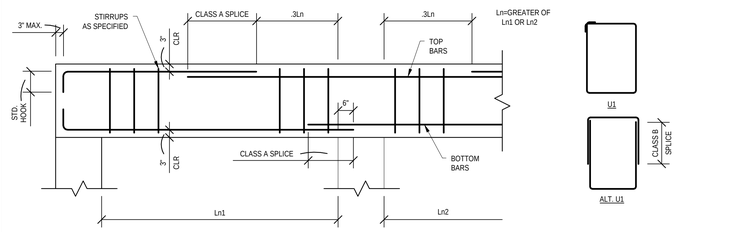
GRADE BEAM SCHEDULE



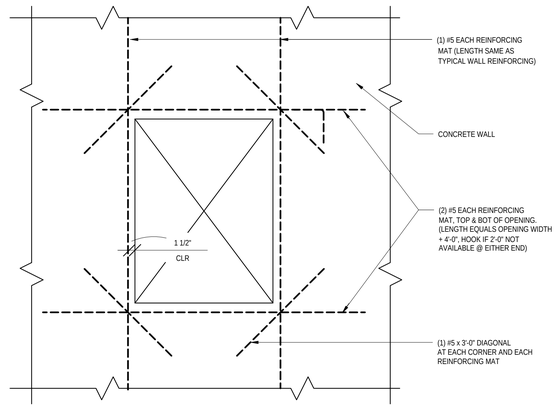
STIRRUP DETAILS

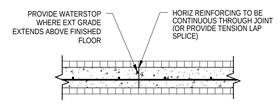
CLASS A SPLICE LENGTH

BAR SIZE	BOTTOM BARS	TOP BARS
#5	24"	31"
#6	29"	38"
#7	41"	53"
#8	47"	61"
#9	53"	69"
#10	60"	77"
#11	66"	86"

MARK	WIDTH	DEPTH	BOTTOM BARS	TOP BARS	STIRRUPS (EACH END)			REMARKS
					SIZE	TYPE	SPACING	
GB-1	24"	28"	7-#9	4-#7	#3	U1	11@6, REMAINDER@9	-

NOTES:
1. GRADE BEAMS SHALL BE FORMED AND CAST OVER A 2" MINIMUM THICKNESS MUD MAT.
2. LOCATE ALL CONSTRUCTION JOINTS IN GRADE BEAMS CENTERED OVER THE DRILLED PIER OR FOOTING. CONSTRUCTION JOINTS SHALL HAVE REINFORCING RUN CONTINUOUS THROUGH THE JOINT WITH A MINIMUM 9"x18"x 1 1/2" SHEAR KEY.
3. SLEEVE ALL PENETRATIONS THROUGH GRADE BEAMS WITH 1" COMPRESSIBLE MATERIAL AROUND PIPE.
4. HORIZONTAL PENETRATIONS THROUGH GRADE BEAMS SHALL OCCUR IN THE MIDDLE THIRD OF THE BEAM DEPTH. VERTICAL PENETRATIONS LARGER THAN 2" ARE PROHIBITED IN GRADE BEAMS. PENETRATIONS MAY NOT INTERRUPT OR CUT THROUGH REINFORCING.
5. QUANTITY AT STIRRUP SPACING REFERS TO NUMBER OF SPACES, NOT NUMBER OF TIES.
6. CONTRACTOR SHALL PROVIDE AND INSTALL MECHANICAL COUPLERS IN LIEU OF LAP SPLICES FOR LONGITUDINAL REINFORCING WHERE REQUIRED TO PLACE BARS IN CONGESTED ZONES. LOCATION OF SPLICE OR MECHANICAL COUPLER SHALL BE AS SHOWN ON SCHEDULE. MECHANICAL COUPLER SHALL DEVELOP FULL TENSION AND COMPRESSION CAPACITY OF REBAR TO 1.25 TIMES THE YIELD STRENGTH. SUBMIT PRODUCT CUT SHEET OF MECHANICAL COUPLERS FOR ENGINEER'S REVIEW WITH REINFORCING SHOP DRAWINGS.

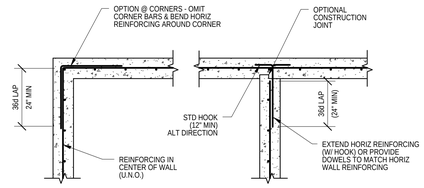




NOTES:
1. PERMIT 48 HOURS BETWEEN ADJACENT POURS.

C S-3.1 TYPICAL CONCRETE WALL CONSTRUCTION JOINT DETAIL

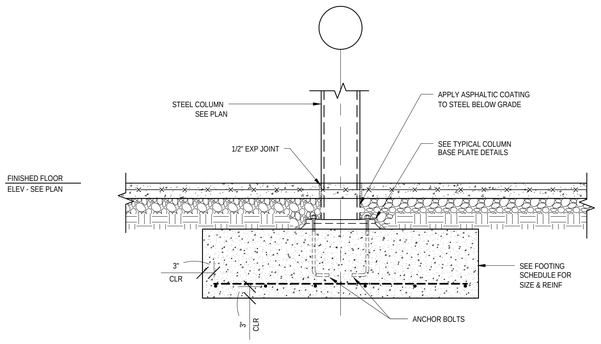
NOT TO SCALE



NOTE:
WHERE BAR SIZES DIFFER, LAP FOR LARGER SIZE.

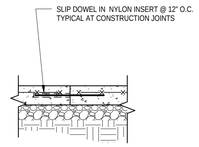
A S-3.1 GRADE BEAM SCHEDULE

1/2" = 1'-0"

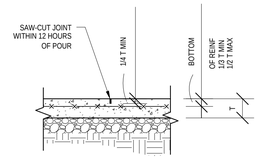


E S-3.1 TYPICAL STEEL COLUMN AND FOOTING DETAILS

NOT TO SCALE



CONSTRUCTION JOINT

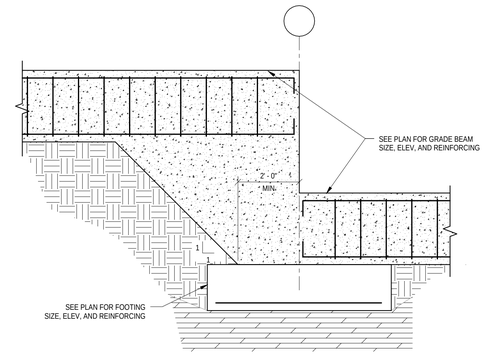


SAWN CONTRACTION JOINT

NOTES:
1. JOINTS SHALL BE INSTALLED IN SLABS ON GROUND AT A MAXIMUM SPACING IN FEET OF 3 TIMES THE SLAB THICKNESS IN INCHES IN EACH DIRECTION BY EITHER OF THE ABOVE METHODS. MAXIMUM LENGTH OF ANY SLAB ON GROUND POUR TO BE 100'-0" BETWEEN CONSTRUCTION JOINTS. RATIO OF LENGTH TO WIDTH SHALL NOT EXCEED 2. THIS SPACING OF JOINTS SHALL APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE.
2. REINFORCING SHALL BE DISCONTINUOUS THROUGH CONSTRUCTION JOINTS.

F S-3.1 SLAB ON GROUND JOINT DETAIL

NOT TO SCALE



G S-3.1 TYPICAL STEPPED GRADE BEAM DETAIL

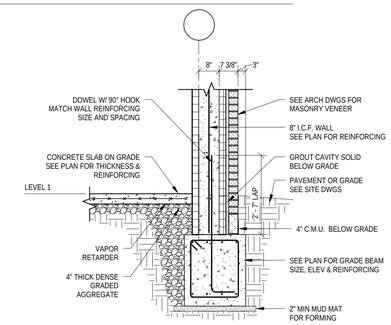
1/2" = 1'-0"

B S-3.1 TYPICAL REINFORCING AT CONCRETE WALL OPENING DETAIL

NOT TO SCALE

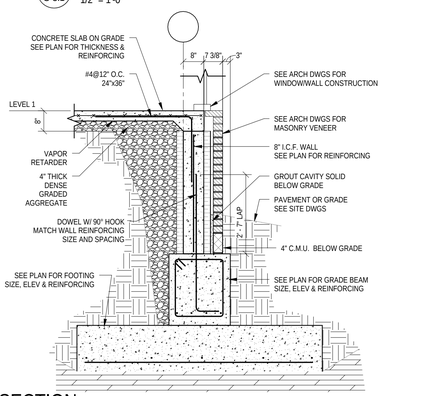
D S-3.1 TYPICAL CONCRETE WALL REINFORCING DETAIL

NOT TO SCALE



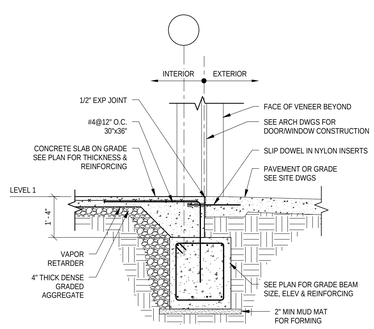
H S-3.1 SECTION

1/2" = 1'-0"



N S-3.1 SECTION

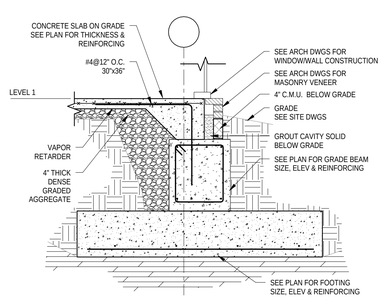
1/2" = 1'-0"



J S-3.1 SECTION @ MAN DOOR

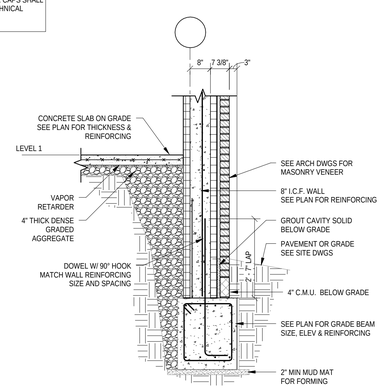
1/2" = 1'-0"

HATCH DENOTING SOIL AND BEDROCK MAY NOT ACCURATELY PORTRAY ACTUAL CONDITIONS. CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT. WHEN MADE AVAILABLE, FOR APPROXIMATE DEPTH TO BEDROCK. ALL FOOTINGS SHALL BEAR DIRECTLY ON BEDROCK OR ON STRUCTURAL FLOWABLE FILL DOWN TO BEDROCK. IF UNSUITABLE BEARING ROCK IS ENCOUNTERED, BASED ON GEOTECHNICAL ENGINEER'S EVALUATION, DRILLED PIERS WITH PIER CAPS SHALL BE SUBSTITUTED FOR SPREAD FOOTINGS AS REQUIRED BY GEOTECHNICAL ENGINEER.



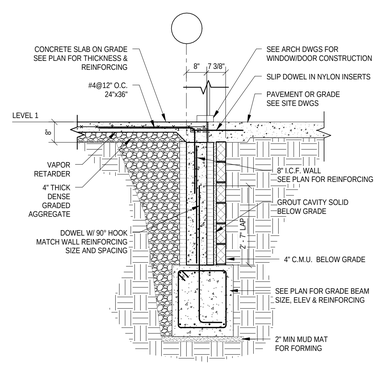
K S-3.1 SECTION

1/2" = 1'-0"



L S-3.1 SECTION

1/2" = 1'-0"



M S-3.1 SECTION

1/2" = 1'-0"

Classification: **CLASSIFIED**
Caveats: **FOUO**
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Boone Center, HRO Building
Frankfort, KY

RECORD DATE: JULY 2012
DRAWN BY: NAR
CHECKED BY: DK
A & E FILE NO: 12102.01
JULY 2012

Foundation Details

COMMONWEALTH OF KENTUCKY
FINANCE AND ADMINISTRATION CABINET
DIVISION OF ENGINEERING
DEPARTMENT FOR FACILITIES MANAGEMENT
FRANKFORT, KENTUCKY

DRAWING NO: S-3.1

REVIEWED DIV. OF ENGR.

ENGR. FILE NO: 095-C69V-BN92-00

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