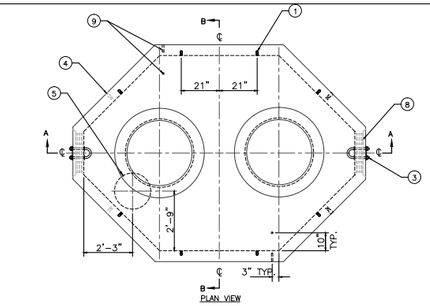
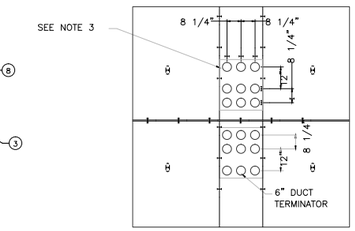
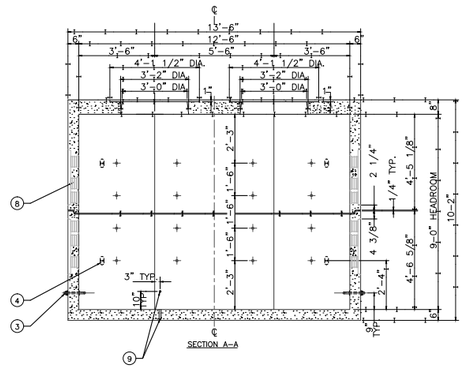
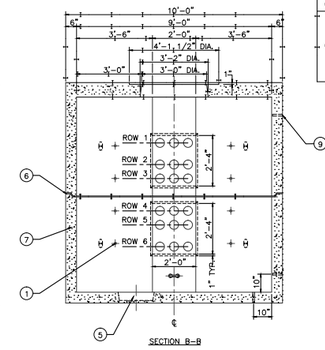
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338/IL 59	~~2011-035-I~~	DUPAGE		
			CONTRACT ~~60P42~~	
FED.ROAD.DIST.NO.	ILLINOIS	FED. AID PROJECT		





6" DUCT TERMINATOR
ENDWALL SHOWN

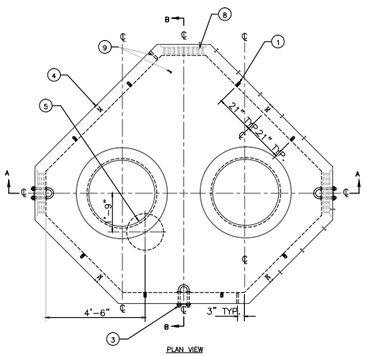


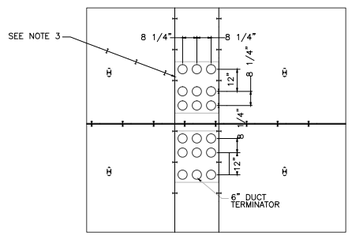


ITEM	DESCRIPTION		QTY	NOTE
	TOTAL MANHOLE WEIGHT	5000 P.S.I. CONC.	42,470 LBS.	
(7)	TOP SECTION WEIGHT		21,470 LBS.	1
	BASE SECTION WEIGHT		21,000 LBS.	
(7)	REBAR, EPOXY COATED			2
(9)	1"ø x 5 1/2" GROUND WIRE HOLE, 1/2" KNOCKOUT		4	
(8)	6" DUCT TERMINATORS		36	3
(6)	1"ø BUTYL RUBBER JOINT SEALANT		4 ROLLS	
(5)	IBT SUMP DEPRESSION		1	
(4)	6" LIFTING ANCHORS		8	
(3)	1"ø S.S. PULLING IRONS		2	4
(1)	CABLE RACK INSERTS: 1/2" 304 STAINLESS STEEL THREADED INSERTS EACH WITH 1/2" x 2" 304 S.S. HEX HEAD BOLT, 1/2" S.S. WASHER, AND 1/2" PVC WASHER		32	

NOTES:
1. CONCRETE: 5000 psi @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
2. REBAR: ASTM A-615 GRD. 60, EPOXY COATED.
3. DUCT ENTRANCE: SINGLE DUCT TERMINATORS TO ACCEPT 6" DIAMETER SCH. 40 PVC CONDUIT. SEE DETAIL THIS SHEET.
4. PLEASE NOTE PULLING IRON DESIGNED AS PER A.C.I. 318 FOR WORKING LOAD CAPACITY OF 28,000 POUNDS APPLIED COINCIDENT TO THE MAJOR AXIS OF THE PULLING IRON.
5. IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
6. DESIGN CRITERIA:
   A.) DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 "STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES".
   B.) ALL LOADING AS PER ASTM C857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES" INCLUDING:
   - EARTH COVER: MIN. 2.0', MAX. 5.0'.
   - AASHTO HS-20 WHEEL LOAD AND APPLICABLE IMPACT.
   - VERTICAL AND LATERAL SOIL PRESSURES DETERMINED USING A SOIL DENSITY OF 120 PCF.
   - GROUNDWATER AT 3'-0" BELOW GRADE.
   C.) STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
   D.) REINFORCING COVER REQUIREMENTS AS PER ACI 318.
7. SEE SPECIFICATION C30-1900 FOR ROW IDENTIFICATION WITH CONDUIT.

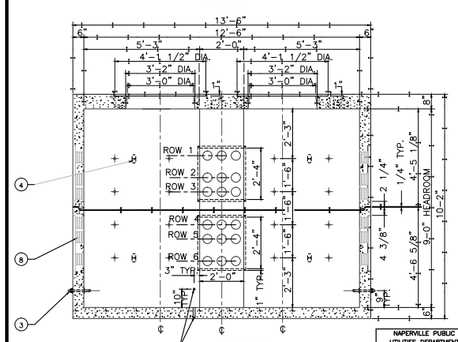
NAPERVILLE PUBLIC UTILITIES DEPARTMENT / ELECTRIC STANDARDS	TYPE E MANHOLE	DATE: 05-08-06 M30-1160

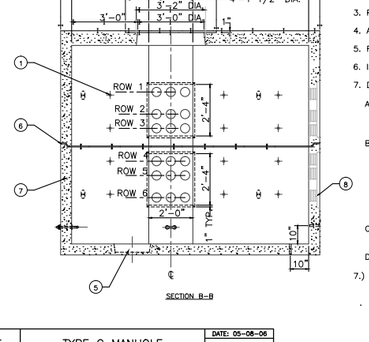




6" DUCT TERMINATOR
ENDWALL SHOWN

ITEM	DESCRIPTION		QTY.	NOTE
	TOTAL MANHOLE WEIGHT	5000 P.S.I. CONC.	45,470 LBS.	
(7)	TOP SECTION WEIGHT		23,470 LBS.	1
	BASE SECTION WEIGHT		22,000 LBS.	
(7)	REBAR, EPOXY COATED			2
(9)	1"ø x 5 1/2" GROUND WIRE HOLE, 1/2" KNOCKOUT		4	
(8)	6" DUCT TERMINATORS		54	3
(6)	1"ø BUTYL RUBBER JOINT SEALANT		4 ROLLS	
(5)	IBT SUMP DEPRESSION		1	
(4)	6" LIFTING ANCHORS		8	
(3)	1"ø S.S. PULLING IRONS		3	4
(1)	CABLE RACK INSERTS: 1/2" 304 STAINLESS STEEL THREADED INSERTS EACH WITH 1/2" x 2" 304 S.S. HEX HEAD BOLT, 1/2" S.S. WASHER, AND 1/2" PVC WASHER		32	

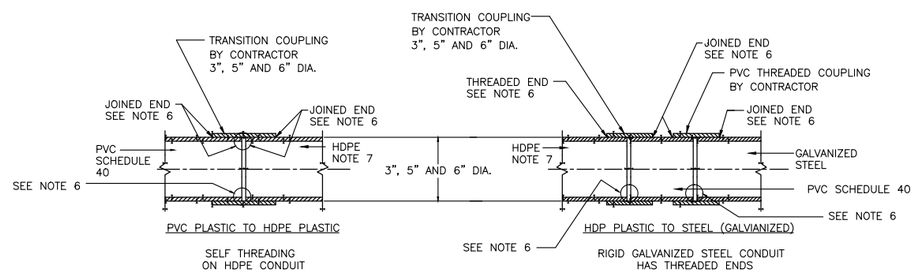




NOTES:
1. CONCRETE: 5000 psi @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
2. REBAR: ASTM A-615 GRD. 60, EPOXY COATED.
3. PULLING IRON: 1"ø STAINLESS STEEL.
4. ADD GROUND ROD KNOCKOUTS IN FLOOR AND WALLS.
5. RACKING INSERTS: STAINLESS STEEL.
6. IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
7. DESIGN CRITERIA:
   A.) DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 "STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES".
   B.) ALL LOADING AS PER A1STM C857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES" INCLUDING:
   - EARTH COVER: MIN. 2.0', MAX. 5.0'.
   - AASHTO HS-20 WHEEL LOAD AND APPLICABLE IMPACT.
   - VERTICAL AND LATERAL SOIL PRESSURES DETERMINED USING A SOIL DENSITY OF 120 PCF.
   - GROUNDWATER AT 3'-0" BELOW GRADE.
   C.) STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
   D.) REINFORCING COVER REQUIREMENTS AS PER ACI 318.
7.) SEE SPECIFICATION C30-1900 FOR ROW IDENTIFICATION WITH CONDUIT.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT / ELECTRIC STANDARDS	TYPE G MANHOLE	DATE: 05-08-06 M30-1170

3, 5 AND 6 INCH PLASTIC TRANSITION CONDUIT COUPLINGS
PVC TO HDPE
GALVANIZED STEEL TO HDPE



NOTES:

1) CONTRACTOR SHALL SUPPLY TRANSITION COUPLING TO GO FROM HDPE TO STEEL AND HDPE TO PVC SCHEDULE 40.

2) THE COST OF THIS MATERIAL IS INCLUDED IN UNIT PRICES FOR VAULTS AND HANDHOLES, PLUG CANS, FUSE CANS, SIDE WALK SPLICE BOXES AND CONDUIT.

3) THE CONTRACTOR SHALL SUPPLY ALL TRANSITION COUPLINGS.

4) THE CONTRACTOR SHALL NOT USE TRANSITION COUPLING TO CONNECT HDPE TO HDPE IN THE MAIN LINE. ALL MAINLINE CONNECTIONS SHALL BE BUTT FUSED.

5) CONTRACTOR TO USE ELECTROFUSTION PROCESS AT ALL TIMES TO MAKE HDPE TO HDPE CONNECTIONS.

6) CONTRACTOR TO ASSEMBLE, CUT, ALIGN, BEVEL, AND FIT TO CREATE A SMOOTH INSIDE INTERFACE AT CONNECTION POINT.

7) HDPE, PVC AND STEEL CONDUIT HAVE DIFFERENT INSIDE DIAMETER.

8) ENCASE IN CONCRETE FOR 5 FEET.

PROJECT TITLE	ROUTE 59 ROAD IMPROVEMENTS			
PROJECT DESCRIPTION	DETAILS AND STANDARDS			
ENGINEER: BCC	DRAFTING DATE: 8-04-12	MAP #: 4211,4224	SCALE: N.T.S.	
GIS DESIGN BY: DL / DRAFTED BY: PSM	REVISIONS DATE:	AT&T JOINT AGREEMENT #: N/A	PROJECT #: EU-12	
CHECKED BY:	APPROVED BY:	CAD FILE: 006112300108.DWG	SHEET #: 8 OF 40	
Naperville	Department of Public Utilities Electric Division			WORK REQUEST #: 61123