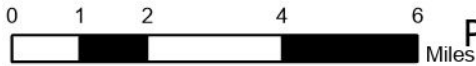
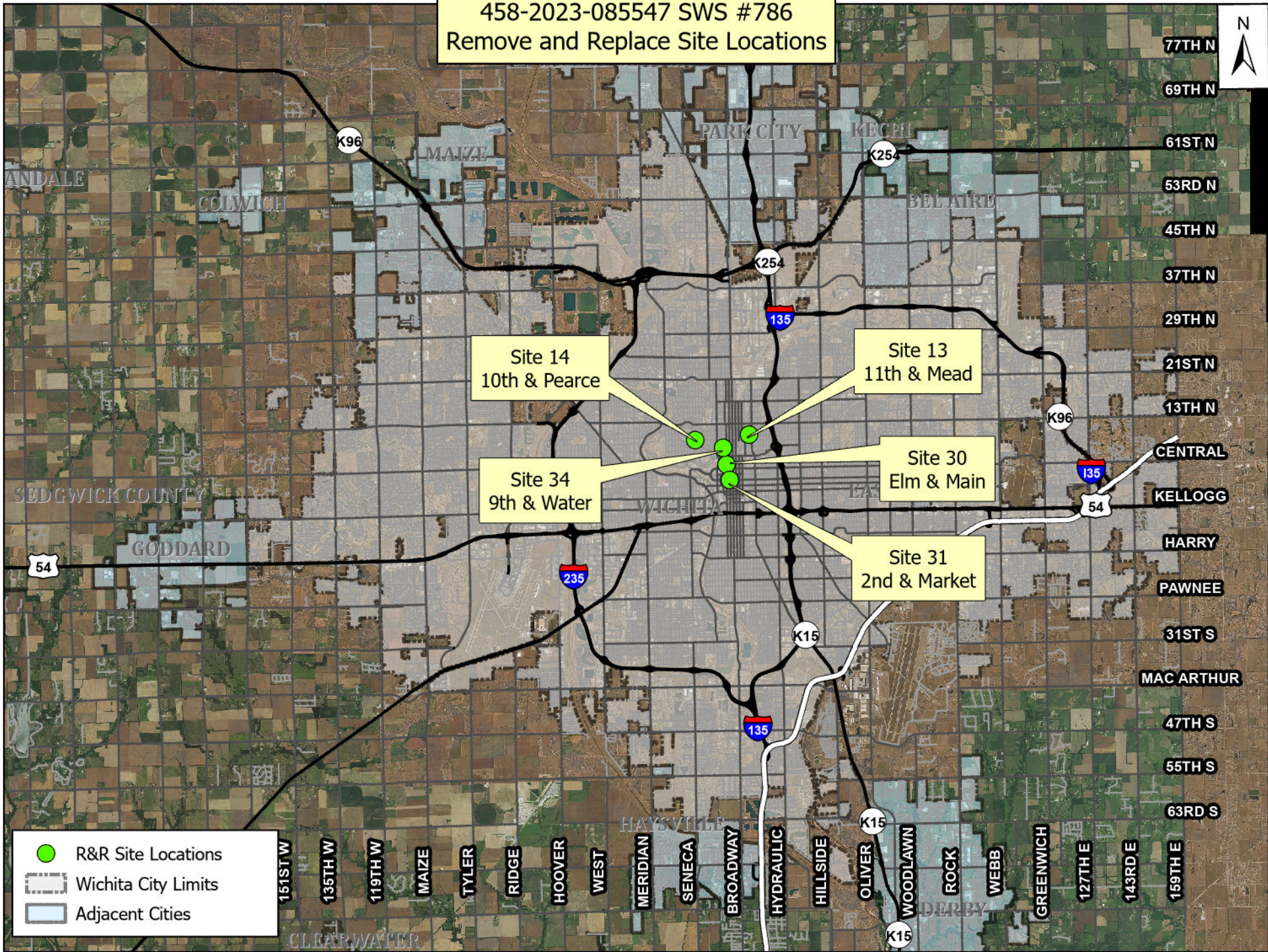


458-2023-085547 SWS #786
Remove and Replace Site Locations



Storm Sewer Repair General Notes

1. All existing elevations, depths, lengths, sizes, materials, and descriptions shown on plan sheets are for information only. The Contractor will field verify these items prior to construction.
2. The Contractor will field verify horizontal and vertical locations of all existing utilities prior to construction. Any conflicting utilities will be adjusted prior to construction by the utility owners, unless otherwise stated on the plans.
3. Any existing features that are damaged by construction including existing drainage structures or pipes, roof drains, utility lines, utility service lines, driveways, curb & gutter, landscaping, sod, irrigation systems and lighting conduits will be repaired or replaced and paid for as lump sum bid item 'Site Restoration'.
4. Any necessary work and materials needed to complete the project including existing storm structure removal, connections to existing storm structures, new storm sewer pipe, saw cutting, pipe bends, pipe connections and fittings, grouting, heavy duty couplers, and pipe compaction will be paid for as bid items 'Pipe, SWS 12" RCP', 'Pipe, SWS 15" RCP' or 'Pipe, SWS 18" RCP'. Any items that need repairs or relocation will be approved by the Engineer prior to construction.
5. Any necessary pavement removal needed to complete the pipe removal and replacement, including concrete removal, will be paid for as bid item 'Pavement Removed and Replaced'. Any necessary pavement striping will be subsidiary to bid item 'Pavement Removed and Replaced' and will require approval from the field engineer prior to construction. Pavement striping will be done per City of Wichita specifications.
6. Flow of traffic must be maintained in all instances. Additionally, all work in the right-of-way or near expected traffic shall conform to the guidelines and rules of the "Manual of Uniform Traffic Control Devices". The Contractor will be required to develop a traffic control plan and receive approval by the City Engineer prior to construction.

Site 13 - 11th & Mead



5548-0448
Replace existing manhole lid with new ring and lid, see detail sheet 19

5548-0449
Replace existing manhole lid with new ring and lid, see detail sheet 19





5548-0448

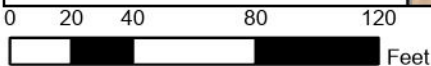
5548-0449

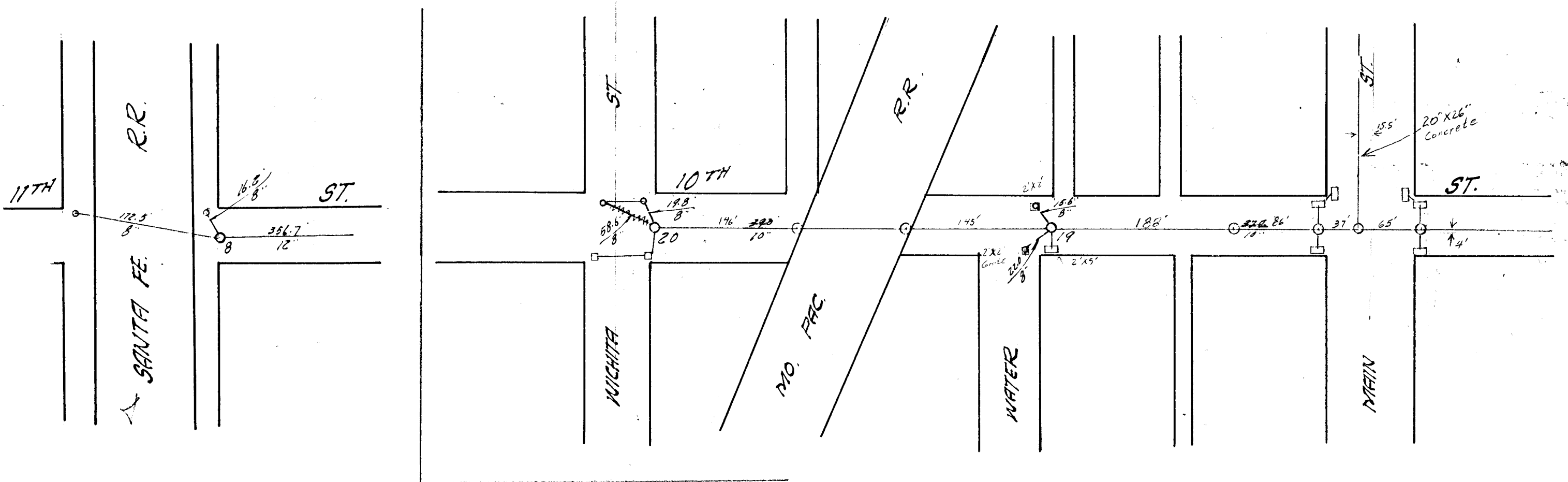
E 11TH ST N

N MOSLEY AVE

5548-0448 to 5548-0449
Remove 270 LF of existing 15" Vitrified Clay Pipe (VCP) and replace with 270 LF of new 15" Reinforced Concrete Pipe (RCP)
US Rim=1304.48, US FL=1299.95
DS Rim=1302.21, DS FL=1299.46

-  Storm Structure
-  Storm Conduit Remove & Replace
-  Storm Conduit
-  Water Mains





STREET	MANHOLES				CATCH BASIN INLETS								CATCH BASIN LEADS								MAIN LINES				REMARKS SEE NO. BELOW	
	KIND	No.	GRADE	DEPTH	NORTHWEST		NORTHEAST		SOUTHWEST		SOUTHEAST		N. W.		N. E.		S. W.		S. E.		FROM	TO	KIND	SIZE		LENGTH
					SIZE	KIND	SIZE	KIND	SIZE	KIND	SIZE	KIND	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	M. H.	M. H.				
10 TH & WATER		19	113.831	3.4			2'x2'		2'x2'	Grate	2'x5'				15.6	10"		10"	22.0	18"	18	19	10"	374.0		
10 TH & WICHITA		20	114.221	2.8	2'x2'		2'x2'		2'x2'		2'x2'		58.6	10"	19.8		10"		10"	10"	19	20	10"	390.0		
OHIO & 10 TH		1	109.14	5.7																	5	1	21"	36.6		
OHIO & 11 TH		2	109.97	4.7											59.7	8"					2	2	21"	60.3		
11 TH & OHIO		3	110.27	4.8								16.7	8"								2	3	18"	52.7		
11 TH & WABASH		4	110.82	4.8								54.8	8"	17.2	8"						3	4	18"	268.4		
11 TH & WASHINGTON		5	111.22	4.6								63.8	8"	14.3	8"						4	5	18"	329.7		
11 TH & MASLEY		6	111.745	4.4								48.4	8"	17.7	8"	26.0	8"				5	6	15"	350.3		
11 TH & MEAD		7	112.255	3.0								63.0	8"	13.7	8"						6	7	15"	340.4		
11 TH & E. SANTA FE R.R. R.W.		8	112.746	3.0								172.5	8"	16.5	8"						7	8	12"	356.7		
MAIN & 10 TH		1	113.44	3.4	2'x2'		2'x2'						8"		9"						18	1	21"	70.4		
MAIN & 11 TH		2	113.80	3.5	4' Conc.	4' Conc.	4' Conc.	4' Conc.	4' Conc.	4' Conc.	4' Conc.	51.2	13'x8"	66.5	13'x6"	13'x8"		13'x8"			1	2	18"	617.3		
11 TH & MAIN		3	113.35	3.6																	2	3	18"	37.5		
11 TH & WELLINGTON		4	113.996	3.5	2'x5'		2'x5'				2'x2'	53.0	12"	25.0	12"					10"	3	4	15"	285.0		
11 TH & FAIRVIEW		5	114.189	3.6	2'x2'		2'x2'		2'x2'		2'x2'	56.8	10"	15.5	10"			10"		15"	4	5	15"	386.2		
11 TH & WACO		6	114.389	3.5	2'x2' Grate		2'x2'		2'x2'		2'x2'	46.0	8"	32.0	8"	67.0	8"	29.5	8"		5	6	12"	351.6		
11 TH & STATE			114.0		2'x2' Grate				2'x2' Grate			10"				15"										

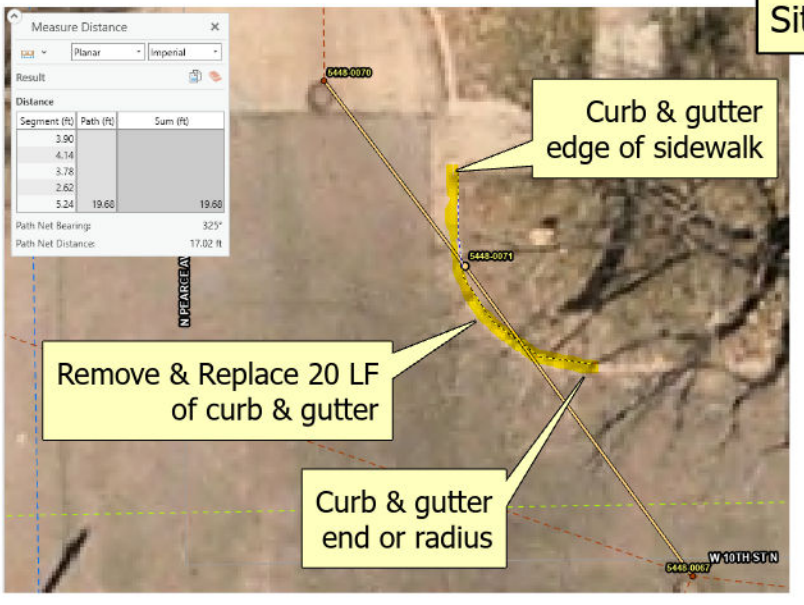
NUMBER

REMARKS

FOR INFORMATION ONLY

10TH ST LATERAL

Site 14 - 10th & Pearce



Curb & gutter edge of sidewalk

Remove & Replace 20 LF of curb & gutter

Curb & gutter end or radius

5448-0070 to 5448-0071
Remove 17 LF of existing 10" Vitrified Clay Pipe (VCP), and replace with 17 LF of 12" Reinforced Concrete Pipe (RCP)
US FL = 1298.79, DS FL = 1298.75

5448-0071
Remove existing 2'x2' Inlet
Rim=1,300.53, Flowline (FL) In (NNW) = 1298.75, FL Out (SSE) = 1298.71 and replace with 2'x5' Type 1 Curb Inlet (see detail sheet #20) Final new inlet location to be determined in the field

5448-0071-5448-0067
Remove 27 LF of existing 8" VCP and replace with 27 LF 12" RCP
US FL = 1298.71, DS FL = 1298.63

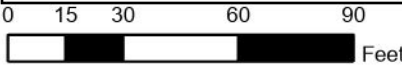
Replace existing manhole lid with new ring and lid, see detail sheet 19

Replace existing manhole lid with new ring and lid, see detail sheet 19

Caution, 10" VCP sanitary sewer line crossing

Property owners will be notified of any existing sprinkler heads that are damaged during construction, and will be given the sprinkler heads and the opportunity to repair/replace prior to project site restoration.

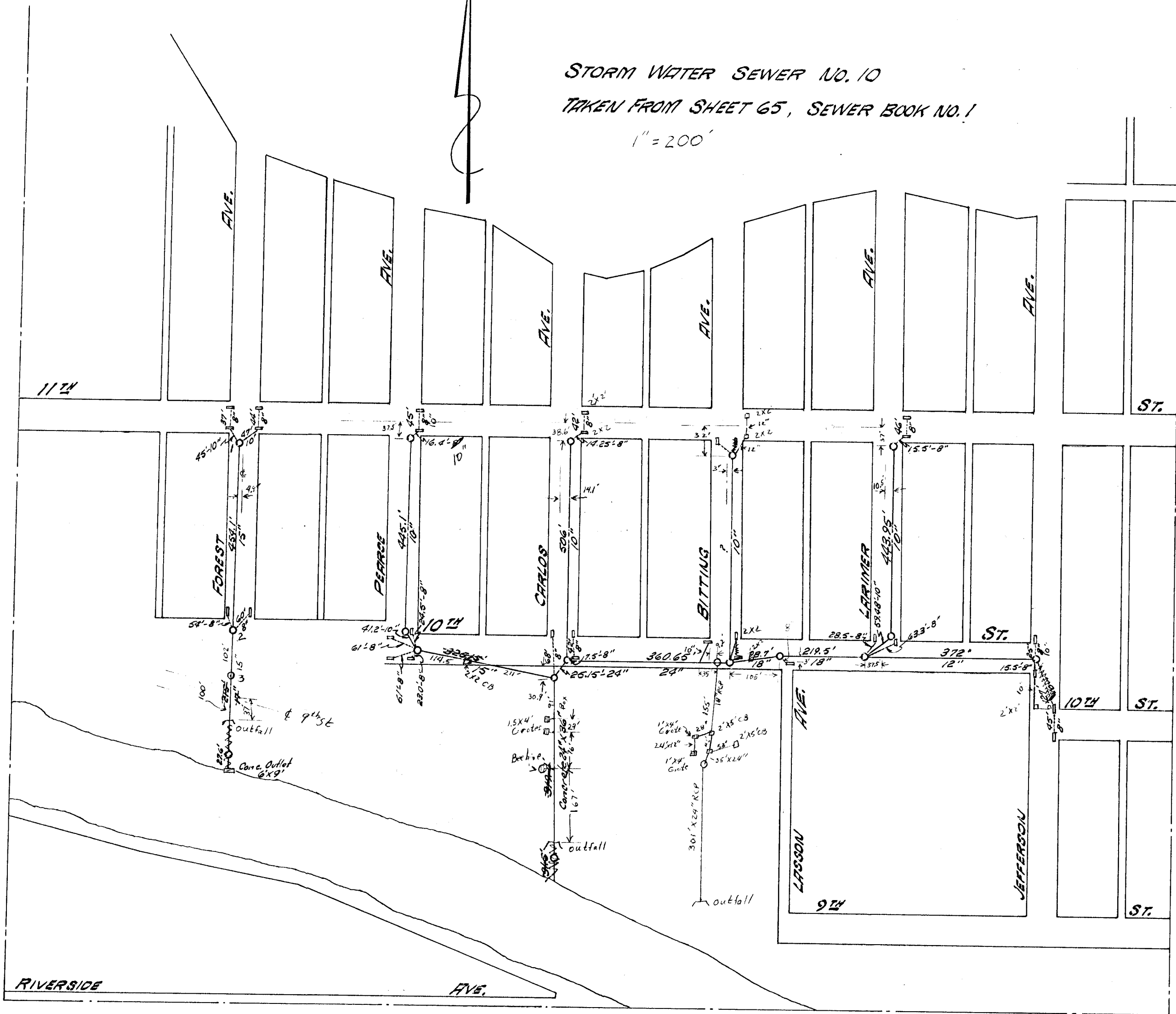
- Storm Structure Remove & Replace
- Storm Conduit Remove & Replace
- Storm Structure
- Storm Conduit
- Sanitary Sewer Mains
- Water Mains





STORM WATER SEWER NO. 10
TAKEN FROM SHEET 65, SEWER BOOK NO. 1

1" = 200'



FOR INFORMATION ONLY

STREET	MANHOLES				CATCH BASIN INLETS								CATCH BASIN LEADS								MAIN LINES			REMARKS		
	KIND	No.	GRADE	DEPTH	NORTHWEST		NORTHEAST		SOUTHWEST		SOUTHEAST		N. W.		N. E.		S. W.		S. E.		FROM	TO	KIND	SIZE	LENGTH	SEE No. BELOW
					SIZE	KIND	SIZE	KIND	SIZE	KIND	SIZE	KIND	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	M. H.	M. H.				
Thru Park	1		108.60																							
" "	2		109.71	3.5									68' 8"													
10 th East 24"	1		109.77	3.4									68' 8"	42' 8"				7.5' 8"								
" "	2		110.50	3.7														2.5' 8"								
" " 18"	1		110.89	3.4														34.5' 8"								
" " 18"	2		111.34	4.2									28.5' 8"	63.3' 8"												
" " 12"	1		112.44	3.8									25' 8"			15.5' 8"										
10 th West 15"	1		110.88	2.2									61' 8"	24.5' 8"	61' 8"			23' 8"								
Pearce 10"	1		111.27	1.8																						
" "	2		112.07	2.4										45' 8"				16.4' 8"								
Carlos "	1		110.98	4.8										42' 8"				14.25' 8"								
Biting "	1			3.8																						
Larimer "	1		112.90	3.6										46' 8"				15.5' 8"								
" "	2																									
Jefferson "	1																		45' 8"							
Forrest	1		102.00	*									E = 102.23			E = 102.41		E = 101.67								
	2		100.82																							
	3		100.12																							

* Reference for elevations = 100.00 @ Outfall @ 7th & Forrest

NUMBER

REMARKS

FOR INFORMATION ONLY

Site 30 - Elm & Main



5448-0576 to 5448-0575
Remove 49 LF of 12"x16" Horizontal Elliptical Corrugated Metal Pipe (HECMP) and replace with 49 LF of 12" RCP
US Rim = 1300.85, US FL = 1297.52
DS Rim = 1300.84, DS FL = 1297.48
Construct new wheelchair ramp with detectable warnings.

5448-0581 to 5448-0575
Remove 46 LF of 12"x16" HECMP and replace with 46 LF of 12" RCP
US Rim = 1300.87, US FL = 1298.01
DS Rim = 1300.84, DS FL = 1297.40
Construct new wheelchair ramp with detectable warnings.

Existing light pole may need removed and replaced during construction. See General Note #2 on Sheet 2






5448-0576

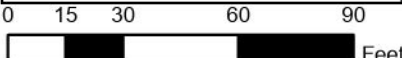
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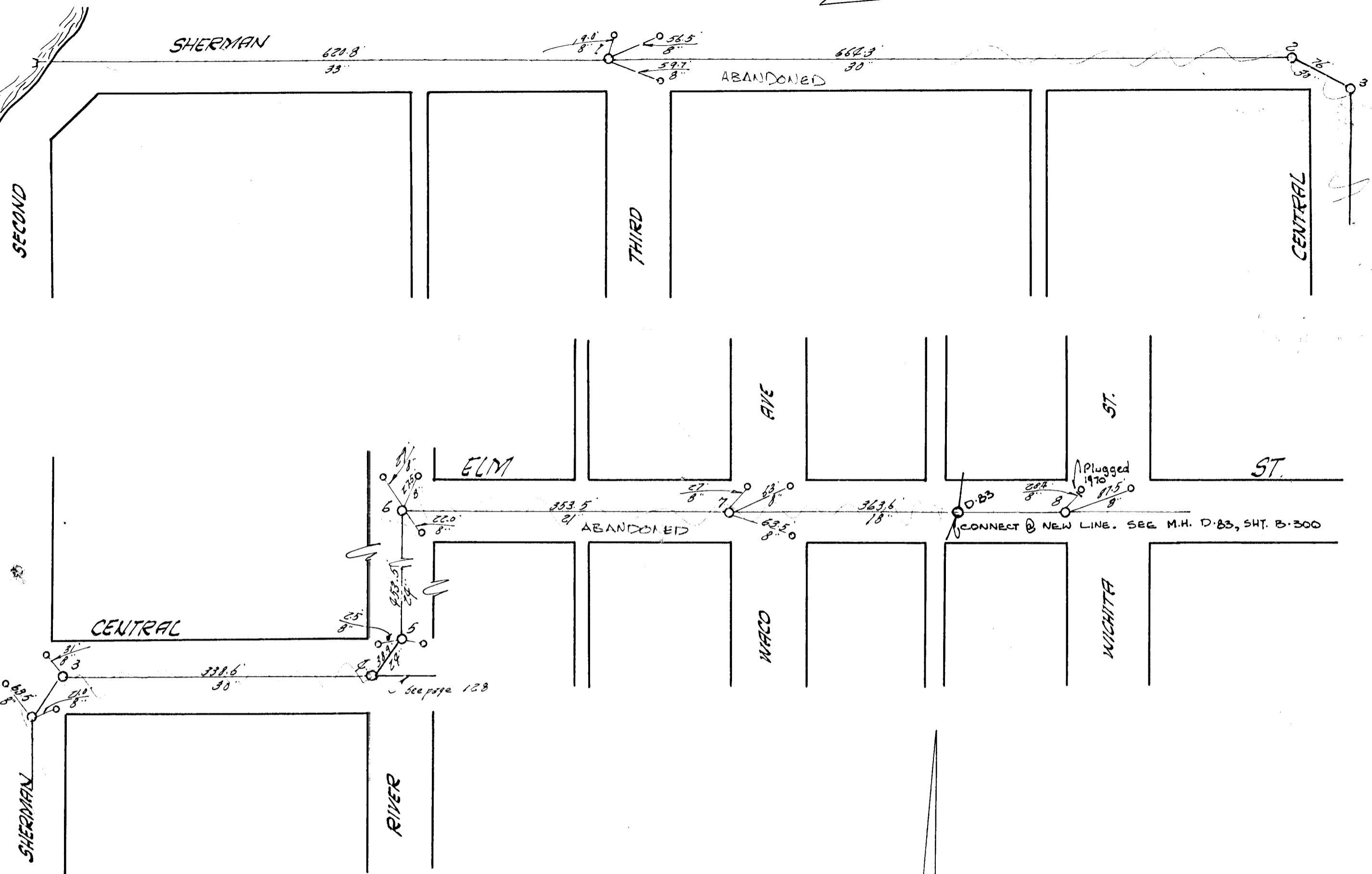
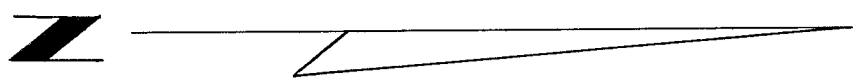
5448-0581

N MAIN ST

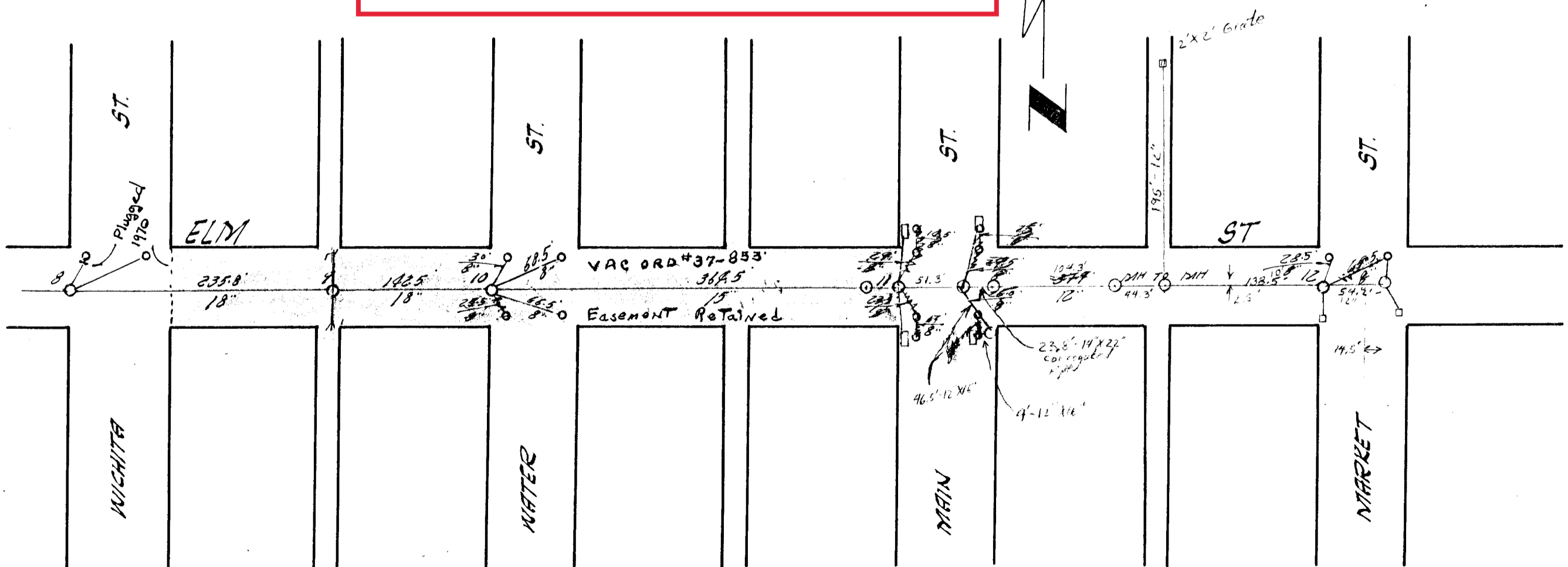
E ELM ST

-  Storm Conduit Remove & Replace
-  Storm Structure
-  Storm Conduit
-  Sanitary Sewer Mains
-  Water Mains





FOR INFORMATION ONLY



STREET	MANHOLES				CATCH BASIN INLETS								CATCH BASIN LEADS								MAIN LINES				REMARKS SEE NO. BELOW	
	KIND	No.	GRADE	DEPTH	NORTHWEST		NORTHEAST		SOUTHWEST		SOUTHEAST		N. W.		N. E.		S. W.		S. E.		FROM M. H.	TO M. H.	KIND	SIZE		LENGTH
					SIZE	KIND	SIZE	KIND	SIZE	KIND	SIZE	KIND	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE								
SHERMAN & THIRD		1	106.11	5.6									26.5	8"	59.7	8"	12.0	8"			1		33	600.8		
SHERMAN & CENTRAL		2	106.77	5.8									68.5	8"					21.0	8"	2		30	684.3		
"		3	106.84	5.7										31.0	8"					2		30	78.0			
CENTRAL & RIVER		4	107.22	4.8																3	4	30	338.6			
RIVER & CENTRAL		5	107.35	4.8									2.5	8"						4	5	24	38.4			
RIVER & ELVA		6	108.15	4.8									2.9	8"	27.5	8"			22.0	8"	5	6	24	453.3		
ELVA & WACO		7	108.50	4.5									2.7	8"	63.0	8"			63.5	8"	6	7	21	353.5		
ELVA & WICHITA		8	108.95	5.2									28.4	8"	87.5	8"					7	8	18	115.6		
ELVA bet. WICHITA & WATER		9	109.15	4.7																8	9	18	235.8			
ELVA & WATER		10	109.29	3.9									3.0	8"	68.5	8"	25.5	8"	68.5	8"	9	10	18	102.5		
ELVA & MAIN		11	110.31	3.10									12.5	8"	22.5	8"	22.5	8"	26.0	8"	10	11	15	364.5		
ELVA & MARKET		12	111.16	3.0	2'X2'		2'X2'		2'X2'		2'X2'		28.5	10"	66.5	10"			22	10"	11	12	12	379.0		
					4' conc		4' conc		2'X5'		2'X5'		41.5	12"X16"	51.8	12"X16"	40	12"X16"	46.5	12"X16"						

→ ELM & MAIN

NUMBER

REMARKS

577-11.16
8724-11.16

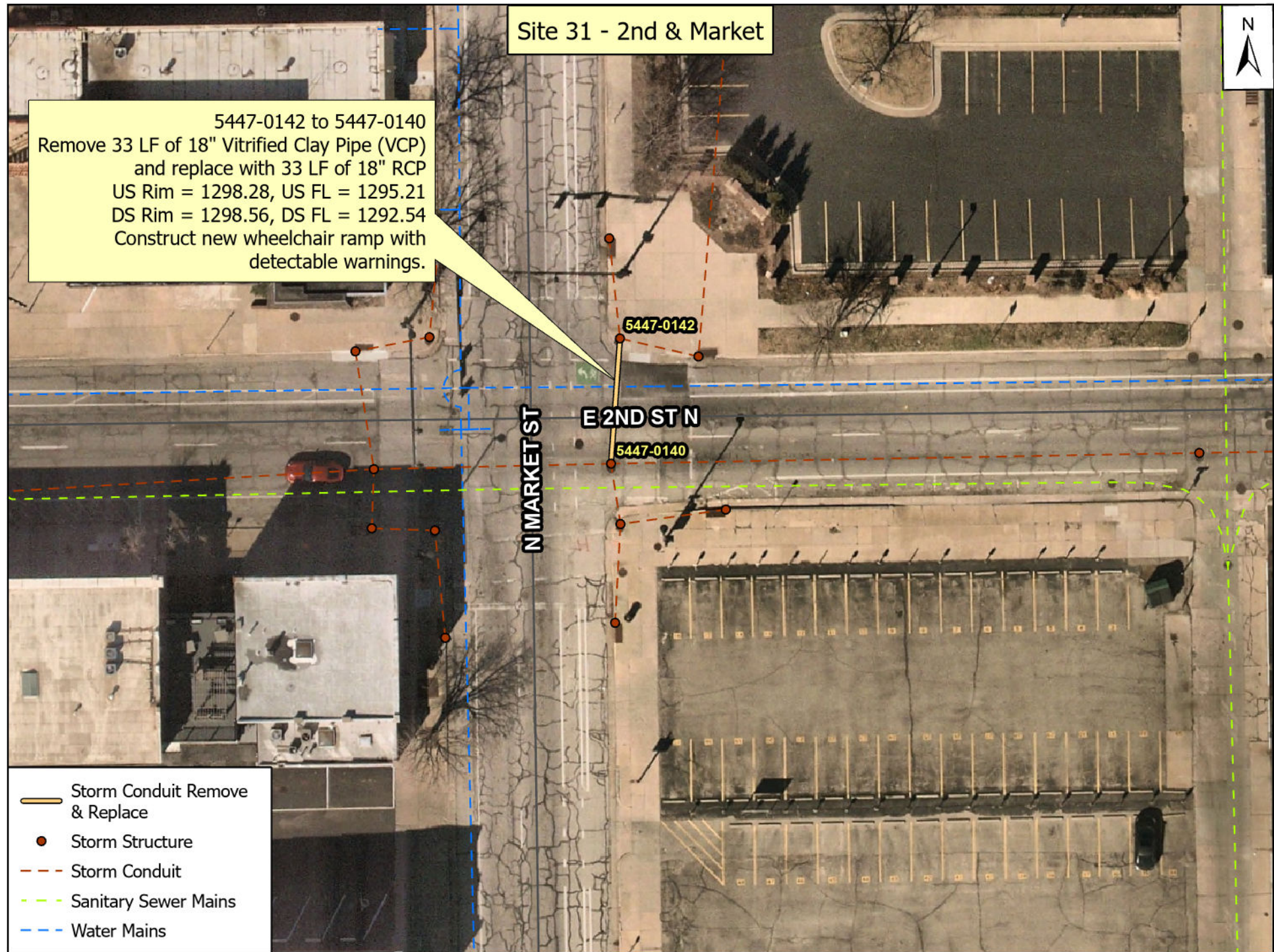
FOR INFORMATION ONLY






W. Central Lateral

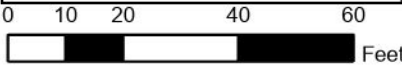
Site 31 - 2nd & Market



5447-0142 to 5447-0140
Remove 33 LF of 18" Vitrified Clay Pipe (VCP)
and replace with 33 LF of 18" RCP
US Rim = 1298.28, US FL = 1295.21
DS Rim = 1298.56, DS FL = 1292.54
Construct new wheelchair ramp with
detectable warnings.



-  Storm Conduit Remove & Replace
-  Storm Structure
-  Storm Conduit
-  Sanitary Sewer Mains
-  Water Mains



CENTRAL

AVE.

1" = 100'

ST.

ST.

ST.

FOR THIS INTERSECTION SEE PAGE 22.

Old dead basin & land

POST

OFFICE

RECONSTRUCTION OF S.W. 1/4 # 24
Information from Sewer Maint. Dept.
Booked March 25, 1970

THIRD

ST.

FOR INFORMATION ONLY

No 24

WATER

MAIN

MARKET

SECOND

ST.

See Page 19

3+28

0+13 IN. TO
4'00 Depth

67-36/00

+7'

300'

300'

282' x 15'

14

13

55'

174' x 15'

315'

XVII

XVIII

XIX

XX

XXI

XXII

XXIII

XXIV

XXV

XXVI

XXVII

XXVIII

XXIX

XXX

XXXI

XXXII

XXXIII

STREET	MANHOLES				CATCH BASIN INLETS								CATCH BASIN LEADS								MAIN LINES				REMARKS		
	KIND	No.	GRADE	DEPTH	NORTHWEST		NORTHEAST		SOUTHWEST		SOUTHEAST		N. W.		N. E.		S. W.		S. E.		FROM M. H.	TO M. H.	KIND	SIZE		LENGTH	
					SIZE	KIND	SIZE	KIND	SIZE	KIND	SIZE	KIND	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH								
Alley W. of Main	Brick	3	111.78	103.60																						SEE NO. BELOW	
"	"	4	111.36	103.60																	1	3	Vit Tile	10"	None taken	#1	
3rd & Main	"	5	112.30	103.60	Dead	VI NE-N 112.57	VI Gutter 111.95	VII Gutter 112.12													2	4	Seg. Blk	33"	160'	#2	
"	"	6	112.64	103.60	None taken	VII 4'x6" 117.60	VIII 3'x2" 109.73	IX 2'x2" 109.95	X 2'x2" 109.72												3	5	Vit Tile	10"	None taken	#3	
"	"	7	112.65	104.05	None taken	XI 2'x2" 109.20	XII 2'x2" 109.20	XIII 2'x2" 109.20	XIV 2'x2" 109.20												4	6	"	8"	"	#4	
3rd & Alley E. of Main	"	8	111.45	104.25	None taken	XV 2'x2" 108.16	XVI 2'x2" 107.96	XVII 2'x2" 109.46	XVIII 2'x2" 109.54												5	7	Seg. Blk	33"	231'	#5	
3rd & Market	"	9	111.33	108.73	None taken	XIX 4'x6" 108.72	XX 4'x6" 109.07	XXI 4'x6" 109.27	XXII 4'x6" 109.30												6	8	"	30"	164'	#6	
																					7	8	IX Vit Tile	27"	160'	#7	
																					8	IX	"	27"	48'		
			Depth																		10	11			315'		
																					11	12			15"	174'	
																					12	13			15"	95'	
																					13	14			15"	182'	

Note: In column headed "Kind of Catch Basin Inlets" top number is elevation on cover - lower number is flow.

NUMBER

REMARKS

- #1 On old SMS - Built to intercept old sewer on lateral N. from main of SMS No. 24. - M.H. is 71' E. of W.R.L. of alley + 45' S. of N. curb.
- #2 On SMS No. 24 main - 75' E. of W.R.L. of alley + 5.2' S. of S. curb - flow of lateral from H. 11. 103.76.
- #3 On old 10" SMS - 2' W. of W.R.L. + 7' S. of N. curb - All leads into this M.H. were killed when SMS No. 24 was built.
- #4 On old SMS - 152' W. of E.R.L. of Main St. + 2.5' N. of E. - M.H. and all leads killed when SMS No. 24 was built.
- #5 On SMS No. 24 - 16' E. of E. curb + 2.5' S. of S. curb - Flow from H. 105.45 - from cor. CB. 109.55
- #6 On main of SMS No. 24 - 85' N. of S.R.L. of 3rd + 11' E. of W.R.L. of alley - Flow from lateral H. 104.35.
- #7 At beginning of old SMS flowing east - 2' E. of E.R.L. + 16' S. of N. curb. All leads into M.H. abandoned when SMS No. 24 was built.
- #1045 10' tap 210 E. Third - Ripstra - Turner Pkg. 1-19-59 Tap in E. side of 1' x 1.5' catch basin N. of 3rd, E. parking of market C 18799 - 456 N. Main - Moore Robertson Pkg. 4-14-70 - (Wye 70.5 So. of tanks M.H. - E. of Main - S. of 3rd St) C 55037 - 358 N. Main - Colles Park Pkg. 4-29-76 Tap 5+76.4 on line in alley between Main + Market

FOR INFORMATION ONLY






S.W.S. # 24 cont'd

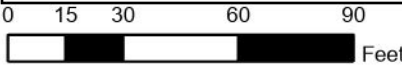
Site 34 - 9th & Water

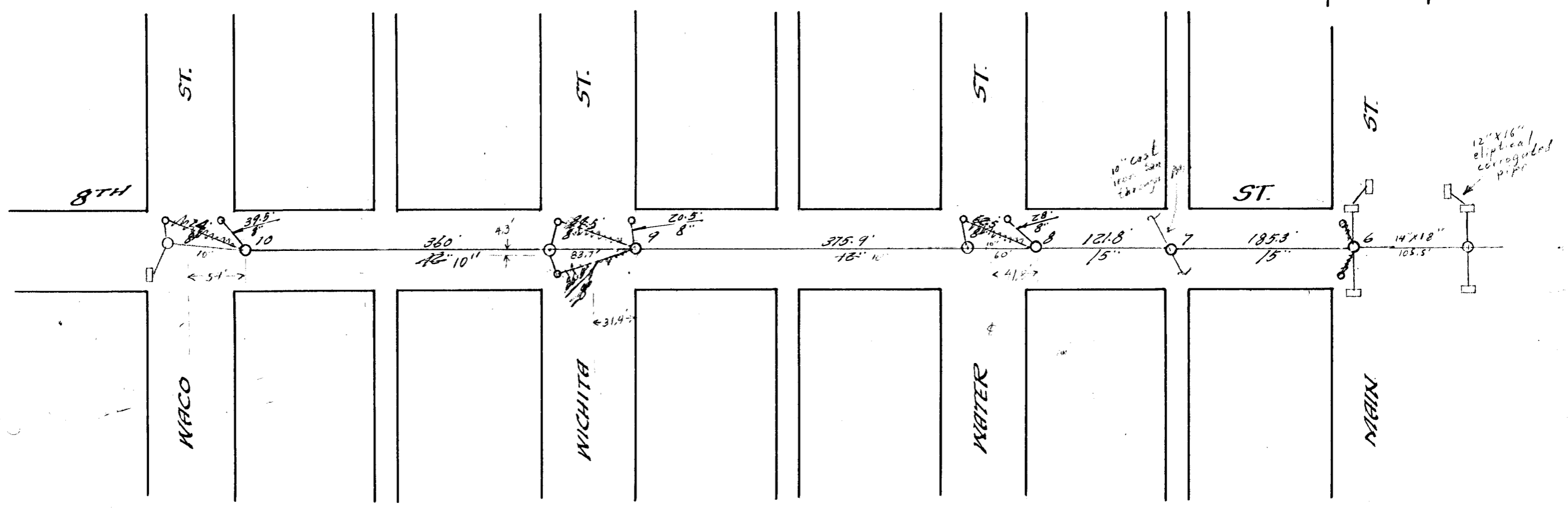
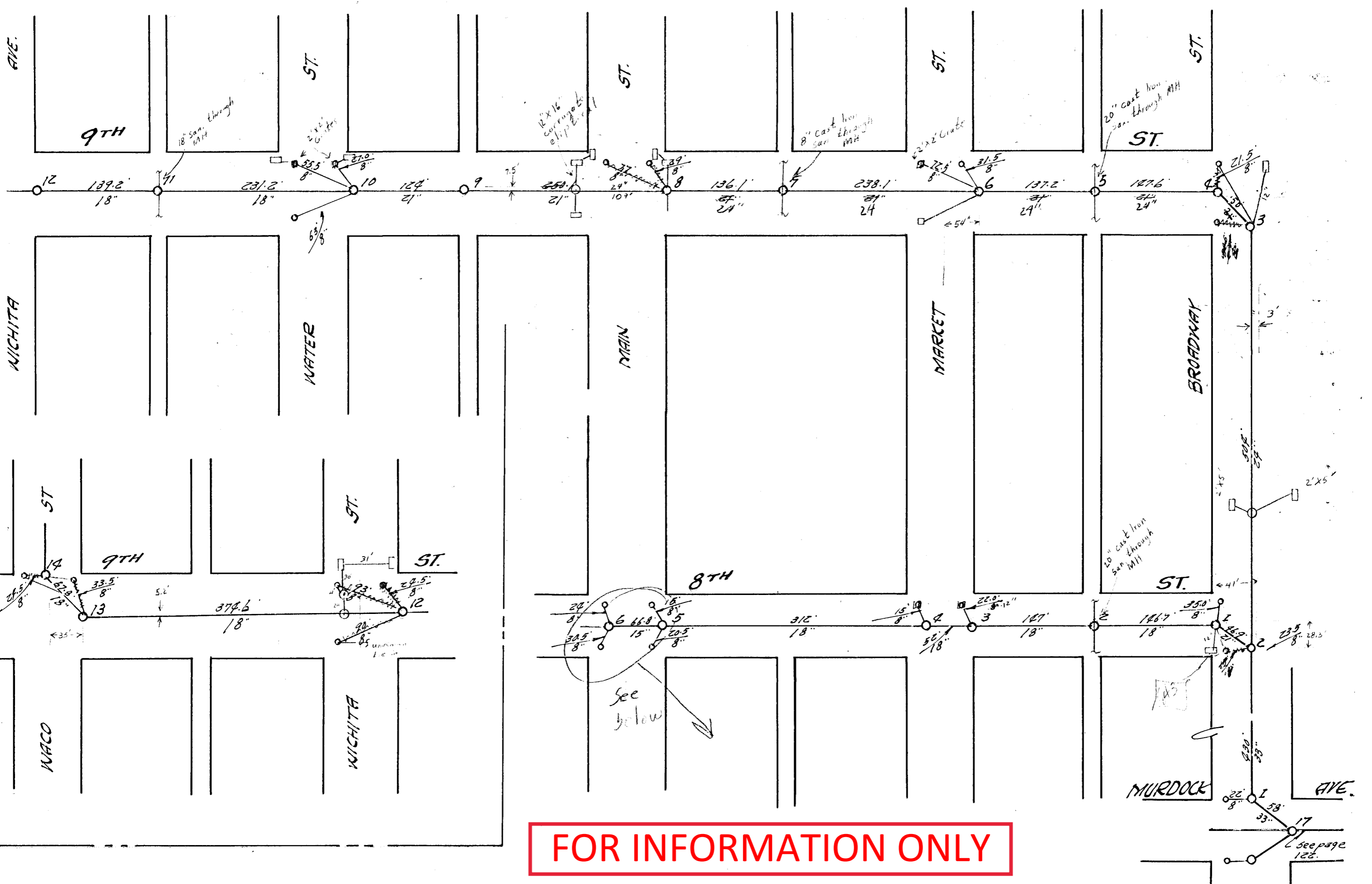


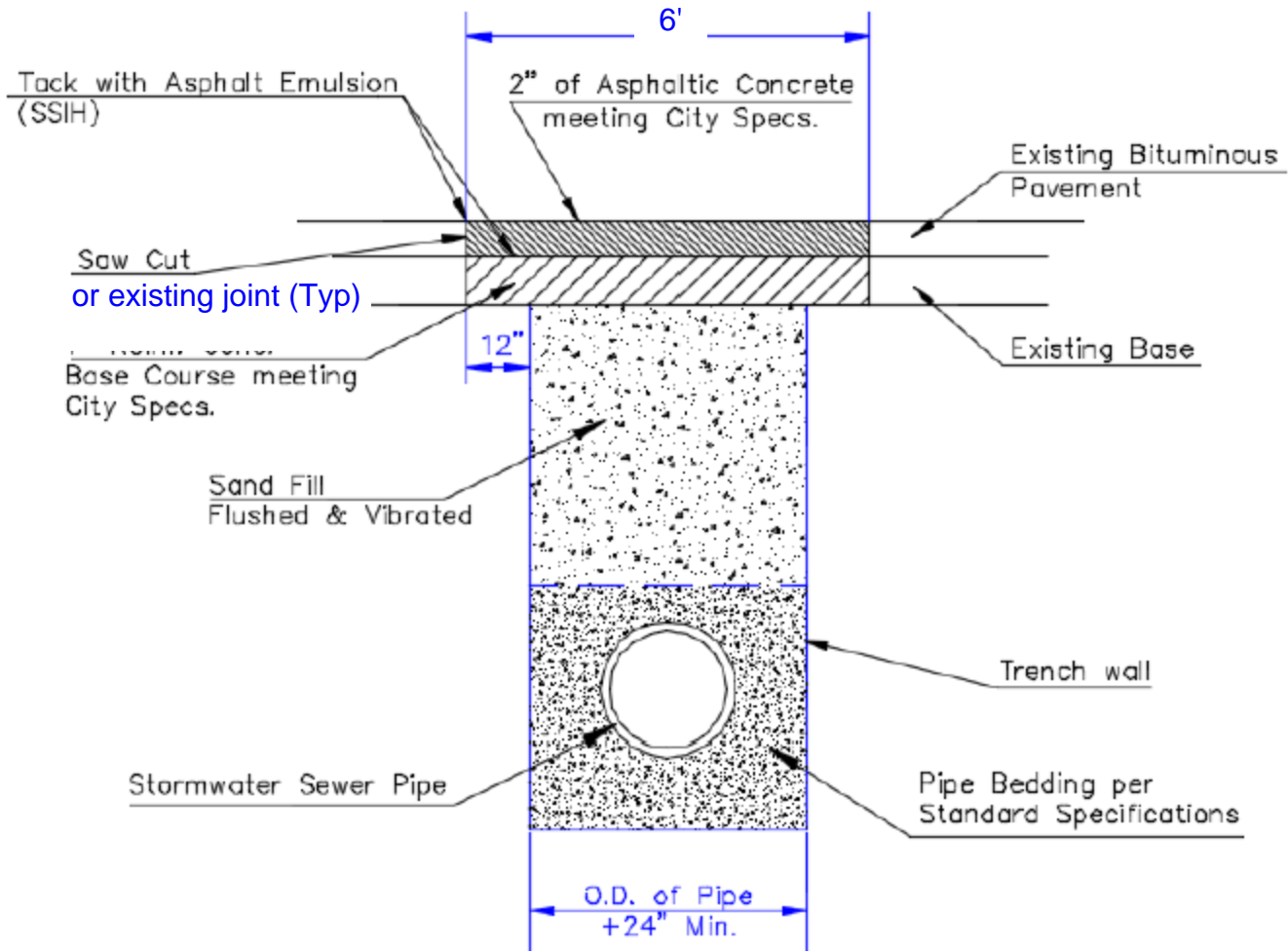
5448-0229 to 5448-234
Remove 71 LF of existing
8" Vitrified Clay Pipe (VCP) and
replace with 71 LF of new
12" Reinforced Concrete Pipe (RCP).
US FL=1301.53, US Rim=1303.57
DS FL=1297.77, DS Rim=1304.12



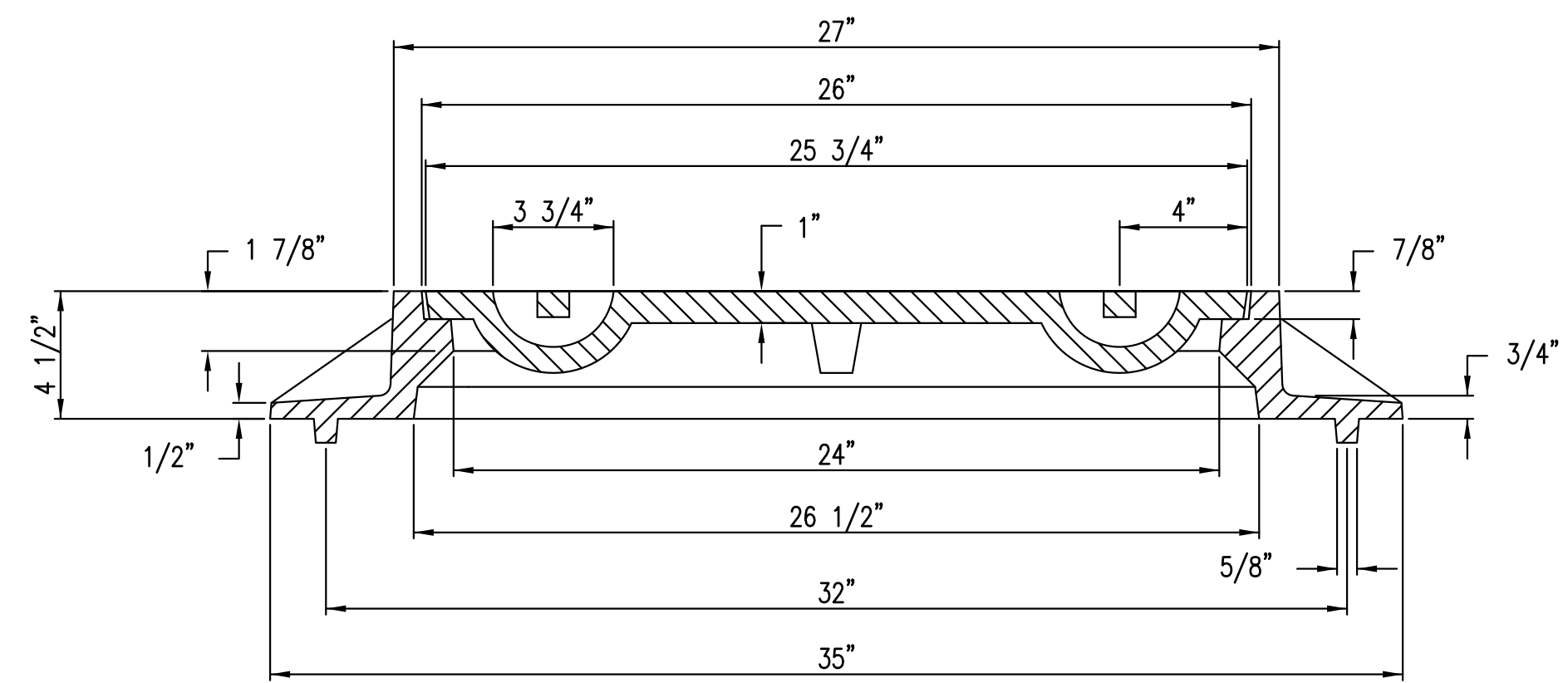
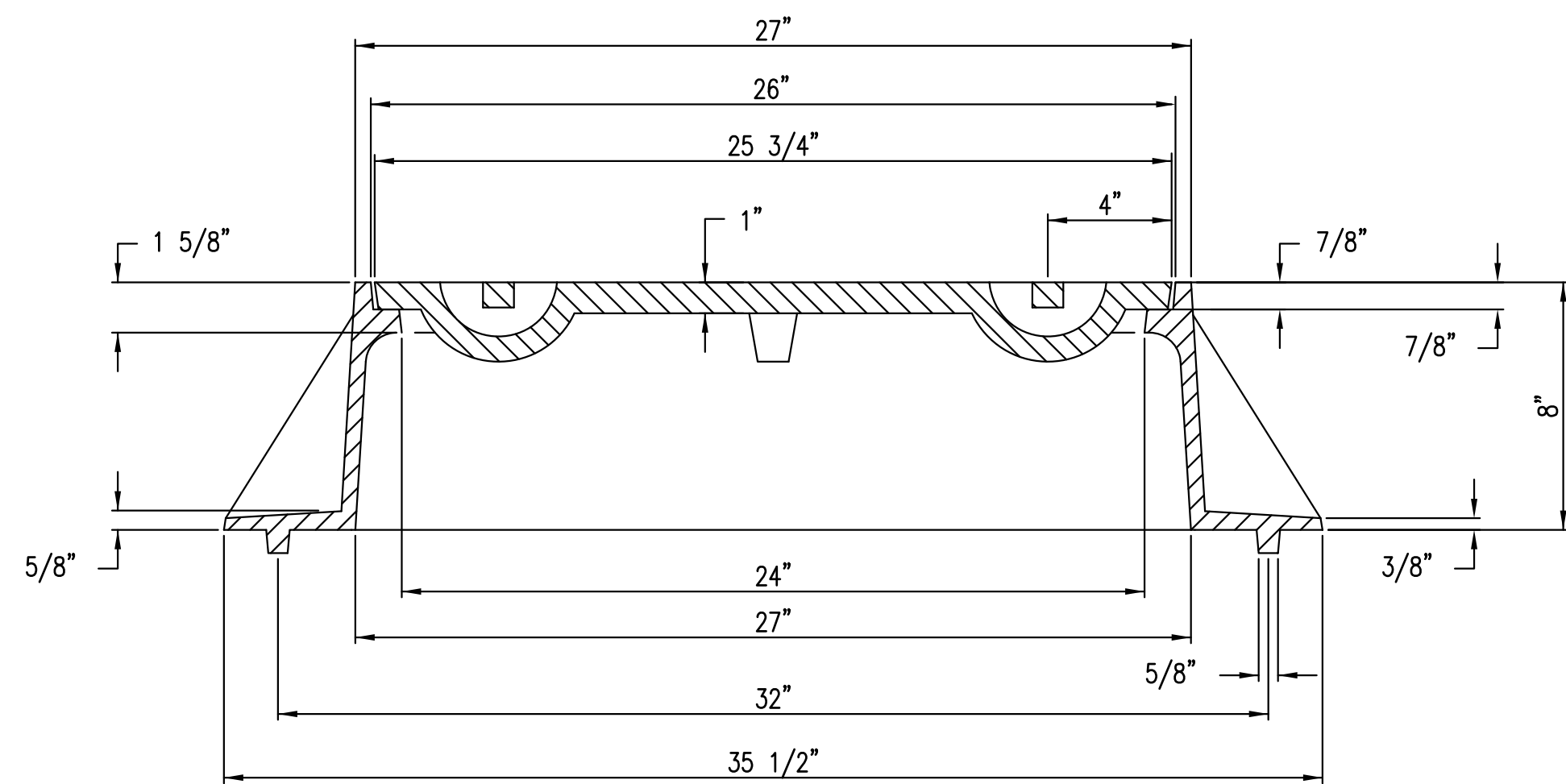
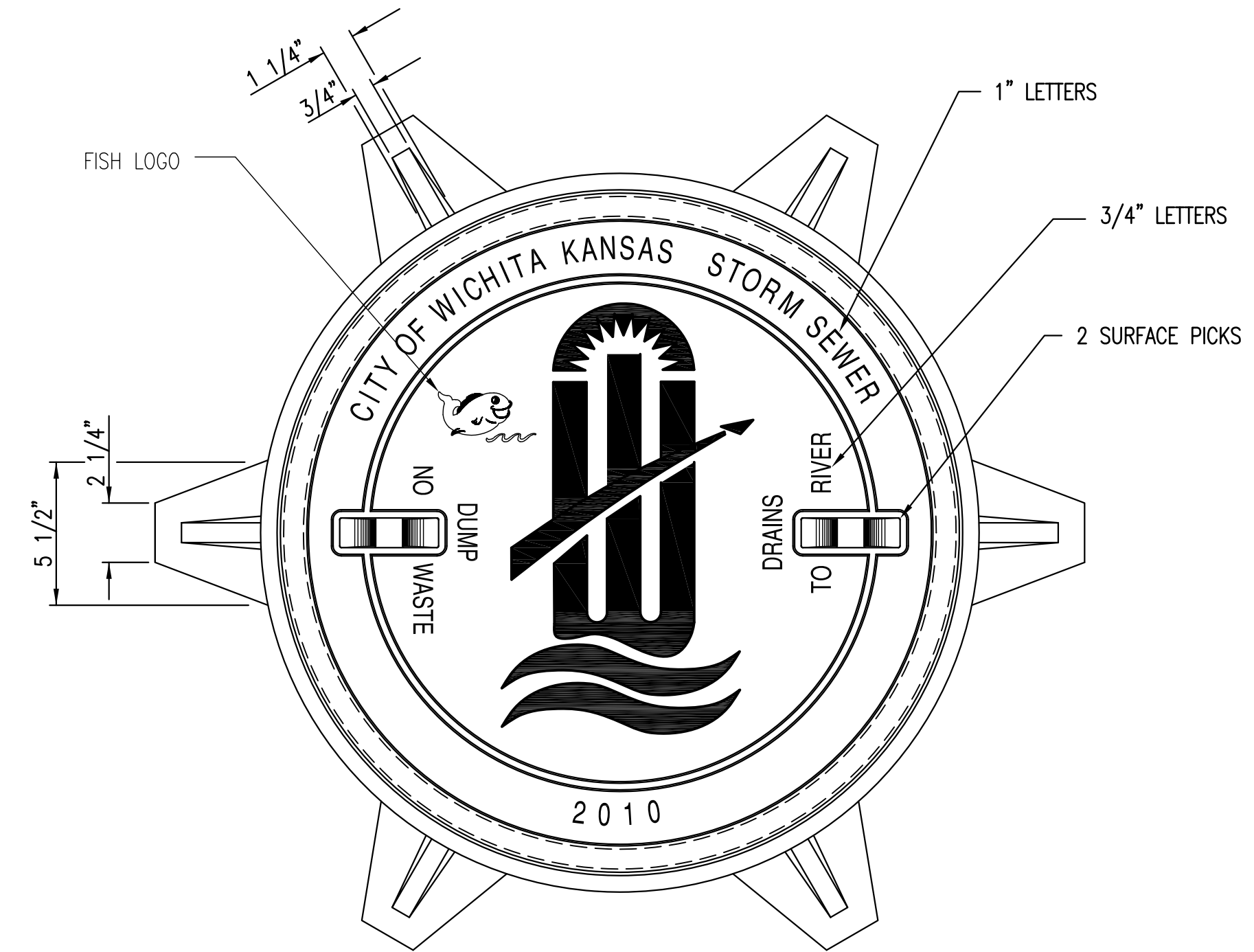
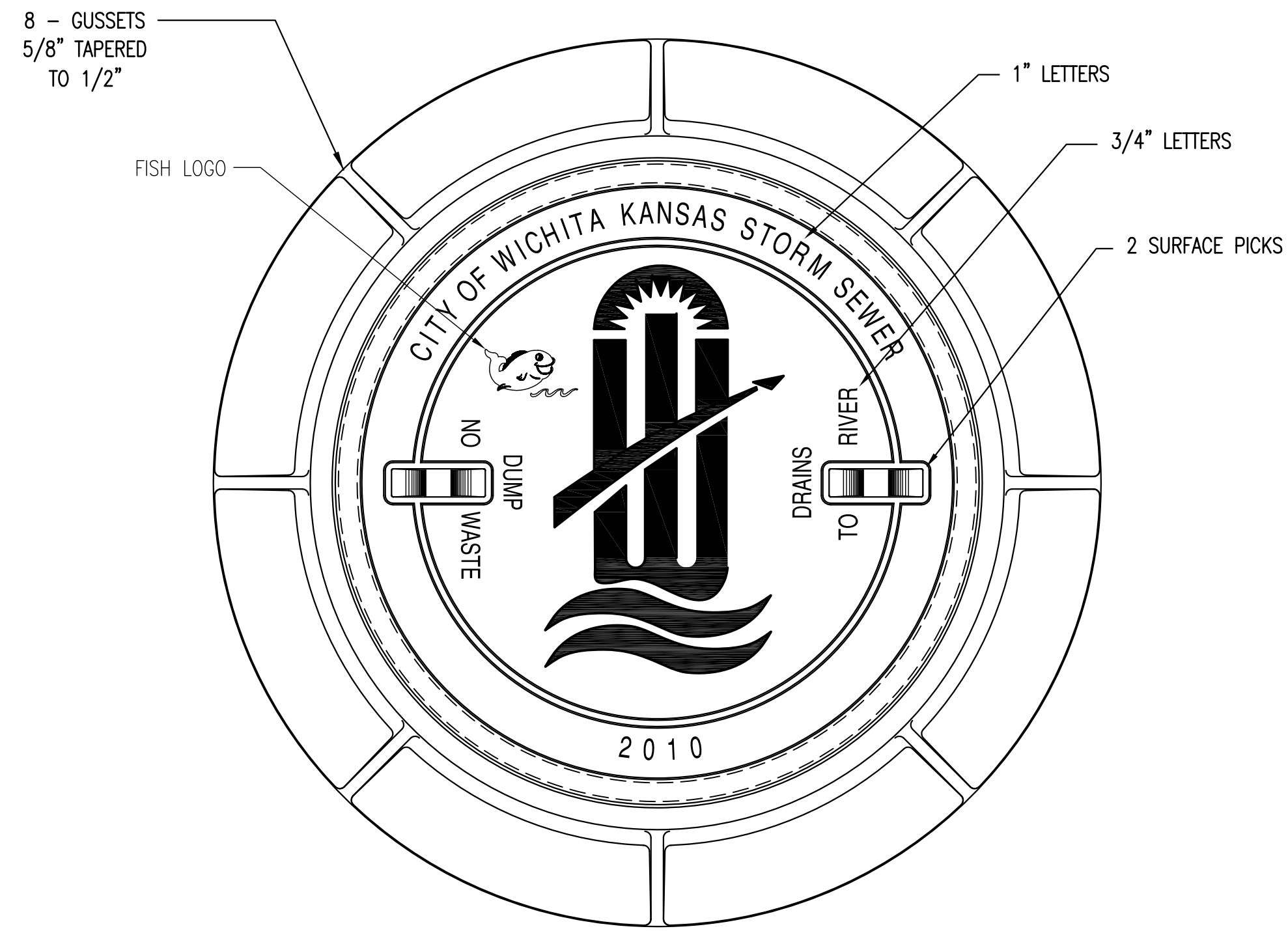
-  Storm Structure
-  Storm Conduit Remove & Replace
-  Storm Conduit
-  Sanitary Sewer Mains
-  Water Mains







Pavement Replacement & Trench Compaction
Under Existing and Proposed City Roads



MANHOLE FRAME
DEETER #1261 OR EJIW #1936-Z1

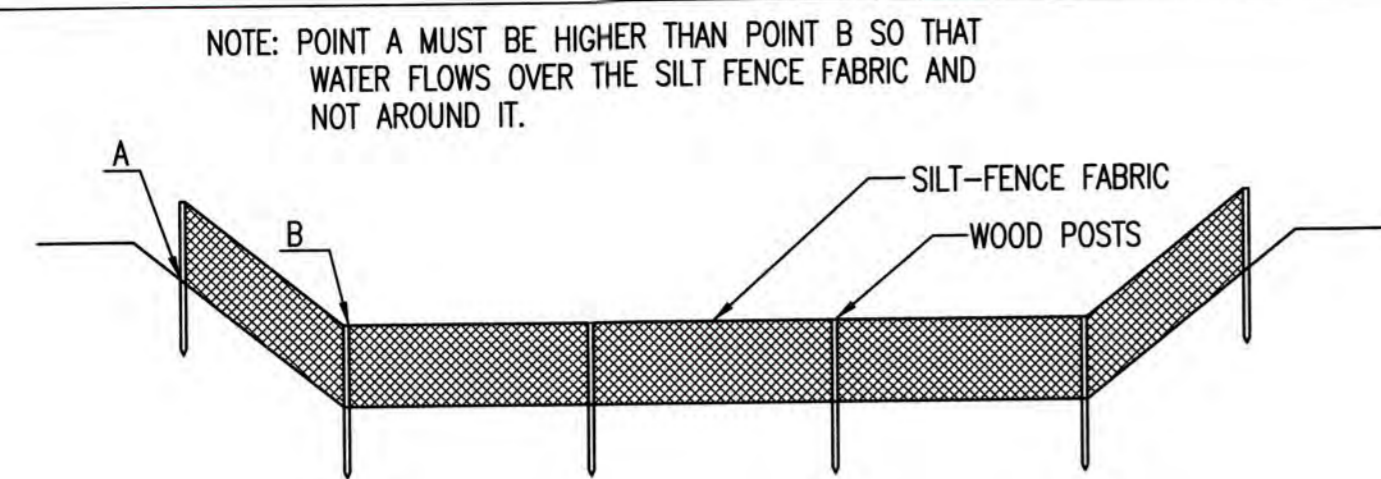
- NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
 2. COVER TO BE DEETER #1261 OR EJIW #1936A.

INLET FRAME
DEETER #2014 OR EJIW #1936-Z4

- NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES.
 2. NOT TO BE USED UNDER PAVEMENT.
 3. COVER TO BE DEETER #1261 OR EJIW #1936A.



MANHOLE/INLET FRAME AND COVER (STORM SEWER)		
CITY ENGINEER GARY JANZEN, P.E.		
PROJECT NUMBER	OCA NUMBER	DATE 11/2010
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET 19



ELEVATION
SILT FENCE DITCH CHECKS
(STREAM PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK, NOT OVER IT. SILT FENCE DITCH CHECKS OFTEN FAIL WHEN OVERTOPPED. SILT FENCE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE SILT FENCE SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE TOP OF THE LOW POINT OF THE FENCE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. SILT FENCE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. SILT FENCE SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED.

THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

DITCH CHECK DITCH GRADE (%)	SPACING CHECK SPACING (FEET)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS AT LEAST 12" DEEP BY 6" WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSTREAM EDGE OF THE TRENCH. LINE TWO SIDES OF THE TRENCH WITH THE FABRIC AS SHOWN ON DETAIL. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE ON THE UPSTREAM SIDE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 24". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

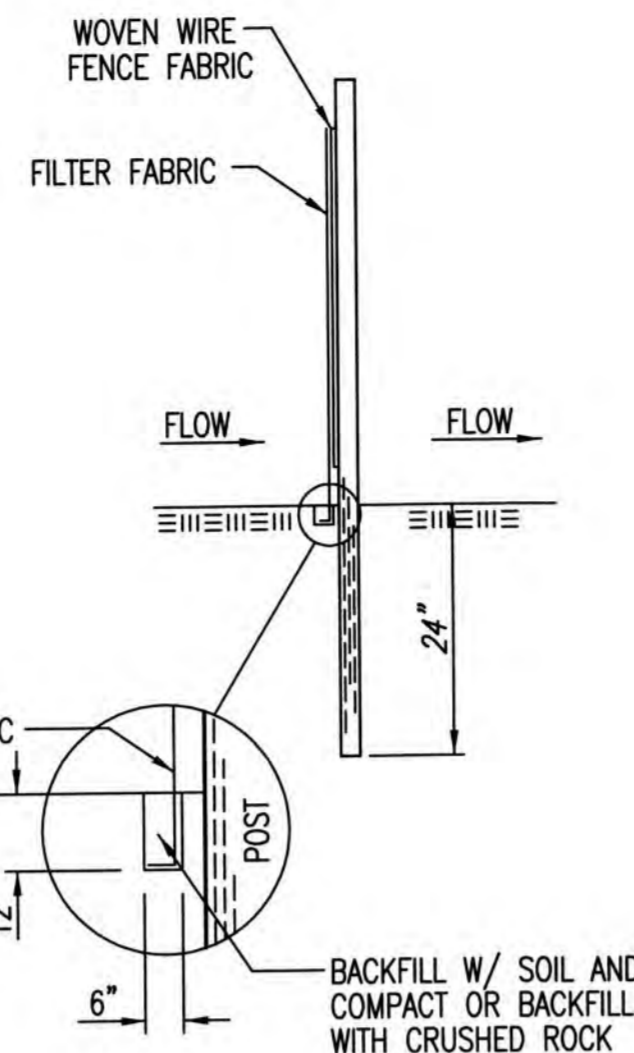
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK—NOT OVER IT. PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. SILT FENCE INSTALLATIONS QUICKLY DETERIORATE WHEN WATER OVERTOPS THEM. DO NOT PLACE SILT FENCE POSTS ON THE UPSTREAM SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE A SILT FENCE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE SILT FENCE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW. FOLLOW PRESCRIBED DITCH CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS. DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE LOW POINT ON THE TOP OF THE FENCE. DO NOT PLACE SILT FENCE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.

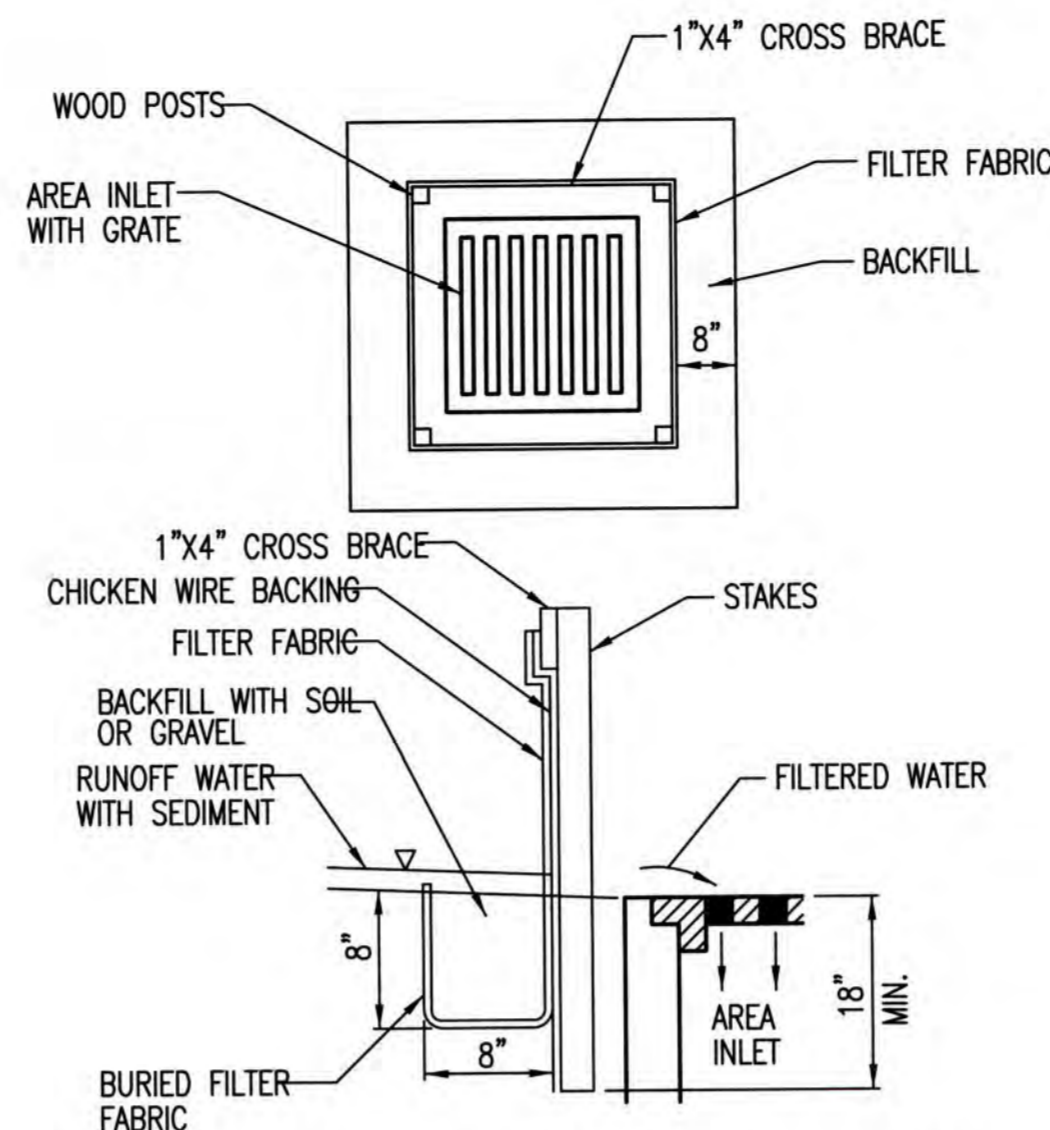
INSPECTION AND MAINTENANCE:

SILT FENCE DITCH CHECKS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW AROUND THE DITCH CHECK?
- DOES WATER FLOW UNDER THE DITCH CHECK?
- DOES THE SILT FENCE SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



ANCHOR TRENCH DETAIL



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE WIRE OR POLYMERIC MESH BACKING USED TO HELP SUPPORT THE SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE MATERIAL USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. THE MATERIAL USED TO FRAME THE TOPS OF THE POSTS SHOULD BE 1" BY 4" BOARDS. SILT FENCE FABRIC AND SUPPORT BACKING SHOULD BE ATTACHED TO THE WOODEN POSTS AND FRAME WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE A SILT FENCE DROP INLET BARRIER IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. WATER SHOULD FLOW THROUGH SILT FENCE, NOT OVER IT. SILT FENCE BARRIERS FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. WHEN USED AS A BARRIER FOR AREA INLETS, SILT FENCE FABRIC AND POSTS MUST BE SUPPORTED AT THE TOP BY A WOODEN FRAME. WHEN A SILT FENCE BARRIER FOR AREA INLETS IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 8" DEEP BY 8" WIDE. DRIVE POSTS TO A DEPTH OF AT LEAST 18" AROUND THE PERIMETER OF THE AREA INLET. THE DISTANCE BETWEEN POSTS SHOULD BE 4' OR LESS. IF THE DISTANCE BETWEEN TWO ADJACENT CORNER POSTS IS MORE THAN 4', ADD ANOTHER POST(S) BETWEEN THEM. CONNECT THE TOPS OF ALL THE POSTS WITH A WOODEN FRAME MADE OF 1" BY 4" BOARDS. USE NAILS OR SCREWS FOR FASTENING. ATTACH THE WIRE OR POLYMERIC-MESH BACKING TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC LONG ENOUGH TO WRAP AROUND THE PERIMETER OF THE AREA INLET. ADD MORE LENGTH FOR OVERLAPPING THE FABRIC JOINT. PLACE THE EDGE OF THE FABRIC IN THE TRENCH, STARTING AT THE OUTSIDE EDGE OF THE TRENCH. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED. ATTACH THE SILT FENCE TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. THE JOINT SHOULD BE OVERLAPPED TO THE NEXT POST.

NOTE: WHEN A SILT FENCE BARRIER FOR AREA INLET IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

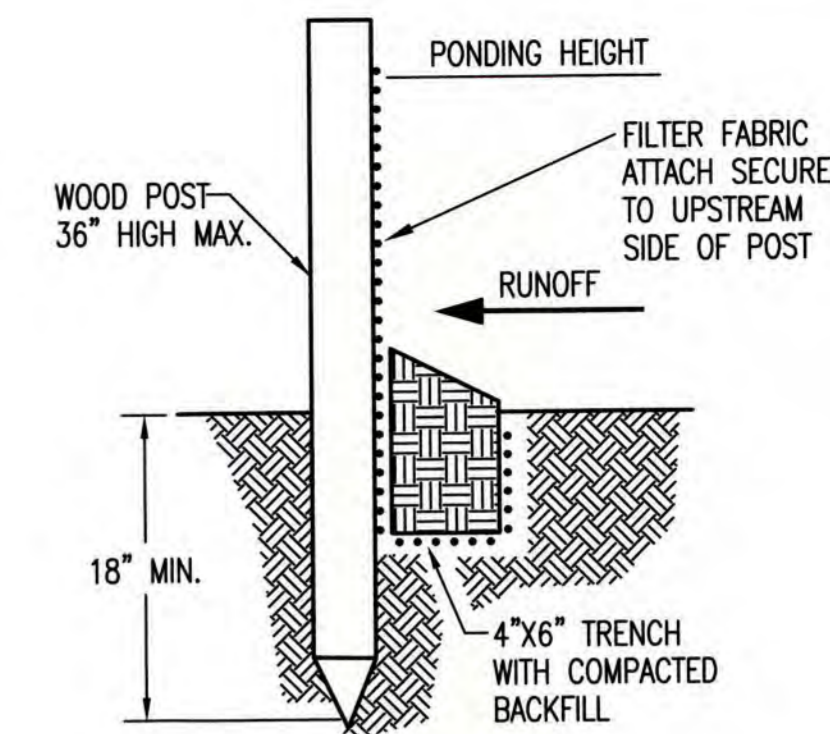
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE BARRIER FOR AREA INLET—NOT OVER IT. PLACE A SILT FENCE BARRIER FOR AREA INLET IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. SILT FENCE BARRIER FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. DO NOT PLACE POSTS ON THE OUTSIDE OF THE SILT FENCE BARRIER FOR AREA INLET. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESISTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT INSTALL SILT FENCE BARRIER FOR AREA INLETS WITHOUT FRAMING THE TOP OF THE POSTS. THE CORNER POSTS AROUND AREA INLETS ARE STRESSED IN TWO DIRECTIONS WHEREAS A NORMAL SILT FENCE IS ONLY STRESSED IN ONE DIRECTION. THIS ADDED STRESS REQUIRES MORE SUPPORT.

INSPECTION AND MAINTENANCE:

SILT FENCE BARRIER FOR AREA INLETS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW UNDER THE SILT FENCE?
- DOES THE SILT FENCE SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



SILT FENCE BARRIERS

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT. WHEN PRACTICABLE, SILT FENCE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. SILT FENCE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 6" DEEP BY 4" WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT-FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE UPSLOPE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 18". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES. DO NOT PLACE SILT-FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE SILT FENCE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT SUFFICIENTLY ANCHORED, IT WILL WASH OUT. SILT FENCE SLOPE BARRIERS MUST BE DUG INTO THE GROUND—SILT FENCE AT GROUND LEVEL DOES NOT WORK BECAUSE WATER WILL FLOW UNDERNEATH.

INSPECTION AND MAINTENANCE:

SILT FENCE SLOPE BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
- DOES WATER FLOW UNDER THE SLOPE BARRIER?
- DO THE SILT FENCES SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

REVISION DATE: MAY 2013



CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

SILT FENCE DITCH CHECK AND BARRIER DETAILS

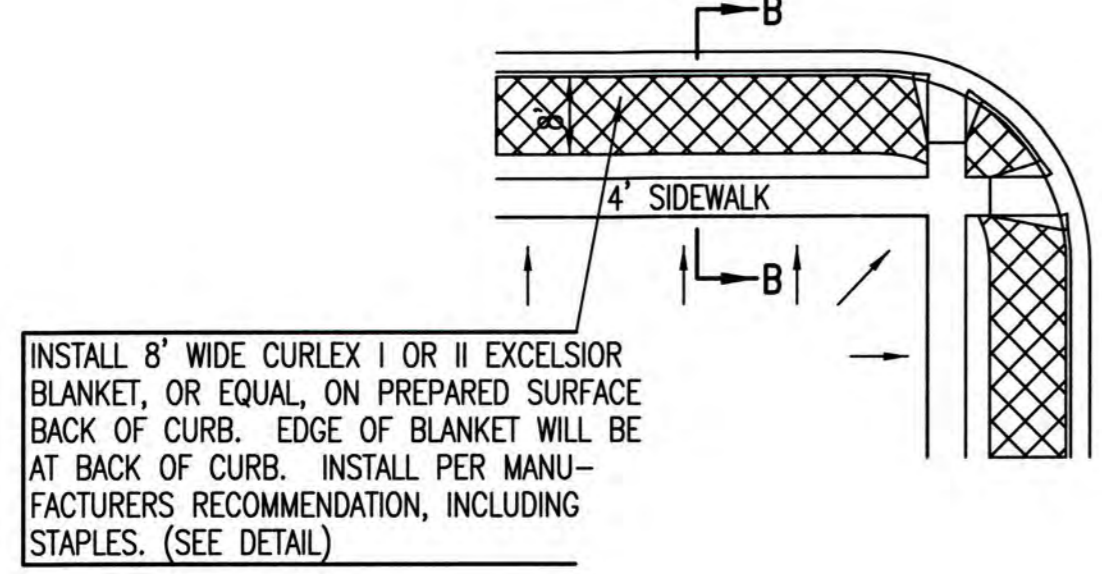
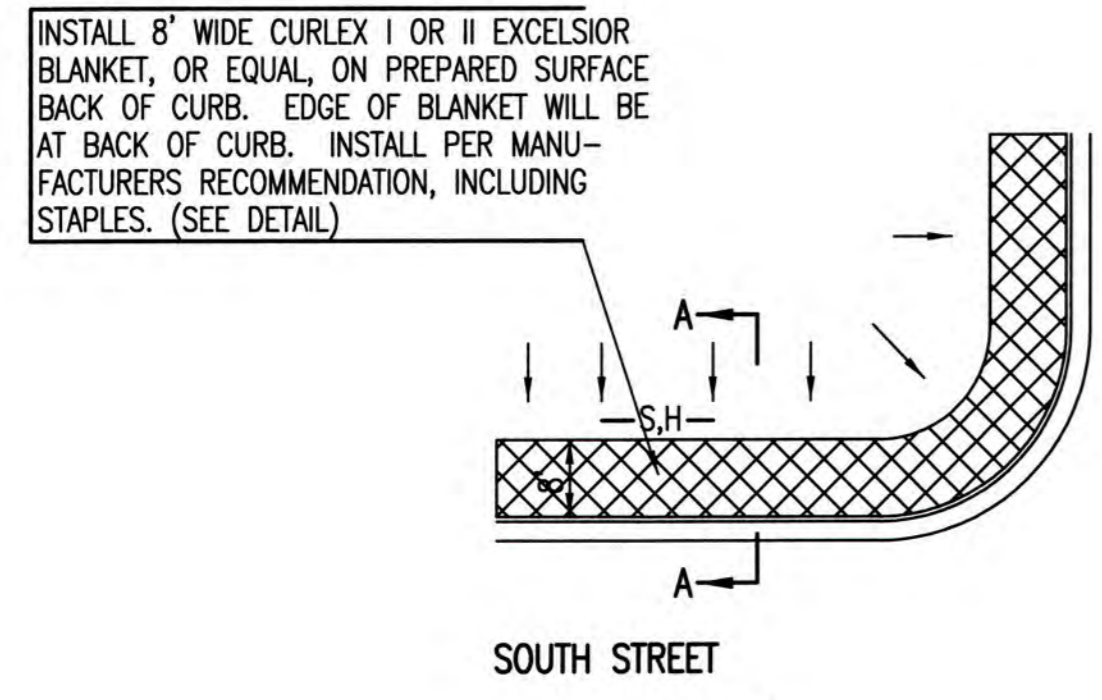
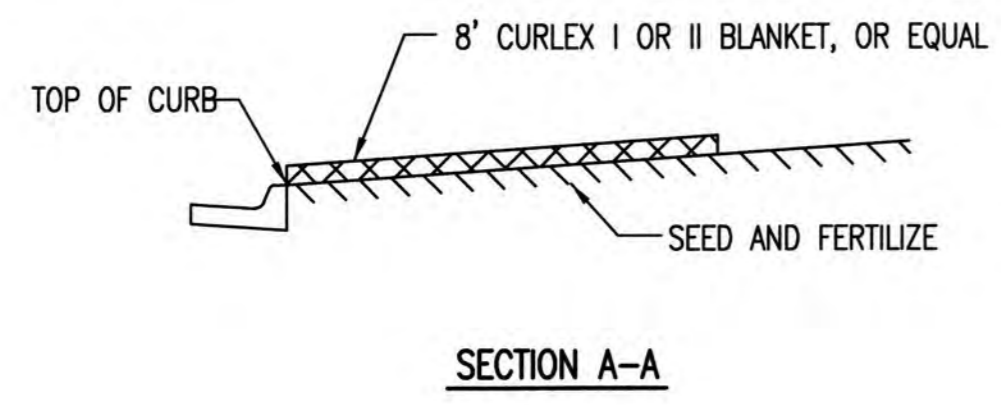
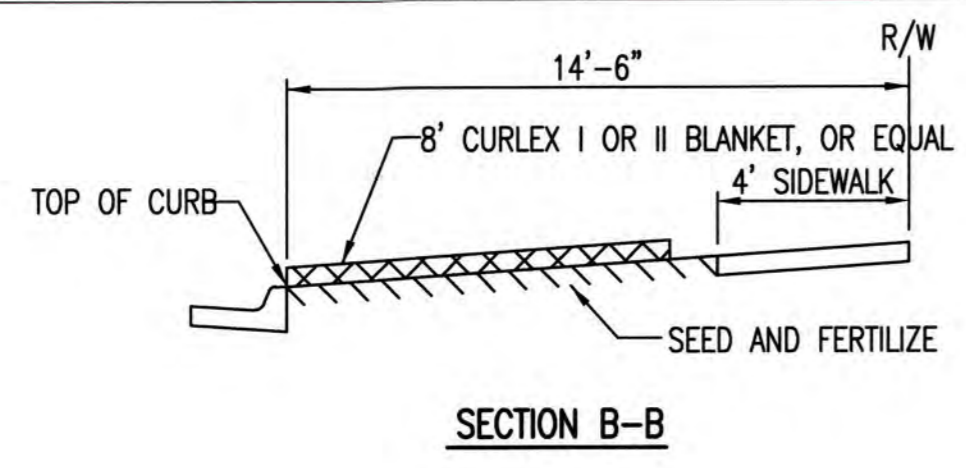
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
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CITY ENGINEER'S OFFICE
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(316) 268-4501

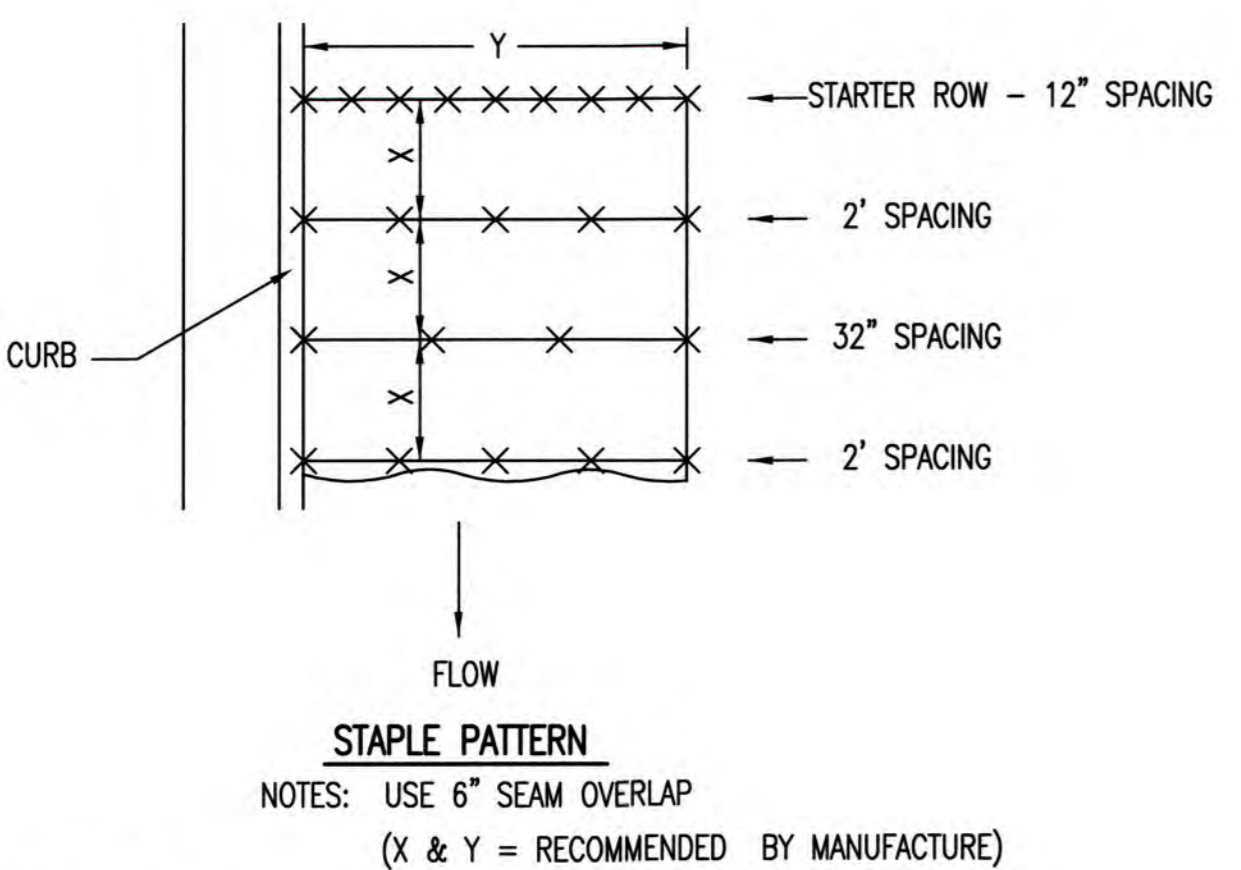
SHEET

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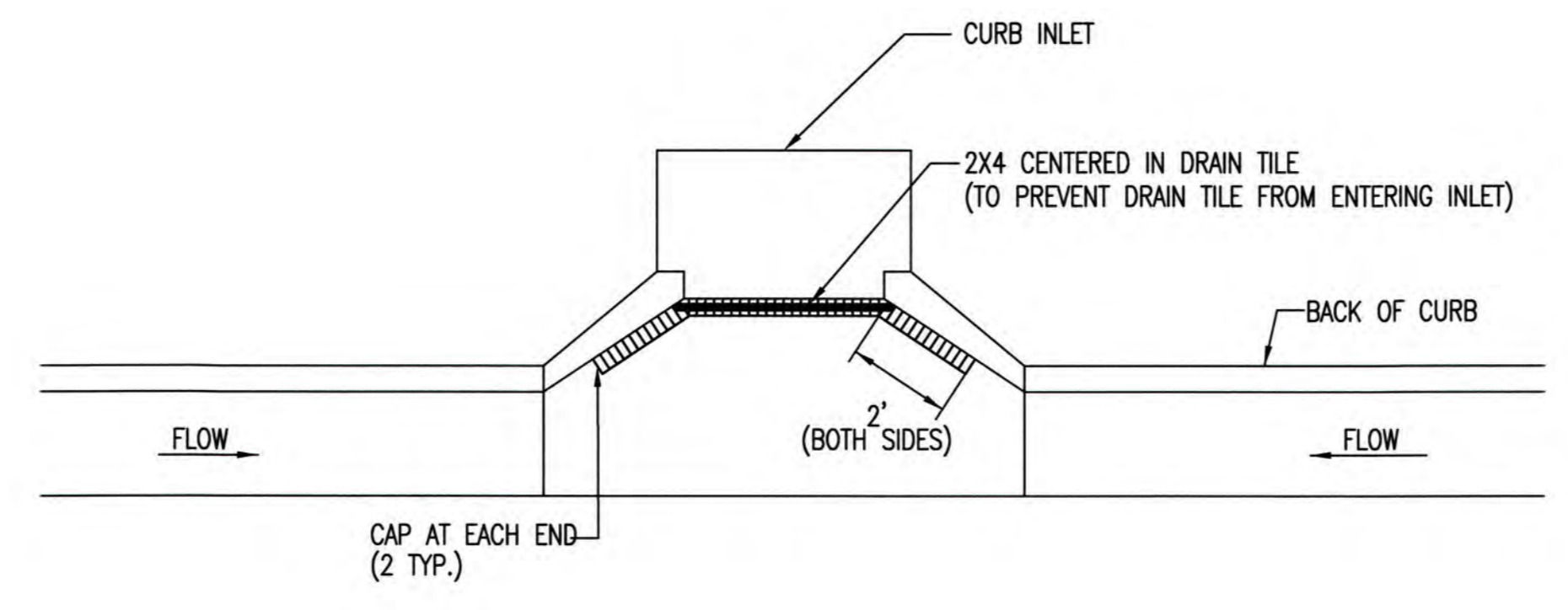


- GENERAL NOTES**
- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
 - EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
 - AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE GUTTER, SUPPLEMENTAL EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS NEEDED, TO FIX THE PROBLEM.

BACK OF CURB PROTECTION DETAIL

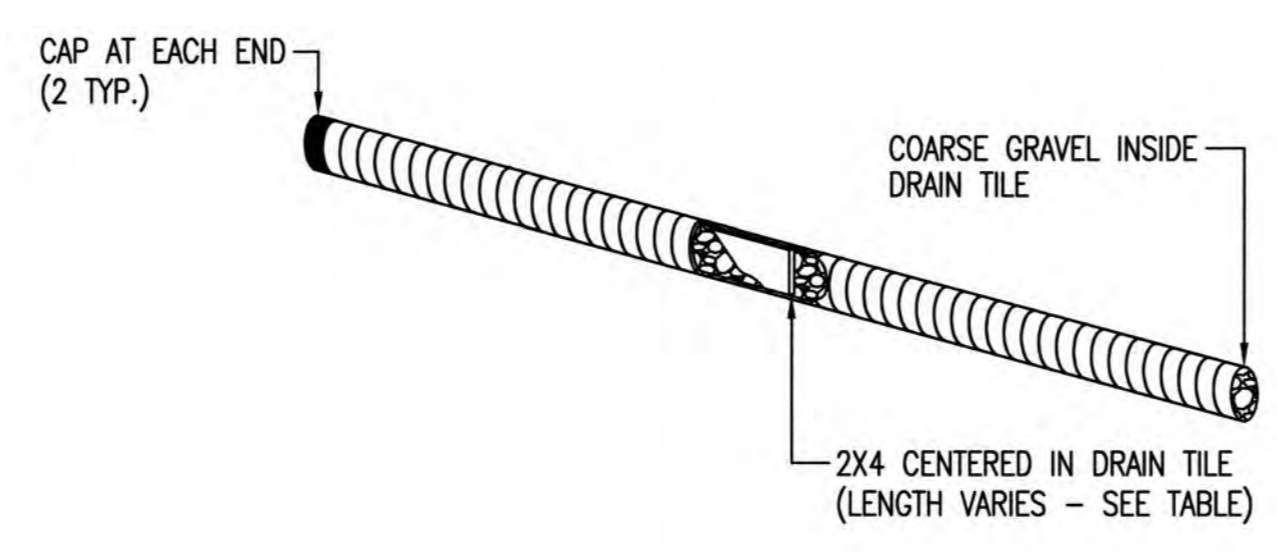


DETAILS FOR APPROVED EROSION CONTROL MAT

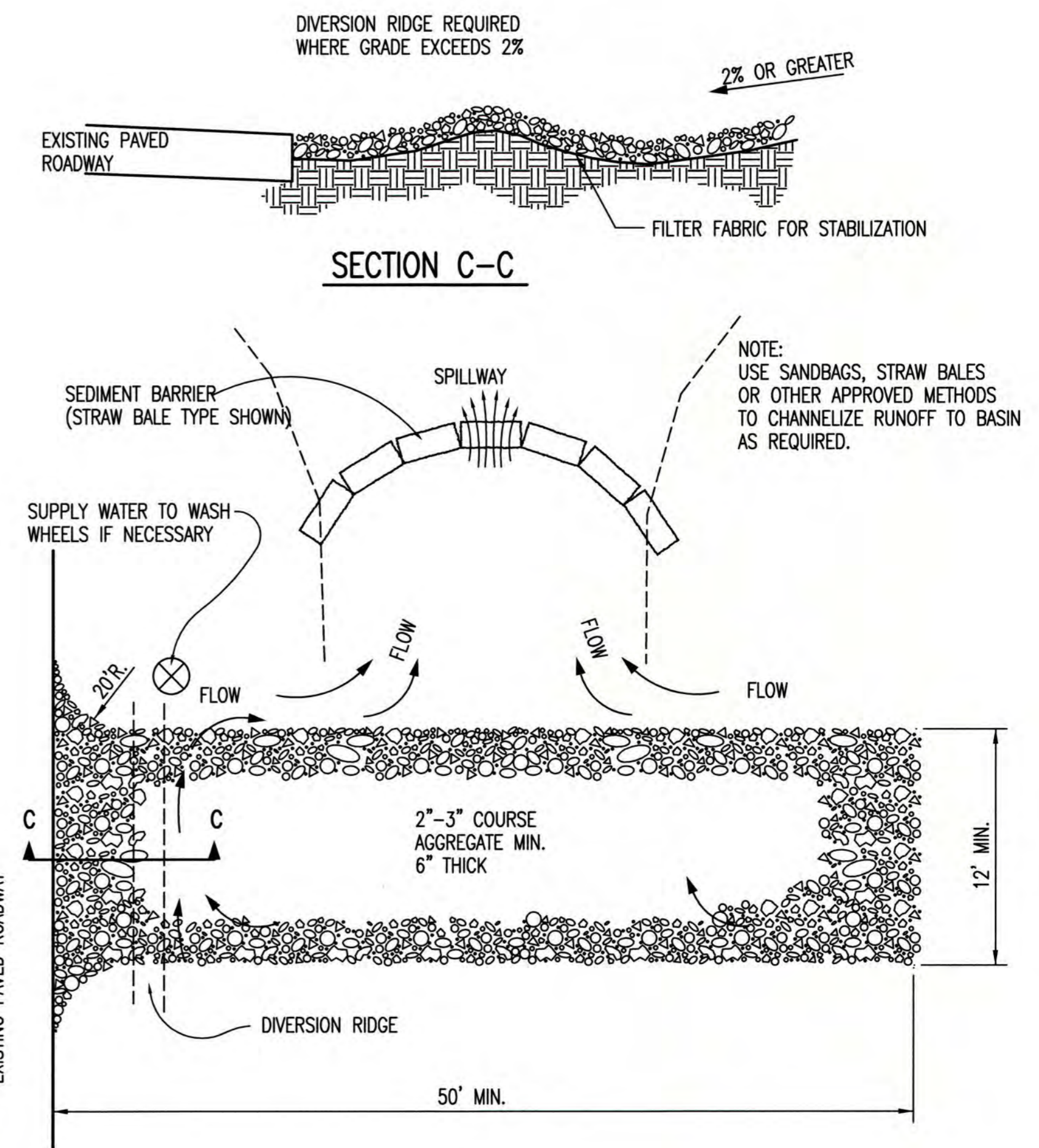


NOTE: PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



**CURB INLET PROTECTION
4" PERFORATED PIPE W/ GRAVEL**



STABILIZED CONSTRUCTION ENTRANCE

- GENERAL NOTES**
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 - WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
 - DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

REVISION DATE: MAY 2013



**BACK OF CURB PROTECTION,
CURB INLET PROTECTION AND
CONSTRUCTION ENTRANCE**

CITY ENGINEER
GARY JANZEN, P.E.

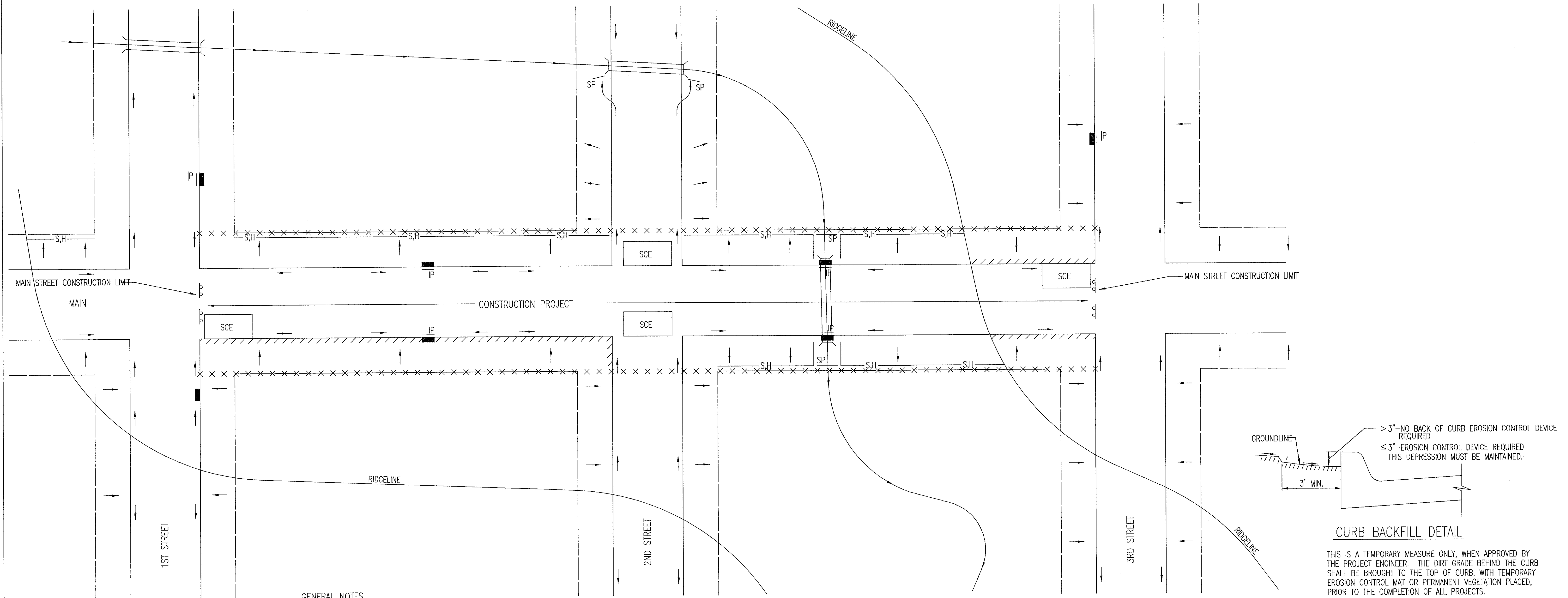
PROJECT NUMBER OCA NUMBER DATE

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SHEET
22

GENERAL NOTES

- THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPES OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
- EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.
- IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.
- FOR PROJECTS DISTURBING LESS THAN 1 ACRE, CONTRACTORS ARE ENCOURAGED TO PREPARE STORMWATER POLLUTION PREVENTION PLANS PRIOR TO CONSTRUCTION. EROSION CONTROL DEVICES MUST BE USED ON ALL PROJECTS.
- FAILURE TO USE AND MAINTAIN EROSION CONTROL DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE CONTRACTOR TO THE PENALTIES PROVIDED FOR THEREIN.
- THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT DEVICE OTHER THAN THOSE SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED AS LONG AS THEY ARE EFFECTIVE AND MAINTAINED.



GENERAL NOTES

- THE INTENT OF ALL EROSION CONTROL DEVICES IS TO KEEP ALL SEDIMENT CONFINED TO THE CONSTRUCTION SITE, AND OUT OF ALL UNDERGROUND PIPES, DITCHES, LAKES, AND OTHER DRAINAGE FACILITIES, AND OFF OF STREETS.
- THE POINT OF COMPLIANCE IS GENERALLY THE RIGHT-OF-WAY LINES WITHIN THE LIMITS OF CONSTRUCTION.
- EROSION CONTROL DEVICES WILL BE REQUIRED AT ALL POINTS ALONG THE PROJECT WHERE DISTURBED EARTH CAN DRAIN ONTO PRIVATE PROPERTY.
- INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED AT CREEK CROSSINGS SO AS TO PREVENT SEDIMENT FROM ENTERING THEREIN.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED, AS NEEDED, TO PREVENT MUD FROM TRACKING ONTO STREETS NOT UNDER CONSTRUCTION AND ON STREETS WITHIN THE PROJECT LIMITS IF TRAFFIC IS BEING MAINTAINED THROUGH THE PROJECT.
- ANY MUD TRACKED ONTO STREETS MUST BE REMOVED AT THE END OF EACH WORK DAY.
- THE CONTRACTOR WILL BE REQUIRED TO PLACE EROSION CONTROL DEVICES BACK OF CURB, WHENEVER WATER CAN DRAIN OVER CURB, TO KEEP ERODED SOIL OUT OF THE GUTTERLINES, IN ACCORDANCE WITH THE FOLLOWING:
 - THE DEVICE REQUIRED WILL BE APPROVED EROSION CONTROL MAT LISTED ON THE CITY'S APPROVED MATERIAL LIST. SAID BLANKET SHALL BE PLACED OVER THE APPROPRIATE SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS. (SEE SOIL EROSION BMPs - BACK OF CURB SEDIMENT BARRIER DETAILS)
 - THIS DEVICE SHALL BE INSTALLED IMMEDIATELY WHENEVER THE CURB IS BACKFILLED TO WITHIN 3" OF THE TOP OF CURB. (SEE CURB BACKFILL DETAIL) OTHER BMP'S MAY BE REQUIRED AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB.
 - ADDITIONALLY, OTHER EROSION CONTROL DEVICES (HAY BALES, SILT FENCE, ETC.) WILL BE INSTALLED AT LOCATIONS OF CONCENTRATED FLOW RESULTING IN SEDIMENT OVERRUNNING THE MAT.
 - SHOULD THE PROJECT PLANS SPECIFY THAT THE RIGHT-OF-WAY IS TO BE SODDED, THE EXCELSIOR MAT WILL NOT BE REQUIRED SO LONG AS THE SOD IS PLACED WITHIN 48 HOURS AFTER CURB BACKFILL REACHES A HEIGHT OF 3" OR LESS FROM TOP OF CURB. (SEE CURB BACKFILL DETAIL)

LEGEND

- R-O-W LIMITS
- DRAINAGE FLOW PATH
- x x x x x R/W LIMIT WITHIN CONSTRUCTION LIMIT
- STORM WATER INLETS
- IP INLET PROTECTION
- S,H SILT FENCE OR HAY BALE BARRIER
- SP STREAM PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE
- //// BACK OF CURB PROTECTION



CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

REVISION: JUNE 2015

STREET IMPROVEMENT PROJECTS		
CITY ENGINEER GARY JANZEN, P.E.		
PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET 23