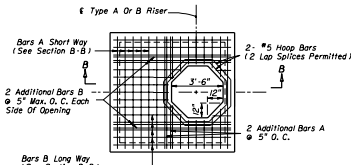
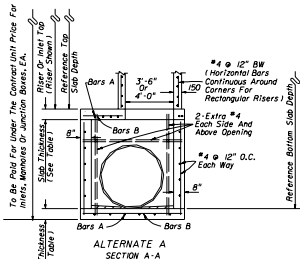


Note: Not Applicable For Type C, D & E
Ditch Bottom Inlets. See Index No. 232.

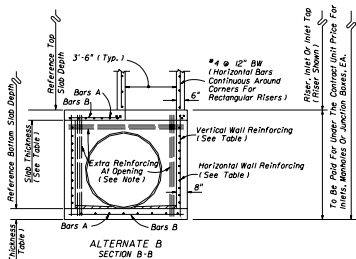
TOP SLAB REINFORCING STEEL DIAGRAM



TOP SLAB REINFORCING STEEL DIAGRAM



ALTERNATE A
SECTION A-A



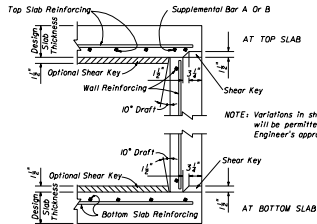
ALTERNATE B
SECTION B-B

*NOTE: When the inside diameter of a round structure is not more than 1'-6" larger than the opening in the riser or top slab, the top of the structure or riser shall be constructed according to the "Special Top Slab" details on this sheet.

*NOTE: Provide extra reinforcement each side of each opening of 3" maximum spacing equal to half the area of vertical reinforcement removed by the opening and provide the same area of reinforcement above each opening of 3" maximum spacing as removed by the opening.

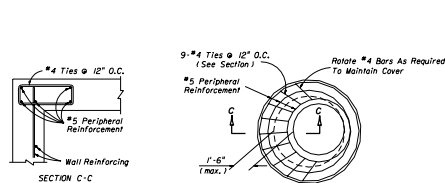
GENERAL NOTES

- Standard structure bottoms 4'-0" diameter and smaller (Alt. A) and 3'-6" square (Alt. B) are designated Type J. Risers are permitted for all structures.
- Walls of circular structures (Alternate A) constructed in place may be of non-reinforced concrete or brick or reinforced concrete. Precast and rectangular structures (Alternate B) shall be constructed of reinforced concrete only.
- Wall thickness and reinforcement are for either reinforced cast-in-place or precast concrete units. Precast circular units may be furnished with walls in accordance with either A.S.T.M. C478 (up to 96" diameter) or A.S.T.M. C76, Class III, B Wall, modified where the elliptical steel cage area is placed in the center one-third of the wall.
- Top and floor slab thickness and reinforcement are for precast and cast in place construction. Top and floor slabs shall be of Class II concrete. Concrete as specified in A.S.T.M. C478 (4000 psi) may be used in lieu of Class I and Class II concrete in precast items manufactured in plants which are under the Standard Operating Procedures for the inspection of precast drainage products.
- All reinforcement shown is A.S.T.M. A615/A615M Grade 60 steel, either smooth or deformed. Equivalent area Grade 40 steel or Grade 65KSI welded wire fabric may be substituted according to Index No. 230.
- Structure bottoms may be used in conjunction with curb inlet tops Types 1, 2, 3, 4, 5, 6, 9, and 10, and any manhole or junction box unless otherwise shown in the plans or other standard drawings. Alt. B structure bottoms may be used in conjunction with curb inlet Types 7 & 8, or any ditch bottom inlet unless otherwise shown in the plans or other standard drawings.
- Rectangular structures may be rotated as directed by the Engineer in order to facilitate connections between the structure walls and storm sewer pipes.
- Except when ACI hooks are specifically required, reinforcement top and slab shall be straight embedment.
- All steel bars shall have 1/4" minimum cover unless otherwise shown except for precast circular units manufactured under ASTM C76 or ASTM C478. Horizontal steel in rectangular structures shall be lapped a minimum of 24 bar diameters at corners.
- The corner fillets shown are necessary for rectangular structures used with circular risers and inlet throats and are used on skew with rectangular risers, inlet and inlet throats. Fillets will be required in lieu of the bottom slab of the Alt. B riser when used with the Alt. A box. Each fillet shall be reinforced with 2 #5 bars.
- Inlet throats, riser or manhole tops shall be secured to structures as shown on Index No. 230.
- Structures with depths over 14' are to be checked for flotation by designer of project drainage.
- Units larger than specified standard may be substituted at the contractor's option when these units will not cause or increase the severity of utility conflicts. Such larger units shall be furnished at no additional cost to the Department. Larger Alternate A units cannot replace Alternate B units without approval of the Engineer. This note applies to this index only.
- For manhole and junction box tops, for frames and covers, and, for supplementary details see Index No. 230.



NOTE: Variations in shear key dimensions will be permitted subject to the Engineer's approval.

SLAB TO WALL DETAILS FOR PRECAST ALTERNATE WITH 8" WALLS



SPECIAL TOP SLAB*

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN			
STRUCTURE BOTTOMS TYPE J AND P			
Revised Date	Approved By	10/2/2000	
Designed By	Checked By	00	1 of 2
Drawn By	Checked By	00	1 of 2
Checked By	Checked By	00	1 of 2

