GENERAL NOTES

DESIGN LOADS

TOP SLAB

HS20 WHEEL LOAD AS DEFINED BY AASHTO, 1992, (16 KIP CONCENTRATED LOAD AT LOCATION ON STRUCTURE PRODUCING THE MAXIMUM STRESS), AND LOADS INDICATED FOR THE WALL AND BASE BELOW.

WALL AND BASE

LOAD COMBINATIONS PRODUCED FROM LATERAL SOIL PRESUURE, 100 YEAR FLOOD WATER ELEVATION AND HS20 VEHICLE SURCHARGE ADJACENT TO STRUCTURES.

2. MATERIALS CONCRETE

JUNCTION BOXES AND CONC FILL: CLASS A, f'c = 4000 PSI
PRECAST CONCRETE: CLASS AA, f'c = 5000 PSI
ALL CONCRETE UNLESS NOTED OTHERWISE: CLASS B, f'c = 3000 PSI
REINFORCING BARS
ASTM A 615 GRADE 60, DEFORMED Fy = 60 KSI

STEEL ASTM A 36

Fy = 36 KSI

- 3. TOP OF FOOTING ELEVATIONS ARE INDICATED ON THE CIVIL DRAWINGS.
 ALL UNSUITABLE FOUNDATION MATERIAL SHALL BE REMOVED WITH FOOTINGS
 RESTING ON UNDISTURBED SOIL OR SUITABLE FILL WITH A MINIMUM BEARING
 CAPACITY OF 1500 PSF AT STRUCTURES. WHERE REMOVAL OF UNSUITABLE
 MATERIAL RESULTS IN OVEREXCAVATION, BACKFILL WITH SELECT BEDDING.
- 4. WHERE ROCK IS ENCOUNTERED IN ANY FOOTING EXCAVATION, UNDERCUT TO A DEPTH OF NOT LESS THAN 6 INCHES BELOW ELEVATION OF BOTTOM OF FOOTING AND PROVIDE SELECT BEDDING TO REQUIRED ELEVATION.
- 5. NO FOUNDATION CONCRETE SHALL BE INSTALLED UNTIL ALL FOUNDATION WORK HAS BEEN COORDINATED WITH UNDERGROUND UTILITIES. REPORT CONFLICTS TO TO THE OWNER AND MAINTAIN UTILITY SERVICE UNTIL DIRECTED OTHERWISE.
- 6. TO MINIMIZE WEATHERING, THE LAST 6 INCHES OF EXCAVATION FOR ALL FOOTINGS SHALL BE MADE IMMEDIATELY PRIOR TO PLACEMENT OF FOOTINGS.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING "AND DEWATERING" OF EXCAVATIONS DURING CONSTRUCTION.
- 8. REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-92. DEVELOPMENT AND SPLICE LENGTHS ARE IN TENSION UNLESS OTHERWISE INDICATED. TENSION LAP SPLICES SHALL BE AS TABULATED IN THE FOLLOWING TABLE, UNLESS OTHERWISE INDICATED. DEVELOPMENT LENGTH IS SPLICE LENGTH DIVIDED BY 1.3.

TABLE BASED ON CATEGORY 5. LAP CLASS B

BAR SIZE	TENSION LAP SPLICE (IN)			
	f'c = 3000 PSI		f'c = 4000 PSI	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
####### #9 0 11	21 28 35 42 49 56 63 76 93	16 22 27 32 38 43 48 58	18 24 30 36 42 48 55 65 80	16 19 23 28 33 37 42 50 62

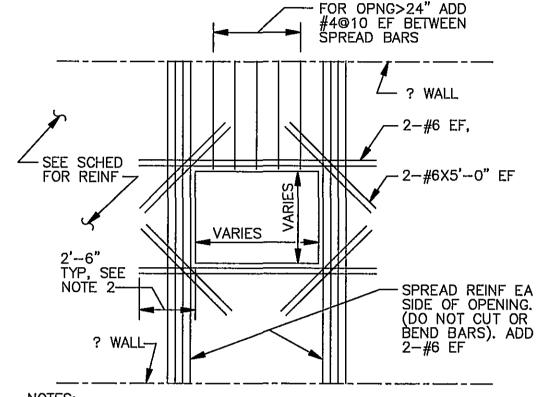
- 9. MAJOR CONSTRUCTION JOINTS ARE SHOWN ON THE DRAWINGS.
 INTERMEDIATE JOINTS IN WALLS AND SLABS ARE NOT
 SHOWN. CONSTRUCTION JOINTS MAY BE ADDED, OMITTED OR RELOCATED
 IF PROPERLY DETAILED ON SHOP DRAWINGS AND APPROVED BY THE
 OWNER.
- 10. CONTINUOUS REINFORCING IN WALLS AND SLABS MAY BE SPLICED, AS REQUIRED, PROVIDING BARS ARE OF THE LONGEST PRACTICABLE LENGTH AND ALL SPLICES ARE SHOWN ON REINFORCING SHOP DRAWINGS. WHEREVER POSSIBLE, SPLICES SHALL BE STAGGERED. FIELD CUTTING OF REINFORCEMENT WILL NOT BE PERMITTED.
- 11. UNLESS OTHERWISE NOTED, PROVIDE CONCRETE PROTECTION FOR ALL REINFORCING IN ACCORDANCE WITH PARAGRAPH 7.7 OF BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318—89).
- 12. PROVIDE DOWELS TO MATCH REINFORCEMENT IN ALL WALLS AND SLABS.
- 13. REINFORCE ALL CAST-IN-PLACE WALLS NOT OTHERWISE SHOWN AS FOLLOWS:

6" #4@12EW, MIDDLE 8" #4@10EW, MIDDLE 10" #4@16EW, EF 12" #4@12EW, EF 15" #4@10EW, EF

ADD 2-#5 CONTINUOUS AT THE TOP OF ALL WALLS.

- 14. SEE CIVIL DRAWINGS FOR LOCATIONS OF OPENINGS AND SLEEVES.
 SPREAD REINFORCEMENT AT OPENINGS AND SLEEVES UNLESS OTHERWISE SHOWN.
 DO NOT CUT REINFORCEMENT.
- 15. PROVIDE ADEQUATE INSPECTION PANELS IN WALL FORMING TO FACILITATE CONCRETE PLACEMENT, TO ENSURE THAT ADEQUATE COMPACTION IS OBTAINED AND NO VOIDS OCCUR.
- 16. CONCRETE WALLS SHALL BE TEMPORARILY BRACED AGAINST FORCES OTHER THAN EARTH PRESSURE UNTIL TOP SLABS ARE IN PLACE AND HAVE ATTAINED REQUIRED STRENGTHS. BACKFILLING OF WALLS PRIOR TO CONSTRUCTION OF THE TOP SLAB IS PERMITTED.
- 17. PROVIDE WATERSTOPS IN ALL CONSTRUCTION JOINTS, UNLESS NOTED OTHERWISE.
- 18. PROVIDE #4 @ 12 EW, 2-INCHES CLEAR AT EXPOSED FACE OF CONCRETE FILL, TYPICAL.
- 19. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES, INSERTS, ETC., WITH SHOP DRAWINGS OF THE EQUIPMENT TO BE INSTALLED. SEE CIVIL DRAWINGS FOR LOCATIONS OF PIPE SLEEVES.

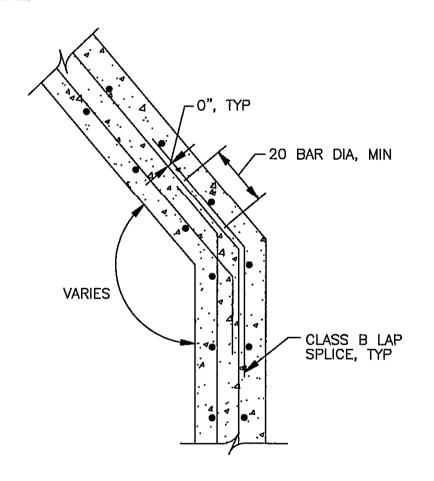
- 20. WHERE NEW STRUCTURES ARE LOCATED NEXT TO EXISTING UTILITIES OR STRUCTURES, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, ETC., NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW STRUCTURE. THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS NECESSARY FOR PROPER FABRICATION AND ERECTION OF ALL STRUCTURAL MEMBERS.
- 21. BEFORE PROCEEDING WITH ANY WORK WITHIN OR ADJACENT TO THE EXISTING STRUCTURE, THE CONTRACTOR SHALL BECOME FAMILIAR WITH EXISTING CONDITIONS. DURING THE PROCESS OF CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF THE EXISTING STRUCTURE WHERE THE EXISTING STRUCTURE IS MODIFIED TO ACCOMMODATE NEW CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING STRUCTURE WHICH ARE TO REMAIN.
- 22. ALL EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4-INCH.



NOTES:

- 1. REINF FOR CIRCULAR OPENINGS SIMILAR
- 2. PROVIDE STD HOOK IF 2'-6" MIN IS NOT AVAILABLE.
- 3. PROVIDE DOWEL INTO BASE SLAB AT HORIZ OPNG.

REINF AT OPENING IN SLAB OR WALLS



TYPICAL DETAIL AT CORNERS

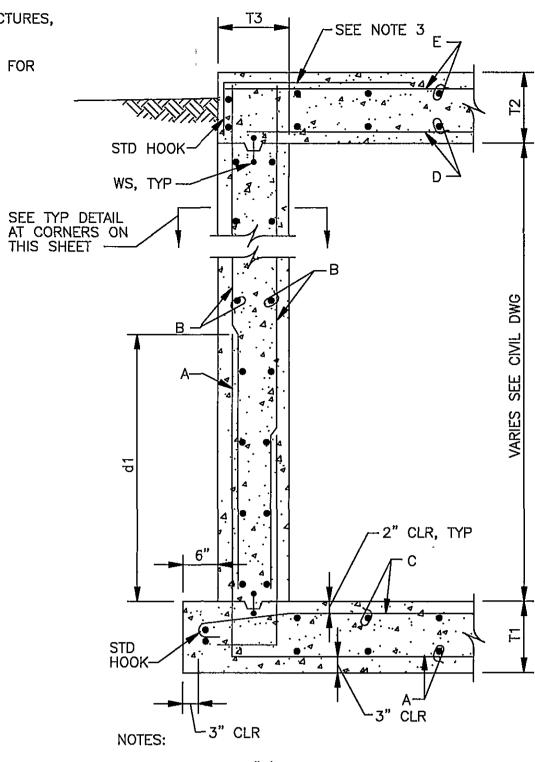
NO SCALE

CLASS B LAP SPLICE, TYP

O", TYP

STD HOOK

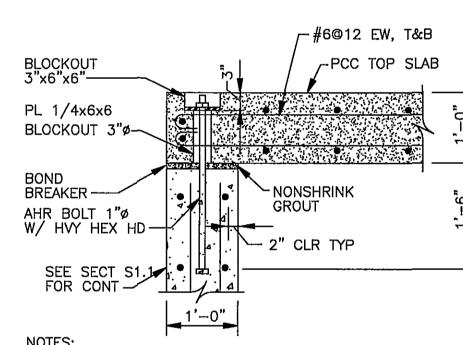
TYPICAL DETAIL AT CORNERS
NO SCALE



- 1. ALL BARS ARE "B' UNO.
- 2. ALL DOWELS TO MATCH ADJ REINF UNO.
- 3. TOP BARS MAY BE PROVIDED W/STD HOOK IN LIEU OF ADDITIONAL HOOKED BAR SHOWN.
- HOUNED BAK SHOWN.

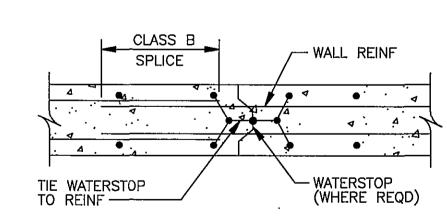
4. PROVIDE CLASS B TENSION LAP SPLICE FOR ALL BARS, SEE TABLE ON THIS SHEET FOR SPLICE LENGTH.





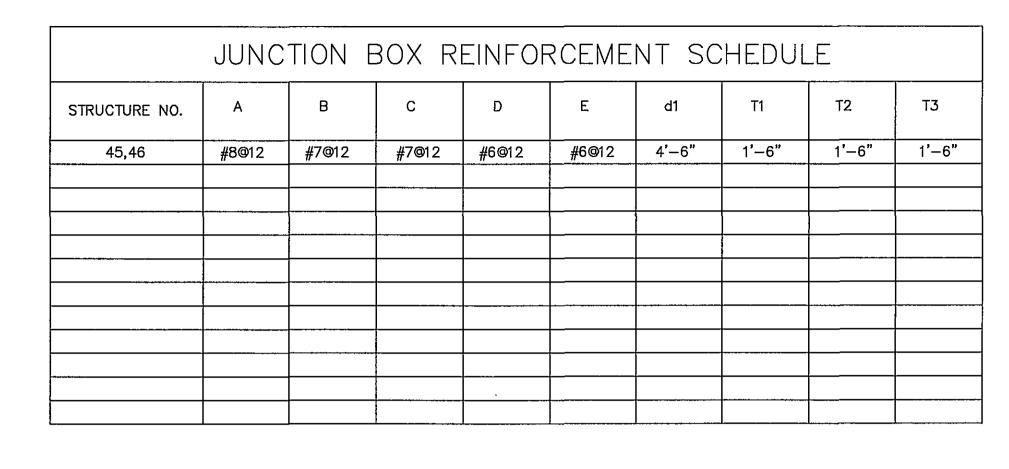
- 1. PROVIDE 4 ASTM A 307 GALV AHR BOLTS, COORD LOCATION W/ PCC MFR
- 2. PROVIDE PERMANENT GALV LIFTING LUGS RECESSED SIM TO AHR BOLTS SHOWN ABV.

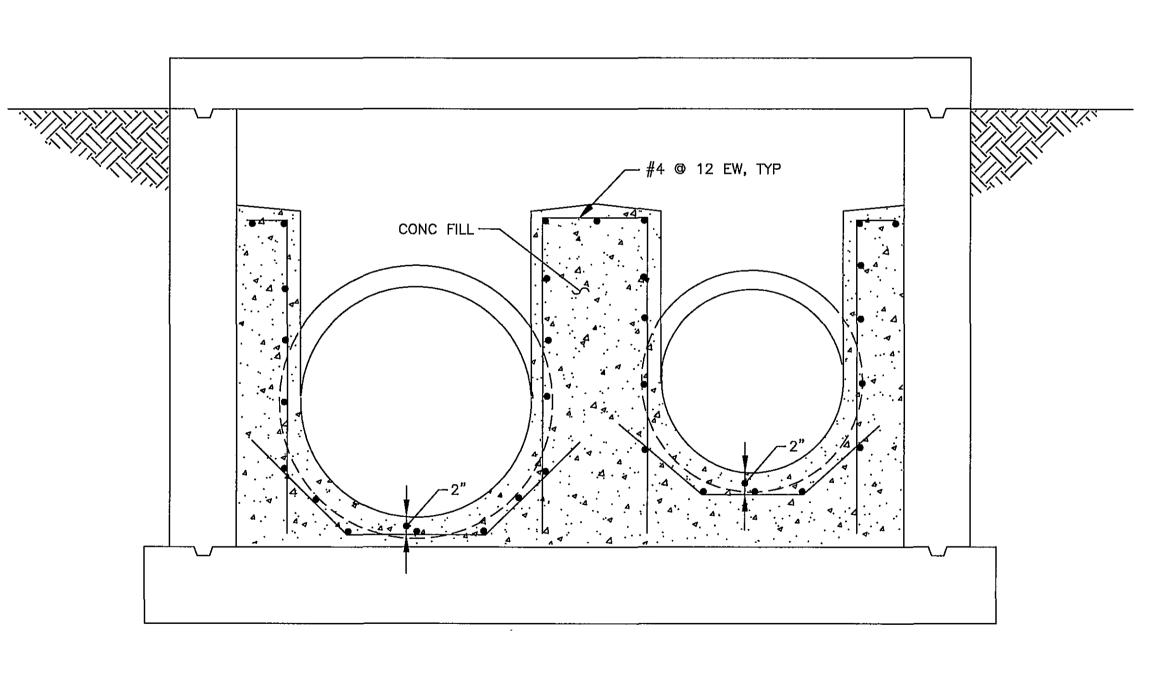
 $\frac{\text{SECTION}}{\text{SCALE: } 3/4" = 1'-0"}$



NOTE: WALLS HAVE KEY 2 1/2" DEEP BY APPROXIMATELY 1/3 THICKNESS OF WALL.

CONC WALL CONSTRUCTION JT





TYPICAL INTERIOR CONC FILL REINF

NOTE: PROVIDE REINFORCEMENT FOR CONCRETE FILL IN ALL JUNCTION BOXES.

HAYES, SEAY, MATTERN & MATTERN, INC.

ARCHITECTS/ENGINEERS/PLANNERS

ROANOKE, VIRGINIA

GRAPHIC SCALE

3/4" = 1'-0" 12" 6" 0 1' 2' 3'

TINKER CREEK INTERCEPTOR SEWER CITY OF ROANOKE, VIRGINIA

GENERAL NOTES AND DETAILS

CONTRACT B

PROJECT NO.: 6317

COMM. NO.: 7211 SCALE: AS NOTED DATE: MAY 17, 1996 RECORD DRAWINGS