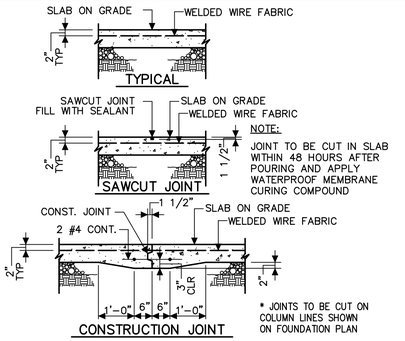
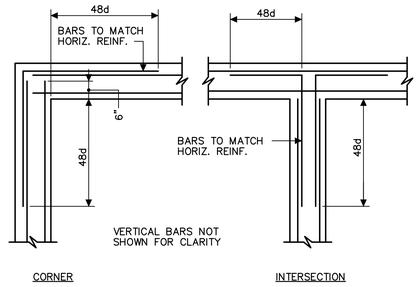


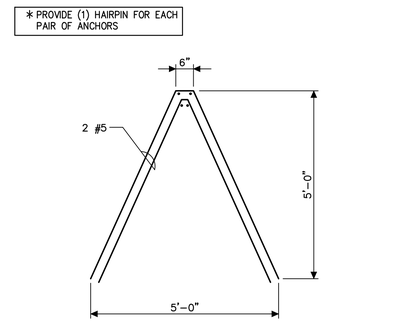
1 S-100 TYPICAL SLAB CONSTRUCTION

SCALE: N.T.S.



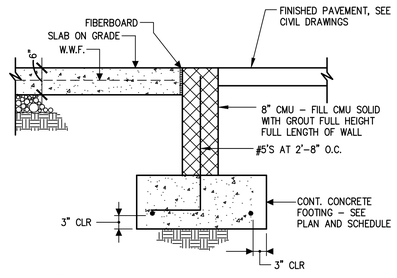
2 S-100 CORNER REINFORCING IN CONCRETE FOOTING AND GRADE WALL

SCALE: N.T.S.



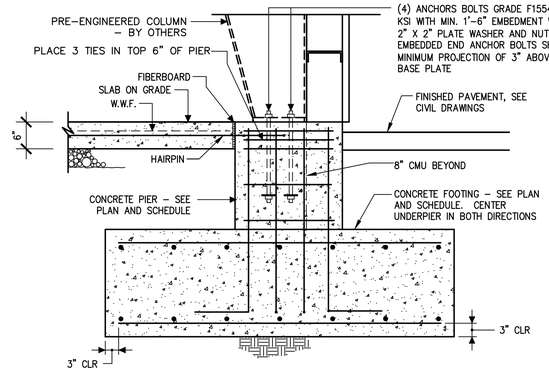
3 S-100 TYPICAL HAIRPIN DETAIL

SCALE: N.T.S.



4 S-100 SECTION

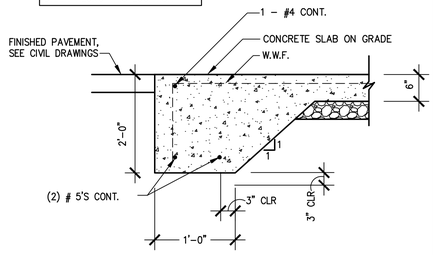
SCALE: N.T.S.



5 S-100 SECTION

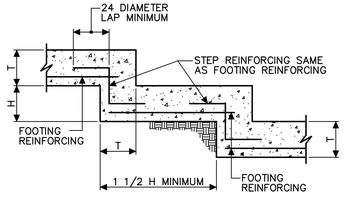
SCALE: N.T.S.

SEE MEP AND ARCHITECTURAL DRAWINGS FOR TRENCH DRAIN ALONG THIS LOCATION



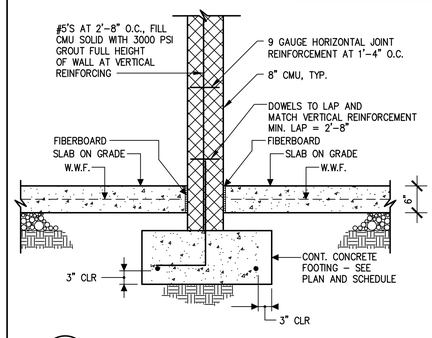
6 S-100 SECTION

SCALE: N.T.S.



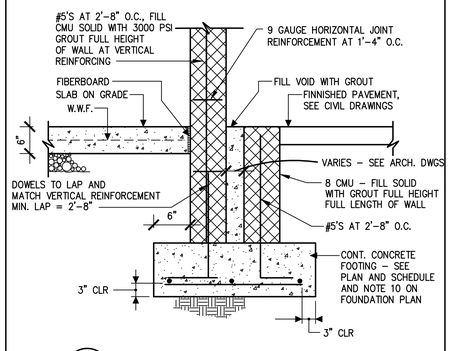
7 S-100 TYPICAL STEP FOOTING

SCALE: N.T.S.



8 S-100 SECTION

SCALE: N.T.S.



9 S-100 SECTION

SCALE: N.T.S.

SCHEDULES

FOOTING SCHEDULE

MARK	SIZE	REINFORCING	REMARKS
F1	1'-0" X 2'-0" X CONT.	(2) #5'S CONT.	-----
F2	2'-0" X 6'-0" X 6'-0"	(7) #5'S E.W. TOP AND BOTTOM	-----
F3	2'-0" X 6'-6" X 6'-6"	(8) #5'S E.W. TOP AND BOTTOM	-----
F4	2'-0" X 5'-0" X 5'-0"	(6) #5'S E.W. TOP AND BOTTOM	-----

PIER SCHEDULE

MARK	SIZE	REINFORCING	REMARKS
P1	12" X 24" CONCRETE	8 #5'S VERTICAL #3 TIES AT 6" O.C.	
P2	24" X 24" CONCRETE	8 #5'S VERTICAL #3 TIES AT 6" O.C.	
P3	12" X 20" CONCRETE	8 #5'S VERTICAL #3 TIES AT 6" O.C.	
P4	12" X 12" CONCRETE	4 #5'S VERTICAL #3 TIES AT 6" O.C.	
P5	14" X 14" CONCRETE	4 #5'S VERTICAL #3 TIES AT 6" O.C.	

GENERAL STRUCTURAL NOTES

CODE: 2015 VIRGINIA UNIFORM STATE WIDE BUILDING CODE

OCCUPANCY CATEGORY II

DESIGN LOADS:

FLOOR LIVE LOAD (SLAB ON GRADE) = 150 PSF
ROOF LIVE LOAD = 20 PSF (SNOW DRIFT APPLIED PER CODE)
COLLATERAL ROOF DEAD LOAD = 5 PSF
MEZZANINE LIVE LOAD = 125 PSF

WIND LOADS:
BASIC WIND SPEED = 115 MPH (3 SECOND GUST)
EXPOSURE 'B'
K = 1.0

GROUND SNOW LOAD = 30 PSF
I = 1.0
Ce = 0.9
Ct = 1.0
Pf = 21 PSF

SEISMIC LOADS:
Ss = 0.231g
Si = 0.070g
Sds = 0.247g
Sdi = 0.111g
SEISMIC DESIGN CATEGORY 'B'
SITE CLASSIFICATION 'D'
I = 1.0

SHEETS S-100 THRU S-102 ARE STRUCTURAL DESIGN DRAWINGS ONLY (REQUIRED FOR THE FOUNDATION PLAN, MEZZANINE FLOOR FRAMING PLAN, DETAILS AND SCHEDULES). ANY REFERENCE TO ARCHITECTURAL MATERIALS, SYSTEMS, OR CONCEPTS IS FOR CLARITY ONLY.

ALL FILL AND UNSUITABLE FOUNDATION MATERIAL SHALL BE REMOVED AND FOOTINGS SHALL REST ON UNDISTURBED SOIL OR ENGINEERED FILL AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

FOOTINGS ARE DESIGNED FOR A MINIMUM ASSUMED SOIL BEARING CAPACITY OF 1500 PSF.

ALL EXTERIOR CONCRETE EXPOSED TO WEATHER SHALL BE 4000 PSI, AIR-ENTRAINED. ALL OTHER CONCRETE SHALL BE 4000 PSI. ALL MATERIALS AND PROCESSES TO THIS END SHALL CONFORM IN GENERAL TO ACI RECOMMENDED PRACTICE FOR THE DESIGN OF CONCRETE MIXES. (ACI-613 LAST REVISED).

PROVIDE 3/4" CHAMFER ON EXPOSED CONCRETE EDGES.

CONTRACTOR SHALL PLACE 1/2" ASPHALT IMPREGNATED FIBER BOARD IN JOINTS OF CONCRETE SLAB ON GRADE AGAINST VERTICAL SURFACES.

STEEL REINFORCING SHALL BE BILLET STEEL ASTM A-615, GRADE 60.

MESH SHALL BE WELDED WIRE FABRIC ASTM A-185.

ALL DIMENSIONS SHOWN ON THIS DRAWING SHALL BE VERIFIED BY THE CONTRACTOR AT THE PROJECT SITE PRIOR TO COMMENCING CONSTRUCTION OR FABRICATION OF BUILDING ELEMENTS.

GENERAL CONTRACTOR SHALL COORDINATE FOUNDATION DETAILS AND DIMENSIONS WITH REQUIREMENTS OF METAL BUILDING SYSTEM SUPPLIED.

FOUNDATIONS SHOWN ON FOUNDATION PLAN ARE BASED ON REACTIONS PROVIDED BY AMERICAN BUILDINGS PROJECT NUMBER A20D1401A DATED 12/11/2020.

GENERAL CONTRACTOR SHALL COORDINATE ALL PIER SIZES SHOWN WITH METAL BUILDING MANUFACTURER'S ANCHOR BOLT SETTING PLAN.

UNLESS NOTED OTHERWISE, ALL SUPPORTED FLOOR SLABS ON METAL DECK SHALL BE REINFORCED WITH 6X6 - W1.4 X W1.4 W.W.F., EQUALLY SPACED BETWEEN TOP OF METAL DECK AND TOP OF CONCRETE SLAB.

ROUND STEEL PIPE SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-501. SQUARE AND RECTANGULAR STEEL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500, GRADE B. ALL STRUCTURAL STEEL BEAMS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A992, FY= 50KSI. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-36. ALL STEEL SHALL RECEIVE ONE COAT OF SHOP PAINT, UNLESS NOTED OTHERWISE.

CUTS, HOLES, COPINGS, ETC. IN STRUCTURAL STEEL MEMBERS REQUIRED BY WORK OF OTHER TRADES SHALL BE MADE IN THE SHOP AND SHALL BE SHOWN ON THE SHOP DRAWINGS. BURNING OF HOLES OR CUTS IN THE FIELD WILL NOT BE PERMITTED WITHOUT SPECIFIC APPROVAL OF THE ENGINEER.

STEEL JOISTS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE STEEL JOIST INSTITUTE. BRIDGING SHALL BE BY STEEL MEMBERS WITH L/R NOT TO EXCEED 300. END JOISTS SHALL BE BRACED AND TIED TO ADJACENT STRUCTURAL MEMBERS.

ALL JOIST BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE CONSTRUCTION LOADS ARE PLACED ON THE JOISTS.

STEEL FORM DECK SHALL BE 0.6 C AS MANUFACTURED BY VULCRAFT (OR EQUAL), 9/16" DEEP AND 28 GAUGE. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. USE 30/4 FASTNER LAYOUT WITH #12 TEK SCREWS AT SUPPORTS AND #10 SCREWS AT 2'-0" O.C. AT SIDELAPS

f'c GROUT = 3000 PSI

f'm CMU = 2200 PSI (MINIMUM)

INTERACTIVE • DESIGN

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NO.	REVISIONS	DATE

NEW CONSTRUCTION FOR

BMW ROANOKE SERVICE FACILITY

2032 PETERS CREEK RD
ROANOKE, VA 24017

DATE	FEB . 25 . 2021
DRAWN	BMB
CHECKED	JFK
JOB	20-059

GENERAL STRUCTURAL NOTES, SCHEDULES & TYP. SECTIONS

SHEET
S-100