1 ABRIVIATIONS

AB	ANCHOR BOLT(S)
ABV	ABOVE
ALT	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
BLDG	BUILDING
BLW	BELOW
BM	BEAM
BOT	BOTTOM
BRG	BEARING
BTWN	BETWEEN
C.J.	CONST/CONTROL JOINT
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CTR	CENTER
DB	DECK BEARING
DBL	DOUBLE
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
DWL	DOWEL
EA	EACH
E.F.	EACH FACE
E.J.	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
EQUIP	EQUIPMENT
EQ	EQUAL
E.W.	EACH WAY
EXST	EXISTING
(E)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FC-x	CONTINUOUS FOOTING MARK
F.D.	FLOOR DRAIN
FDN	FOUNDATION
FS-x	SQUARE FOOTING MARK
FT	FOOT
FTG	FOOTING
FTS-x	THICKEN SLAB MARK
GA	GAUGE
GALV	GALVANIZED
GLB	GLULAM BEAM
GSN	GENERAL STRUCTURAL NOTES
HB	HORIZONTAL BRIDGING
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HT	HEIGHT
IBC	INTERNATIONAL BUILDING CODE
I.F.	INSIDE FACE
IN.	INCH
INT	INTERIOR
JT	JOINT
JST	JOIST
k	KIP(S) = 1000 POUNDS
KLF	KIPS PER LINEAL FOOT
KSF	KIPS PER SQUARE FOOT
LBS	POUNDS
LF	LINEAL FOOT
LVL	LAMINATED VENEER LUMBER
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
O.C.	ON CENTER
O.F.	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
PCF	POUNDS PER CUBIC FOOT
PL	PLATE
PLF	POUNDS PER LINEAL FOOT
PNL	PANEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
REINF	REINFORCING
REQD	REQUIRED
R.D.	ROOF DRAIN
RS	ROUGH SAWN LUMBER
RTU	ROOF TOP UNITS
SCW	SEISMIC CRITICAL WELD
SHT	SHEET
SI	SPECIAL INSPECTION
SIM	SIMILAR
SMU	SUSPENDED MECHANICAL UNITS
SOG	SLAB-ON-GRADE
SQ	SQUARE
STAG	STAGGERED
STD	STANDARD
STL	STEEL
STR	STRUCTURAL
STS	SELF TAPPING SCREWS
T&B	TOP AND BOTTOM
TEMP	TEMPERATURE
THDS	THREADS
T.O.	TOP OF
TOC	TOP OF CONCRETE
TOD	TOP OF DECK
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W/	WITH
WD	WOOD

2 GENERAL NOTES

1. TYPICAL DETAILS AND SECTIONS SHALL APPLY WHERE SPECIFIC DETAILS ARE NOT SHOWN.
2. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND DIMENSIONS. IF ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN IN THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER BEFORE PROCEEDING WITH THE FABRICATION OR CONSTRUCTION OF ANY EFFECTED ELEMENTS.
3. THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST TO THE ENGINEER BEFORE PROCEEDING WITH ANY CHANGES, SUBSTITUTIONS OR MODIFICATIONS. ANY WORK DONE BY THE CONTRACTOR BEFORE RECEIVING WRITTEN APPROVAL WILL BE AT THE RISK OF THE CONTRACTOR.
4. IN CASE OF A CONFLICT BETWEEN THE CONTRACT DRAWINGS AND THE SPECIFICATIONS, FOLLOW THE MOST STRINGENT REQUIREMENT OR DIRECTIONS PROVIDED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES ANY ITEMS THAT ARE TO BE INTEGRATED IN THE STRUCTURAL SYSTEM SUCH AS OPENINGS, PENETRATIONS, MECHANICAL, ELECTRICAL EQUIPMENT, ETC. SIZES AND LOCATIONS OF MECHANICAL AND OTHER EQUIPMENT THAT DIFFERS FROM THOSE SHOWN ON THE CONTRACT DRAWINGS SHALL BE REPORTED TO THE ENGINEER.
6. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING AS REQUIRED FOR HIS METHOD OF ERECTION. SHORING AND BRACING SHALL REMAIN IN PLACE UNTIL FINAL CONNECTIONS FOR THE PERMANENT MEMBERS ARE COMPLETED. THE BUILDING SHALL NOT BE CONSIDERED STABLE UNTIL ALL CONNECTIONS ARE COMPLETED. WALLS SHALL NOT BE CONSIDERED SELF-SUPPORTING AND SHALL BE BRACED UNTIL THE FLOOR/ROOF SYSTEM IS COMPLETED.

3 STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTION AND QUALITY ASSURANCE

SPECIAL INSPECTION AND QUALITY ASSURANCE, AS REQUIRED BY SECTION 1704 OF THE IBC, SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER UNLESS WAIVED BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE REQUIRED INSPECTIONS. ALL TESTING AND INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER FOR REVIEW. ITEMS REQUIRING SPECIAL INSPECTION AND QUALITY ASSURANCE ARE:

1. CONCRETE FORMWORK (IBC SECTION 1705.3-12), IF NOTED
2. CONCRETE REINFORCING STEEL PLACEMENT (IBC SECTION 1705.3-1), IF NOTED
3. EPOXY ANCHORS (IBC SECTION 1705.3-4)

5 CONCRETE NOTES

1. MATERIALS, UNLESS NOTED OTHERWISE:
   - A. NORMAL WEIGHT AGGREGATES — ASTM C33
   - B. REINFORCING STEEL — ASTM A615 GRADE 60 (FY = 60 KSI); USE GRADE 40 (FY = 40 KSI) FOR FIELD BENT DOWELS WITH SPACINGS INDICATED REDUCED BY 1/3.
   - C. DEFORMED BAR ANCHORS (DBA) — ASTM A496
   - D. HEADED STUD ANCHORS (HSA) — ASTM A108
   - E. ANCHOR RODS — ASTM F1554 GRADE 36 WITH ASTM A563 HEAVY HEX NUTS WITH HARDENED WASHERS
   - F. ADMIXTURES:
     - I. AIR-ENTRAINING ADMIXTURES COMPLY WITH ASTM C260 (WHEN USED).
     - II CALCIUM CHLORIDE SHALL NOT BE ADDED TO THE CONCRETE MIX.
   - G. TYPE I/II CEMENT COMPLYING WITH ASTM C150 SHALL BE USED FOR ALL CONCRETE.
   - H. THE WATER/CEMENT RATIOS SHALL MEET THE REQUIREMENTS OF ACI 318.
   - I. PROVIDE AIR ENTRAINING AS RECOMMENDED BY ACI 318.
   - J. NO ALUMINUM CONDUIT OR PRODUCT CONTAINING ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO CONCRETE SHALL BE EMBEDDED IN CONCRETE.
2. COMPRESSIVE STRENGTHS OF CONCRETE AT 28 DAYS SHALL BE AS FOLLOWS:
   - A. FOOTINGS — 3,000 PSI
   - B. INTERIOR SLABS ON GRADE — 4,000 PSI
   - C. WALLS — 3,000 PSI
   - D. ALL SITE CONCRETE — 4,000 PSI
3. ONLY ONE GRADE OR TYPE OF CONCRETE SHALL BE POURED ON THE SITE AT ANY GIVEN TIME.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, CARE, PLACEMENT AND REMOVAL OF ALL FORMWORK AND SHORING.
   - A. SUPPORTING FORMS AND SHORING SHALL NOT BE REMOVED UNTIL STRUCTURAL MEMBERS HAVE ACQUIRED SUFFICIENT STRENGTH TO SAFELY SUPPORT THEIR OWN WEIGHT AND ANY CONSTRUCTION LOAD TO WHICH THEY MAY BE SUBJECTED. IN NO CASE, HOWEVER, SHALL FORMS AND SHORING BE REMOVED IN LESS THAN 24 HOURS AFTER CONCRETE PLACEMENT.
5. REINFORCEMENT SHALL HAVE THE FOLLOWING CONCRETE COVER:

CAST-IN-PLACE CONCRETE:	CLEAR COVER
A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
B. FORMED CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 THRU #18 BARS	2"
#5 AND SMALLER BARS	1-1/2"
C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALLS, JOISTS; #11 BARS AND SMALLER	3/4"
BEAMS, COLUMNS: PRIMARY REINF., TIES, STIRRUPS, SPIRALS	1-1/2"

6. CONSTRUCTION JOINTS AND CONTROL JOINTS:
   - A. PROVIDE A FORMED AND BEVELED 2 X 4 X CONTINUOUS KEYWAY IN ALL HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS, UNLESS NOTED OTHERWISE. IN ADDITION, ALL JOINTS SHALL BE INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY 1/4-INCH.
   - B. CONTROL JOINTS SHALL BE INSTALLED IN SLABS ON GRADE SO THE LENGTH TO WIDTH RATIO OF THE SLAB IS NO MORE THAN 1.25:1. CONTROL JOINTS SHALL BE COMPLETED WITHIN 12 HOURS OF CONCRETE PLACEMENT. CONTROL JOINTS MAY BE INSTALLED BY:
     - I. SAW CUT A DEPTH OF 1/4 THE THICKNESS OF THE SLAB
     - II. TOOLED JOINTS A DEPTH OF 1/4 THE THICKNESS OF THE SLAB
   - C. INSTALL CONSTRUCTION OR CONTROL JOINTS IN SLABS ON GRADE AT A SPACING NOT TO EXCEED 30 TIMES THE SLAB THICKNESS IN ANY DIRECTION FOR UNREINFORCED SLABS AND 75 TIMES THE SLAB THICKNESS IN ANY DIRECTION FOR REINFORCED SLABS, UNLESS NOTED OTHERWISE. CONSTRUCTION JOINTS SHALL NOT EXCEED A DISTANCE OF 125'-0" O.C. IN ANY DIRECTION.
7. CONSTRUCTION
   - A. USE CHAIRS OR OTHER SUPPORT DEVICES RECOMMENDED BY THE CRSI TO SUPPORT AND TIE REINFORCEMENT BARS AND WWF PRIOR TO PLACING CONCRETE. WWF SHALL BE CONTINUOUSLY SUPPORTED AT 36" O.C. MAXIMUM. REINFORCING STEEL FOR SLABS ON GRADE SHALL BE ADEQUATELY SUPPORTED ON PRECAST CONCRETE UNITS. LIFTING THE REINFORCING OFF THE GRADE DURING PLACEMENT OF CONCRETE IS NOT PERMITTED.
   - B. CONCRETE TO BE MECHANICALLY CONSOLIDATED DURING PLACEMENT PER ACI STANDARDS.
   - C. CONTRACTOR SHALL COORDINATE PLACEMENT OF ALL OPENINGS, CURBS, DOWELS, SLEEVES, CONDUITS, BOLTS, INSERTS AND OTHER EMBEDDED ITEMS PRIOR TO CONCRETE PLACEMENT.
   - D. ALL EMBEDS AND DOWELS SHALL BE SECURELY TIED TO FORMWORK OR TO ADJACENT REINFORCING PRIOR TO THE PLACEMENT OF CONCRETE.
   - E. NO PIPES, DUCTS, SLEEVES, ETC. SHALL BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. PENETRATIONS THROUGH WALLS WHEN APPROVED SHALL BE BUILT INTO THE WALL PRIOR TO CONCRETE PLACEMENT. PENETRATIONS WILL NOT BE ALLOWED IN FOOTINGS OR GRADE BEAMS UNLESS DETAILED. PIPING SHALL BE ROUTED AROUND THESE ELEMENTS AND FOOTINGS STEPPED TO AVOID PIPING.
   - F. REINFORCING BARS SHALL NOT BE WELDED. DO NOT SUBSTITUTE REINFORCING BARS FOR DBAS OR HSAS.
8. DETAILING:
   - A. LAP LENGTHS SHALL BE AS FOLLOWS:
     - I. 30 BAR DIAMETERS FOR #3 AND #4 BARS
     - II. 40 BAR DIAMETERS FOR #5 THROUGH #8 BARS
     - III. DO NOT SPLICE STIRRUPS AND TIES.
     - IV. DO NOT SPLICE VERTICAL BARS IN RETAINING WALLS UNLESS SPECIFICALLY SHOWN.
   - B. AT JOINTS PROVIDE REINFORCING DOWELS TO MATCH THE MEMBER REINFORCING, UNLESS NOTED OTHERWISE.
   - C. AT ALL DISCONTINUOUS CONTROL OR CONSTRUCTION SLAB ON GRADE JOINTS, PROVIDE 2 - #4 X 48 INCHES.
   - D. PROVIDE CORNER BARS AT INTERSECTING WALL CORNERS USING THE SAME BAR SIZE AND SPACING AS THE HORIZONTAL WALL REINFORCING.
   - E. ALL VERTICAL REINFORCING SHALL BE DOWELED TO FOOTINGS, OR TO THE STRUCTURE BELOW WITH THE SAME SIZE AND SPACING AS THE VERTICAL REINFORCING FOR THE ELEMENT ABOVE. DOWELS EXTENDING INTO FOOTINGS SHALL TERMINATE WITH A 90 DEGREE STANDARD HOOK AND SHALL EXTEND TO WITHIN 4" OF THE BOTTOM OF THE FOOTING. FOOTING DOWELS (#8 BARS AND SMALLER) WITH HOOKS NEED NOT EXTEND MORE THAN 20" INTO FOOTINGS.
   - F. HORIZONTAL WALL REINFORCING SHALL TERMINATE AT ENDS OF WALLS AND OPENINGS INTO THE FAR END OF THE JAMB COLUMN WITH A 90-DEGREE STANDARD HOOK PLUS A 6 BAR DIAMETER EXTENSION. HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS THROUGH CONSTRUCTION AND CONTROL JOINTS.

6 DESIGN CRITERIA

1.	BUILDING CODE	IBC 2018
2.	WIND	
	a. 3 Second Gust Velocity	115 mph
	b. Exposure Category	C
3.	SNOW	
	a. Roof Snow Load	P_f = 25 psf min.
4.	SEISMIC	
	a. Occupancy	II
	b. Seismic Design Category	B
	c. Soil Site Class	D
	d. Mapped Spectral Response Accel	S_s = 0.188
	e. Site Coefficients	F_a= 1.6
	f. Design Spectral Response Accel	S_{DS} = 0.201
	g. Response Modification Factor	R=6.5
	h. System Overstrength Factor	Ω_0 = 2.5
	i. Deflection Amplification Factor	C_d = 1.75
	j. Seismic Response Coefficient	$C_s = S_{DS}*I_e/R = 0.101$
	k. W	Dead Load of Structure
	l. Base Shear	V = Cs*W = 0.101 W
5.	ROOF LOAD	
	a. Live Load	20 psf
	b. Dead Load	15 psf

LAUGHLIN RICKS

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Twin Falls, Idaho

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PROFESSIONAL ENGINEER — LICENSED — 16676 — 9/17/2021 — STATE OF IDAHO — DAVID K. BOYTER

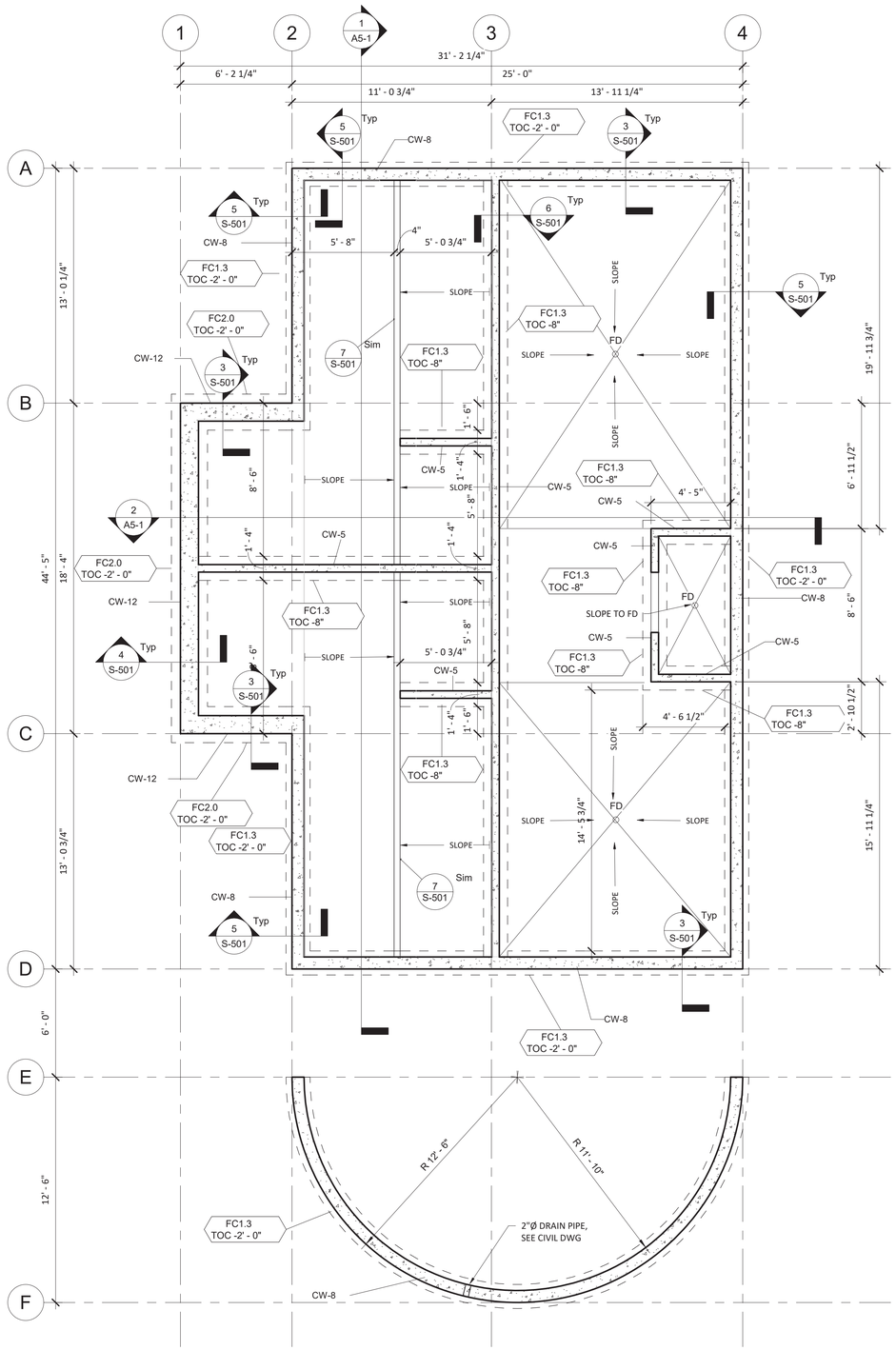
David K. Boyter, PE

Digitally signed by David K. Boyter, PE
Date: 2021.09.17 12:51:47 -06'00'

GENERAL STRUCTURAL NOTES

S-001

No.	Description	Date



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

CONCRETE SLAB ON GRADE:

- 4" CONCRETE SLAB THICKNESS
- SLAB SHALL BE OVER 4" FREE DRAINING GRANULAR FILL COMPLYING WITH ISPWC TYPE 1 (3/4" CRUSHED AGGREGATE). 4" GRANULAR FILL SHALL BE COMPACTED TO NO LESS THAN 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.
- EXCAVATION SHALL REMOVE ORGANIC, LOOSE OR OBVIOUSLY COMPRESSIVE MATERIALS SHALL BE REMOVED PRIOR TO PLACEMENT OF 4" FREE DRAINING GRANULAR FILL. IF STRUCTURAL FILL IS REQUIRED TO BRING UP THE GRADE THEN THE STRUCTURAL FILL SHALL BE 6 INCH MINUS SELECT, CLEAN, GRANULAR SOIL WITH NO MORE THAN 50% OVERSIZED (GREATER THAN 3/4") MATERIAL AND NO MORE THAN 12% FINES (PASSING NO. 200 SIEVE). THESE FILL MATERIALS SHOULD BE PLACED IN LAYERS NOT TO EXCEED 12 INCHES IN LOOSE THICKNESS. STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.

MARKS AND SYMBOLS LEGEND

SECTION MARK
SHEET NUMBER

CW-X — INDICATES CONC. WALL, SEE SCH ON S-601

F__X_
TOC ____ — INDICATES FOOTING AND TOP OF CONC. FOOTING (TOC), SEE PLAN AND SCH. ON S-601
NOTE VERIFY TOP OF CONC. ELEVATIONS WITH ARCH PLANS AND FIELD VERIFY FORST DEPTH.

FOUNDATION PLAN NOTES

1. VERIFY ALL FLOOR OPEINGS FOR MECHANICAL SHAFTS, STAIRS, ETC. WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. SEE ARCHITECTURAL DRAWINGS FOR COLUMN WALLS AND OPENING DIMENSIONS.
3. FIELD VERIFY ALL DIMENSIONS.
4. ARCHITECT TO VERIFY REQUIRED BEAM CLEARANCE
5. COORDINATE LOCATION OF DEPRESSED SLABS, SLOPED SLABS, AND FLOOR DRAINS ARCHITECTURAL AND MECHANICAL DRAWINGS.
6. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS, ETC.
7. SEE ARCHITECTURAL DRAWINGS FOR CONTROL JOINT LOCATION.
8. ALL SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS (UNO).
9. SEE DETAILS 1&2/S-501 FOR CONDITION WHERE BURIED PIPES RUN PARALLEL AND PERPENDICULAR TO FOOTINGS.
10. SEE DETAIL 7/S-601 FOR TYPICAL CONTROL/CONSTRUCTION JOINTS IN CONCRETE SLAB ON GRADE.
11. SEE DETAIL 5/S-601 FOR SLAB REINFORCING WHERE CONTROL JOINTS ARE DISCONTINUOUS.
12. SEE DETAIL 6/S-601 FOR ADDITIONAL REINFORCING AT OPENINGS IN CONCRETE WALLS.
13. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS FOR ALL WALLS AND OPENINGS.

No.	Description	Date

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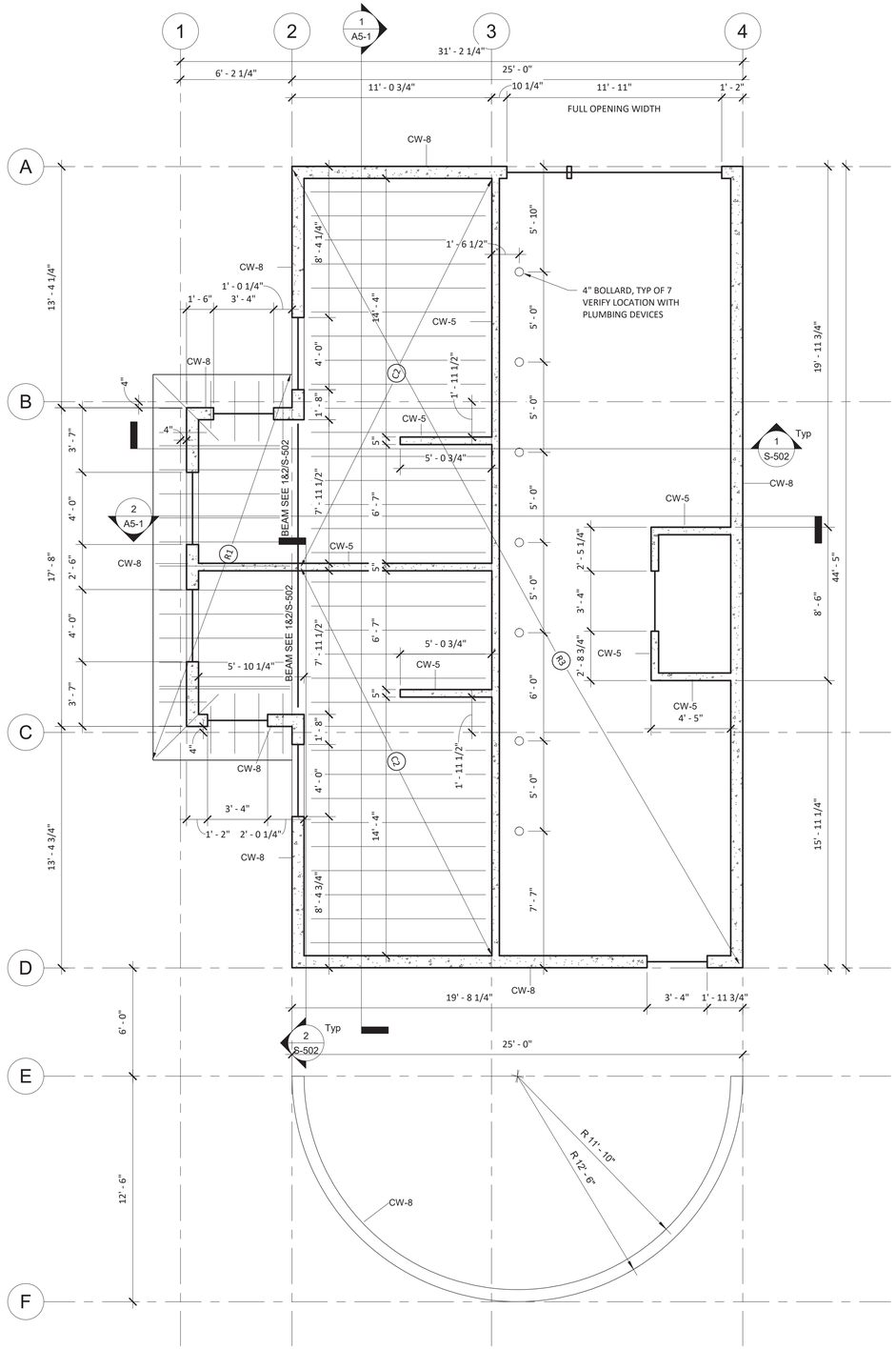
PROFESSIONAL ENGINEER LICENSED 16676 9/17/2021 STATE OF IDAHO DAVID K. BOYTER

FOUNDATION PLAN

S-101



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

OPENING NOTE:

- REINFORCING AROUND OPENINGS SHALL BE PER DETAIL 6/S-601
- VERIFY OPENING DIM. IN CONCRETE WALL WITH ARCH PLANS AND DOORS/WINDOWS SUPPLIER

FRAMING KEY:

R1 2X10 DF #2 OR BETTER @ 24" O.C.

C2 2X6 DF #2 OR BETTER @ 16" O.C.

R3 METAL BUILDING CURVED ROOF DESIGN BY OTHERS

MARKS AND SYMBOLS LEGEND

SECTION MARK
SHEET NUMBER

CW-X INDICATES CONC. WALL, SEE SCH ON S-601

F__X__
TOC ____
INDICATES FOOTING AND TOP OF CONC. FOOTING (TOC), SEE PLAN AND SCH. ON S-601
NOTE VERIFY TOP OF CONC. ELEVATIONS WITH ARCH PLANS AND FIELD VERIFY FORST DEPTH.

PLAN NOTES

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2. SEE ARCHITECTURAL DRAWINGS FOR COLUMN WALLS AND OPENING DIMENSIONS.
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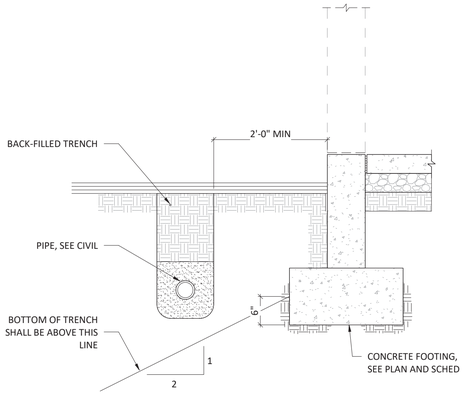
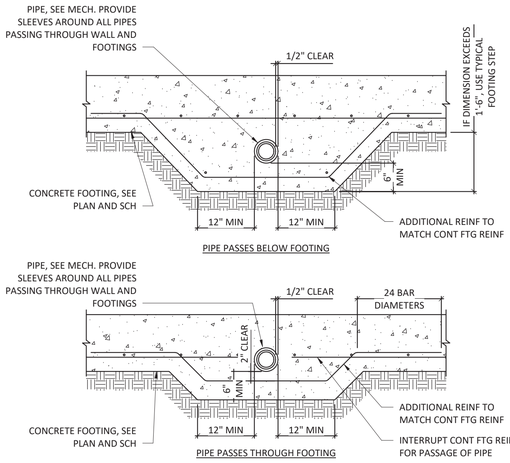
PROFESSIONAL ENGINEER
LICENSED
16676
9/17/2021
STATE OF IDAHO
DAVID K. BOYTER

ROOF FRAMING PLAN

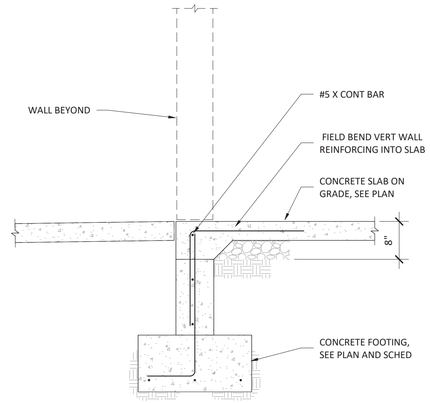
S-102



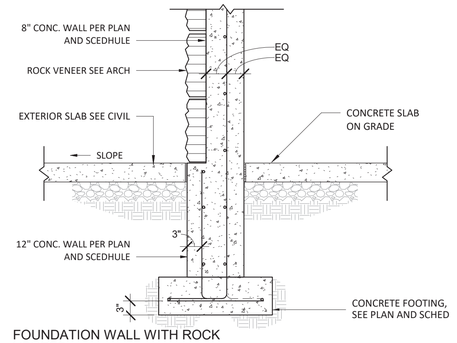
1 CONDITION AT PIPE PARALLEL TO CONCRETE FOOTING
3/4" = 1'-0"



2 CONDITION AT PIPE PERP. TO CONC. FTG.
3/4" = 1'-0"



3 CONCRETE FOUNDATION AT OPENING
3/4" = 1'-0"



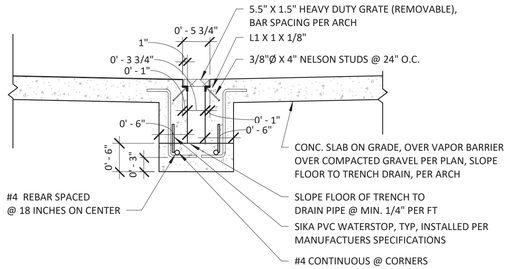
4 FOUNDATION WALL WITH ROCK VENEER
3/4" = 1'-0"

CONCRETE SLAB ON GRADE:
- 4" CONCRETE SLAB THICKNESS
- SLAB SHALL BE OVER 4" FREE DRAINING GRANULAR FILL COMPLYING WITH ISPWC TYPE 1 (3/4" CRUSHED AGGREGATE). 4" GRANULAR FILL SHALL BE COMPACTED TO NO LESS THAN 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.
- EXCAVATION SHALL REMOVE ORGANIC, LOOSE OR OBVIOUSLY COMPRESSIVE MATERIALS SHALL BE REMOVED PRIOR TO PLACEMENT OF 4" FREE DRAINING GRANULAR FILL. IF STRUCTURAL FILL IS REQUIRED TO BRING UP THE GRADE THEN THE STRUCTURAL FILL SHALL BE 6 INCH MINUS SELECT, CLEAN, GRANULAR SOIL WITH NO MORE THAN 50% OVERSIZED (GREATER THAN 3/4") MATERIAL AND NO MORE THAN 12% FINES (PASSING NO. 200 SIEVE). THESE FILL MATERIALS SHOULD BE PLACED IN LAYERS NOT TO EXCEED 12 INCHES IN LOOSE THICKNESS. STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.

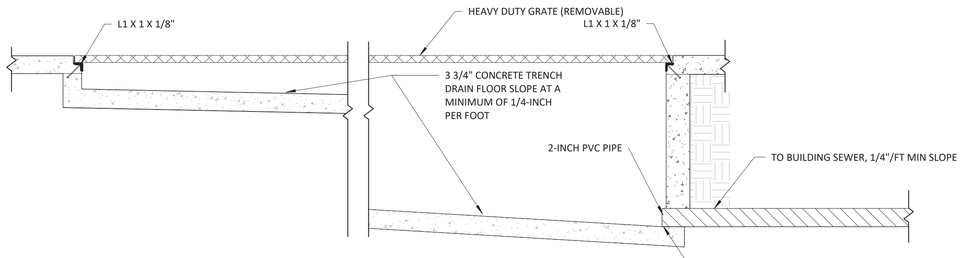
5 FOUNDATION WALL AT SLAB ON GRADE
3/4" = 1'-0"

CONCRETE SLAB ON GRADE:
- 4" CONCRETE SLAB THICKNESS
- SLAB SHALL BE OVER 4" FREE DRAINING GRANULAR FILL COMPLYING WITH ISPWC TYPE 1 (3/4" CRUSHED AGGREGATE). 4" GRANULAR FILL SHALL BE COMPACTED TO NO LESS THAN 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.
- EXCAVATION SHALL REMOVE ORGANIC, LOOSE OR OBVIOUSLY COMPRESSIVE MATERIALS SHALL BE REMOVED PRIOR TO PLACEMENT OF 4" FREE DRAINING GRANULAR FILL. IF STRUCTURAL FILL IS REQUIRED TO BRING UP THE GRADE THEN THE STRUCTURAL FILL SHALL BE 6 INCH MINUS SELECT, CLEAN, GRANULAR SOIL WITH NO MORE THAN 50% OVERSIZED (GREATER THAN 3/4") MATERIAL AND NO MORE THAN 12% FINES (PASSING NO. 200 SIEVE). THESE FILL MATERIALS SHOULD BE PLACED IN LAYERS NOT TO EXCEED 12 INCHES IN LOOSE THICKNESS. STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.

6 INTERIOR FOUNDATION WALL AT SLAB ON GRADE
3/4" = 1'-0"



CROSSWISE SECTION - TRENCH GRATE CAST-IN-PLACE FRAME



LONGITUDE SECTION - TRENCH GRATE CAST-IN-PLACE FRAME

7 5.5" TRENCH DRAIN CAST-IN-PLACE FRAME
3/4" = 1'-0"

No.	Description	Date

LAUGHLIN RICKS

Frontier Park, CSI Campus
Twin Falls, Idaho

NOESIS ENGINEERING SERVICES, P.C.

1712 CABALLERO DR.
AMMON, IDAHO 83406
(208) 932-2720
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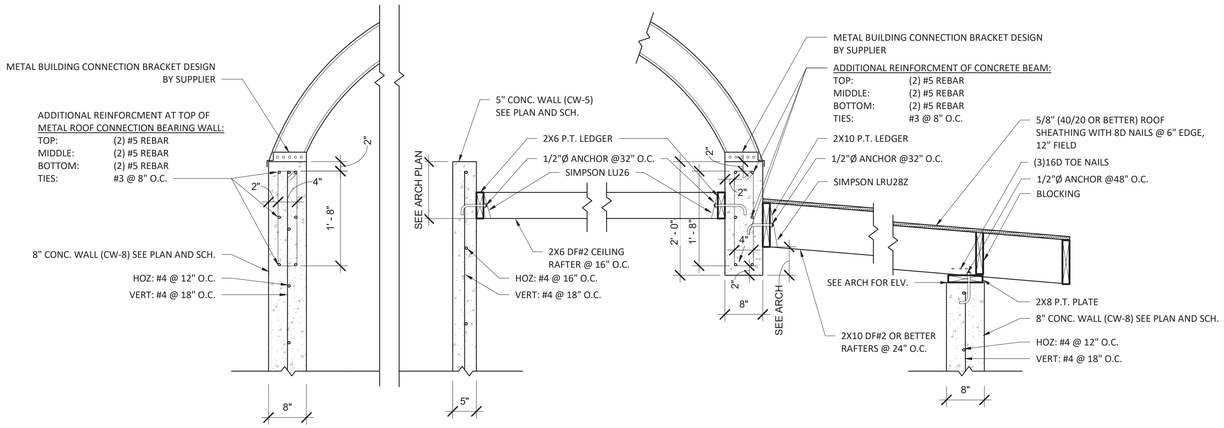
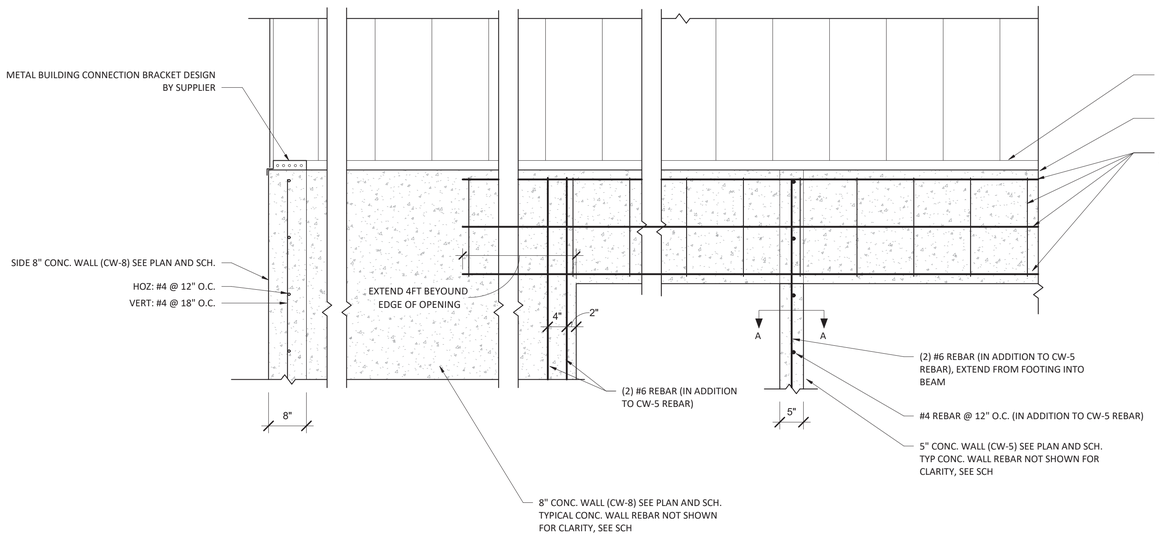
Frontier Park, CSI Campus
21060

DETAILS

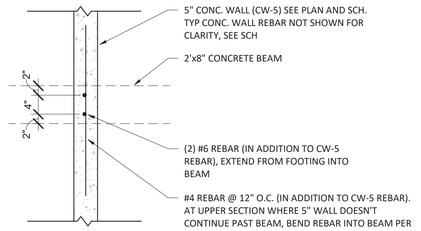
S-501



1 ROOF AND CEILING TO CONC. WALL
3/4" = 1'-0"



2 CONCRETE BEAM TO 5" WALL CONNECTION
3/4" = 1'-0"



SECTION A-A

No.	Description	Date

LAUGHLIN RICKS

Frontier Park, CSI Campus
Twin Falls, Idaho

NOESIS ENGINEERING SERVICES, P.C.

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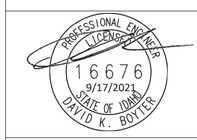
21060



DETAILS

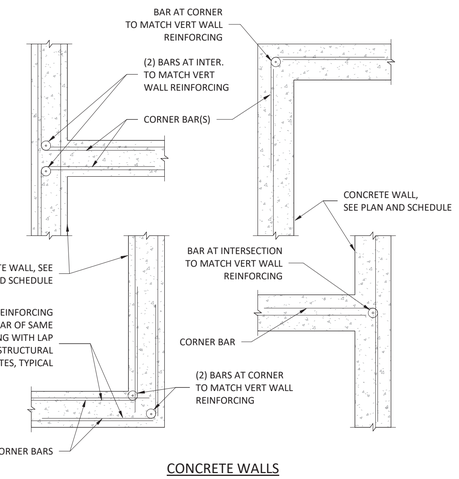
S-502

CONCRETE FOOTING SCHEDULE													
DIAGRAM	MARK	WIDTH	LENGTH	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				MAX. DESIGN LOAD @ T.O.F.
					No.	SIZE	LENGTH	SPACING	No.	SIZE	LENGTH	SPACING	
COLUMN SHALL APPLY FORCE IN CENTER UNLESS OTHERWISE NOTED REINFORCING CROSSWISE REINFORCING LENGTHWISE DEPTH LENGTH WIDTH	FS1.5	1'-6"	1'-6"	10"	2	#4	1'-0"	EQ	2	#4	1'-0"	EQ	2,700 LB
	FS1.75	1'-9"	1'-9"	10"	2	#4	1'-3"	EQ	2	#4	1'-3"	EQ	3,675 LB
	FS2.0	2'-0"	2'-0"	10"	3	#4	1'-6"	EQ	3	#4	1'-6"	EQ	4,800 LB
	FS2.25	2'-3"	2'-3"	10"	3	#4	1'-9"	EQ	3	#4	1'-9"	EQ	6,075 LB
	FS2.5	2'-6"	2'-6"	10"	3	#4	2'-0"	EQ	3	#4	2'-0"	EQ	7,500 LB
	FS2.75	2'-9"	2'-9"	10"	3	#4	2'-3"	EQ	3	#4	2'-3"	EQ	9,075 LB
	FS3.0	3'-0"	3'-0"	10"	4	#4	2'-6"	EQ	4	#4	2'-6"	EQ	10,800 LB
	FS3.25	3'-3"	3'-3"	10"	4	#4	2'-9"	EQ	4	#4	2'-9"	EQ	12,675 LB
	FS3.5	3'-6"	3'-6"	10"	4	#4	3'-0"	EQ	4	#4	3'-0"	EQ	14,700 LB
	FS3.75	3'-9"	3'-9"	10"	5	#4	3'-3"	EQ	5	#4	3'-3"	EQ	16,875 LB
	FS4.0	4'-0"	4'-0"	10"	5	#4	3'-6"	EQ	5	#4	3'-6"	EQ	19,200 LB
	FS4.25	4'-3"	4'-3"	10"	5	#4	3'-9"	EQ	5	#4	3'-9"	EQ	21,675 LB
	FS4.5	4'-6"	4'-6"	12"	5	#5	4'-0"	EQ	5	#5	4'-0"	EQ	24,300 LB
	FS4.75	4'-9"	4'-9"	12"	5	#5	4'-3"	EQ	5	#5	4'-3"	EQ	27,075 LB
	FS5.0	5'-0"	5'-0"	12"	5	#5	4'-6"	EQ	5	#5	4'-6"	EQ	30,000 LB
	FS5.25	5'-3"	5'-3"	12"	5	#5	4'-9"	EQ	5	#5	4'-9"	EQ	33,075 LB
	FS5.5	5'-6"	5'-6"	12"	5	#5	5'-0"	EQ	5	#5	5'-0"	EQ	36,300 LB
	FS5.75	5'-9"	5'-9"	14"	6	#5	5'-3"	EQ	6	#5	5'-3"	EQ	39,675 LB
	FS6.0	6'-0"	6'-0"	14"	6	#5	5'-6"	EQ	6	#5	5'-6"	EQ	43,200 LB
WALL (OR COLUMN) SHALL APPLY FORCE IN CENTER UNLESS OTHERWISE NOTED REINFORCING CROSSWISE REINFORCING LENGTHWISE DEPTH LENGTH WIDTH	FC1.3	1'-4"	CONT	8"	1	#4	1'-0"	12" O.C.	2	#4	CONT	EQ	1,800 LB/FT
	FC1.5	1'-6"	CONT	8"	1	#5	1'-2"	12" O.C.	2	#4	CONT	EQ	2,000 LB/FT
	FC1.75	1'-9"	CONT	8"	1	#5	1'-3"	12" O.C.	2	#4	CONT	EQ	2,400 LB/FT
	FC2.0	2'-0"	CONT	8"	1	#5	1'-6"	12" O.C.	2	#4	CONT	EQ	2,700 LB/FT
	FC2.25	2'-3"	CONT	10"	1	#5	1'-9"	12" O.C.	2	#4	CONT	EQ	3,000 LB/FT
	FC2.5	2'-6"	CONT	10"	1	#5	2'-0"	12" O.C.	2	#4	CONT	EQ	3,300 LB/FT
	FC2.75	2'-9"	CONT	10"	1	#5	2'-3"	12" O.C.	2	#4	CONT	EQ	3,700 LB/FT
	FC3.0	3'-0"	CONT	12"	1	#5	2'-6"	12" O.C.	2	#4	CONT	EQ	4,000 LB/FT
	FC3.25	3'-3"	CONT	12"	1	#5	2'-9"	12" O.C.	2	#4	CONT	EQ	4,300 LB/FT
	FC3.5	3'-6"	CONT	12"	1	#5	3'-0"	12" O.C.	2	#4	CONT	EQ	4,600 LB/FT

CONCRETE FOOTING NOTES:

1. COMPRESSIVE STRENGTHS OF CONCRETE AT 28 DAYS SHALL BE 3,000 PSI
2. PLACE ALL FOOTING REINFORCING IN THE BOTTOM OF THE FOOTING WITH 3" CLEAR CONCRETE COVER (UNO).
3. TOP REINFORCING, WHERE OCCURS, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" MINIMUM CONCRETE COVER.
4. IF FOOTINGS ARE EARTH-FORMED, FOOTINGS SHALL BE 6" LONGER AND WIDER THAN SCHEDULED.
5. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
6. SOME SCHEDULED FOOTINGS MAY NOT BE USED, SEE FOOTING AND FOUNDATION PLAN FOR FOOTING MARKS.
7. THIS SCHEDULE ASSUMES A SOIL BEARING PRESSURE OF 1,500 PSF
8. INFORMATION PROVIDED HERE IS DESIGNED BY NES AND MAY ONLY BE USED BY PERMISSION.
9. THIS SCHEDULE WAS ADOPTED AS PART OF NES STANDARDS IN JULY 2018, FULL CALCULATION PACKAGE ON FILE IN NES MAIN OFFICE.

1 CONC. FOOTING SCHEDULE



CONCRETE WALLS

4 TYP CORNER WALL REINFORCING

CONCRETE WALL SCHEDULE					
MARK	THICKNESS	REINFORCING			WALL TYPE	COMMENTS
		VERTICAL	HORIZONTAL	TOP AND BOTTOM		
CW-5	5"	#4 BARS AT 18" O.C.	#4 BARS AT 16" O.C.	(1) #4 BAR	'A'	.
CW-8	8"	#4 BARS AT 18" O.C.	#4 BARS AT 12" O.C.	(1) #4 BAR	'A'	
CW-12	12"	#4 BARS AT 18" O.C. E.F.	#4 BARS AT 16" O.C. E.F.	(1) #4 BAR	'D'	

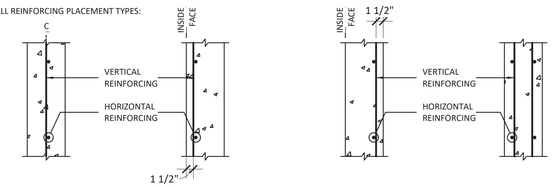
CONCRETE FOUNDATION WALL NOTES:

1. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
2. CONCRETE FOUNDATION WALLS NOT DESIGNATED ON PLANS SHALL BE REINFORCED AS FOLLOWS:

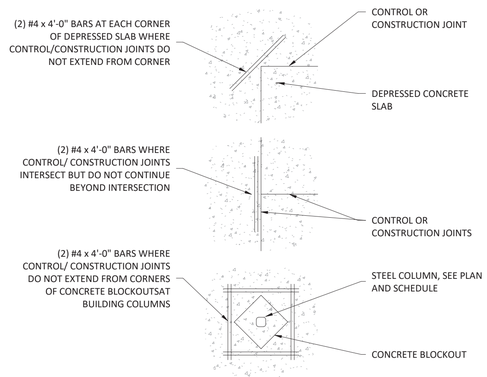
THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
6"	#4 BARS AT 18" O.C.	#4 BARS AT 16" O.C.
8"	#4 BARS AT 18" O.C.	#4 BARS AT 12" O.C.
10"	#4 BARS AT 16" O.C.	#5 BARS AT 15" O.C.
12"	#4 BARS AT 18" O.C. E.F.	#4 BARS AT 16" O.C. E.F.

ABBREVIATIONS:
E.F. EACH FACE
I.F. INSIDE FACE
O.F. OUTSIDE FACE

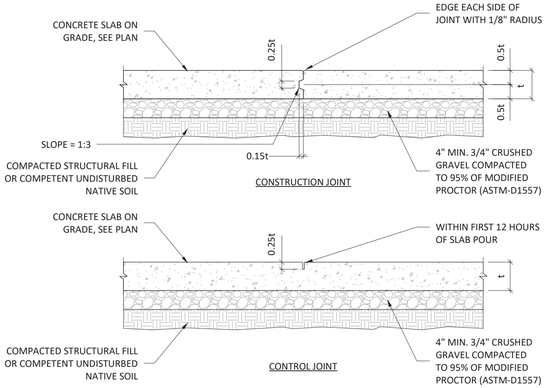
WALL REINFORCING PLACEMENT TYPES:



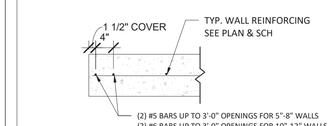
3 CONC. WALL SCHEDULE



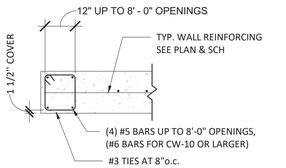
5 LOCATIONS REQUIRING ADDITIONAL SLAB REINFORCING



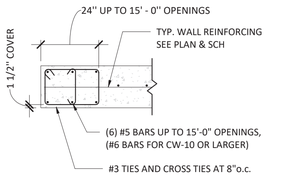
7 TYP SLAB ON GRADE JOINT DETAIL



OPENINGS UP TO 3' WIDE

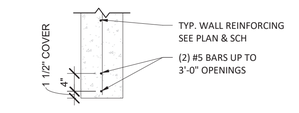


OPENINGS UP TO 8' WIDE

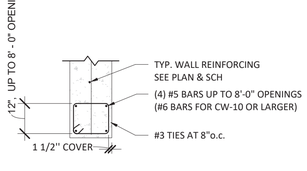


OPENINGS UP TO 15' WIDE

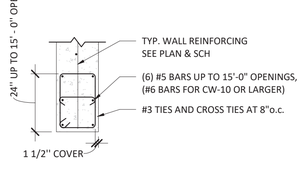
SECTION A - SIDE TRIM BARS



OPENINGS UP TO 3' WIDE

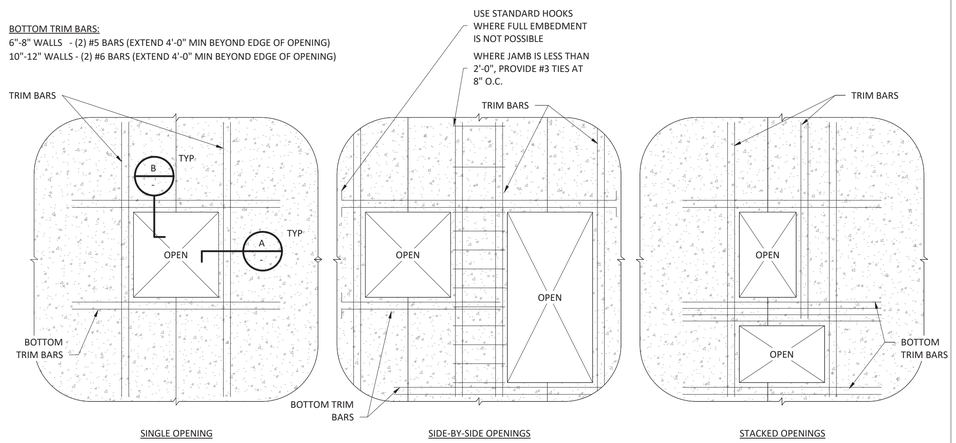


OPENINGS UP TO 8' WIDE



OPENINGS UP TO 15' WIDE

SECTION B - TOP TRIM BARS



NOTE: ALL TIRM BARS (TOP, SIDE AND BOTTOM) SHALL EXTEND A MIN. OF 4' FROM EDGE OF OPENING, WHERE FULL EMBEDMENT IS NOT POSSIBLE USE STANDARD HOOKS

6 TYP REINFORCING OPENINGS IN CONC WALLS

No.	Description	Date

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Twin Falls, Idaho

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SCHEDULES

S-601