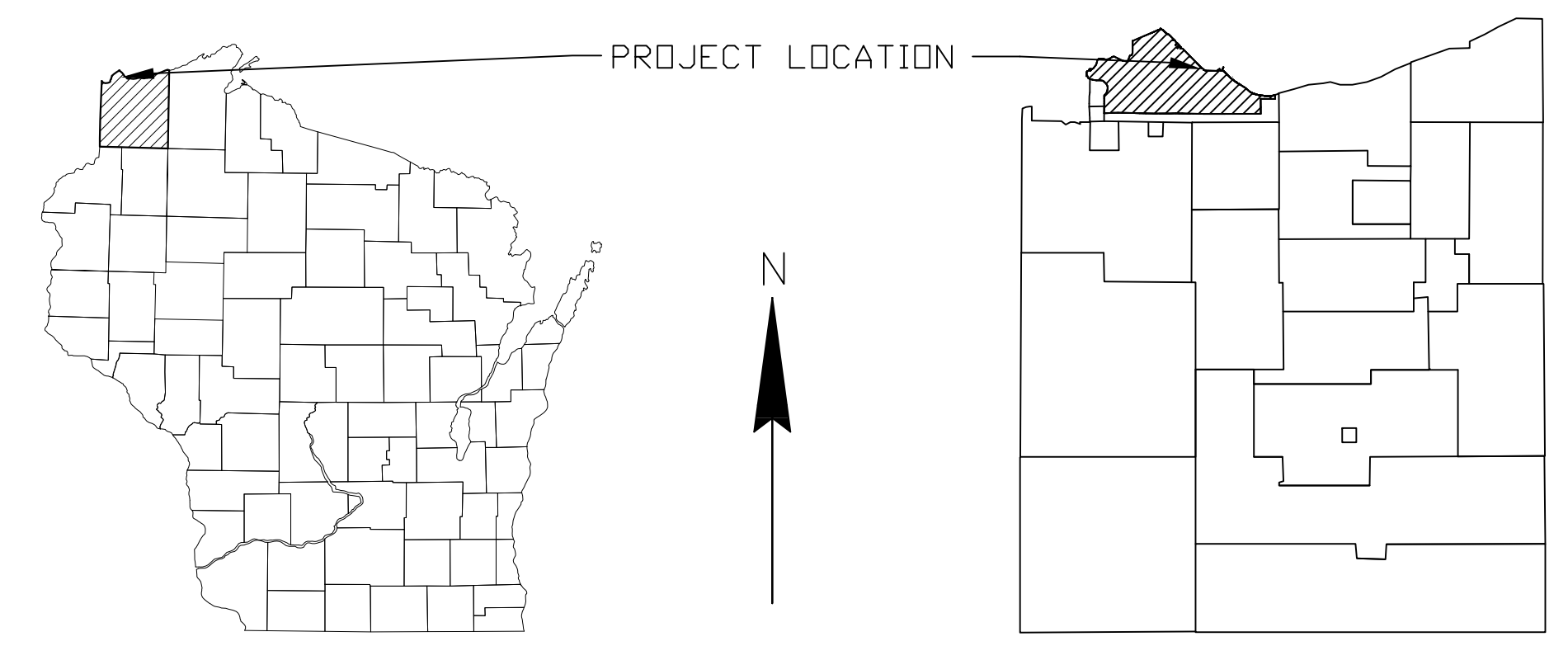


SEWER RECONSTRUCTION PROJECTS 2009

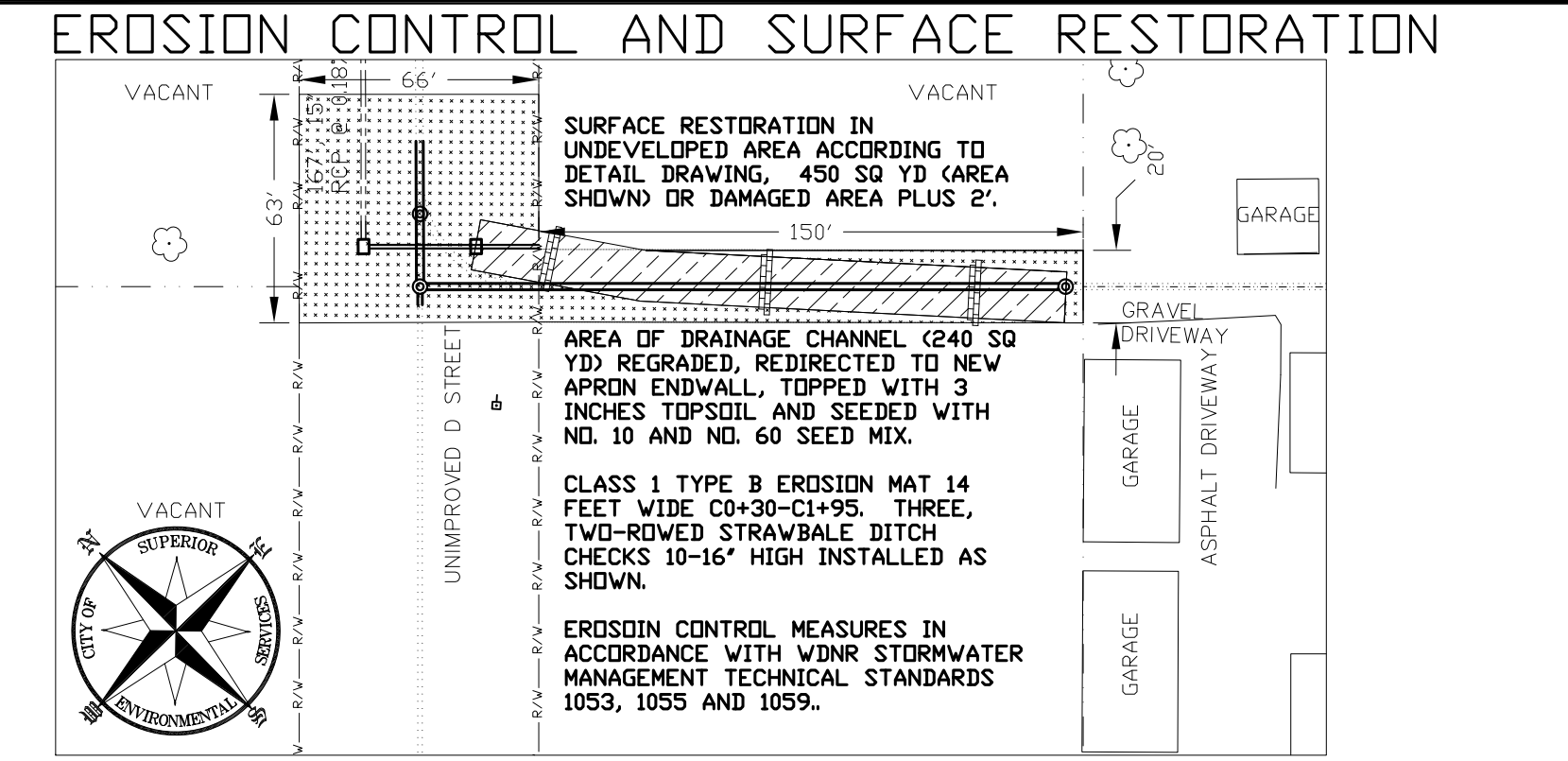
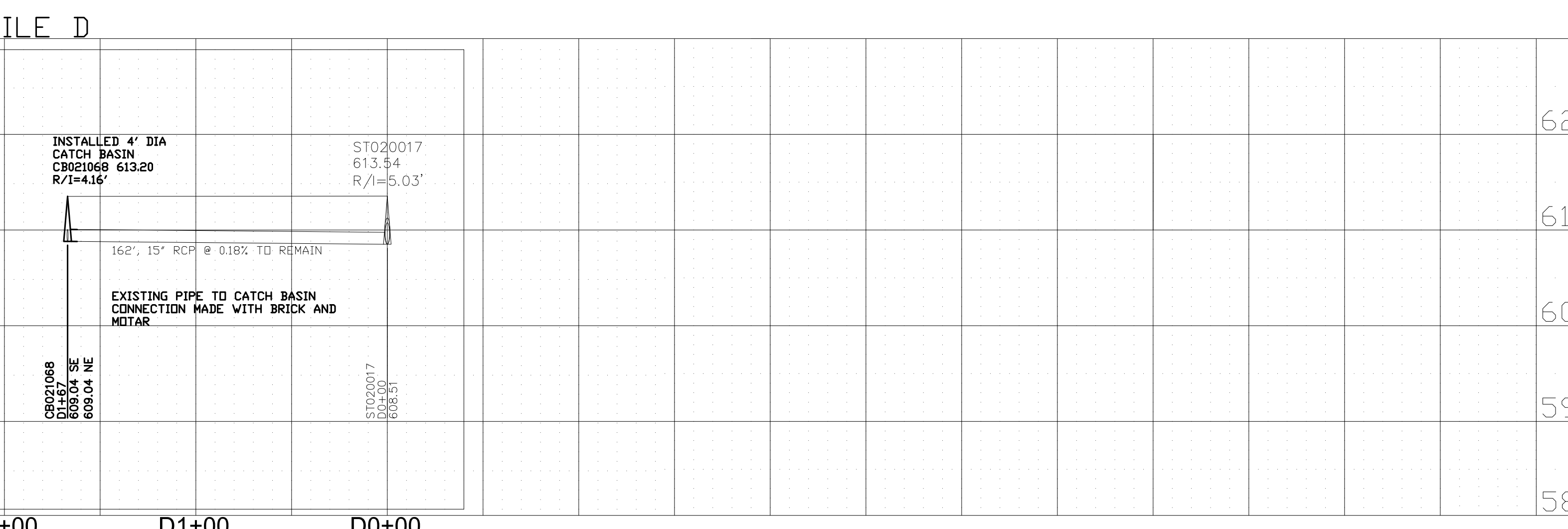
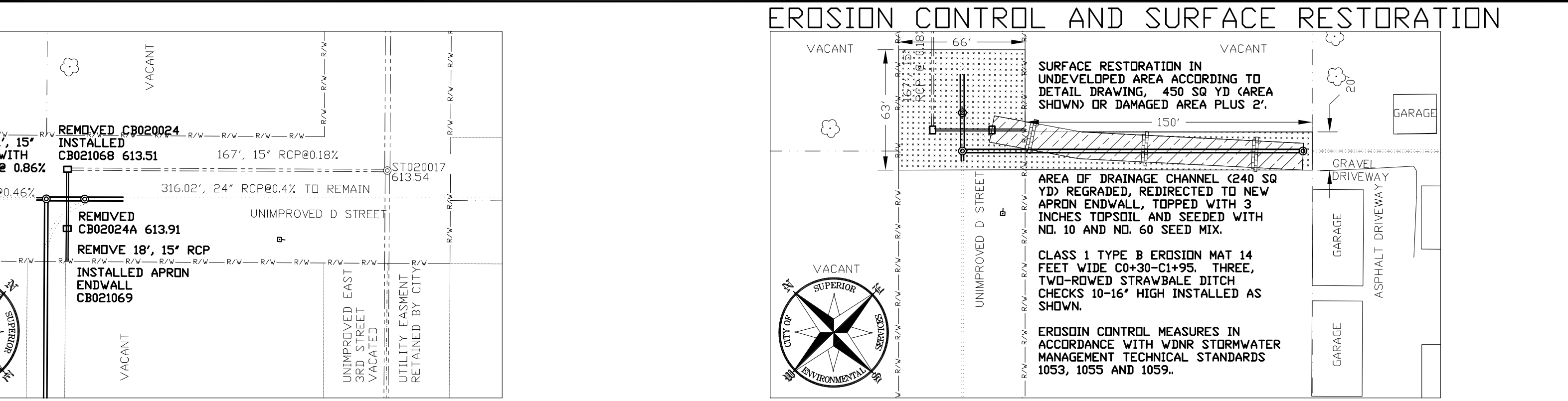
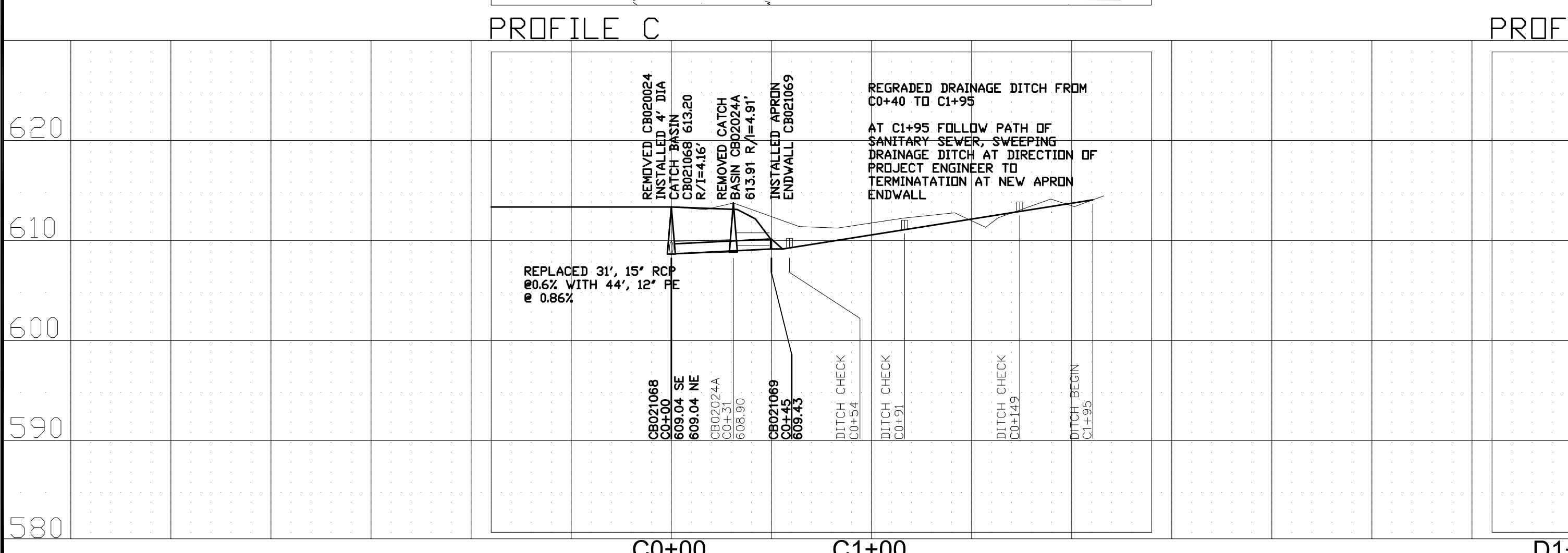
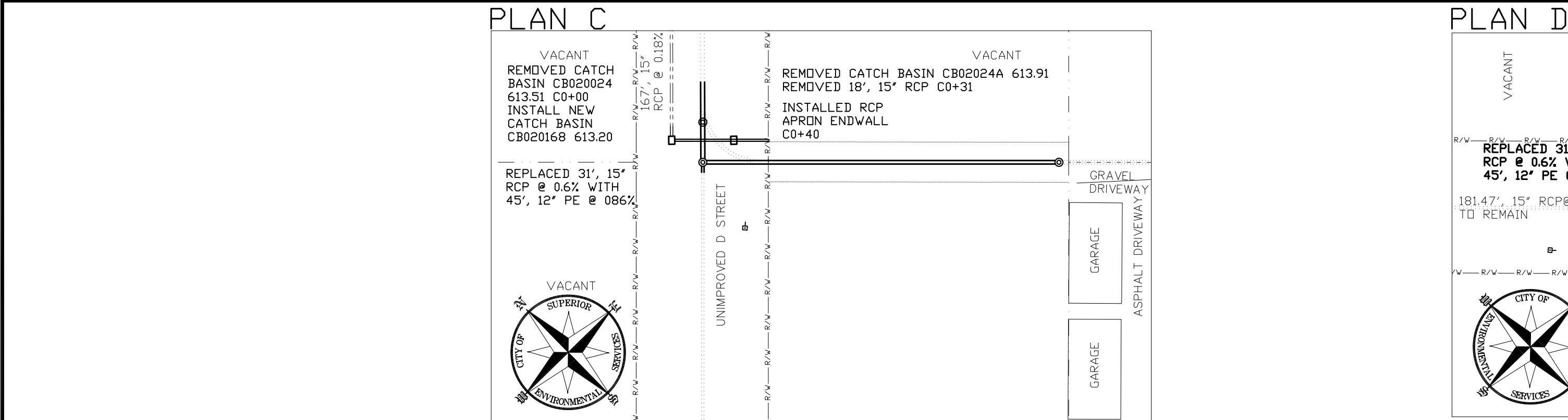
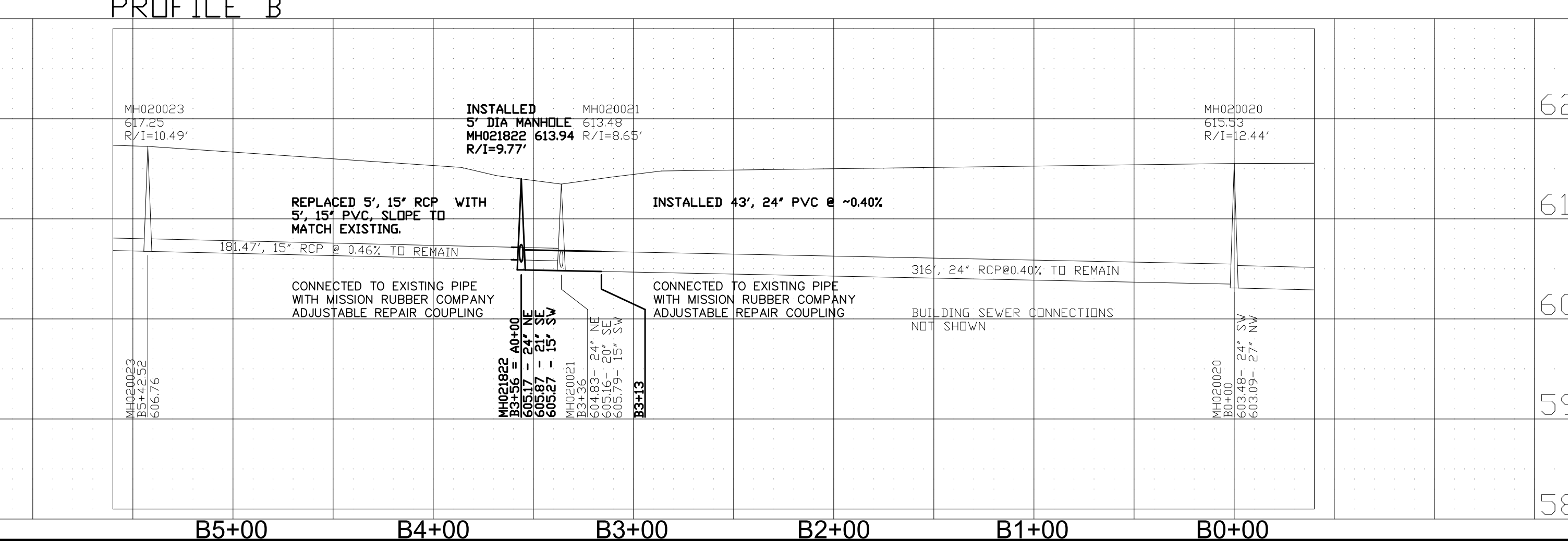
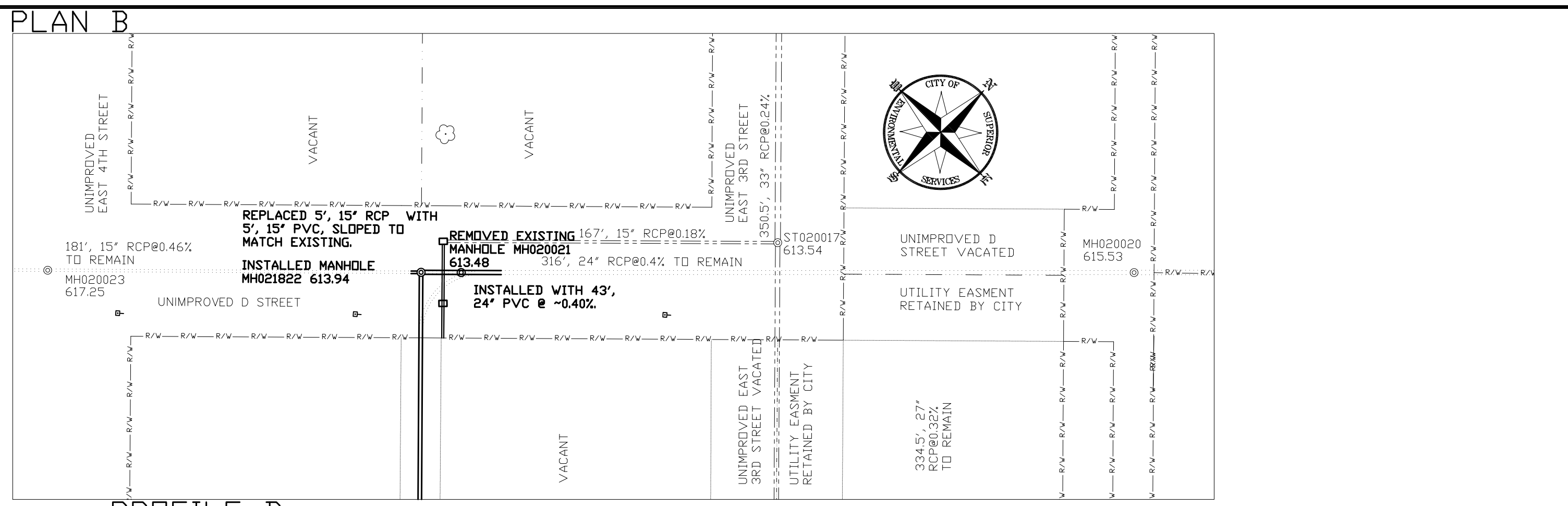
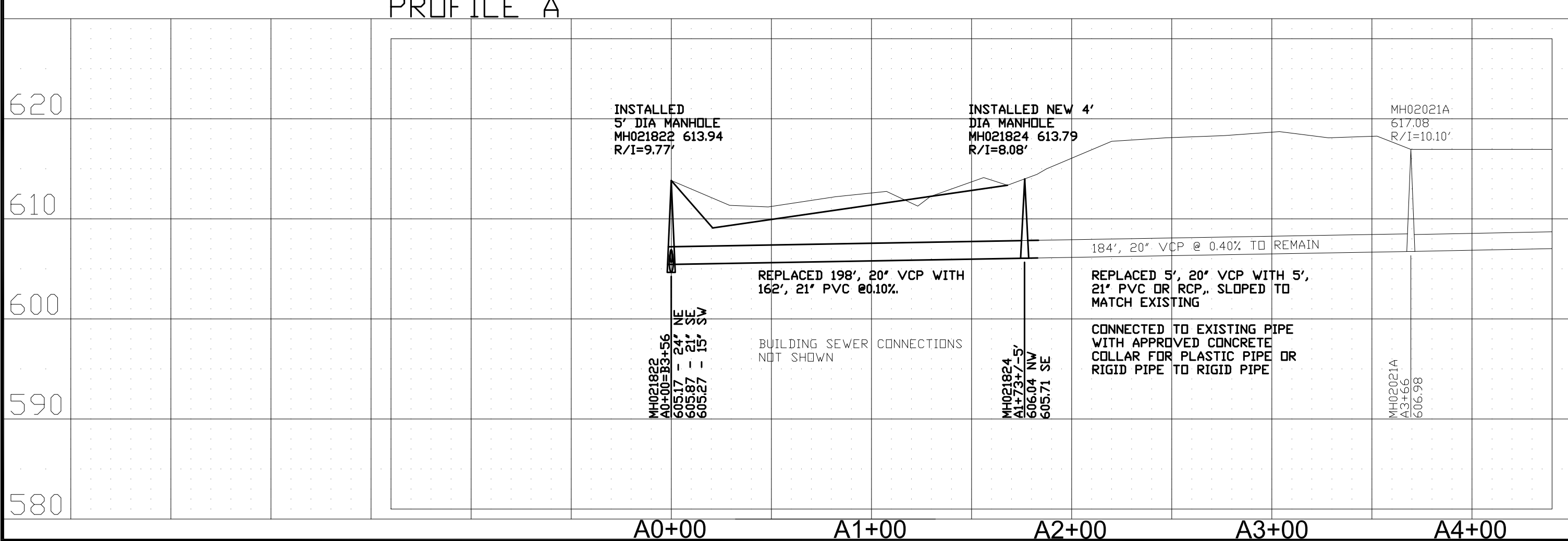
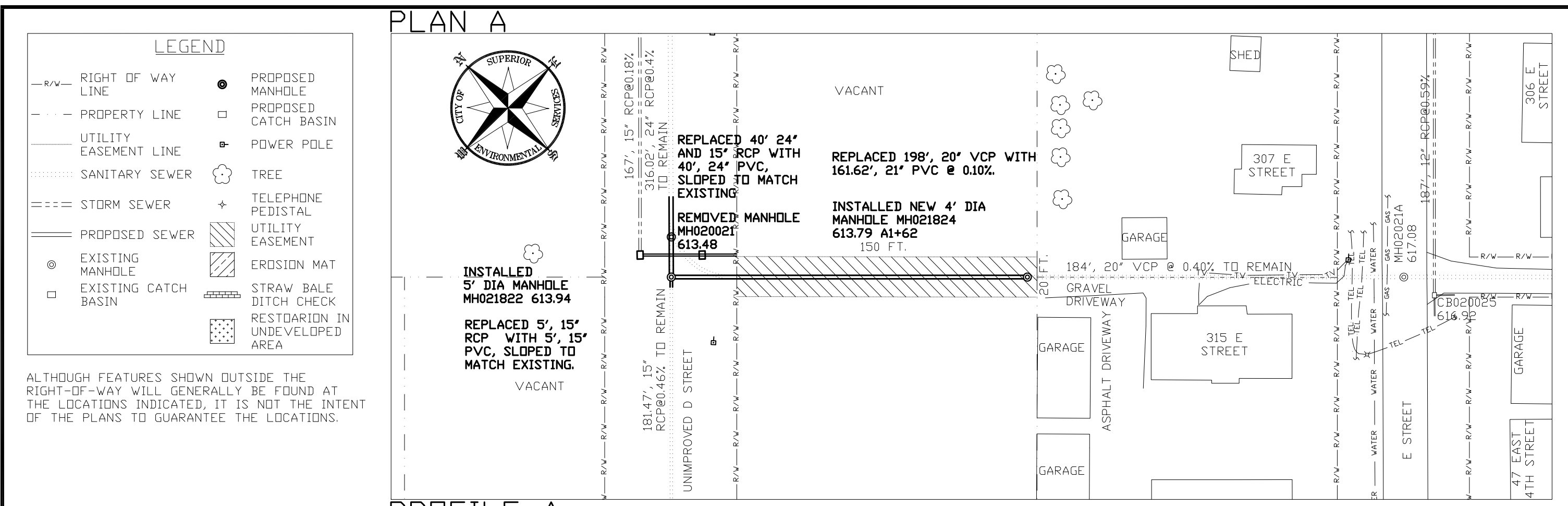
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REVISION DATE: 03/17/2009
 RECORD DRAWING: 11/12/2009



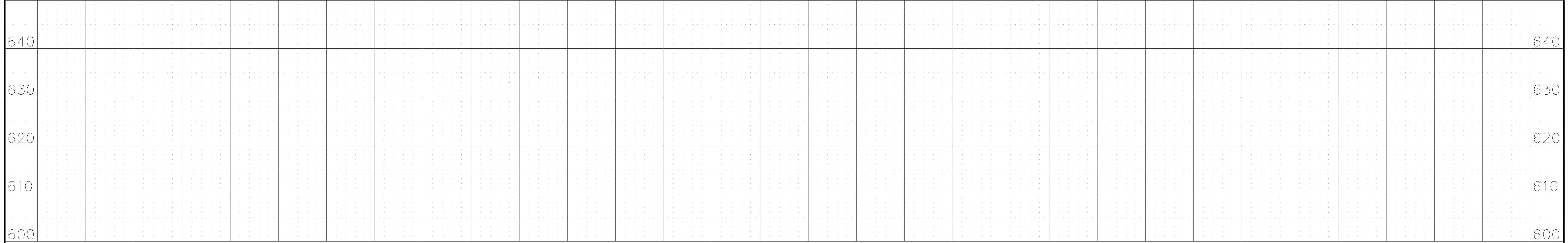
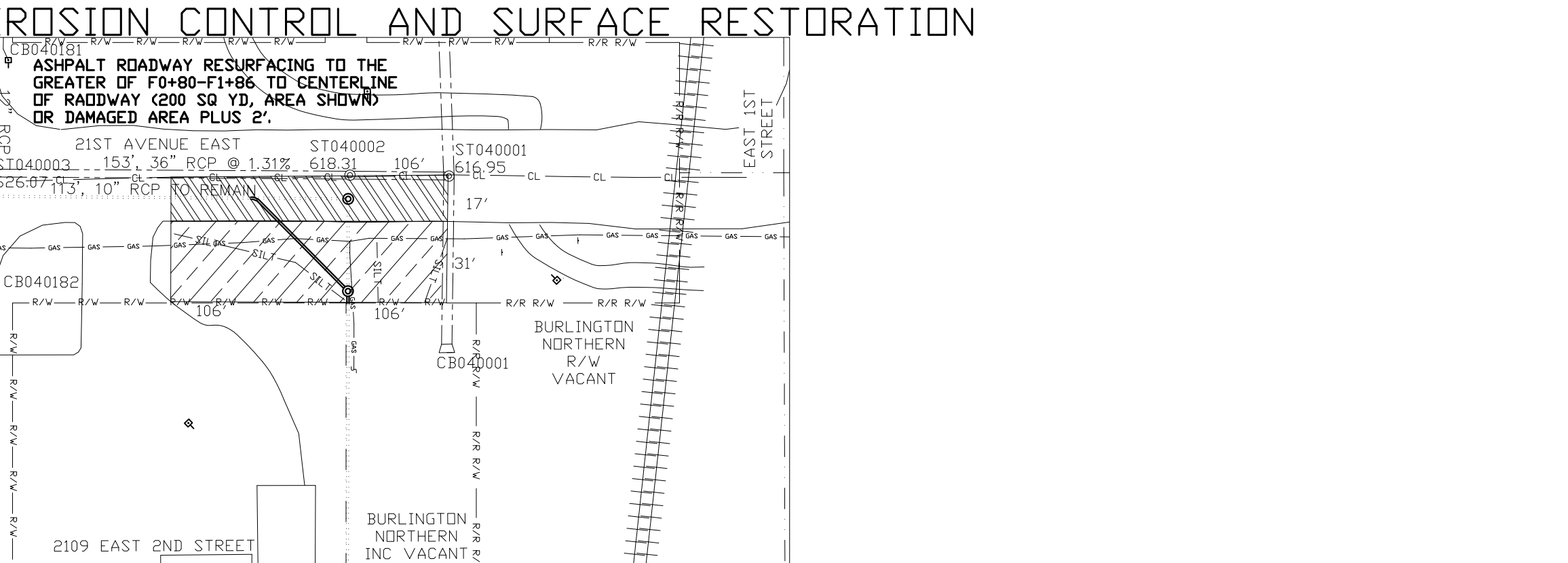
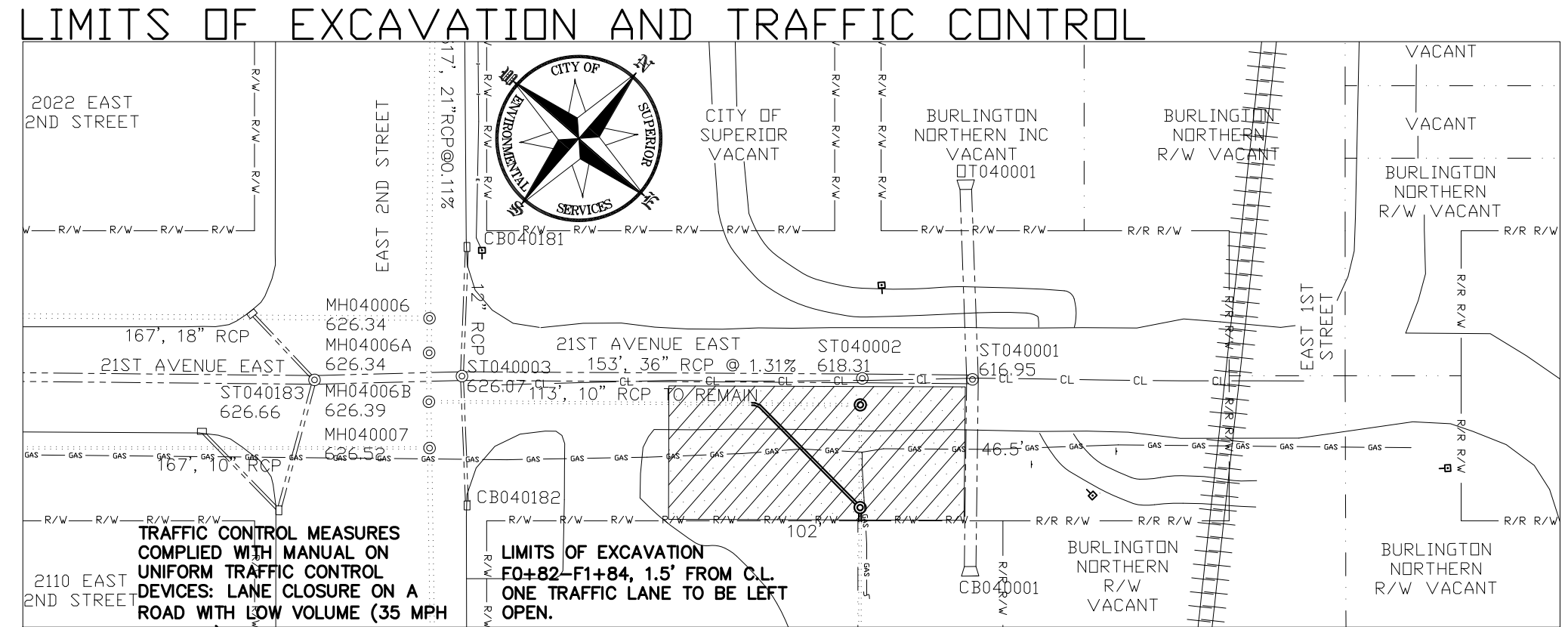
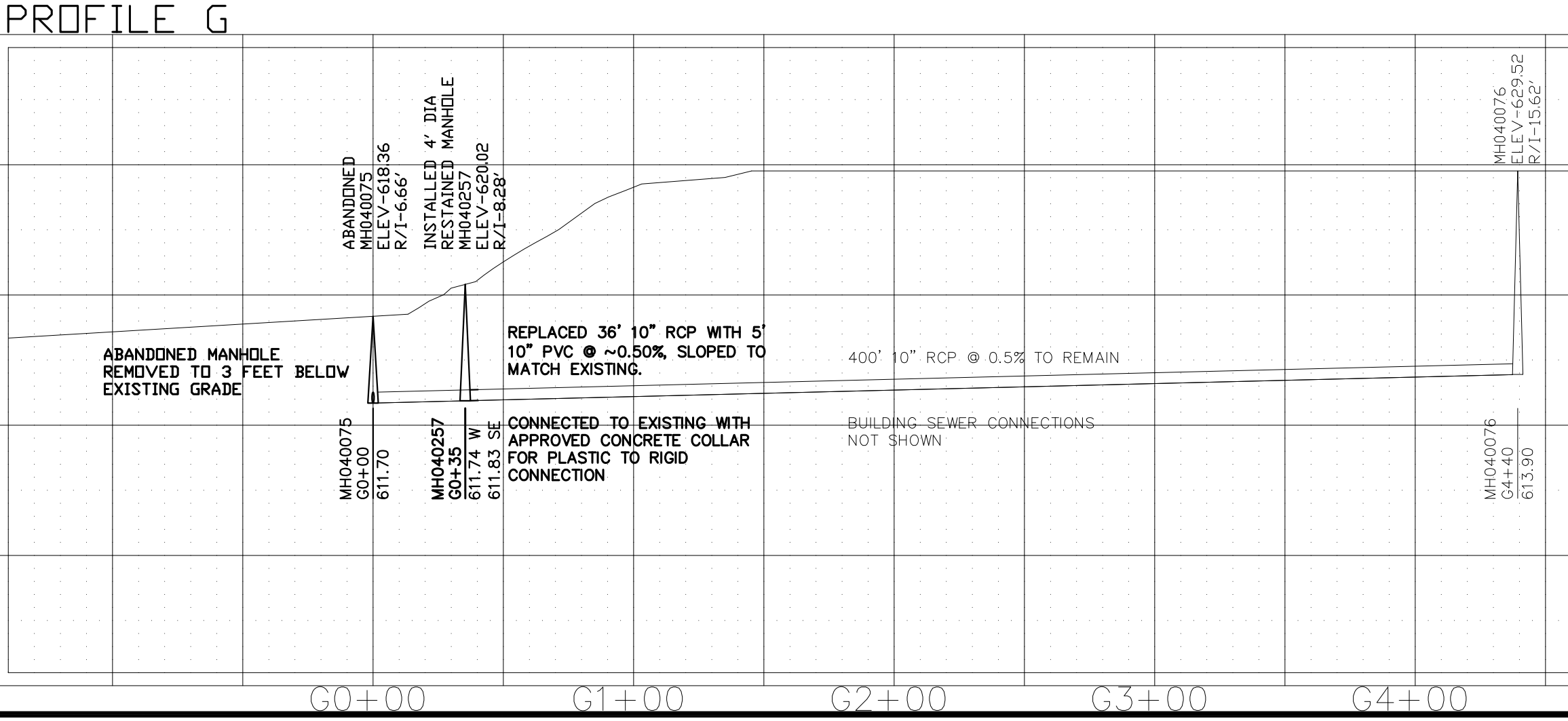
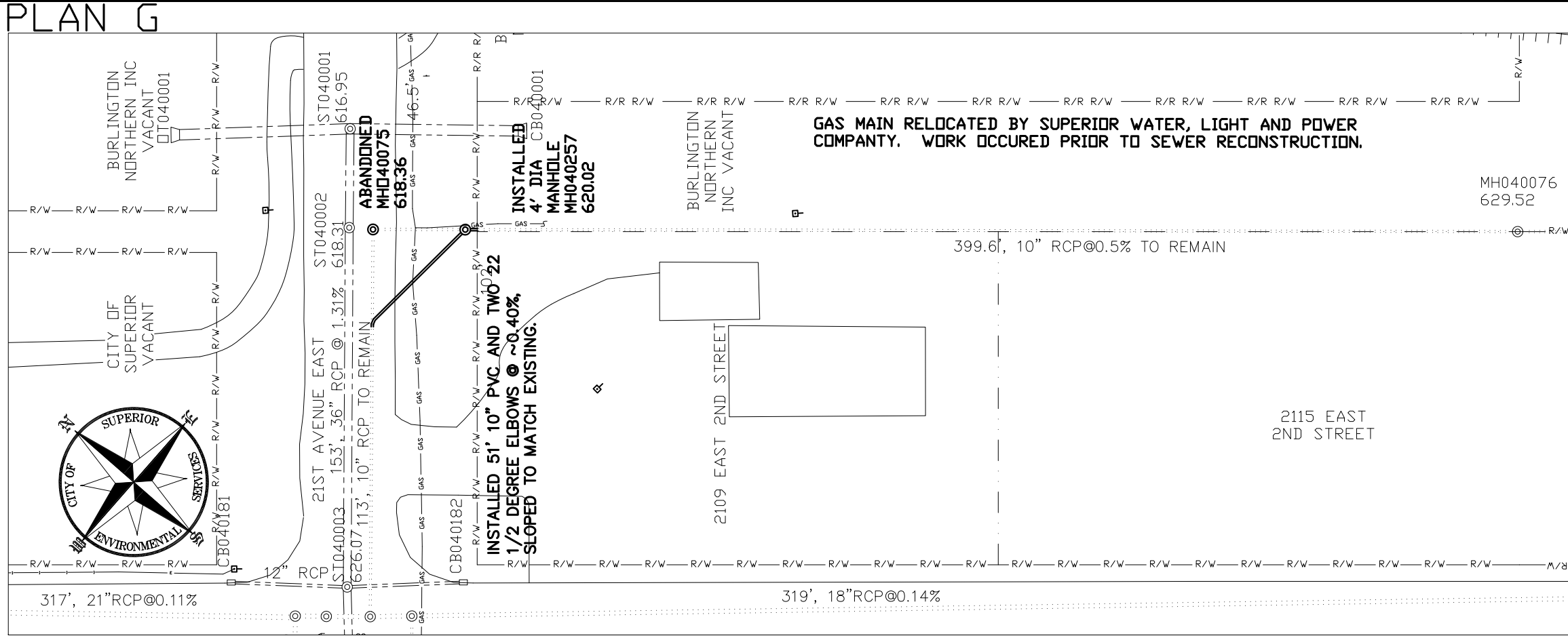
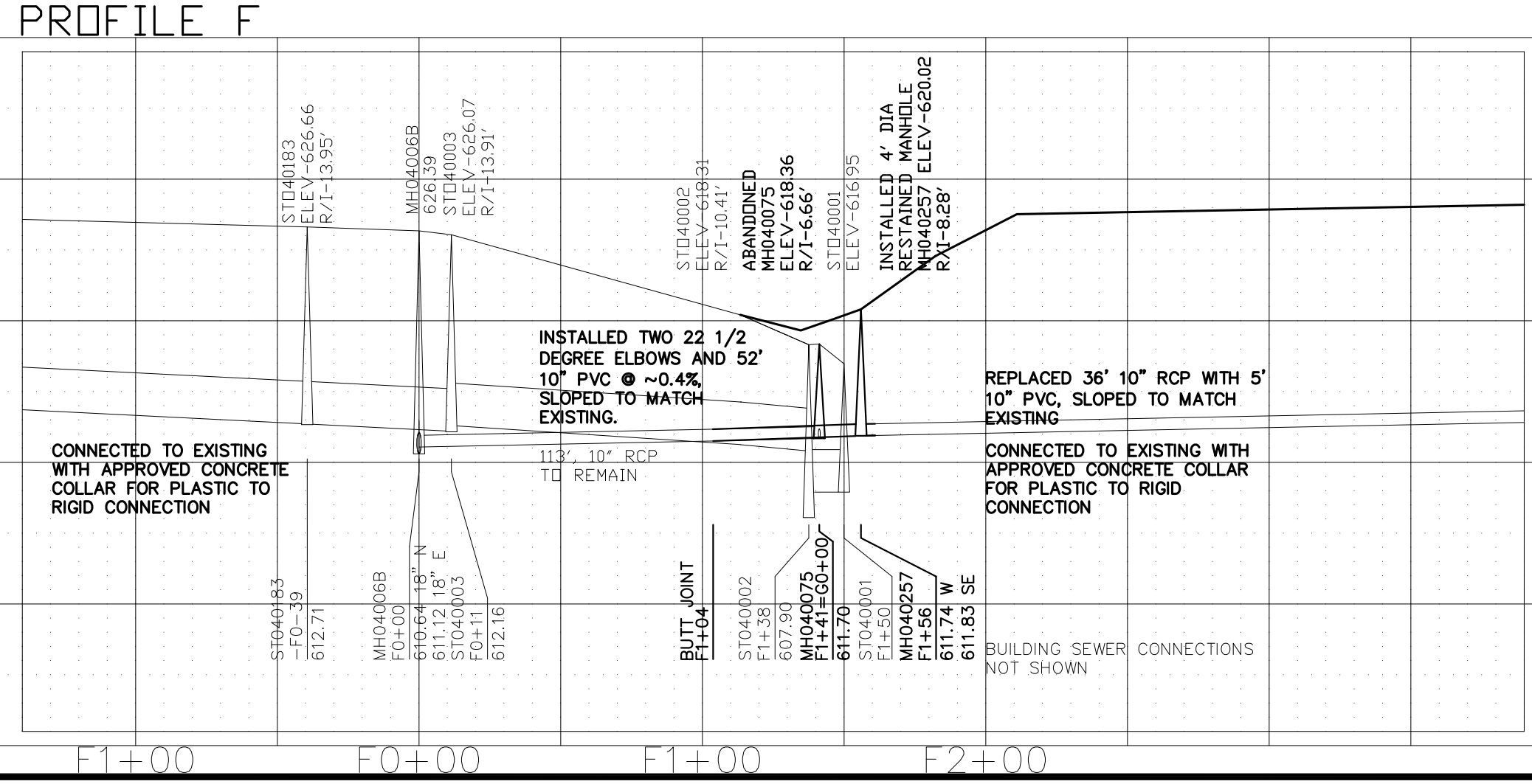
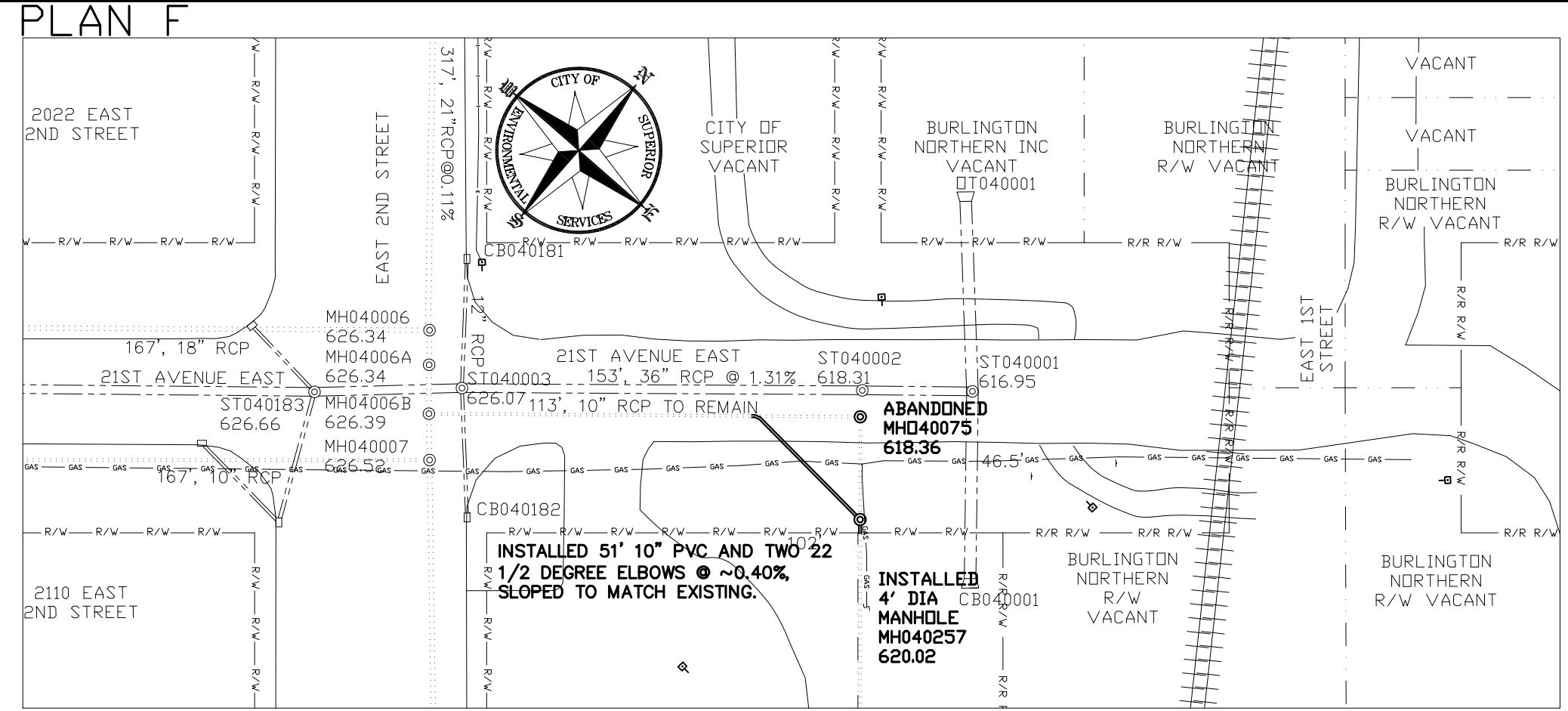
LOCATION PLAN



LEGEND

--- R/W ---	RIGHT OF WAY LINE	●	PROPOSED MANHOLE
- - - - -	PROPERTY LINE	○	POWER POLE
-----	SANITARY SEWER	○	TREE
=====	STORM SEWER	□	EROSION MAT
-----	PROPOSED SEWER	□	SILT FENCE
○	EXISTING MANHOLE	□	LIMITS OF EXCAVATION
□	EXISTING CATCH BASIN	▨	ASPHALT RESTORATION

ALTHOUGH FEATURES SHOWN OUTSIDE THE RIGHT-OF-WAY WILL GENERALLY BE FOUND AT THE LOCATIONS INDICATED, IT IS NOT THE INTENT OF THE PLANS TO GUARANTEE THE LOCATIONS.



1"=50' HORZ.
1"=10' VERT. FOR 22"x34" SHEETS

PLAN AND PROFILE DRAWINGS

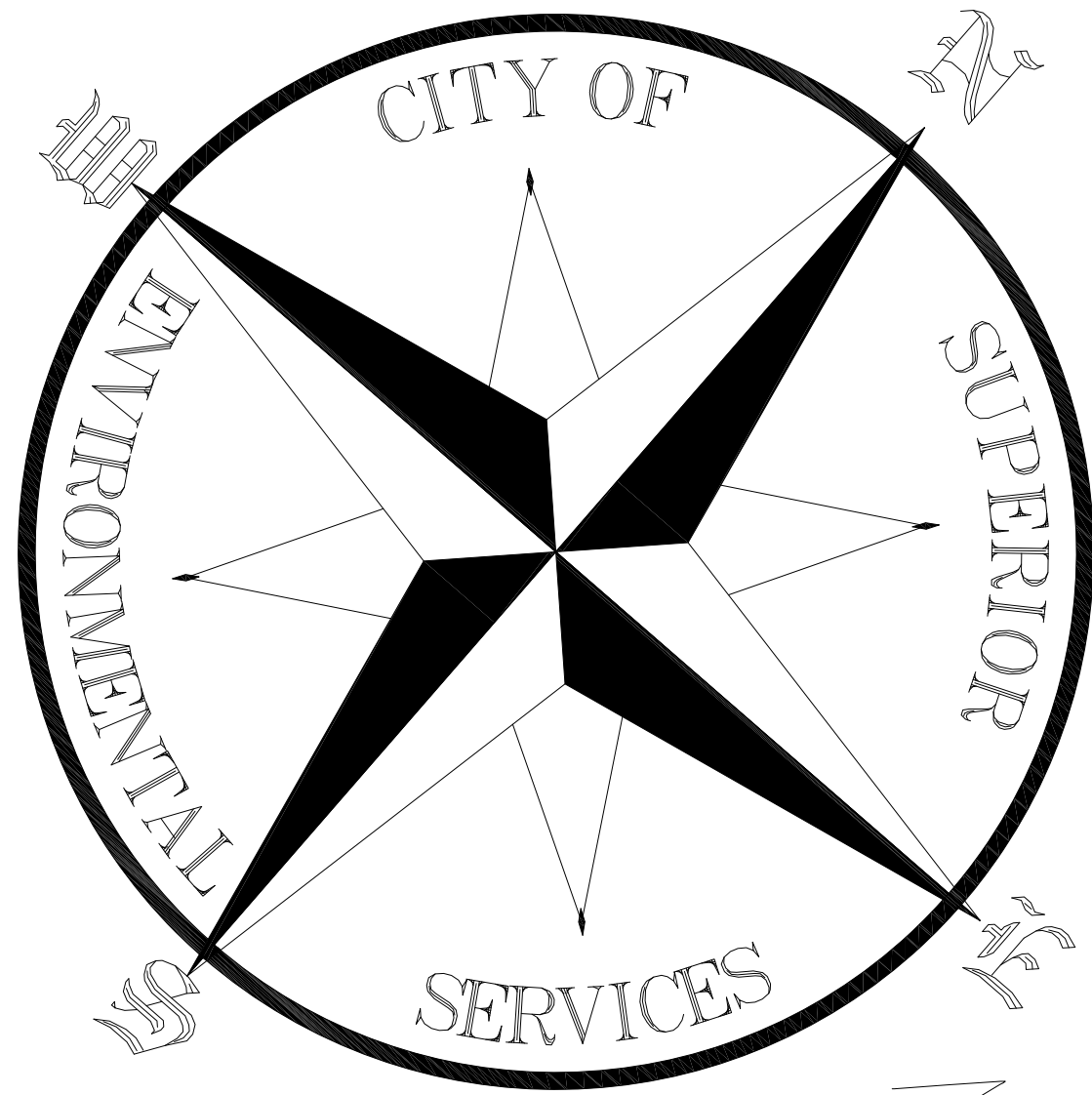
SEWER RECONSTRUCTION PROJECTS 2009

21ST AVENUE EAST AND EAST 2ND STREET, MH040075 AND PIPING RECONSTRUCTION

SUPERIOR, WISCONSIN
MARCH 17, 2009

SURVEY	J.M. J.M.	RECORD DRAWING	3/8
DRAWN	J.M.	DATE	11/12/2009
DESIGN	SGR		
APPROVED	SGR		

PROJECT SITE OVERVIEW WITH TOPOGRAPHY



317', 21" RCP @ 0.11%

CITY OF SUPERIOR VACANT

BURLINGTON NORTHERN INC VACANT
OT040001

BURLINGTON NORTHERN R/W VACANT

21ST AVENUE EAST

ST040003

ST040002

ST040001

113', 10" RCP TO REMAIN

CB040182

CB040001

BURLINGTON NORTHERN R/W VACANT

EAST 1ST STREET

1"=10' HORZ.
1"=10' VERT. FOR 22"x34" SHEETS

PROJECT AREA OVERVIEW WITH TOPOGRAPHY

SEWER RECONSTRUCTION PROJECTS 2009

21ST AVENUE EAST AND EAST 2ND STREET, MH040075 AND PIPING RECONSTRUCTION

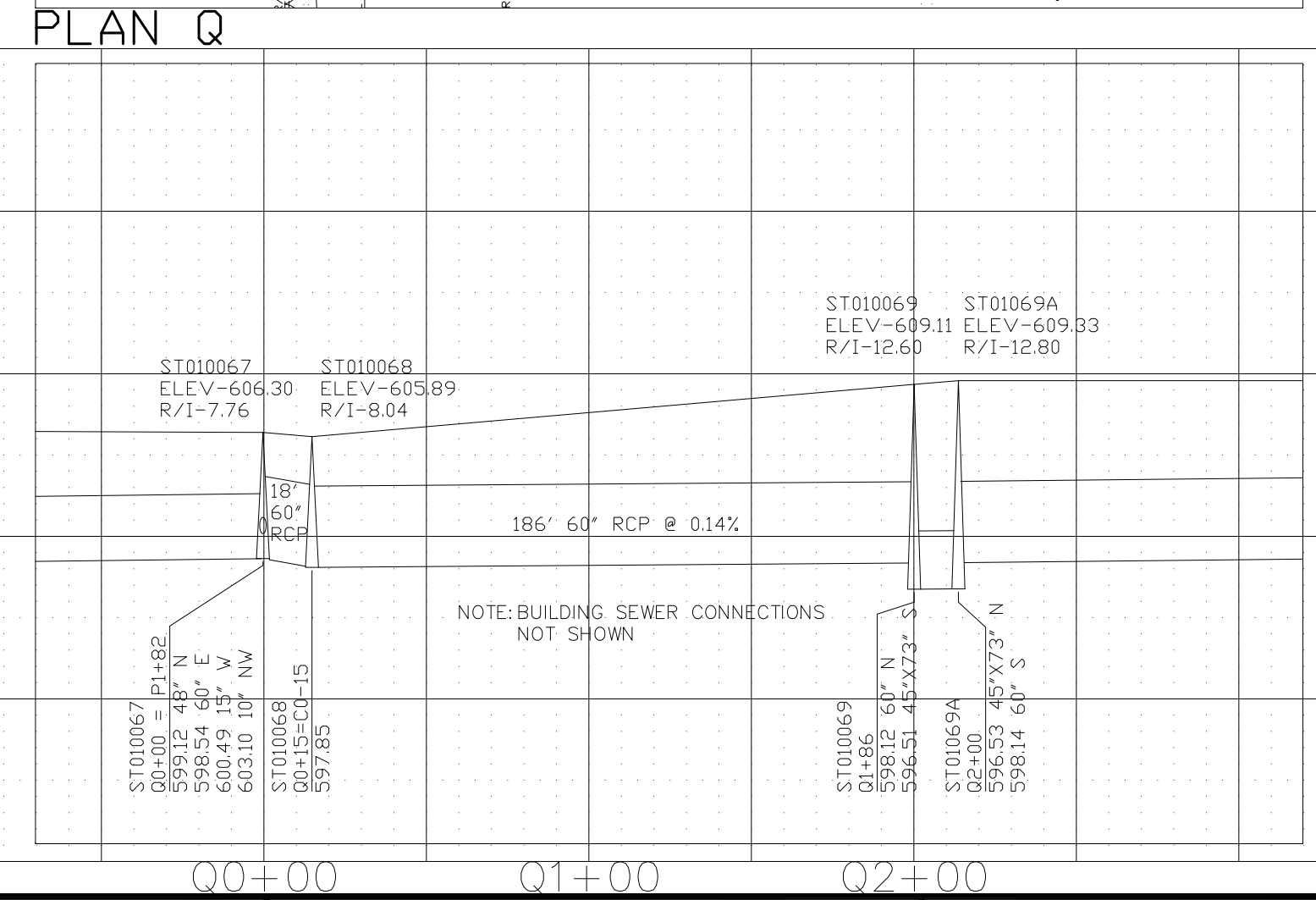
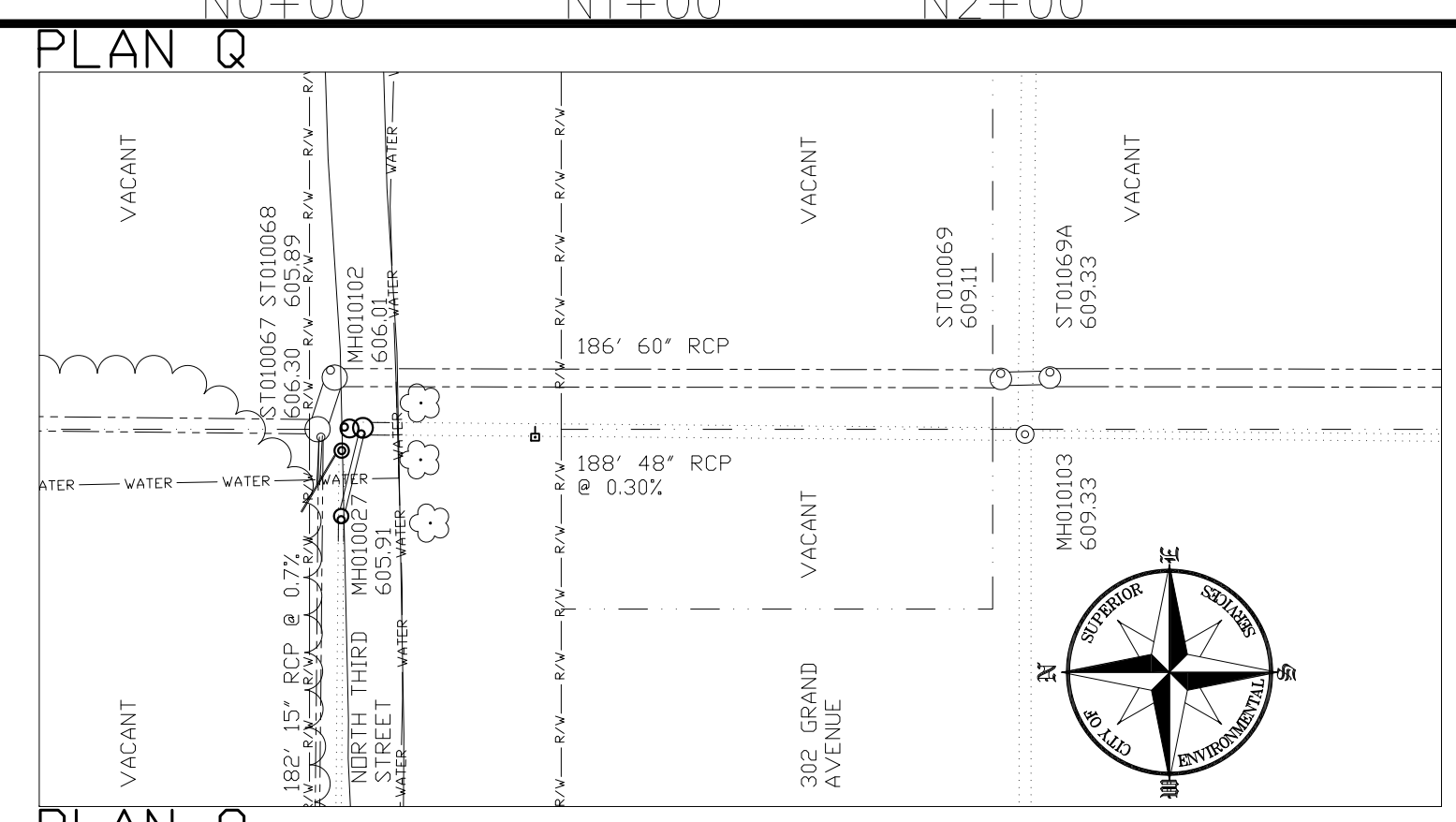
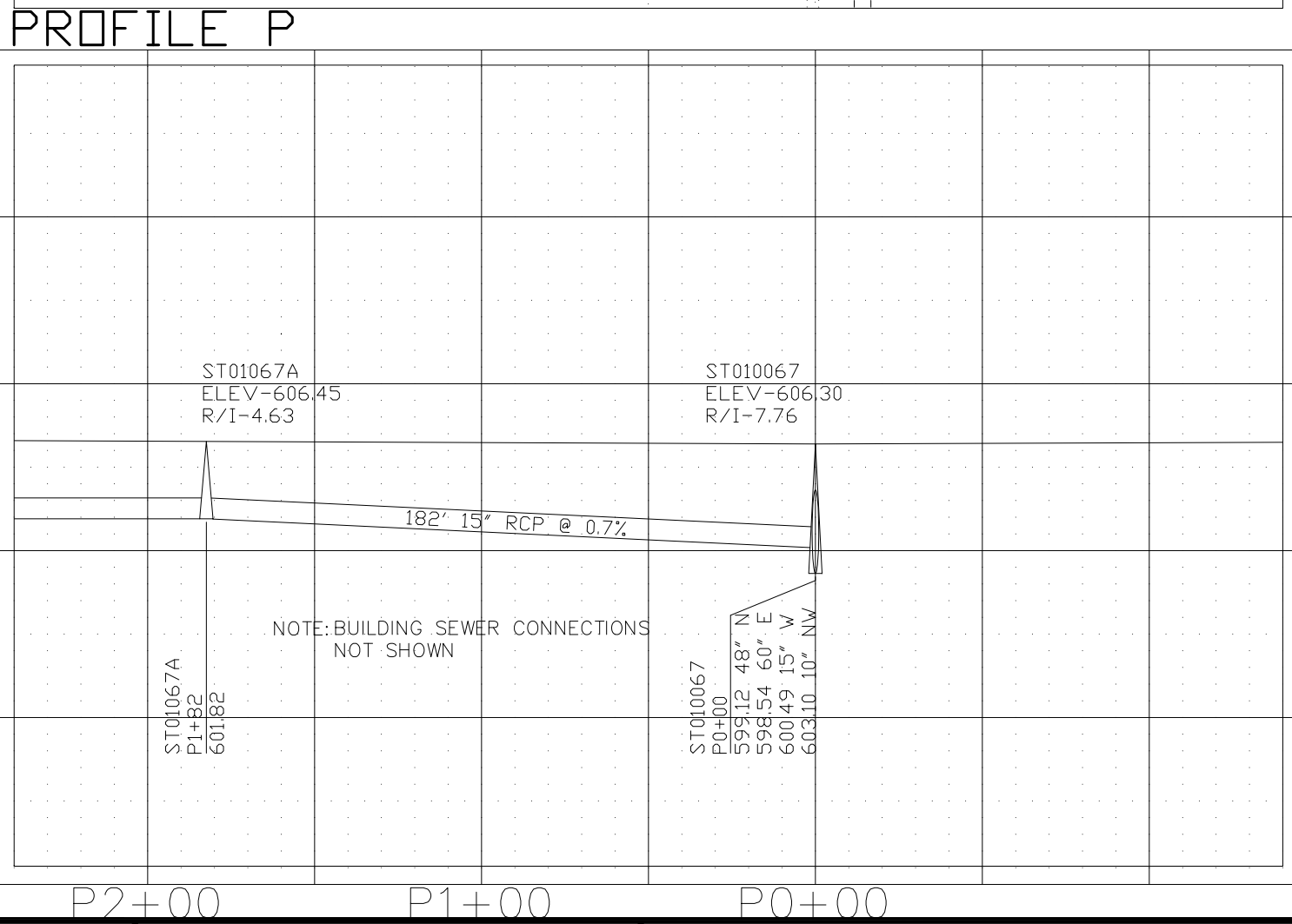
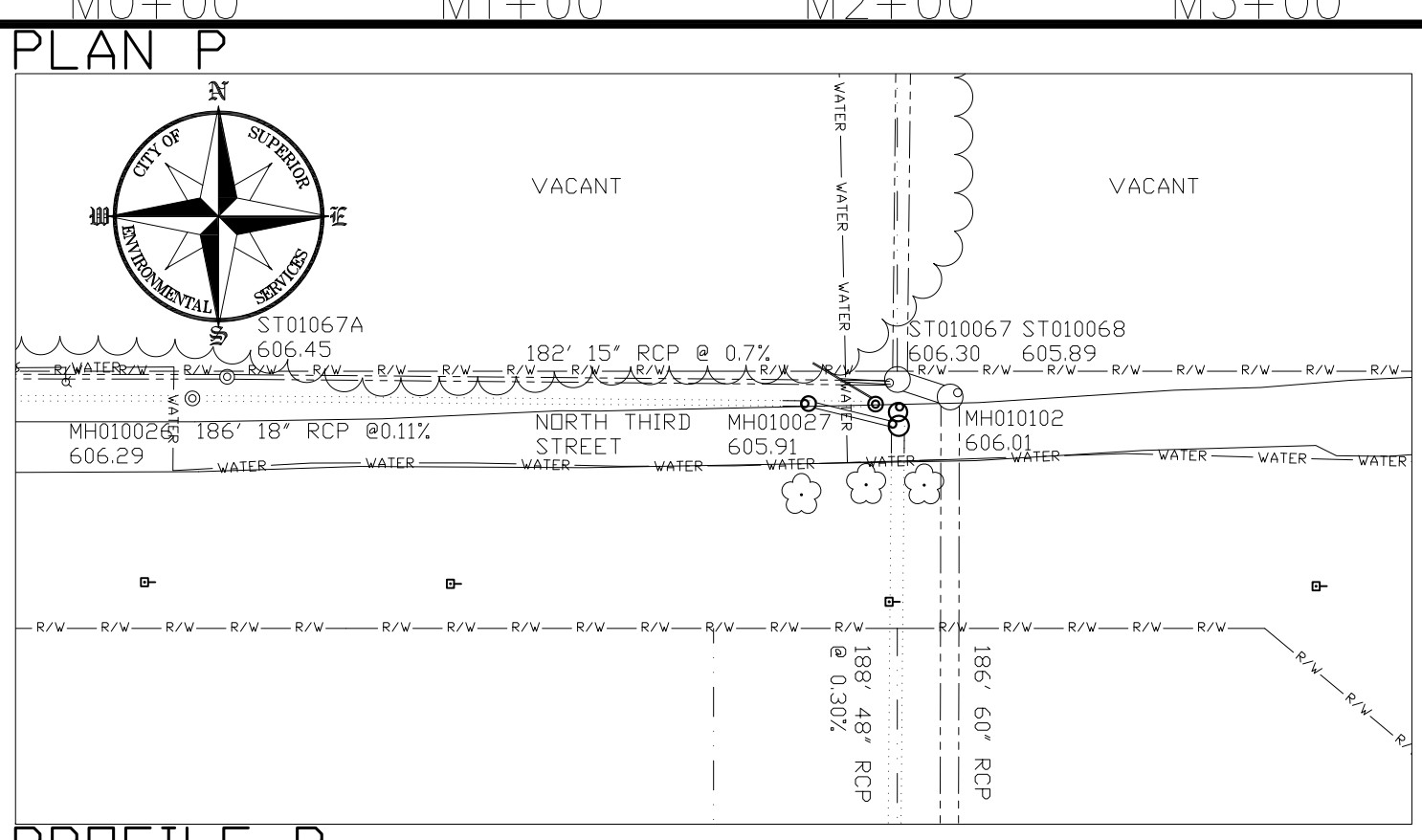
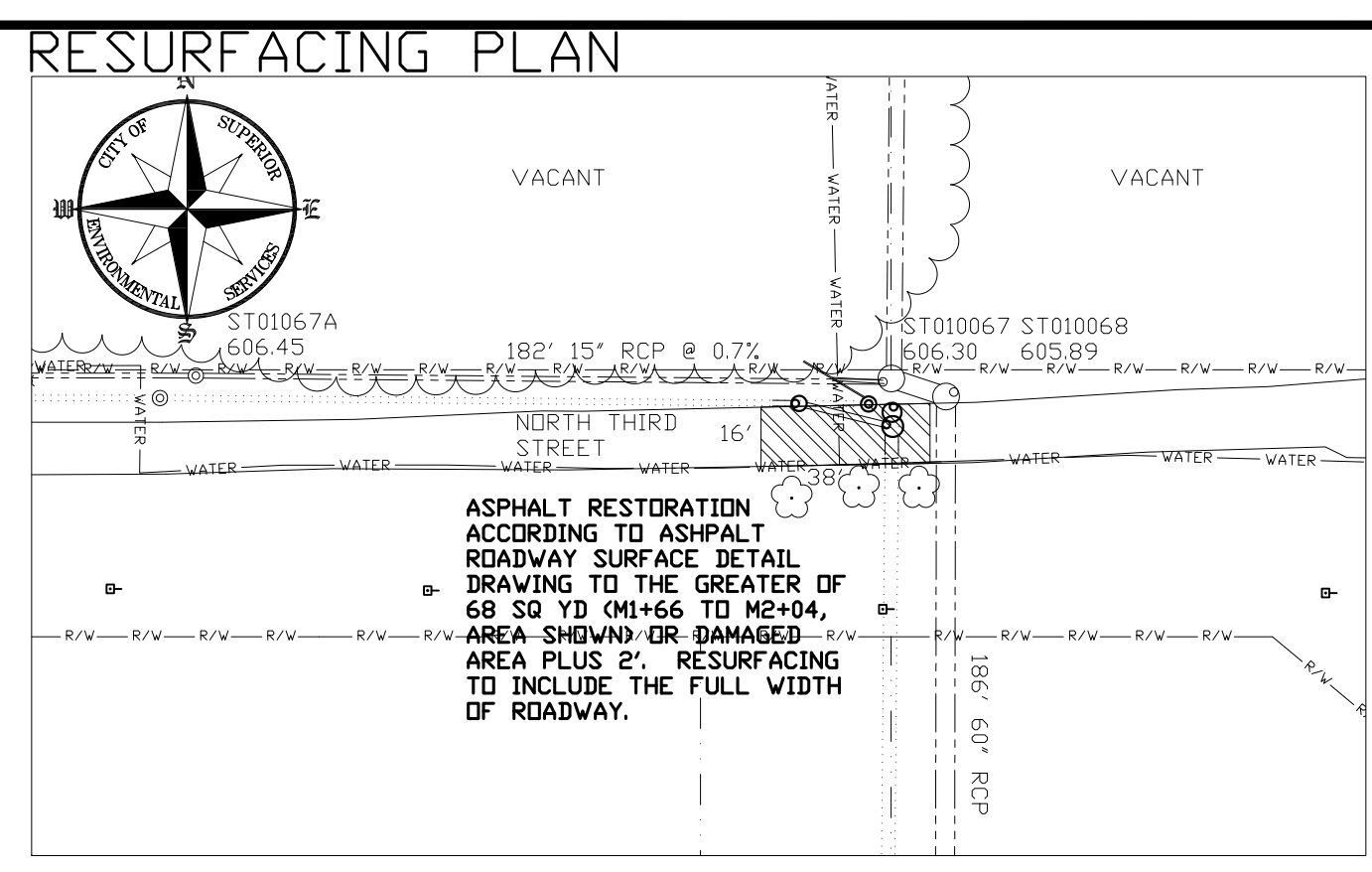
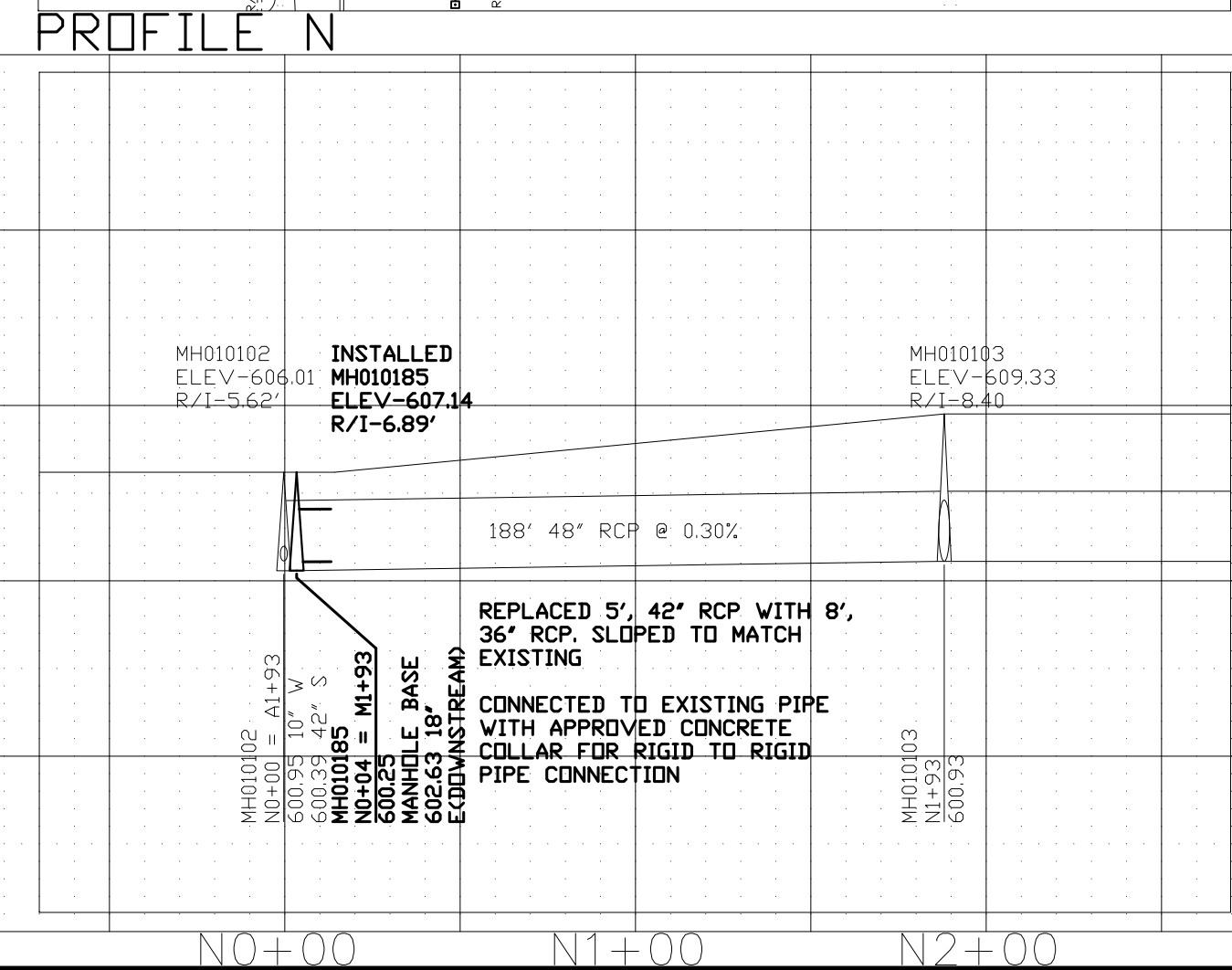
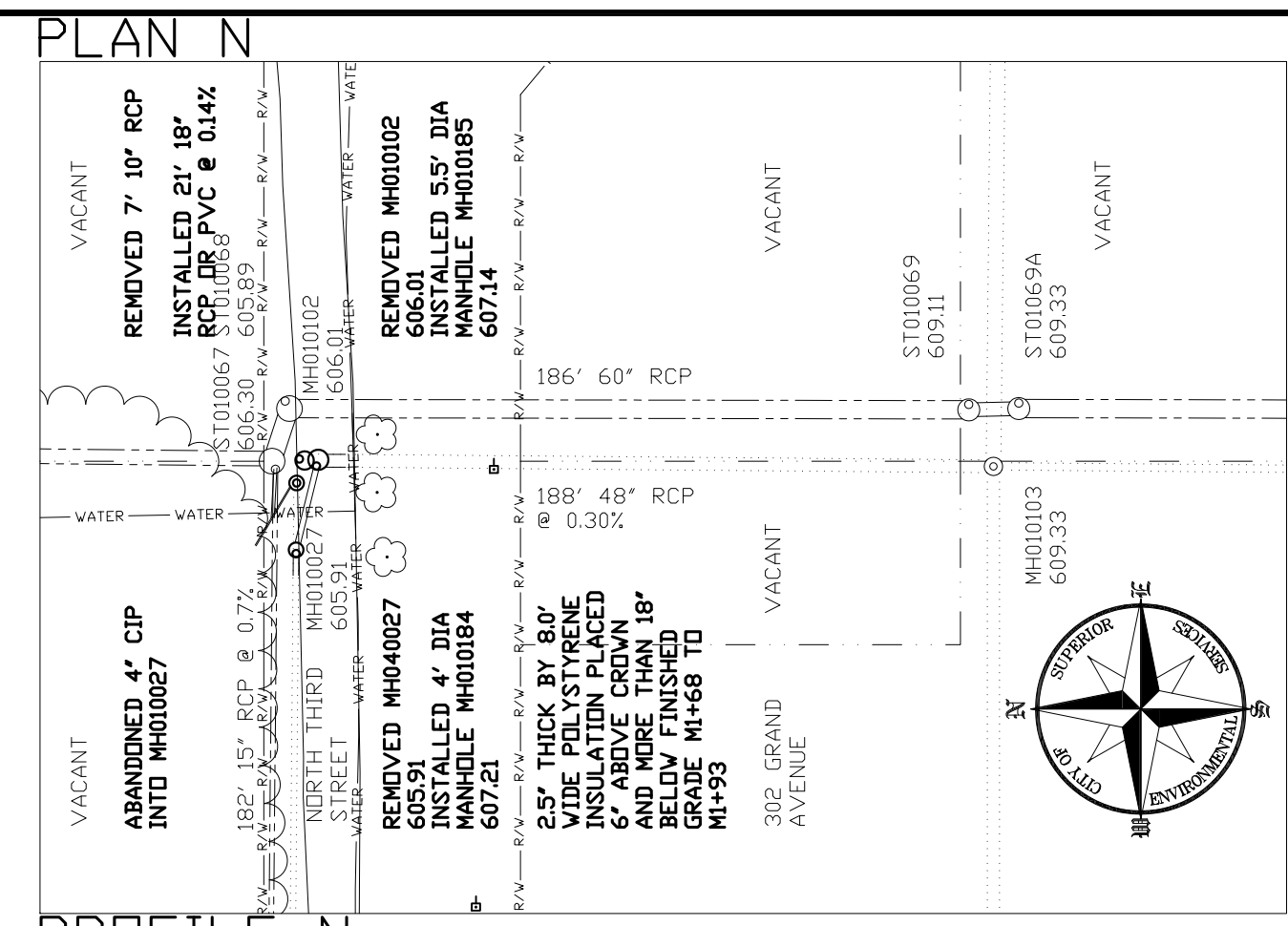
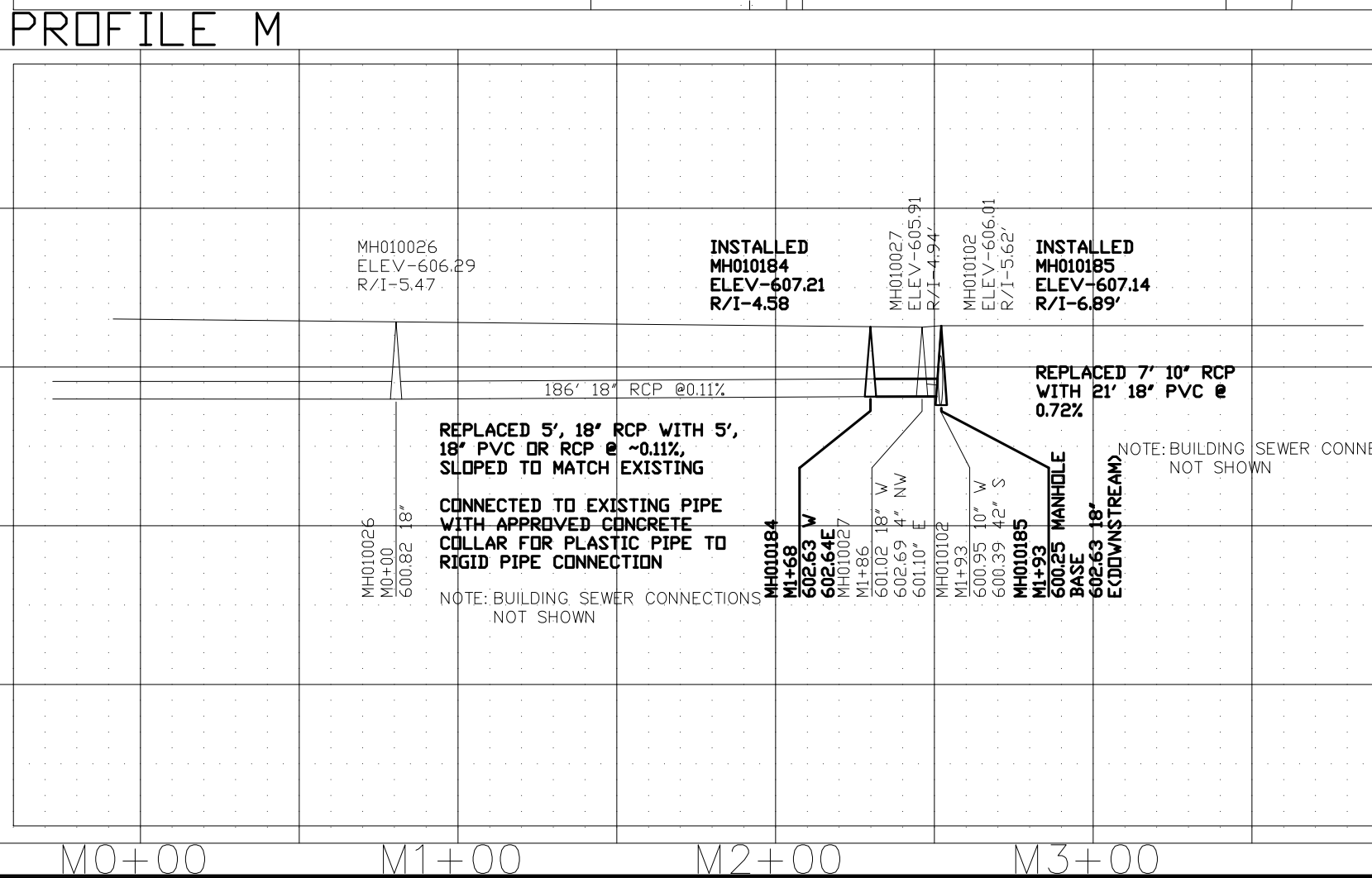
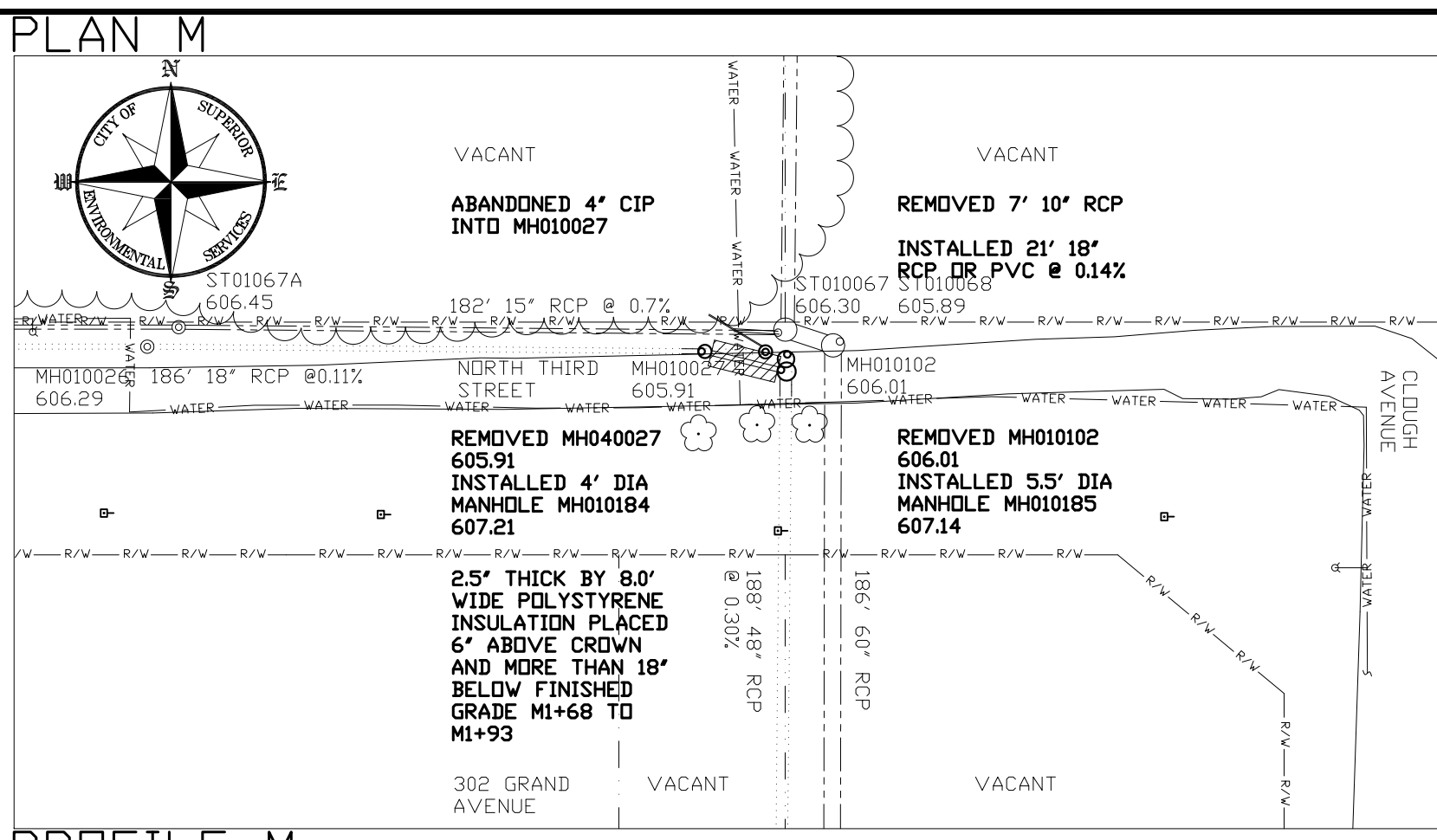
SUPERIOR, WISCONSIN
MARCH 17, 2009

SURVEY	EJT	RECORD DRAWING	4
DRAWN	DJG, JUM	DATE	11/12/2009
DESIGN	SGR		
APPROVED	SGR		

LEGEND

— R/W —	RIGHT OF WAY LINE	⬤	POWER POLE LINE
— P —	PROPERTY LINE	⬤	TREE
— S —	STORM SEWER	⬤	TREELINE
— SS —	SANITARY SEWER	⬤	ASPHALT RESTORATION
— PS —	PROPOSED SEWER	⬤	INSULATION TO BE INSTALLED
⊙	EXISTING MANHOLE		
⊙	PROPOSED MANHOLE		

ALTHOUGH FEATURES SHOWN OUTSIDE THE RIGHT-OF-WAY WILL GENERALLY BE FOUND AT THE LOCATIONS INDICATED, IT IS NOT THE INTENT OF THE PLANS TO GUARANTEE THE LOCATIONS.



1"=50' HORZ.
1"=10' VERT.
FOR 22"x34" SHEETS

PLAN AND PROFILE DRAWINGS

SEWER RECONSTRUCTION PROJECTS 2009

CLOUGH AVENUE AND NORTH 3RD
STREET, MH010027, MH010102 AND
PIPING RECONSTRUCTION

SUPERIOR, WISCONSIN
MARCH 17, 2009

SURVEY	JJM	RECORD DRAWING	15/8
DRAWN	JJM	DATE	11/12/2009
DESIGN	SGR		
APPROVED	SGR		

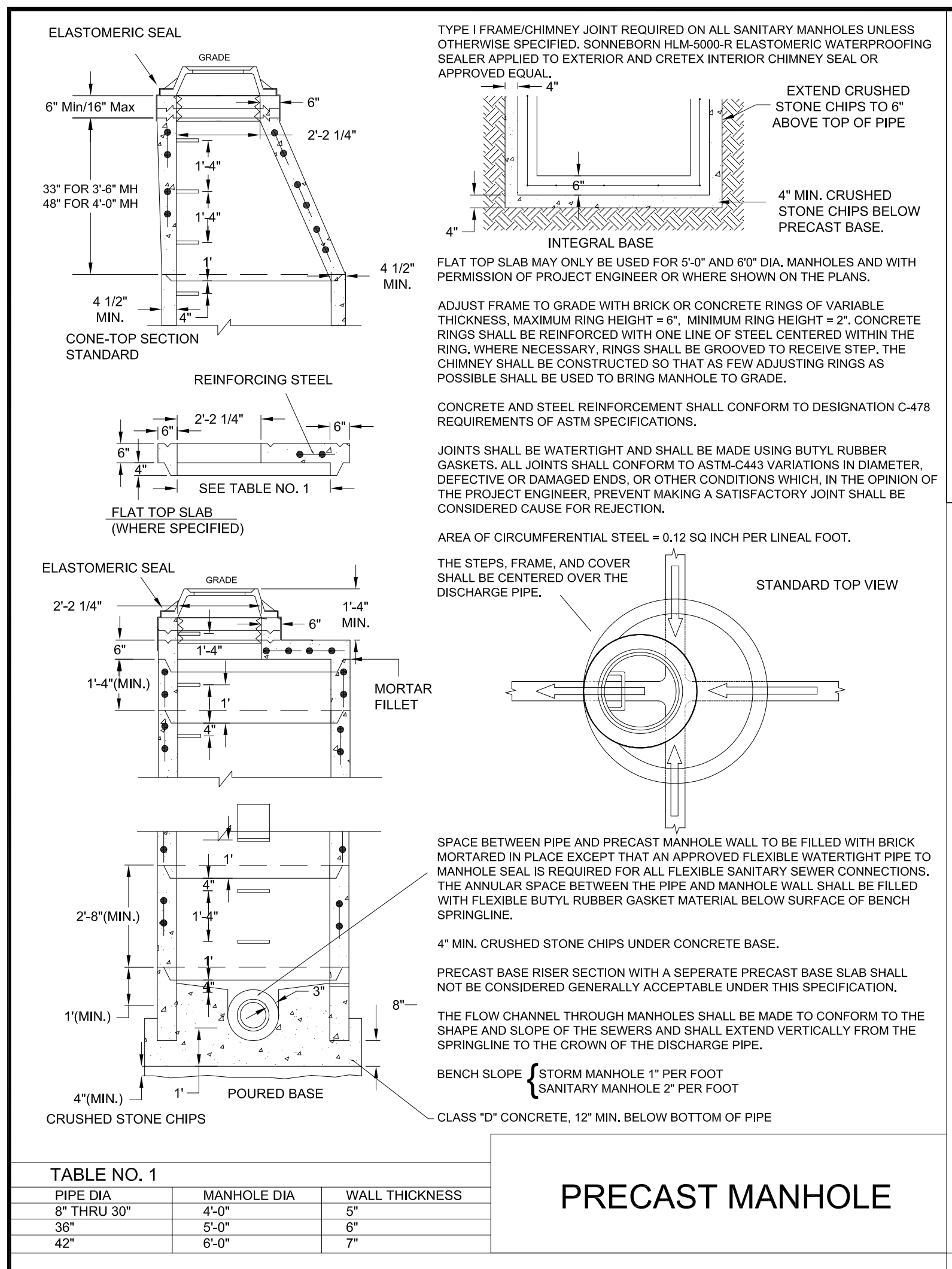
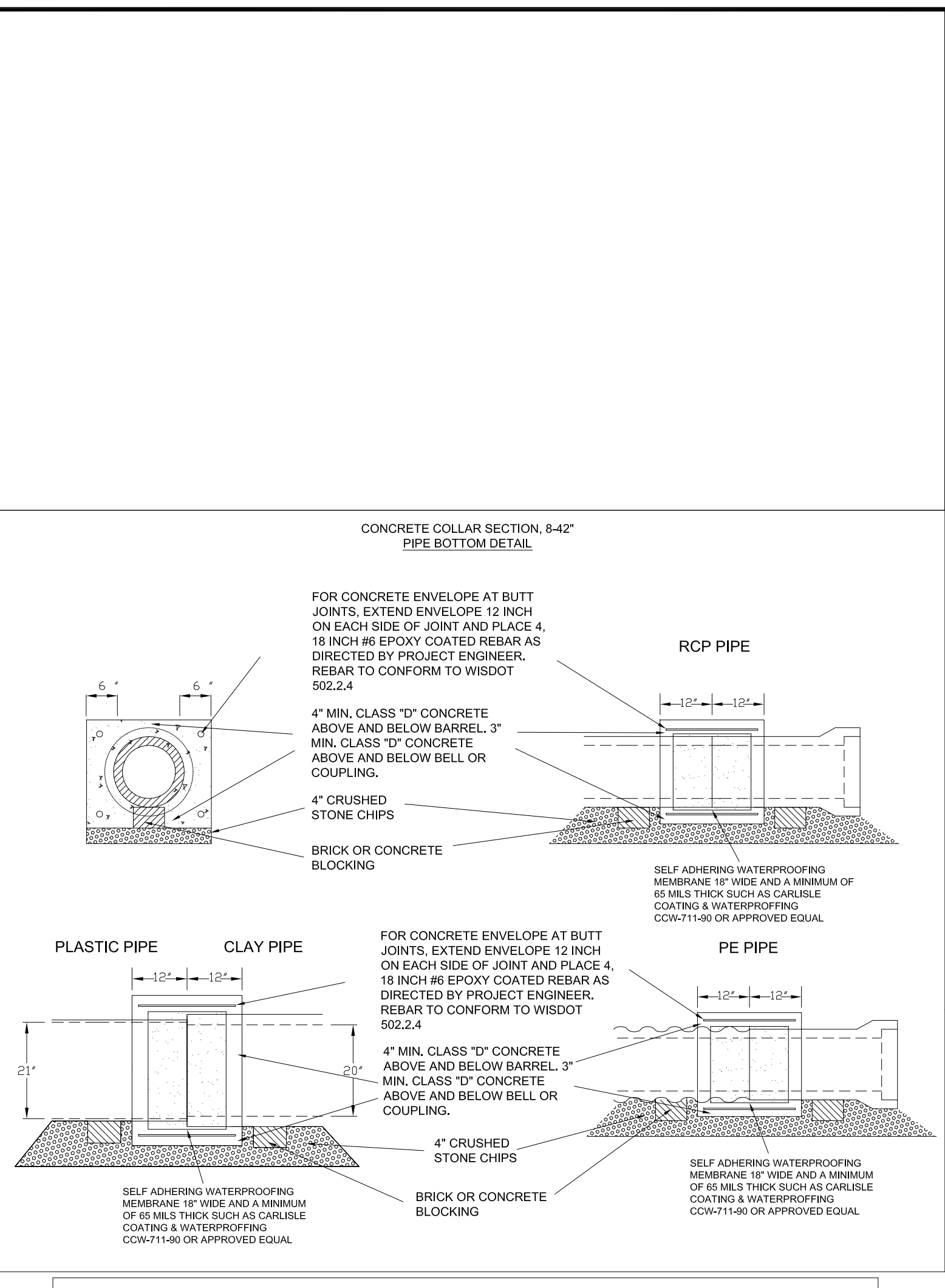
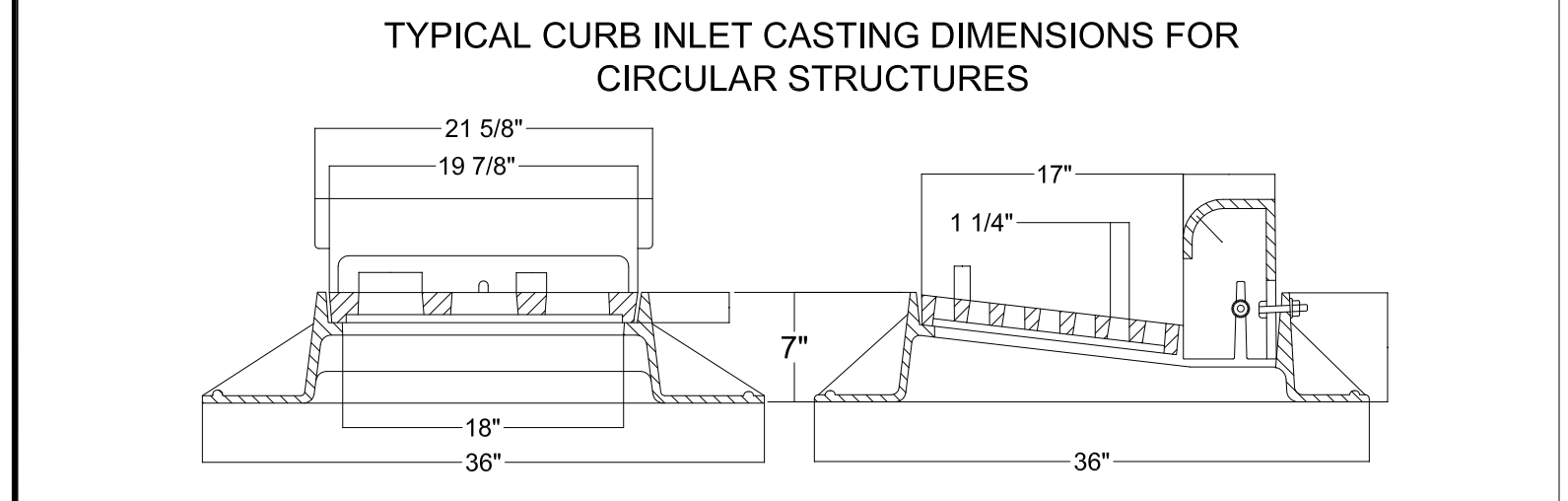
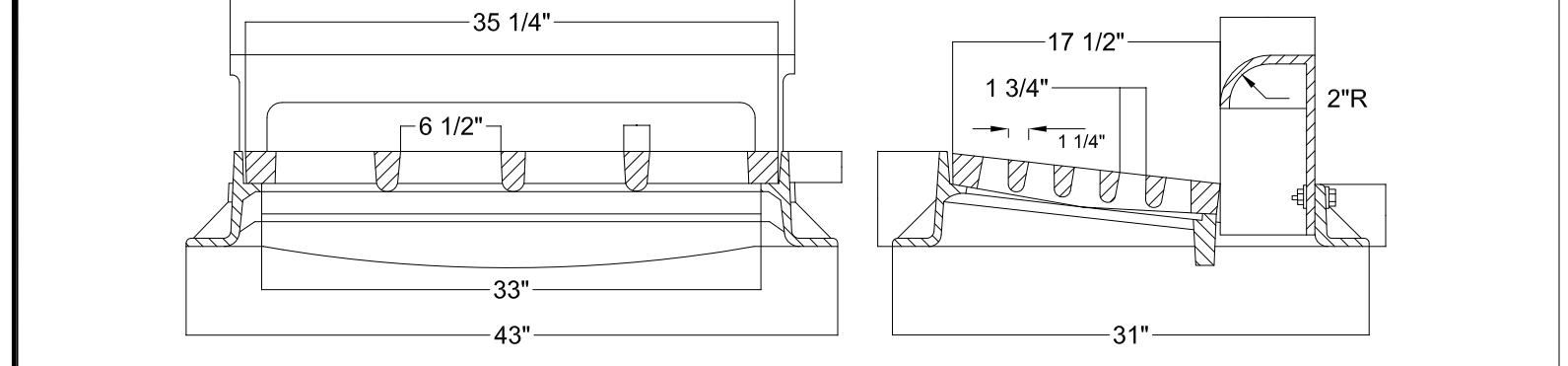
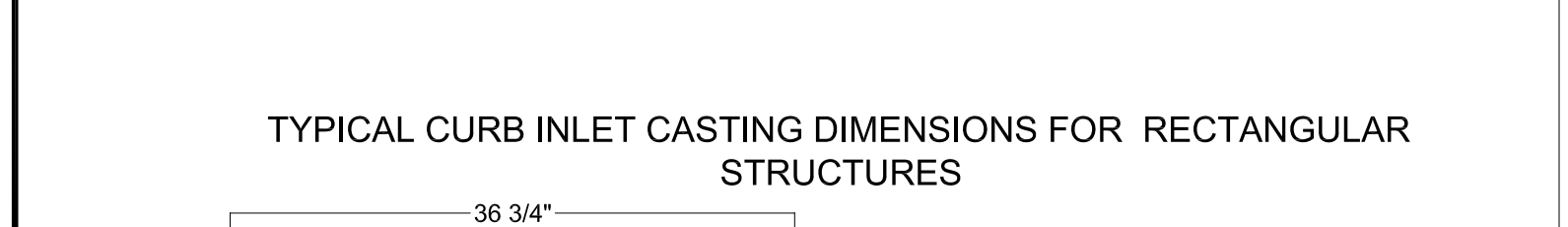
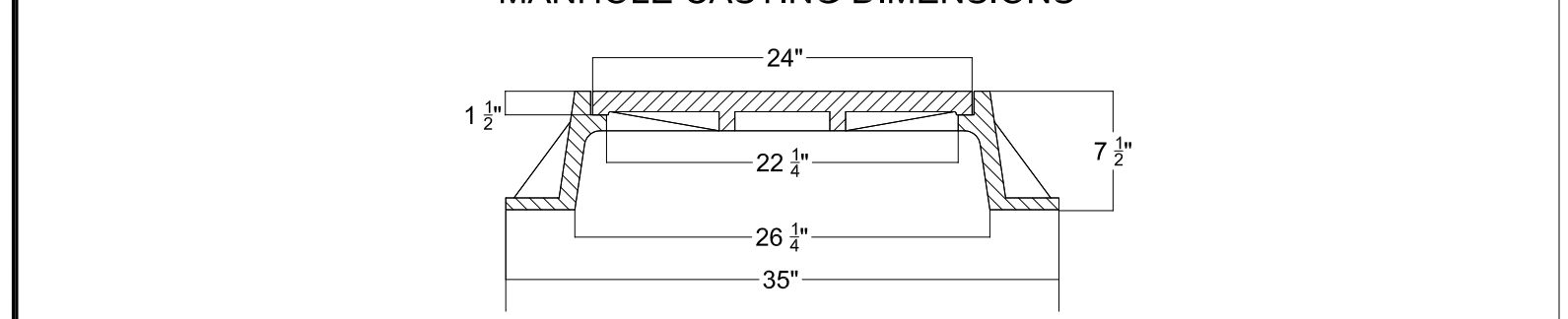


TABLE NO. 1

PIPE DIA.	MANHOLE DIA.	WALL THICKNESS
8" THRU 30"	4'-0"	5"
36"	5'-0"	6"
42"	6'-0"	7"

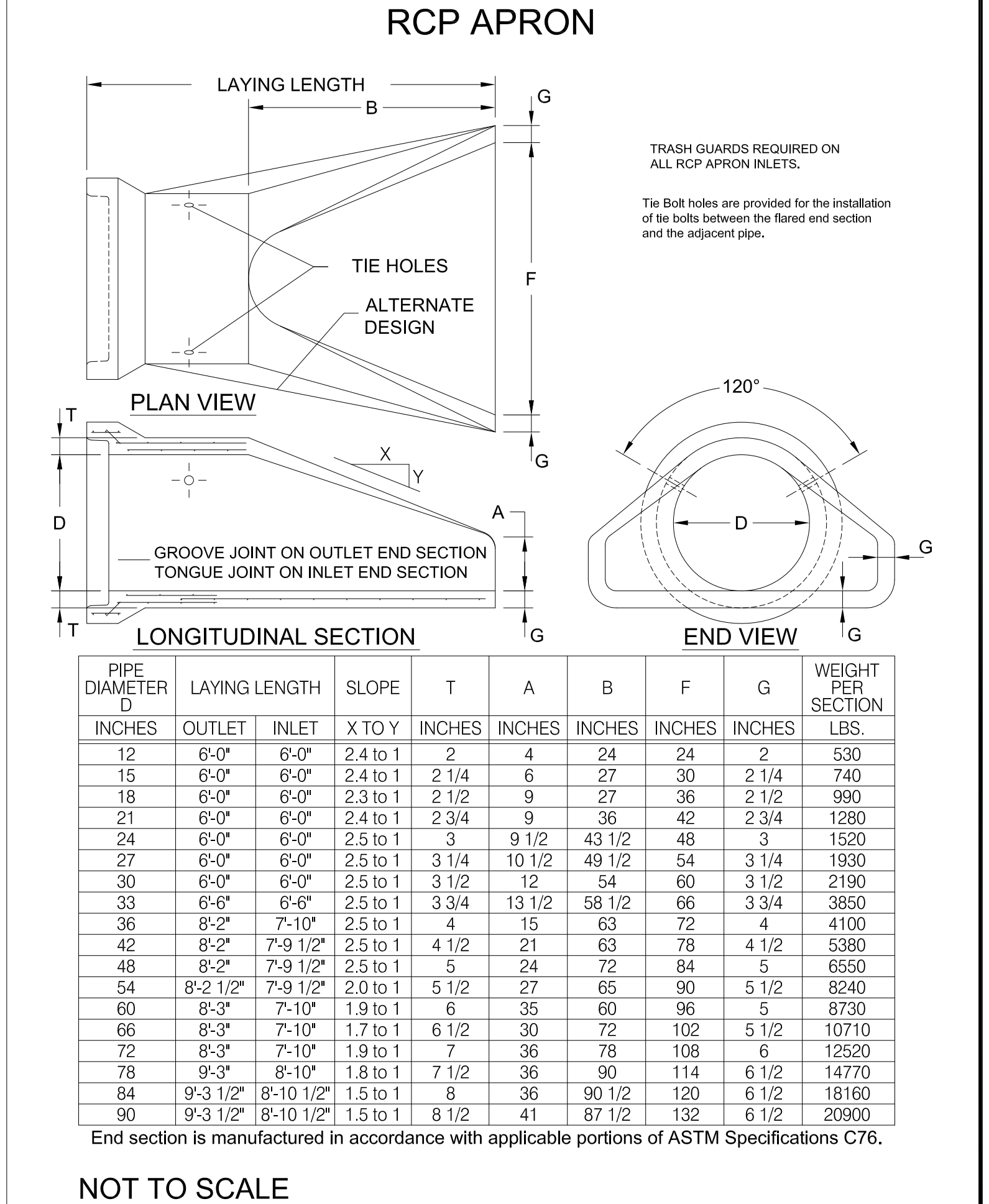
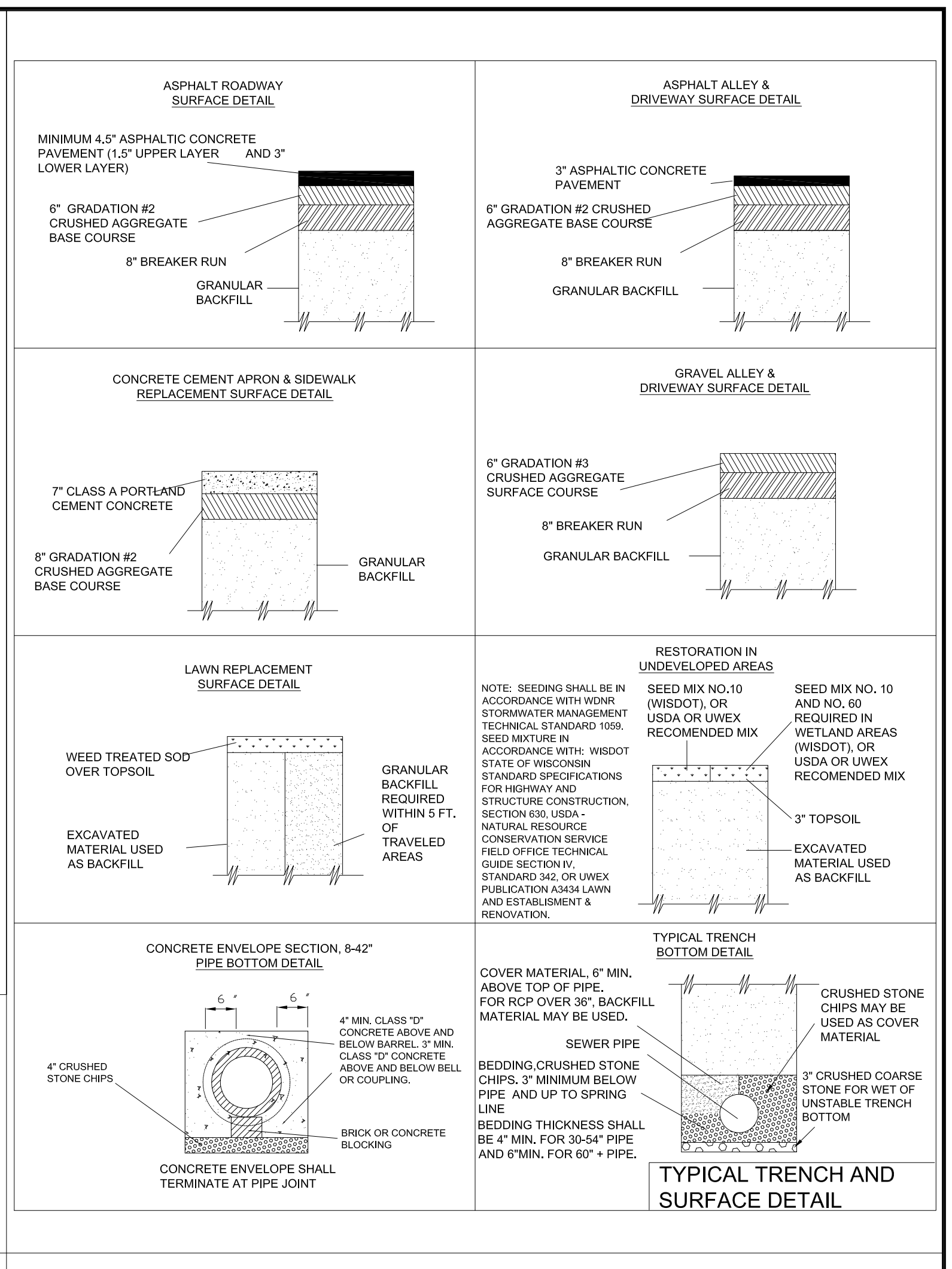
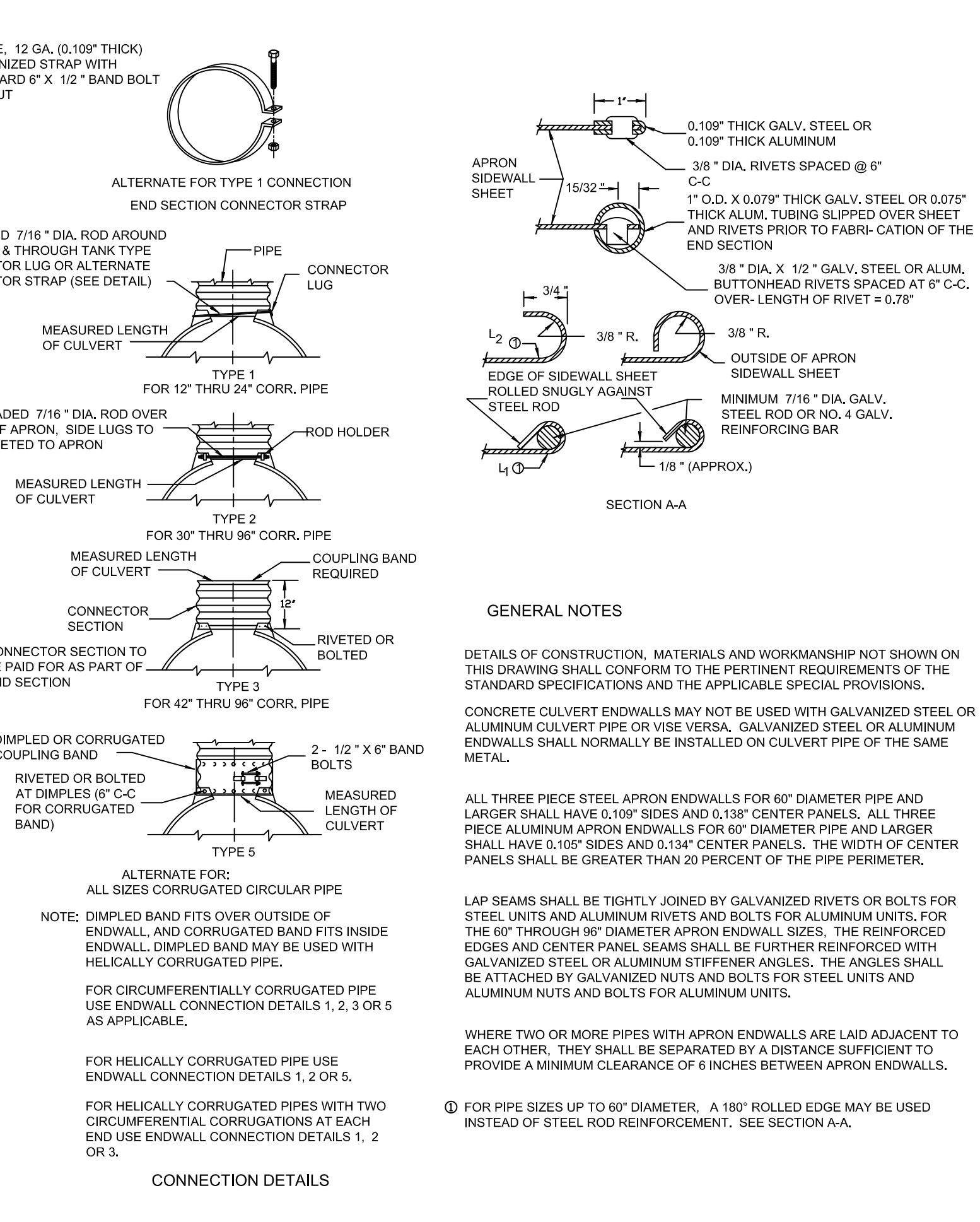
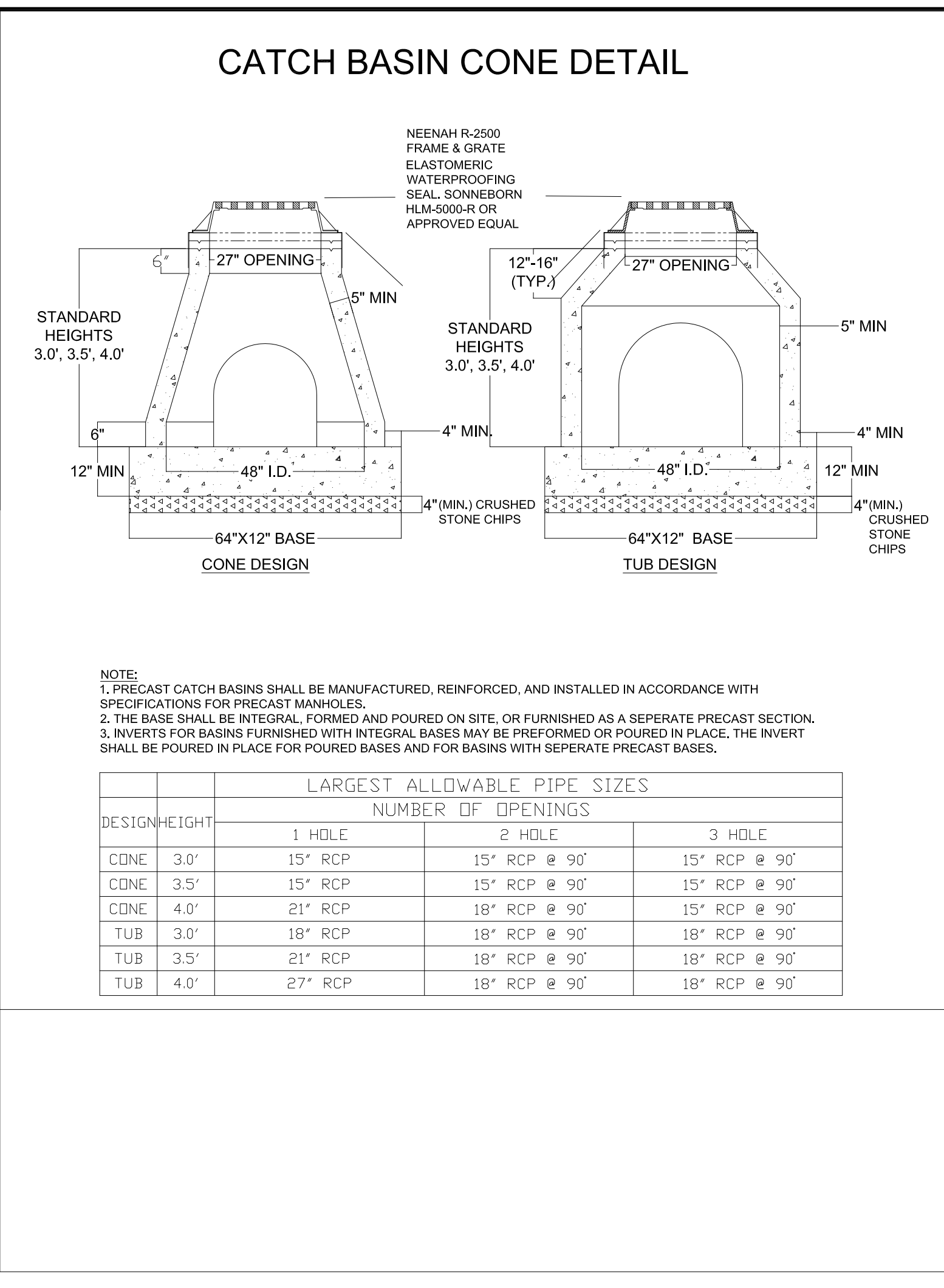
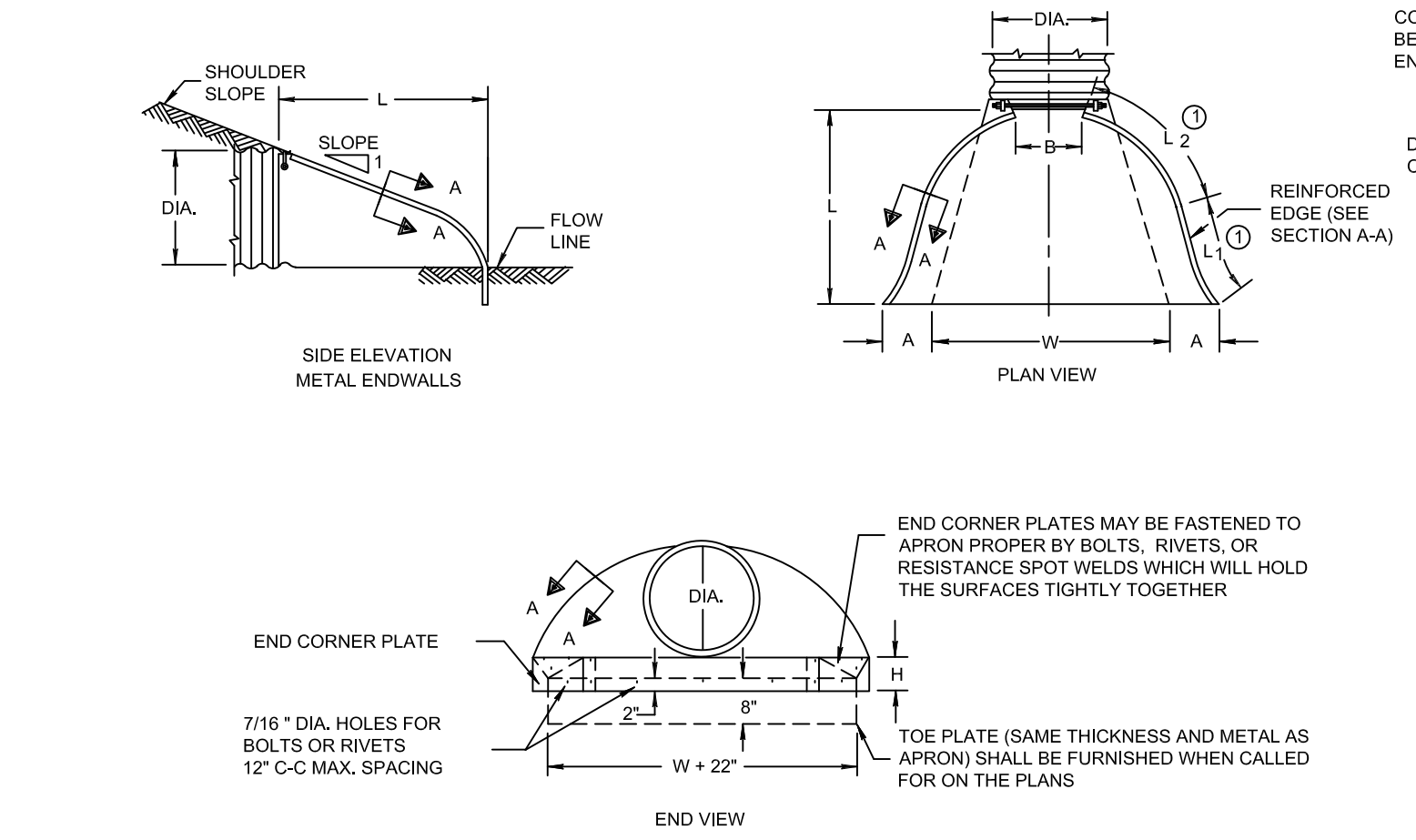
PRECAST MANHOLE



METAL APRON ENDWALLS

PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (+1")	B (MAX.)	H (+1")	L (+1 1/2")	L1 (1)	L2 (1 1/2)	W (+2")			
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2	1	1 Pc.
15	.064	.060	7	8	6	26	14	21 1/2	30	2 1/2	1	1 Pc.
18	.064	.060	8	10	6	31	15	26 1/2	36	2 1/2	1	1 Pc.
21	.064	.060	9	12	6	36	18	29 1/2	42	2 1/2	1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/2	48	2 1/2	1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/2	60	2 1/2	1	1 Pc.
36	.079	.105	14	19	9	60	24	59 1/2	72	2 1/2	2	2 Pc.
42	.109	.105	16	22	11	69	24	75 1/2	84	2 1/2	2	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/2	3	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/2	3	3 Pc.
60	.109*	.105*	18	33	12	87	—	114	121	2 1/2	3	3 Pc.
66	.109*	.105*	18	36	12	87	—	126	126	2 1/2	3	3 Pc.
72	.109*	.105*	18	39	12	87	—	132	132	2 1/2	3	3 Pc.
78	.109*	.105*	18	42	12	87	—	138	138	2 1/2	3	3 Pc.
84	.109*	.105*	18	45	12	87	—	144	144	2 1/2	3	3 Pc.
90	.109*	.105*	18	37	12	87	—	144	144	2 1/2	3	3 Pc.
96	.109*	.105*	18	35	12	87	—	150	150	2 1/2	3	3 Pc.

***EXCEPT CENTER PANEL: SEE GENERAL NOTES**

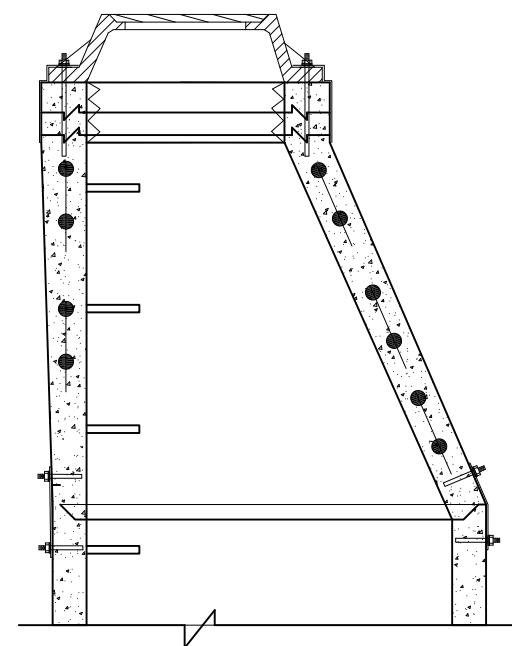


RESTRAINED MANHOLE ASSEMBLY 1

NEENAH 1916D WITH BOLT-DOWN COVER AND FRAME.
SECURE FRAME TO CASTING WITH FOUR 1"x6" 303 STAINLESS STEEL ANKR-TITE WEDGE ANCHORS OR APPROVED EQUAL.

SECURE ALL CASTING SECTIONS WITH FOUR 1/4"x4"x1/2" SECTIONS ASTM A36 STEEL FLAT BAR. EACH FLAT BAR TO BE ATTACHED TO MANHOLE WITH FOUR 5/8" X 4 1/4" OR TWO 3/4" X 4 3/4" 303 STAINLESS STEEL ANKR-TITE WEDGE ANCHORS, FOUR 5/8" OR TWO 3/4" STAINLESS STEEL BOLTS PRECAST INTO MANHOLE SECTIONS OR APPROVED EQUAL.

FLAT BAR TO BE PAINTED WITH INORGANIC ZINC-RICH PRIMER, INTERMEDIATE COAT OF HIGH-BUILD EPOXY, AND A PROTECTIVE COAT OF URETHANE PAINT IN ACCORDANCE WITH WISDOT 517.2.41.

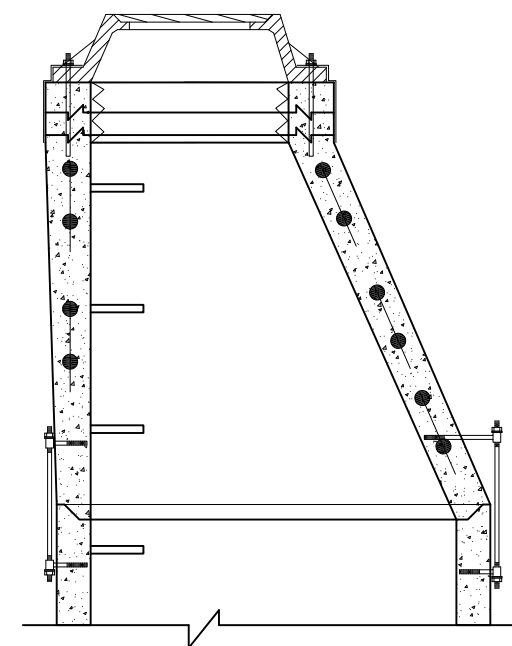


CONE-TOP SECTION

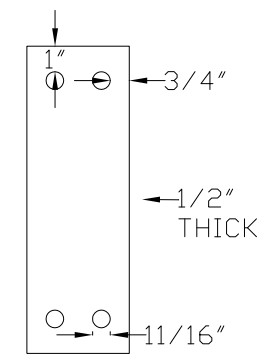
RESTRAINED MANHOLE ASSEMBLY 2

NEENAH 1916D WITH BOLT-DOWN COVER AND FRAME.
SECURE FRAME TO CASTING WITH FOUR 1"x6" 303 STAINLESS STEEL ANKR-TITE WEDGE ANCHORS OR APPROVED EQUAL.

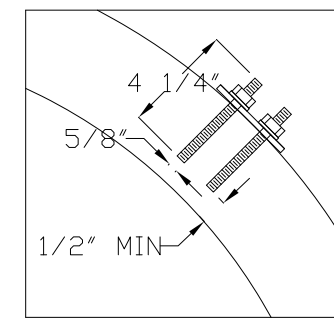
SECURE ALL CASTING SECTIONS WITH FOUR SECTIONS 1" TIE ROD THROUGH 1" WELDED EYEBOLTS PRECAST INTO MANHOLE SECTIONS.



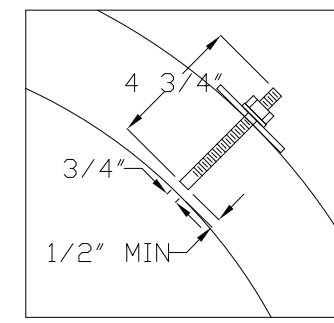
CONE-TOP SECTION



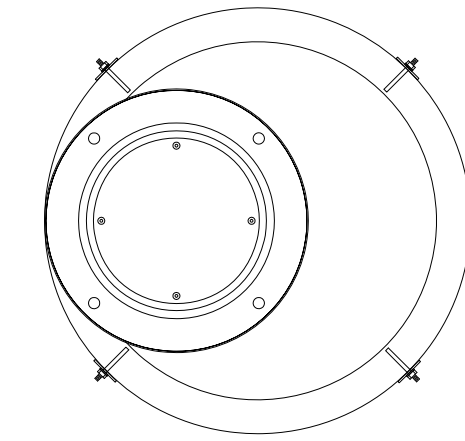
ASTM A36 STEEL FLAT BAR



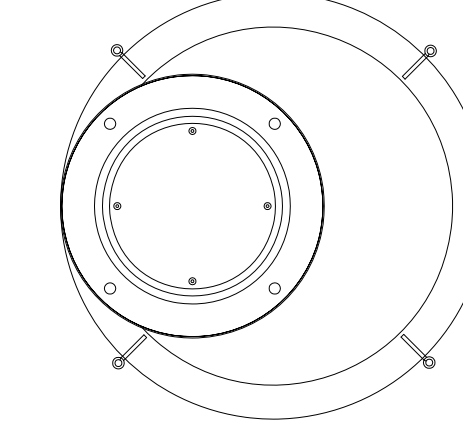
5/8" WEDGE ANCHOR, PRECAST BOLT OR APPROVED EQUAL



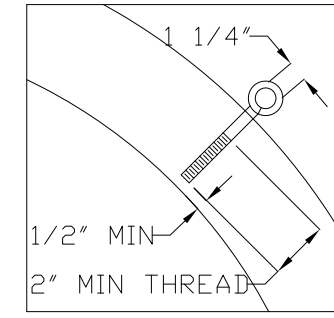
3/4" WEDGE ANCHOR, PRECAST BOLT OR APPROVED EQUAL



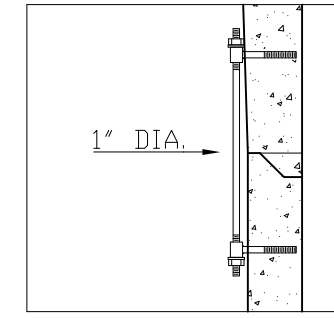
MANHOLE TOP VIEW



MANHOLE TOP VIEW



PRECAST WELDED EYE BOLT OR APPROVED EQUAL



1" TIE ROD

NOT TO SCALE

DETAIL DRAWINGS

SEWER RECONSTRUCTION PROJECTS 2009

RESTRAINED MANHOLE DETAIL

SUPERIOR, WISCONSIN

MARCH 17, 2009

SURVEY	N/A	RECORD DRAWING	8/8
DRAWN	JJM		
DESIGN	SGR		
APPROVED	SGR		

DATE: 03/17/2009