



PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM BUTLER COUNTY HMA RESURFACING w/ MILLING

In Parkersburg, from Bethel St
to the Beaver Creek Bridge

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



REVISIONS

TOTAL

PROJECT IDENTIFICATION NUMBER

21-12-014-010

PROJECT NUMBER

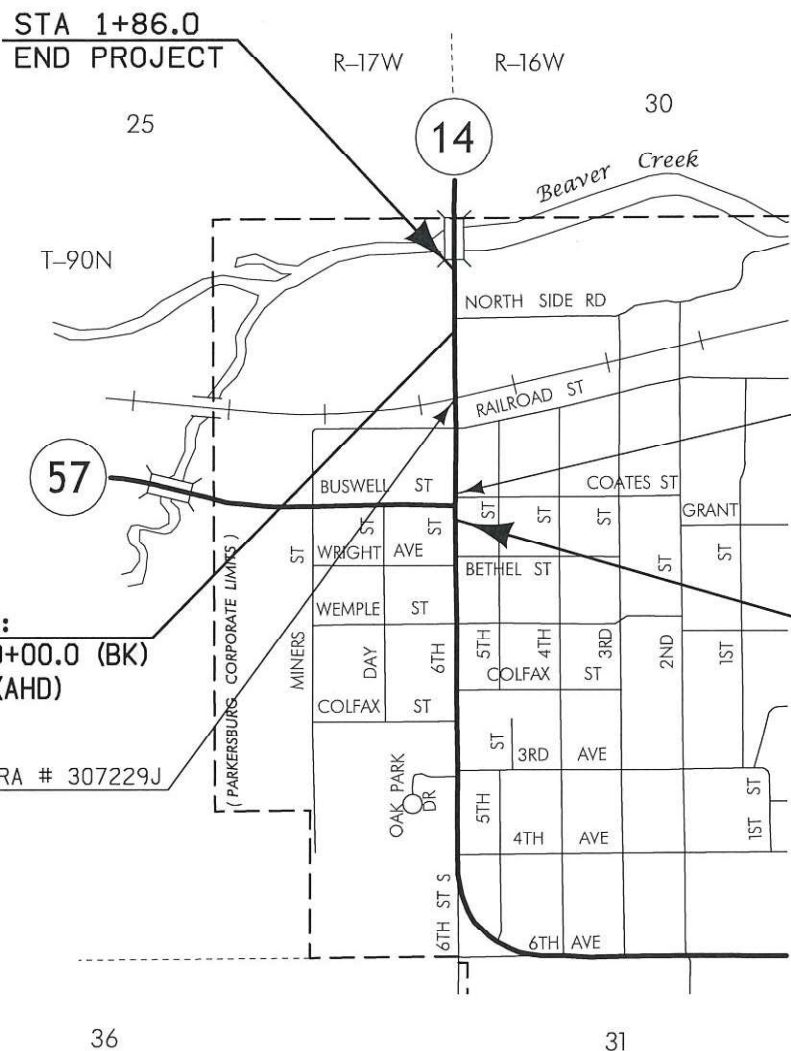
STPN-014-7(41)--2J-12

R.O.W. PROJECT NUMBER

11/19/2021 via Teams
Chris Suntken
Mary Kelly
Tyler Kubik
Jason Dighton
Chris Luhring, City of Parkersburg

LETTING DATE
FEB. 21, 2023

HMA RESURFACING w/ MILLING
STPN-014-7(41)--2J-12



EQUATION:
STA 1000+00.0 (BK)
=0+00.0 (AHD)

FRA # 307229J

STA. 990+50.0
BEGIN MILLING AND RESURFACING

STA 989+10.0
BEGIN PROJECT

STA 1+86.0
END PROJECT

INDEX OF SHEETS

105-3
10-18-05

A.1	Title sheet and Location Map
B.1-B.2	Typical Sections
C.1-C.7	Estimate of Quantities, General Notes and Tabulations
D.1-D.3	Plan sheets
J.1	Traffic Control Sheet
S.1-S.2	Sidewalk Detail Sheets
U.1	Special Detail Sheet

MILEAGE SUMMARY

105-1
09-27-94

Div.	Location	Lin. Ft.	Miles
	Sta 989+10.0 to Sta 1000+00.0	1090.0	0.206
	Equation: Sta 1000+00.0 (Back) Sta 0+00.0 (Ahead)		
	Sta 0+00.0 to Sta 1+86.0	186.0	0.035
	Total Net Length of roadway in Project	1276.0	0.241

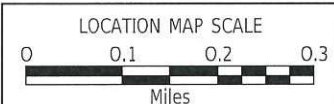
PRELIMINARY PLANS

Subject to change by final design.

D2 PLAN - Nov. 12, 2021

DESIGN DATA URBAN

2023	AADT	2100	V.P.D.
2043	AADT	2600	V.P.D.
20 --	DHV	270	V.P.H.
	TRUCKS	8	%
	Total Design ESALS	--	



BUTLER COUNTY

FILE NO.

ENGLISH

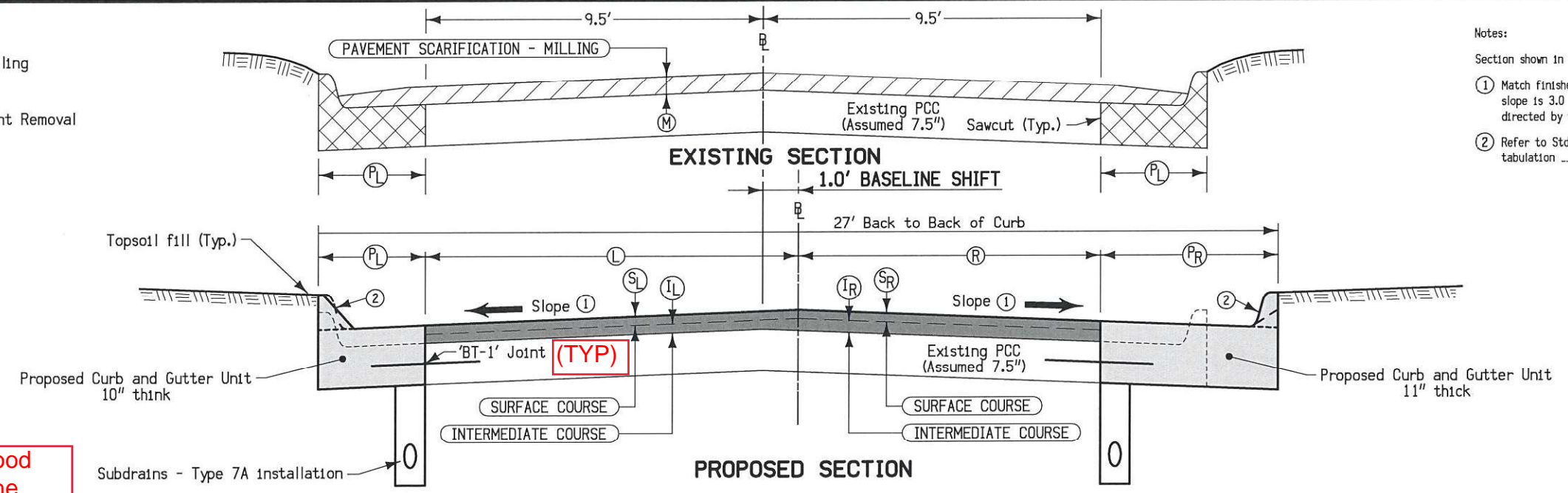
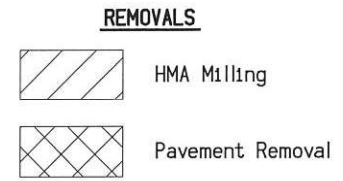
DESIGN TEAM Kelly \ Suntken

BUTLER COUNTY

PROJECT NUMBER STPN-014-7(41)--2J-12

SHEET NUMBER A.1

REVISED

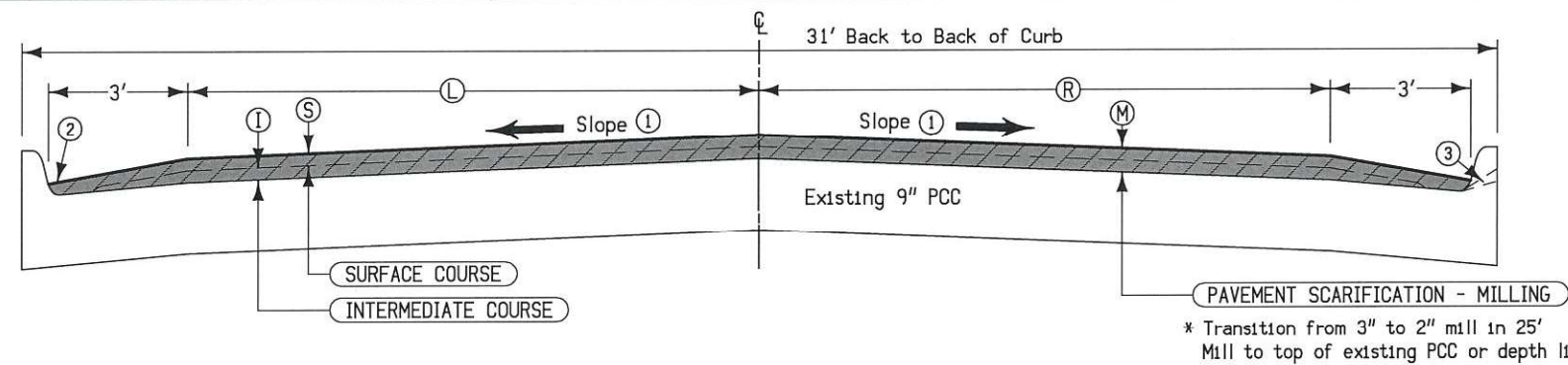
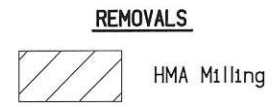


Notes:
 Section shown in the direction of travel
 ① Match finished slope to existing pavement, except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %. Section may be modified as directed by the Engineer through areas of special shaping.
 ② Refer to Std. Road Plan PV-102 for additional information. Unless specified in tabulation _____, 6" Standard Curb to be used at all locations.

Subdrain Location is good here. Will be tied into the existing storm sewer

Location		(M)	(L)	(R)	(IL)	(SL)	(LR)	(SR)	(PL)	(PR)	Remarks
Road Identification	Station To Station	Inches	Feet	Feet	Inches	Inches	Inches	Inches	Feet	Feet	
IA 14	990+82.5 - 993+84.0	3.0	10.5	8.5	1.5	1.5	2.0	1.5	3.0	5.0	Refer to Sheet U.1 for additional information
IA 14	993+84.0 - 994+45.0										

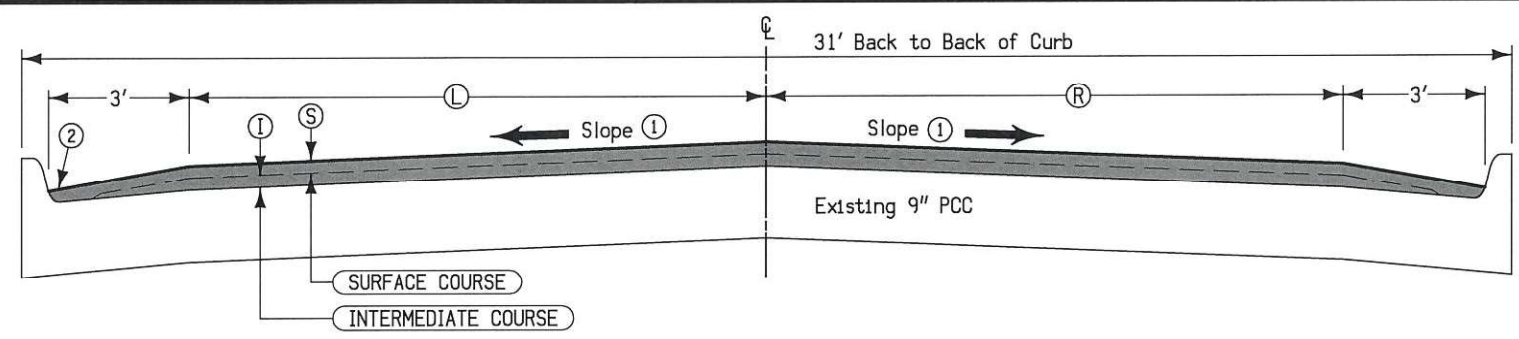
**TYPICAL CROSS SECTION
 2 - LANE URBAN w/ CURB & GUTTER
 REPLACEMENT and HMA RESURFACING
 w/ PAVEMENT SCARIFICATION**



Notes:
 Section shown in the direction of travel
 ① Match finished slope to existing pavement, except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %. Section may be modified as directed by the Engineer through areas of special shaping.
 ② Taper surface course to 1.5" thick at gutter. Special shaping at intakes required.
 ③ Resurface to top of 1.5" drop curb at entrances.

Location		(M)	(S)	(I)	(L)	(R)	Remarks
Road Identification	Station To Station	Inches	Inches	Inches	Feet	Feet	
IA 14	994+45.0 - 995+60.5	2.0 *	1.5	1.5	12	12	Transition gutter milling depth from 1 1/2" at Croell driveway to 3" depth at RR header.
IA 14	995+71.5 - 996+96.0	See Remarks	1.5	1.5	12	12	Transition gutter milling depth from 3" depth at RR header to 0" in 134'.

**TYPICAL CROSS SECTION
 2 - LANE URBAN
 HMA RESURFACING & PAVEMENT
 SCARIFICATION**

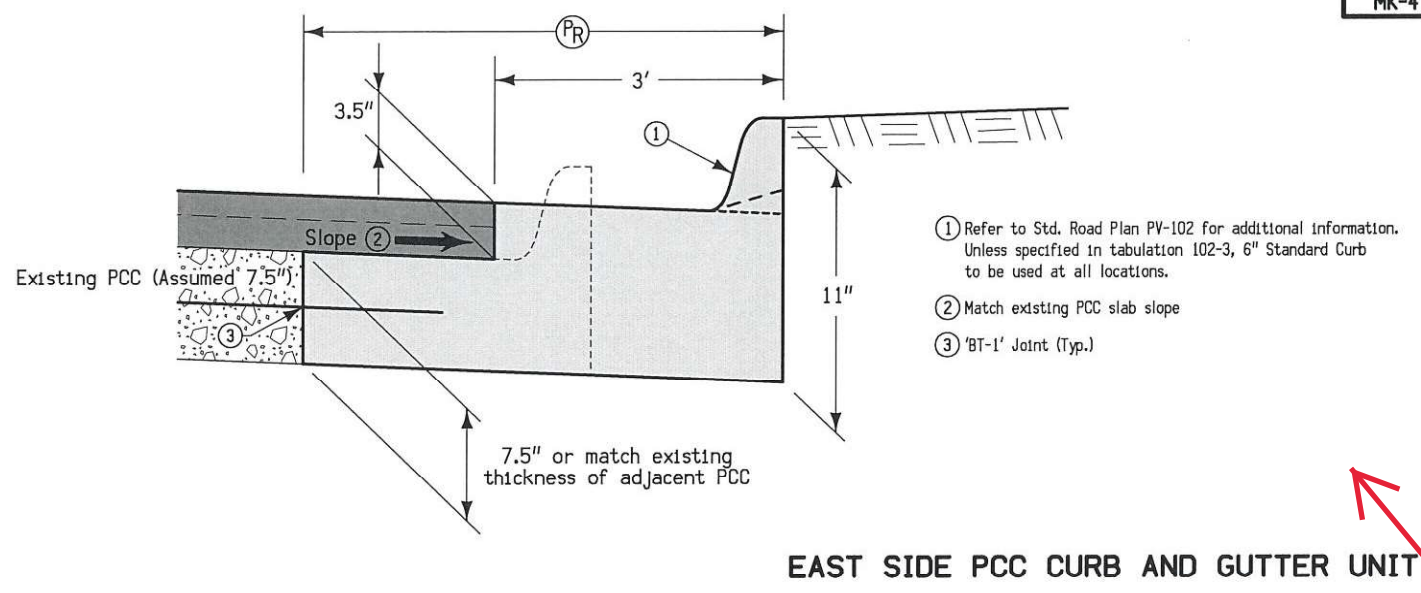


Notes:
 Section shown in the direction of travel
 ① Match finished slope to existing pavement, except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %. Section may be modified as directed by the Engineer through areas of special shaping.
 ② Taper surface course to 1.5" thick at gutter. Special shaping at intakes required.

Location		(S)	(I)	(L)	(R)	Remarks
Road Identification	Station To Station	Inches	Inches	Feet	Feet	
IA 14	996+96.0 - 1000+00.0	1.5	1.5	12	12	
IA 14	0+00.0 - 1+86.0	1.5	1.5	12	12	

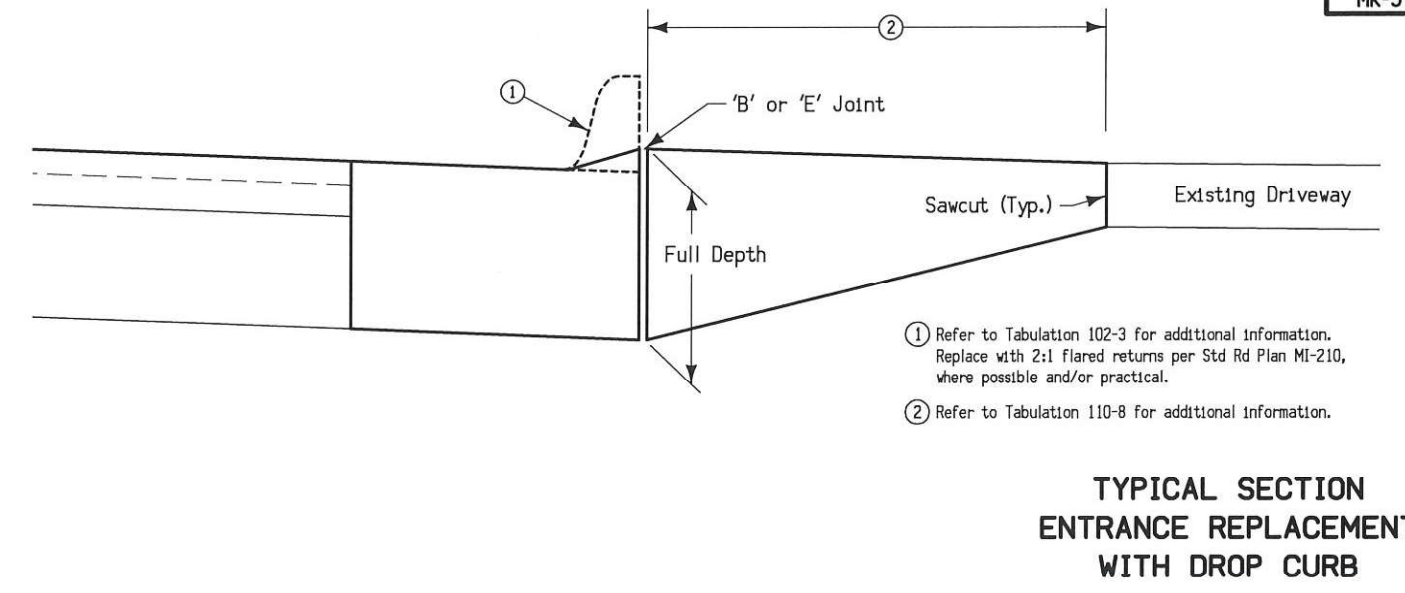
**TYPICAL CROSS SECTION
 2 - LANE URBAN
 HMA RESURFACING**

MK-4



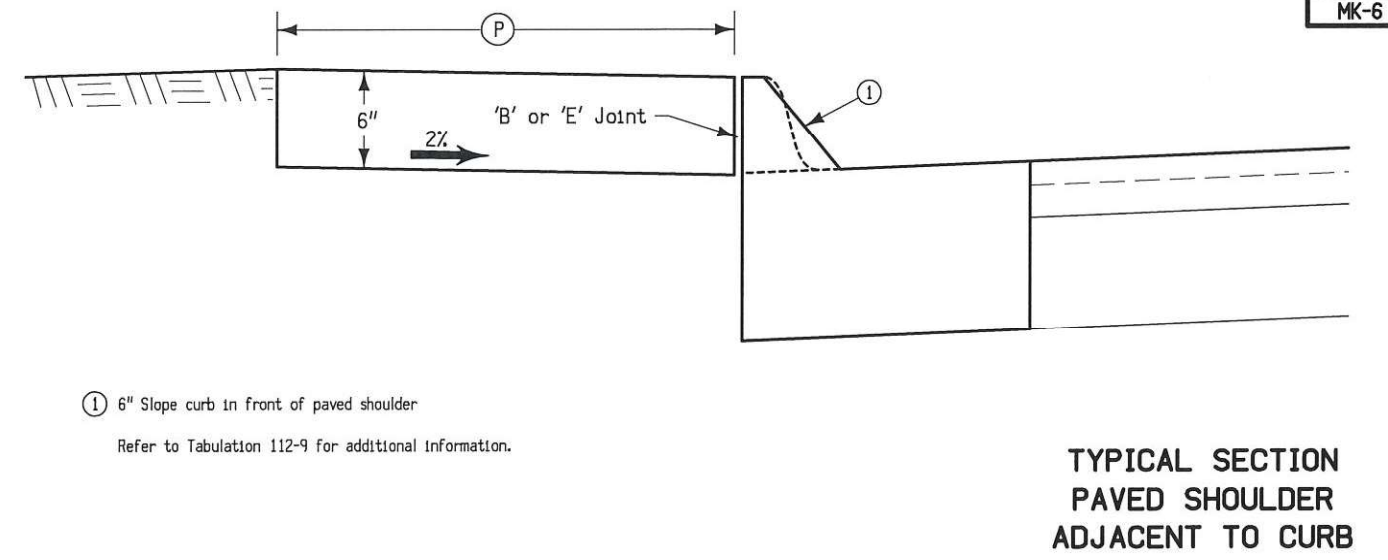
EAST SIDE PCC CURB AND GUTTER UNIT

MK-5



TYPICAL SECTION ENTRANCE REPLACEMENT WITH DROP CURB

MK-6

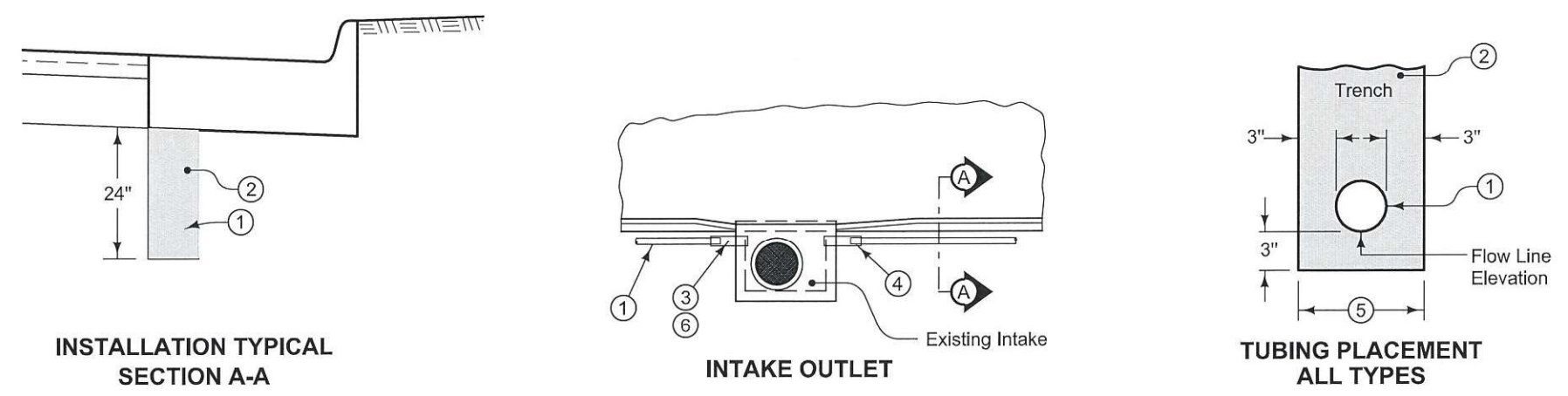


TYPICAL SECTION PAVED SHOULDER ADJACENT TO CURB

Discussion of this detail. Constructibility would not be easy. Would have to pave curb and gutter and then mill the notch. Concern for maintenance and construction is the location of the joint of HMA/Concrete being in the wheelpath.

Discussed closure for purpose of placing new curb and gutters. City prefers it be opened by September to not disrupt harvest season. Proposed Bridge project is let Jan 2023 which would affect this route. Need to verify letting date. Contact with County necessary to see when T47 will be under construction. Spoke with County. Their work will be in 2022.

MK-7



- ① Perforated Subdrain (Corrugated Polyethylene Tubing).
- ② Porous Backfill for Subdrain (compacted).
- ③ 2 foot section of corrugated metal pipe of diameter 2" larger than subdrain or 2 foot section of double-walled PE or PVC pipe of the same diameter as subdrain. Pipe will be paid for as "Subdrain Outlet (DR-303)".
- ④ Connect PE or PVC outlet with an appropriate coupler. Connect CMP outlet one of two ways: (1) Inside-fit reducer coupler (1 foot minimum fit inside CMP); or (2) Insert 1 foot of the 4 inch subdrain into 6 inch CMP and fully seal entire opening with grout.
- ⑤ 10 inches for 4 inch subdrain. 12 inches for 6 inch subdrain.
- ⑥ Area between intake wall and subdrain shall be filled with grout.

TYPICAL SECTION - SUBDRAIN INSTALLATION/CONNECTION TO EXISTING INTAKE

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadway Items : Roadway Items

Item no.	Item Code	Item	Unit	Quantities		Estimate Reference Notes
				Estimated		
				Roadway Items		
1	2105-8425005	TOPSOIL, FURNISH AND SPREAD	CY	49		Quantity calculated from length of proposed curb and gutter x 3' backfill width x 6" topsoil depth. 40% added for shrinkage.
2	2122-5190006	PAVED SHOULDER, P.C. CONCRETE, 6 IN.	SY	23.6		Refer to typical MK-6, tabulation 112-9 and D-sheets for additional information.
3	2212-5070310	PATCHES, FULL-DEPTH REPAIR	SY	390.2		Refer to tabulation 102-6C for additional information.
4	2212-5070330	PATCHES BY COUNT (REPAIR)	EACH	53		
5	2213-6745500	REMOVAL OF CURB	STA	6.3		Refer to tabulation 110-4 and D-sheets for additional information.
6	2214-5145150	PAVEMENT SCARIFICATION	SY	1,731.8		Refer to typical MK-1, tabulations 100-25, 102-5 and 102-16 and D and U sheets for additional information.
7	2303-1032500	HOT MIX ASPHALT STANDARD TRAFFIC, INTERMEDIATE COURSE, 1/2 IN. MIX	TON	270.95		Refer to typicals MK-1, MK-2, MK-3 and tabulations 100-25 and 102-16 for additional information. Binder is calculated at 6%.
8	2303-1033500	HOT MIX ASPHALT STANDARD TRAFFIC, SURFACE COURSE, 1/2 IN. MIX, NO SPECIAL FRICTION REQUIREMENT	TON	286.87		
9	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	33.47		
10	2315-8275055	SURFACING, DRIVEWAY	TON	3		Refer to tabulation 102-3 for additional information.
11	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.	LF	684		Refer to typical MK-7 and tabulation 104-9 for additional information.
12	2502-8221303	SUBDRAIN OUTLET, DR-303	EACH	2		
13	2511-6745900	REMOVAL OF SIDEWALK	SY	12		A. Refer to Tab. 110-5 on Sheet _____. B. Includes _____ lin. ft. of full depth saw cut. See traffic control plan for pedestrian staging or closings
14	2511-7526004	SIDEWALK, P.C. CONCRETE, 4 IN.	SY	9		Refer to Typical 7401 on Sheet _____. See traffic control plan for pedestrian staging or closings.
15	2511-7526006	SIDEWALK, P.C. CONCRETE, 6 IN.	SY	3		Refer to Tab. 112-4 on Sheet _____. See traffic control plan for pedestrian staging or closings
16	2511-7528101	DETECTABLE WARNINGS	SF	8		
17	2512-1725306	CURB AND GUTTER, P.C. CONCRETE, 3.0 FT.	LF	309		Refer to typical MK-1 and tabulation CG-1 for additional information.
18	2512-1725506	CURB AND GUTTER, P.C. CONCRETE, 5.0 FT.	LF	319.2		
19	2515-2475006	DRIVEWAY, P.C. CONCRETE, 6 IN.	SY	132.9		Refer to typical MK-5 and tabulation 102-3 for additional information.
20	2515-6745600	REMOVAL OF PAVED DRIVEWAY	SY	138.1		Refer to tabulation 110-08 for additional information.
21	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	96.08		Refer to tabulation 108-22 for additional information.
22	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED	EACH	1		Refer to tabulation 108-29 for additional information.
23	2527-9270111	GROOVES CUT FOR PAVEMENT MARKINGS	STA	26.28		Refer to tabulation 108-22 for additional information.
24	2527-9270120	GROOVES CUT FOR SYMBOLS AND LEGENDS	EACH	1		Refer to tabulation 108-29 for additional information.
25	2528-2518000	SAFETY CLOSURE	EACH	2		Refer to tabulation 108-13A for additional information.

Item no.	Item Code	Item	Unit	Quantities		Estimate Reference Notes
				Estimated		
				Roadway Items		
26	2528-8445110	TRAFFIC CONTROL	LS	1		Refer to tabulation 108-23A for additional information.
27	2528-8445113	FLAGGERS	EACH	0		See Proposal.
28	2528-8445115	PILOT CARS	EACH	0		
29	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA	SY	245.1		Refer to tabulation 102-6C for additional information.
30	2529-5070120	PATCHES, FULL-DEPTH FINISH, BY COUNT	EACH	10		
31	2533-4980005	MOBILIZATION	LS	1		--
32	2595-0005120	RAILROAD PROTECTIVE LIABILITY INSURANCE FOR CHICAGO, CENTRAL AND PACIFIC RAILROAD / CEDAR RIVER RAILROAD COMPANY	LS	1		
33	2602-0000500	OPEN-THROAT CURB INTAKE SEDIMENT FILTER, EC-602	LF	24		Refer to tabulation 100-36 for additional information.
34	2602-0000510	MAINTENANCE OF OPEN-THROAT CURB INTAKE SEDIMENT FILTER	EACH	6		
35	2602-0000520	REMOVAL OF OPEN-THROAT CURB INTAKE SEDIMENT FILTER	EACH	6		
36	2602-0000530	GRATE INTAKE SEDIMENT FILTER BAG	EACH	2		Refer to tabulation 100-37 and special detail sheet U.2 for additional information.
37	2602-0000540	MAINTENANCE OF GRATE INTAKE SEDIMENT FILTER BAG	EACH	2		
38	2602-0000550	REMOVAL OF GRATE INTAKE SEDIMENT FILTER BAG	EACH	2		

Other Comments:

Question was raised to have 31' b-b of curb. It will remain 27 feet b-b curb as this is an improvement.

New curb and gutter will tie into the intakes at Railroad Street.

New watermain is east under sidewalk. hould be not water valves or manholes to adjust.

Ron would like the incidental seeding to be hydro-mulch.
Add construction survey bid item, silt log item.
If road closure, specify detour route and maintenance of it.

100-1D 10-18-05	PROJECT DESCRIPTION
Project includes milling and resurfacing from Coates St. to the Bridge over Beaver Creek. Project also includes replacing the curb and gutter from Coates St. to Railroad St., PCC Patching from Bethel St. to the Bridge over Beaver Creek and updating ADA ramps at Railroad St.	

108-13A 04-19-22	SAFETY CLOSURES	
Refer to Section 2528 of the Standard Specifications		
Station	Closure Type	Remarks
	Road Qty. Hazard Qty.	
990+43.00	1	
993+90.00	1	

262-6 10-18-05	UTILITIES (NOT A POINT 25 PROJECT)
This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.	

102-5 04-18-17																					
EXISTING PAVEMENT																					
No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks
	County	Route	Dir. of Travel	Begin Ref. Loc. Sign	End Ref. Loc. Sign				Type	Depth	Type	Depth	Type	Depth	Type	Depth	Source	Type	Durability Class		
									Type	IN	Type	IN	Type	IN	Type	IN					
1	12	14	NB	145.14	146.56	2012	V	HDP-014-7(036)--3C-12	HMA	1.5	HMA	1.5					Riverview A17024	C.Lst	4		Ends at Buswell St.
						1995		NA	AAC	5.5							Brandt Pit	Gravel			
						1978		NA	BAC	4.5											
						1929			PCC	7											
2	12	14	NB	146.56	146.62	NA		NA	PCC	7.5											Thickness assumed at 7.5"
						1988		F-14-7(17)--20-12	AAC	3											
						2009		MP-014-2(704)147--76-12	HMA	3											
3	12	14	NB	146.62	146.8	1984		BRF-F-14-7(5)--2P-12	PCC	9											
						2009		MP-014-2(704)147--76-12	HMA	2											

111-25 10-18-11		
INDEX OF TABULATIONS		
Tabulation	Tabulation Title	Sheet No.
100-1D	Project Description	C.3
108-13A	Safety Closures	C.3
262-6	Utilities (Not a Point 25 Project)	C.3
102-5	Existing Pavement	C.3
111-25	Index of Tabulations	C.3
105-4	Standard Road Plans	C.3
100-36	Open-Throat Curb Intake Sediment Filter	C.3
100-37	Grate Intake Sediment Filter Bag	C.3
110-08	Removal of Concrete Drives	C.3
110-4	Curb Removal	C.3
102-6C	Full Depth Patches	C.4
104-9	Longitudinal Subdrain Shoulder and Backslope	C.5
102-3	Access Points and Safety Ramps	C.5
CG-1	Curb and Gutter	C.5
100-19	Perimeter, Slope and Ditch Check Sediment Devices	C.5
112-9	Shoulders	C.5
100-25	HMA Pavement	C.6
102-16	Notches and Runouts for Resurfacing	C.6

111-25 10-18-11		
INDEX OF TABULATIONS		
Tabulation	Tabulation Title	Sheet No.
108-22	Pavement Marking Line Types	C.7
108-29	Pavement Marking Symbols and Legends	C.7
290-01	Sidewalk Constraints	C.7
232-3B	Erosion Control (Urban Seeding)	C.7
190-61	Existing Signs to be Reinstalled	C.7

105-4 10-18-11		
STANDARD ROAD PLANS		
The following Standard Road Plans apply to construction work on this project.		
Number	Date	Title
DR-303	10-17-17	Subdrains (Longitudinal)
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-602	04-21-20	Open-Throat Curb Intake Sediment Filter
MI-210	10-20-15	PCC Driveways and Alleys
MI-220	10-20-15	Detectable Warnings and Pedestrian Ramp
PM-110	04-21-20	Line Types
PM-240	04-20-21	Railroad Crossing on Two-Lane Roadway
PR-103	04-21-20	Full Depth PCC Patch with Dowels
PR-202	10-21-14	Notches for Resurfacing (with or without Runout)
PV-101	04-21-20	Joints
PV-102	04-21-20	PCC Curb Details
PV-201	10-15-19	Manhole Boxouts in HMA Pavement and HMA Overlays
PV-202	04-21-20	Hot Mix Asphalt Resurfacing
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	10-19-21	Work Within 15 ft of Traveled Way
TC-213	10-15-19	Lane Closure with Flaggers
TC-214	04-21-20	Lane Closure with Flaggers for use with Pilot Car
TC-252	04-21-20	Routes Closed to Traffic

100-36 10-16-18					
OPEN-THROAT CURB INTAKE SEDIMENT FILTER					
Possible Standard: EC-602					
Location Station	Side	Installation	Maintenance	Removal	Remarks
		LF	EACH	EACH	
994+26.00	Lt	4.0	1	1	
994+22.00	Rt	4.0	1	1	
999+00.00	Lt	4.0	1	1	
999+00.00	Rt	4.0	1	1	
1+17.50	Lt	4.0	1	1	
1+17.50	Rt	4.0	1	1	
Totals		24.0	6	6	

100-37 04-18-17					
GRATE INTAKE SEDIMENT FILTER BAG					
Possible Detail: 570-7					
Location Station	Side	Installation	Maintenance	Removal	Remarks
		EACH	EACH	EACH	
993+92.00	Lt	1	1	1	
993+92.00	Rt	1	1	1	
Totals		2	2	2	

110-4 08-01-08				
CURB REMOVAL				
Begin Station	End Station	Side	Length	Remarks
			STA	
990+83.00	993+92.00	Lt	3.1	A
990+72.83	993+92.00	Rt	3.2	A
Totals			6.3	
A Includes dropped curb at entrances				

110-08 04-17-18				
REMOVAL OF CONCRETE DRIVES				
* Not a Bid Item				
Location Station	Side	Area	Saw Cut*	Remarks
		SY	LF	
991+36.00	Rt	17.8	15.0	Sawcut at joint
992+00.00	Rt	20.0	16.0	Sawcut at joint
992+96.00	Rt	37.9	30.0	Sawcut 35' Rt of CL
992+43.00	Lt	35.6	38.0	Sawcut at joint
997+42.00	Lt	26.9		Refer to Tabs. 102-3 & 102-6C
Totals		138.1		

FULL-DEPTH PATCHES

Possible Standards: PR-101, PR-102, PR-103, PR-104, PR-105, and PR-140.

Count	Location		Dimension			PCC Patches				HMA Patches	Composite HMA	Subbase Patches	Subbase Patch w/ 'EF' Joint	Patch Subdrain	'CD' Joints	'CT' Joints	'EF' Joints	Anchor Lugs Removal	Remarks	
	Station	Reference Location Sign	Lane	Length	Width	Patch Thickness	With Dowels	Without Dowels	C R C											Ramp with Dowels
			L, R, or B	FT	FT	IN	PR-103 SY	PR-102 SY	PR-104 SY											PR-105 SY
1	989+10.00		RT	40.0	6.0	12.5	26.7												Finish Patch	
2	989+10.00		LT	55.0	6.0	12.5	36.7												Finish Patch	
3	989+70.00		LT	15.0	15.0	12.5	25.0												Finish Patch	
4	989+85.00		RT	28.0	13.0	12.5	40.4												Finish - Includes Manhole on CL. Refer to PV-201	
5	990+20.00		LT	30.0	13.0	12.5	43.3												Finish Patch	
6	990+60.00		RT	20.0	9.0	12.5	20.0												Finish Patch	
7	990+86.00		RT	6.0	10.5	7.5	7.0													
8	990+86.00		LT	6.0	10.5	7.5	7.0													
9	991+03.00		RT	6.0	10.5	7.5	7.0													
10	991+03.00		LT	6.0	10.5	7.5	7.0													
11	991+80.00		RT	6.0	10.5	7.5	7.0													
12	991+80.00		LT	6.0	10.5	7.5	7.0													
13	991+90.00		RT	6.0	10.5	7.5	7.0													
14	991+90.00		LT	6.0	10.5	7.5	7.0													
15	992+00.00		RT	6.0	10.5	7.5	7.0													
16	992+00.00		LT	6.0	10.5	7.5	7.0													
17	992+32.00		RT	8.0	10.5	7.5	9.3													
18	992+51.00		RT	6.0	10.5	7.5	7.0													
19	993+54.00		RT	6.0	10.5	7.5	7.0													
20	993+68.00		RT	6.0	10.5	7.5	7.0													
21	993+68.00		LT	6.0	10.5	7.5	7.0													
22	993+85.00		RT	6.0	10.5	7.5	7.0													
23	993+85.00		LT	6.0	10.5	7.5	7.0													
24	994+18.00		RT	6.0	10.5	7.5	7.0													
25	994+18.00		LT	6.0	10.5	7.5	7.0													
26	996+25.00		RT	6.0	12.0	9.0	8.0												North of RR	
27	996+25.00		LT	6.0	12.0	9.0	8.0												North of RR	
28	996+35.00		RT	6.0	12.0	9.0	8.0													
29	996+35.00		LT	6.0	12.0	9.0	8.0													
30	996+45.00		RT	6.0	12.0	9.0	8.0													
31	996+45.00		LT	6.0	12.0	9.0	8.0													
32	996+57.00		RT	9.0	12.0	9.0	12.0													
33	996+57.00		LT	9.0	12.0	9.0	12.0													
34	996+91.00		RT	6.0	12.0	9.0	8.0													
35	996+91.00		LT	6.0	12.0	9.0	8.0													
36	997+10.00		RT	6.0	6.0	9.0	4.0													
37	997+10.00		LT	6.0	12.0	9.0	8.0													
38	997+42.00		LT	28.0	3.5	10.5	10.9												Refer to Tab. 102-3 & Typ. MK-5 for add'l info.	
39	998+18.00		RT	6.0	12.0	9.0	8.0													
40	998+18.00		LT	6.0	12.0	9.0	8.0													
41	998+24.00		LT	6.0	12.0	9.0	8.0													
42	998+41.00		LT	6.0	6.0	9.0	4.0													
43	998+60.00		RT	6.0	6.0	9.0	4.0													
44	998+60.00		LT	6.0	6.0	9.0	4.0													
45	998+70.00		RT	30.0	3.5	9.0	11.7												A, Curb and Gutter Unit. Refer to PV-102	
46	998+73.00		LT	6.0	6.0	9.0	4.0													
47	998+87.00		LT	6.0	6.0	9.0	4.0													
48	999+09.00		LT	6.0	6.0	9.0	4.0													
49	999+24.00		RT	6.0	6.0	9.0	4.0													
50	999+24.00		LT	6.0	6.0	9.0	4.0													
51	999+30.00		RT	65.0	3.5	9.0	25.3												A, Curb and Gutter Unit. Refer to PV-102	
52	999+41.00		RT	6.0	12.0	9.0	8.0													
53	999+41.00		LT	6.0	12.0	9.0	8.0													
54	999+59.00		LT	6.0	6.0	9.0	4.0													
55	999+76.00		RT	6.0	6.0	9.0	4.0													
56	999+76.00		LT	6.0	6.0	9.0	4.0													
57	+13.00		LT	6.0	6.0	9.0	4.0													
58	+32.00		RT	6.0	12.0	9.0	8.0													
59	+32.00		LT	6.0	12.0	9.0	8.0													
60	+50.00		RT	6.0	6.0	9.0	4.0													
61	+50.00		LT	6.0	6.0	9.0	4.0													
62	+58.00		RT	6.0	12.0	9.0	8.0													
63	+58.00		LT	6.0	12.0	9.0	8.0													
64	+94.00		RT	6.0	12.0	9.0	8.0													
65	+94.00		LT	6.0	12.0	9.0	8.0													
66	1+52.00		RT	6.0	12.0	9.0	8.0												Finish Patches - Bridge Approach Pavement	
67	1+52.00		LT	6.0	12.0	9.0	8.0												Finish Patches - Bridge Approach Pavement	
67	count						635.3													
A	Finish Patch																			

LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

* Not a bid item. Bridge berm quantities assume a trench depth of 24 inches.

Line No.	Road or Lane Identification	Location			Side	Longitudinal Subdrain (DR-303)						Subdrain Outlet		Porous* Backfill CY	Class "A"* Crushed Stone CY	Remarks	
		Station to Station		Depth		Shoulder		Backslope		Bridge Berm (EW-203 or EW-204)		Station	Standard Road Plan and Type				
		IN	FT	IN		FT	IN	FT	IN	FT	IN						FT
1	SBL	990+50.00	993+92.00	66.0	4.0	342.0						993+92.00	DR-303, Typ. MK-6	16.7			
2	NBL	990+50.00	993+92.00	66.0	4.0	342.0						993+92.00	DR-303, Typ. MK-6	16.7			
Totals					684.0												

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

Length of Unclassified Pipe calculated is based on using Corrugated Metal Pipe.

- ① Refer to MI-210
- ② Refer to EW-501
- ③ Refer to EW-501 or EW-502
- *Predetermined for access point not constructed with this project.

Station	Side	Type A, B, C, Safety Ramp, or Predetermined*	Length of Opening ①			Pipe Culvert ③								Aprons No.	Driveway Surface Area		Driveway Surfacing Material TON	Remarks	
			Case	1 1/2" Dropped Curb	3" Dropped Curb	① W	② PR	② SR	H	Size	Pipe Length	Lt.	Rt.		HMA	PCC			
			1 or 2	LF	LF	FT	FT	FT	FT	IN	LF	LF	LF		SY	SY			
991+36.00	Rt	C	1	20.0		15.0										13.3			
992+00.00	Rt	C	1	18.0		16.0										16.0			
992+41.00	Rt	C	1	28.0		24.0										11.1	2.000	4' Entrance Fillet	
992+96.00	Rt	C	1	29.0		31.0										30.0			
995+08.00	Rt																		A, Croell Ent - U.A.C.
997+30.00	Rt																		Business Ent. - U.A.C.
998+34.00	Rt																		Seed dealer Ent. - U.A.C.
+12.00	Rt																		Northside Rd - U.A.C.
992+43.00	Lt	C	1	42.0		38.0										35.6			
994+95.00	Lt																		A, Corner building - U.A.C.
997+42.00	Lt	C	2	24.0		22.0										26.9	1.000		B, See also Tab. 102-6C
+40.00	Lt																		Uninhabited Bld. - U.A.C.
Totals																132.9			
A		Existing entrance has 1.5" dropped curb filled with HMA. Contractor to mill existing and resurface with 1.5" surface course																	
B		Sawcut 28' (length) x 3.5' curb and gutter unit (width). Remove curb and gutter unit & paved drive and replace in-kind except raise form grade and maintain 1.5" drop curb to account for HMA resurfacing. Refer to Tab. 102-6C & Typ. MK-5 for additional information.																	

TABULATION OF CURB AND GUTTER

Refer to PV-102

Station to Station	Side	LF	Remarks
990+83.00	993+92.00	Lt	309.0 A, 3' C & G
990+72.83	993+92.00	Rt	319.2 A, 5' C & G
Totals			628.2
A Refer to Typ. MK-1 for additional information			

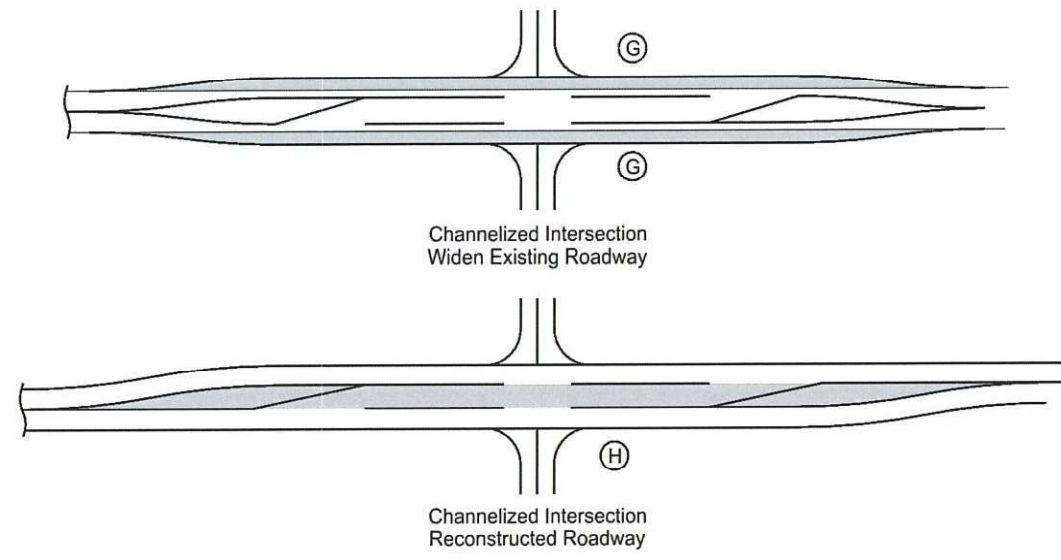
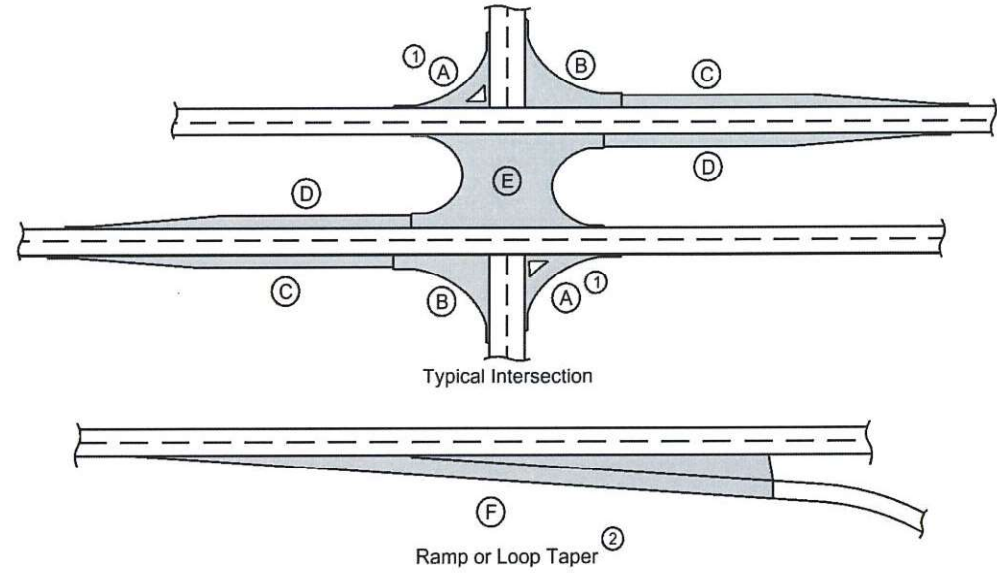
SHOULDERS

- ① Lane(s) to which the shoulder is adjacent.
- ② See Typ. 7156, 7157, or 7158.
- ③ Bid Item.
- ④ Applies only for Paved Shoulders constructed on project with existing granular shoulders.
- ⑤ Bid Item. Typ. 7156, 7157, or 7158.
- ⑥ Does not include shrink.

Calculations assume a HMA unit weight (lbs/cf) of 0, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

Road Identification	Direction Of Traffic	Location			Quantities												Remarks												
		Station to Station		Side	P	P _{SG}	G	L	Class 13 Excavation	Hot Mix Asphalt		Binder	Paved Shoulder	" Paved Shoulder at Guardrail	Reinforced Paved Shoulder	Special Backfill				Subbase	Granular Shoulder		Earth Shoulder Construction Alternates						
		IN	FT		Width	Width	Width	Length		TON	TON/STA					TONS		SY	SY		SY	HMA Alternate		PCC Alternate		CY	TON	TON/STA	STA
		FT	FT	FT	FT	③	TON	TON/STA	TONS	SY	SY	SY	TON	TON/STA	TON	TON/STA		TON/STA	TON	TON/STA	TON	TON/STA	CY	CY	CY				
IA 14	SB	993+20.00	993+73.00	Lt	4.0			53.0								23.6										0.5			

HMA PAVEMENT



- ① Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
- ② Refer to PV-410, PV-411, PV-412, and PV-414.
- ③ Quantity includes Pavement Header.

Calculations assume a surface course unit weight (lbs/cf) of 147, an intermediate course unit weight (lbs/cf) of 147, a base course unit weight (lbs/cf) of 0, and a special backfill unit weight (lbs/cf) of 140.

Road Identification	Direction of Travel	Location		Mainline		Area ③								Bid Items									Remarks				
		Station to Station		Width	Length	Area	A ①	B	C	D	E	F ②	G	H	Hot Mix Asphalt Pavement		Binder			Special Backfill	Modified Subbase	Granular Subbase		Pavement Scarification			
		FT	FT	FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	TONS	SY	TONS	SY	TONS	SY	TONS	TONS	CY		SY	SY		
IA 14	SB	990+50.00	993+84.00	10.5	334.0	389.7									32.221	389.7	32.221	389.7								389.7	A
IA 14	NB	990+50.00	993+84.00	8.5	334.0	315.4									26.699	322.9	35.598	322.9								315.4	A
IA 14	Both	993+84.00	994+45.80	19-30	61.8	320.7									26.520	320.7	21.846	264.2								320.7	D
IA 14	Both	994+45.80	995+61.30	30.0	115.5	385.0									31.835	385.0	28.651	385.0								385.0	B
IA 14	Both	995+0.70	1000+00.00	30.0	429.3	1431.0									118.326	1431.0	106.493	1431.0								321.0	B, E
IA 14	Both	+00.00	1+86.00	30.0	186.0	620.0									51.266	620.0	46.140	620.0									C
Totals															286.866		270.949									1731.8	
A	Refer to Typical MK-1 for additional information																										
B	Refer to Typical MK-2 for additional information																										
C	Refer to Typical MK-3 for additional information																										
D	Refer to Special Detail Sheet U.1 for additional information																										
E	Daylight milling machine at approximate Sta 996+67																										

NOTCHES AND RUNOUTS FOR RESURFACING

① Bid item. Applies only to Types 'N1' and 'N3' on PR-202. Refer to 100-25 for remaining values.

Location Station	Type of Notch or Runout	S	I	DI	L	M	Pavement Scarification ①	Remarks
		IN	IN	IN	FT	IN	SY	
990+50.00	Type 'N4'				0.0	3.0		BOP, Refer to Typ. MK-1
1+86.00	Type 'N3'				0.0	1.5	0.0	EOP
Railroad St	Type 'N5'				0.0	1.5		West & East Leg, Refer to Sheet U.1
Railroad Header	Type 'N4'				0.0	up to 3"		North and South Header Joint

EXISTING SIGNS TO BE REINSTALLED

SIGN DESCRIPTION	DIRECTION OF TRAVEL	LOCATION STATION	NUMBER OF POSTS	SQUARE TUBE STEEL POSTS	WOOD POSTS		INSTALLATION		SEE SIGNING NOTES
					4" x 4" LF	4" x 6" LF	TYPE	DIM 'X'	

PAVEMENT MARKING LINE TYPES

See PM-110

***MNY4 - Factor of 1.00 as value includes number of 4-inch passes to cover median nose area.

*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.

BCY4: Broken Centerline (Yellow) @ 0.25 DCY4: Double Centerline (Yellow) @ 2.00 NPY4: No Passing Zone Line (Yellow) @ 1.25 BLW4: Broken Lane Line (White) @ 0.25 ELW4: Edge Line Right (White) @ 1.00
ELY4: Edge Line Left (Yellow) @ 1.00 SLW2: Stop Line (White) @ 6.00 CHW8: Channelizing Line (White) @ 2.00

Road ID	Location			Marking Type	Side			Length by Line Type (Unfactored)												Remarks					
	Station to Station		Dir. of Travel		L	C	R	BCY4*	DCY4	NPY4**	BLW4	ELW4	ELY4	SLW2	CHW8										
								STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA		STA	STA	STA	STA	STA
IA 14	990+72.50	1000+00.00	BOTH		X	X	X		8.66	0.62												After milling			
	+00.00	1+86.00	BOTH		X	X	X			1.86												After milling			
	990+72.50	1000+00.00	BOTH		X	X	X		8.66	0.62												After interm. course			
	+00.00	1+86.00	BOTH		X	X	X			1.86												After interm. course			
	990+72.50	1000+00.00	BOTH		X	X	X		8.66	0.62			0.43	0.30								After surface course			
	+00.00	1+86.00	BOTH		X	X	X			1.86				2.68								After surface course			
	990+72.50	1000+00.00	BOTH		X	X	X		8.66	0.62			0.43	0.30											
	+00.00	1+86.00	BOTH		X	X	X			1.86				2.68											
	990+72.50	1000+00.00	BOTH		X	X	X		8.66	0.62			0.43	0.30											
	+00.00	1+86.00	BOTH		X	X	X			1.86				2.68											
	990+72.50	1000+00.00	BOTH		X	X	X		8.66	0.62			0.43	0.30								After grooving			
	+00.00	1+86.00	BOTH		X	X	X			1.86				2.68								After grooving			
Factored Total: Waterborne/Solvent Paint								-	69.28	12.40	-	8.04	-	5.16	1.20	-	-	-	-	-	-	-			
Factored Total: Grooves Cut for Pavement Markings								-	17.32	3.10	-	2.68	-	2.58	0.60	-	-	-	-	-	-	-	-	-	
Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based																						96.08			
Bid Quantity: Grooves Cut for Pavement Markings																							26.28		

PAVEMENT MARKING SYMBOLS AND LEGENDS

Refer to PM-111

Road Identification	Location		STAW	RTAW	LTAW	CSRW	CSLW	CSTW	CRLW	FERW	LLRW	RLRW	RRCW	BLSW	WCSW	WPSB	SCLW	XNGW	STPW	AHDW	ONLW	BIKW	LANW	XITW	EACH	Remarks
	Station	Side																								
IA 14		Rt											1													Replace in-kind

290-01
04-15-14

SIDEWALK CONSTRAINTS

- Widths:
Widths listed in the S sheets are minimums.
- Cross Slopes:
Construct all sidewalks, curb ramps, and landings/turning spaces at a target cross slope of 1.5%. Cross slopes exceeding 2.0% will not be allowed, except for areas tying into existing pavement. In these areas, transition from existing pavement cross slope to a cross slope of less than 2.0% within one panel at a rate not to exceed 1.0% per foot.
- Longitudinal Slopes:
 - Sidewalk:
 - Roadway slope exceeds 5.0%: Sidewalk longitudinal slope exceeding the roadway slope by more than 2.0% will not be allowed.
 - Roadway slope 5.0% or less: Sidewalk longitudinal slope exceeding 5.0% will not be allowed.
 - Ramps:
 - Ramps 15.0' in length or less: Longitudinal slope exceeding 8.3% will not be allowed.
 - Ramps greater than 15.0' in length: Construct with the longitudinal slope necessary to conform to the design.
- Landing/Turning Spaces:
Longitudinal slopes exceeding 2.0% will not be allowed.

232-3B
10-19-21

**EROSION CONTROL
(URBAN SEEDING)**

Area to be seeded is estimated to be less than 1 acre. If the Contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.

Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed, fertilizer, and mulch on the disturbed area as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,4 and Section 4169 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

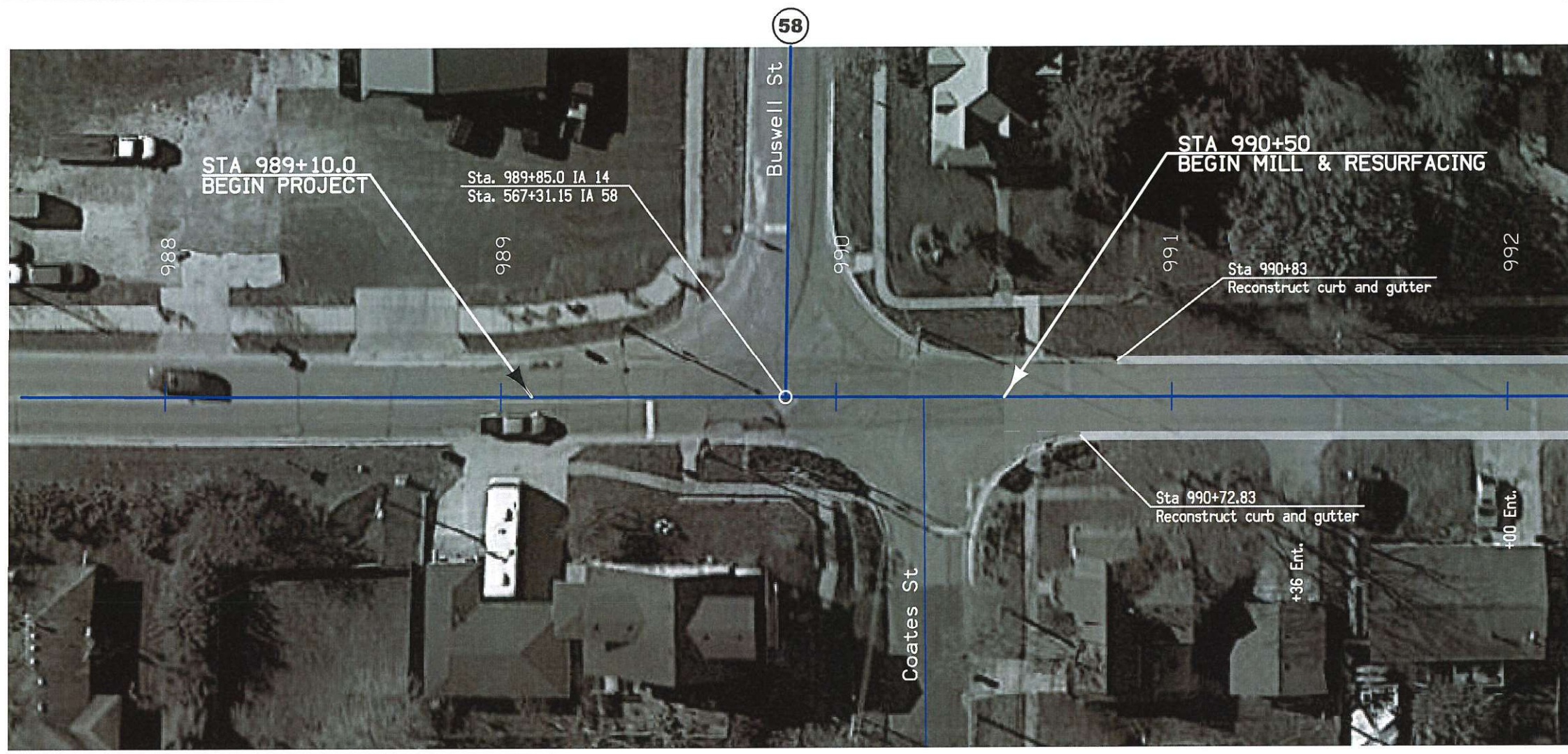
Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are incidental to mobilization and will not be paid for separately.

100-19
10-19-21

PERIMETER, SLOPE AND DITCH CHECK SEDIMENT CONTROL DEVICES

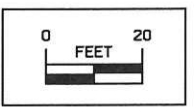
Possible Standards: EC-204

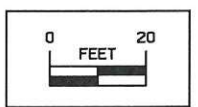
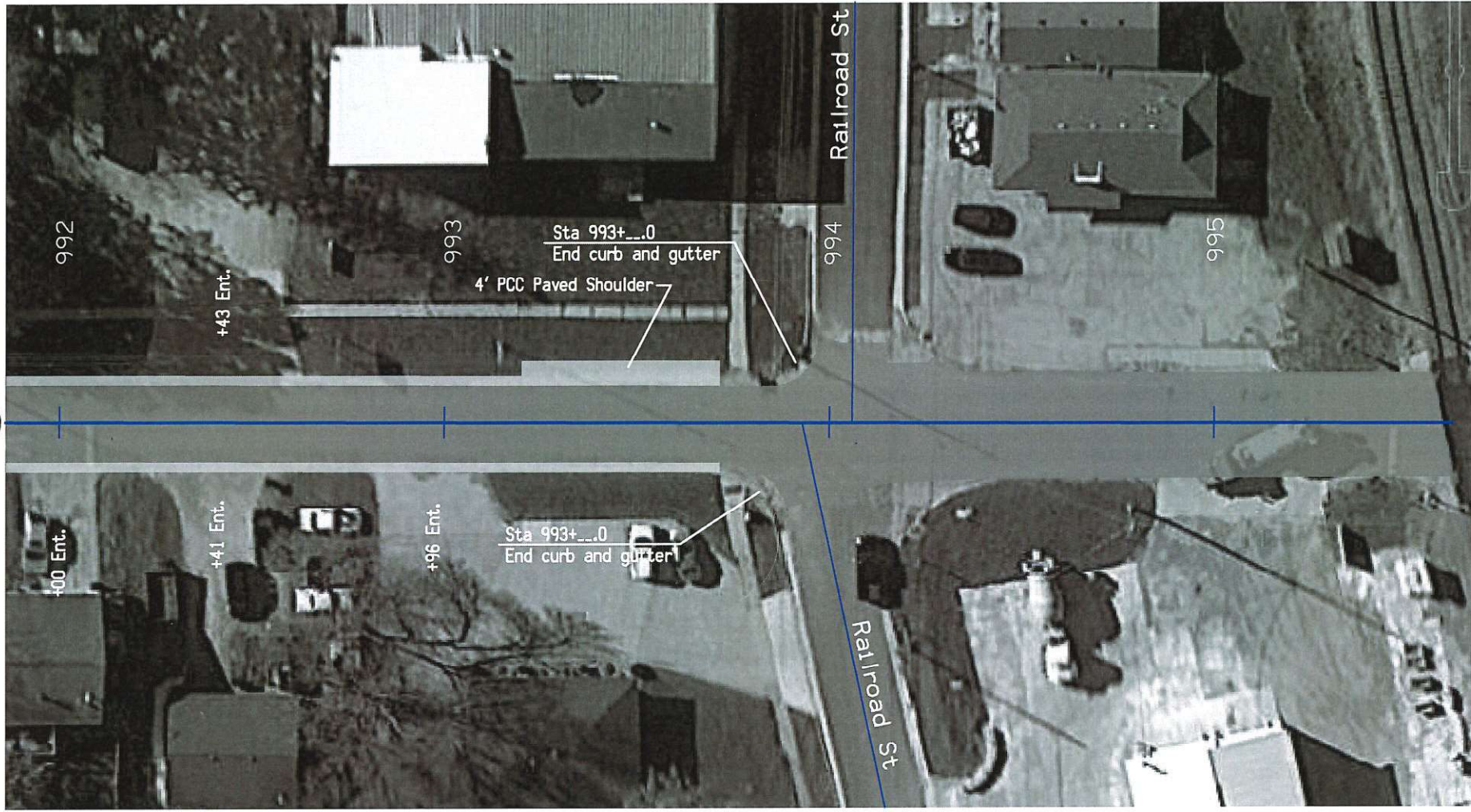
Location			Perimeter and Slope			Ditch Check			Remarks
Begin Station	End Station	Side	Length of Installation			Length of Installation			
			9 inch Dia	12 inch Dia	20 inch Dia	12 inch Dia	20 inch Dia		
			LF	LF	LF	LF	LF		

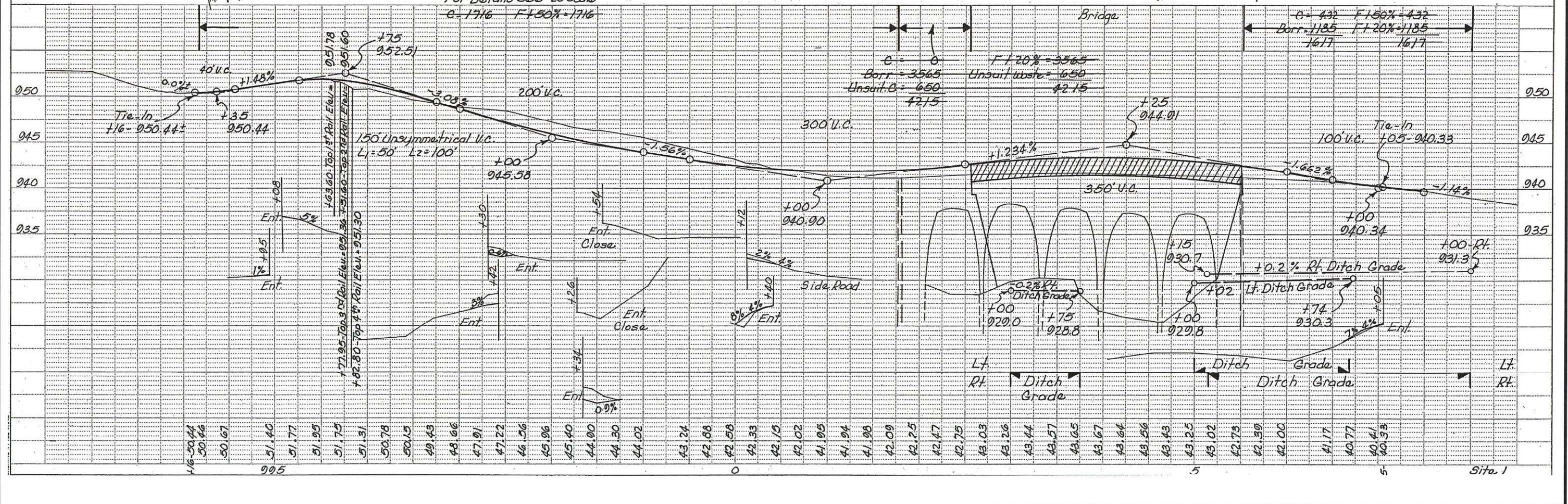
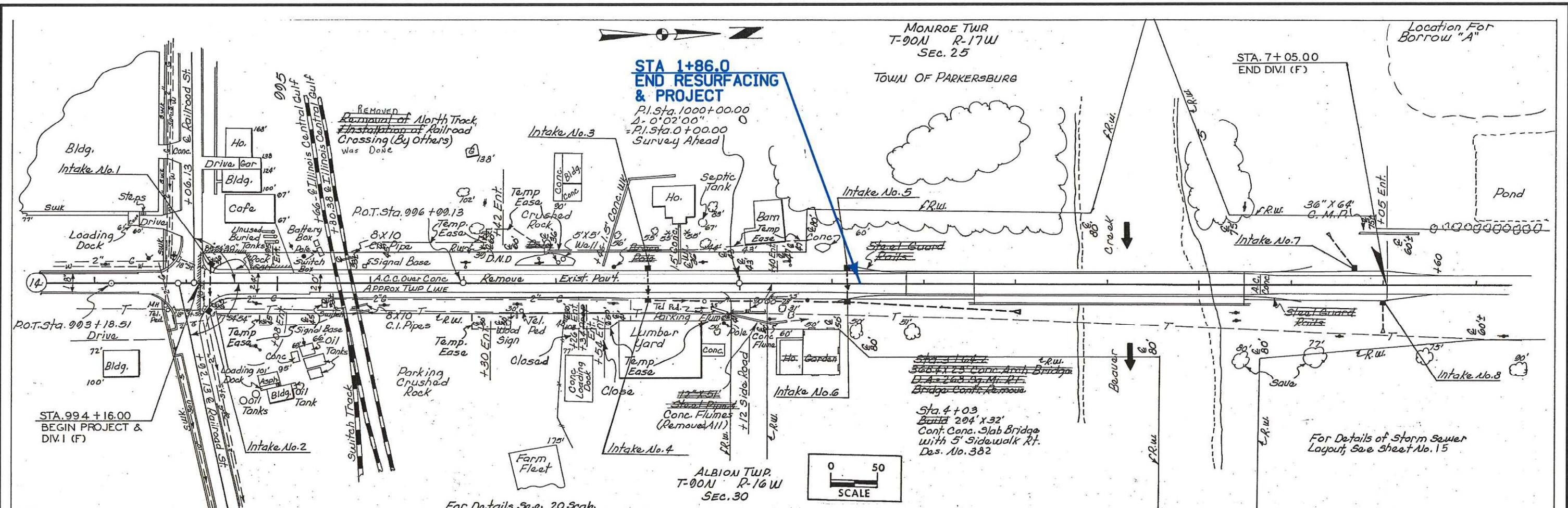


14

58







511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
No travel restrictions anticipated												

108-23A 08-01-08	TRAFFIC CONTROL PLAN
IA 14 shall be closed from Railroad St. to Coates St.	

111-01 04-17-12	COORDINATED OPERATIONS
Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.	
Project	Type of Work
to be discussed at precon	

113-2 04-16-13	PEDESTRIAN PATH CLOSURES		
Refer to TC-601.			
*Assumes 6 foot wide barricade. Closures may need to be removed and re-established.			
Location	Side	Type III Barricades* No.	Remarks

108-26A 08-01-08	STAGING NOTES

SIDEWALK SHEET TBD

SIDEWALK COMPLIANCE

See S Sheets

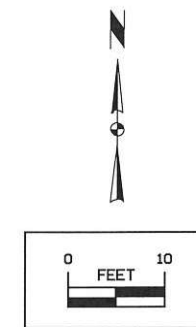
- * Does not include curb
- ① Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
- ② Refer to tabulation 113-01 for bid quantities.

Point to Point	Sidewalk Designation	—" PCC Sidewalk ②	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? ①	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES				
			FT	FT	%	Pos. or Neg.	%	Point			Station	Offset	Elevation		
			②	FT	FT	%	Pos. or Neg.	%							

14

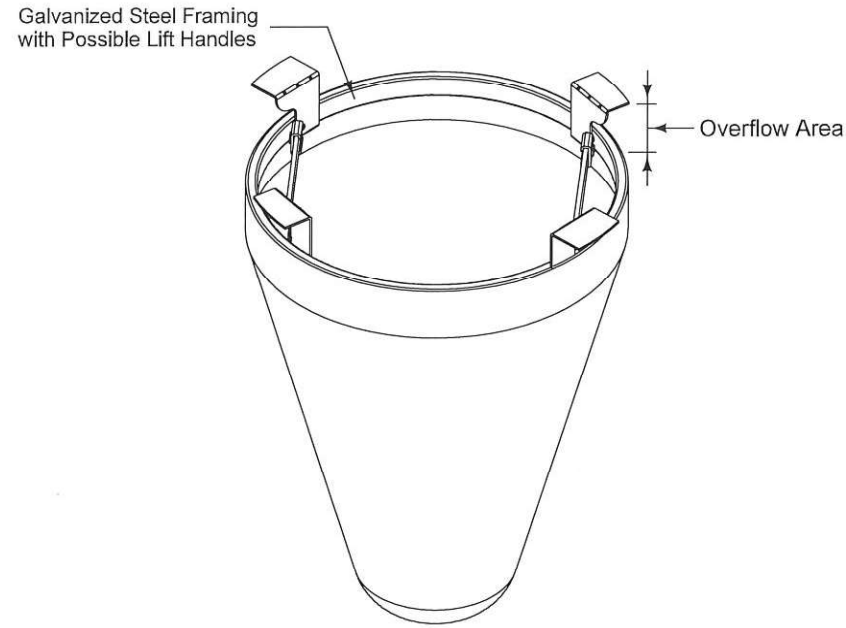
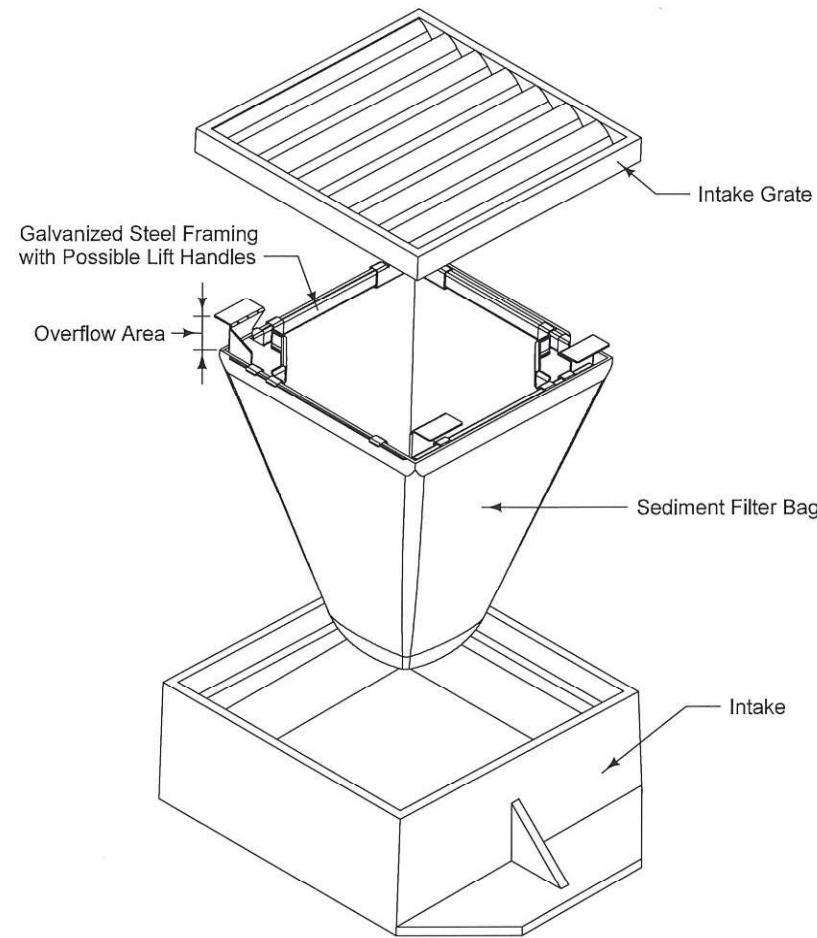


Google



RESURFACING DETAIL - INTERSECTION IA 14 & RAILROAD ST.

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	BUTLER COUNTY	PROJECT NUMBER STPN-014-7(41)--2J-12	SHEET NUMBER U.1
----------	---------	-----------------------------	---------------	--------------------------------------	------------------



SEDIMENT FILTER BAG FOR CIRCULAR GRATE

Use sediment filter bag consisting of woven material meeting the requirements of Table 4196.01-1 of the Standard Specifications, except a maximum apparent opening size of US Sieve No. 10 and a minimum flow rate of 145 gallons per minute per square foot. Sediment filter bags without steel frame and clamping bands will be allowed if overflow is provided.

Remove sediment filter bag upon stabilization of sediment sources.

Measurement for Grate Intake Sediment Filter Bag will be by count.

Basis of Payment for Grate Intake Sediment Filter Bag will be at the contract unit price for each device installed. Payment is full compensation for furnishing all equipment, labor, and materials required to install the Grate Intake Sediment Filter Bag as shown.

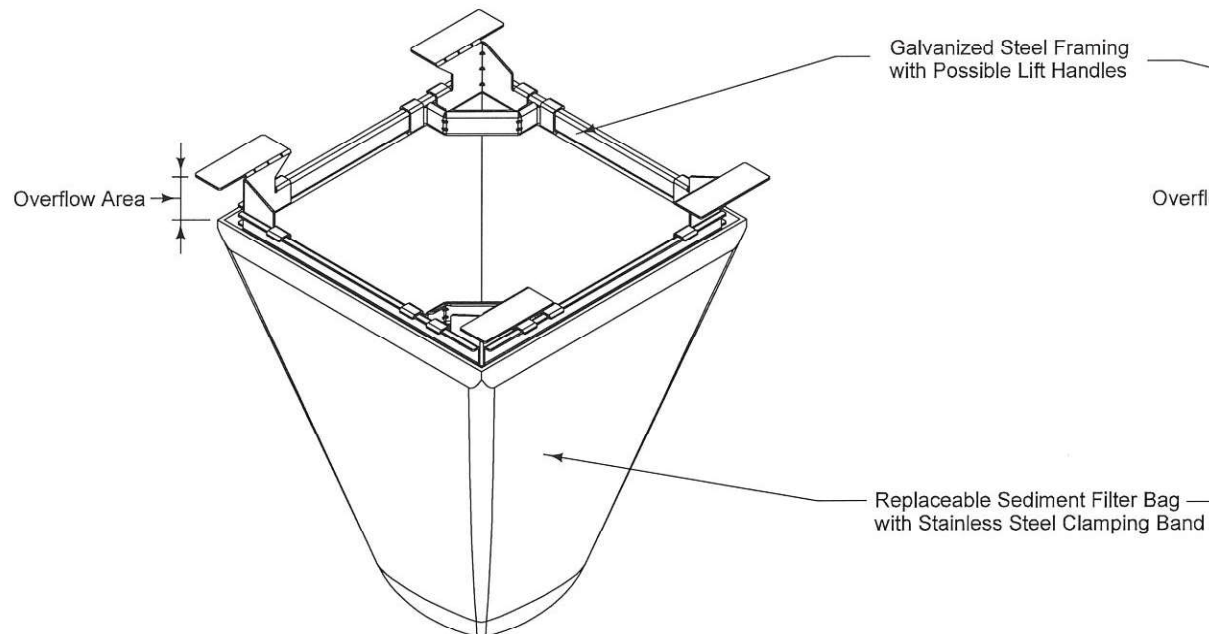
Method of Measurement for Maintenance of Grate Intake Sediment Filter Bag will be by count.

Basis of Payment for Maintenance of Grate Intake Sediment Filter Bag will be at the contract unit price for each occurrence. Payment is full compensation for clean out and disposal of material when capacity reaches 50%, and for any other repair needed during the project.

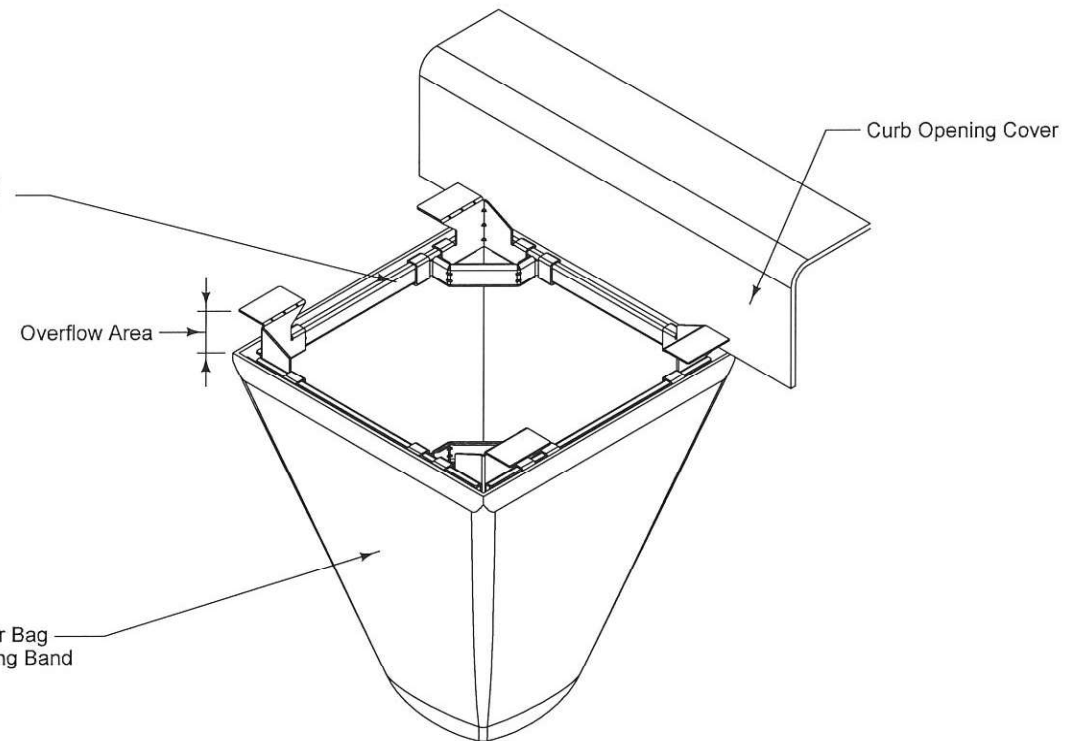
Measurement for Removal of Grate Intake Sediment Filter Bag will be by count.

Basis of Payment for Removal of Grate Intake Sediment Filter Bag will be at the contract unit price for each device removed. Payment is full compensation for all labor and equipment required for removal.

TYPICAL SEDIMENT FILTER BAG PLACEMENT



SEDIMENT FILTER BAG FOR SQUARE OR RECTANGULAR GRATE



SEDIMENT FILTER BAG FOR COMBINATION GRATE WITH CURB OPENING

Possible Contract Items:
 Grate Intake Sediment Filter Bag
 Maintenance of Grate Intake Sediment Filter Bag
 Removal of Grate Intake Sediment Filter Bag

Possible Tabulation:
 100-37

		REVISION	
		1	04-21-20
ROAD DESIGN DETAIL		570-7	
		SHEET 1 of 1	

REVISIONS: Removed circle note 1 and modified general notes.

**GRATE INTAKE
 SEDIMENT FILTER BAG**