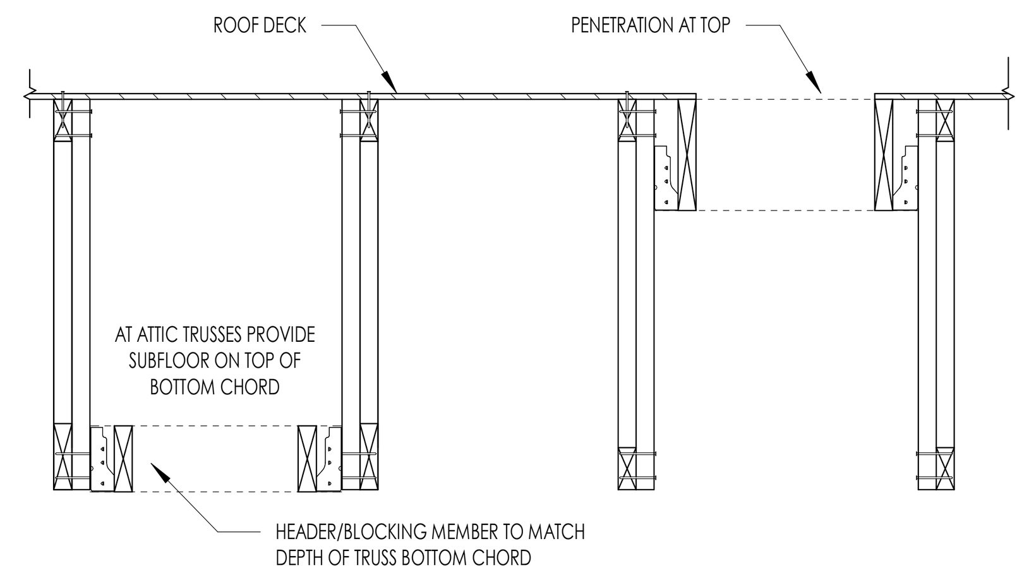
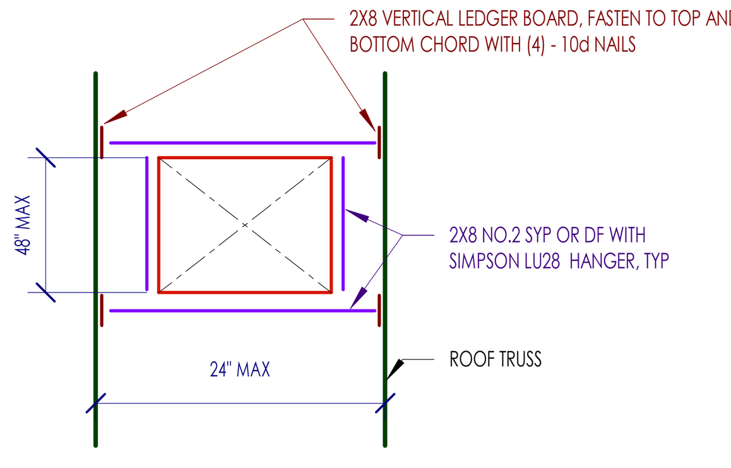




SECTION A

1 S4.4 / 1 S2.1 ROOF TRUSS BEARING AT EXTERIOR WALL
NOT TO SCALE



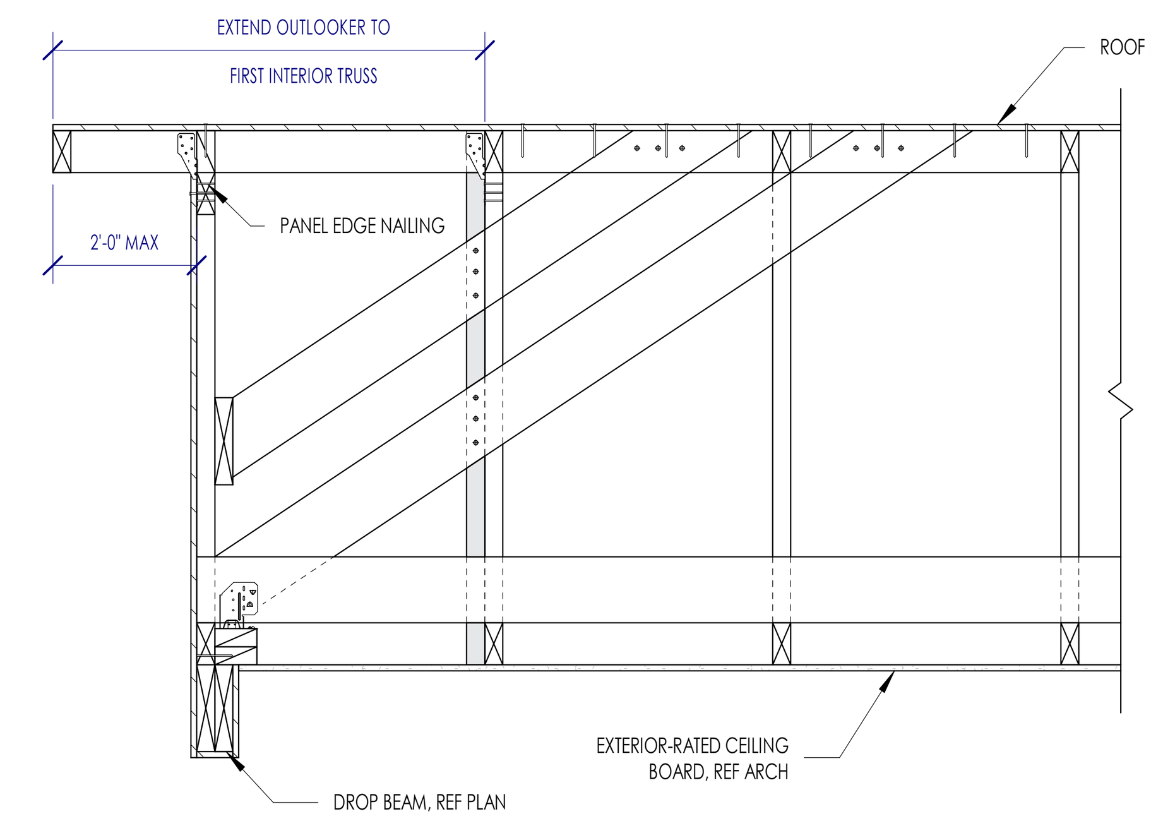


PLAN - EXAMPLE

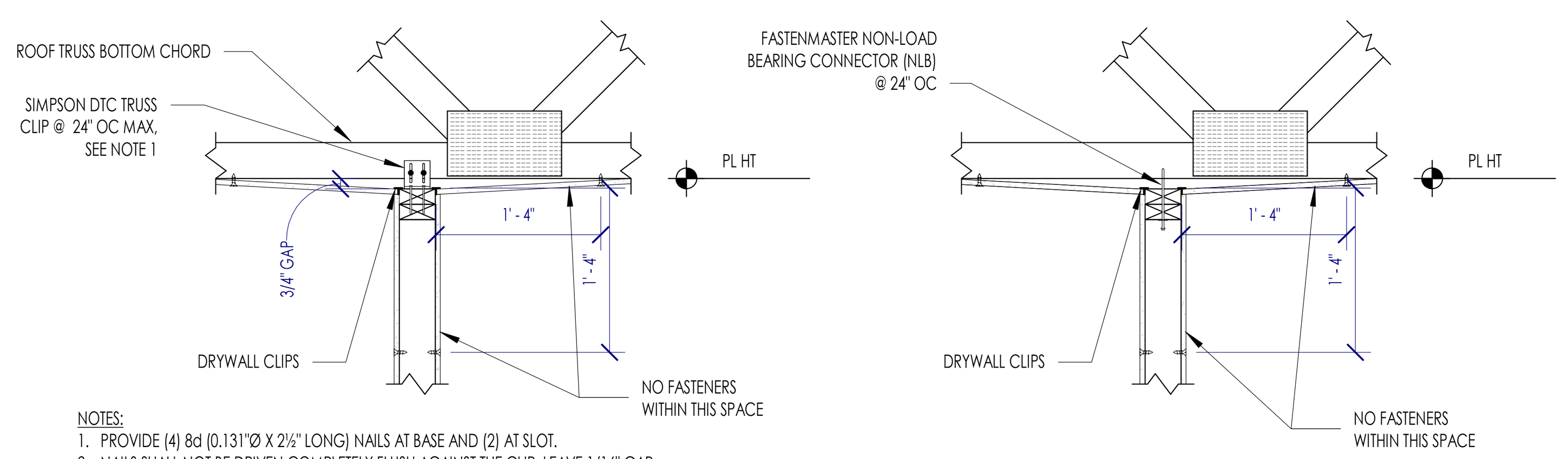
NOTES:
1. DO NOT CUT, BORE OR PENETRATE THROUGH ANY TRUSS MEMBERS WITHOUT WRITTEN PERMISSION FROM THE TRUSS MFR AND EOR.
2. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING TO THE EOR AND ARCHITECT FOR REVIEW
   A. LOCATIONS OF OPENINGS IN EITHER THE BOTTOM SUBFLOOR OR ROOF DECK OF THE ROOF TRUSSES WITH THE TRUSS PLACEMENT DRAWINGS (WOOD TRUSS SUBMITTAL)
   B. CURB, ATTIC ACCESS HATCH, ETC. THAT WILL BE PLACED IN THE PROPOSED OPENING.
3. THE CONTRACTOR SHALL INCLUDE MISC. FRAMING IN THEIR BID/CONTRACT AS REQUIRED TO FRAME OUT THE OPENINGS.

2 S4.4 TYPICAL BLOCKING/HEADERS FOR OPENINGS AT ROOF TRUSSES
NOT TO SCALE

NOTES:
1. FOR ALL INFORMATION NOT SHOWN, REFER TO 11 / S4.4



3 S4.4 / 1 S2.1 TYPICAL GABLE END WALL AT ROOF
NOT TO SCALE

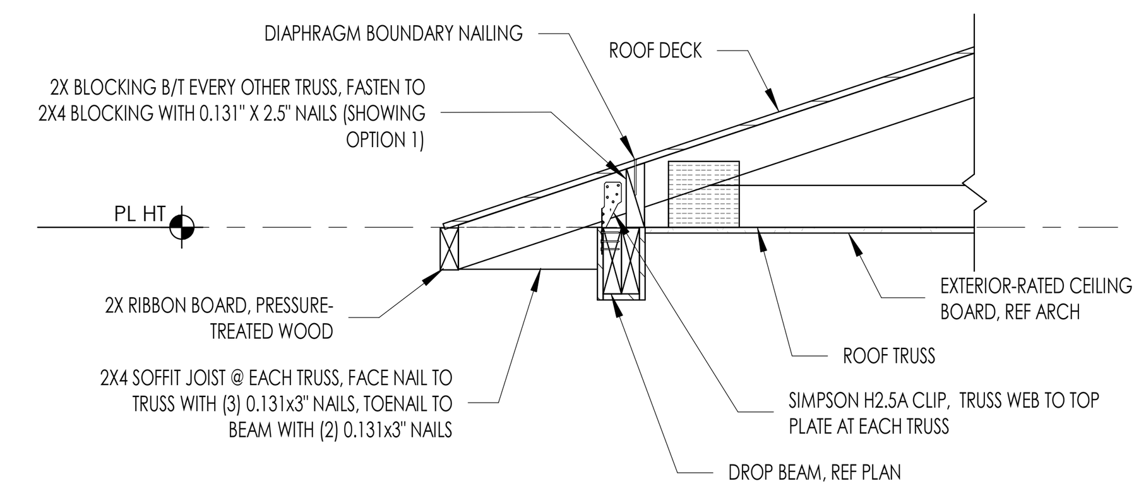


NOTES:
1. PROVIDE (4) 8d (0.131"Ø X 2½" LONG) NAILS AT BASE AND (2) AT SLOT.
2. NAILS SHALL NOT BE DRIVEN COMPLETELY FLUSH AGAINST THE CLIP. LEAVE 1/16" GAP.

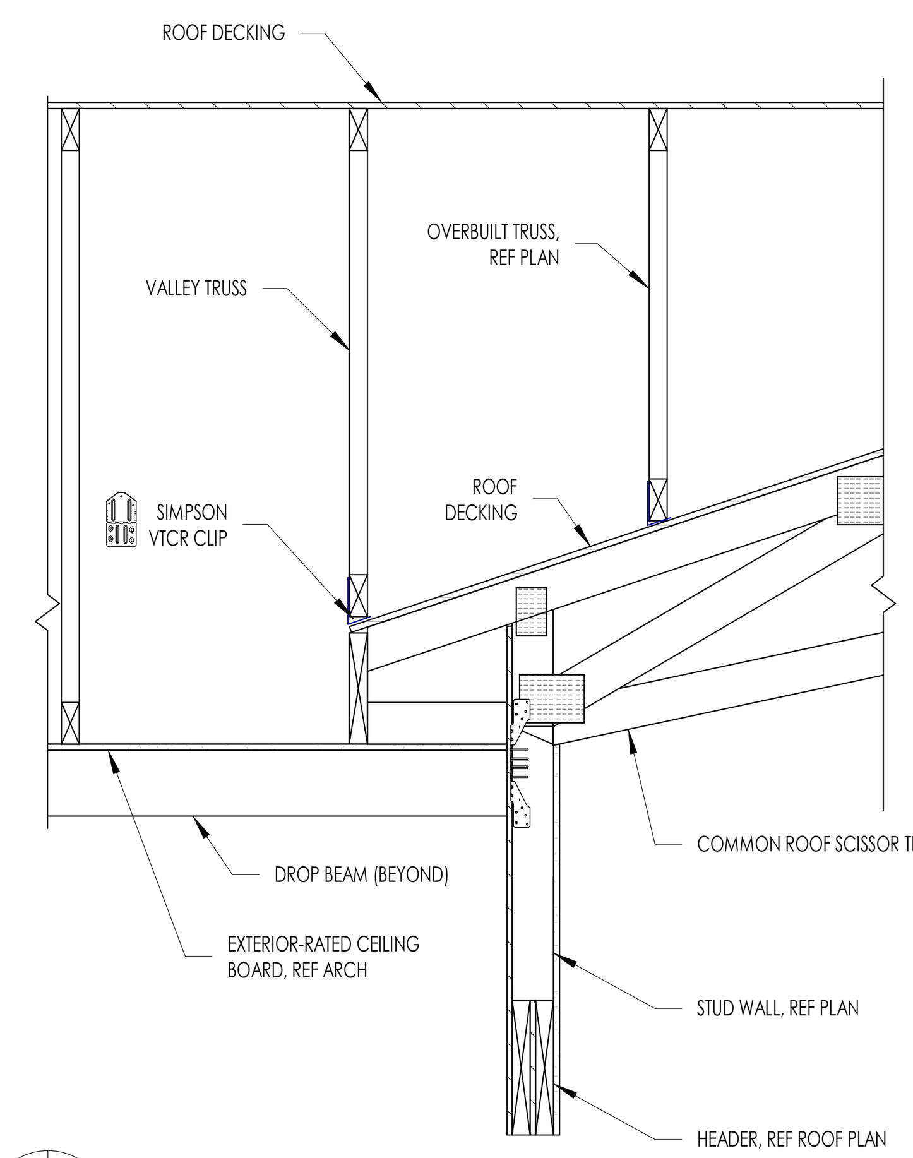
OPTION 1 - SIMPSON DTC CLIP

OPTION 2 - NLB CONNECTOR

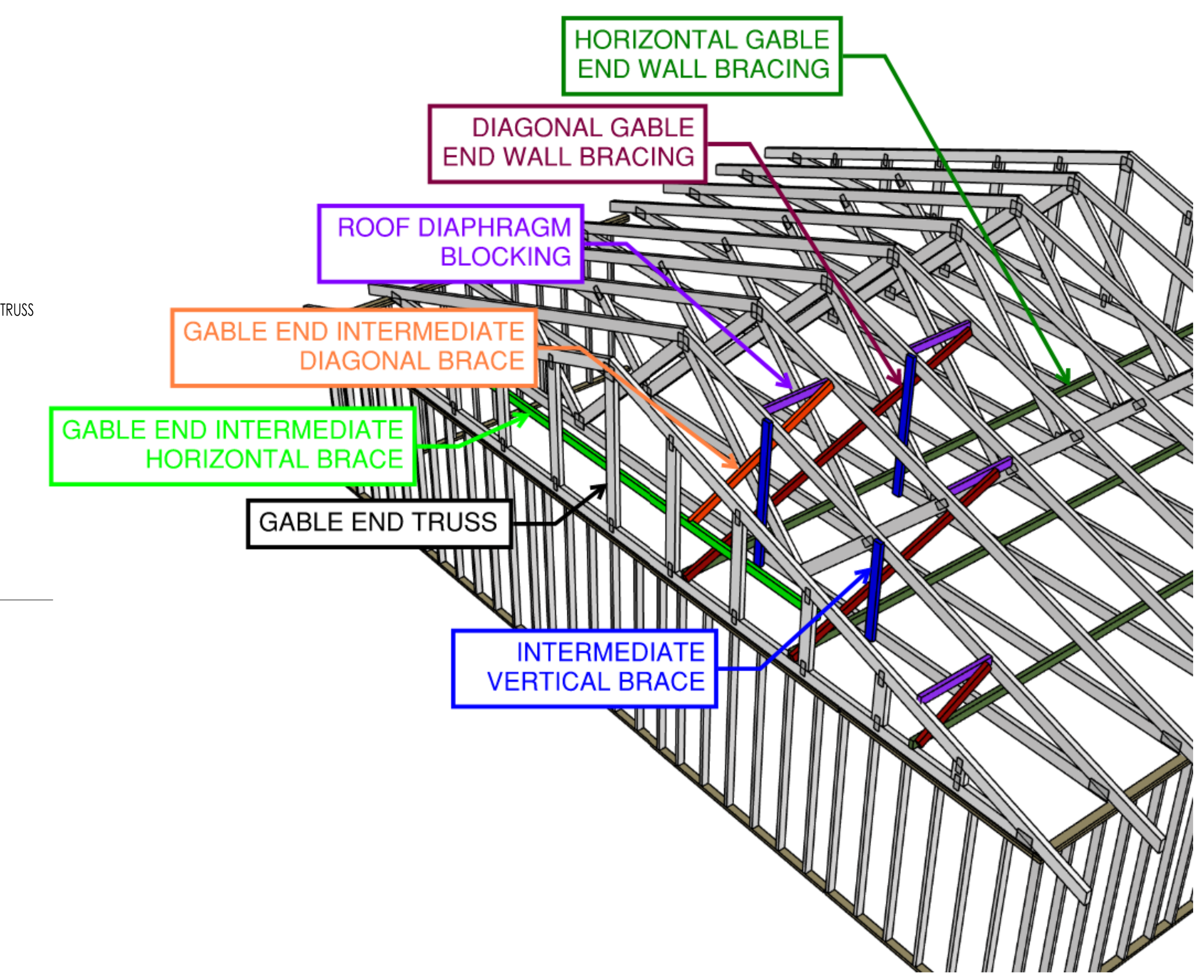
4 S4.4 TYPICAL NON-LOAD BEARING WALL ATTACHMENT TO ROOF TRUSS
NOT TO SCALE

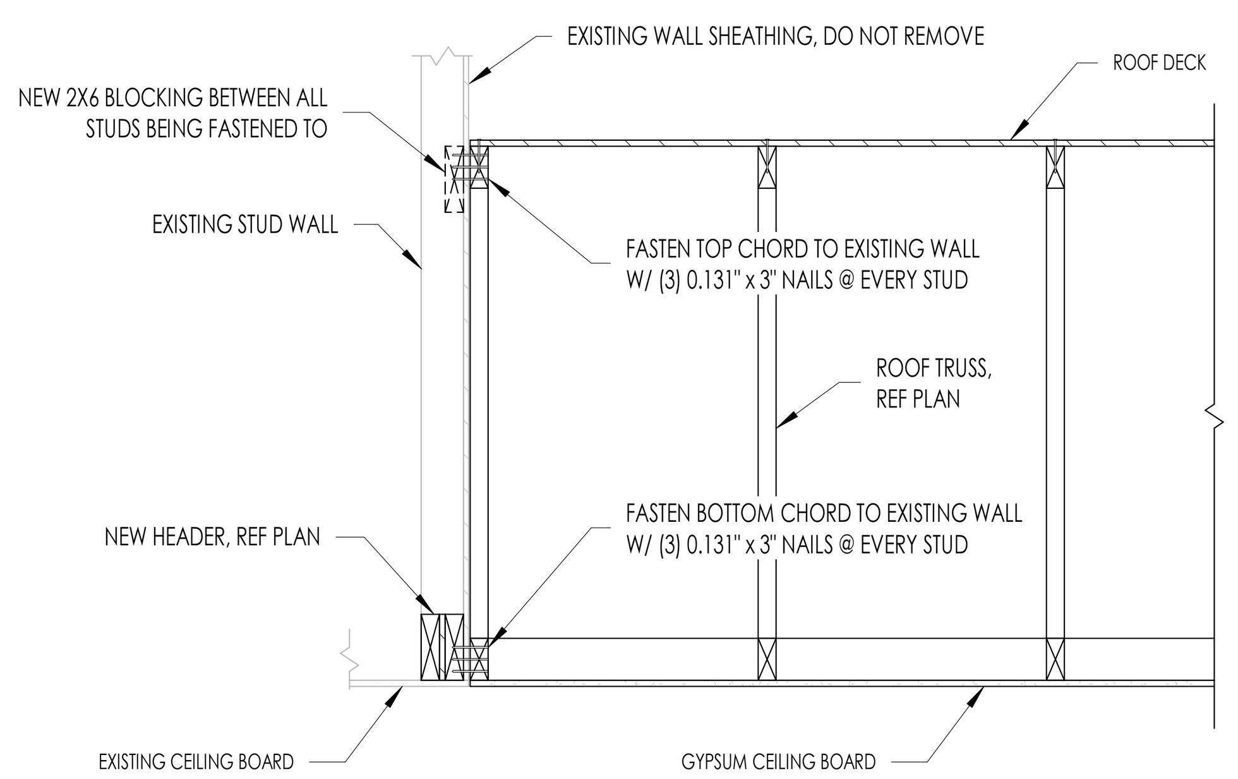


5 S4.4 / 1 S2.1 ROOF TRUSS BEARING AT EXTERIOR WALL
NOT TO SCALE

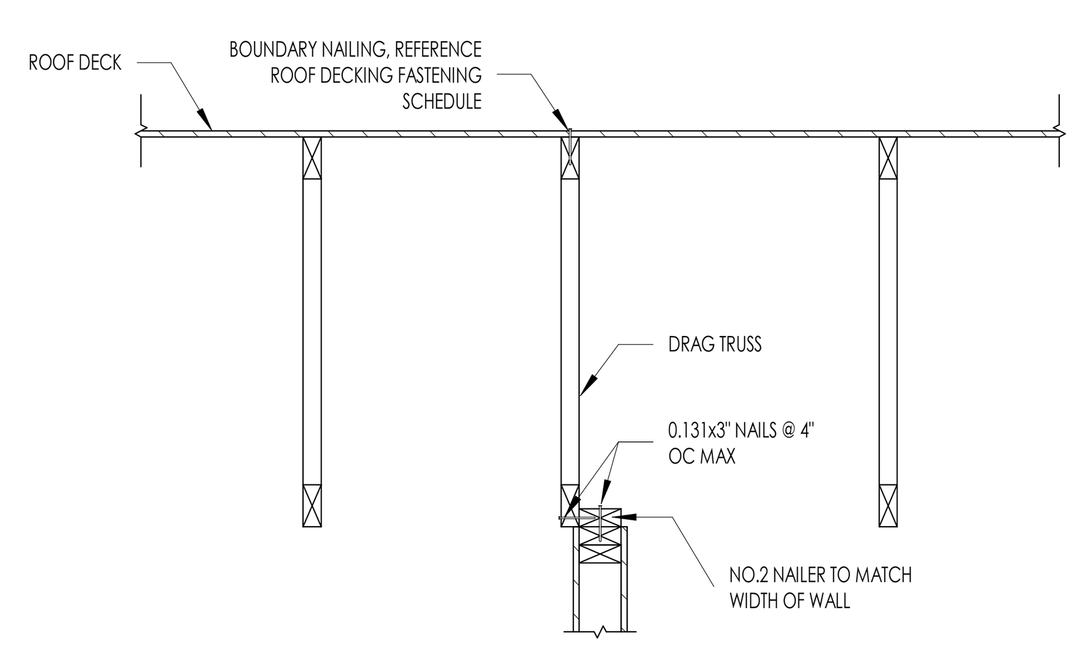


6 S4.4 / 1 S2.1 VALLEY SET GABLE END
NOT TO SCALE

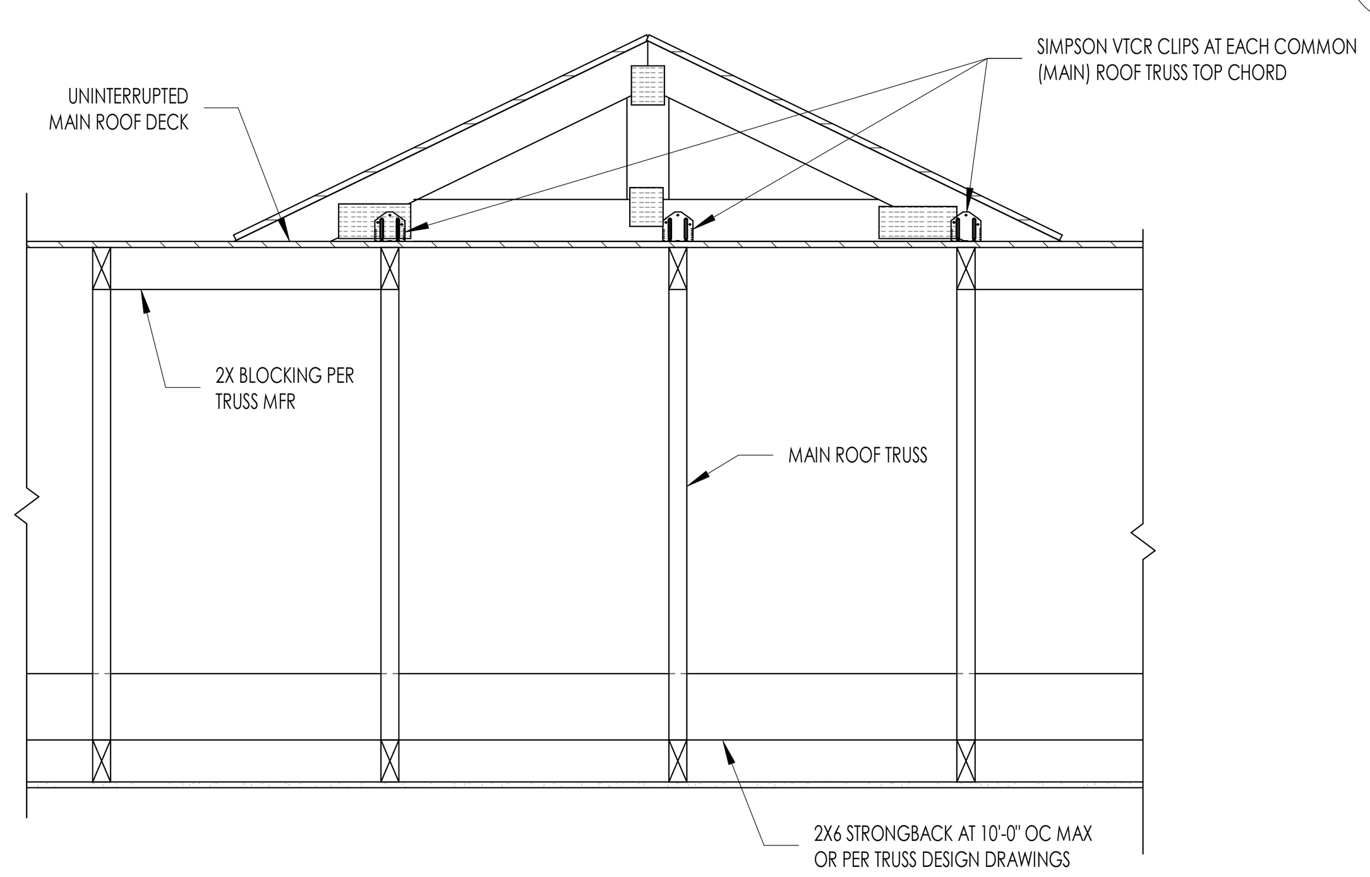


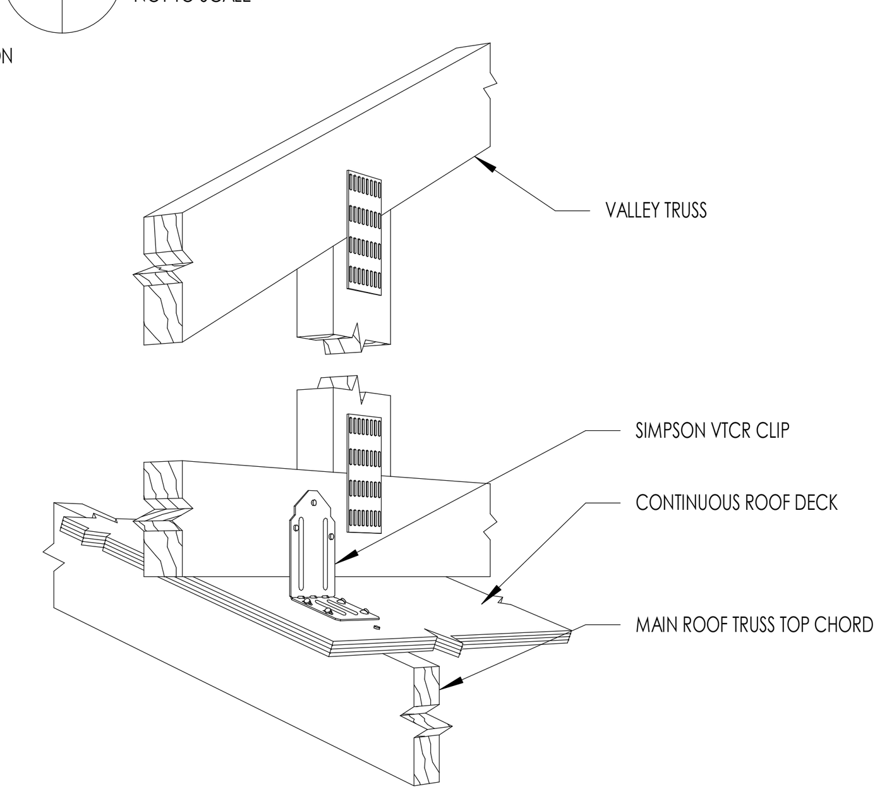


7 S4.4 / 1 S2.1 GABLE END WALL AT EXISTING BUILDING
NOT TO SCALE



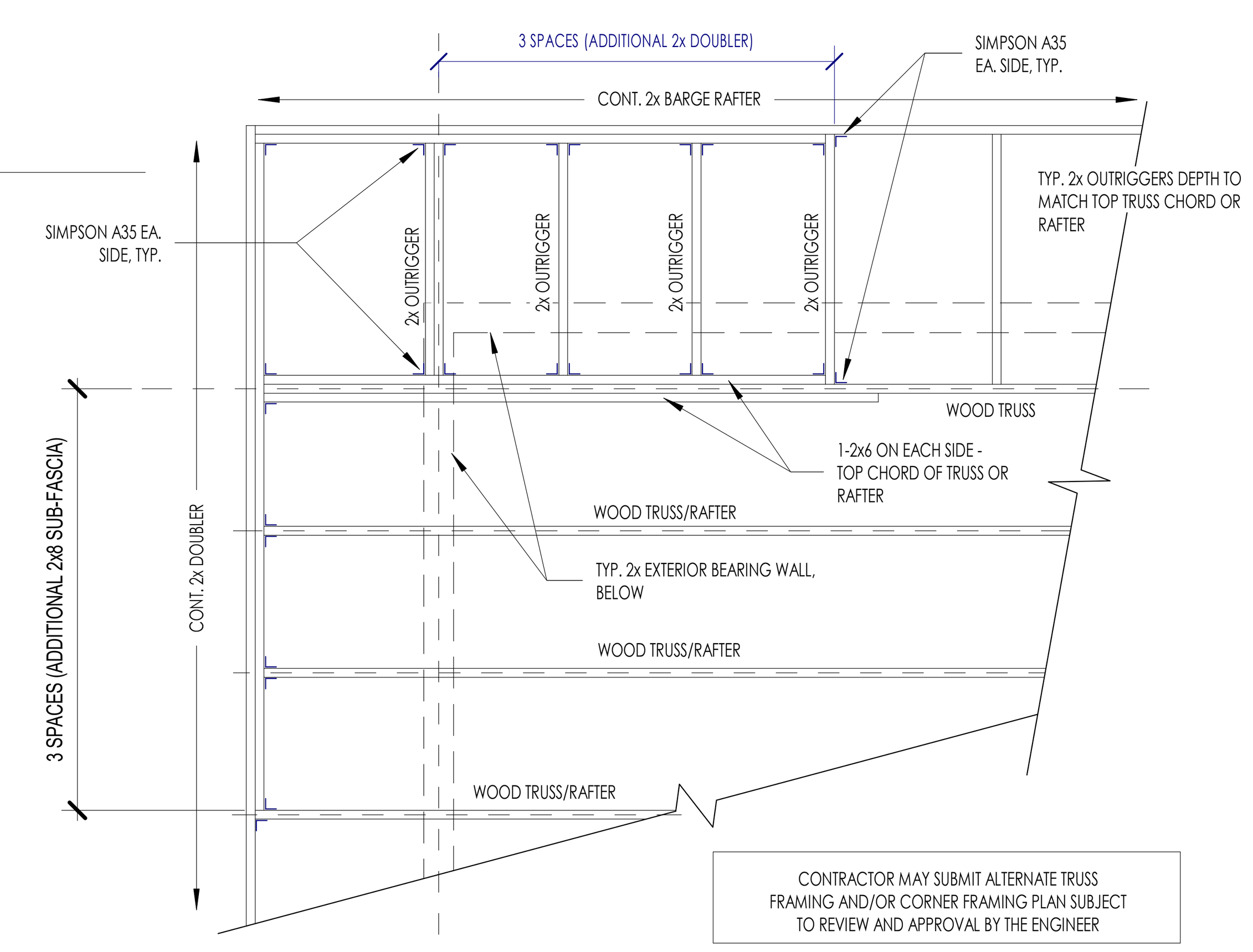
8 S4.4 TYPICAL DRAG TRUSS OVER INTERIOR SHEAR WALL
NOT TO SCALE



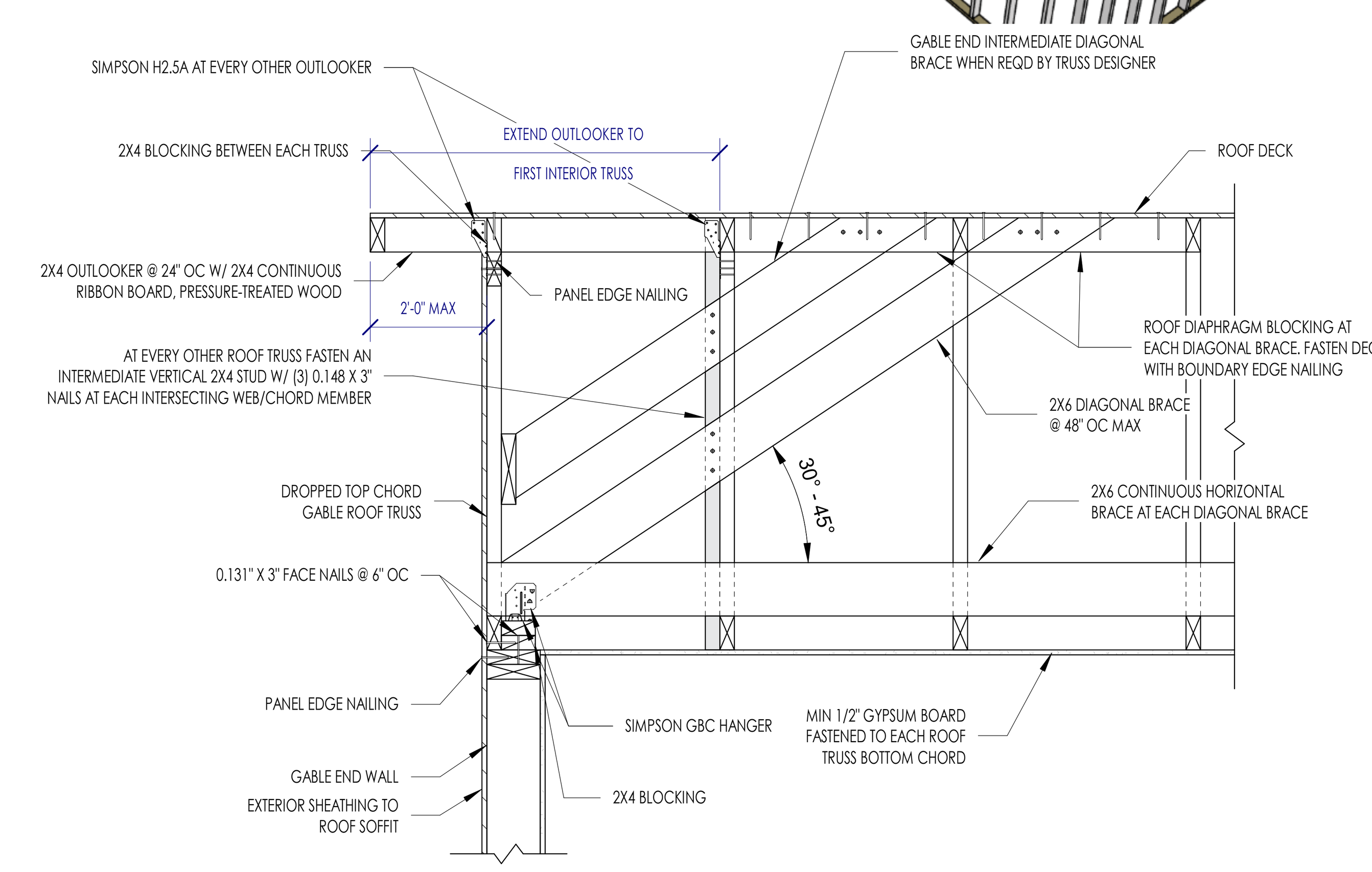


TYPICAL VTCR INSTALLATION

9 S4.4 / 1 S2.1 VALLEY SET FRAMING
NOT TO SCALE



10 S4.4 / 1 S2.1 TYP. ROOF CORNER FRAMING DETAIL
NOT TO SCALE



11 S4.4 / 1 S2.1 TYPICAL GABLE END WALL AT ROOF
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ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
ACT	ACOUSTICAL TILE
ADJ	ADJACENT
ALT	ALTERNATE
ALUM.	ALUMINUM
ARCH	ARCHITECT, ARCHITECTURAL
BLKG	BLOCKING
BD	BOARD
BLDG	BUILDING
CLG	CEILING
CL	CENTER LINE
CLR	CLEAR, CLEARANCE
COL	COLUMN
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CM	CONSTRUCTION MANAGER
CONT	CONTINUE, CONTINUOUS
C.J.	CONTROL JOINT
CG	CORNER GUARD
CORR	CORRUGATED
CFT	CUBIC FOOT
CYD	CUBIC YARD
DEMO	DEMOLISH, DEMOLITION
DTL	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DN	DOWN
DS	DOWNSPOUT
DWG	DRAWING
EA	EACH
ELEC	ELECTRIC, ELECTRICAL
EWC	ELECTRIC WATER COOLER
ELEV	ELEVATION
EQ	EQUAL
EXST	EXISTING
EXT	EXTERIOR
FF	FINISH FLOOR
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FIXT	FIXTURE
FLR	FLOOR, FLOORING
FD	FLOOR DRAIN
FND	FOUNDATION
GA	GAUGE
GC	GENERAL CONTRACT
GYP	GYPSUM WALLBOARD
HVAC	HEATING/VENTILATING /AIR CONDITIONING
HT	HEIGHT
HM	HOLLOW METAL
HORZ	HORIZONTAL
INTR	INTERIOR
LAV	LAVATORY
LH	LEFT HAND
MFR	MANUFACTUREER
MAX	MAXIMUM
MECH	MECHANICAL
MTL	METAL
MIN	MINIMUM
MISC	MISCELLANEOUS
NOM	NOMINAL
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO	NUMBER
OC	ON CENTER
OH	OPPOSITE HAND
OD	OVERFLOW DRAIN
R	RADIUS
RE	REFER
REQ'D	REQUIRED
RH	RIGHT HAND
RD	ROOF DRAIN
RM	ROOM
RO	ROUGH OPENING
RB	RUBBER BASE
SIM	SIMILAR
SPEC	SPECIFICATION
SS	STAINLESS STEEL
STRUCT	STRUCTURAL
TV	TELEVISION
THK	THICK, THICKNESS
T&G	TONGUE AND GROOVE
TS	TOP OF SLAB
TC	TOP OF CURB
TOD	TOP OF DECK
TOP	TOP OF PLATE, PARAPET
TOS	TOP OF STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VCT	VINYL COMPOSITION TILE
WH	WATER HEATER
W/	WITH
W/O	WITHOUT
WD	WOOD

ANNOTATIONS

SECTION INDICATION	# Sheet
DETAIL INDICATION	# Sheet
ELEVATION INDICATION	# Sheet
DOOR NUMBER	#
WINDOW IDENTIFICATION	X
WALL TYPE	#
ROOM NUMBER	NAME #
ELEVATION REFERENCE	0'-0" F.F.
KEYED NOTE	#
DIMENSION TO CENTERLINE	Dimension
DIMENSION TO FACE	Dimension
REVISION DELTA	# REVISION

MATERIALS

(UNLESS DESIGNATED OTHERWISE BY LEGEND) (SECTIONS AND DETAILS)	
BRICK	
C.M.U.	
CONCRETE	
EIFS	
GLASS	
5/8" GYPSUM WALL BOARD	
BATT INSULATION	
RIGID INSULATION	
SPRAY FOAM INSULATION	
STEEL	
PLASTER ON METAL LATH	
PLYWOOD	
WOOD-FINISHED	
WOOD-FRAMING/BLOCKING	

GENERAL ACCESSIBILITY GUIDELINES

NOT TO SCALE

THE FOLLOWING IMAGES AND INFORMATION ARE FROM THE 2012 TEXAS ACCESSIBILITY STANDARDS. THEY ARE FOR REFERENCE ONLY; FOR COMPLETE DOCUMENT, REFER TO WEBSITE INDICATED IN GENERAL NOTE 1.

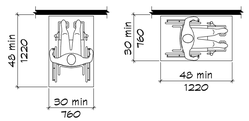


Figure 305.5 Position of Clear Floor or Ground Space

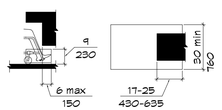


Figure 306.2 Toe Clearance

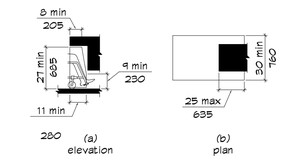


Figure 306.3 Knee Clearance

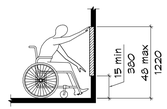


Figure 308.2.1 Unobstructed Forward Reach

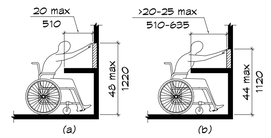


Figure 308.2.2 Obstructed High Forward Reach

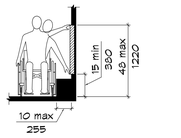


Figure 308.3.1 Unobstructed Side Reach

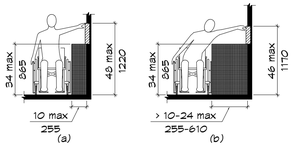


Figure 308.3.2 Obstructed High Side Reach

602.4 Spout Height. Spout outlets shall be 36 inches (915 mm) maximum above the finish floor or ground.

602.7 Drinking Fountains for Standing persons. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the finish floor or ground.

Drinking Fountains

603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

Advisory 603.3 Mirrors. A single full-length mirror can accommodate a greater number of people, including children. In order for mirrors to be usable by people who are ambulatory and people who use wheel chairs, the top edge of the mirrors should be 74 inches (1880 mm) minimum from the floor or ground.

Mirrors

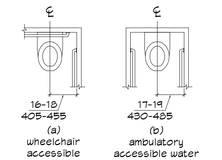


Figure 604.2 Water Closet Location

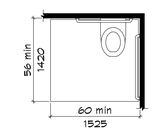


Figure 604.3.1 Size of Clearance at Water Closets

604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

Water Closets

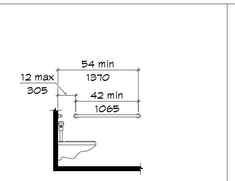


Figure 604.5.1 Side Wall Grab Bar at Water Closets

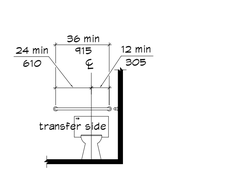


Figure 604.5.2 Rear Wall Grab Bar at Water Closets

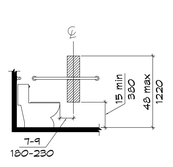
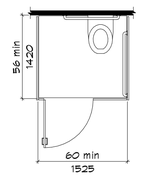


Figure 604.7 Dispenser Outlet Location



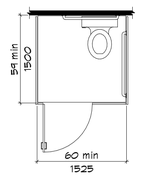


Figure 604.8.1.1 Size of Wheelchair Accessible Toilet Compartment

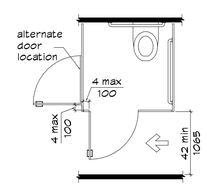


Figure 604.8.1.2 Wheelchair Accessible Toilet Compartment Doors

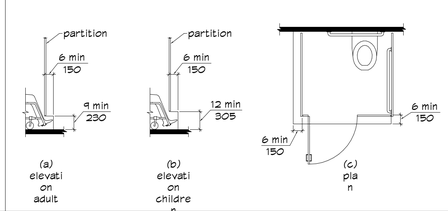


Figure 604.8.1.4 Wheelchair Accessible Toilet Compartment Toe Clearance

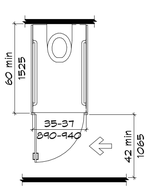


Figure 604.8.2 Ambulatory Accessible Toilet Compartment

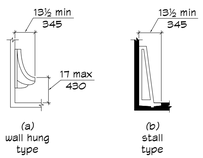


Figure 605.2 Height and Depth of Urinals

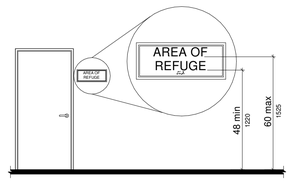


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

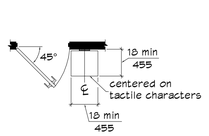


Figure 703.4.2 Location of Tactile Signs at Doors

703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the Finish Floor or ground. Exception: Visual characters indicating elevator car controls shall not be required to comply with 703.5.6.

703.5 Visual Characters

NOTE

1. ALL WORK SHALL CONFORM TO THE 2012 TEXAS ACCESSIBILITY STANDARDS (EFFECTIVE MARCH 15, 2012). THE GENERAL GUIDELINES BELOW ARE INTENDED TO AID IN THE CONSTRUCTION OF ACCESSIBLE ELEMENTS AND SPACES. SHOULD ADDITIONAL INFORMATION BE REQUIRED, ALL READERS SHALL RETAIN AND REVIEW A COMPLETE SET OF STANDARDS AT THE FOLLOWING WEBSITE: http://www.license.state.tx.us/ab/2012TAS/2012tascomplete.pdf

1 FOR CONSTRUCTION

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02/21/24

A NEW CHAPEL FOR
JONES & WASHINGTON
508 E. MARTIN LUTHER KING JR. ST. BRYAN, TX

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GENERAL ACCESSIBILITY GUIDELINES, ABBREVIATIONS, SYMBOLS

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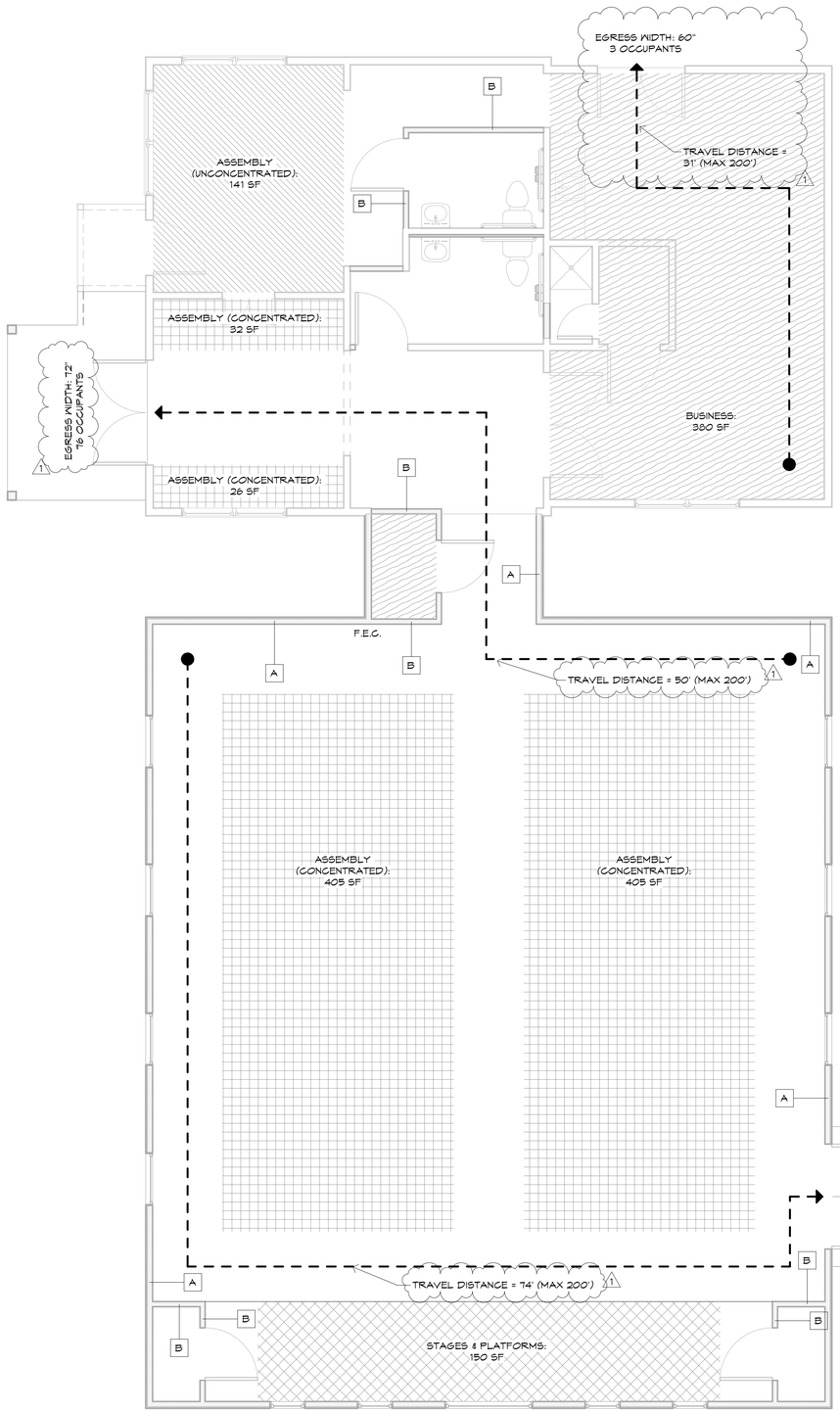


2 LIFE SAFETY PLAN

SCALE: 1/4" = 1'-0"

LEGEND

= PATH OF EGRESS

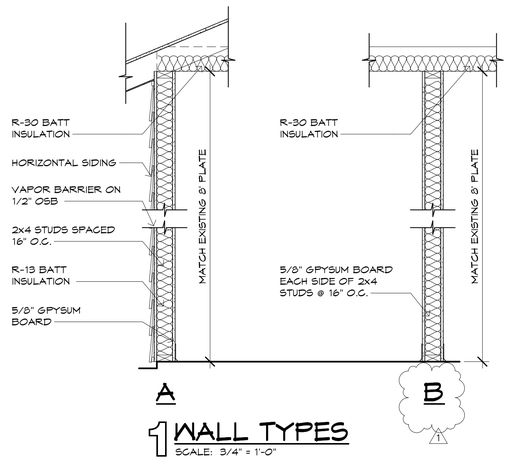
= 1 HOUR RATED WALL

F.E.C. = SEMI-RECESSED FIRE EXTINGUISHER CABINET

A = WALL TYPE

CODE ANALYSIS

APPLICABLE CODES	2021 INTERNATIONAL BUILDING CODE	
2021 INTERNATIONAL BUILDING CODE	**BUILDING INFORMATION**	
2021 INTERNATIONAL PLUMBING CODE	OCCUPANCY CLASSIFICATION (303.1.1)	ASSEMBLY GROUP A-3 OCCUPANCY (FUNERAL PARLOR)
2021 INTERNATIONAL MECHANICAL CODE	ALLOWABLE BUILDING HEIGHT (504.3, 504.4)	ALLOWABLE = 40'; 1 STORY HEIGHT PROVIDED = 17'; 1 STORY
2021 INTERNATIONAL FUEL GAS CODE		
2018 INTERNATIONAL ENERGY CONSERVATION CODE	ALLOWABLE FLOOR AREA (506.2)	A-3 ALLOWABLE AREA = 6,000 S.F. AREA PROVIDED = 1791 NEW S.F.; 2789 TOTAL S.F.
2021 INTERNATIONAL PROPERTY MAINTENANCE CODE		
2021 INTERNATIONAL FIRE CODE CODE	CONSTRUCTION CLASSIFICATION (TABLE 601)	V-B
2021 NFPA-101, LIFE SAFETY CODE	FIRE SEPARATION DISTANCE (TABLE 705.5)	X≥30': EXTERIOR WALL REQUIREMENT = 0 HR
2023 NATIONAL ELECTRICAL CODE	WALL AND CEILING FINISHES (803)	INTERIOR EXIT STAIRWAYS AND RAMPS: CLASS A INTERIOR EXIT PASSAGEWAYS: CLASS A CORRIDORS: CLASS B ENCLOSED ROOMS: CLASS C
2012 TEXAS ACCESSIBILITY STANDARDS	INTERIOR FLOOR FINISHES (804)	A OCCUPANCY: CLASS II MINIMUM CRITICAL RADIANT FLUX
	DECORATIVE MATERIALS AND TRIM (806)	INTERIOR TRIM: CLASS C INTERIOR FLOOR-WALL BASE: CLASS C
	FIRE PROTECTION SYSTEMS (903)	NOT REQUIRED (<300 OCCUPANTS)
	FIRE EXTINGUISHERS (906.1, TABLE 906.3)	SHALL BE INSTALLED AT MAXIMUM FLOOR AREA OF 11,250 S.F. & 75'-0" TRAVEL DISTANCE PER EXTINGUISHER
	FIRE ALARM AND DETECTION SYSTEMS (907.2)	NOT REQUIRED
	FIRE RESISTANCE RATINGS	
	STRUCTURAL FRAME (TABLE 601)	0 HOUR
	BEARING WALLS (TABLE 601)	0 HOUR
	NON-BEARING WALLS AND PARTITIONS - (TABLE 601)	0 HOUR
	FLOOR CONSTRUCTION (TABLE 601)	0 HOUR
	ROOF CONSTRUCTION (TABLE 601)	0 HOUR
	CORRIDORS (TABLE 1020.1)	NOT APPLICABLE
	OCCUPANT LOAD AND EGRESS	
	OCCUPANT LOAD (TABLE 1004.5)	ASSEMBLY (CONCENTRATED) - 868 NET S.F. @ 7/NET = 124 ASSEMBLY (UNCONCENTRATED) - 141 NET S.F. @ 15/NET = 9.4 ~ 10 BUSINESS - 380 GROSS S.F. @ 150/GROSS = 2.53 ~ 3 STAGES & PLATFORMS - 150 NET S.F. @ 15/NET = 10 TOTAL OCCUPANCY: 147 OCCUPANTS
	EGRESS WIDTH (1005)	0.3" PER OCCUPANT FOR STAIRWAYS 0.2" PER OCCUPANT FOR EGRESS COMPONENTS (THE LOSS OF ANY ONE MEANS OF EGRESS SHALL NOT REDUCE THE AVAILABLE CAPACITY TO LESS THAN 50% OF THE REQUIRED CAPACITY)
	DOOR ENCROACHMENT (1005.7.1)	DOORS WHEN FULLY OPEN SHALL NOT REDUCE THE REQUIRED EGRESS WIDTH BY MORE THAN 7" AND BY MORE THAN HALF IN ANY POSITION
	MINIMUM NUMBER OF EXITS (TABLE 1006.3.3)	2 REQUIRED (OCCUPANT LOAD 1-500), 3 PROVIDED
	EXIT ACCESS TRAVEL DISTANCE (TABLE 1017.2)	200 FEET FOR "A" OCCUPANCY WITHOUT SPRINKLER SYSTEM
	PLUMBING FIXTURE REQUIREMENTS	
	WATER CLOSETS (TABLE 2902.1) PLACES OF WORSHIP AND OTHER RELIGIOUS SERVICES	147 OCCUPANTS / 2 = 74 MALE, 74 FEMALE MALE: 74/150 = 0.49 ~ 1 REQUIRED FEMALE: 74/75 = 0.99 ~ 1 REQUIRED 2 REQUIRED, 2 PROVIDED
	LAVATORIES (TABLE 2902.1) PLACES OF WORSHIP AND OTHER RELIGIOUS SERVICES	147 OCCUPANTS / 2 = 74 MALE, 74 FEMALE MALE: 74/200 = 0.37 ~ 1 REQUIRED FEMALE: 74/200 = 0.37 ~ 1 REQUIRED 2 REQUIRED, 2 PROVIDED
	DRINKING FOUNTAINS (TABLE 2902.1)	BOTTLED WATER PROVIDED IN LIEU OF DRINKING FOUNTAIN (PER CITY OF BRYAN AMENDMENT TO IPC 410.1)
	SERVICE SINK (TABLE 2902.1)	1 REQUIRED, 1 PROVIDED



1 WALL TYPES

SCALE: 3/4" = 1'-0"

GENERAL WALL TYPE NOTES

1. RATED FIRE & SMOKE WALLS SHALL CONTINUE TO UNDERSIDE OF ROOF OR FLOOR DECKING
2. ALL INTERIOR WALLS ARE 5/8" GYPSUM BOARD ON 2x4 NOGD STUDS @ 16" O.C. UNLESS NOTED OTHERWISE.
3. FOR ALL WALLS IN RESTROOM INTERIORS AND SINK AREAS, PROVIDE WATER RESISTANT BOARD IN LIEU OF STANDARD GYPSUM WALL BOARD. PROVIDE 5/8" CEMENT BOARD BEHIND ANY WALL TILE.
4. BLOCKING REQUIRED BEHIND ALL WALL MOUNTED CABINETS.

1 FOR CONSTRUCTION

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A NEW CHAPEL FOR
JONES & WASHINGTON
508 E. MARTIN LUTHER KING JR. ST.
BRYAN, TX

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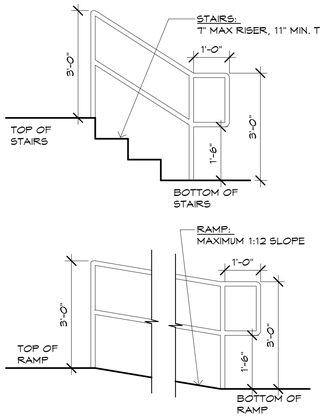
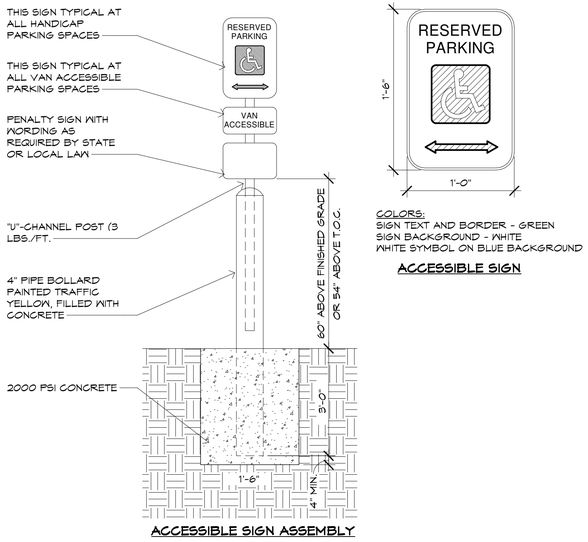
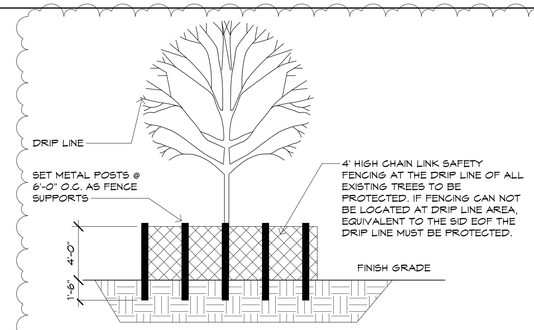


5 RAILING DETAILS
SCALE: 1/2" = 1'-0"



2 VAN ACCESSIBLE SIGNAGE
SCALE: 1 1/2" = 1'-0"

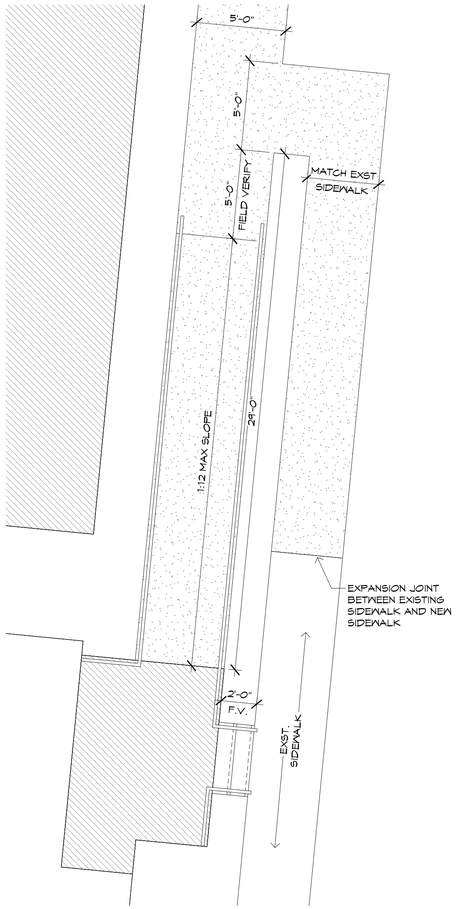


6 TREE PROTECTOIN DETAIL
SCALE: 3/16" = 1'-0"

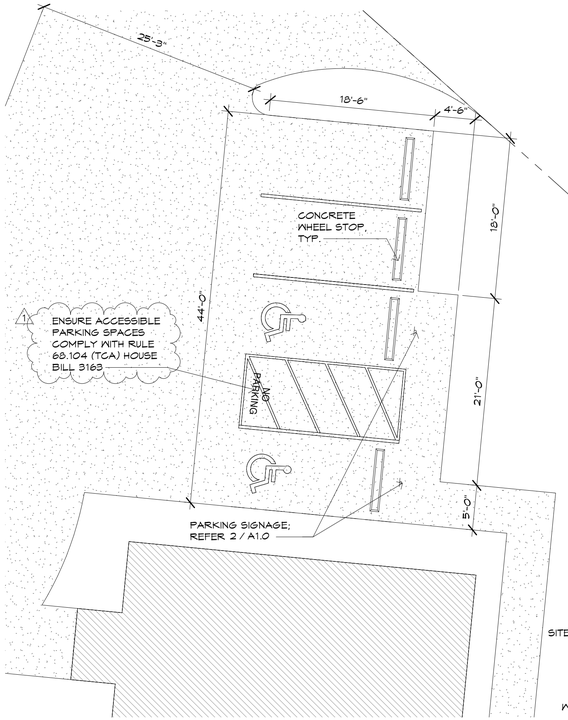
TREE PROTECTION NOTES:

1. EXISTING TREES SHOWN TO REMAIN ARE TO BE PROTECTED DURING CONSTRUCTION. CHAINLINK FENCING (MINIMUM 4'-0" HIGH) SHALL BE INSTALLED AT THE DRIP LINE OF ALL TREES OR TREE GROUPS TO REMAIN. PARKING OF VEHICLES OR PERFORMING WORK WITHIN THESE AREAS OTHER THAN SHOWN ON THE PLAN WILL NOT BE ALLOWED. THE TREE PROTECTION SHALL REMAIN DURING CONSTRUCTION. OTHER TREE PROTECTION MEASURES SHALL BE IN ACCORDANCE WITH THE CITY'S STANDARDS AND ORDINANCES.
2. DISPOSAL OF ANY WASTE MATERIAL SUCH AS, BUT NOT LIMITED TO, PAINT, ASPHALT, OIL SOLVENTS, CONCRETE, MORTAR, ETC. WITHIN THE CANOPY AREA OF THE EXISTING TREES SHALL NOT BE ALLOWED.
3. NO ATTACHMENTS OR WIRES OF ANY KIND, OTHER THAN THOSE OF A PROTECTIVE NATURE, SHALL BE ATTACHED TO ANY TREE.
4. NO FILL OR EXCAVATION OF ANY NATURE SHALL OCCUR WITHIN THE DRIP LINE OF A TREE TO BE PRESERVED, UNLESS THERE IS A SPECIFIED WELL OR RETAINING WALL SHOWN ON THE GRADING PLAN.
5. NO MATERIALS SHALL BE STORED WITHIN THE DRIPLINE AREA OF A TREE TO BE PRESERVED.

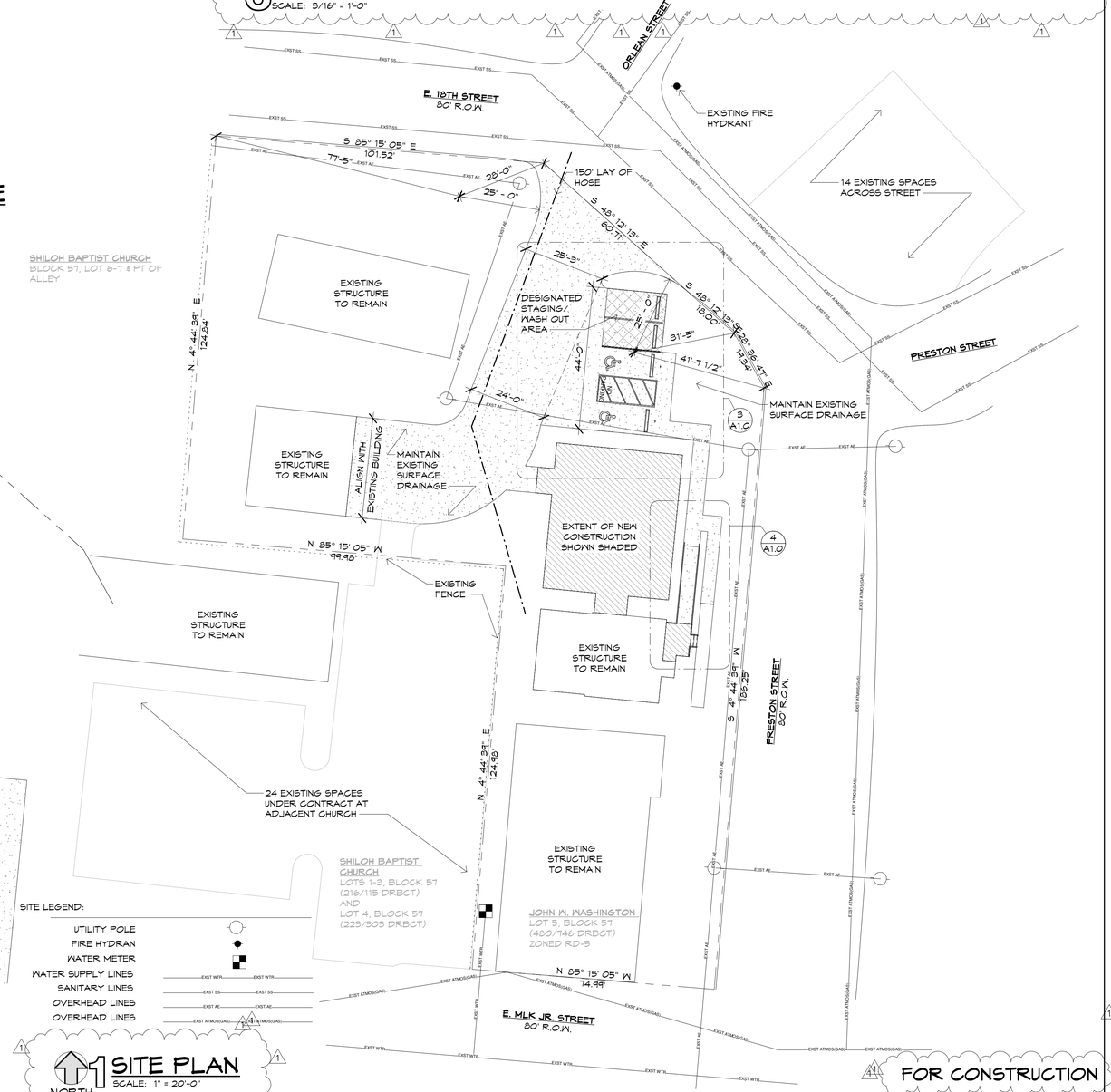
NOTES:
1. FENCE TO BE MAINTAINED AND REPAIRED AS NEEDED DURING CONSTRUCTION.
2. NO CONSTRUCTION TRAFFIC, GRADING, STORAGE OR WASTE DISPOSAL ALLOWED WITHIN THE FENCED AREA AROUND TREES.



4 STAIRS & RAMP PLAN
SCALE: 1/4" = 1'-0"



3 PARKING PLAN
SCALE: 1/8" = 1'-0"



SHILOH BAPTIST CHURCH
BLOCK 57, LOT 6-7 & PT OF ALLEY

SITE LEGEND:
- UTILITY POLE
- FIRE HYDRAN
- WATER METER
- WATER SUPPLY LINES (EXST WTR)
- SANITARY LINES (EXST SS)
- OVERHEAD LINES (EXST AE)
- OVERHEAD LINES (EXST ATMOS/GAS)

NORTH

1 SITE PLAN
SCALE: 1" = 20'-0"

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A NEW CHAPEL FOR
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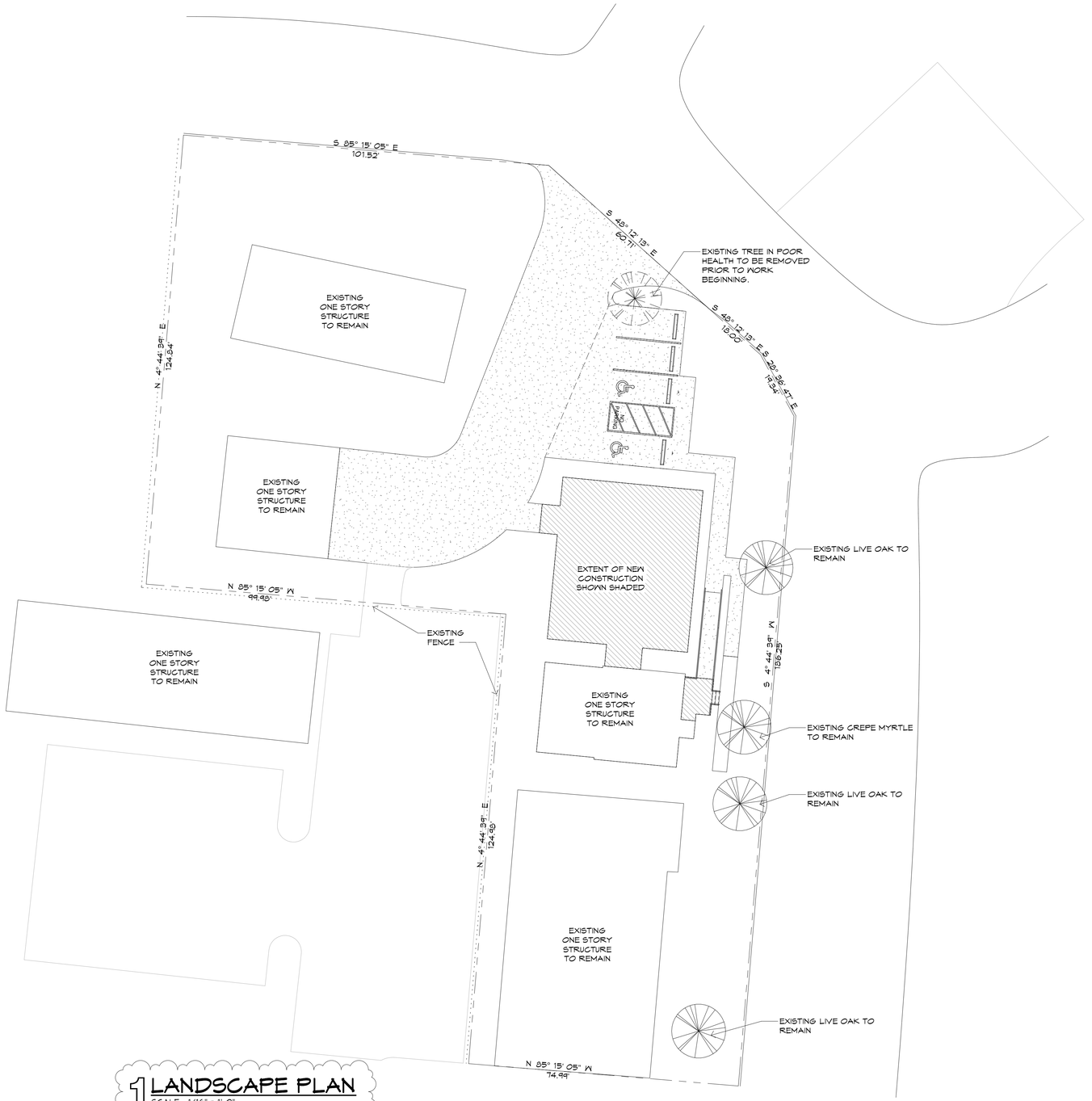

1 LANDSCAPE PLAN

SCALE: 1/16" = 1'-0"

1

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LANDSCAPING PLAN

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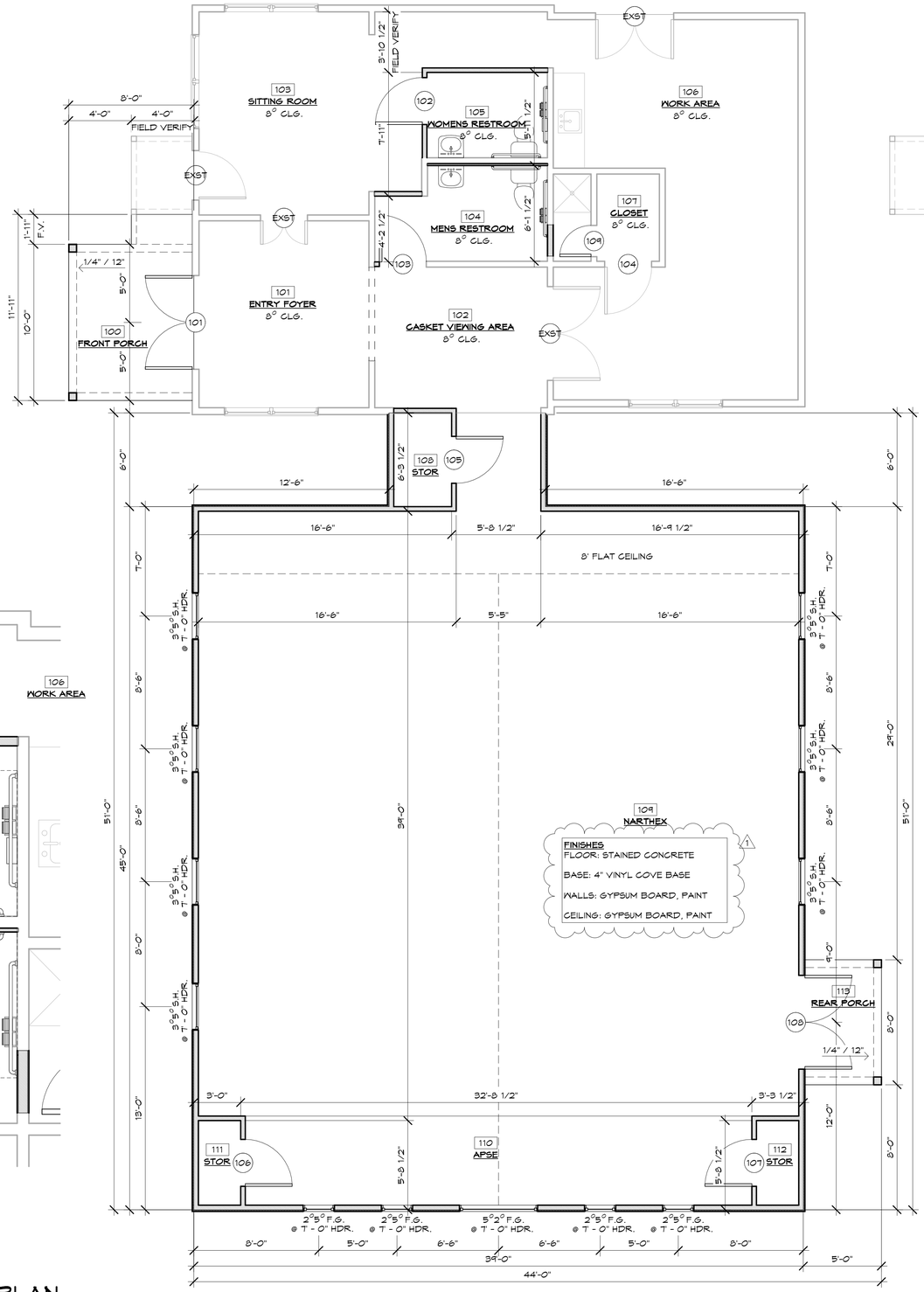
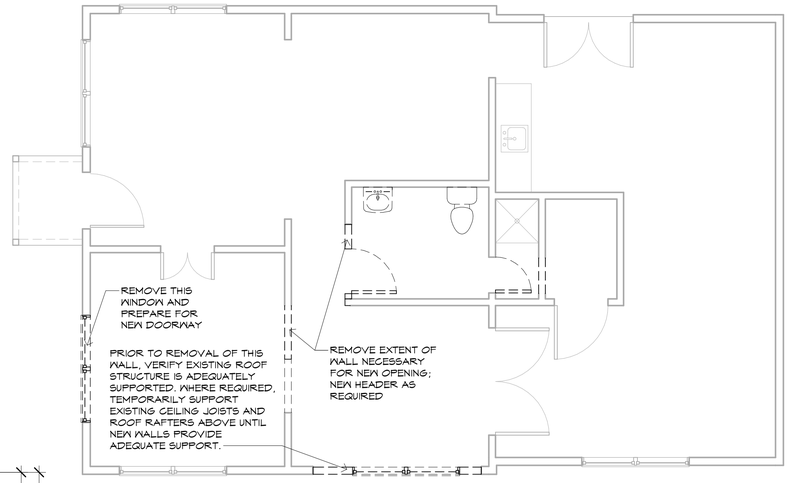


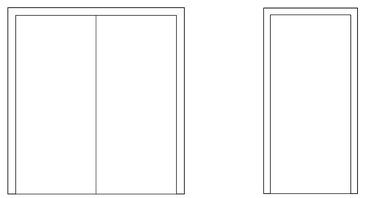
1 DEMO FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



DOOR SCHEDULE

		DOOR					FRAME	
NUMBER	TYPE	MAT'L	WIDTH	HEIGHT	THICKNESS	GLAZING	MAT'L	FIRE RATING
101	A	STEEL CLAD	6' - 0"	6' - 8"	2"	-	WOOD	-
102	B	WOOD	3' - 0"	6' - 8"	2"	-	WOOD	-
103	B	WOOD	3' - 0"	6' - 8"	2"	-	WOOD	-
105	B	WOOD	3' - 0"	6' - 8"	2"	-	WOOD	-
106	B	WOOD	3' - 0"	6' - 8"	2"	-	WOOD	-
107	B	WOOD	3' - 0"	6' - 8"	2"	-	WOOD	-
108	A	STEEL CLAD	6' - 0"	6' - 8"	2"	-	WOOD	-
109	B	WOOD	2' - 0"	6' - 8"	2"	-	WOOD	-

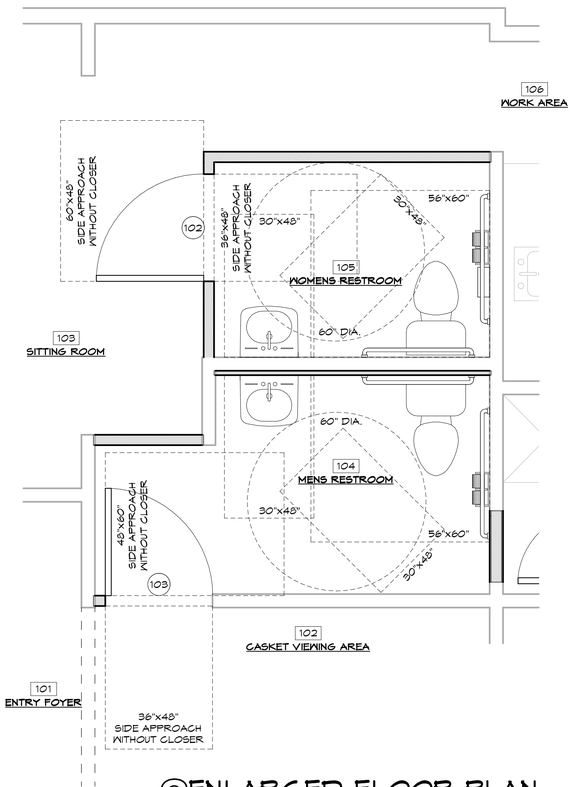


TYPE A
STEEL CLAD
DOUBLE DOOR

TYPE A
WOOD HOLLOW
CORE DOOR

WINDOW SCHEDULE

UNIT SIZE			GLAZING		HEAD
WIDTH	HEIGHT	OPERATION	MATERIAL	THICKNESS	TYPE	HEIGHT
3' - 0"	5' - 0"	Double Hung	VINYL	3/4"	LOW-E	7' - 0"
2' - 0"	5' - 0"	Fixed	VINYL	3/4"	LOW-E	7' - 0"
5' - 0"	2' - 0"	Fixed	VINYL	3/4"	LOW-E	7' - 0"
6' - 0"	5' - 0"	Fixed Mulled	VINYL	3/4"	LOW-E	7' - 0"



3 ENLARGED FLOOR PLAN

SCALE: 1/2" = 1'-0"

2 FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

FOR CONSTRUCTION

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COLLEGE STATION, TEXAS
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REGISTERED ARCHITECT
Alan E. Thetford
24267
STATE OF TEXAS
02/21/24

A NEW CHAPEL FOR
JONES & WASHINGTON
508 E. MARTIN LUTHER KING JR. ST.
BRYAN, TX

REVISIONS	
1	2/21/24

CONTENTS
DEMO PLAN
NEW FLOOR PLAN
ENLARGED PLAN
DOOR SCHEDULE

DATE
21 FEB. 2024

SHEET
A2.1
OF

SECTION 061053
MISCELLANEOUS ROUGH CARPENTRY

1. **GENERAL REQUIREMENTS**
   A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
2. **DIMENSION LUMBER FOR CONCEALED APPLICATIONS**
   A. Sizes: Nominal sizes as indicated on drawings, S4S.
   B. Moisture Content: S-dry or MC19.
   C. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
      1. Lumber: S4S, No.2 or Standard Grade.
      2. Boards: Standard or No.3.
3. **CONSTRUCTION PANELS**
   A. Communications and Electrical Room Mounting Boards: PS 1, A-D plywood, or medium density fiberboard; 3/4 inch (19 mm) thick; flame spread index of 25 or less, smoke developed index of 450 or less, when tested in accordance with ASTM E84.

SECTION 072100
THERMAL INSULATION

1. **MINERAL FIBER BLANKET INSULATION MATERIALS**
   A. Flexible Glass Fiber Blanket Thermal Insulation: Preformed insulation, complying with ASTM C665; friction fit.
      1. Facing: Unfaced.

SECTION 079200
JOINT SEALANTS

1. **JOINT SEALANT APPLICATIONS**
   A. Scope:
      1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
         a. Wall expansion and control joints.
         b. Joints between door, window, and other frames and adjacent construction.
         c. Joints between different exposed materials.
         d. Openings below ledge angles in masonry.
         e. Other joints indicated below.
      2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
         a. Joints between door, window, and other frames and adjacent construction.
         b. Other joints indicated below.
      3. Do not seal the following types of joints.
         a. Intentional weepholes in masonry.
         b. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
         c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
         d. Joints where installation of sealant is specified in another section.
         e. Joints between suspended panel ceilings/grid and walls.
   B. Exterior Joints: Use non-sag non-staining silicone sealant, unless otherwise indicated.
   C. Interior Joints: Use non-sag polyurethane sealant, unless otherwise indicated.
2. **JOINT SEALANTS - GENERAL**
   A. Colors: As selected by Owner.

SECTION 085313
VINYL WINDOWS

1. **FIXED WINDOW PERFORMANCE REQUIREMENTS**
   A. Thermal Transmittance: 0.31 Btu/sq. ft. x h x deg F maximum.
   B. Solar Heat-Gain Coefficient: 0.24 maximum.
2. **SINGLE-HUNG WINDOW PERFORMANCE REQUIREMENTS**
   A. Thermal Transmittance: 0.33 Btu/sq. ft. x h x deg F maximum.
   B. Solar Heat-Gain Coefficient: 0.23 maximum.
3. **VINYL WINDOWS**
   A. Finish: Integral color.
   B. Glass: Clear, insulating, argon filled, with low-E coating.

SECTION 092116
GYPSUM BOARD ASSEMBLIES

1. **BOARD MATERIALS**
   A. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM
   B. C1396/C1396M; sizes to minimize joints in place; ends square cut.
      1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
      2. Moisture-Resistant in wet areas.
2. **GYPSUM BOARD ACCESSORIES**
   A. Finishing Accessories: ASTM C1047, extruded aluminum alloy (6063 T5) or galvanized steel sheet ASTM A924/A924M G90, unless noted otherwise.
   B. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.

SECTION 101400
SIGNAGE

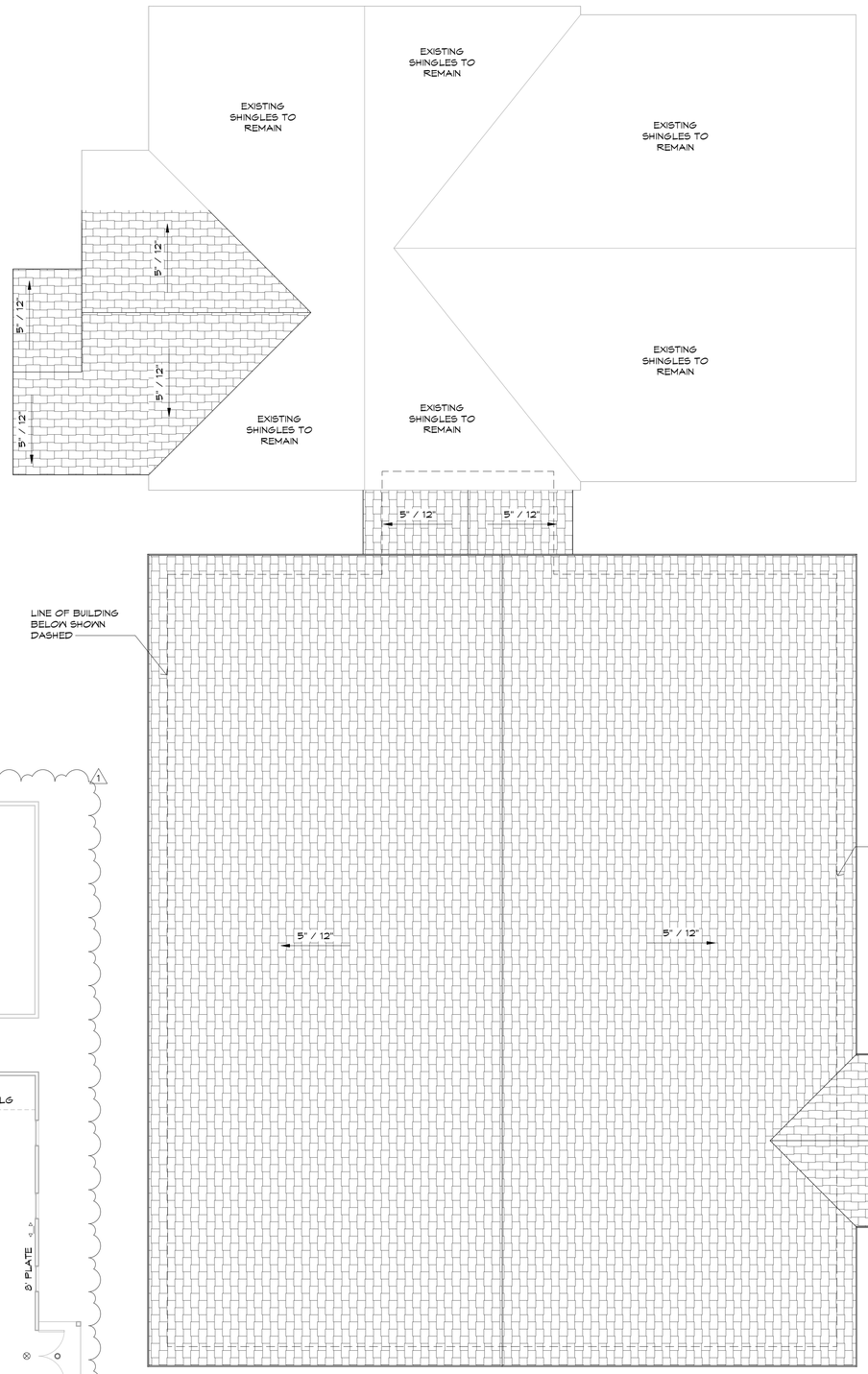
1. **SIGNAGE APPLICATIONS**
   A. Accessibility Compliance: Signs are required to comply with Texas Accessibility Standards 2012.
   B. Room and Door Signs: Provide a sign for doorways at restrooms.
      1. Sign Type: Flat signs with engraved panel media as specified.
      2. Verify specific text of room sign with owner.
2. **SIGN TYPES**
   A. Flat Signs: Signage media without frame.

SECTION 102800
TOILET, BATH, AND LAUNDRY ACCESSORIES

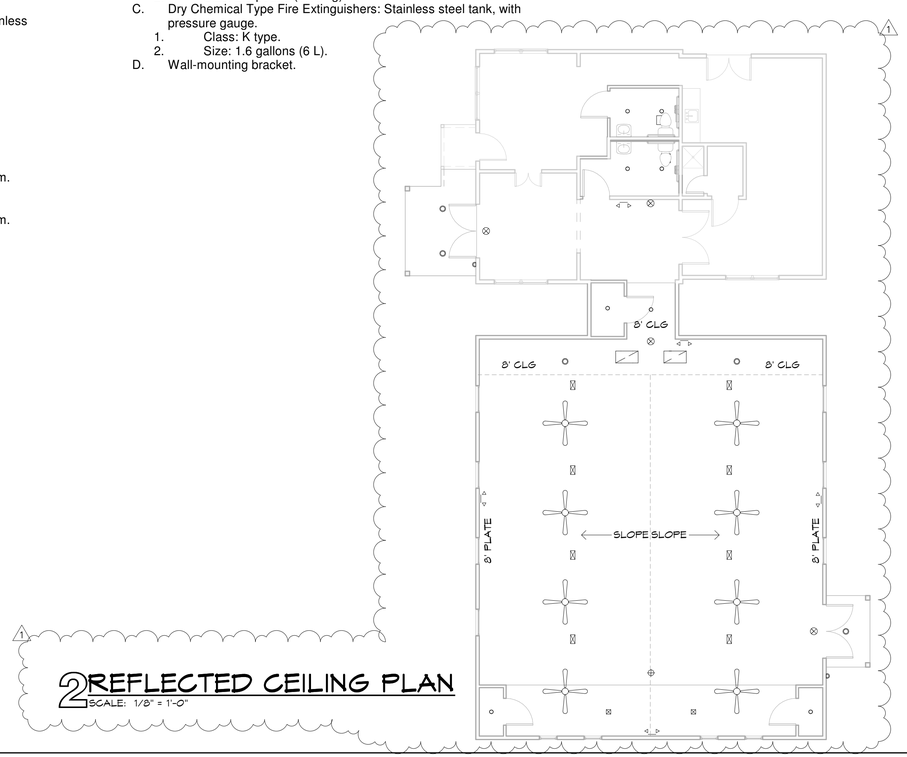
1. **COMMERCIAL TOILET ACCESSORIES**
   A. Toilet Paper Dispenser: Single roll, surface mounted bracket type, stainless steel.
   B. Mirrors: Stainless steel framed, 1/4 inch (6 mm) thick annealed float glass; ASTM C1036.
   C. Grab Bars: Stainless steel, smooth surface.
      1. Heavy Duty Grab Bars: Floor supports are acceptable if necessary to achieve load rating.
         a. Dimensions: 1-1/2 inch (38 mm) outside diameter, minimum 0.125 inch (3.17 mm) wall thickness, exposed flange mounting, 1-1/2 inch (38 mm) clearance between wall and inside of grab bar.

SECTION 104400
FIRE PROTECTION SPECIALTIES

1. **FIRE EXTINGUISHERS**
   A. Fire Extinguishers - General: Comply with product requirements of NFPA 10 and applicable codes, whichever is more stringent.
   B. Multipurpose Dry Chemical Type Fire Extinguishers: Carbon steel tank, with pressure gauge.
      1. Class: A:B:C type.
      2. Size: 2.5 pound (1.13 kg).
   C. Dry Chemical Type Fire Extinguishers: Stainless steel tank, with pressure gauge.
      1. Class: K type.
      2. Size: 1.6 gallons (6 L).
   D. Wall-mounting bracket.



1 ROOF PLAN
SCALE: 1/4" = 1'-0"



2 REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

1 FOR CONSTRUCTION

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ROOF PLAN
SPECIFICATIONS

DATE
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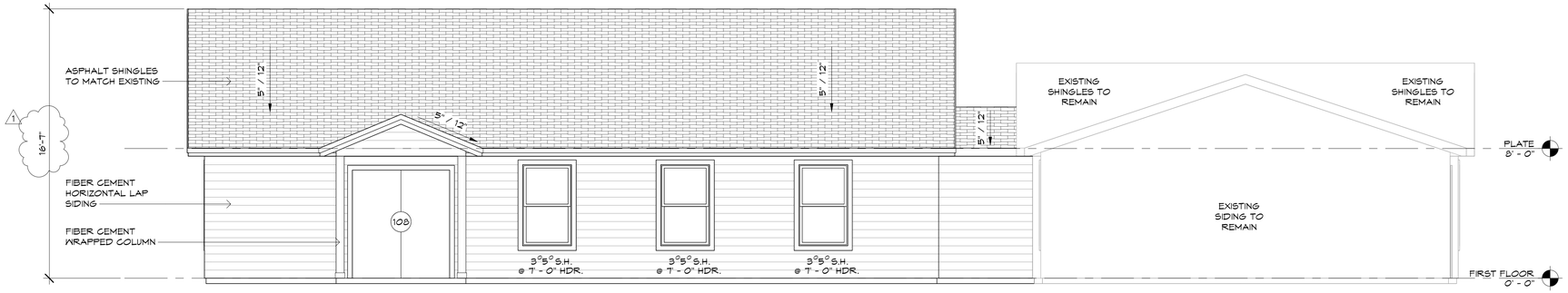
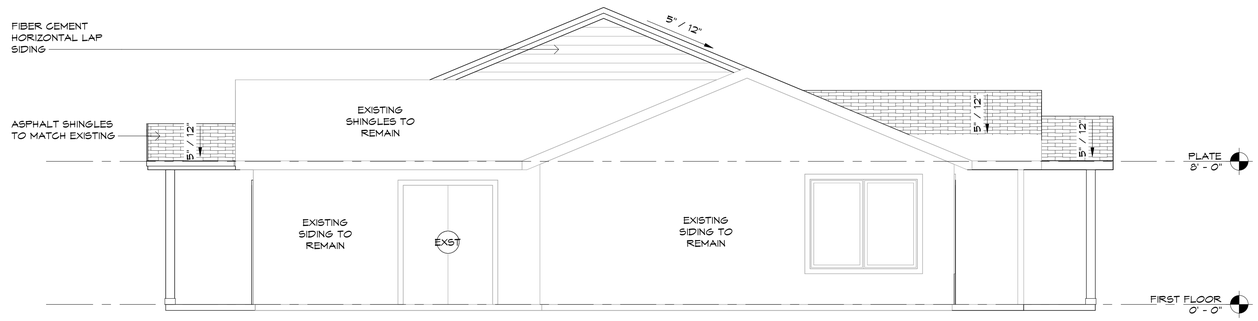
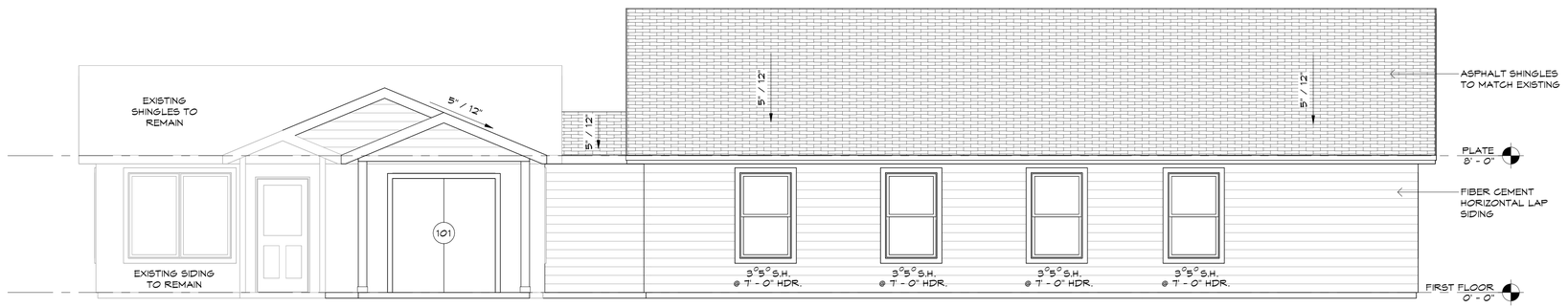


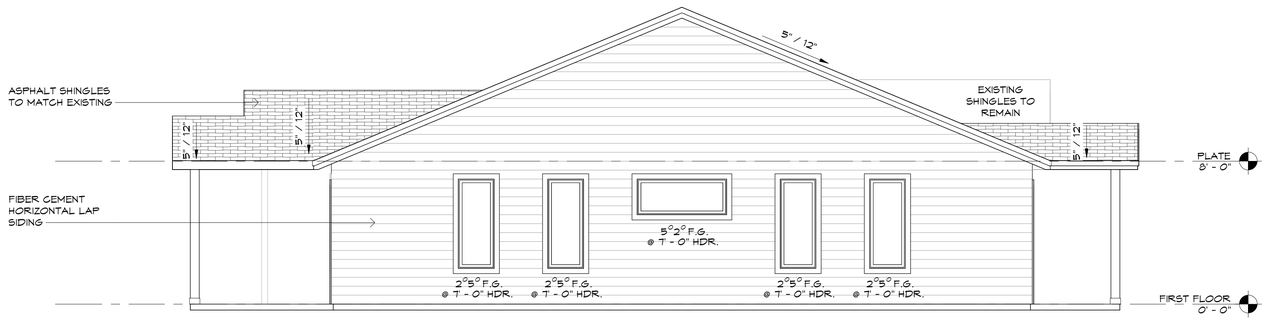
4 RIGHT ELEVATION
SCALE: 1/4" = 1'-0"



3 REAR ELEVATION
SCALE: 1/4" = 1'-0"



2 LEFT ELEVATION
SCALE: 1/4" = 1'-0"



1 FRONT ELEVATION
SCALE: 1/4" = 1'-0"

1 FOR CONSTRUCTION

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CONTENTS
FRONT, SIDE, & REAR ELEVATIONS

DATE
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SECTION 22.0 AND 23.0

GENERAL PLUMBING AND MECHANICAL REQUIREMENTS

GENERAL
THE WORK COVERED BY THIS SECTION INCLUDES THE FURNISHING OF EACH ITEM LISTED HEREIN AND OR SHOWN ON THE DRAWINGS; OF QUALITY OR SUBJECT TO QUALIFICATION NOTED HEREIN. THE CONTRACTOR SHALL PERFORM EACH OPERATION PRESCRIBED ACCORDING TO CONDITION STATED, AND SHALL PROVIDE THEREFORE ALL NECESSARY LABOR, MATERIALS EQUIPMENT AND INCIDENTALS.

CODES AND PERMITS
CONFORM TO ALL APPLICABLE CODES: 2021 INTERNATIONAL CODES; 2020 NEC (NFPA 70); 2012 TAS (TEXAS ACCESSIBILITY STANDARDS); 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) AND ALL AMENDMENTS TO THE ADOPTED CODES BY THE LOCAL AHJ (AUTHORITY HAVING JURISDICTION. WHERE THE DRAWINGS AND SPECIFICATIONS EXCEED THE REQUIREMENTS OF THE CODE, COMPLY WITH THE DRAWINGS AND SPECIFICATIONS.

OBTAIN AND PAY ALL COSTS FOR REQUIRED PERMITS AND INSPECTION FOR ALL WORK INCLUDED HEREIN.

ALL EQUIPMENT PROVIDED SHALL BE U.L. LISTED FOR THE USE INTENDED AND THE METHOD OF INSTALLATION.

INTENT
THE SPECIFICATIONS AND SCHEDULES ON THE DRAWINGS ARE INTENDED TO DESCRIBE MATERIALS AND EQUIPMENT WHICH ARE TO BE "FURNISHED" BY THE CONTRACTOR. THE DRAWINGS ARE INTENDED TO SHOW WHERE SUCH MATERIALS AND EQUIPMENT ARE TO BE "INSTALLED"; THEREFORE, IT SHALL BE UNDERSTOOD THAT SUCH PRODUCTS ARE TO BE "FURNISHED AND INSTALLED" UNLESS IT IS SPECIFICALLY STATED OTHERWISE.

IN ALL CASES THE SPECIFICATIONS AND DRAWINGS ARE INTENDED TO COMPLIMENT EACH OTHER TO DEFINE COMPLETE WORKABLE SYSTEMS. THE SCALE OF THE DRAWINGS DOES NOT PERMIT THE SHOWING OF THE EXACT LOCATION OF ALL MATERIALS AND EQUIPMENT OR ALL OFFSETS OR FITTINGS WHICH MAY BE REQUIRED. QUESTIONS CONCERNING INTENT, AS IT MAY AFFECT THE CONTRACT PRICE, ARE TO BE RESOLVED IN WRITING PRIOR TO BIDDING. NO CLAIM FOR ADDITIONAL COMPENSATION WILL BE CONSIDERED BECAUSE OF THE CONTRACTOR'S FAILURE TO ANTICIPATE ALL WORK NECESSARY TO PROVIDE COMPLETE WORKABLE SYSTEMS.

WORK INDICATED IN THE SPECIFICATIONS BUT NOT SHOWN ON THE DRAWINGS, AND VICE VERSA, IS AS BINDING AS THOUGH INDICATED BY BOTH. WHERE THE SPECIFICATIONS AND DRAWINGS CONFLICT THE ENGINEER WILL DETERMINE WHICH IS TO BE PROVIDED.

MATERIAL AND EQUIPMENT - GENERAL
UNLESS SPECIFICALLY NOTED ALL MATERIALS AND EQUIPMENT INSTALLED IN THIS PROJECT SHALL BE NEW AND IN GOOD CONDITION.

WORKMANSHIP
ALL WORKMANSHIP SHALL BE DONE IN A PROFESSIONAL MANNER AND IN ACCORDANCE WITH THE BEST MODERN PRACTICE. WHENEVER THE CONTRACT DRAWINGS OR SPECIFICATIONS OMIT OR CAUSE A REASONABLE DOUBT ABOUT WHAT IS PERMISSIBLE, AND WHEN THEY FAIL TO STATE THE QUALITY OF WORK, THE INTERPRETATION TO BE FOLLOWED IS THAT WHICH REQUIRES THE BEST QUALITY WORK.

COORDINATION
ALL WORK UNDER THESE DIVISIONS HAS BEEN DESIGNED IN AN ATTEMPT TO AVOID CONFLICTS FOR SPACE DURING INSTALLATION. THE SCALE OF THE DRAWING DOES NOT PERMIT THE SHOWING OF THE EXACT LOCATION OF ALL MATERIALS AND EQUIPMENT OR ALL OFFSETS OR FITTINGS WHICH MAY BE REQUIRED. IT IS THE RESPONSIBILITY OF EACH CONTRACTOR CONCERNED TO COORDINATE WITH ALL CRAFTS TO UTILIZE THE SPACE AVAILABLE IN THE MOST EFFICIENT MANNER.

AS-BUILT DRAWINGS
MAINTAIN AT THE JOB SITE A SET OF PRINTS USED FOR NO OTHER PURPOSE BUT TO RECORD, WITH COLORED PENCIL, "AS BUILT" CHANGES AND DIAGRAMS NOTING THOSE PORTIONS OF THE WORK IN WHICH THE ACTUAL INSTALLATION VARIES SIGNIFICANTLY FROM THE CONTRACT DRAWINGS. THESE "AS BUILT" DRAWINGS SHALL INCLUDE EXACT DIMENSIONED LOCATIONS OF ALL UNDERGROUND UTILITIES, REFERENCED TO PERMANENT ABOVEGROUND FEATURES OR STRUCTURES.

AT THE CONCLUSION OF THE PROJECT, THE JOB RECORDED "AS BUILT" DRAWINGS SHALL BE DELIVERED TO THE ARCHITECT AS A CONDITION OF FINAL ACCEPTANCE.

SHOP DRAWINGS AND SUBMITTALS
SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT. SUBMITTALS SHALL INCLUDE ALL ITEMS WITH A TABLE OF CONTENTS AS A SINGLE SUBMITTAL, (MECHANICAL, ELECTRICAL OR PLUMBING) PIECE MEAL AND OR PARTIAL SUBMITTALS WILL NOT BE ACCEPTED. EACH COMPLETE PDF FILE SHALL CONTAIN A TABLE OF CONTENTS SHOWING THE ORDER IN WHICH ITEMS ARE ARRANGED. COMPLETE DESCRIPTIVE LITERATURE, AND SHOP DRAWINGS WHERE APPROPRIATE, SHALL BE SUBMITTED FOR APPROVAL.

AFTER REVIEW BY THE ENGINEER THE SUBMITTAL WILL BE RETURNED WITH A COVER LETTER STATING REVIEW COMMENTS AND APPROVAL. SUBMITTALS NOT COMPLYING WITH THE ABOVE REQUIREMENTS ARE SUBJECT TO BEING RETURNED WITHOUT ACTION.

EQUAL PRODUCTS
THE NAMING OF A MANUFACTURER AND MODEL NUMBER, OR OTHER IDENTIFYING DESIGNATION, OF A PRODUCT HEREIN IS INTENDED TO ESTABLISH CONSTRUCTION, PHYSICAL SIZE, ELECTRICAL CHARACTERISTICS, CAPACITIES, AND/OR OTHER FEATURES AFFECTING THE UTILIZATION OF THE PRODUCT IN THIS PARTICULAR PROJECT, UNLESS OTHERWISE NOTED. THE PRODUCTS OF OTHER MANUFACTURERS WILL BE CONSIDERED AND WILL BE ACCEPTED IF THEY ARE EQUAL IN ALL RESPECTS TO THE SPECIFIED PRODUCTS, AND THE CONTRACTOR HAS SUBMITTED A LETTER STATING THAT HE HAS INVESTIGATED THE SUBSTITUTION AND STATES IN WRITING THAT THE PROPOSED SUBSTITUTION IS EQUAL OR BETTER IN EVERY RESPECT TO THAT SHOWN ON THE PRINTS AND SPECIFICATIONS. THE DECISION AS TO THE EQUALITY SHALL REST WITH THE ENGINEER, AND SUCH DECISION SHALL BE FINAL. SHOULD THE PRODUCT OF AN ALTERNATE MANUFACTURER BE "APPROVED", THE CONTRACTOR PROPOSING SUCH PRODUCT SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COSTS TO OTHER CONTRACTORS FOR CHANGES ON THEIR WORK NECESSITATED BY THE SUBSTITUTE. SUBSTITUTION PROPOSALS SHALL CONFORM TO THE REQUIREMENTS OF THE GENERAL AND SUPPLEMENTAL GENERAL CONDITIONS AND SPECIAL PROVISIONS.

EXCAVATION AND BACKFILL
ALL EXCAVATION FOR UNDERGROUND UTILITIES SHALL BE MADE TRUE TO GRADE SO THAT PIPING RESTS ON UNDISTURBED EARTH. F THE ABOVE IS NOT FEASIBLE, OR AT THE CONTRACTOR'S OPTION, EXCAVATION SHALL BE MADE A MINIMUM OF SIX INCHES BELOW THE REQUIRED GRADE TO PROVIDE A SAND BED FOR THE PIPING. BACKFILL OVER PIPING SHALL BE MADE WITH EARTH OR FILL SAND FREE OF DEBRIS AND SHALL BE TAMPED BY HAND OR MECHANICAL MEANS TO THE DENSITY OF THE ADJACENT UNDISTURBED EARTH. BACK FILL UNDER SLABS ON GRADE SHALL BE MADE IN ACCORDANCE WITH THE ARCHITECT'S SPECIFICATIONS OF SUCH AREAS. WHEN EXCAVATION IS TO BE MADE WHERE THE SURFACE MATERIAL IS CONCRETE, THE CONTRACTOR REQUIRING THE EXCAVATION SHALL LAYOUT THE LIMITS. CONTRACTOR REQUIRING THE EXCAVATION SHALL PERFORM ALL OTHER EXCAVATION AND BACKFILL IN ACCORDANCE WITH THE ABOVE.

ALL TRENCHING AND EXCAVATION SHALL BE DONE IN STRICT ACCORDANCE WITH CURRENT OSHA REQUIREMENTS AND ALL OTHER APPLICABLE SAFETY CODES AND STANDARDS.

GUARANTEE
BEFORE FINAL PAYMENT IS MADE; EACH CONTRACTOR OR SUB- CONTRACTOR PERFORMING WORK COVERED BY THESE DIVISIONS SHALL GUARANTEE, IN WRITING, THAT THE WORK PERFORMED IS FREE OF DEFECTIVE MATERIALS, EQUIPMENT AND FAULTY WORKMANSHIP AND SHALL REMAIN SO FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OF ACCEPTANCE BY THE OWNER. THE GUARANTEE SHALL COVER THE REPLACEMENT OF ANY DEFECTIVE MATERIALS OR EQUIPMENT AND CORRECTION OF ANY FAULTY WORKMANSHIP WITHOUT ADDITIONAL COST TO THE OWNER.

****
END OF SECTION

SECTION 22.1

PLUMBING

GENERAL
THE GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITION, AND APPLICABLE PORTIONS OF SECTION 22.0 OF THE SPECIFICATIONS ARE A PART OF THE SECTION.

THE WORK COVERED BY THIS SECTION INCLUDES THE FURNISHING OF EACH ITEM LISTED HEREIN AND/OR SHOWN ON THE DRAWINGS; OF QUALITY OR SUBJECT TO QUALIFICATION NOTED HEREIN. THE CONTRACTOR SHALL PERFORM EACH OPERATION PRESCRIBED ACCORDING TO CONDITIONS STATED, AND SHALL PROVIDE THEREFORE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS.

ALL WORK PERFORMED UNDER THIS SECTION OF THE SPECIFICATIONS SHALL COMPLY WITH THE CURRENT APPROVED BUILDING CODE, UNLESS THE SPECIFICATIONS OR DRAWINGS INDICATE MORE RIGID REQUIREMENTS, IN WHICH CASE THE SPECIFICATIONS OR DRAWINGS SHALL GOVERN.

SCOPE OF WORK
WORK COVERED UNDER THIS SECTION OF THE SPECIFICATIONS INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, THE FOLLOWING:
FURNISH AND INSTALL INTERIOR WATER, SANITARY SEWER AND VENT PIPING FROM FIXTURES IN THIS CONTRACT.

FURNISH AND INSTALL FLOOR DRAINS, FLOOR SINKS, HUB DRAINS AND CLEAN OUTS.

FURNISH AND INSTALL HOT AND COLD WATER COPPER PIPING THROUGHOUT.

FURNISH AND INSTALL LAVATORIES, WATER CLOSETS, AND ALL FITTINGS REQUIRED FOR EACH, TO MAKE THE FIXTURE COMPLETELY OPERATIONAL.

FLASHING FOR VENTS THROUGH ROOF.

FURNISH AND INSTALL INSULATION ON ALL WATER LINES WHERE REQUIRED

PIPE AND FITTINGS
THE PIPE AND FITTINGS INDICATED BELOW SHALL BE USED FOR THE INDICATED SYSTEMS. THE ACCEPTED STANDARD JOINING PROCEDURES SHALL BE USED FOR THE PARTICULAR MATERIALS INVOLVED. ALL PIPE SHALL BE REAMED, OR OTHERWISE CLEANED, AFTER CUTTING TO REMOVE BURRS AND TO RESTORE TO FULL BORE.

WATER SERVICE HOT AND COLD
COPPER WATER TUBE, TYPE "L" RIGID, CONFORMING TO ASTM B88, WITH WROUGHT COPPER FITTINGS CONFORMING TO ANSI B16.22, AND 95.5 SOLDER JOINTS JOINED WITH HIGH TEMPERATURE SOLDER (SILFOS, SILBRAZ, PHOSCOPPER, ETC.)
OR
PEX TYPE A PIPING:
PEX PIPE AND FITTINGS
1. PEX-A (ENGLE-METHOD CROSSLINKED POLYETHYLENE) PIPING: ASTM F 876/877
2. PEX-A FITTINGS: ELBOWS, ADAPTERS, COUPLINGS, PLUGS, TEES AND MULTI-PORT TEES (1/2 INCH THROUGH 2 INCH NOMINAL PIPE SIZE): ASTM F1960 COLD-EXPANSION FITTING MANUFACTURED FROM THE FOLLOWING MATERIAL TYPES:
2.1. UNS NO. C69300 LEAD-FREE (LF) BRASS.
2.2. 20% GLASS-FILLED POLYSULFONE AS SPECIFIED IN ASTM D 6394.
2.3. UNREINFORCED POLYSULFONE (GROUP 01, CLASS 1, GRADE 2) AS SPECIFIED IN ASTM D 6394.
2.4. POLYPHENYLSULFONE (GROUP 03, CLASS 1, GRADE 2) AS SPECIFIED IN ASTM D 6394.
2.5. BLEND OF POLYPHENYLSULFONE (55-80%) AND UNREINFORCED POLYSULFONE (REM.) AS SPECIFIED IN ASTM D 6394.
2.6. REINFORCING COLD-EXPANSION RINGS SHALL BE MANUFACTURED FROM THE SAME SOURCE AS PEX-A PIPING MANUFACTURER AND MARKED "F1960".
2.7. PROVIDE FITTINGS FROM THE SAME MANUFACTURER OF THE PIPING
THERE SHALL BE NO JOINTS ALLOWED UNDER SLABS.

CONDENSATE DRAIN LINES
TYPE K SOFT COPPER TUBING (ASTM B-88) AND WROUGHT COPPER FITTINGS JOINED WITH HIGH TEMPERATURE SOLDER (SILFOS, SILBRAZ, PHOSCOPPER, ETC.) THERE SHALL BE NO JOINTS ALLOWED UNDER SLABS.

SANITARY SEWER DRAIN WASTE AND VENT LINES BELOW GRADE, NOT EXPOSED OR EXPOSED IN AREAS NOT USED AS RETURN AIR PLENUM:
EITHER CAST IRON OR SEWER GRADE SCHEDULE 40 PVC PIPE (ASTM D-1785, D-2665) AND FITTINGS WITH SOLVENT WELD JOINTS.

SANITARY SEWER DRAIN WASTE AND VENT LINES ABOVE GRADE, EXPOSED IN AREAS USED AS RETURN AIR PLENUMS:
NO-HUB OR HUB AND SPIGOT CAST IRON SOIL PIPE

NO-HUB CAST IRON SOIL PIPE AND FITTINGS SHALL CONFORM TO ASTM A 888 AND/OR STANDARD SPECIFICATIONS 301 OF THE CAST IRON SOIL PIPE INSTITUTE. NO-HUB JOINTS SHALL CONFORM TO SPECIFICATION 310 OF THE CAST IRON SOIL PIPE INSTITUTE AND/OR ASTM C 1277. JOINTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS

HUB AND SPIGOT PIPE, SERVICE WEIGHT (SV) CAST IRON SV CAST IRON PIPE AND FITTINGS SHALL CONFORM TO ASTM A 74. PIPING SHALL BE JOINED WITH NEOPRENE GASKETS WHICH CONFORM TO ASTM C 564.

PIPING INSTALLATION
ALL HORIZONTAL PIPING SHALL BE PLUMB, EXCEPT FOR WASTE AND VENT PIPING. WASTE AND VENT PIPING SHALL HAVE A MINIMUM OF 1/8" AND A MAXIMUM OF 1/4" PER FOOT FALL, EXCEPT WHERE NOTED OTHERWISE ON THE DRAWINGS.

ALL PIPING SHALL BE RUN PARALLEL TO THE VERTICAL WALL LINE EXCEPT WHERE OFFSETS REQUIRE OTHERWISE TO AVOID OBSTRUCTIONS.

ALL PIPING IN WALLS AND CHASES SHALL BE SECURELY ANCHORED TO PREVENT UNDUE MOTION OF PIPE AND FIXTURE SUPPLIES WHERE OPERATING VALVES.

PROVIDE WATER HAMMER ARRESTORS IN PIPING SYSTEM AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY CODE

VALVES
A CHROME PLATED STOP VALVE SHALL BE INSTALLED IN THE WATER SUPPLY TO EACH ITEM OF PLUMBING EQUIPMENT. SUITABLE ADAPTERS SHALL BE PROVIDED FOR INSTALLATION OF VALVES IN COPPER LINES.

HOSE BIBBS AND FAUCETS WITH HOSE CONNECTIONS SHALL BE PROVIDED WITH VACUUM BREAKERS.

HANGERS AND SUPPORTS
ALL PIPES MUST BE ADEQUATELY SUPPORTED THROUGHOUT. HANGERS SHALL BE MALLEABLE SPLIT RING, EXCEPT HANGERS 1-1/2" AND LARGER MAY BE CLEVIS TYPE AT THE CONTRACTOR'S OPTION.

TRAPEZE HANGERS MAY BE USED TO SUPPORT TWO OR MORE PIPES AT THE SAME LOCATION; SUCH TRAPEZES SHALL BE ANGLE OR CHANNEL IRON OR METAL FRAMING EQUAL TO UNISTRUT OR ELEC. TRAPEZE HANGERS SHALL BE OF SUCH SIZE OR SERIES THAT THERE WILL BE NO VISIBLE DEFLECTION BETWEEN SUPPORTING RODS.

MAXIMUM HANGER SPACING SHALL BE AS FOLLOWS, WITH THE SMALLEST PIPE ON TRAPEZE HANGERS DETERMINING THE HANGER SPACING UNLESS INTERMEDIATE INDIVIDUAL HANGERS ARE USED ON THE SMALL PIPING TO SATISFY THE SPACING REQUIREMENTS.

THREADED STEEL PIPE 12'
COPPER TUBING 1-1/2" AND LESS 6'
COPPER TUBING GREATER THAN 1-1/2" 10'
PLASTIC PIPING 4'

PROVIDE A HANGER WITHIN 24" ON EITHER SIDE OF ANY ELBOW REGARDLESS OF MATERIAL TYPE OR SIZE.

ALL PEX PIPING SHALL BE SUPPORTED ACCORDING TO MANUFACTURER'S RECOMMENDATION AND USING PIPING MFG. SUPPORT SYSTEM COMPONENTS

ESCUTCHEONS
CHROME PLATED ESCUTCHEONS SIZED TO FIT SNUGLY AROUND THE PIPE SHALL BE USED AT ALL EXPOSED LOCATIONS OF PIPES WHICH PENETRATE WALLS AND CEILINGS. THIS DOES NOT INCLUDE THOSE PENETRATIONS IN EQUIPMENT ROOM OR ACCESSIBLE CHASES.

TESTING
DOMESTIC WATER - DOMESTIC WATER PIPING SHALL BE HYDRO- STATICALLY TESTED AT 125 PSI AND PROVEN TIGHT BY EXHIBITING NO DISCERNIBLE PRESSURE LOSS INDICATED ON A 0-300 PSI PRESSURE GAUGE OVER A FOUR HOUR PERIOD. THE SOURCE OF THE PRESSURE SHALL BE ISOLATED FROM THE SYSTEM DURING THE TEST. ANY LEAKS SHALL BE CORRECTED BY TIGHTENING THE JOINT, REPLACING THE FITTING AND/OR REPLACING THE PIPE AS NECESSARY TO STOP THE LEAK. TEST SHALL BE REPEATED AFTER REPAIR(S) UNTIL SYSTEM IS PROVEN TIGHT.

SANITARY AND WASTE SYSTEMS - ALL PIPING SHOULD BE TESTED WITH NOT LESS THAN 10 FEET HYDROSTATIC HEAD AND MAINTAINED FOR A PERIOD OF TWO HOURS.

INSULATION
THE FOLLOWING PIPING SHALL BE INSULATED WITH PREFORMED 1" OWENS CORNING FIBERGLASS WITH WHITE VAPOR BARRIER:
- ALL PVC DRAIN AND VENT LINES EXPOSED IN RETURN AIR PLENUMS
- ANY PEX PIPING LOCATED WITHIN RETURN AIR PLENUM AREA ABOVE THE CEILING
- ALL DOMESTIC HOT WATER PIPING
- ALL DOMESTIC WATER PIPING LOCATED WITHIN UNCONDITIONED WAREHOUSE OR WITHIN ANY EXTERIOR WALL ASSEMBLY

EXPOSED P-TRAPS, AND COLD AND HOT WATER SUPPLIES UNDER HANDICAP ACCESSIBLE LAVATORIES - PROVIDE FOAM INSULATING COVERS WITH EXTERNAL VINYL, RE-CLOSEABLE SEALING STRIPS, TAMPER PROOF LOCKING DEVICE, AND WEEP SEAM TO PREVENT LEAKAGE BUILD UP, AS MANUFACTURED BY PLUMBEREX SPECIALTY PRODUCTS OR EQUAL.

****
END OF SECTION

SECTION 22.1

PLUMBING FIXTURES AND TRIM

GENERAL
THE REQUIREMENTS OF SECTION 22.0 APPLY TO ALL WORK DESCRIBED IN THIS SECTION. INCLUDES PLUMBING FIXTURES AND TRIM AND FLOOR DRAINS.

SUBMITTALS SHALL INCLUDE MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR ALL PLUMBING FIXTURES. ALL WATER CLOSETS, LAVATORIES, URINALS, SHOWER HEADS, ETC.. SHALL CONFORM TO THE CURRENT STATE OF TEXAS WATERSAVING PERFORMANCE STANDARDS.

PRODUCTS
EACH PLUMBING FIXTURE, FLUSH VALVE, TOILET SEAT, SUPPLIES, FAUCETS, ETC., WILL HAVE A MINIMUM OF ONE MANUFACTURERS LISTED. ANY SUBMITTALS BESIDES THOSE LISTED MUST BE EQUAL AND ARE SUBJECT TO APPROVAL FROM ARCHITECT/ENGINEER.

EXECUTION
CHECK MILLWORK SHOP DRAWINGS. CONFIRM LOCATION AND SIZE OF FIXTURES AND OPENINGS BEFORE ROUGH-IN AND INSTALLATION.

INSTALL FIXTURE WITH TRAP EASILY REMOVABLE FOR SERVICING AND CLEANING. AT COMPLETION THOROUGHLY CLEAN PLUMBING FIXTURES AND EQUIPMENT.

PROVIDE REDUCERS AND ESCUTCHEONS AS REQUIRED FOR COMPLETE INSTALLATION.

HOSE BIBBS AND FAUCETS WITH HOSE CONNECTIONS SHALL BE PROVIDED WITH VACUUM BREAKERS.

SOLIDLY ATTACH CLOSET AND LAVATORY CARRIERS TO FLOOR WITH ANCHOR BOLTS. EACH FOOT OR MOUNTING POINT SHALL BE BOLTED, INCLUDING ANCHORING LUGS ON BACK SIDE OF CLOSET CARRIERS.

ALL CHINA FIXTURES AND ALL TOILET SEATS SHALL BE WHITE IN COLOR UNLESS OTHERWISE CALLED OUT ON DRAWINGS.

ALL LAVATORIES WHICH ARE ADA ACCESSIBLE ARE TO BE FURNISHED WITH P-TRAP COVERS AND VALVE/SUPPLY COVERS AS MANUFACTURED BY PLUMBEREX OR EQUAL.

MOUNTING HEIGHTS
MOUNT FIXTURES THE FOLLOWING HEIGHTS ABOVE FINISHED FLOOR:
A. WATER CLOSET:
(1) STANDARD: 15 INCHES TO TOP OF BOWL RIM
(2) ADA:18 INCHES TO TOP OF SEAT
B. URINAL: 17 INCHES TO TOP OF BOWL RIM
C. LAVATORY:
(1) STANDARD: 31 INCHES TO TOP OF BASIN RIM
(2) ADA: 34 INCHES TO TOP OF BASIN RIM
D. DRINKING FOUNTAIN:
(1) STANDARD: 40 INCHES TO TOP OF SPOUT OUTLET.
(2) ADA: 36 INCHES TO TOP OF SPOUT OUTLET.

****
END OF SECTION

SECTION 23.1

COOLING, HEATING, AND VENTILATION

GENERAL
THE GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS, AND APPLICABLE PORTIONS OF SECTION 23.0 OF THE SPECIFICATIONS ARE A PART OF THIS SECTION.

THE WORK COVERED BY THIS SECTION INCLUDES THE FURNISHING OF EACH ITEM LISTED HEREIN AND/OR SHOWN ON THE DRAWINGS; OF QUALITY OR SUBJECT TO QUALIFICATION NOTED HEREIN. THE CONTRACTOR SHALL PERFORM EACH OPERATION PRESCRIBED ACCORDING TO CONDITIONS STATED, AND SHALL PROVIDE THEREFORE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS, NECESSARY TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.

REFER TO GENERAL AND SPECIAL PROVISIONS. CONTRACTORS SHALL BE QUALIFIED TO INSTALL AND SERVICE THE EQUIPMENT WHICH WILL BE INSTALLED UNDER THIS CONTRACT.

SCOPE
WORK INCLUDED IN THIS SECTION:
A. INSTALLATION OF HVAC UNITS.
B. INSTALLATION OF REFRIGERANT PIPING.
C. INSTALLATION OF SHEET METAL DUCT WORK.
D. INSTALLATION OF AIR CONDITIONING CONTROLS AND LOW VOLTAGE WIRING.
E. INSTALLATION OF COPPER CONDENSATE DRAINS AND EMERGENCY DRAINS.

WORK SPECIFIED UNDER OTHER SECTIONS:
PLUMBING SECTION 22
ELECTRICAL SECTION 26

PROVIDE 7 DAY PROGRAMMABLE THERMOSTAT AS SPECIFIED ON THE DRAWING PLANS OR MECHANICAL EQUIPMENT SCHEDULE

EQUAL UNIT MANUFACTURES MAY BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING

GRILL AND REGISTERS
CEILING DIFFUSER MANUFACTURER AND SIZE SHALL BE AS SPECIFIED ON THE DRAWINGS.

RETURN AIR GRILLS MANUFACTURER AND SIZE SHALL BE AS SPECIFIED ON THE DRAWINGS.

DUCTWORK
ALL DUCT WORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH RECOMMENDATIONS IN THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION'S LATEST EDITION OF "LOW VELOCITY DUCT CONSTRUCTIONS STANDARDS".

THE CONFIGURATION OF THE DUCTWORK INSTALLED SHALL CONFORM TO THAT SHOWN ON THE DRAWINGS. MODIFICATIONS WILL NOT BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.

SUPPLY AND RETURN DUCT SHALL BE EXTERNALLY INSULATED GALVANIZED STEEL DUCT WRAPPED WITH MINIMUM 2" ALL SERVICE DUCT WRAP WITH A MINIMUM R-VALUE OF R6 IN CONDITIONED SPACES AND R8 IN UN-INSULATED AREAS. ACCEPTABLE INSULATION MANUFACTURERS ARE OWENS-CORNING, JOHN MANSVILLE, KNAUF.

EXHAUST DUCTS SHALL BE GALVANIZED STEEL, UNLINED.

ALL BRANCHES SHALL BE PROVIDED WITH DAMPERS WITH LOCKING QUADRANTS.

DUCT SEALANT - SEAL ALL JOINTS WITH HARDCAST INC. MASTIC OR EQUAL.

ALL STRAP HANGERS FOR DUCT SHALL BE VERTICAL. NO DUCT WILL BE PERMITTED TO REST OR LAY ON CEILINGS, OR BE HUNG FROM WIRES.

WHERE DUCT WORK ADJOINS UNIT INSTALL FLEXIBLE CONNECTORS. CONNECTORS SHALL BE 30 OZ. CLOSELY WOVEN UL APPROVED GLASS FABRIC, DOUBLE COATED WITH NEOPRENE, FIRE RETARDANT, WATERPROOF, AIR-TIGHT RESISTANT TO ACIDS AND GREASE.

FLEXIBLE DUCT SHALL BE FOIL WRAPPED WITH 2" OF INSULATION WITH A MINIMUM R-VALUE OF R8. CONNECTIONS OF FLEX DUCT TO SHEET METAL DUCTS SHALL BE DONE USING ROUND INSERTS AND NYLON TIE WRAP BANDS DESIGNED AND SOLD SPECIFICALLY FOR THIS USE. TAPE OR TIE WIRE WILL NOT BE ACCEPTABLE.

DUCT ACCESSORIES
ACCESS DOORS SHALL BE RIGID AND CLOSE-FITTING, FABRICATED OF GALV. STEEL WITH SEALING GASKETS AND QUICK FASTENING LOCKING DEVICES. FOR INSULATED DUCTWORK, INSTALL A MINIMUM 1 INCH THICK INSULATION WITH A SHEET METAL COVER. ACCESS DOORS IN EXTERNALLY INSULATED DUCTWORK SHALL HAVE INTERNAL SHEET METAL LINING SO THAT NO INSULATION IS EXPOSED TO THE AIR STREAM.

BALANCING DAMPERS SHALL BE OPPOSED BLADE INTERLOCKING TYPE WITH MULTIPLE BLADES FOR DUCT HEIGHTS 12 INCHES AND LARGER. SINGLE BLADE FOR DUCTS HEIGHTS UNDER 12 INCHES. BLADES SHALL BE OF NOT LESS THAN 16 GAUGE GALV. STEEL, MAXIMUM 8 INCHES WIDE, MAXIMUM 48 INCHES LONG; SUPPORTED ON SHAFTS WITH SELF-LUBRICATING BEARINGS. THE FRAME SHALL BE MINIMUM 5 INCHES X 1 INCH X 16 GAUGE GALV. STEEL. SHOP FABRICATED DAMPERS ARE NOT ACCEPTABLE. PROVIDE LOCKING HAND QUADRANT AND 2" STAND-OFF HAND QUADRANT BRACKET.

BACKDRAFT DAMPERS SHALL BE OF THE MULTI-BLADE, PARALLEL ACTION GRAVITY TYPE WITH THE BLADES A MAXIMUM OF 6 INCHES WIDE AND HAVING FELT OR FLEXIBLE VINYL SEALING EDGES. THE BLADES SHALL BE LINKED TOGETHER IN A RATTLE-FREE MANNER. PROVIDE DAMPERS WITH A DEVICE TO PERMIT ADJUSTMENT FOR VARYING DIFFERENTIAL STATIC PRESSURES.

FLEXIBLE CONNECTIONS SHALL BE FABRICATED OF NEOPRENE COATED FLAMEPROOF FABRIC, CONFORMING TO UL STANDARD #241, TIGHTLY CRIMPED INTO THE METAL EDGING STRIP. ATTACH TO DUCTWORK AND EQUIPMENT BY SCREWS OR BOLTS AT 6 INCHES ON CENTER. PROVIDE FLEXIBLE CONNECTIONS AT ALL FANS, AIR HANDLING UNITS, AND ANY OTHER EQUIPMENT SUBJECT TO VIBRATION.

BALANCING, TESTING AND ADJUSTING
THE AIR DISTRIBUTION SYSTEM SHALL BE BALANCED TO PROVIDE THE SUPPLY AIR TEMPERATURES AND QUANTITIES CALLED FOR ON THE DRAWINGS. EACH INDIVIDUAL SUPPLY OUTLET SHALL BE BALANCED WITHIN PLUS OR MINUS 10 PERCENT, BUT THE TOTAL AIR IN THE SYSTEM SHALL BE BALANCED WITHIN PLUS OR MINUS 5 PERCENT. BALANCING SHALL BE ACCOMPLISHED WITH ALL FAN COIL/FURNACE UNITS RUNNING, ALL RESTROOM EXHAUST FANS RUNNING AND ALL DOORS CLOSED.

THE CONTRACTOR WILL FURNISH THE OWNER ONE COMPLETE SET OF AIR BALANCE DATA.

****
END OF SECTION

SECTION 26.0

GENERAL ELECTRICAL

GENERAL
THE GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS, AND APPLICABLE PORTIONS OF SECTION 22.0/23.0 OF THE SPECIFICATIONS ARE HEREBY MADE A PART OF THE SECTION.

PROVIDE ALL SUPERVISION, LABOR EQUIPMENT, TOOLS, TRANSPORTATION SERVICES AND MATERIALS REQUIRED FOR THE INSTALLATION OF COMPLETE AND OPERATING ELECTRICAL SYSTEMS IN AND FOR THE BUILDING. MAKE THE INSTALLATION IN ACCORDANCE WITH RECOGNIZED GOOD PRACTICE FOR THIS TYPE OF WORK. USE THE PROPER MATERIALS AND THE PROPER METHODS, WHETHER OR NOT THESE ARE DESCRIBED IN DETAIL HEREIN. ALL EMPLOYEES MUST BE SKILLED IN THE WORK TO WHICH THEY ARE ASSIGNED ALL MATERIALS MUST BE NEW AND UNDAMAGED AND OF GOOD QUALITY.

CODES AND PERMITS
CONFORM TO ALL APPLICABLE CODES: 2021 INTERNATIONAL CODES; 2020 NEC (NFPA 70); 2012 TAS (TEXAS ACCESSIBILITY STANDARDS); 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) AND ALL AMENDMENTS TO THE ADOPTED CODES BY THE LOCAL AHJ (AUTHORITY HAVING JURISDICTION. WHERE THE DRAWINGS AND SPECIFICATIONS EXCEED THE REQUIREMENTS OF THE CODE, COMPLY WITH THE DRAWINGS AND SPECIFICATIONS.

OBTAIN AND PAY ALL COSTS FOR REQUIRED PERMITS AND INSPECTION FOR ALL WORK INCLUDED HEREIN.

ALL EQUIPMENT PROVIDED SHALL BE U.L. LISTED FOR THE USE INTENDED AND THE METHOD OF INSTALLATION.

COORDINATION
COORDINATE WORK OF THIS SECTION WITH THAT OF OTHER TRADES IN ORDER THAT THE VARIOUS COMPONENTS OF THE WORK WILL BE INSTALLED AT THE PROPER TIME, WILL FIT THE AVAILABLE SPACE AND WILL ALLOW PROPER SERVICE ACCESS TO ALL EQUIPMENT, NOT JUST THAT INSTALLED IN THIS SECTION.

ANY COMPONENTS OF THE ELECTRICAL SYSTEMS WHICH ARE INSTALLED WITHOUT REGARD TO THE ABOVE, MUST BE REMOVED AND RELOCATED AS DIRECTED, AT NO ADDITIONAL COST TO THE OWNER.

WHERE VARIOUS ITEMS OF EQUIPMENT AND MATERIALS ARE SPECIFIED AS SCHEDULED (SUCH AS BY CATALOG NUMBERS), THE PURPOSE IS TO DEFINE THE TYPE AND QUALITY, NOT TO SET FORTH THE EXACT TRIM REQUIRED. THE ELECTRICAL CONTRACTOR WILL VERIFY THE ACTUAL TRIM NEEDED WITH THE MATERIAL IT IS TO BE MOUNTED ON OR IN.

SHOP DRAWINGS AND SUBMITTALS
SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT. SUBMITTALS SHALL INCLUDE ALL ITEMS WITH A TABLE OF CONTENTS AS A SINGLE SUBMITTAL, (MECHANICAL, ELECTRICAL OR PLUMBING) PIECE MEAL AND OR PARTIAL SUBMITTALS WILL NOT BE ACCEPTED. EACH COMPLETE PDF FILE SHALL CONTAIN A TABLE OF CONTENTS SHOWING THE ORDER IN WHICH ITEMS ARE ARRANGED. COMPLETE DESCRIPTIVE LITERATURE, AND SHOP DRAWINGS WHERE APPROPRIATE, SHALL BE SUBMITTED FOR APPROVAL.

AFTER REVIEW BY THE ENGINEER THE SUBMITTAL WILL BE RETURNED WITH A COVER LETTER STATING REVIEW COMMENTS AND APPROVAL. SUBMITTALS NOT COMPLYING WITH THE ABOVE REQUIREMENTS ARE SUBJECT TO BEING RETURNED WITHOUT ACTION.

DRAWINGS
DRAWINGS INDICATE APPROXIMATE LOCATIONS OF THE VARIOUS ITEMS OF ELECTRICAL SYSTEMS. THESE ITEMS ARE SHOWN APPROXIMATELY TO SCALE AND ATTEMPT TO SHOW HOW THESE ITEMS SHOULD BE INTEGRATED. LOCATE ALL THE VARIOUS ITEMS BY ON-THE-JOB MEASUREMENTS, CONFORMANCE WITH ARCHITECTURAL REQUIREMENTS AND COOPERATION WITH OTHER TRADES AND THE OWNER IN LOCATING EQUIPMENT.

AS-BUILT DRAWINGS
MAINTAIN AT THE JOB SITE A SET OF PRINTS USED FOR NO OTHER PURPOSE BUT TO RECORD, WITH COLORED PENCIL, "AS BUILT" CHANGES AND DIAGRAMS NOTING THOSE PORTIONS OF THE WORK IN WHICH THE ACTUAL INSTALLATION VARIES SIGNIFICANTLY FROM THE CONTRACT DRAWINGS. THESE "AS BUILT" DRAWINGS SHALL INCLUDE EXACT DIMENSIONED LOCATIONS OF ALL UNDERGROUND UTILITIES, REFERENCED TO PERMANENT ABOVEGROUND FEATURES OR STRUCTURES.

AT THE CONCLUSION OF THE PROJECT, THE JOB RECORDED "AS BUILT" DRAWINGS SHALL BE DELIVERED TO THE ARCHITECT AS A CONDITION OF FINAL ACCEPTANCE.

EQUAL PRODUCTS
THE NAMING OF A MANUFACTURER AND MODEL NUMBER, OR OTHER IDENTIFYING DESIGNATION, OF A PRODUCT HEREIN IS INTENDED TO ESTABLISH CONSTRUCTION, PHYSICAL SIZE, ELECTRICAL CHARACTERISTICS, CAPACITIES, AND/OR OTHER FEATURES AFFECTING THE UTILIZATION OF THE PRODUCT IN THIS PARTICULAR PROJECT, UNLESS OTHERWISE NOTED. THE PRODUCTS OF OTHER MANUFACTURERS WILL BE CONSIDERED AND WILL BE ACCEPTED IF THEY ARE EQUAL IN ALL RESPECTS TO THE SPECIFIED PRODUCTS, AND THE CONTRACTOR HAS SUBMITTED A LETTER STATING THAT HE HAS INVESTIGATED THE SUBSTITUTION AND STATES IN WRITING THAT THE PROPOSED SUBSTITUTION IS EQUAL OR BETTER IN EVERY RESPECT TO THAT SHOWN ON THE PRINTS AND SPECIFICATIONS. THE DECISION AS TO THE EQUALITY SHALL REST WITH THE ENGINEER, AND SUCH DECISION SHALL BE FINAL. SHOULD THE PRODUCT OF AN ALTERNATE MANUFACTURER BE "APPROVED", THE CONTRACTOR PROPOSING SUCH PRODUCT SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COSTS TO OTHER CONTRACTORS FOR CHANGES ON THEIR WORK NECESSITATED BY THE SUBSTITUTE. SUBSTITUTION PROPOSALS SHALL CONFORM TO THE REQUIREMENTS OF THE GENERAL AND SUPPLEMENTAL GENERAL CONDITIONS AND SPECIAL PROVISIONS.

SWITCHBOARDS AND PANELBOARDS
THIS SPECIFICATION APPLIES TO PANEL BOARDS DESIGNATED ON THE PLANS. PANEL BOARD SHALL BE SQUARE D OR EQUAL. MAIN RATINGS AND BRANCH CIRCUIT BREAKER RATINGS SHALL BE OF SIZE AND NUMBER REQUIRED. ALL CURRENT CARRYING PARTS OF THE BUS ASSEMBLY SHALL BE PLATED COPPER. TERMINALS FOR FEEDER CONDUCTORS TO MAINS AND BRANCH NEUTRAL SHALL BE UL LISTED AS SUITABLE FOR THE TYPE CONDUCTOR SPECIFIED. THE LOAD CENTER BUS ASSEMBLY SHALL BE ENCLOSED IN A STEEL CABINET. ALL PANELBOARDS SHALL HAVE GROUND BUS KITS INSTALLED. THE SIZE OF THE WIRING GUTTERS AND GAUGE STEEL SHALL BE IN ACCORDANCE WITH UL STANDARDS. FRONT SHALL INCLUDE DOOR AND LATCH AND BE PROVIDED WITH A DIRECTORY FOR CIRCUIT IDENTIFICATION.

BRANCH CIRCUIT BREAKERS
BRANCH CIRCUIT BREAKERS SHALL BE SQUARE D OR EQUAL. ALL BREAKERS SHALL BE QUICK-BREAK MECHANISM TRIP INDICATION SHALL BE CLEARLY SHOWN BY THE BEAKER HANDLE TAKING A POSITION BETWEEN "ON" AND "OFF" WHEN THE BREAKER IS TRIPPED. ALL MULTI-POLE BREAKERS SHALL BE SINGLE OPERATING HANDLE, COMMON TRIP VARIETY.

LIGHT FIXTURES
FURNISH AND INSTALL LIGHT FIXTURES AS SCHEDULED ON THE DRAWINGS. ALL BALLASTS FOR FLUORESCENT FIXTURES SHALL BE ELECTRONIC RATED FOR LESS THAN 10% THD. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FIXTURES WITH TRIM WHICH WILL PROPERLY FIT THE TYPES OF CEILING OR WALL FINISHES ACTUALLY INSTALLED. MODEL NUMBER IN THE SPECIFICATION OR ON THE DRAWINGS SHALL BE VERIFIED TO INSURE THE REQUIRED TRIM IS PROVIDED.

SAFETY SWITCHES
SAFETY SWITCHES SHALL BE HEAVY DUTY, FUSIBLE OR UNFUSED AS REQUIRED BY THE CODE.

RACEWAYS
BELOW GROUND - RIGID NON-METALLIC CONDUIT (PVC). IN ADDITION TO CIRCUIT CONDUCTORS, PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH TABLE 250-122, NEC IN ALL NON-METALLIC RACEWAYS. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE SECURELY ATTACHED TO EACH ENCLOSURE TO WHICH THE RACEWAY IS CONNECTED.

FINAL CONNECTIONS TO EXTERIOR SPACE CONDITIONING EQUIPMENT - LIQUID-TIGHT FLEXIBLE METAL CONDUIT.

IN ALL AREAS WHERE ALLOWED BY CODE EMT AND OR UL LISTED MC CABLE ASSEMBLIES SHALL BE PERMISSIBLE. MC CABLE ASSEMBLIES MAY BE USED FOR BRANCH CIRCUITS AFTER THE FIRST BOX CONNECTED TO THE PANEL. HOME RUNS BETWEEN THE FIRST BOX AND THE PANEL SHALL BE IN EMT OR OTHER APPROVED CONDUIT.

WIRE
ALL WIRE USED ON THIS PROJECT SHALL BE 600 VOLT COPPER, TYPE THHN. NO WIRE SHALL BE SMALLER THAN #12, EXCEPT LOW VOLTAGE CONTROL WIRING. ALL WIRING SHALL BE SIZED AS PER NATIONAL ELECTRICAL CODE REQUIREMENTS AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY SIZING AND BRING TO THE ATTENTION OF THE ENGINEER ANY CHANGES WHICH HE MAKES BEFORE INSTALLATION.

OUTLET BOXES
ALL OUTLET BOXES RECESSED IN CONSTRUCTION SHALL BE 14 GAUGE STEEL GALVANIZED AFTER FABRICATION WITH EXTENSION RINGS. THEY SHALL BE OF THE TYPE AND DESIGN BEST SUITED FOR THE APPLICATION. RECESSED BOXES FOR LIGHTING FIXTURES SHALL BE MINIMUM 4" SQUARE AND SHALL BE PROVIDED WITH PROPER RINGS FOR THE NUMBER OF DEVICES MOUNTED.

EXPOSED BOXES SHALL BE GALVANIZED STEEL CONFORMING TO THE SPECIFICATIONS FOR CONCEALED BOXES. THOSE OCCURRING ON WALLS FOR USE WITH SWITCHES OR OUTLET SHALL BE OF THE ONE-PIECE TYPE. SINGLE GANG BOXES SHALL BE "HANDY" OR "UTILITY " BOXES.

WIRING DEVICES
(DIMENSIONS ARE TO CENTER OF DEVICE UNLESS NOTED DIFFERENTLY ON THE DRAWINGS)
SWITCHES (MOUNTED AT 47" AFF)
A. SINGLE POLE - HUBBELL NO. 1221-I
B. 3-WAY - HUBBLE NO. 1223-I
C. OCCUPANCY/VACANCY SWITCH SENSORS AS SPECIFIED AND NOTED ON DRAWINGS AND PLANS
D. OCCUPANCY/VACANCY SENSORS AND REQUIRED RELAYS AS SPECIFIED AND NOTED ON DRAWINGS AND PLANS

RECEPTACLES (MOUNTED AT 18" AFF)
A. DUPLEX - (20 AMP) HUBBLE NO. 5362

DEVICE PLATES SHALL BE BRUSHED STAINLESS

FUNCTIONAL TESTING OF LIGHTING CONTROLS
CONTRACTOR TO PROVIDE EVIDENCE THAT THE LIGHTING CONTROLS SYSTEMS HAVE BEEN TESTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION C408.3 OF 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC).

****
END OF SECTION

FOR CONSTRUCTION

1/2" 2"
0" 1"
SCALE IN INCHES

1 CITY COMMENTS 01-26-2024

PLOT DATE: FRIDAY, JANUARY 26, 2024

A07-2304 MEP10.dwg
FRIDAY, JANUARY 26, 2024 – 10:41PM

MEP SPECIFICATIONS

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JOB #: A07-2304

STATE OF TEXAS
JANETTE SMITH
144891
LICENSED PROFESSIONAL ENGINEER
11-10-2023

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY PAUL M. SWOBODA, P.E. 51309, ON NOVEMBER 10, 2023. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

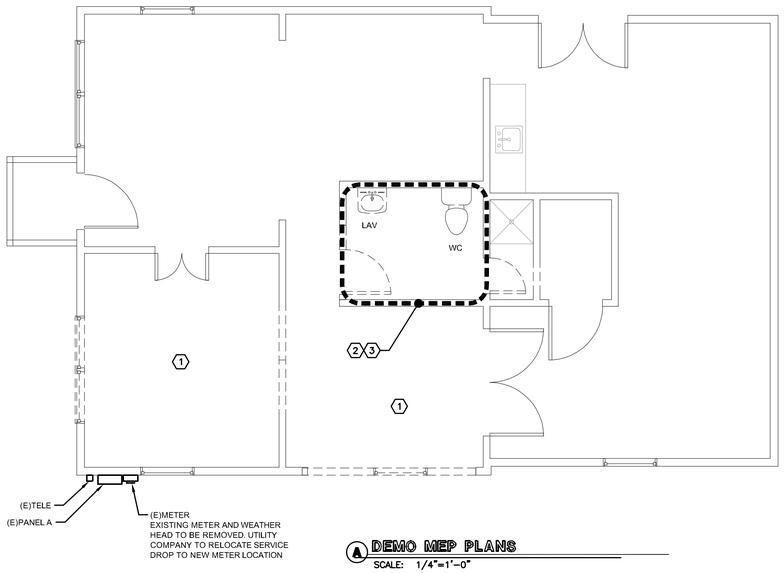
A NEW CHAPEL FOR
JONES & WASHINGTON
508 E. MARTIN LUTHER KING JR. ST.
BRYAN, TX

DATE
NOVEMBER 2023

SHEET
MEP1.0
OF

GENERAL DEMOLITION NOTES

1. PRIOR TO BIDDING, THE CONTRACTORS SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS, AND TO VERIFY LOCATION, SIZE AND QUANTITY OF ITEMS TO BE REMOVED. SUBMITTAL OF HIS BID SHALL SIGNIFY HIS WILLINGNESS TO COMPLY WITH THE DESIGN AND HIS ACCEPTANCE OF ON-SITE CONDITIONS AS THEY EXIST.
2. SALVAGE ITEMS AND MATERIALS (REMOVED AND/OR DEMOLISHED) SHALL REMAIN THE PROPERTY OF THE OWNER AND AS A PART OF THIS CONTRACT THE CONTRACTOR SHALL DELIVER THESE TO A DESTINATION AS DIRECTED BY THE OWNER.
3. EACH ITEM OF EQUIPMENT, PLUMBING, RECEPTACLES, LIGHT FIXTURES, MOTORS, ETC., SHOWN TO BE DEMOLISHED SHALL HAVE ITS' ASSOCIATED CIRCUITRY PIPING AND TRIM REMOVED BACK TO AN ACTIVE POINT FOR PLUMBING OR MECHANICAL AND BACK TO THE PROTECTIVE DEVICE IN THE PANEL, SWITCHBOARD, ETC., FOR ELECTRICAL EXCEPT AS OTHERWISE MENTIONED BY NOTES 4 AND 5 BELOW.
   - 3.A. ASSOCIATED CIRCUITRY SHALL BE DEFINED TO INCLUDE ALL CONDUIT, CONDUCTORS, BOXES, WIRING DEVICES, COVER PLATES, LAMPS, FIXTURES, WIREWAYS, RACEWAYS, SWITCHES, STARTERS, ETC., WHICH ARE ASSOCIATED WITH THE ITEM SHOWN TO BE REMOVED.
   - 3.B. ASSOCIATED PLUMBING SHALL BE DEFINED TO INCLUDE ALL PIPING, VENTS, VALVES, ESCUTCHEONS, ETC. ASSOCIATED WITH THE ITEM SHOWN TO BE REMOVED. WHERE AN ITEM TO BE REMOVED TIES INTO AN ACTIVE PIPE THE CONTRACTOR SHALL CAP THE EXISTING SERVICE AT THE POINT CLOSEST TO THE EXISTING PIPE TO REMAIN AND REMOVE ALL ABANDONED PIPING AND EQUIPMENT. WHERE A ROOF VENT IS SHOWN TO BE REMOVED THE PIPING IS TO BE REMOVED AND THE EXISTING VENT IS TO BE CAPPED SUCH THAT IT WILL BECOME AN INTEGRAL PART OF THE ROOFING SYSTEM.
   - 3.C. ASSOCIATED MECHANICAL SHALL BE DEFINED TO INCLUDE ALL DUCT, EQUIPMENT, CONTROLS ETC. ASSOCIATED WITH THE ITEM SHOWN TO BE REMOVED. WHERE AN ITEM IS AN INTEGRAL PART OF AN EXISTING SYSTEM THE EXISTING SYSTEM SHALL BE CAPPED AND OR REPAIRED AS REQUIRED TO ASSURE THE REMAINING EQUIPMENT SHALL BE OPERABLE.
   - 3.D. THE ELECTRICAL PROTECTIVE DEVICE SHALL REMAIN AS AN INTEGRAL PART OF THE EXISTING PANEL, SWITCHBOARD, ETC., AND SHALL BE LABELED AS A SPARE OR BE USED FOR NEW CIRCUITRY AS SHOWN.
   - 3.E. WHERE CONDUIT ASSOCIATED WITH AN ITEM SHOWN TO BE REMOVED IS IN AN INACCESSIBLE AREA, SUCH AS ENCASED IN CONCRETE, THIS INACCESSIBLE CONDUIT ONLY SHALL BE ABANDONED IN PLACE. ALL CONDUCTORS SHALL BE REMOVED, THEN CONDUIT SHALL BE SEALED, CAPPED OR OTHERWISE TERMINATED IN A SAFE MANNER ACCEPTABLE TO THE OWNER, OR AS OTHERWISE STATED IN ITEM 3F.
   - 3.F. WHERE INACCESSIBLE CONDUIT OR PIPING ENDS OR MUST BE TERMINATED IN FINISHED SPACE, THE CONDUIT, PIPE, OR J-BOX SHALL BE REMOVED TO BELOW THE FINISHED SURFACE OF WALL, CEILING OR FLOOR, THEN VOID SHALL BE FILLED WITH NON-SHRINKING GROUT THEN RESURFACED AND REFINISHED TO MATCH SURROUNDING SURFACES.
4. WHERE ONLY A PORTION OF A CIRCUITS LOAD IS SCHEDULED TO BE REMOVED, ONLY THAT PORTION ASSOCIATED WITH DEMOLISHED DEVICE SHALL BE REMOVED TO A POINT WHERE THE REMAINING LOAD IS ACTIVE AND IN A GOOD OPERATING CONDITION.
5. WHERE EXTENSION OF AN EXISTING CIRCUIT IS REQUIRED, CONDUIT AND WIRE SHALL BE RUN (CONCEALED WHERE POSSIBLE) FROM THE ITEMS EXISTING LOCATION TO ITS NEW LOCATION. CONDUIT SHALL BE ROUTED SO AS NOT TO INTERFERE WITH THE USE, OR MAR THE AESTHETICS OF THE AREA. WHERE NECESSARY THE CONTRACTOR SHALL RELOCATE AND RECONNECT CIRCUITRY ASSOCIATED WITH THE RELOCATION OF THE ITEM.
6. WHERE AN ITEM OR EQUIPMENT IS SCHEDULED TO BE REMOVED AND RELOCATED, ITS ASSOCIATED CIRCUITRY SHALL ALSO BE REMOVED AS PER NOTE 3 ABOVE ALONG WITH ITS ASSOCIATED SWITCHGEAR AND DEVICES, ETC. TO BE RELOCATED TO THE NEW LOCATION. PROVIDE CONNECTION OF SUCH RELOCATED ITEMS TO NEW OR EXTENDED CIRCUITRY AS SHOWN ON THE DRAWINGS.



A DEMO MEP PLANS
SCALE: 1/4"=1'-0"

NOTES:

1. ALL ELECTRICAL AND DATA DEVICES AND WIRING LOCATED ON AND/OR WITHIN WALLS TO BE DEMOLISHED ARE TO BE REMOVED. ALL UNUSED RACEWAYS AND CONDUCTORS ARE TO BE REMOVED UNLESS INACCESSIBLE. MODIFY CIRCUITS AS NEEDED TO LEAVE REMAINING DEVICES ENERGIZED
2. EXISTING RESTROOM LIGHTING AND CONTROLS TO BE REMOVED. CIRCUIT TO BE REUSED FOR NEW LIGHTING. RE: ELECTRICAL PLANS
3. PLUMBING FIXTURES TO BE REMOVED. ALL PIPING TO BE REUSED FOR NEW FIXTURES AT SAME LOCATION. RE: PLUMBING PLANS

PLOT DATE: FRIDAY, JANUARY 26, 2024

1 CITY COMMENTS 01-26-2024

FOR CONSTRUCTION

1/2" 2"
0" 1"
SCALE IN INCHES

MEP DEMO PLANS

THETFORD ARCHITECTURE, LLC
COLLEGE STATION, TEXAS
979-587-6483 | alan@thetfordarchitecture.com

SWOBODA ENGINEERING
PH: (979) 774-3400
7010 COYOTE RUN
BRYAN, TX
FIRM NO. 213

SWOBODA
JOB #: A07-2304

STATE OF TEXAS
JANETTE SMITH
144891
LICENSED PROFESSIONAL ENGINEER
11-10-2023

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY PAUL M. SWOBODA, P.E. 51309, ON NOVEMBER 10, 2023. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

A NEW CHAPEL FOR
JONES & WASHINGTON
508 E. MARTIN LUTHER KING JR. ST.
BRYAN, TX

DATE
NOVEMBER 2023

SHEET
DMEP1.1
OF

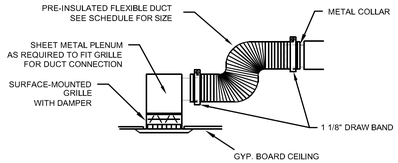
A07-2304 DMEP1.1.dwg
FRIDAY, JANUARY 26, 2024 - 10:46PM

MECHANICAL SYMBOLS SCHEDULE

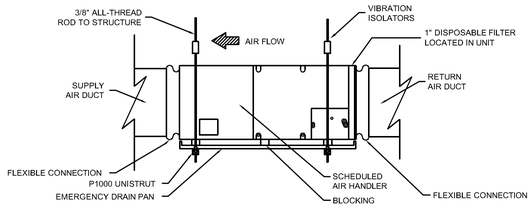
SYMBOL	DESCRIPTION
	EXISTING SUPPLY AIR DIFFUSER
	EXISTING RETURN AIR DIFFUSER
	SQUARE TO ROUND DUCT TRANSITION
	NEW SUPPLY AIR DIFFUSER TYPE "X"
	NEW RETURN AIR DIFFUSER TYPE "X"
	TURNING VANES
	SUPPLY AIR DIFFUSER
	FLEX DUCT Ø
	LOCKABLE DAMPER
	ROUND DUCT INSIDE DIAMETER AS SHOWN
FD	FIRE DAMPER
W/H	INTERNAL CLEAR DUCT DIMEN. (INCHES) WIDTH(W) / HEIGHT(H)
	NEW RECTANGULAR DUCT
	EXISTING RECTANGULAR DUCT
	CAPPED DUCT
T	THERMOSTAT
X-Y-Z	

X	Y	Z
S=SUPPLY E=EXHAUST R=RETURN OA=OUTSIDE AIR T=TRANSFER	TYPE	CFM

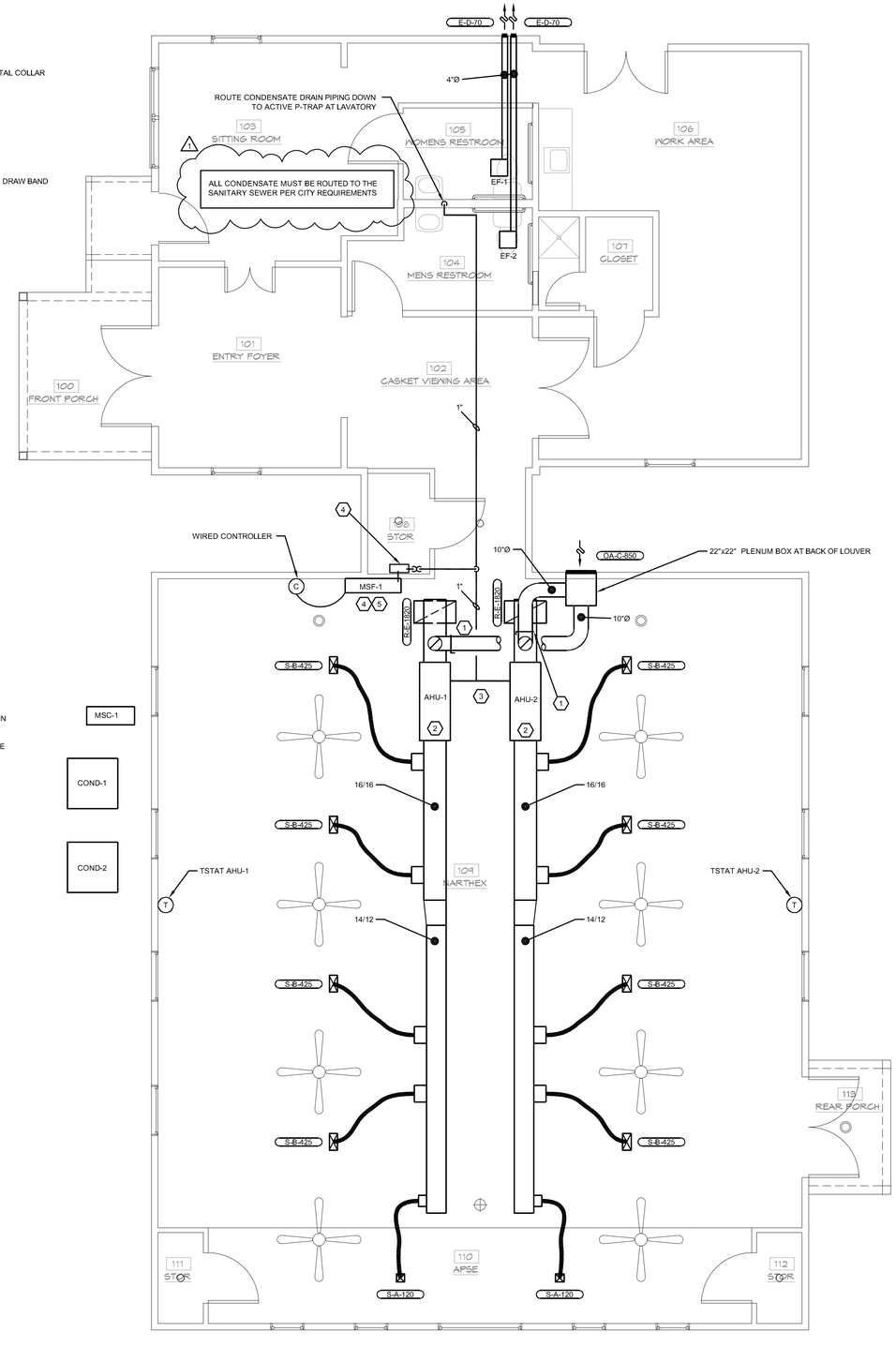
FLEXIBLE DUCT SCHEDULE	
CFM	DUCT SIZE
0 - 50	5"Ø
51 - 90	6"Ø
91 - 200	8"Ø
201 - 320	10"Ø
321 - 520	12"Ø
521 - 720	14"Ø
721 - 920	15"Ø
921 -	16"Ø



1 FLEX/DIFFUSER DETAIL
N.T.S.



2 AHU INSTALLATION DETAIL
N.T.S.



A MECHANICAL PLAN
SCALE: 1/4"=1'-0"

NOTES:

1. CONNECT OA DUCT TO AHU RETURN PLENUM AND PROVIDE LOCKABLE DAMPER AT CONNECTION SET TO ALLOW SCHEDULED CFM OF OA
2. AHU TO BE INSTALLED SIMILAR TO DETAIL 2 THIS SHEET. PROVIDE FLOAT SWITCH IN DRAIN PAN WIRED FOR AUTOMATIC SHUTDOWN OF UNIT UPON DETECTION OF WATER IN PAN
3. ROUTE 1" CONDENSATE DRAIN PIPING FROM AHU-1 AND AHU-2 THROUGH ATTIC TO ACTIVE P-TRAP AT LAVATORY IN EXISTING BUILDING
4. CONTRACTOR TO PROVIDE LITTLE GIANT CONDENSATE PUMP FOR MSC-1 IN STORAGE ROOM. ROUTE CONDENSATE FROM MSF-1 TO CONDENSATE PUMP. INSTALL PRESSURE CONDENSATE TUBING FROM PUMP DISCHARGE UP TO 1" CONDENSATE DRAIN PIPING IN ATTIC

GRILLE SCHEDULE

TYPE	USE	DESCRIPTION
A	SUPPLY	6"x6" DOUBLE DEFLECTION ALUMINUM GRILLE KRUEGER # 5880 WITH OBD
B	SUPPLY	12"x6" DOUBLE DEFLECTION ALUMINUM GRILLE KRUEGER # 5880 WITH OBD
C	O.A.	22"x22" EXTRUDED ALUMINUM LOUVER, 4" DEEP, 45° DUAL-DRAINABLE BLADE, 1.3 SF FREE AREA, POTTORFF # EDD-445
D	EXHAUST	4" ALUMINUM ROUND EXHAUST LOUVER MIDGET LOUVER # 40-REG-S-M
E	RETURN	30"x16" SINGLE FIXED DEFLECTION ALUMINUM GRILLE KRUEGER # S580

EXHAUST FAN SCHEDULE

MARK	MFG./MODEL #	CFM	SP	MOTOR	VOLT/PH	TYPE
EF-1,2	FANTECH PRO 80	70	0.1"	35 WATTS	120V/1Ø	CEILING MOUNTED

NOTES/OPTIONS:

1. EXHAUST FAN TO BE CONTROLLED WITH RESTROOM LIGHTS (RE: LIGHTING PLAN)

MINI-SPLIT SYSTEM EQUIPMENT SCHEDULE

DESIG.	MFG./NO.	COOLING	HEATING	V/PH	RLA	MOCP	SEER	HSPF
MSC-1 MSF-1	RUUD DUCTLESS HP SYSTEM (2 TON) CONDENSING UNIT # ROSH24ASJ FAN COIL UNIT # RIWH24ASJ	24.0 KBTUH	24.0 KBTUH	240V/1Ø	13.7	20	18	10.6

NOTES:
PROVIDE CONDENSATE PUMP AND WIRED CONTROLLER FOR FAN COIL

MECHANICAL EQUIPMENT SCHEDULE

DESIG.	MFG./NO.	CFM	O.A. CFM	COOLING	HEATING	V/PH	RLA	MOCP	SEER2	EER2	HSPF2	COP
AHU-1 AHU-2	RUUD 2 STAGE AIR HANDLER MODEL # RH2TZ6024STANN ELECT. HEAT MODEL # RXBH-1724707J	1820	MIN: 55 MAX: 425	NOM. 5 TON	7.2 KW	240/1	35.2	50A				
COND-1 COND-2	RUUD 2 STAGE HEAT PUMP MODEL # RP15AZ60AJ2N			57.0 MBH	57.0 MBH	240/1	24.8	50A	16.0	11.7	8.1	3.76 @ 47°F

NOTES:
1. THERMOSTATS TO BE 7-DAY PROGRAMMABLE WITH TEMPERATURE AND HUMIDITY CONTROL CAPABILITIES
2. PROVIDE CO2 SENSOR IN AHU-1,2 RETURN AIR DUCT FOR DEMAND CONTROL VENTILATION

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1 CITY COMMENTS 01-26-2024

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1/2" 2" 0" 1"
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MECHANICAL PLANS

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OF

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FRIDAY, JANUARY 26, 2024 - 10:42PM

ELECTRICAL SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
"X"	DOWNLIGHT FIXTURE TYPE "X"		DUPLEX RECEPTACLE
"X"	LAY-IN FIXTURE TYPE "X"	GFI	DUPLEX RECEPTACLE W/GROUND FAULT INTERRUPTION
"X"	WALL MOUNTED LIGHT FIXTURE TYPE "X"	WP	DUPLEX RECEPTACLE WEATHER PROOF
		TP	DUPLEX RECEPTACLE TAMPER PROOF
"X"	EXIT LIGHT TYPE "X" DIRECTIONAL AS NOTED		2-115V DUPLEX RECEPTACLES GANGED TOGETHER IN ONE BOX
"X"	BRACKET MTD. FXT. TYPE "X"		SINGLE 115V RECEPTACLE
	UNSWITCHED FIXTURE		SINGLE 240V RECEPTACLE
"X"	EMERGENCY FIXTURE TYPE "X"		SPECIAL POWER RECEPTACLE AS NOTED
			TELEPHONE/DATA OUTLET IN WALL
"X"	POLE MTD. FXT. TYPE "X"		TELEPHONE/DATA OUTLET IN FLOOR BOX
$	SINGLE POLE SWITCH		COMM OUTLET (AS NOTED) IN WALL
$3	THREE WAY SWITCH		COMM OUTLET (AS NOTED) IN FLOOR
$D	DIMMER SWITCH	J	J-BOX FOR 120/208V OR 277/480V AS NOTED
	CONTACTOR	S	SPEAKER
	"HOME RUN" CIRCUIT (120/277V)	V	VISUAL ALARM
	"HOME RUN" CIRCUIT (208/480V)	AV	AUDIO VISUAL ALARM
XP/XX/XX/XXA	DISCONNECT # OF POLES/NEMA RATING/ F OR NF/CURRENT RATING	MP	FIRE ALARM MANUAL PULL
	120V PANEL	MFP	MAIN FIRE ALARM PAN.
	480V PANEL	FS	SPRINKLER SYSTEM FLOW SW.

NOTE: ALL SYMBOLS MAY NOT BE USED

COMMON ABBREVIATIONS

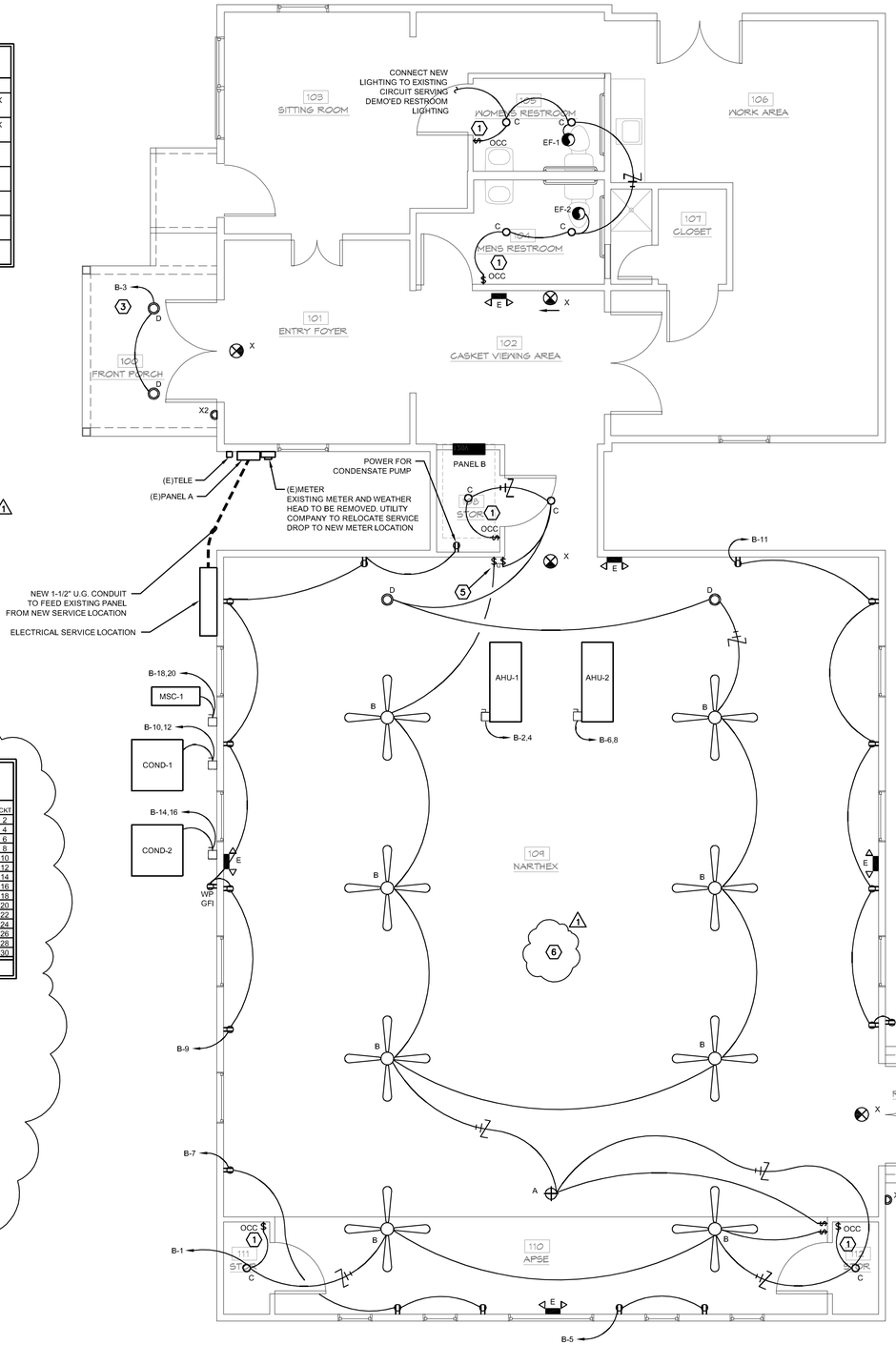
A	AMPS	NF	NON-FUSED
C	CONDUIT	OE	OVERHEAD ELECTRIC
CB	CALL BUTTON	P	POLE
COND	CONDENSER	PB	PULL BOX OR PUSH BUTTON
DET	DETAIL	PH	PHASE
DISC	DISCONNECT	UG	UNDER GROUND
DWG	DRAWING	V	VOLTS, VOLTAGE
(E)	EXISTING	W	WATTS, WATTAGE
F	FUSED	WP	WEATHER PROOF
G, GND	GROUND	XFMR	TRANSFORMER
GFI	GROUND FAULT INTERRUPT	X.X.A	DRAWING NUMBER.DETAIL NUMBER
HP	HORSE POWER		

LIGHT FIXTURE SCHEDULE

TYPE	MFG.	DESCRIPTION	LAMPS
A	-	OWNER PROVIDED PENDANT #	100 W MAX
B	-	OWNER PROVIDED CEILING FAN WITH LIGHT KIT #	100 W MAX
C	TGS	THINTEK SURFACE MOUNT LED DOWNLIGHT # 880506-R-TM-40-U-D	6 W LED
D	TGS	THINTEK SURFACE MOUNT LED DOWNLIGHT #880712-R-TM-40-U-D	12 W LED
E	ISOLITE	COMPACT ARCHITECTURAL EMERGENCY LED # RL2LED-2-WH-MBC	
X	ISOLITE	UNIVERSAL SURFACE MOUNT EDGE-LET LED EXIT WITH BATTERY BACKUP # EUG-EM-R	
X2	ISOLITE	ARCHITECTURAL EGRESS WITH BATTERY BACKUP # ELED-EM-BZ-MB (WIRED FOR NORMALLY OFF STANDBY EMG. LIGHT)	

NOTES:

1. PROVIDE 120/277VAC PIR WALL SWITCH OCCUPANCY SENSOR (LUTRON # MS-OPS6M2-DV-WH) FOR CONTROL OF LIGHTING THIS ROOM. SENSOR TO BE SET FOR VACANCY MODE (MANUAL ON, AUTO OFF)
2. CIRCUIT ALL EXIT (TYPE 'X'), EGRESS (TYPE 'X2') AND EMERGENCY (TYPE 'E') FIXTURES UNSWITCHED TO NEAREST HOMERUN
3. PROVIDE PHOTOCELL CONTROL FOR EXTERIOR LIGHTING CIRCUIT
4. CONTRACTOR TO COORDINATE ANY ADDITIONAL EXTERIOR LIGHTING NEEDS WITH OWNER
5. PROVIDE SWITCHES FOR FAN SPEED CONTROL AND INDEPENDENT FAN LIGHTING CONTROL. COORDINATE WITH OWNER
6. ALL 15 AMP AND 20 AMP, 125V AND 250V NON-LOCKING TYPE RECEPTACLES LOCATED LESS THAN 5'-6" A.F.F. WITHIN THIS ROOM (SANCTUARY; ASSEMBLY OCCUPANCY) MUST BE TAMPER RESISTANT IN ACCORDANCE WITH SECTION 406.12 OF THE 2020 NEC. (1)

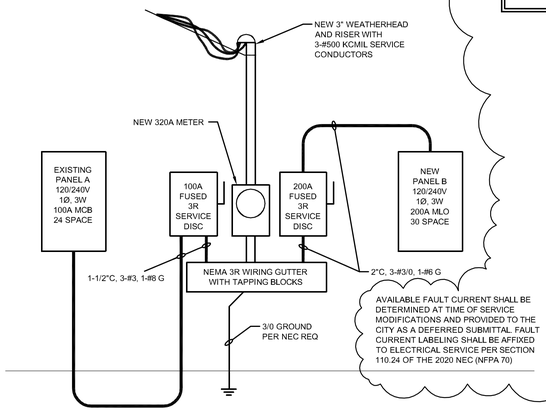


A ELECTRICAL PLAN

SCALE: 1/4"=1'-0"

PANEL B — 120/240 VOLT, 1 PHASE, 3 WIRE — 200 AMP MLO — SURFACE MOUNTED

CKT	SERVES	WIRE	CB	V.A. L1	V.A. L2	CB	WIRE	SERVES	CKT
1	INTERIOR LIGHTING	12	20	950	4225	50	6	AHU-1	2
3	EXT LIGHTING	12	20	40	4225				4
5	APSE RECEPTACLE	12	20	360	4225	50	6	AHU-2	6
7	APSE / NARTHEX RECEPTACLE	12	20	540	4225				8
9	NARTHEX RECEPTACLE	12	20	1080	2975	50	6	COND-1	10
11	NARTHEX RECEPTACLE	12	20	1080	2975				12
13				2975		50	6	COND-2	14
15					2975				16
17				1645		20	12	MSC-1	18
19					1645				20
21									22
23									24
25									26
27									28
29									30
				18215	17683	TOTAL VA		35898	



AVAILABLE FAULT CURRENT SHALL BE DETERMINED AT TIME OF SERVICE MODIFICATIONS AND PROVIDED TO THE CITY AS A DEFERRED SUBMITTAL. FAULT CURRENT LABELING SHALL BE AFFIXED TO ELECTRICAL SERVICE PER SECTION 110.24 OF THE 2020 NEC (NFPA 70)

1 ELECT. RISER

120/240V, 1Ø, 3W, 320A

ELECTRICAL LOAD SUMMARY

120/240V, 1Ø, 3W

DESCRIPTION	KVA	DF	L1	L2
(E)PANEL "A" PEAK KVA	11.5	1.25	60	60
NEW PANEL 'B'				
LIGHTING	1.0	1.25	5	5
RECEPTACLES	3.1	1.00	13	13
HVAC	32.1	1.00	134	134
TOTAL DEMAND LOAD			212	212

1 CITY COMMENTS 01-26-2024

FOR CONSTRUCTION

1/2" 2" 0" 1" SCALE IN INCHES

PLOT DATE: FRIDAY, JANUARY 26, 2024

A07-2304 E1.1.dwg
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ELECTRICAL PLANS

PLUMBING PIPING LEGEND

SYMBOL	DESCRIPTION
	SANITARY SEWER (SS)
	SANITARY SEWER (SS) BELOW GRADE
	SANITARY VENT (SV)
	DOMESTIC COLD WATER SUPPLY
	DOMESTIC HOT WATER SUPPLY
	DOMESTIC WATER BELOW FLOOR
A	COMPRESSED AIR
NG	NATURAL GAS
	GATE VALVE
	BALL VALVE
FCO	FLOOR CLEAN OUT
WCO	WALL CLEAN OUT
VTR	VENT THROUGH ROOF
FD	FLOOR DRAIN
A.F.F.	ABV. FINISHED FLOOR
ATP	AUTOMATIC TRAP PRIMER
(N)	NEW EQUIPMENT OR LINES
(E)	EXISTING EQUIPMENT OR LINES
U.G.	UNDER GROUND
R.D.	ROOF DRAIN

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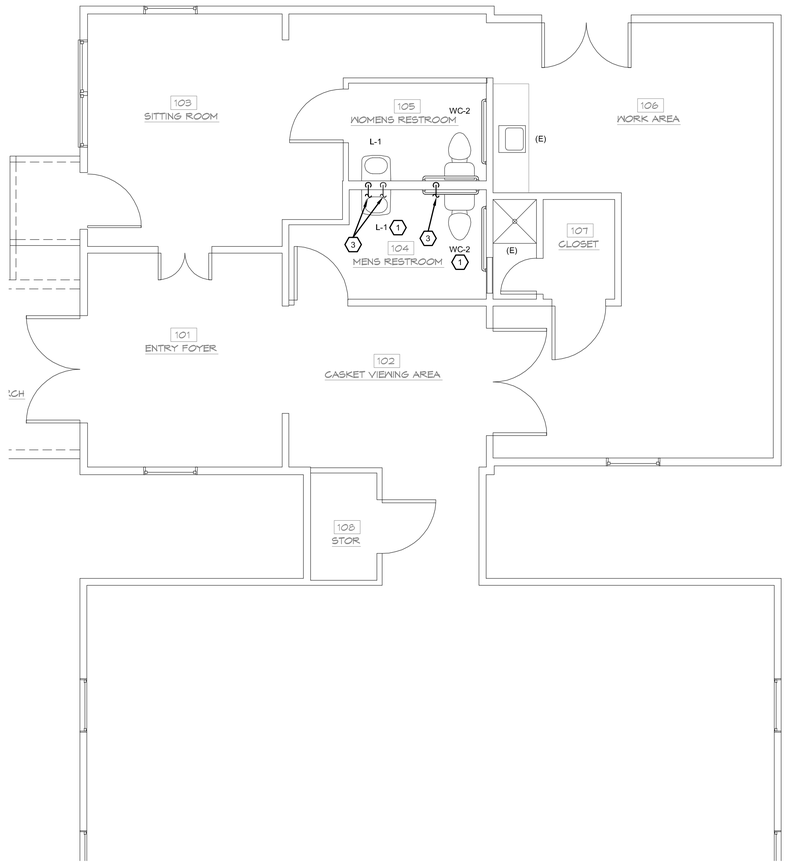
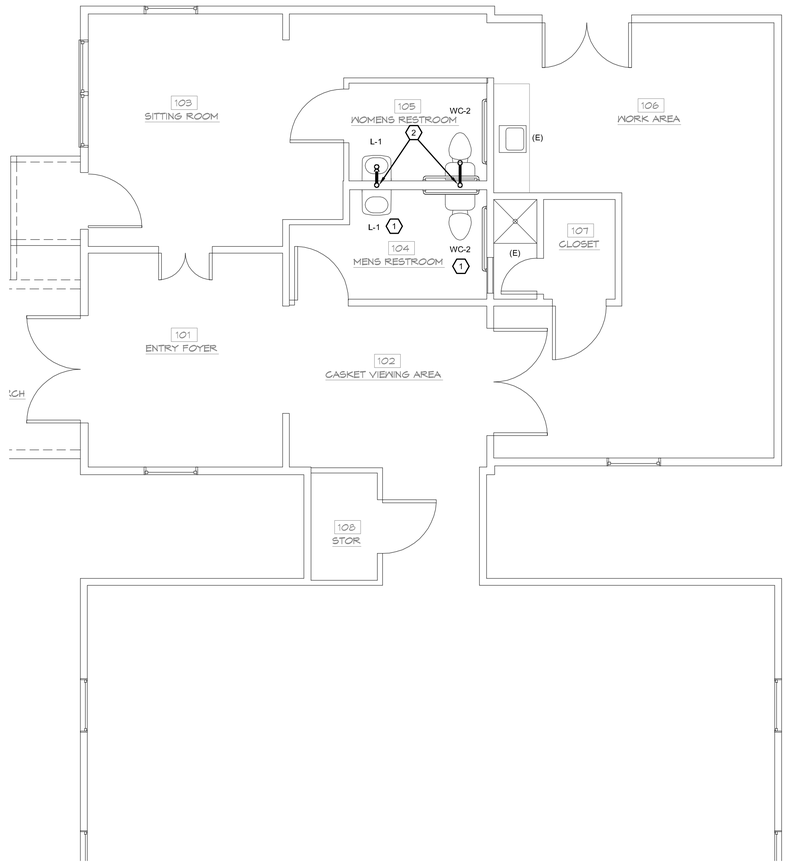


A DWV PLAN
SCALE: 1/4"=1'-0"



A DWV PLAN
SCALE: 1/4"=1'-0"

PLUMBING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	MINIMUM CONNECTION SIZES					SPECIFICATIONS
		TRAP	WASTE	VENT	CW	HW	
WC-2	FLOOR MOUNTED TANK TYPE ADA WATER CLOSET	"	4"	2"	1/2"	"	ADA HEIGHT FLOOR MOUNTED TANK TYPE, VITREOUS CHINA, SIPHON JET CLOSET COMBINATION, ELONGATED BOWL, CLOSE COUPLED, SHELF TOP TANK COMPLETE WITH ANTI-SIPHON FLOAT VALVE AND FLUSH VALVE UNIT, QUIET FLUSHING ACTION, 12-INCH ROUGHIN. NOTE: TRIP LEVER TO PROTRUDE TO WIDE SIDE OF STALL. SEAT TO BE WHITE SOLID PLASTIC, ELONGATED, STAINLESS STEEL HINGE POSTS, OPEN FRONT WITH HEAVY DUTY CHECK HINGE, NO COVER. SUPPLIES TO BE CHROME-PLATED ANGLE SUPPLY WITH 3/8 INCH O.D. X 12 INCH FLEXIBLE RISER AND 1/2 INCH I.P.S. X 3/8 INCH O.D. LOOSE KEY STOP, AND CHROME-PLATED ESCUTCHEON. WATER CLOSET: KOHLER "HIGHLINE" #K-3658 (LEFT HAND TRIP LEVER) OR #K-3658-RA (RIGHT HAND TRIP LEVER). AMERICAN STANDARD, ZURN Z5562 SEAT NO: BENEKE #533 , KOHLER #4670-C, CHURCH #295C SUPPLIES: EL-JER, KOHLER, MCGUIRE. NOTE: WATER CLOSET TO BE INSTALLED AS PER ACCESSIBILITY REQUIREMENTS.
L-1	WALL HUNG LAVATORY	1 1/4"	2"	2"	1/2"	1/2"	VITREOUS CHINA, 20" X 18" WALL-HUNG LAVATORY WITH 4" BACK PROVIDED WITH CONCEALED ARM CARRIER AND FAUCET HOLES ON 4" CENTERS. FAUCET TO BE LAVATORY FAUCET WITH OPEN GRID STRAINER, AND LEVER HANDLES APPROVED FOR AN ADA INSTALLATION. SUPPLIES TO BE 3/8" I.P.S. WALL SUPPLY WITH LOOSE KEY STOP AND CHROME PLATED FLEXIBLE RISERS. ALL LAVATORIES ARE TO BE ACCESSIBLE AND ARE TO BE FURNISHED WITH P-TRAP COVERS, AND VALVE/SUPPLY COVERS AS MANUFACTURED BY PLUMBEREX OR EQUAL. LAVATORY: KOHLER "KINGSTON #K-2005, AMERICAN STANDARD "LUCERNE" #0356.028.020, ZURN Z5344 FAUCET NO: KOHLER #K-7404-K/K-16010-4 OR ZURN Z81101-XL SUPPLIES: KOHLER, MCGUIRE, ZURN P-TRAP: SEMI CAST BRASS MCGUIRE, ZURN OR EQUAL. NOTE LAVATORY, FAUCET, ETC. INSTALLATION MUST MEET ACCESSIBILITY REQUIREMENTS.

NOTES:

1. CONNECT NEW FIXTURE TO EXISTING UTILITIES (SS, VENT AND DOM WTR) FROM DEMO'ED FIXTURE
2. CONNECT NEW SS AND VENT PIPING TO EXISTING PIPING THIS APPROXIMATE LOCATION. SAW CUT AND REPAIR SLAB AS NECESSARY
3. CONNECT NEW CWS/HWS PIPING TO EXISTING PIPING THIS APPROXIMATE LOCATION

FOR CONSTRUCTION

1/2" 0" 1" 2"
SCALE IN INCHES

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1 CITY COMMENTS 01-26-2024

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