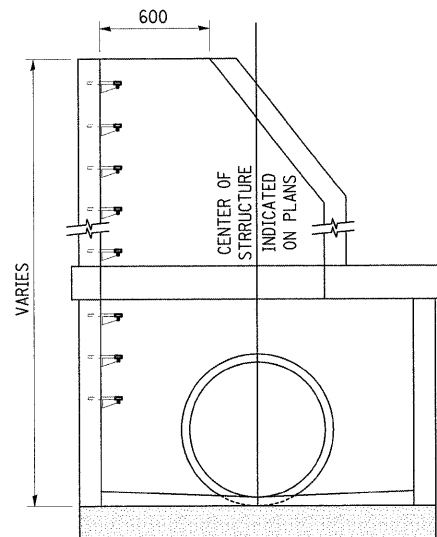


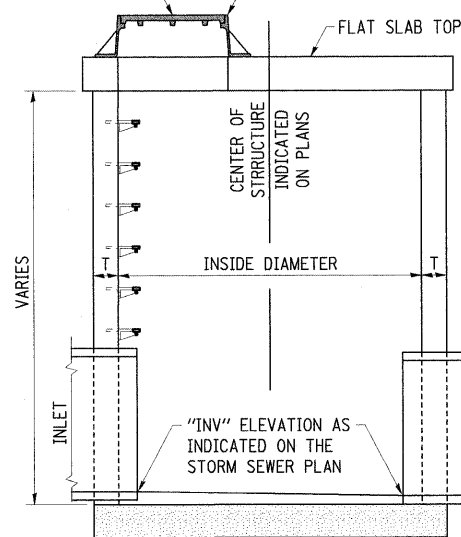
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	ZZRS-1	CRAWFORD	191	90
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

IF DEPTH PERMITS, CONTRACTOR HAS THE OPTION TO USE A CORBELED MANHOLE, TYPE A AS A "RESTRICTED DEPTH MANHOLE" AS SHOWN HERE



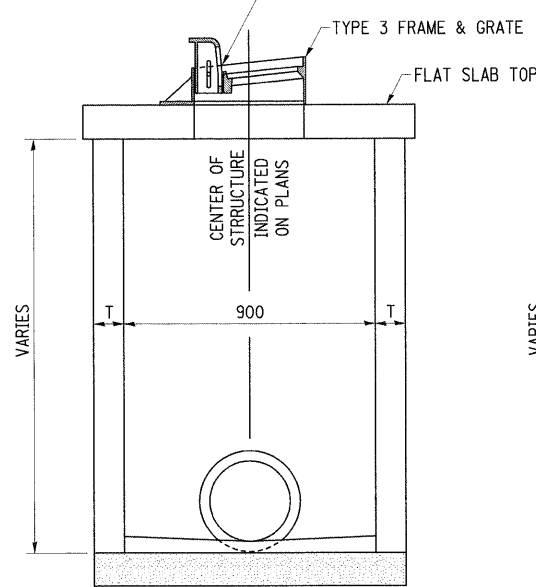
RESTRICTED DEPTH MANHOLE

"TOP" ELEVATION AS INDICATED ON THE STORM SEWER PLAN



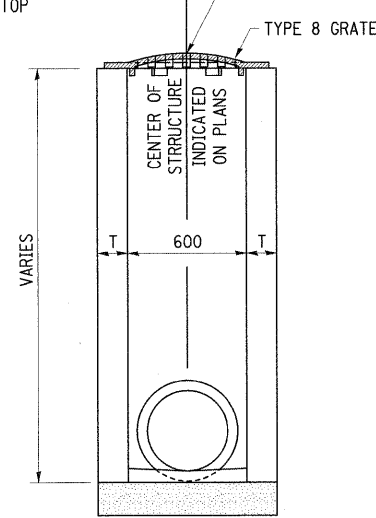
TYPE B INLET

"GRATE" ELEVATION AS INDICATED ON THE STORM SEWER PLAN



TYPE A INLET

"TOP" ELEVATION AS INDICATED ON THE STORM SEWER PLAN



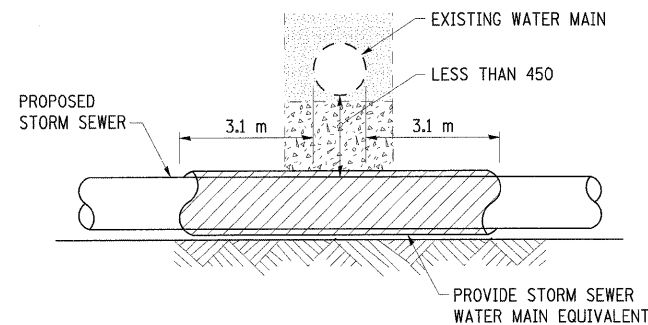
STORM SEWER CONSTRUCTION NOTES

- BEFORE ORDERING PIPE CULVERTS, PIPE DRAINS, MANHOLES, INLETS, STORM SEWERS OR OTHER DRAINAGE STRUCTURES, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER FOR EXACT LENGTHS, DIMENSIONS, INVERTS AND ALIGNMENTS AND SUBMIT REQUIRED SHOP DRAWINGS.
- CARE SHOULD BE EXERCISED IN CONSTRUCTION OF MANHOLE STRUCTURES TO BE LOCATED UNDER PERMANENT SURFACES DUE TO MINOR ELEVATION ADJUSTMENTS IN THE FIELD. THE CONTRACTOR IS ADVISED TO CAST STRUCTURES TO ACCOMMODATE SUCH MINOR ADJUSTMENTS. USE OF ADJUSTING RINGS IS RECOMMENDED.
- NOTE THAT ALL OF THE TYPE B INLETS REQUIRE FLAT SLAB TOPS WITH THE CENTER OF THE 600mm OPENING ALIGNED WITH THE CENTER OF THE STRUCTURE.
- "RESTRICTED DEPTH MANHOLES", OF THE DIAMETER SPECIFIED, REFER TO 1.2m, 1.5m, 1.8m OR 2.4m DIAMETER MANHOLES REQUIRING FLAT SLAB TOPS AND A 600mm I.D. RISER OF VARYING DEPTH IF THE OVERALL DEPTH WILL ALLOW FOR A RISER.
- THE STATION AND OFFSET SHOWN ON THE STORM SEWER PLAN IS FOR THE LOCATION OF THE CENTER OF THE STRUCTURE. THIS IS NOT NECESSARILY THE CENTER OF THE 600mm OPENING. REFER TO THE STRUCTURE OFFSET DETAIL SHEETS FOR THE EXACT LAYOUT.

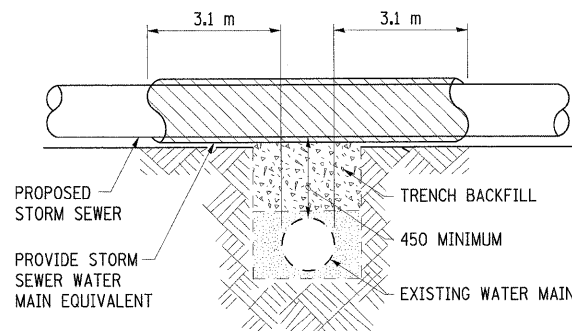
STRUCTURE POINT-OF-GRADE DETAILS

POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN

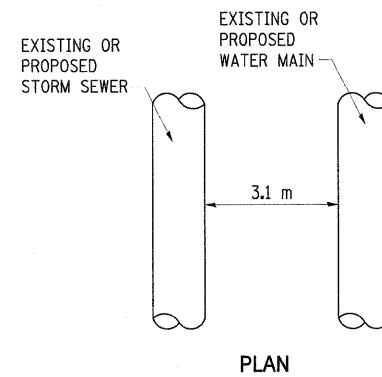
PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH



PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

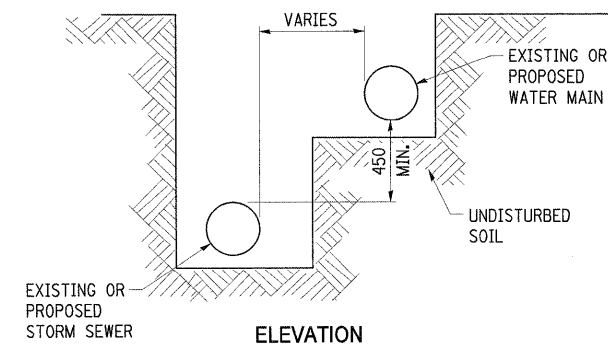


WHEN PROPOSED SEWER (OR WATER) IS LOCATED 3.1 m OR MORE FROM EXISTING WATER (OR SEWER) NO SPECIAL CONSTRUCTION IS REQUIRED



PLAN

WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 3.1 m FROM EXISTING WATER (OR SEWER), THE DETAILS TO THE LEFT SHALL APPLY

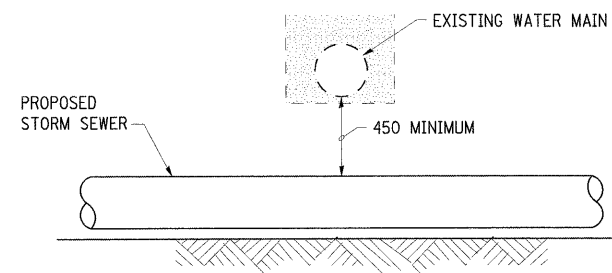


ELEVATION

WATER AND SEWER HORIZONTAL SEPARATION REQUIREMENTS

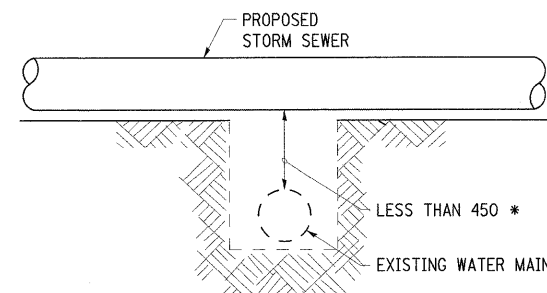
POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH



PROPOSED SEWER LINE BELOW EXISTING WATER MAIN

PLACEMENT OF OR EXISTING WATER MAIN BELOW EXISTING OR PROPOSED SEWER LINE WITH LESS THAN 450 MINIMUM VERTICAL SEPARATION NOT ALLOWED.



PROPOSED SEWER LINE ABOVE EXISTING WATER MAIN

\* NOT ALLOWED. MUST MAINTAIN 450 VERTICAL SEPARATION

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p><b>STORM SEWER DETAILS</b></p> <p>SCALE NO SCALE      DRAWN BY EDW</p> <p>DATE FEBRUARY 6, 2009      CHECKED BY LWJ</p>

PLOT DATE = 2/5/2009  
FILE NAME = H:\4420\Contract 74349\SHI\_099\_draandst\_05.dgn

H. M. & G. NO. 4420