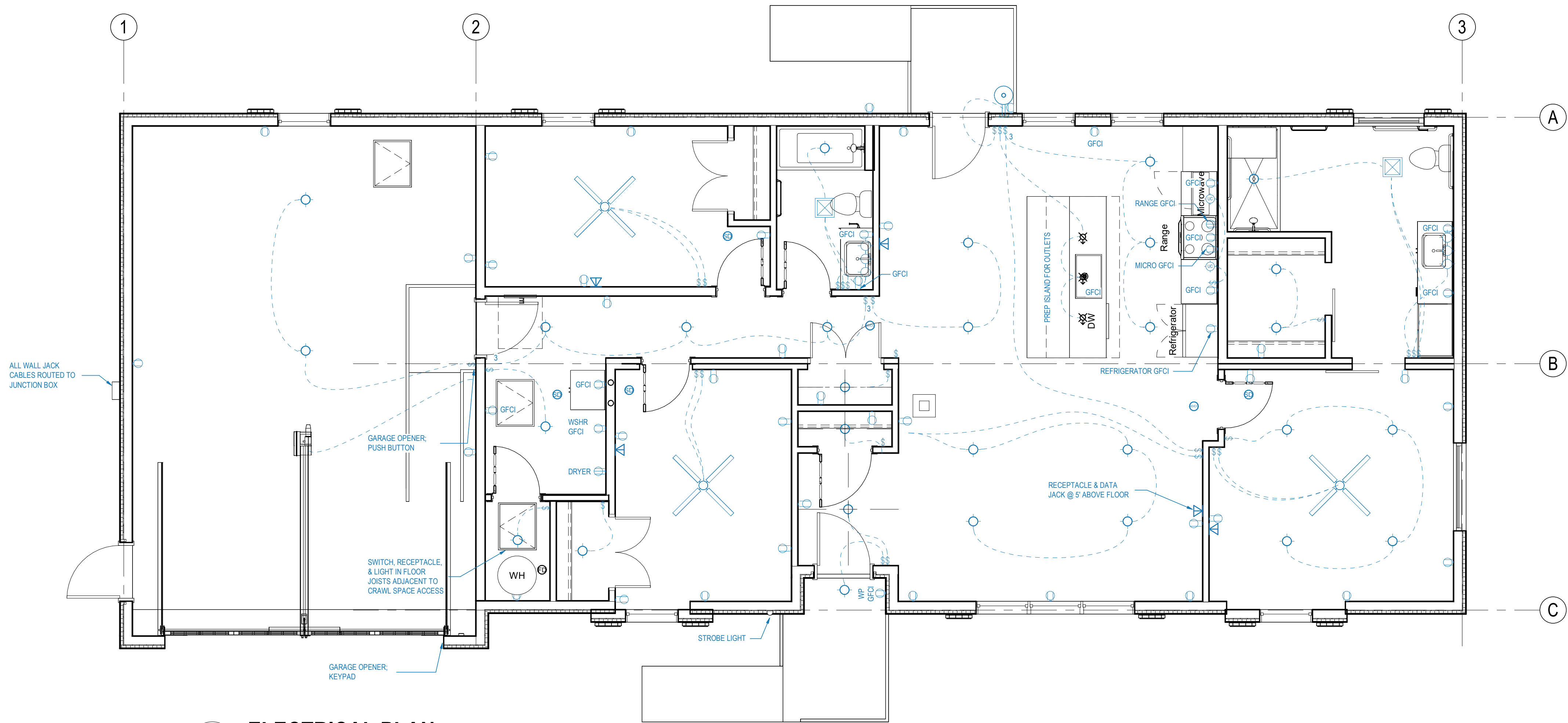


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A1
E101D

ELECTRICAL PLAN

1/4" = 1'-0"

**PRELIMINARY
NOT FOR
CONSTRUCTION**

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

A/E: FIRM
PRIME:
STANTEC
CHEYENNE, WY

DESIGNED:
JC
CADD:
BB/PS/AS
TECH. REVIEW:
LF
DATE:
06/18/2026

SUB SHEET NO.
E101D

TITLE OF SHEET
**3BR ABA ELECTRICAL
PLAN**

YELLOWSTONE NATIONAL PARK

DRAWING NO.
101
198433
PMIS/PKG NO.
326141
SHEET
86 OF **94**

GENERAL NOTES

ABBREVIATIONS

VI. REINFORCING STEEL 1. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60. 2. REINFORCING STEEL FOR CAST-IN-PLACE NONPRESTRESSED CONCRETE MEMBERS SHALL HAVE THE FOLLOWING CONCRETE COVER. SEE ACI 117 FOR TOLERANCES. A. CONCRETE EXPOSED TO EARTH OR IN CONTACT WITH GROUND: a. CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH 3" b. EXPOSED TO WEATHER OR IN CONTACT WITH EARTH (#5 AND SMALLER) 1-1/2" c. EXPOSED TO WEATHER OR IN CONTACT WITH EARTH (#6 AND LARGER) 2" B. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: a. SLABS, JOISTS AND WALLS (#11 AND SMALLER) 3/4" b. SLABS, JOISTS AND WALLS (#14 AND LARGER) 1-1/2" c. BEAMS, COLUMNS AND PEDESTALS 1-1/2" 3. BAR SPLICES MAY BE DELETED AND CONTINUOUS REINFORCING USED AT CONTRACTORS OPTION. BAR SPLICES SHALL BE MADE AT POINTS OF MINIMUM STRESS. IN FRAMED BEAMS AND SLABS SPlice TOP BARS AT MID-SPAN. BOTTOM BARS OVER SUPPORTS. 4. STEEL REINFORCEMENT SHOP DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR IN ACCORDANCE WITH ACI 315: "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT", AND SHALL INDICATE: A. MATERIAL AND GRADE B. BAR SCHEDULES WITH BAR LENGTHS AND BENT BAR DIAGRAMS C. ARRANGEMENT, SPACING, COVER, LAP LOCATIONS AND LENGTHS D. SPLICE DETAILS FOR MECHANICAL SPLICES E. SUPPORTS FOR CONCRETE REINFORCEMENT F. SPECIAL REINFORCEMENT AT OPENINGS 5. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH ACI 318 AND THE "MANUAL OF STANDARD PRACTICE" BY CRSI AS MODIFIED BY THE CONTRACT DOCUMENTS. 6. FIELD BENDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT SEOR APPROVAL. ALL REINFORCING BENDS SHALL BE MADE COLD. 7. WHEN MULTIPLE GRADES OF REINFORCEMENT ARE USED, MARK ALL BARS SO IDENTIFICATION CAN BE MADE DURING IN-PLACE INSPECTION. 8. WELDED REINFORCING STEEL SHALL COMPLY WITH ASTM A706, GRADE 60. REINFORCEMENT SHALL ONLY BE WELDED WHERE SPECIFICALLY NOTED ON THE DRAWINGS. WELDING SHALL CONFORM TO AWS D1.4 USING E90XX ELECTRODES. 9. WELDED WIRE REINFORCEMENT (WWR) SHALL CONFORM TO ASTM A1064 (PLAIN & DEFORMED WIRE). F_y = 70 000PSI. LAP WELDED WIRE REINFORCEMENT BY 6" OR ONE AND A HALF FULL MESHES, WHICHEVER IS GREATER. 10. EPOXY COATED REINFORCEMENT (ASTM A775 (STRAIGHT BARS), ASTM A934 (BENT BARS)) SHALL BE USED WHERE PERMANENTLY EXPOSED TO WATER, DEICING SALTS AND WHERE NOTED IN THE CONTRACT DOCUMENTS. 11. SPECIAL CONCRETE MOMENT FRAMES AND BOUNDARY ZONES IN SPECIAL CONCRETE SHEAR WALLS: ACTUAL YIELD STRENGTH BASED ON MILL TESTS SHALL NOT EXCEED SPECIFIED STRENGTH BY MORE THAN 18 ksi (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN 3 ksi). THE RATIO OF ACTUAL ULTIMATE TENSILE STRESS TO ACTUAL YIELD STRENGTH SHALL NOT BE LESS THAN 1.25. VI. ANCHOR ROD 1. ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 WITH CLASS 1A THREADS, UNLESS NOTED OTHERWISE. FURNISH ANCHOR RODS PREFABRICATED WITH MATCHING DOUBLE HEAVY HEX NUTS JAMMED AT THE END EMBEDDED IN CONCRETE. FURNISH HARDENED PLATE WASHERS, LOCK WASHERS, AND MATCHING HEAVY HEX NUTS FOR SECURING THE BASE PLATE TO THE ANCHOR RODS. A RIGID STEEL TEMPLATE SHALL BE USED TO LOCATE ANCHOR RODS WHILE PLACING CONCRETE. 2. HOOKED ANCHOR RODS SHALL NOT BE USED EXCEPT WHERE NOTED. 3. ANCHOR RODS SHALL HAVE SUFFICIENT LENGTH TO PROVIDE THE MINIMUM EMBEDMENT SHOWN ON THE DRAWINGS, MEASURED FROM THE FACE OF THE CONCRETE TO THE NEAR FACE OF THE DOUBLE NUT, WITH ADEQUATE EXTENSION AS REQUIRED TO RECEIVE THE BASE PLATE WITH FULL THREAD PROJECTION FOR NUT INSTALLATION. 4. ANCHOR ROD INSTALLATION SHALL BE COORDINATED WITH REINFORCING AND FRAMEWORK. 5. LEVELING NUTS SHALL NOT BE USED EXCEPT AFTER EVALUATION BY THE CONTRACTOR'S ERECTION ENGINEER. 6. AFTER BASE INSTALLATION, ANCHOR ROD NUTS SHALL BE INSTALLED TO A SNUG-TIGHT CONDITION. 7. NO HEATING OR BENDING OF THE ANCHOR RODS IS PERMITTED. HOLES IN THE BASE MATERIAL SHALL NOT BE ENLARGED BY BURNING.	IV. REINFORCED CONCRETE 1. CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318 AND ACI 301 WITH MODIFICATIONS AS NOTED ON THE CONTRACT DOCUMENTS. 2. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND BEAR THE WET SEAL OF A CIVIL ENGINEER LICENSED IN THE STATE OF THE PROJECT AND BE PROVIDED TO THE SEOR FOR REVIEW. EACH MIX DESIGN SHALL BEAR THE NAME OF THE PROJECT AND THE SPECIFIC USE. 3. CONCRETE MODULUS OF ELASTICITY SHALL MEET THE MINIMUM PROVIDED IN ACI 318 SECTION 19.2.2 FOR THE 28-DAY STRENGTH SPECIFIED BELOW. TEST SHALL BE IN ACCORDANCE WITH ASTM C469. 4. CONCRETE SHALL HAVE THE FOLLOWING ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS. A. LOCATION STRENGTH, f_c CONCRETE TYPE B. SLAB ON GRADE 4,500 PSI NORMAL WEIGHT C. FOUNDATIONS 4,000 PSI NORMAL WEIGHT D. ALL LOCATIONS UON 3,000 PSI NORMAL WEIGHT 5. PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II. CONCRETE EXPOSED TO SOILS CONTAINING CORROSIVE ELEMENTS (SULFATES) SHALL COMPLY WITH IBC 1904.1. 6. FLY ASH MAY BE USED AS A SUBSTITUTE FOR PORTLAND CEMENT. WEIGHT OF FLY ASH SHALL NOT EXCEED 15% OF CEMENT WEIGHT. FLY ASH SHALL CONFORM TO ASTM C618 CLASS F AND LOSS OF IGNITION SHALL BE LIMITED TO 2%. 7. MIXING OPERATIONS SHALL CONFORM TO ASTM C94. 8. ALL CONCRETE NOT IN CONTACT WITH EARTH TO HAVE FINISH AS SPECIFIED BY ARCHITECT OR AS COVERED IN PROJECT SPECIFICATIONS. UNLESS OTHERWISE NOTED, NON-ARCHITECTURAL CONCRETE COLUMNS AND WALLS SHALL HAVE 3/4" CHAMFERED CORNERS. 9. AGGREGATE FOR NORMALWEIGHT CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C33 AND PROJECT SPECIFICATIONS 10. LIGHTWEIGHT CONCRETE SHALL HAVE AN AIR-DRY UNIT WEIGHT OF NOT MORE THAN 115 PCF AND NOT LESS THAN 110 PCF (UNLESS HIGH VOLUME FLY ASH CONCRETE USED). LIGHTWEIGHT AGGREGATE SHALL CONFORM TO ASTM C330. TEST SHRINKAGE IN ACCORDANCE WITH ASTM C157. SHRINKAGE SHALL NOT EXCEED 0.0005 INCHES/INCH. 11. ALL CONCRETE SHALL BE REINFORCED. PROVIDE MINIMUM TEMPERATURE REINFORCEMENT AS REQUIRED BY ACI-318 IN ELEMENTS WHERE NO REINFORCEMENT IS INDICATED ON THE DRAWINGS. 12. DRY PACK OR GROUT UNDER BASE PLATES AND SILL PLATES SHALL BE 7000 PSI MIN AT 28 DAYS. 13. CONCRETE PLACEMENT SHALL CONFORM TO ACI 304 AND PROJECT SPECIFICATIONS. SANDBLAST ALL CONCRETE SURFACES WHICH NEW CONCRETE WILL BE PLACED AGAINST. 14. TWO HOURS MUST ELAPSE BETWEEN END OF COLUMN OR WALL POURS AND THE BEGINNING OF FLOOR POURS. 15. MACROSYNTHETIC FIBERS SHALL CONFORM TO ASTM D7508. 16. ALL REINFORCEMENT, ANCHOR BOLTS AND OTHER EMBEDDED ITEMS SHALL BE SECURELY HELD IN PLACE WHILE CONCRETE IS POURED. ADDITIONAL BARS TO BE PROVIDED BY THE CONTRACTOR FOR SUPPORT AS NEEDED. 17. MECHANICAL, ELECTRICAL AND PLUMBING OPENINGS AND SLEEVES ARE SHOWN INDICATIVELY AND SMALL OPENINGS AND SLEEVES ARE NOT SHOWN. SEE SLAB EDGE, MECHANICAL, ELECTRICAL, PLUMBING AND OTHER TRADES FOR SIZE AND LOCATION OF ALL SLAB AND WALL OPENINGS AND SLEEVES. CONTRACTOR TO DEVELOP AND SUBMIT A SINGLE COORDINATION DRAWING COMBINING ALL TRADES INDICATING ALL SLAB OPENINGS AND SLEEVES PRIOR TO POURING CONCRETE FOR REVIEW BY STRUCTURAL ENGINEER. 18. ALL PIPE AND CONDUIT OPENINGS SHALL BE SLEEVED AND CAST IN PLACE UNLESS OTHERWISE NOTED. DO NOT SAWCUT, CORE OR CORE DRILL STRUCTURAL CONCRETE WITHOUT EXPLICIT DIRECTION FROM THE STRUCTURAL ENGINEER. DRILL BITS THAT CAN CUT OR DAMAGE REINFORCING ARE NOT PERMITTED TO BE USED ON STRUCTURAL CONCRETE. 19. CONDUITS AND PIPES SHALL NOT BE PERMITTED IN STRUCTURAL CONCRETE ELEMENTS UNLESS SPECIFICALLY REVIEWED BY THE STRUCTURAL ENGINEER. ALL CONDUITS TO BE EMBEDDED IN THE STRUCTURAL CONCRETE SHALL BE SUBMITTED FOR STRUCTURAL REVIEW ON A SINGLE COORDINATED CONDUIT DRAWING COMBINING ALL TRADES DEVELOPED AND COORDINATED BY THE CONTRACTOR. COORDINATED CONDUITS/PIPES MUST BE PLACED IN ONE LAYER AVOIDING CROSSOVER AND SPACED AT THE GREATER OF 3" OR 3 DIAMETERS. DRAWINGS SHALL SHOW STUB-UP LOCATIONS, BEND RADIUS AND DETAILS OF CONDUIT/PIPE INSTALLATION. ALL CONDUITS AND PIPES SHALL BE INSTALLED PER THE REQUIREMENTS OF ACI 318 SECTIONS 20.7 AND 26.8.2. A. ELECTRICAL CONDUIT SHALL BE RIGID STEEL CONDUIT OR FLEXIBLE PLASTIC CONDUIT. ALUMINUM CONDUIT IS PROHIBITED. CONDUIT OUTSIDE DIAMETER SHALL NOT EXCEED 2" OR 1/6 SLAB THICKNESS, WHICHEVER IS LESSER. CONDUIT SHALL BE FIRMLY CHAIRED AND TIED TO PREVENT DISPLACEMENT DURING POURING. B. FOR CONDUIT PLACED IN SLABS ON STEEL DECKING, CONDUIT SHALL RUN IN THE STEEL DECK FLUTES PER THE TYPICAL CONDUIT IN SLAB ON STEEL DECK DETAIL. 20. FOR CONCRETE SLABS-ON-GRADE, A BASE OF STRUCTURAL FILL OR NON-FROST-SUSCEPTIBLE SOILS SHALL EXTEND DEEPER THAN THE FROST DEPTH. A VAPOR BARRIER IS TO BE PLACED BENEATH THE SLAB. V. CONCRETE JOINTS 1. CONSTRUCTION JOINTS SHALL BE INSTALLED SUCH THAT STRENGTH AND APPEARANCE OF CONCRETE ARE NOT IMPAIRED. AT LOCATIONS INDICATED OR AS APPROVED BY THE ARCHITECT. SEE PROJECT SPECIFICATIONS FOR LIMITS ON LOCATION AND SPACING. A. LOCATE JOINTS FOR BEAMS, SUSPENDED SLABS, JOISTS AND GIRDERS IN THE MIDDLE THIRD OF SPANS. OFFSET JOINTS IN GIRDERS A MINIMUM DISTANCE OF TWICE THE BEAM WIDTH FROM A BEAM-GIRDER INTERSECTION. B. LOCATE HORIZONTAL JOINTS IN WALLS AND COLUMNS AT THE UNDERSIDE OF FLOORS, SLABS, BEAMS, AND GIRDERS AND AT THE TOP OF FOOTINGS OR FLOOR SLABS, OR AT 40-FEET MAXIMUM HEIGHT, UNLESS PERMITTED BY ENGINEER. C. LOCATE VERTICAL JOINTS IN WALLS AT DISCONTINUITIES, BESIDES PILES INTEGRAL WITH WALLS, NEAR REENTRANT CORNERS, AND IN CONCEALED LOCATIONS WHERE POSSIBLE. PREFERRED JOINT INTERVALS SHALL BE 15-25 FEET AS APPROPRIATE, WITH A MAXIMUM SPACING OF 30-FEET. AVOID LOCATING VERTICAL JOINTS WITHIN 15-FEET OF A BUILDING CORNER. D. LAYOUT OF CONSTRUCTION JOINTS IN SLABS ON GRADE MAY CORRESPOND WITH CONTRACTION JOINTS. LEAVE 7 DAYS, MINIMUM, BETWEEN ADJACENT POURS IN WALLS, UNLESS APPROVED BY ENGINEER. 2. SLAB ON GRADE CONTRACTION JOINTS SHALL BE PROVIDED TO CONTROL THE CRACKING PATTERNS AT LOCATIONS INDICATED, OR AS APPROVED BY THE ARCHITECT. 3. LOCATE JOINTS AT COLUMN LINES WHERE APPLICABLE, WITH SPACING NOT TO EXCEED 15-FEET AND RATIO OF LONG TO SHORT SIDE OR POUR NOT TO EXCEED 1.5. MAXIMUM RECTANGULAR SLAB AREA CONTROLLED BY JOINTING NOT TO EXCEED 225 SQUARE-FEET. CONTRACTOR OPTION TO FORM EITHER SAWCUT OR TOOLED JOINTS. 4. WALL CONTRACTION JOINTS SHALL BE PROVIDED TO CONTROL THE CRACKING PATTERNS AT LOCATIONS INDICATED, OR AS APPROVED BY THE ARCHITECT. A. LOCATE JOINTS AT COLUMN LINES WHERE APPLICABLE, WITH SPACING NOT TO EXCEED TWICE THE WALL HEIGHT OR 20-FEET AND PREFERABLY MATCHES LAYOUT OF SLAB JOINTING. B. FORM CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF CONCRETE WALL THICKNESS BY ATTACHING 1/2"-WIDE BEVELED WOOD STRIPS TO INSIDE OF BOTH SIDES OF CONCRETE FORM.
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GENERAL NOTES

VIII. DEFERRED STRUCTURAL SUBMITTALS

1. SOME STRUCTURAL SYSTEMS ARE DEFINED AS VENDOR-DESIGNED COMPONENTS PER THE STRUCTURAL DOCUMENTS. THESE ELEMENTS OF THE DESIGN ARE DEFERRED SUBMITTAL COMPONENTS AND HAVE NOT BEEN PERMITTED UNDER THE BASE BUILDING APPLICATION. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT THE STAMPED COMPONENT SYSTEM DOCUMENTS TO THE BUILDING OFFICIAL FOR APPROVAL.
2. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT, WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATION THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
3. SUBMITTALS TO BE PREPARED BY A LICENSED ENGINEER LAWFULLY ELIGIBLE TO DESIGN THE ELEMENT OR COMPONENT (SPECIALTY ENGINEER) AND SHALL BE SEALED IN ACCORDANCE WITH STATE LAW. SUBMITTALS SHALL INCLUDE:

A. CALCULATIONS

B. DIAGRAMS SHOWING LOADS APPLIED TO THE PRIMARY STRUCTURE INCLUDING MAGNITUDES, LOCATIONS, AND DIRECTIONS, SEPARATED INTO DEAD, LIVE, WIND AND/OR SEISMIC COMPONENTS.

C. ERECTION OR DESIGN DRAWINGS AS NECESSARY TO DESCRIBE THE SYSTEM OR COMPONENT AND ITS CONNECTION TO THE PRIMARY STRUCTURE.
4. SUBMIT (1) REPRODUCIBLE COPY, (1) SET SEALED COPY FOR THE SEOR'S FILE, AND ADDITIONAL COPIES AS NECESSARY FOR THE BUILDING DEPARTMENT. SUBMITTALS CONTAINING EXCEPTIONS, CORRECTIONS, OR OTHER REVIEW COMMENTS ARE NOT ACCEPTABLE FOR SUBMITTAL TO THE BUILDING DEPARTMENT.
5. THE SEOR'S REVIEW IS STRICTLY LIMITED TO THE FOLLOWING:

A. DRAWINGS AND CALCULATIONS ARE PROPERLY SEALED.

B. LOAD CRITERIA IS CONSISTENT WITH CONTRACT DOCUMENTS.

C. CONNECTIONS TO THE PRIMARY STRUCTURE ARE CONSISTENT WITH THE PRIMARY STRUCTURE DESIGN

D. THE BASE STRUCTURE IS CAPABLE OF SUPPORTING IMPOSED LOADS.
6. THE SPECIALTY ENGINEER'S SEAL WILL CERTIFY THAT THE ITEMS DESIGNED BY THE SPECIALTY ENGINEER CONFORM TO THE CRITERIA WITHIN THE CONTRACT DOCUMENTS AND ALL APPLICABLE CODES AND STANDARDS.
7. IF THE LOADS IMPOSED ON THE STRUCTURE EXCEED THE CRITERIA WITHIN THE CONTRACT DOCUMENTS THE SUBMITTALS WILL BE REJECTED. CHANGES TO THE PRIMARY STRUCTURE TO ACCOMMODATE SPECIALTY ITEMS WILL ONLY BE MADE AT COST AFTER.
8. THE FOLLOWING LIST INCLUDES THE ITEMS THAT ARE DEFINED AS DEFERRED STRUCTURAL SUBMITTAL COMPONENTS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND CIVIL DRAWINGS FOR ADDITIONAL DEFERRED SUBMITTAL COMPONENTS.

A. ENGINEERED METAL BUILDING

IX. STRUCTURAL LUMBER:

1. ALL STRUCTURAL SAWN LUMBER SHALL BE DOUGLAS FIR LARCH AS GRADED BY THE WWPA OR WCLUB WITH THE FOLLOWING MINIMUM GRADES, UNLESS NOTED OTHERWISE:

A. 2X OR 3X STUDS: NO. 2

B. 4X AND LARGER POSTS OR STUDS: NO. 1

C. 2X OR 3X JOISTS: NO. 2

D. 4X AND LARGER BEAMS OR JOISTS, CONCEALED: NO. 1

E. 4X AND LARGER BEAMS OR JOISTS, EXPOSED: SELECT STRUCTURAL
2. ALL STRUCTURAL COMPOSITE LUMBER (SCL) OR ENGINEERED LUMBER SHALL BE AS FOLLOWS:

A. I-JOISTS: TJI JOISTS MANUFACTURED BY WEYERHAUSER (ESR-1153)

B. LSL: TIMBERSTRAND LSL MANUFACTURED BY WEYERHAUSER (ESR-1387)

C. LVL: MICROLAM LVL (2.0E) MANUFACTURED BY WEYERHAUSER (ESR-1387)

D. PSL: PARALLAM PSL (2.0E) MANUFACTURED BY WEYERHAUSER (ESR-1387)

E. SUBSTITUTION OF PRODUCTS LISTED ABOVE SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL.
3. STRUCTURAL GLUE LAMINATED TIMBER (GLT):

A. GLT FABRICATION SHALL BE PERFORMED IN AN APPROVED FABRICATORS SHOP IN ACCORDANCE WITH CBC 2303.1.3, ANSI/APC A190.1 AND ASTM D3737.

B. GLT BEAMS SHALL BE 24F-V8 WITH A CAMBER OF R=1600' UNLESS NOTED OTHERWISE.

C. GLT EXPOSED TO WEATHER SHALL BE RATED FOR EXTERIOR USE BY THE MANUFACTURER. FLASHING AND WATERPROOFING OF THE EXPOSED ENDS SHALL BE PROVIDED BY THE CONTRACTOR TO PREVENT DECAY.

D. ALL GLT MEMBERS SHALL HAVE APPEARANCE CLASSIFICATION AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS.
4. ALL STRUCTURAL TIMBER FRAMING SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% AT THE TIME OF ENCLOSURE, REGARDLESS OF THE MOISTURE CONTENT AT THE TIME OF MANUFACTURE. TIMBER FLOOR FRAMING, INCLUDING JOISTS AND BEAMS, WITH MORE THAN 2 FRAMED LEVELS ABOVE THEM SHALL BE DESIGNATED AS 'S-DRY' OR 'MC15' AND HAVE A MAXIMUM MOISTURE CONTENT OF 15% AT THE TIME OF ENCLOSURE.
5. CONTRACTOR SHALL PROVIDE AT LEAST THREE RANDOM MOISTURE READINGS PERFORMED AT WALL AND FLOOR FRAMING IN THE PRESENCE OF THE BUILDING INSPECTOR PRIOR TO APPROVAL TO ENCLOSURE TO VERIFY IN SERVICE MOISTURE CONTENT TO SATISFY THE REQUIREMENTS ABOVE.
6. ALL LUMBER LOCATED IN DIRECT CONTACT WITH CONCRETE OR MASONRY INCLUDING BUT NOT LIMITED TO SILL PLATES, NAILERS, AND LEDGERS SHALL BE PRESSURE TREATED DOUGLAS FIR.
7. ALL HARDWARE SHALL BE SIMPSON STRONG-TIE CO INSTALLED PER MANUFACTURERS RECOMMENDATIONS. SUBSTITUTION OF EQUIVALENT HARDWARE FROM AN ALTERNATE MANUFACTURER SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
8. MINIMUM FASTENING AND NAILING OF TIMBER COMPONENTS SHALL BE IN ACCORDANCE WITH IBC TABLE 2304.10.1.
9. FASTENERS SHALL BE PROVIDED NEW AND WITHOUT EXCESSIVE RUST. ALL FASTENERS EXPOSED TO WEATHER SHALL BE GALVANIZED.
10. ALL METAL FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED LUMBER SHALL BE STAINLESS STEEL OR OTHERWISE CERTIFIED BY THE MANUFACTURER TO RESIST CORROSION CAUSED BY THE SPECIFIC TREATMENT APPLIED TO THE WOOD.
11. NAILS:

A. ALL NAILS SHALL BE COMMON WIRE NAILS UNLESS NOTED OTHERWISE

B. MINIMUM NAIL PENETRATION SHALL BE 10 TIMES THE SHANK DIAMETER UNLESS NOTED OTHERWISE.

C. EDGE DISTANCES, END DISTANCES, AND FASTENER SPACINGS SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD.

D. BORED PILOT HOLES SHALL BE PERMITTED FOR ALL NAILS TO HELP PREVENT WOOD FROM SPLITTING. BORED HOLES SHALL BE MANDATORY FOR 20d AND LARGER NAILS. WHEN UTILIZED BORED HOLES SHALL HAVE A DIAMETER NOT EXCEEDING 75% OF THE NAIL DIAMETER.

E. TOE NAILS SHALL BE DRIVEN AT AN ANGLE OF APPROXIMATELY 30 DEGREES WITH THE MEMBER AND STARTED APPROXIMATELY 1/3 THE LENGTH OF THE FASTENER FROM THE MEMBER END.

IX. STRUCTURAL LUMBER - CONT.:

12. WOOD SCREWS:

A. WOOD SCREWS SHALL MEET THE DIMENSIONAL STANDARDS OF ANSI/ASME B18.6.1.

B. MINIMUM SCREW PENETRATION SHALL BE 10 TIMES THE SCREW DIAMETER UNLESS NOTED OTHERWISE.

C. EDGE DISTANCES, END DISTANCES, AND FASTENER SPACINGS SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD.

D. BORED LEAD HOLES SHALL BE PROVIDED WITH A DIAMETER EQUAL TO APPROXIMATELY 7/8 OF THE SCREW ROOT DIAMETER.

E. WOOD SCREWS SHALL BE TURNED, NOT DRIVEN INTO PLACE. SOAP OR OTHER LUBRICANTS MAY BE PROVIDED TO FACILITATE INSERTION AND TO PREVENT DAMAGE TO THE SCREWS.
13. BOLTS AND LAG SCREWS:

A. BOLTS AND LAG SCREWS SHALL CONFORM TO ASTM A307 AND MEET THE DIMENSIONAL STANDARDS OF ANSI/ASME B18.2.1.

B. HOLES FOR BOLTS SHALL BE A MINIMUM 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER.

C. BOLTS SHALL BE ACCURATELY ALIGNED IN MAIN MEMBERS AND SIDE PLATES. BOLTS SHALL NOT BE FORCIBLY DRIVEN INTO PLACE.

D. BORED LEAD HOLES FOR LAG SCREWS SHALL BE 40-70% OF THE SHANK DIAMETER AT THE THREADED PORTION OF THE SCREW, AND THE SAME DIAMETER AS THE SHANK AT THE SHANK.

E. LAG SCREWS SHALL BE TURNED, NOT DRIVEN INTO PLACE.

F. ALL BOLTS, NUTS, AND LAG SCREWS SHALL BE PROVIDED WITH FLAT OR MALLEABLE WASHERS WHERE BEARING AGAINST DIRECTLY AGAINST WOOD.

G. ALL BOLTS AND LAG SCREWS SHALL BE TIGHTENED UPON INSTALLATION AND RE-TIGHTENED BEFORE CLOSING IN OR AT COMPLETION OF JOB.
14. ALL BUILT UP, DOUBLE 2X BEAMS AND JOISTS SHALL BE FASTENED TOGETHER WITH 2-ROWS 10d NAILS AT 12" OC.
15. PROVIDE DOUBLE FLOOR JOISTS UNDER PARTITION WALLS RUNNING PARALLEL TO JOIST SPAN.
16. PROVIDE SOLID BLOCKING IN JOIST FRAMING ABOVE ALL SUPPORTS, BELOW PARTITION WALLS, AND AT MIDSPAN OF JOISTS SPANNING GREATER THAN 10 FEET.
17. SUPPORT ALL UPPER LEVEL POSTS AND TRIMMERS IN LOWER LEVELS WITH EQUIVALENT FRAMING AND/OR BLOCKING OR OTHERWISE FRAME POSTS THROUGH FLOOR SYSTEMS.
18. FIRE BLOCK STUD WALLS AT MID-HEIGHT WHERE STUD LENGTH EXCEEDS 10 FEET.
19. NOTCHING OR CUTTING STUDS TO CLEAR ANCHOR BOLTS IS NOT PERMITTED. STUDS SHALL HAVE FULL BEARING ON THE SILL PLATE.
20. LET-IN BRACES SHALL NOT BE USED FOR TEMPORARY BRACING ON ANY WALL FRAME. STEEL STRAPS WHICH DO NOT REQUIRE THE CUTTING OF STUDS ARE AN ACCEPTABLE ALTERNATIVE.
21. WHERE POSTS ARE SPECIFIED WITH CAPS AND/OR BASES, THE LOAD SHALL BE TRANSFERRED TO THE FOUNDATION BY VERTICAL GRAIN ONLY.
22. DO NOT CUT, BORE, COUNTERSINK OR NOTCH WOOD MEMBERS EXCEPT WHERE EXPLICITLY SHOWN IN THE DETAILS.
23. HOLD-DOWNS SHALL BE INSTALLED 1/2" MINIMUM ABOVE THE PLATE TO ALLOW FOR TIGHTENING OF THE ANCHOR BOLT. THE HOLD-DOWN SHALL BE INSTALLED TIGHT TO THE POST WITHOUT FILLERS. DO NOT BEND HOLD-DOWN ANCHORS. TIGHTEN ANCHORS PER MANUFACTURERS RECOMMENDATIONS PRIOR TO COVERING THE WALL FRAMING.

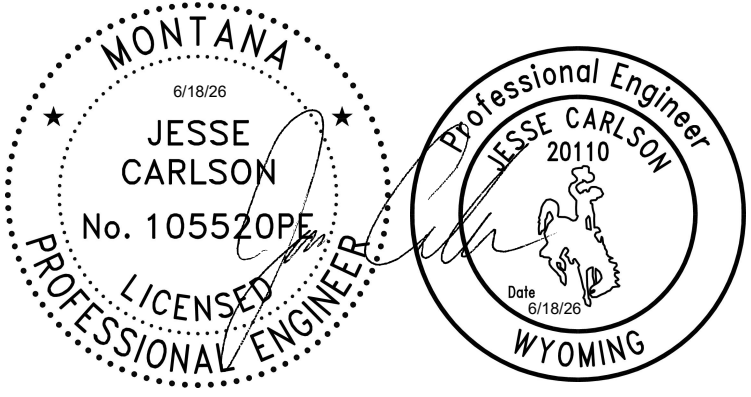
SPECIAL INSPECTION AND TEST REQUIREMENTS				
TYPE		FREQUENCY	REQUIRED INSPECTIONS AND/OR TESTS	REFERENCES CODES/STANDARDS
SOILS				IBC 1705.6
1. BEARING MATERIAL	☒	PERIODIC	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	GEOTECHNICAL REPORT
2. EXCAVATIONS	☒	PERIODIC	VERIFY EXCAVATIONS ARE EXTENDED TO THE PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	CONSTRUCTION DOCUMENTS
3. FILL MATERIALS	☒	PERIODIC	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	
4. PRIOR TO PLACEMENT OF FILL	☒	PERIODIC	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.	
5. DURING PLACEMENT OF FILL	☒	CONTINUOUS	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	

CONCRETE				IBC 1705.3
1. REINFORCEMENT	☒	PERIODIC	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	ACI 318: 20, 25.2, 25.3, 26.6.1-26.6.3 IBC 1908.4
2. ANCHORS	☒	PERIODIC	INSPECT ANCHORS CAST IN CONCRETE	ACI 318: 17.8.2
3. ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	☒	CONTINUOUS	INSPECT ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	ACI 318: 17.8.2.4
	☒	PERIODIC	INSPECT ALL OTHER MECHANICAL OR ADHESIVE ANCHORS - SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH ACI318: 17.8.2 OR OTHER QUALIFICATION PROCEDURES.	ACI 318: 17.8.2
4. DESIGN MIX	☒	PERIODIC	VERIFY USE OF REQUIRED DESIGN MIX	ACI 318:19, 26.4.3, 26.4.4 IBC 1904.1, 1904.2, 1908.2, 1908.3
5. PRIOR TO CONCRETE PLACEMENT	☒	CONTINUOUS	FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	ASTM C172, C31 IBC 1908.10
6. DURING PLACEMENT	☒	CONTINUOUS	INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	ACI318: 26.5 IBC: 1908.6,1908.7,1908.8
	☒	PERIODIC	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	ACI318: 26.5.3-26.5.5 IBC: 1908.9
7. PRESTRESSED CONCRETE	☒	CONTINUOUS	APPLICATION OF PRESTRESSING FORCES	ACI318: 26.10
	☒	CONTINUOUS	GROUTING OF BONDED PRESTRESSING TENDONS	
8. PRECAST CONCRETE	☒	PERIODIC	INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	ACI 318: 26.9
9. IN-SITU CONCRETE STRENGTH	☒	PERIODIC	VERIFY IN-SITU CONCRETE STRENGTH: • PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE • PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	ACI 318: 26.11.2
10. FORMWORK	☒	PERIODIC	INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	ACI 318: 26.11.2(b)

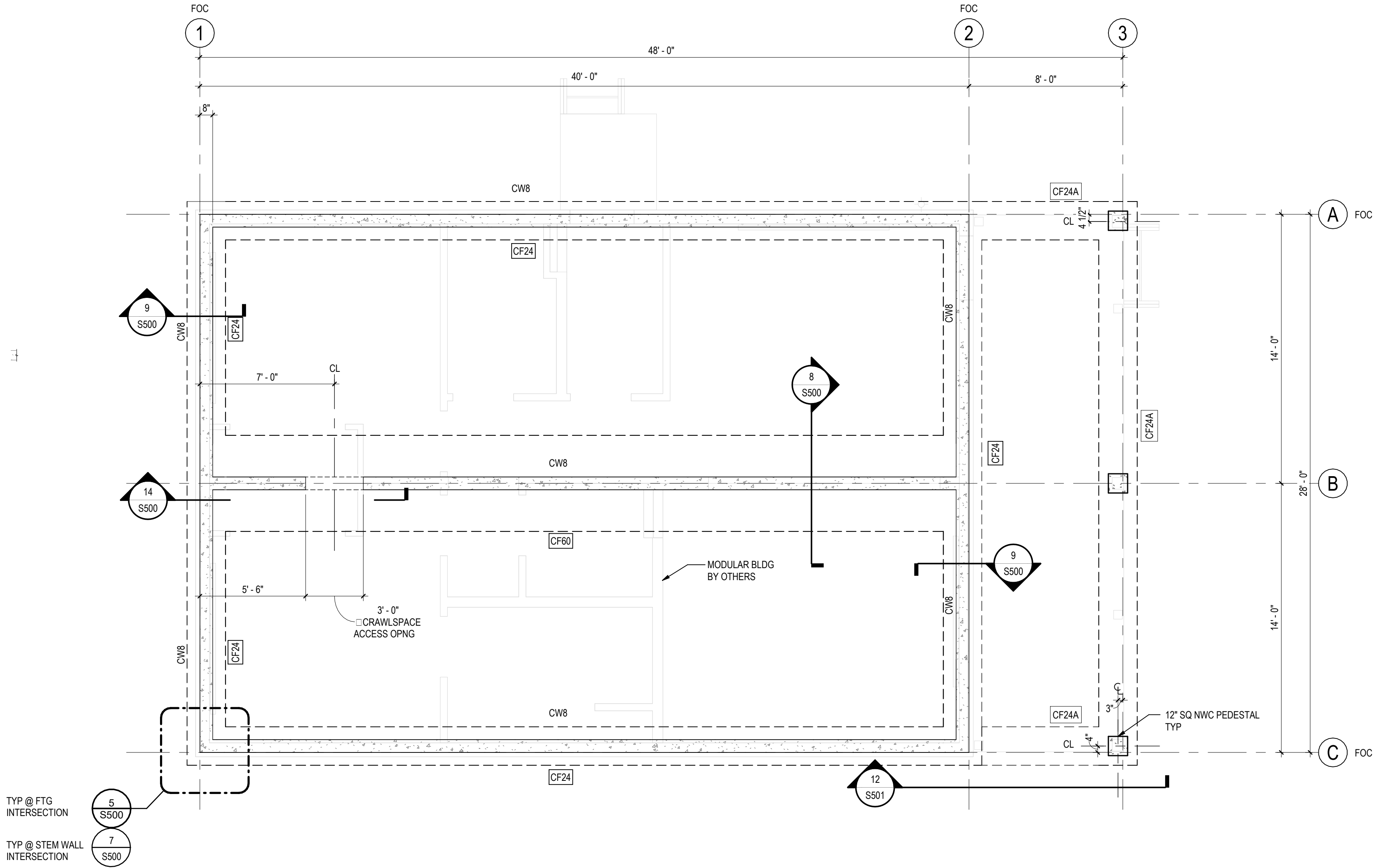
VII. ANCHOR RODS

- BY ENGINEERED BUILDING DESIGNER

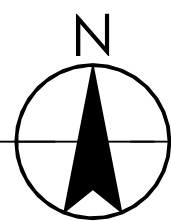
DEFINITIONS		STATEMENT OF SPECIAL INSPECTIONS
SPECIAL INSPECTION	INSPECTION OF CONSTRUCTION REQUIRING THE EXPERTISE OF AN APPROVED SPECIAL INSPECTOR IN ORDER TO ENSURE COMPLIANCE WITH THE BUILDING CODE AND THE APPROVED CONSTRUCTION DOCUMENTS.	INSPECTION AND TESTING REQUIREMENTS ON THIS SHEET ARE IN ACCORDANCE WITH SECTION 1705 OF THE INTERNATIONAL BUILDING CODE (IBC) AND HAVE BEEN IDENTIFIED AS A STATEMENT OF SPECIAL INSPECTIONS AS REQUIRED BY IBC SECTION 1704.3. THE OWNER OR THE OWNER'S AUTHORIZED AGENT, OTHER THAN THE CONTRACTOR, SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PROVIDE THE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION AS REQUIRED BY IBC SECTION 1705 AND IDENTIFY THE APPROVED AGENCIES TO THE BUILDING OFFICIAL. THESE SPECIAL INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS BY THE BUILDING OFFICIAL THAT ARE IDENTIFIED IN IBC SECTION 110. SPECIAL INSPECTORS SHALL BE QUALIFIED IN ACCORDANCE WITH IBC SECTION 1704.2.1, AND ALL OTHER APPLICABLE SECTIONS AND STANDARDS. SPECIAL INSPECTIONS AND TESTS INDICATED ON THIS SHEET ARE FOR THE STRUCTURAL WORK. SEE OTHER DISCIPLINES DRAWINGS AND SPECIFICATIONS FOR REQUIRED NONSTRUCTURAL SPECIAL INSPECTIONS AND TESTS. <u>DESIGNATED SEISMIC FORCE RESISTING SYSTEM:</u> • BY ENGINEERED METAL BUILDING ENGINEER
SPECIAL INSPECTOR	A QUALIFIED PERSON EMPLOYED OR RETAINED BY AN APPROVED AGENCY AND APPROVED BY THE BUILDING OFFICIAL AS HAVING THE COMPETENCE NECESSARY TO INSPECT A PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION.	
PERIODIC	SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF WORK.	
CONTINUOUS	SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT CONTINUOUSLY WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED	
OBSERVE	THE INSPECTOR SHALL OBSERVE THESE FUNCTIONS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING OBSERVATIONS.	
PERFORM	THESE INSPECTIONS SHALL BE PERFORMED FOR EACH CONNECTION OR MEMBER, AND COMPLETED PRIOR TO THE FINAL ACCEPTANCE OF THE ITEM.	
☒	INDICATES SPECIAL INSPECTION OF ITEM IS REQUIRED FOR THE WORK DEFINED IN THE CONSTRUCTION DOCUMENTS FOR THIS PROJECT.	



A/E: FIRM	DESIGNED: T. VHAY	SUB SHEET NO. S002	TITLE OF SHEET STRUCTURAL SPECIAL INSPECTIONS, TESTS AND GENERAL NOTES	DRAWING NO. 101
PRIME:	CADD:			198433
STANTEC CHEYENNE, WY	M. LITZINGER			PMIS/PKG NO. 326141
	TECH. REVIEW: M. PUCKETT			SHEET
	DATE: 06/18/2026			88 OF 94
			YELLOWSTONE NATIONAL PARK	



1 2 BDR FOUNDATION PLAN
1/4" = 1'-0"

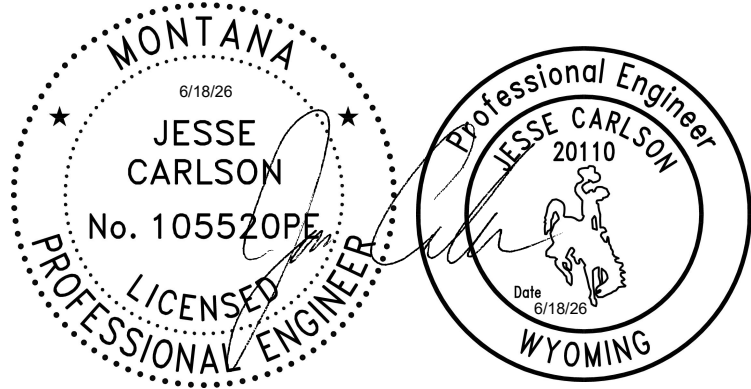


CONCRETE STEM WALL SCHEDULE			
MARK	WIDTH (IN)	REINFORCING	
		VERTICAL	HORIZONTAL
CW8	8"	#5 @ 18" OC	#5 @ 18" OC

NOTE:
1. CENTER STEM WALL ON FTG UON.

FOOTING SCHEDULE					
MARK	LENGTH (IN)	WIDTH (IN)	DEPTH (IN)	LONG. REINFORCEMENT	TRANS REINFORCEMENT
CF24	CONT	24"	12"	(2) #5 CONT TOP & BOT	#5 NONE OC
CF24A	CONT	24"	24"	(2) #5 CONT TOP & BOT	#4 TIES @ 12" OC
CF60	CONT	60"	12"	(5) #5 CONT TOP & BOT	#5 NONE OC

NOTE:
1. SEE DETAILS S/ S500, 8/ S500, 9/ S500 FOR DEFINITIONS OF LENGTH, WIDTH AND DEPTH.



A/E FIRM
PRIME:
STANTEC
CHEYENNE, WY

DESIGNED:
T. VHAY
CADD:
M. LITZINGER
TECH. REVIEW:
M. PUCKETT
DATE:
06/18/2026

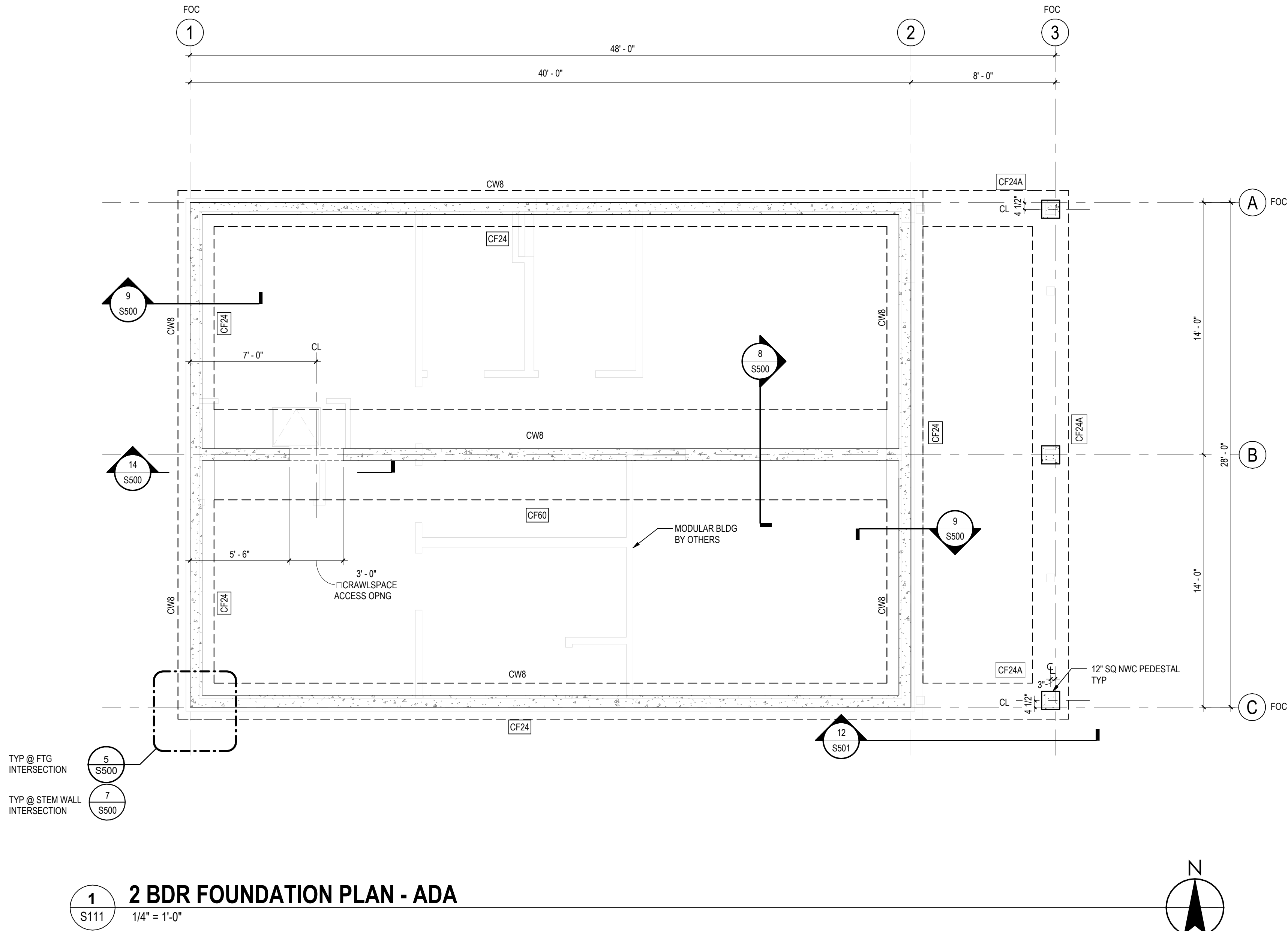
SUB SHEET NO.
S101

TITLE OF SHEET
FOUNDATION PLAN - 2BR

YELLOWSTONE NATIONAL PARK

DRAWING NO.
101
198433
PMIS/PKG NO.
326141
SHEET
89 OF **94**

PLOT DATE: 6/15/2026 4:18:56 PM REVIT VERSION: 2025
Autodesk Docs://185706708_YELL_NPS/03_struct_185706708_2bdr_ada.rvt

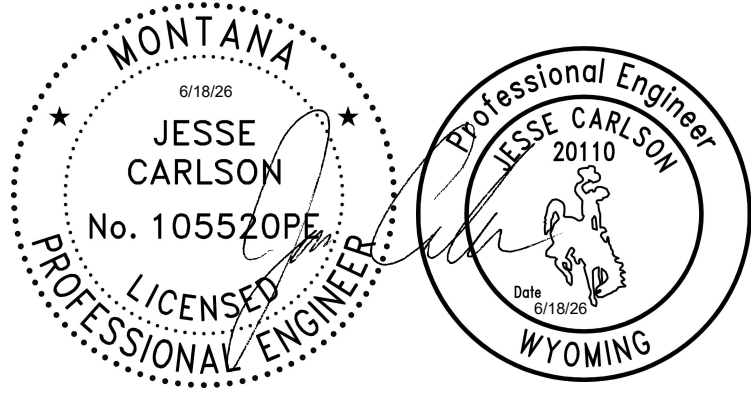


CONCRETE STEM WALL SCHEDULE			
MARK	WIDTH (IN)	REINFORCING	
		VERTICAL	HORIZONTAL
CW8	8"	#5 @ 18" OC	#5 @ 18" OC

NOTE:
1. CENTER STEM WALL ON FTG UON.

FOOTING SCHEDULE					
MARK	LENGTH (IN)	WIDTH (IN)	DEPTH (IN)	LONG. REINFORCEMENT	TRANS REINFORCEMENT
CF24	CONT	24"	12"	(2) #5 CONT TOP & BOT	#5 @ 12" OC
CF24A	CONT	24"	24"	(2) #5 CONT TOP & BOT	#4 TIES @ 12" OC
CF60	CONT	60"	12"	(5) #5 CONT TOP & BOT	#5 @ 12" OC

NOTE:
1. SEE DETAILS 5/ S500 8/ S500 9/ S500-OR DEFINITIONS OF LENGTH, WIDTH AND DEPTH.



A/E: FIRM
PRIME:
STANTEC
CHEYENNE, WY

DESIGNED:
T. VHAY
CADD:
M. LITZINGER
TECH. REVIEW:
M. PUCKETT
DATE:
06/18/2026

SUB SHEET NO.

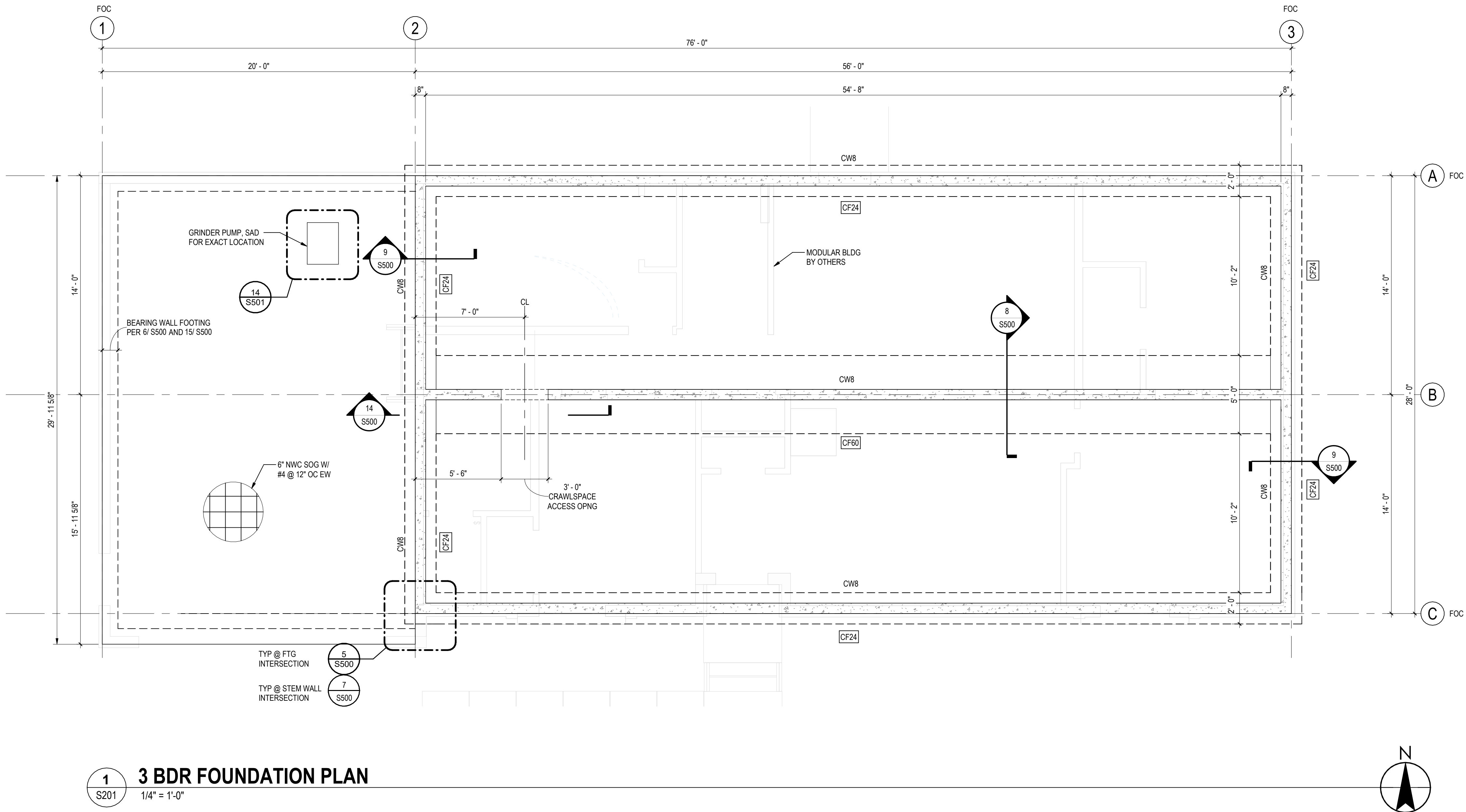
S111

TITLE OF SHEET
FOUNDATION PLAN
2BR - ADA

YELLOWSTONE NATIONAL PARK

DRAWING NO.
101
198433
PMIS/PKG NO.
326141
SHEET
90 OF 94

PLOT DATE: 6/15/2026 4:07:11 PM REVIT VERSION: 2025
Autodesk Docs://185706708_YELL_NPS/03_struct_185706708_3bdr.rvt



1 3 BDR FOUNDATION PLAN
S201 1/4" = 1'-0"

CONCRETE STEM WALL SCHEDULE			
MARK	WIDTH (IN)	REINFORCING	
		VERTICAL	HORIZONTAL
CW8	8"	#5 @ 18" OC	#5 @ 18" OC

NOTE:
1. CENTER STEM WALL ON FTG UON.

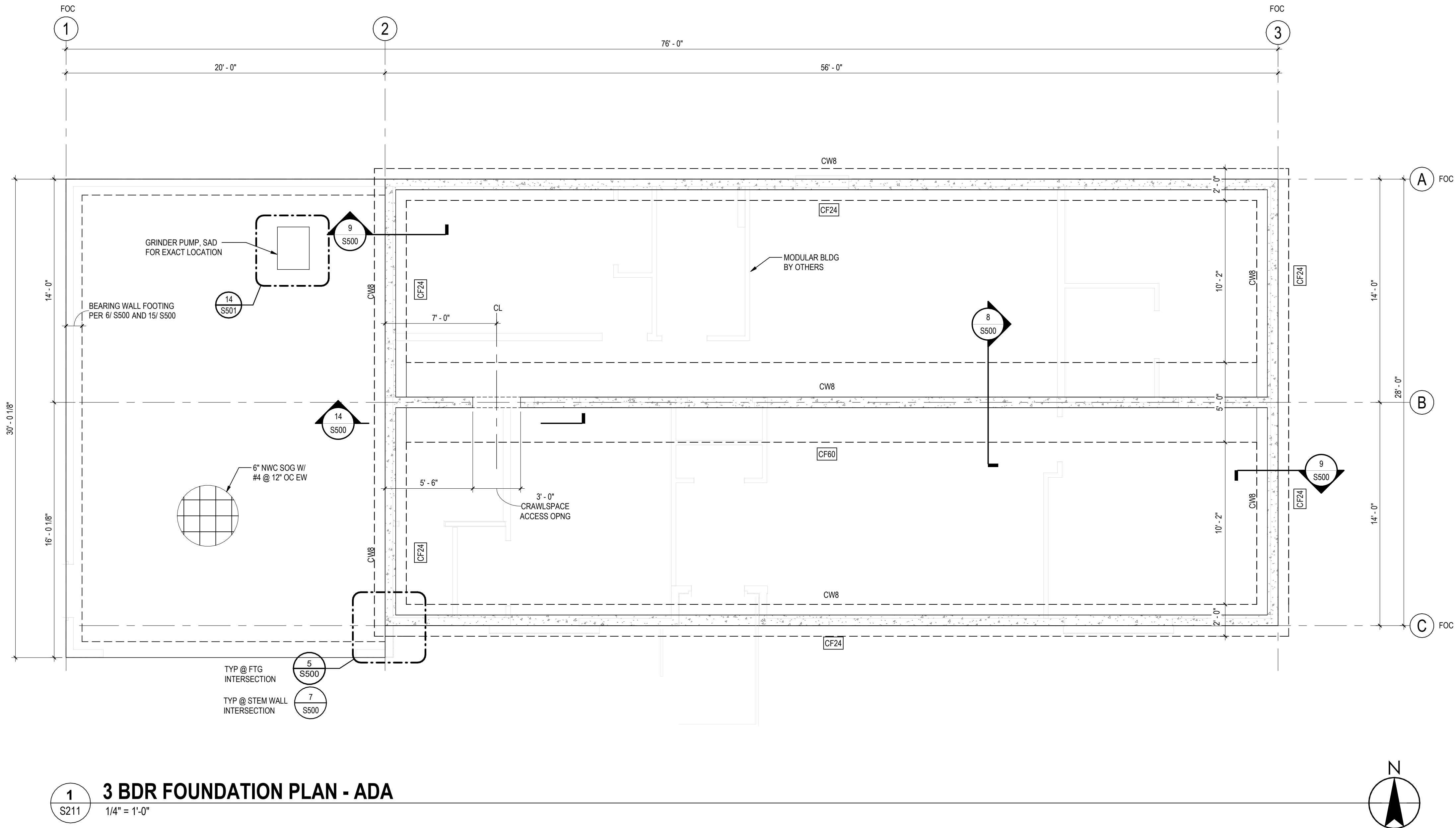
FOOTING SCHEDULE					
MARK	LENGTH (IN)	WIDTH (IN)	DEPTH (IN)	LONG. REINFORCEMENT	TRANS REINFORCEMENT
CF24	CONT	24"	12"	(2) #5 CONT TOP & BOT	#5 NONE OC
CF24A	CONT	24"	24"	(2) #5 CONT TOP & BOT	#4 TIES @ 12" OC
CF60	CONT	60"	12"	(5) #5 CONT TOP & BOT	#5 NONE OC

NOTE:
1. SEE DETAILS 5/ S500, 8/ S500, 9/ S500 FOR DEFINITIONS OF LENGTH, WIDTH AND DEPTH.



A/E: FIRM PRIME: STANTEC CHEYENNE, WY	DESIGNED: T. VHAY CADD: M. LITZINGER TECH. REVIEW: M. PUCKETT DATE: 06/18/2026	SUB SHEET NO. S201	TITLE OF SHEET FOUNDATION PLAN - 3BR YELLOWSTONE NATIONAL PARK	DRAWING NO. 101 198433 PMIS/PKG NO. 326141 SHEET 91 OF 94
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PLOT DATE: 6/15/2026 4:18:35 PM REVIT VERSION: 2025
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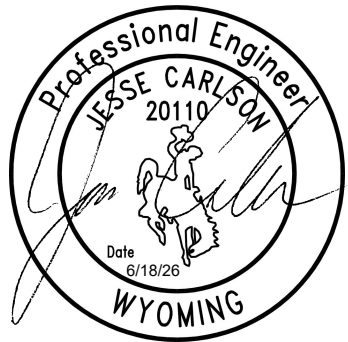


CONCRETE STEM WALL SCHEDULE			
MARK	WIDTH (IN)	REINFORCING	
		VERTICAL	HORIZONTAL
		L	L
CW8	8"	#5 @ 18" OC	#5 @ 18" OC

NOTE:
1. CENTER STEM WALL ON FTG UON.

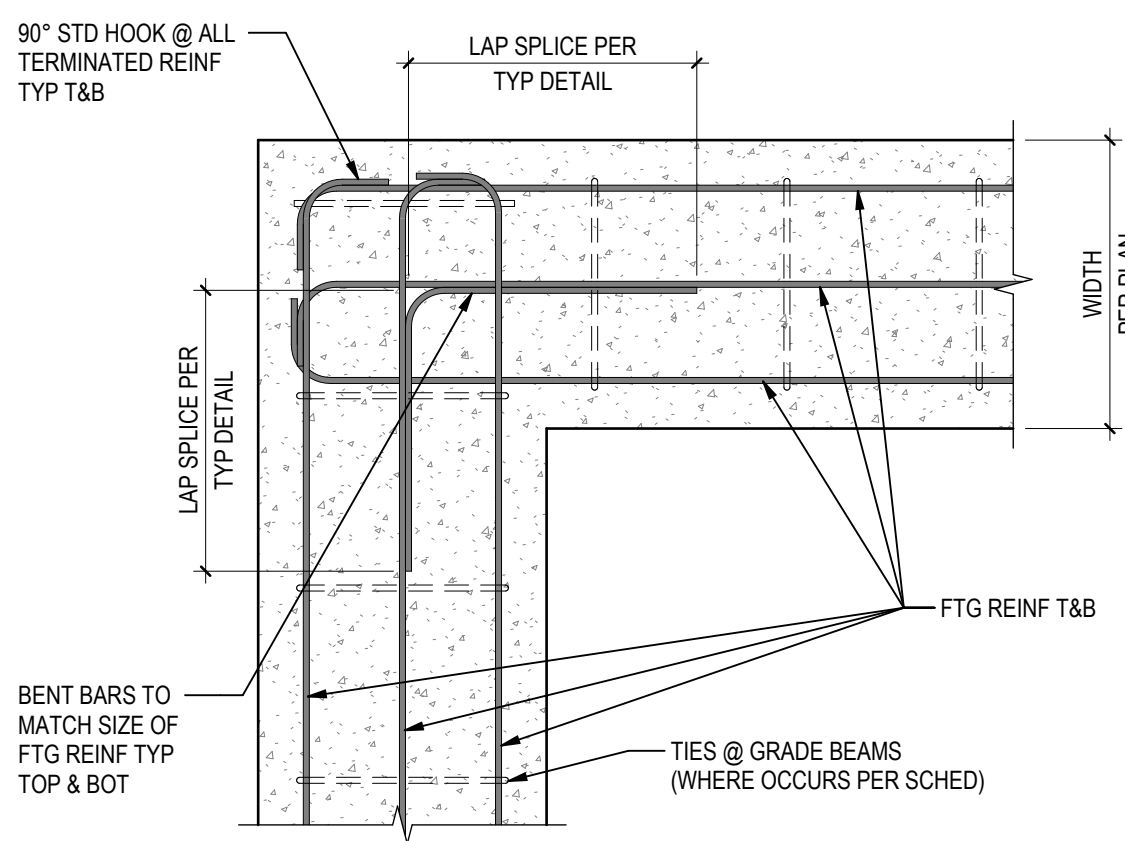
FOOTING SCHEDULE					
MARK	LENGTH (IN)	WIDTH (IN)	DEPTH (IN)	LONG. REINFORCEMENT	TRANS REINFORCEMENT
CF24	CONT	24"	12"	(2) #5 CONT TOP & BOT	#5 NONE OC
CF24A	CONT	24"	24"	(2) #5 CONT TOP & BOT	#4 TIES @ 12" OC
CF60	CONT	60"	12"	(5) #5 CONT TOP & BOT	#5 @ 12" OC

NOTE:
1. SEE DETAILS 5/ S500, 8/ S500 AND 9/ S500 FOR DEFINITIONS OF LENGTH, WIDTH AND DEPTH.



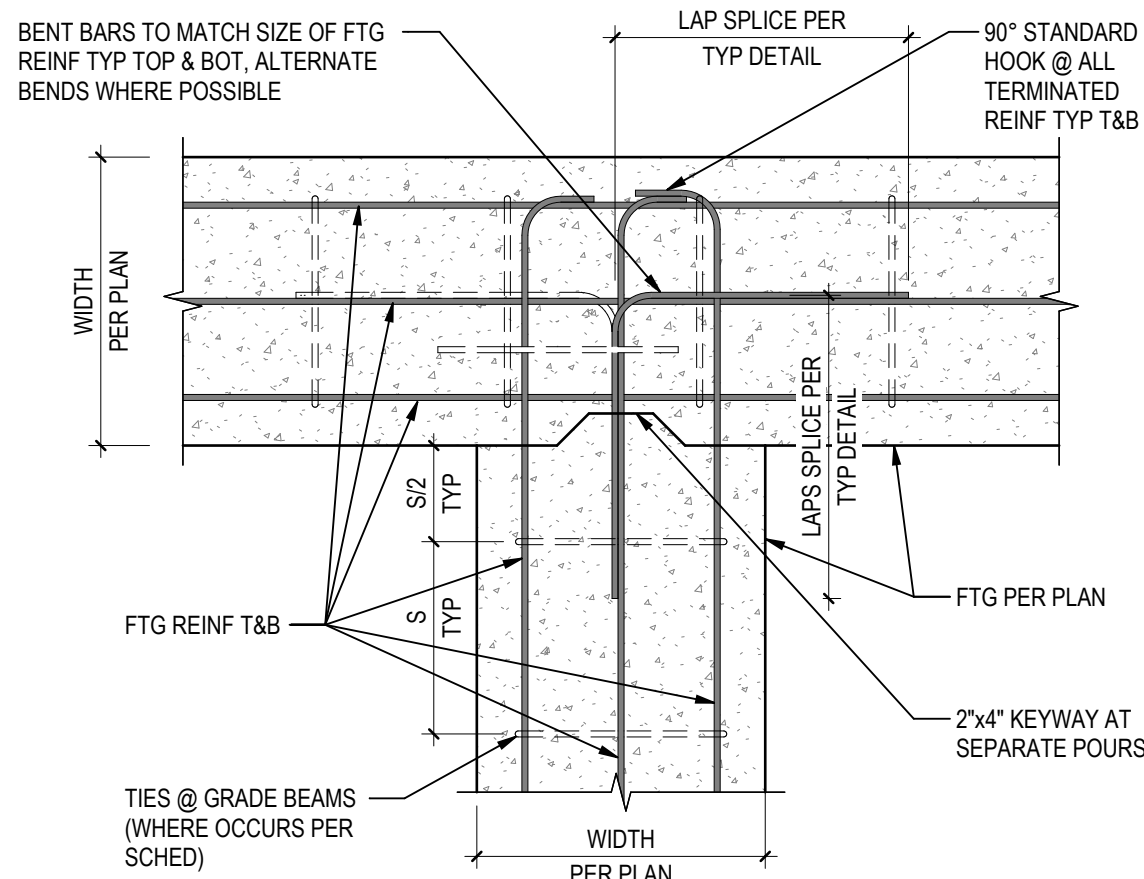
A/E: FIRM	DESIGNED: T. VHAY	SUB SHEET NO. S211	TITLE OF SHEET	DRAWING NO. 101
PRIME: STANTEC CHEYENNE, WY	CADD: M. LITZINGER		FOUNDATION PLAN 3BR - ADA	198433
	TECH. REVIEW: M. PUCKETT			PMIS/PKG NO. 326141
	DATE: 06/18/2026			SHEET
	YELLOWSTONE NATIONAL PARK			92 OF 94

PLOT DATE: 6/15/2026 4:07:12 PM REVIT VERSION: 2025
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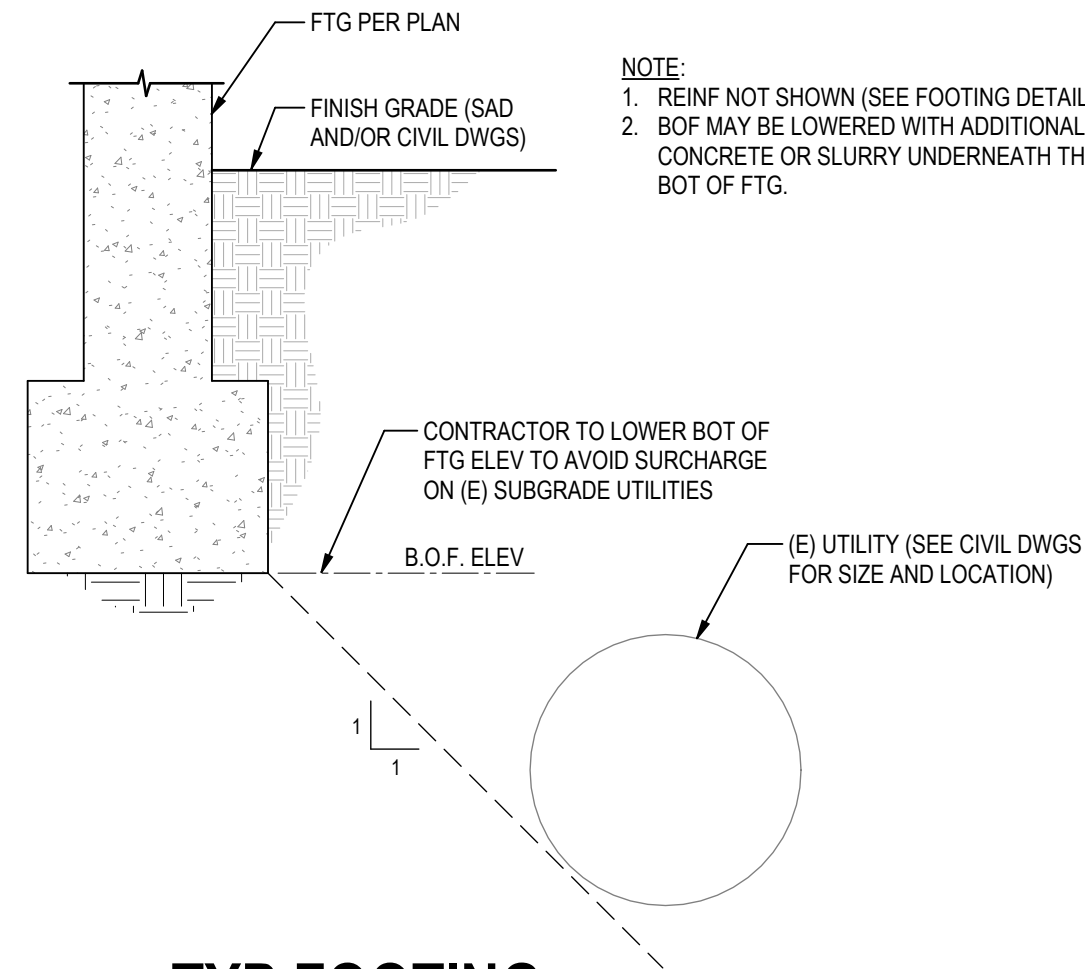


NOTES:
1. SEE PLAN FOR ACTUAL NUMBER OF REINFORCING BARS.

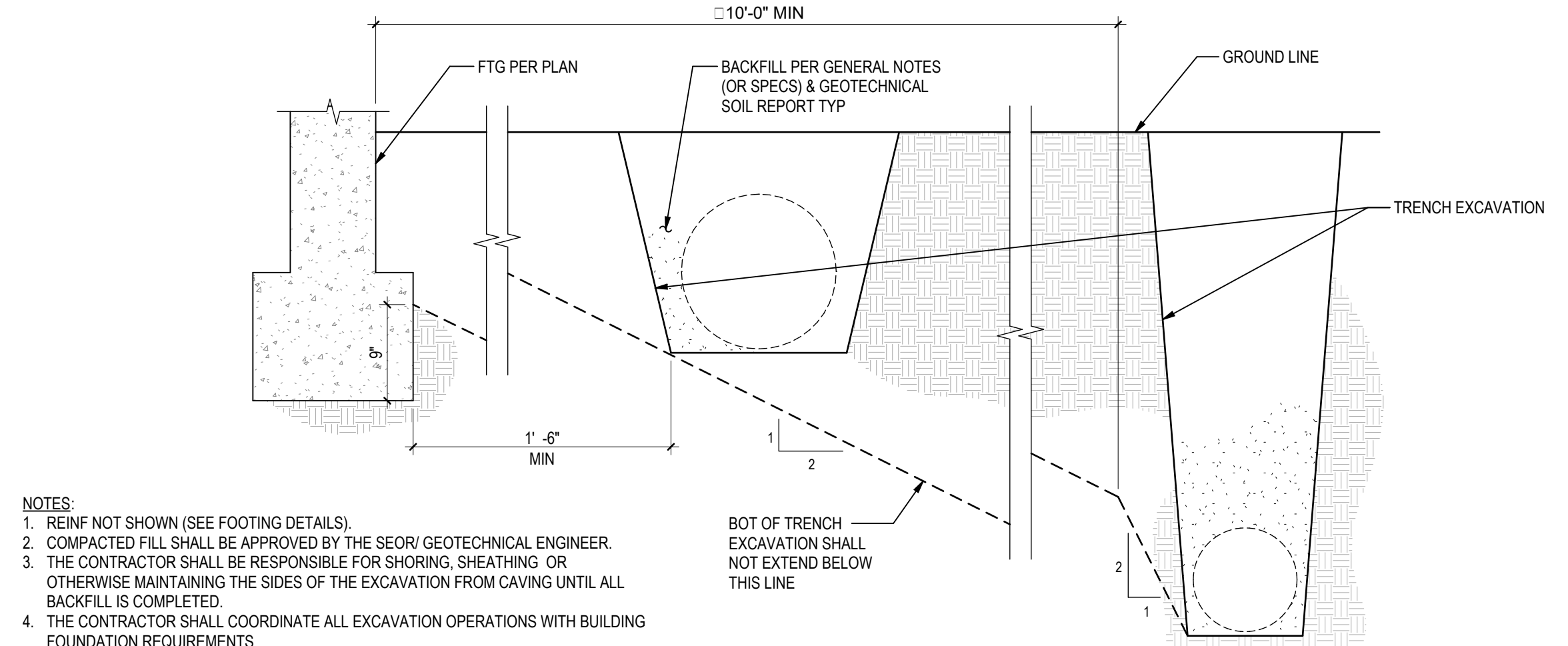
CASE A - CORNER



CASE B - T-INTERSECTION

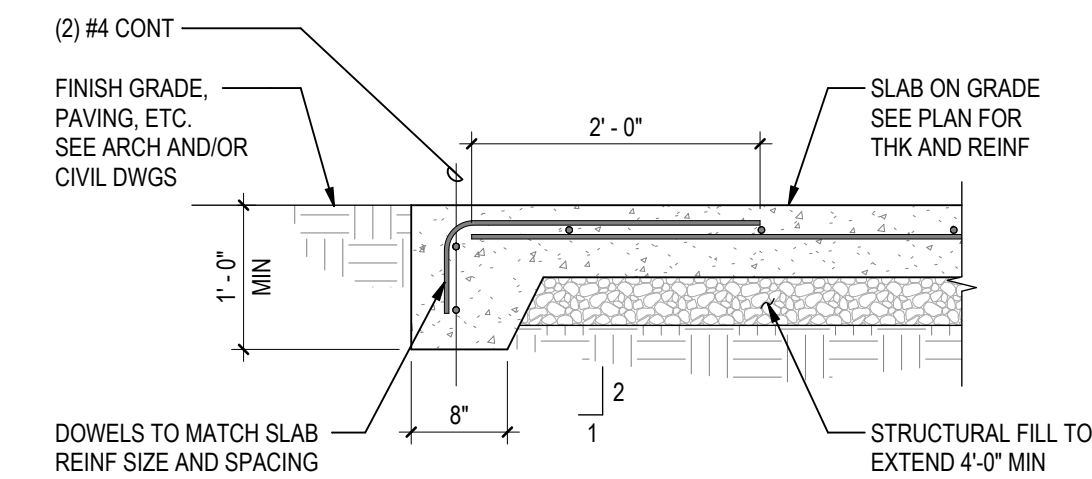


TYP FOOTING
PARALLEL TO (E) UTILITY

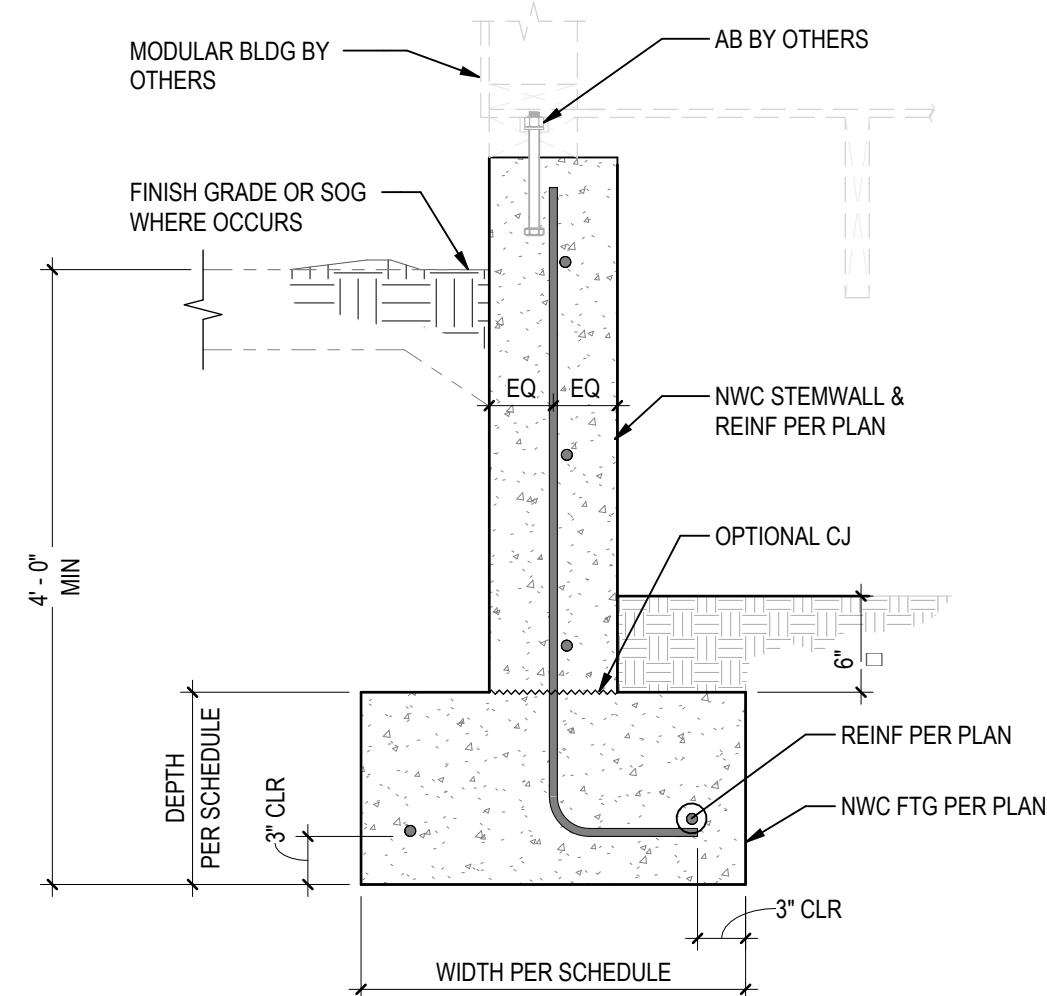


NOTES:
1. REINFORCING NOT SHOWN (SEE FOOTING DETAILS).
2. COMPACTED FILL SHALL BE APPROVED BY THE SEOR/ GEOTECHNICAL ENGINEER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING, SHEATHING OR OTHERWISE MAINTAINING THE SIDES OF THE EXCAVATION FROM CAVING UNTIL ALL BACKFILL IS COMPLETED.
4. THE CONTRACTOR SHALL COORDINATE ALL EXCAVATION OPERATIONS WITH BUILDING FOUNDATION REQUIREMENTS

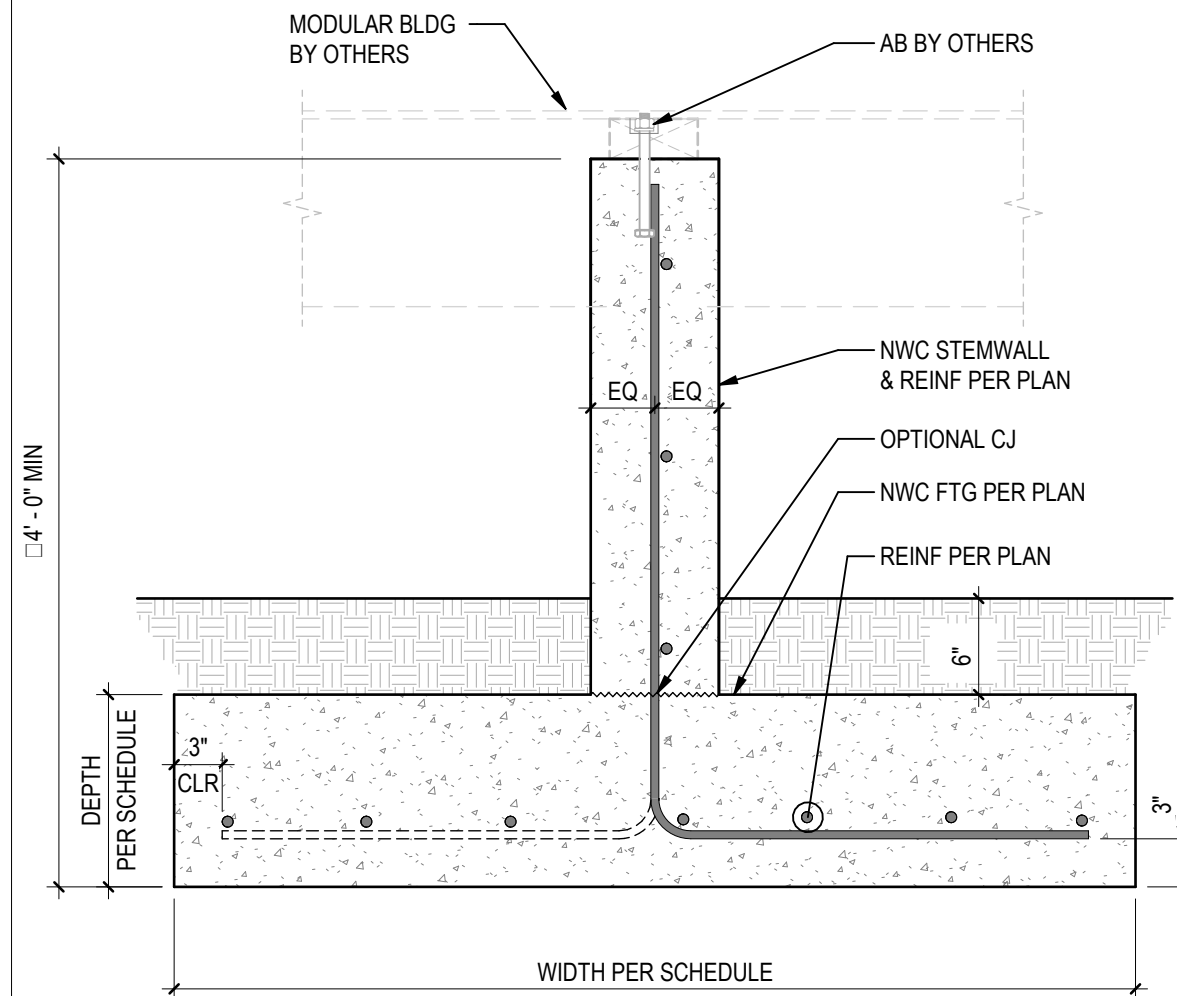
2 TYP EXCAVATION PARALLEL TO FOOTING
S500 NTS



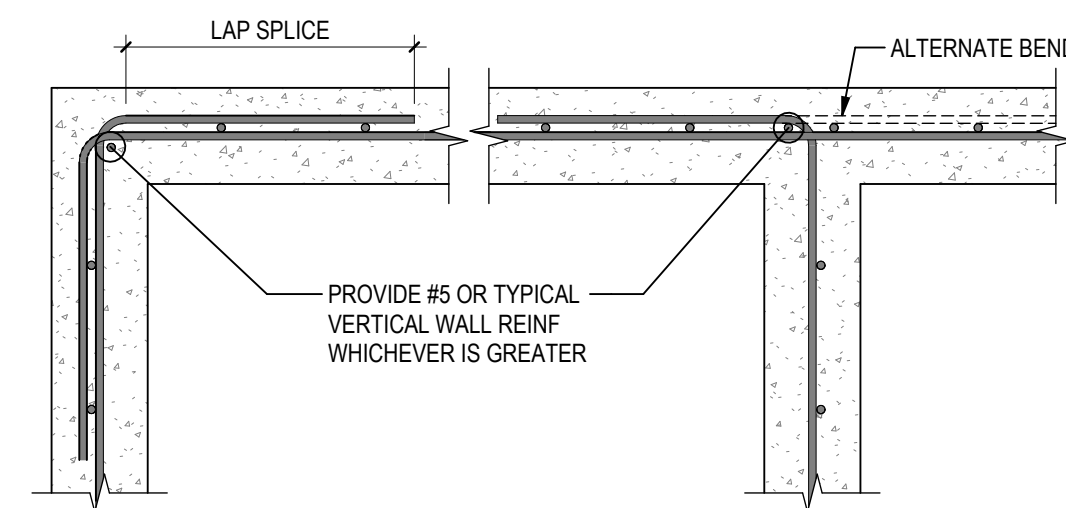
10 EDGE OF SLAB ON GRADE
S500 NTS



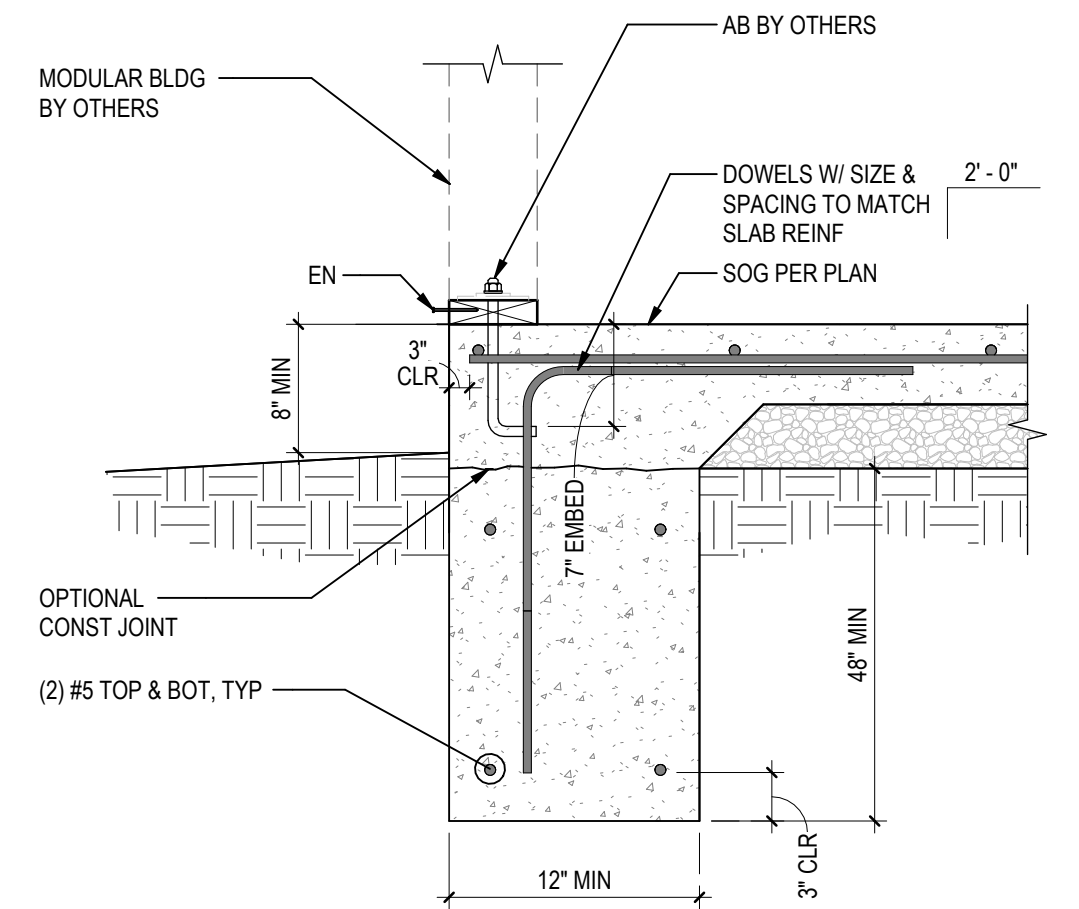
9 TYPICAL RAISED FLOOR FRAMING
AT EXTERIOR STEM WALL
S500 NTS



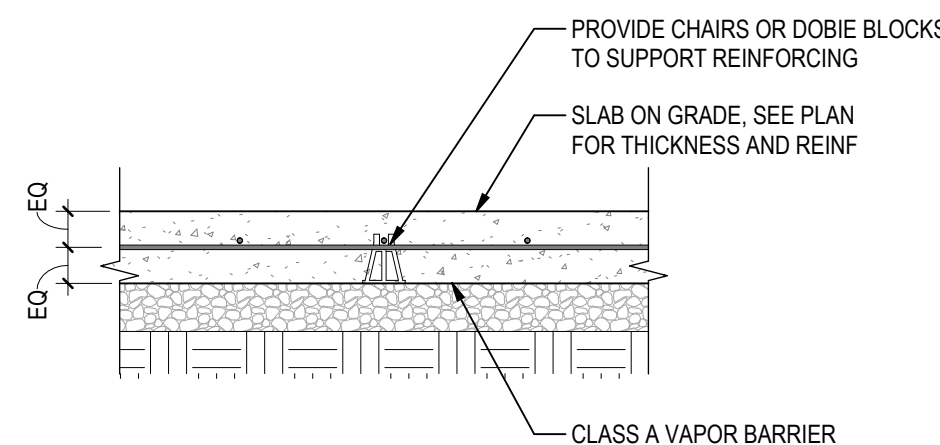
8 TYPICAL RAISED FLOOR FRAMING
AT INTERIOR STEM WALL
S500 NTS



7 TYPICAL CONCRETE WALL
REINFORCING AT INTERSECTION
S500 NTS

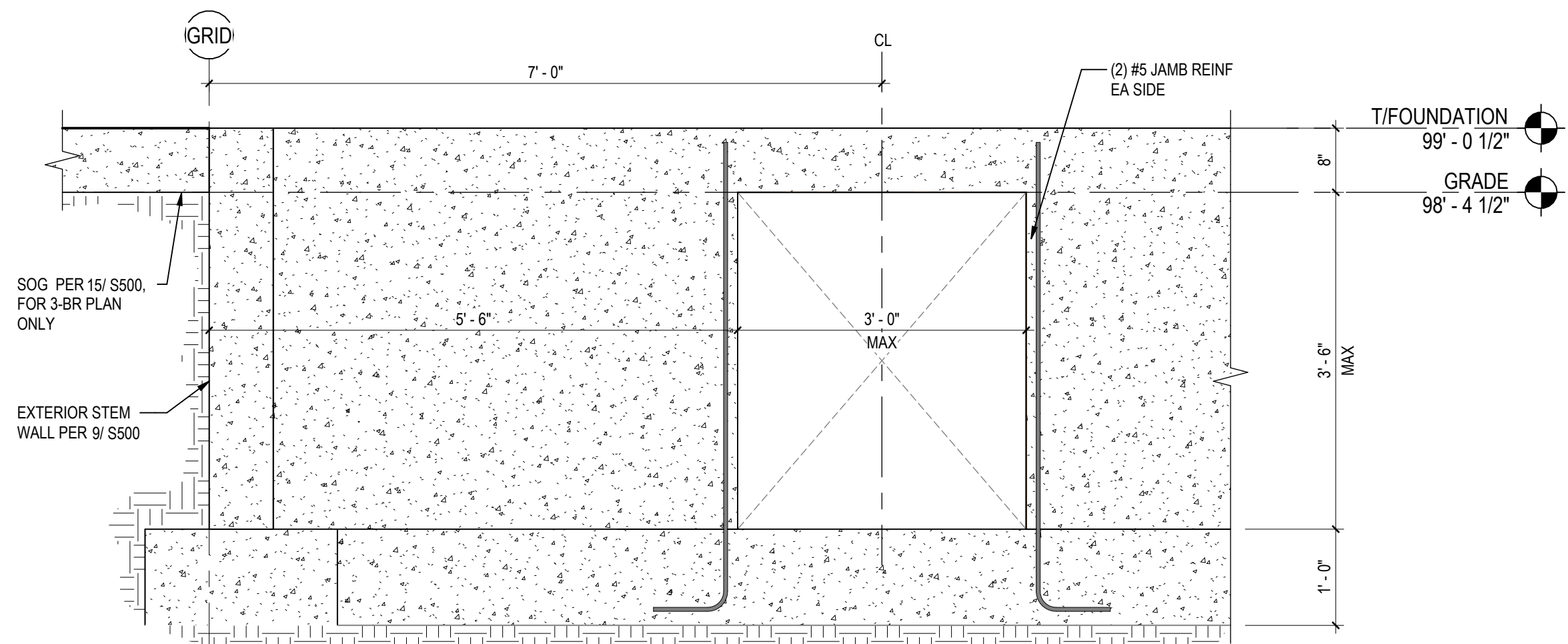


6 EXTERIOR BEARING WALL FOOTING
S500 NTS

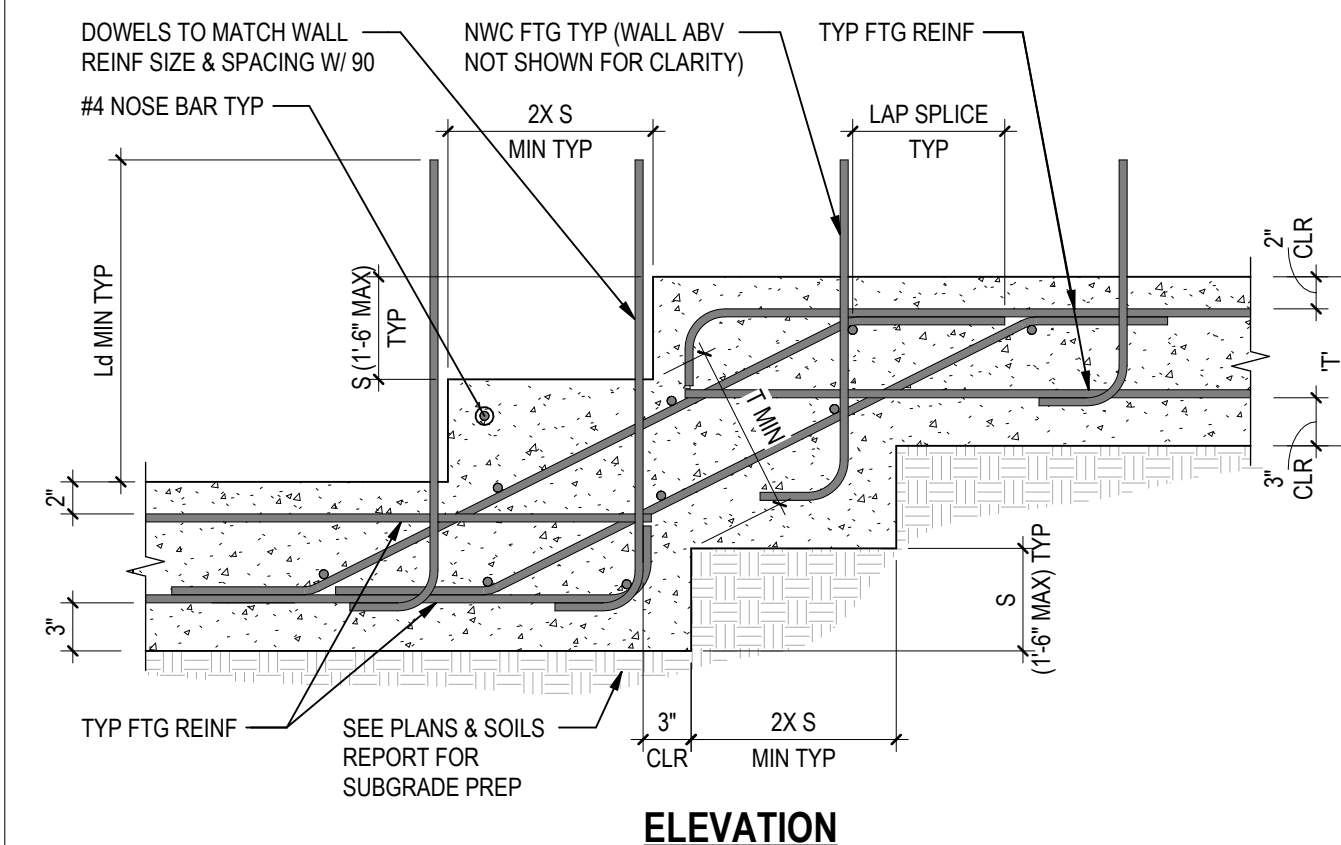


NOTES:
1. SEE GENERAL NOTES FOR SUB-SLAB PREPARATION REQUIREMENTS.

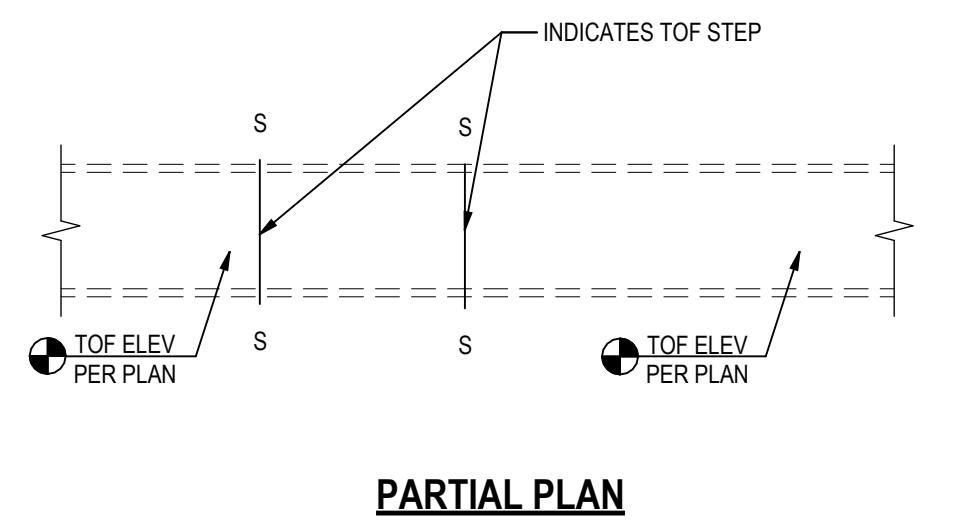
15 TYPICAL SLAB ON GRADE SECTION
S500 NTS



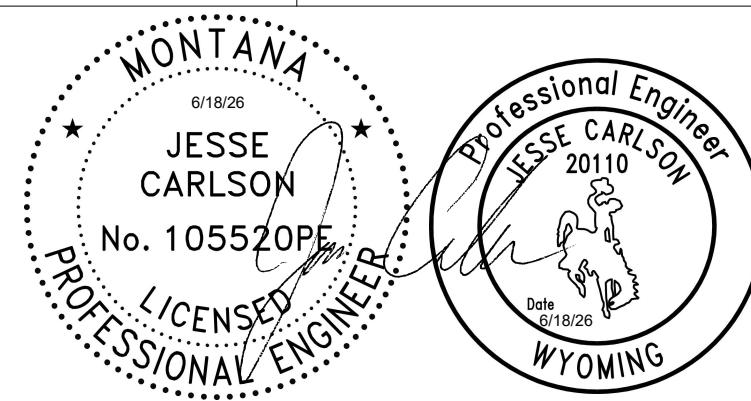
14 CRAWLSPACE ACCESS OPENING
S500 NTS



12 TYPICAL STEPPED FOOTING
S500 NTS



PARTIAL PLAN



A/E: FIRM
PRIME: STANTEC
CHEYENNE, WY

DESIGNED: T. VHAY
CADD: M. LITZINGER
TECH. REVIEW: M. PUCKETT
DATE: 06/18/2026

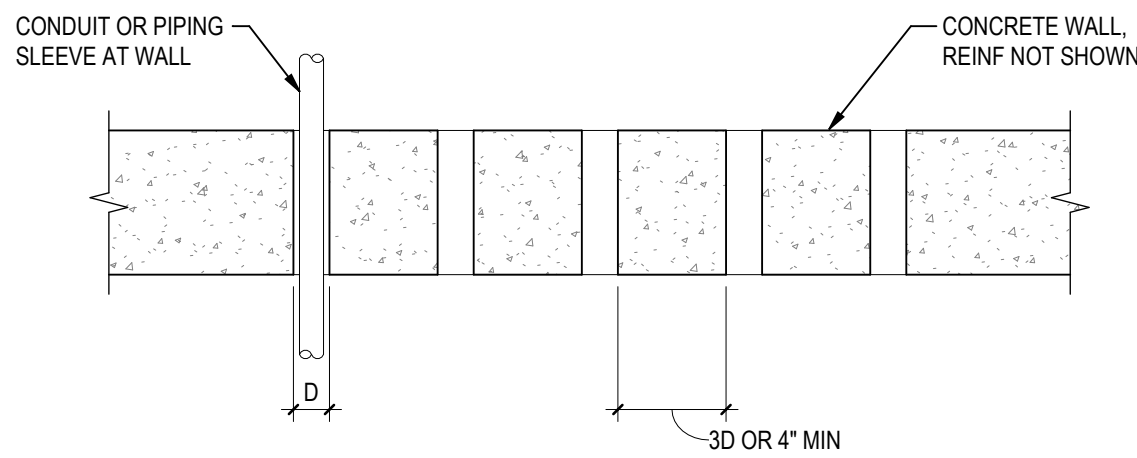
SUB SHEET NO.
S500

TITLE OF SHEET
FOUNDATION DETAILS
YELLOWSTONE NATIONAL PARK

DRAWING NO.
**101
198433**
PMIS/PKG NO.
326141
SHEET
93 OF 94

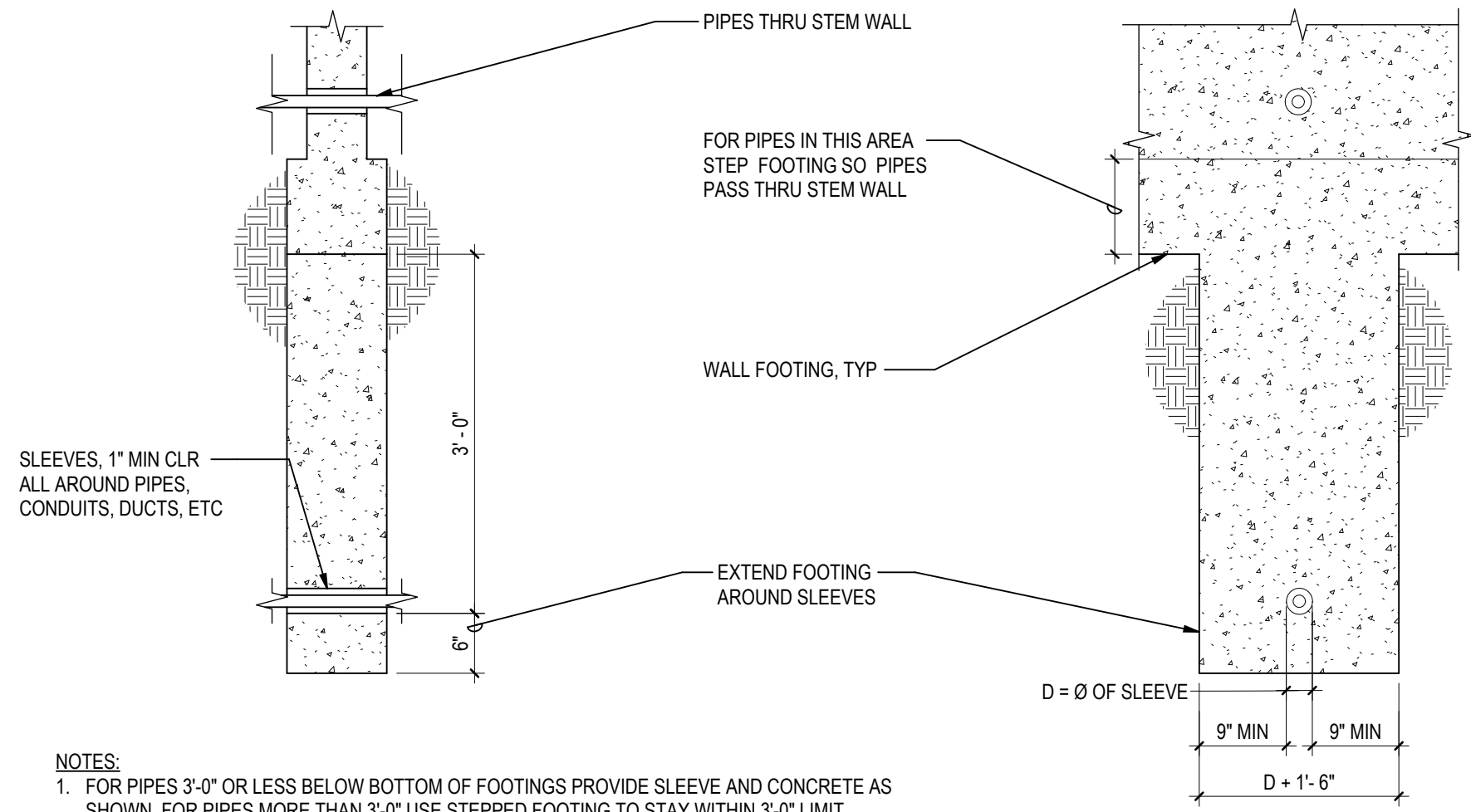
90° HOOK

180° HOOK



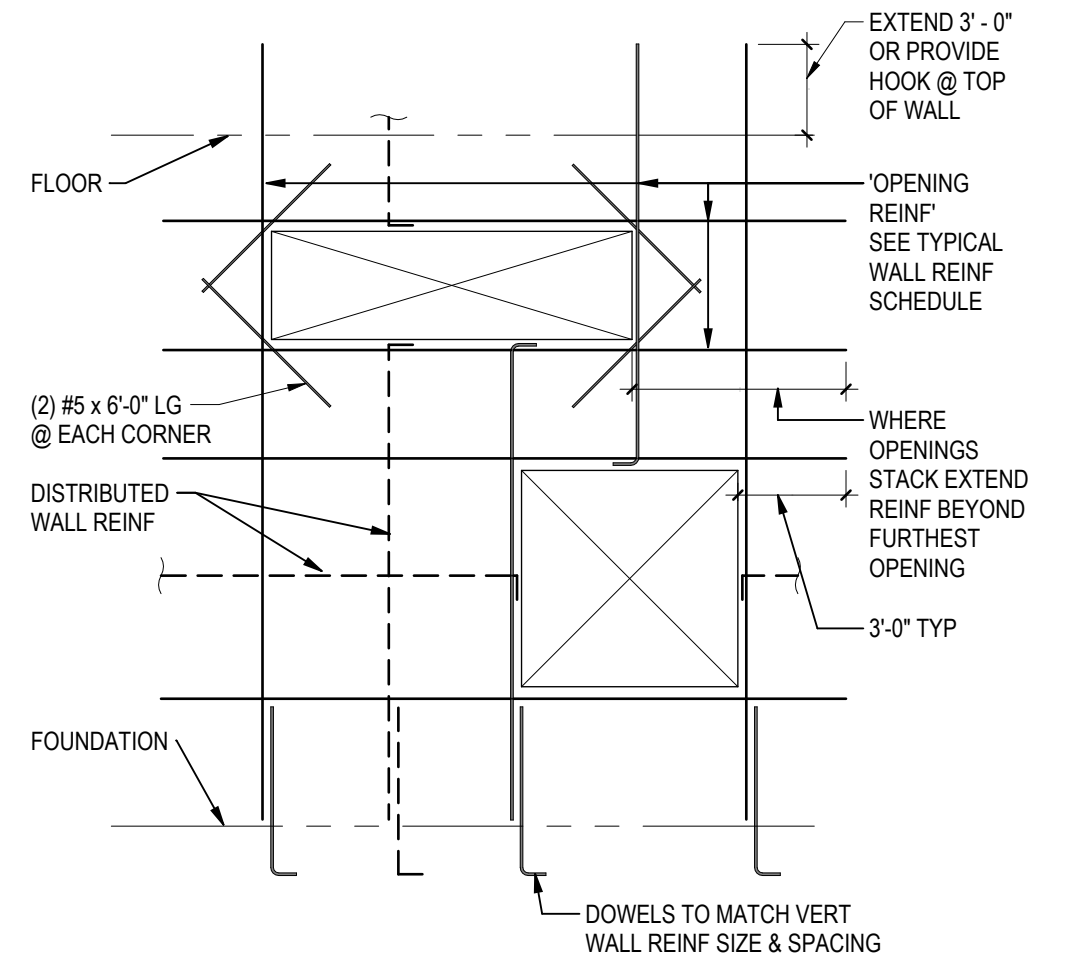
NOTES

1. WHERE CLEAR DISTANCE BETWEEN SLEEVES IS NOT POSSIBLE OR WALL REINFORCEMENT IS INTERRUPTED, TREAT AS A WALL OPENING AND PROVIDE ADDITIONAL REINFORCING PER TYPICAL DETAILS.



NOTES:

1. FOR PIPES 3'-0" OR LESS BELOW BOTTOM OF FOOTINGS PROVIDE SLEEVE AND CONCRETE AS SHOWN. FOR PIPES MORE THAN 3'-0" USE STEPPED FOOTING TO STAY WITHIN 3'-0" LIMIT.



5
S501

NTS

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S501

NTS

3
S501

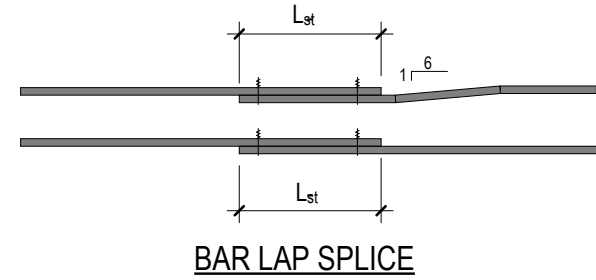
NTS

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S501

NTS

NOTES:

1. TABULATED VALUES ARE FOR:
NORMAL WEIGHT CONCRETE AND, UNCOATED REINF STEEL AND, CLASS B SPLICES,
REINF SATISFYING:
SLAB, WALLS: CLR SPA $\geq d_b$, AND CONC CLR COVER $> d_b$
BEAMS, COLUMNS: CLR SPA $> d_b$, AND CONC CLR COVER $> d_b$
2. MULTIPLY TABLE VALUES:
1.33 IF LIGHTWEIGHT CONCRETE IS USED
1.5 IF REINFORCEMENT IS EPOXY COATED
0.77 IF CLASS A SPLICES ARE USED
1.5 IF SPACING REQUIREMENTS ARE NOT MET
3. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12 INCHES OF FRESH
CONCRETE CAST BELOW THE BAR. USE TYPE BAR FOR ALL OTHER CASES.
4. IF BARS OF DIFFERENT SIZES ARE LAP SPliced IN TENSION, L_s SHALL BE THE GREATER OF L_d
OF THE LARGER BAR AND L_{ss} OF THE SMALLER BAR.
5. MECHANICAL LAP SPLICES MAY BE USED AT CONTRACTOR'S OPTION. USE TYPE 2 SPLICES AS
DEFINED IN ACI 318.
6. CLASS A SPLICES MAY ONLY BE USED WHEN CALLED OUT EXPLICITLY ON DRAWING.



ALL GRADES

The diagrams illustrate the geometry of hooks for different bending angles. Each hook is defined by a straight section of length l_{str} , a curved section with radius R and diameter DIA , and a straight section of length l_{str} . The hook angle is indicated by a curved arrow labeled "BEND". The dimensions are as follows:

- 90° HOOK:** The bending angle is 90.00000000000000°.
- 135° HOOK:** The bending angle is 135.00000000000000°.
- 180° HOOK:** The bending angle is 180.00000000000000°.

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S501

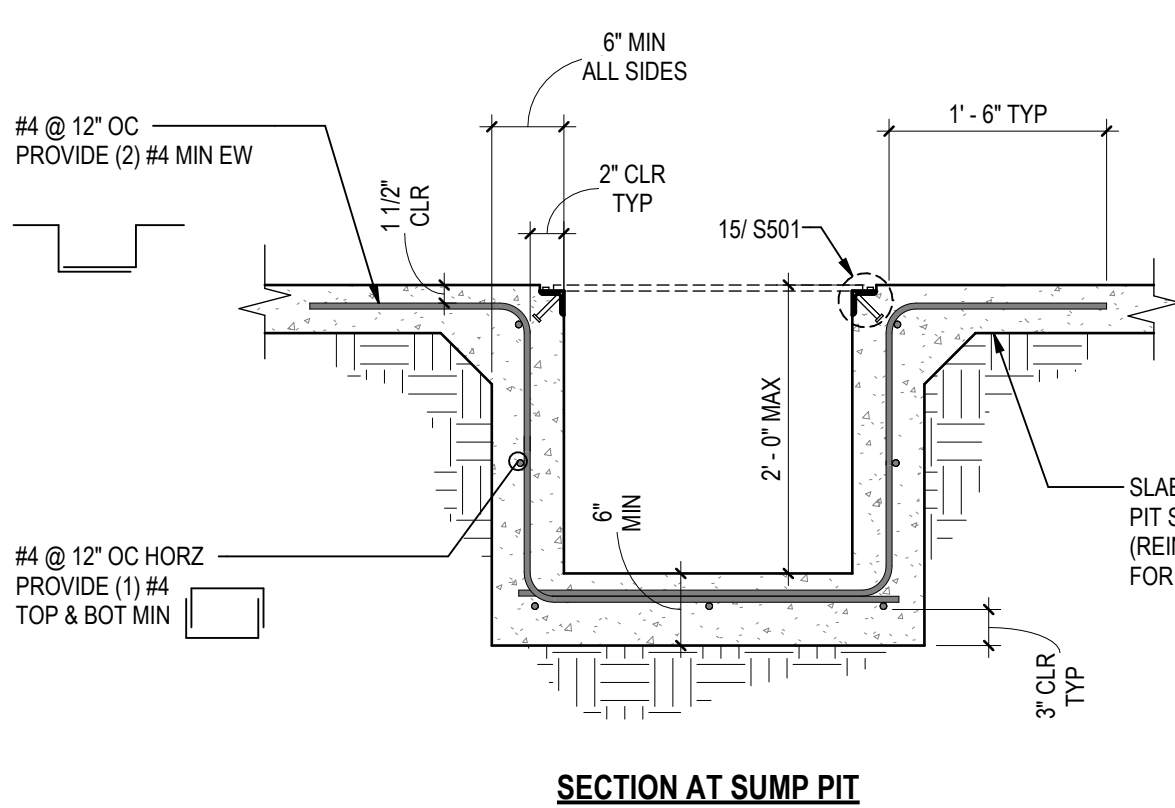
NTS

8
S501

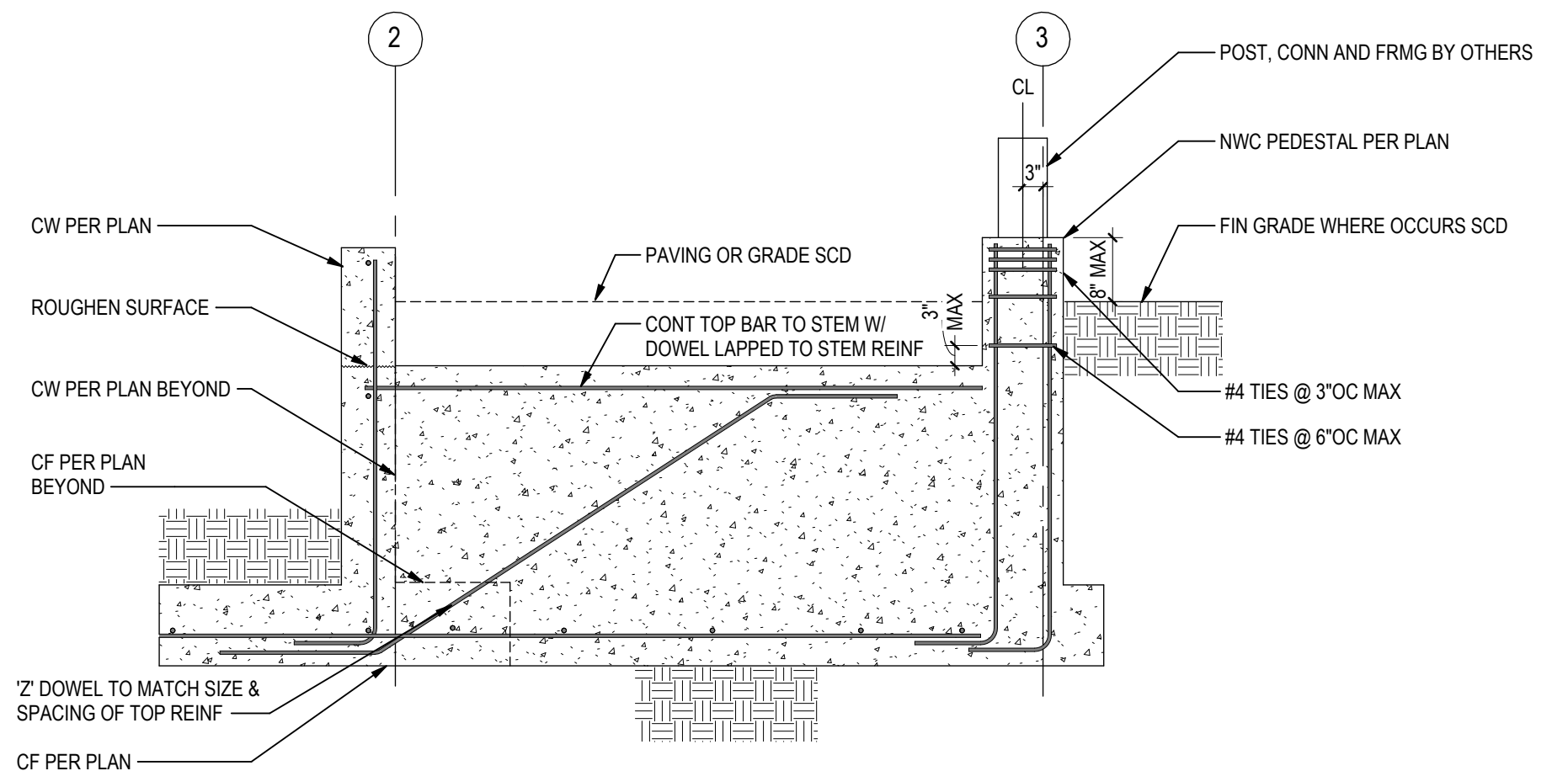
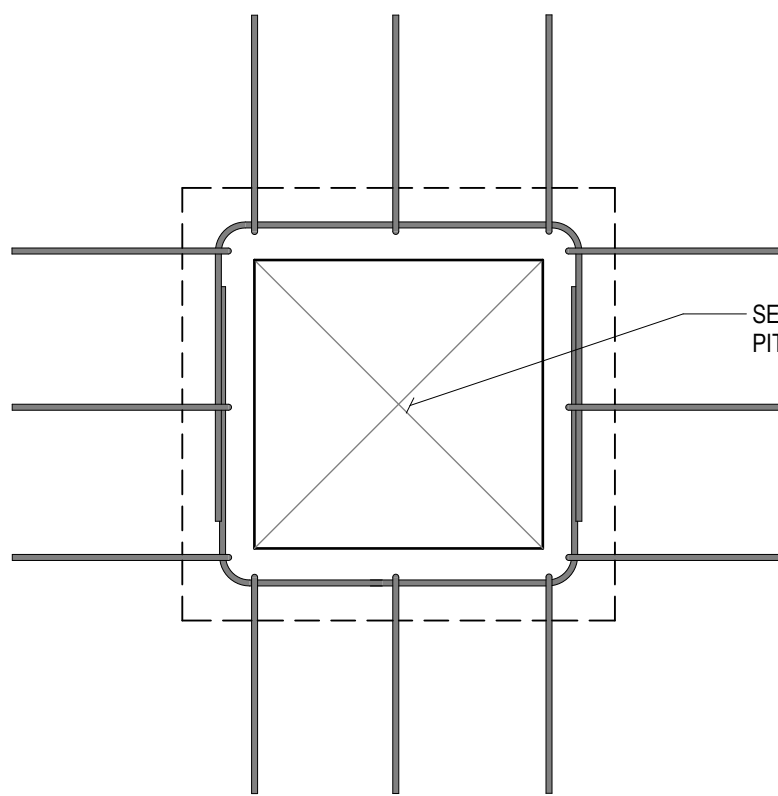
NTS

6
S501

NTS



PLAN AT SUMP PIT



15
S501

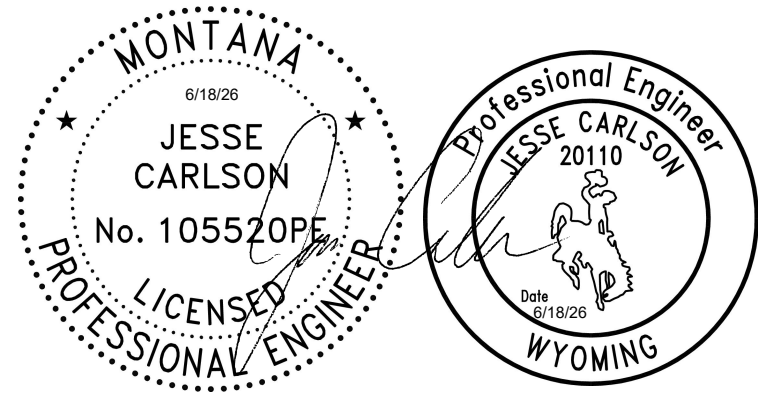
NTS

14
S501

NTS

12
S50

NTS



A/E FIRM PRIME: STANTEC CHEYENNE, WY	DESIGNED:	SUB SHEET NO. S501	TITLE OF SHEET	DRAWING NO.
	T. VHAY		FOUNDATION DETAILS	101
	CADD:			198433
	M. LITZINGER			PMIS/PKG NO.
	TECH. REVIEW:			326141
	M. PUCKETT			SHEET
DATE:			94 OF 94	
06/18/2026			YELLOWSTONE NATIONAL PARK	