

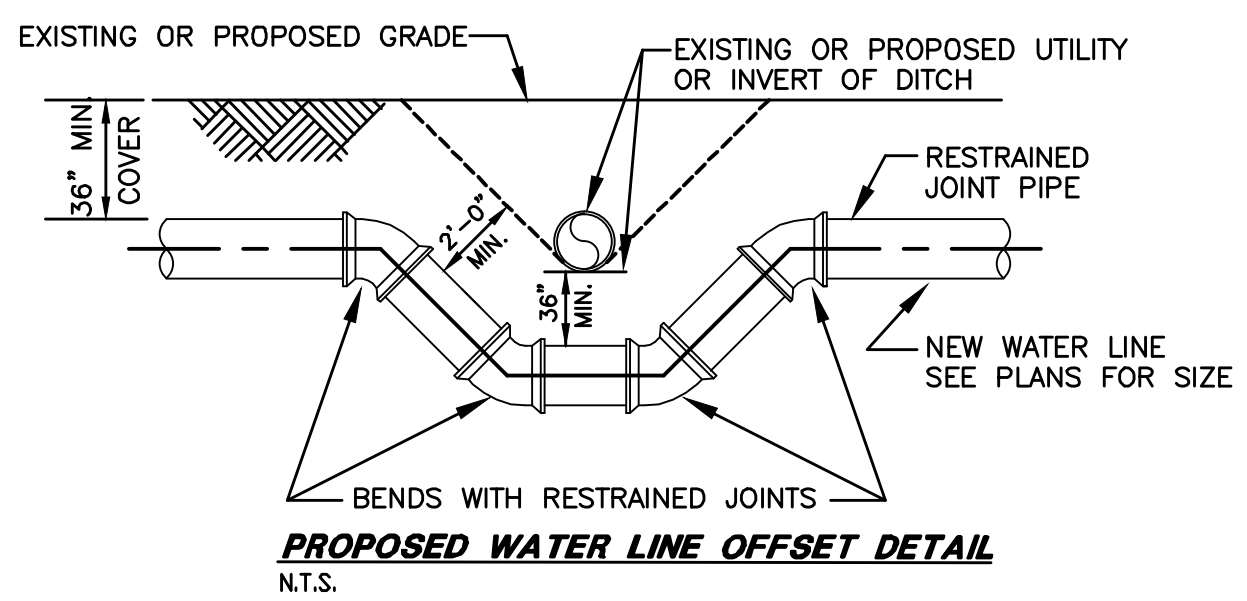
- GENERAL NOTES**
- BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 95% STANDARD PROCTOR.
  - HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 95% PROCTOR.
  - INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 95% STANDARD PROCTOR.
  - INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
  - FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3, AND 4.
  - FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
  - ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-89.
  - ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
  - FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
  - ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHIED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.

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  - ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-LATEST EDITION.
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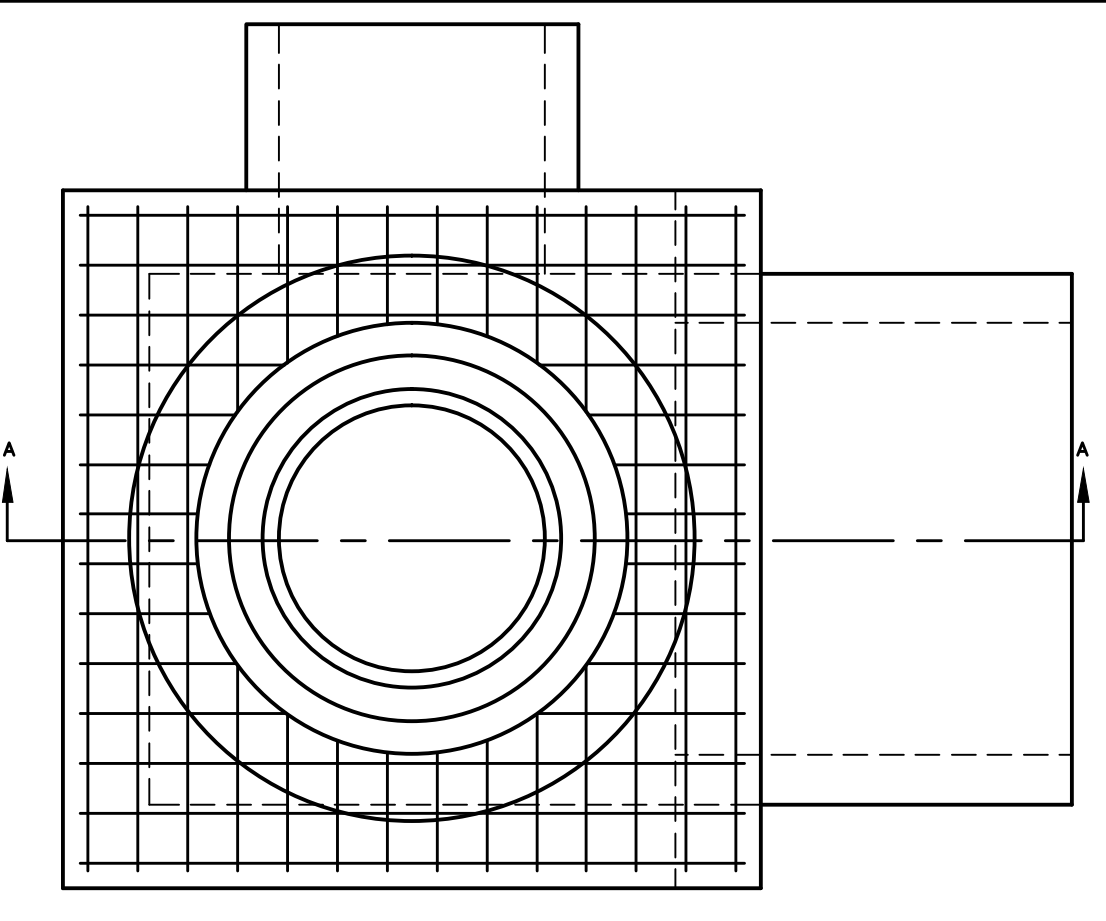
**UTILITY TRENCH AND BEDDING**  
N.T.S.

**STORM SEWER TRENCH AND BEDDING**  
N.T.S.

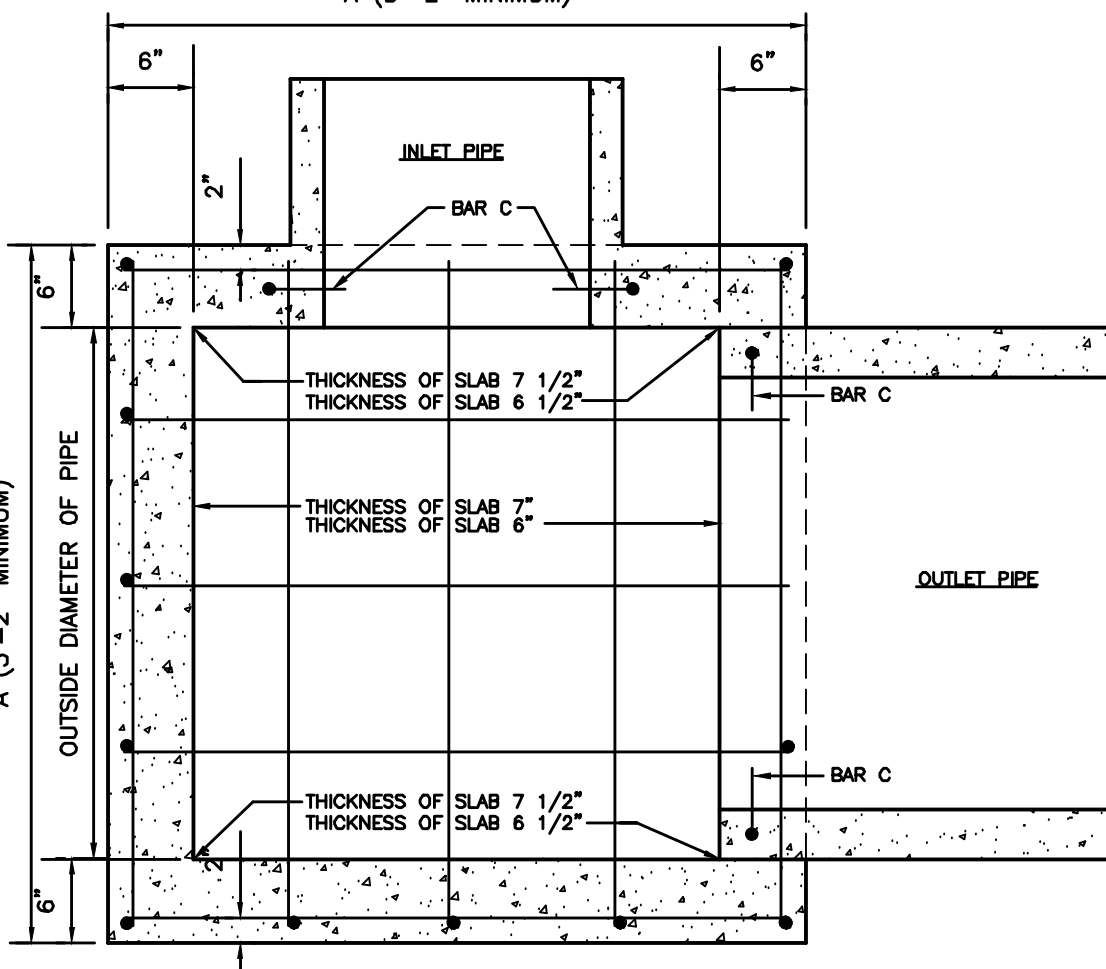
CLASS	TYPE	SOIL GROUP SYMBOL 12487	DESCRIPTION
1A	MANUFACTURED AGGREGATES; OPEN-GRADED, CLEAN	NONE	ANGULAR, CRUSHED STONE OR ROCK, CRUSHED GRAVEL, BROKEN CORAL, CRUSHED SLAG, CONCRETE OR SHOTS; LARGE VOID CONTENT, CONTAIN LITTLE OR NO FINES
1B	MANUFACTURED, PROCESSED AGGREGATES; DENSE-GRADED, CLEAN.	NONE	ANGULAR, CRUSHED STONE (OR OTHER CLASS 1A MATERIALS) AND STONE/SAND MIXTURES WITH GRADATIONS SELECTED TO MINIMIZE MIGRATION OF ADJACENT SOILS; CONTAIN LITTLE OR NO FINES (SEE 1.B)
II	COARSE-GRAINED SOILS CLEAN	GW	WELL-GRADED GRAVELS AND GRAVEL-SAND MIXTURES; LITTLE OR NO FINES
		GP	POORLY-GRADED GRAVELS AND GRAVEL-SAND MIXTURES; LITTLE OR NO FINES
		SW	WELL-GRADED SANDS AND GRAVELY SANDS; LITTLE OR NO FINES
		SP	POORLY-GRADED SANDS AND GRAVELY SANDS; LITTLE OR NO FINES
	COARSE-GRAINED SOILS BORDERLINE CLEAN TO W/ FINES	e.g. GW-GC, SP-SM	SANDS AND GRAVELS WHICH ARE BORDERLINE BETWEEN CLEAN AND WITH FINES
III	COARSE-GRAINED SOILS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
		SM	SILTY SANDS, SAND-SILT MIXTURES
		SC	CLAYEY SANDS, SAND-CLAY MIXTURES
IV-A	FINE-GRAINED SOILS (INORGANIC)	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTICITY
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
IV-B	FINE-GRAINED SOILS (INORGANIC)	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS; ELASTIC SILTS
		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.
V	ORGANIC SOILS	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
		PT	PEAT AND OTHER HIGH ORGANIC SOILS.
	HIGHLY ORGANIC		



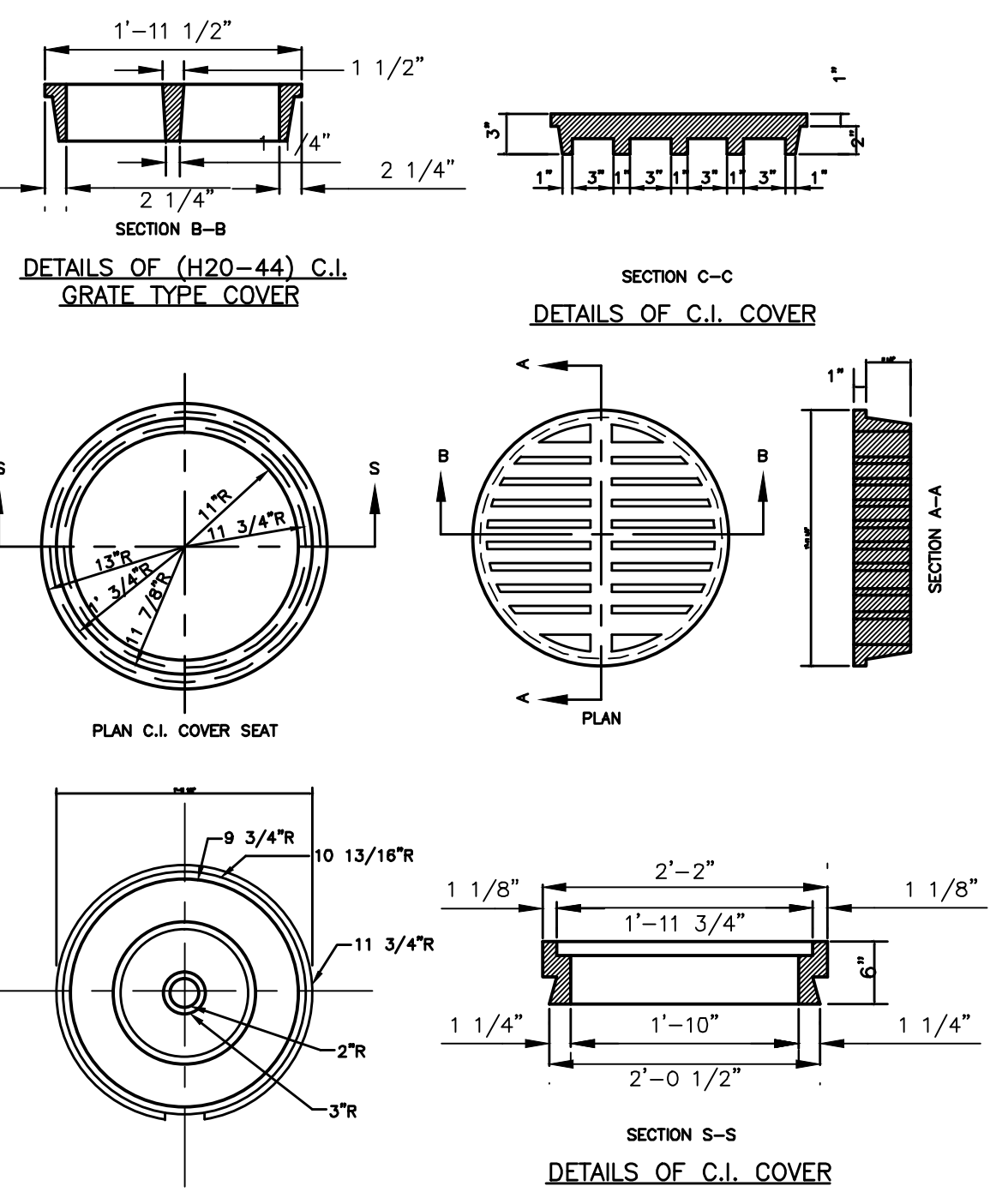
**PROPOSED WATER LINE OFFSET DETAIL**  
N.T.S.



**PLAN SHOWING REINFORCING IN TOP OF MANHOLE**  
PAVEMENT NOT SHOWN



**SECTION SHOWING REINFORCING IN BOTTOM OF SLAB**

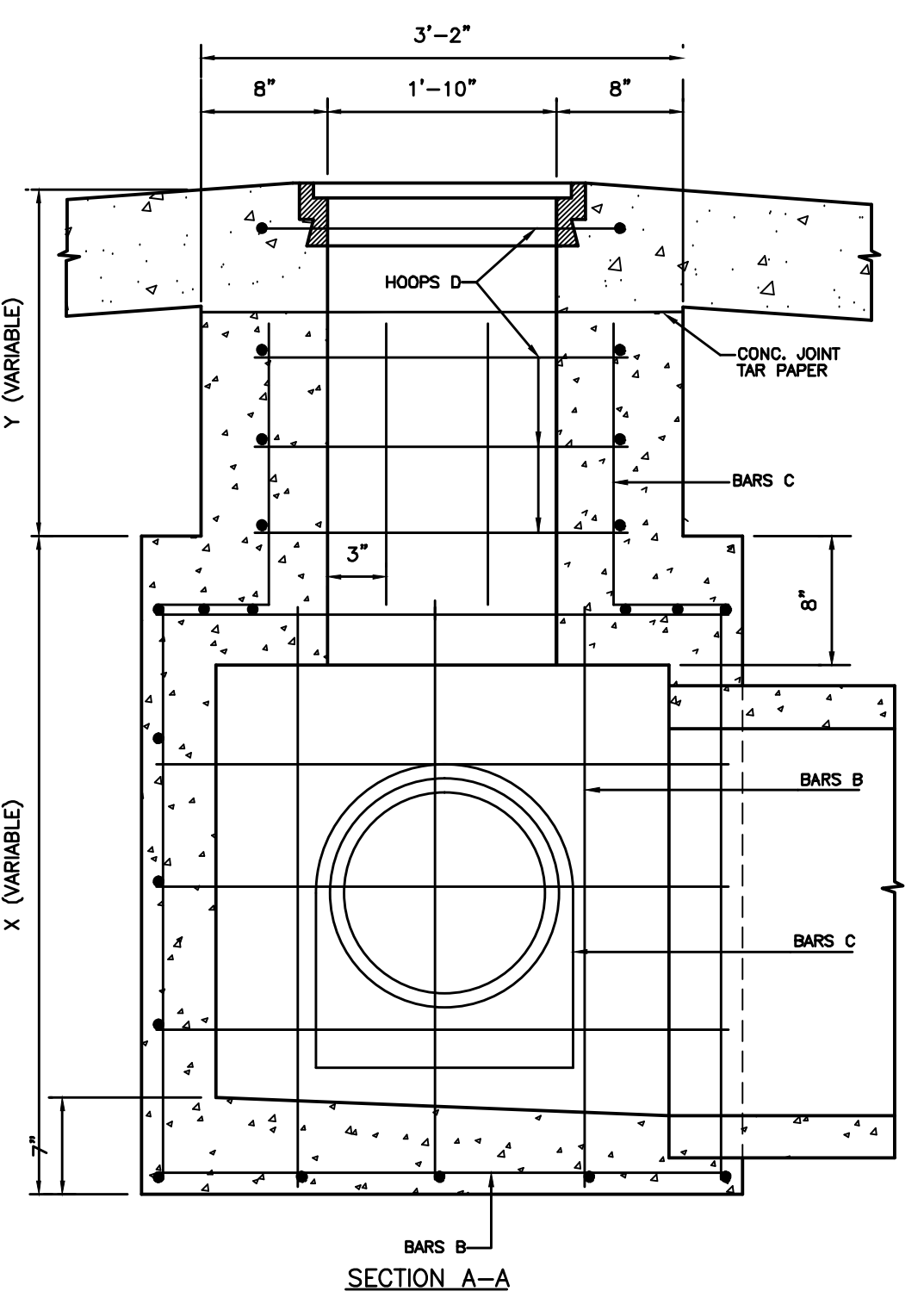


**STANDARD PLAN RC MANHOLES L.D.O.T.D. R-CB-11**  
N.T.S.  
36" MAXIMUM PIPE CONNECTION

BILL OF MATERIALS FOR ONE MANHOLE X = 4'-2" (AS DETAILED)

MARK	SIZE	SPACING	NO. REQUIRED	UNIT LENGTH	UNIT LENGTH
BAR A	1/2"	APPROX. 11"	10	A-3"	LONGITUDINAL AND TRANSVERSE IN BOTTOM SLAB
BAR A	1/2"	APPROX. 11"	DEPENDING ON WIDTH & SIZE OF PIPES	A-3"	LONGITUDINAL AND TRANSVERSE IN WALLS OF BOX
BAR A	1/2"	3"	DEPENDING ON WIDTH & SIZE OF PIPES	A-3"	LONGITUDINAL AND TRANSVERSE IN TOP SLAB OF BOX
BAR B	1/2"	APPROX. 11"	DEPENDING ON WIDTH & SIZE OF PIPES	SEE BENDING DIAGRAM	VERTICAL IN WALLS OF BOX
HOOPS C	1/2"	9" MIN.	1 EACH PIPE	SEE BENDING DIAGRAM	AROUND EACH PIPE AS SHOWN
HOOPS D	1/2"	9" MIN.	9 MIN.	3'-7"	HOOPS IN WALLS OF CYLINDER
BAR E	1/2"	30" RADIUS	12	V + 4 1/2" - P.W. THICKNESS	VERTICAL IN WALLS OF CYLINDER

1 CAST IRON COVER SEAL WEIGHING APPROXIMATELY 161 POUNDS  
1 CAST IRON COVER WEIGHING APPROXIMATELY 205 POUNDS



**STANDARD PLAN RC MANHOLES L.D.O.T.D. R-CB-11**  
N.T.S.  
36" MAXIMUM PIPE CONNECTION

REVISION	BY

**DDG**  
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THOMAS H. BUCKEL  
PROFESSIONAL ENGINEER  
STATE OF LOUISIANA  
10/28/2015  
DATE

SPRINGS @ RIVER CHASE  
COVINGTON, LA  
ST. TAMMANY PARISH  
FOR CONTINENTAL 339 FUND LLC  
COVINGTON, LA

DRAWN DJG  
CHECKED THB  
ISSUED DATE 10/28/2015  
ISSUED FOR CONSTRUCTION  
PROJECT NO. 14-697  
FILE DETAILS

SHEET C-5.2

**DETAIL SHEET**

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