## ADDENDUM No. 1

### RFP No. 23-19

# Crescents Phase 1 Water Main Replacement and Resurfacing

Due Date: April 18, 2023 by 10:00 a.m. (local time)

The information contained herein shall take precedence over the original documents and all previous addenda (if any) and is appended thereto. This Addendum includes a total of 14 pages of which 4 pages are plan sheets.

The Proposer is to acknowledge **receipt of this Addendum No. 1 by signing and submitting attachment B**, including all attachments in its Proposal by so indicating in the proposal that the addendum has been received. Proposals submitted without acknowledgement of receipt of this addendum may be considered non-conforming.

The following forms provided within the RFP Document should be included in submitted proposal:

- Attachment D Prevailing Wage Declaration of Compliance
- Attachment E Living Wage Declaration of Compliance
- Attachment G Vendor Conflict of Interest Disclosure Form
- Attachment H Non-Discrimination Declaration of Compliance

<u>Proposals that fail to provide these completed forms listed above upon proposal opening may be rejected as non-responsive and may not be considered for award.</u>

### I. CORRECTIONS/ADDITIONS/DELETIONS

Changes to the RFP documents which are outlined below are referenced to a page or Section in which they appear conspicuously. Offerors are to take note in its review of the documents and include these changes as they may affect work or details in other areas not specifically referenced here.

Section/Page(s)	Change
Plans 9	Detail Sheet relabel Trench Detail 1 and Added Trench Detail 1B for sanitary sewers, revised SD-TD-#3A.
Plan 11-13	Revised Cross Section to only show 21 AA aggregate base within the water main trench restoration.
Schedule of Prices	Minor quantity revisions, shown as bold.
Wage Decisions	Heavy MI 20230074 02/03/2023 and Highway MI 20230001 03/17/2023 wage decisions in effect for the project as references documents can be downloaded from Sam.Gov
New Content 1-2	Pre-Proposal Meeting 4-6-2023 Minutes

### **II. QUESTIONS AND ANSWERS**

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the RFP. Respondents are directed to take note in its review of the documents of the following questions and City responses as they affect work or details in other areas not specifically referenced here.

Question 1: What is the Engineering Estimate for this project (for bonding purposes)?

Answer 1: \$3.8 million

Question 2: Please clarify if CLII sand will need to meet the City of Ann Arbor Specification or

MDOT Specification for this project.

Answer 2: CLII sand needs to meet MDOT Specification

Question 3: Clarify is the intent to excavate and place 21AA aggregate outside of the water

main trench excavation?

Answer 3: Our intention is to only place 21 AA over the water main trench, and water

service trenches, and work with existing material under the pavement outside the trench restoration. The cross-section detail shows cleaning up the edge of the WM trench so the 21AA has a clean edge. See Revised Cross-sections

Question 4: Clarify what is getting paid for in Structure Cover item 563.1 and Adjust Structure

Cover item 566.1

Answer 4: Adjust Structure Cover is paying for the effort to breakdown the existing structure

covers within the pavement area, plating the structure, and after base pavement or final pavement is placed, resetting the structure to finish grade. This includes a new frame. Refer to DS-122-124. Structure Cover is paid for on those covers which can't be reused either they don't match the new frame or they are broken as determined by the Engineer. Refer to DS-120-121. Note that new structures include adjustment and cover as incidental to the new structure pay item.

Question 5: Please provide Detailed Specifications for: 12" CL IV RCP Storm Sewer Pipe,

Trench Detail 1. item 320.

Answer 5: This is per the 1992 AA Orange Book Standard Specification Section IX.

Question 6: Please provide Detailed Specifications for: 6 Inch SDR 35 PVC San Lead,

Trench Detail 1- [Contingency]).

Answer 6: This is per the 1992 AA Orange Book Standard Specification Section IX, item

number changed to 305.

Question 7: Clarify what are the 4" holes for on structure R-104, R-113, R-114, R-116, R-122,

& R-100?

Answer 7: These are for the reconnection of existing taps to the structure assumed to be

footing drains which are directly connected to the Catch Basin.

Question 8: Where is the Curb Drain called out on the plans?

Answer 8: Argyle Crescent north side of the road, Sheet 36 and 37.

Question 9: Why are we fusing HDPE DR17 rather than using PVC Schedule 40, is the

HDPE being currently used and what we'll be tying into?

Answer 9: In order to install the Curb Drain via Horizontal Directional Drill to avoid impacting

the tree roots, the pipe must be fused together. There is a footing drain discharge at 1620 Argyle that needs to be picked up and tied into the new curb drain. The rest of the curb drain is being installed for future use. The curb drains discharge

into the Catch Basins R-103 and R-107 at the NE inverts.

Question 10: Will the City be video inspecting the curb drain?

Answer 10: No this is a contractor deliverable, incidental to the HDD curb drain installation,

Reference DS 43-45.

Offerors are responsible for any conclusions that they may draw from the information contained in the Addendum.

## E. Schedule of Pricing/Cost - 20 Points

## Company:

Project: Crescents Water Main Replacement and Resurfacing Ph 1 Project

File # 2022-012 RFP 23-19

<u>Item</u>	<u>Description</u>	<u>Unit</u>	Estimated Quantity	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>
101.1	General Conditions, Max \$100,000	LS	1	\$	\$
102.1	Digital Audio Visual Tape Coverage	LS	1	\$	\$
120.1	Project Supervision, Max \$80,000	LS	1	\$	\$
140.0	Exploratory Excavation (0-10' deep)	EA	8	\$	\$
200.0	Certified Payroll Compliance and Reporting	LS	1	\$	\$
201.0	Allowance for Unforeseen Site Conditions	DLR	50,000	\$ 1.00	\$ 50,000
204.0	Minor Traffic Control, Max \$36,000	LS	1	\$	\$
212.0	"No Parking" Signs	EA	50	\$	\$
215.0	Pedestrian Type II Barricade, Temp	EA	8	\$	\$
216.0	Temporary Pedestrian Ramp	EA	2	\$	\$
217.0	Temporary Pedestrian Mat	EA	5	\$	\$
219.0	Barricade Type III - Lighted, Furnish and Operate	SFT	8	\$	\$
220.0	Temporary Sign-Type B, Furnish and Operate	SFT	135	\$	\$
221.0	Temporary Sign-Type B, Furnish and Operate, Special	EA	25	\$	\$
222.0	Plastic Drum - Lighted, Furnish and Operate	EA	50	\$	\$
223.0	Channelizing Device, 42 Inch, Furnish and Operate	FT	20	\$	\$
230.0	Protective Fencing	FT	2,320	\$	\$
305.0	6 inch SDR 35 PVC San Lead, Tr Dtl 1B- [Contingency]	FT	50	\$	\$
320.0	12" CL IV RCP Storm Sewer Pipe, Trench Detail 1A	FT	600	\$	\$
330.2	6 inch Curb Drain, HDPE DR17, HDD	FT	438	\$	\$
330.3	Curb Drain, Tap	EA	1	\$	\$
330.4	Curb Drain, Cleanout	EA	4	\$	\$
360.1	Dr Structure, 48 inch dia	EA	2	\$	\$
360.2	Sewer Tap, 12 inch	EA	15	\$	\$
360.3	Dr Structure, 48 inch dia, Low Point Inlet	EA	2	\$	\$
361.1	Dr Structure, 48 inch dia, Add Depth	FT	1	\$ 	\$ 
	TOTAL THIS PAGE 15 (Also to be entered on Page 18)			\$	

Project: Crescents Water Main Replacement and Resurfacing Ph 1 Project File # 2022-012 RFP 23-19

<u>ltem</u>	<u>Description</u>	<u>Unit</u>	Estimated Quantity	<u>Unit</u> Price		<u>Total</u> <u>Price</u>
367.1	Dr Inlet Structure, 24 inch dia	EA	22	\$ <u> </u>	\$_	
386.2	Structure Remove, Any Size or Depth	EA	26	\$ <u> </u>	\$_	
385.2	Sewer Remove, Any Size or Depth	FT	618	\$ 	\$_	
385.3	Sewer Bulkhead, 12 inch	EA	2	\$ <u> </u>	\$_	
400.1	6 inch Class 52 DIP w/polywrap, Trench Detail 1A	FT	34	\$ <u> </u>	\$_	
400.2	8 inch Class 52 DIP w/polywrap, Trench Detail 1A	FT	4,313	\$ <u> </u>	\$_	
410.1	8" 11.25° Bend	EA	6	\$ <u> </u>	\$_	
410.2	8" 22.5° Bend	EA	1	\$ <u> </u>	\$_	
410.3	8" 45° Bend	EA	46	\$ <u> </u>	\$_	
420.1	8"x 6" Reducers	EA	11	\$ <u> </u>	\$_	
430.1	8" x 8" x 8" Tee	EA	13	\$ <u> </u>	\$_	
440.1	Fire Hydrant Assembly, Modified	EA	9	\$ :	\$_	
442.1	8" Gate Valve-in-Box	EA	4	\$ <u> </u>	\$_	
446.1	8" Gate Valve-in Well	EA	10	\$ <u> </u>	\$_	
460.0	Excavate & Backfill for Water Service Tap and Lead	FT	1,250	\$ 	\$_	
460.1	Excavate & Backfill for Water Service Tap and Lead, Modified	FT	25	\$ :	\$_	
481.1	Water Main Pipe Abandonment	LS	1	\$ <u> </u>	\$_	
482.1	Gate Valve-in-Box, Abandonment	EA	7	\$ 	\$_	
483.1	Gate Valve-in-Well, Abandonment	EA	3	\$ <u> </u>	\$_	
484.1	Fire Hydrant Assembly, Remove	EA	5	\$ 	\$_	
485.1	Temp Water Main Line Stop, Add Rental Day [Contigency]	EA	7	\$ :	\$_	
485.2	Temp Water Main Line Stop, 8 inch or less [Contigency]	EA	4	\$ 	\$_	
485.3	Temp Water Main Line Stop, 10 or 12 inch [Contigency]	EA	1	\$ 	\$_	
500.1	HMA Pavement Removal, Any Depth	SYD	14,475	\$ <u> </u>	\$_	
502.1	Remove Concrete Curb or Curb & Gutter - Any Type	FT	3,340	\$ 	\$_	
	TOTAL THIS PAGE 16			\$		

(Also to be entered on page 18)

# Project: Crescents Water Main Replacement and Resurfacing Ph 1 Project File # 2022-012 RFP 23-19

<u>Item</u>	<u>Description</u>	<u>Unit</u>	Estimated Quantity		<u>Unit</u> Price	<u>Total</u> <u>Price</u>
503.1	Rem Conc Sidewalk, Ramp, & Drive - Any Thickness	SFT	2,225	\$		\$
516.1	6 Inch Wrapped Underdrain	FT	2,670	\$		\$
520.1	Machine Grading	SYD	14,475	\$		\$
521.1	Subgrade Undercutting- [Contingency]	CYD	50	\$		\$
521.2	Sidewalk Ramp Grading	EA	8	\$		\$
524.1	Class II Granular Material, C.I.P.	CYD	70	\$		\$
525.1	21AA Limestone, C.I.P.	CYD	2,000	\$		\$
532.1	HMA, 4EL	TON	3,383	\$		\$
550.1	Concrete Curb or Curb and Gutter - All Types	FT	2,670	\$		\$
552.1	4" Concrete Sidewalk	SFT	1,760	\$		\$
552.2	Integral Sidewalk Retaining Wall, under 6 inch	SFT	30	\$		\$
553.1	6" Concrete Sidewalk, Ramp	SFT	245	\$		\$
553.2	6" Concrete Drive or Sidewalk - High Early	SFT	285	\$		\$
555.2	Driveway Opening, Conc, Detail M - High Early	FT	670	\$		\$
557.1	Detectable Warning, Cast In Place	FT	40	\$		\$
563.1	Structure Covers	EA	44	\$		\$ 
566.1	Adjust Structure Cover	EA	44	\$		\$
567.1	Adjust Monument Box or Gate Valve Box	EA	2	\$		\$
586.1	Recessing Pavt Mrkg, Transv	SFT	60	\$		\$
586.2	Recessing Pavt Mrkg, Longit	FT	840	\$		\$
587.1	Pavt Mrkg, Polyurea, 12 inch, Crosswalk	FT	840	\$		\$
587.2	Pavt Mrkg, Polyurea, 24 inch, Stop Bar	FT	30	\$		\$
702.1	Erosion Control, Inlet Filter	EA	71	\$		\$
703.1	Erosion Control, Silt Fence	FT	150	\$		\$
882.1	Turf establishment	SYD	500	\$		\$
891.1	Site Clean-up	LS	1	\$		\$
892.1	Irrigation System, Protection and Maintenance	DLR	5,000	\$_	1.00	\$ 5,000
	TOTAL THIS PAGE 17 (Also to be entered on page 18)			\$_		

Company	y:					
Project:	Crescen	ts Water Main Replacement and Resur	facing Ph 1 Proje	ct		
File # 202	22-012	RFP 23-19				
<u>ltem</u>	<u>Descrij</u>	<u>otion</u>	<u>Unit</u>	Estimated Quantity	<u>Unit</u> <u>Price</u>	<u>Total</u> <u>Price</u>
	TOTAL	THIS PAGE 18 (if applicable)			\$	
		FROM PAGE 15				
		FROM PAGE 16				
	TOTAL	FROM PAGE 17			\$	
	TOTAL	BASE BID			\$	

## <u>Pre-Proposal Meeting for the</u> <u>Crescents Water Main Replacement and Resurfacing Project</u>

Request for Proposal: RFP-23-19

April 6, 2023 @ 10:00 a.m. via Teams Meeting

## I. Introductions Project Overview

- a. Water Main +/- 4,300 ft of 8-inch on the interior Streets of the Subdivision Creal, Argyle Crescent.
  - i. Replace 1940's 6-inch WM
  - ii. Hydrants with 8-inch leads to be placed on either side of the road depending on which has the least impact on parking
  - iii. Project will be followed up by a second phase in 2024 for the replacement of the watermains on Hatcher and Saunders, also 8-inch.

## b. Resurfacing

- i. Remove HMA surface full depth curb to curb
- ii. Remove and Rep Curb, Type F3 (or match ex)- 2,588 ft and M Opening -666 ft
- iii. Place 2 lifts of HMA 4EL, 3,380Ton

### c. Sidewalk

- i. Restore sidewalks impacted by WM construction only
- ii. Ramp Grading, 14 Ea, 350 Sft

### d. Storm

- i. Remove and Replace all Drop Inlets and Storm Leads.
- ii. Inlet Structures, 22 Ea
- iii. 580 ft 12-inch RCP Storm for CB Leads to nearest Structure
- iv. 6-inch Underdrain, 2,655 ft, where long sections of Curb is removed for WM and 10 ft either side of a replaced CB structure

## II. Addendum Items

- a. Addendum #1 will include the following and will be issued April 11:
  - i. Include Pre-Bid Meeting Minutes
  - ii. Revised Bid Form which will include more curb and gutter
  - iii. Any revisions to the Plans and Specs related to questions received.

### Question and Answers

1. Question Deadline is April 7, 2023 10:00 a.m. sent to <a href="mailto:nbayley@a2gov.org">nbayley@a2gov.org</a> and <a href="mailto:cspencer@a2gov.og">cspencer@a2gov.org</a>

## III. General

- Standard Specifications and Detailed Specifications, same as Madison and Brooks projects.
  - i. Project Schedule

Bid Due Date - April 18, 2023 at 10:00 a.m.

Starting Date – July 19, 2023. City Council Award date is anticipated to be June 5, 2023.

Substantially Complete – November 10, 2023

Hours of work: 7:00 a.m. to 8:00 p.m. Monday thru Saturday (Sundays with permission)

- ii. Ann Arbor Art Fair, July 20-22, 2023, UofM Home Football Game Will not impact this project. Work can continue through the events, but no material delivery will be allowed.
- iii. Engineer's Estimate \$3.8 million (including revised Curb Qty)
- iv. General Conditions
  - 1. Street sweeping & dust control
  - 2. Maintaining drainage
  - 3. Sediment build up on inlet filters, site is low at the park
- v. Access to driveways Contractor responsible for maintaining access to driveways during construction, and notifying residents when access will be unavailable (i.e. during water main installation, during paving, concrete work)

## IV. Construction

- a. Utility Construction
  - Water Main Installation and Testing
    - 1. Half width HMA removal for trench / storm replacements
    - 2. Other Half width HMA removal prior to HMA placement
  - ii. Adjust Structure Cover, item 566.1 applies to existing structures only, new frames are incidental to the Adjust Structure Pay item-Ea. If a new cover is necessary, it is paid for under the Structure Cover pay item 563.1-Ea.
- b. Sidewalk and ADA Ramps ADA compliance MUST be achieved at all locations
- c. Backfill and compaction behind the new curb is incidental to the curb placement item up to the restoration grade.
- d. Restoration
  - i. Turf Establishment, Syd item 882.1, includes: 4-inch topsoil, seed, fertilizer and blown mulch (all in)

- V. <u>Certified Payroll Compliance</u>—using Prevailing Wage Rate determination for Highway and Heavy -General Construction, current on the date 10 days before the proposals are due, shall apply to this contract.
- VI. <u>Award Recommendation</u> Proposals will be scored based on point system covering 5 criteria (20 points for each category). See Section III- for category breakdown and submittal requirements, starting at page 12.
  - a. Please respond to each criterion, even if the answer is you have none, when that applies.
  - b. We can only evaluate based on information provided in the submittal package. The Evaluation Committee does not research information on behalf of the contractor.
  - c. Contractor's EMR rate must be provided for the last 3 years, the score is based on an average over the last 3 years.
- VII. Geotechnical Report Soil Boring Log is attached to the Specs (reference page 189)
- VIII. Questions due, tomorrow April 7, 2023 at 10:00 a.m. (reference page 8)
- IX. Bids are due **April 18, 2023 by 10:00** a.m. 2 ea hard copy submittals with 1 full .pdf copy via USB only

### Questions and Answers:

No questions received at the Pre-proposal meeting.

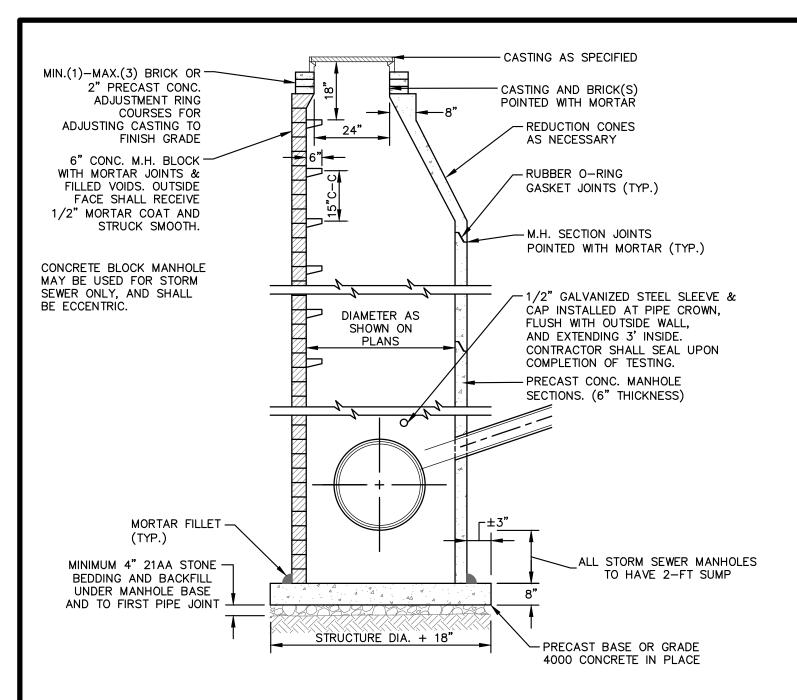
Meeting concluded at 10:14 a.m.

### Contact Information:

Nicholas Bayley Project Manager

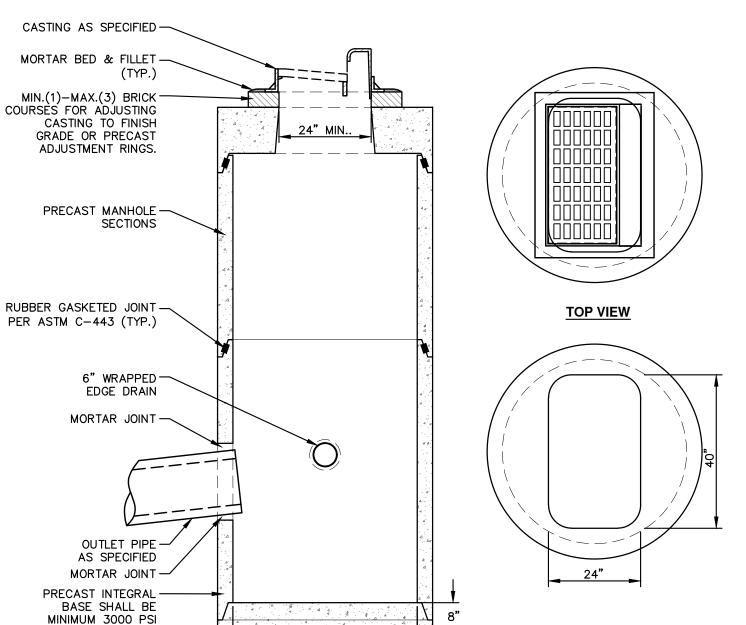
Phone: (734) 794-6410 ext. 43685

E-mail: nbayley@a2gov.org



- ALL STORM MANHOLES MAY BE PRECAST CONCRETE OR MANHOLE BLOCK.
- 2. ALL MANHOLES MUST HAVE ECCENTRIC CONES.
- 3. ALL MANHOLE SECTIONS SHALL BE REINFORCED PER ASTM-185.
- 4. ALL STORM SEWER OPENINGS SHALL BE PRECAST WITH RUBBER BOOT CONNECTIONS PER ASTM C-923.
- 5. 2' SUMP REQUIRED ON ALL DRAINAGE STRUCTURES.
- 6. IF A FLAT TOP IS REQUIRED, THEN IT SHALL BE REINFORCED IN BOTH DIRECTIONS TO MEET ASTM C-615.

STANDARD STORM MANHOLE (SEPARATE BASE) SD-ST-1A



MORTAR JOINT -

OUTLET PIPE -

AS SPECIFIED

MORTAR JOINT -

MIN. 4" 21AA STONE-

FIRST PIPE JOINT

BEDDING AND BACKFILL

UNDER BASE AND TO

1. MAY BE USED WITH SINGLE OUTLET PIPE AND SINGLE INLET PIPE.

\_24" DIA.

2. FRONT EDGE OF INLET CASTING SHALL BE FLUSH WITH FRONT EDGE OF GUTTER (EDGE-OF-METAL)

- CASTING AS SPECIFIED

CASTING AND BRICK(S)

POINTED WITH MORTAR

PRECAST INTEGRAL BASE

REINFORCED CONCRETE

SHALL BE MINIMUM 3000 PSI

BRICK COURSES FOR ADJUSTING

CASTING TO FINISH GRADE OR

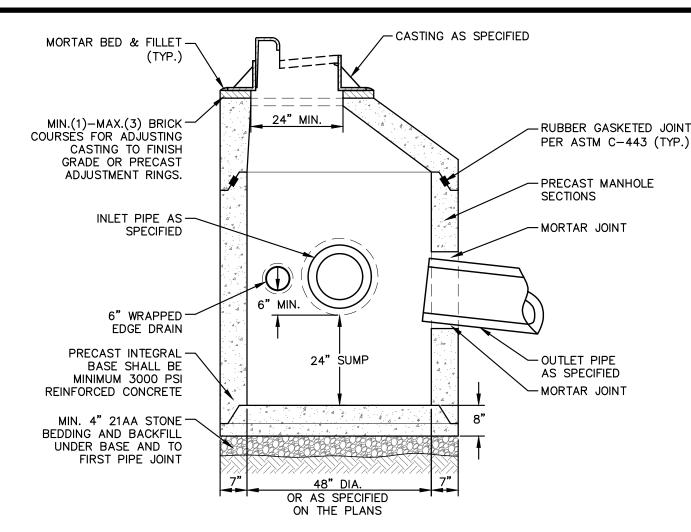
PRECAST ADJUSTMENT RINGS.

- MIN.(1)-MAX.(3)

6" WRAPPED

EDGE DRAIN

## PRECAST SINGLE INLET SD-ST-3



## NOTES:

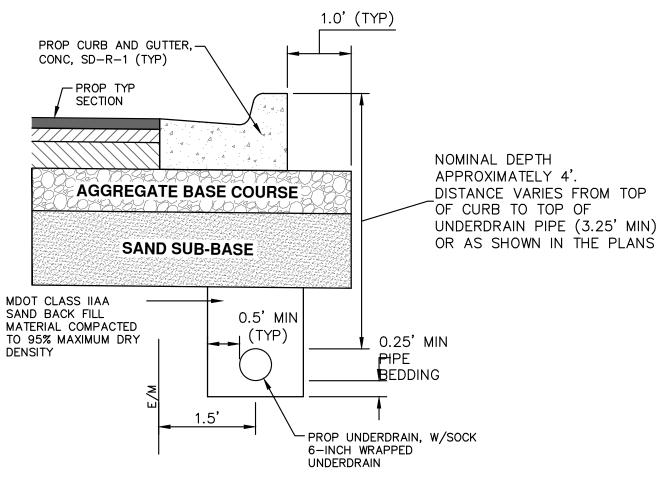
1. FRONT EDGE OF INLET CASTING SHALL BE FLUSH WITH FRONT EDGE OF GUTTER (EDGE-OF-METAL)

## PRECAST JUNCTION INLET SD-ST-2

TYPE OF CASTING	MDOT DESIGNATION	EJ CASTING NO.	NEENAH CASTING NO.
MANHOLE AND GATE WELL FRAME AND COVER	Q/B	1040Z W/ TYPE A COVER*	R-1642 W/ TYPE C COVER*
BARRIER CURB INLET FRAME AND COVER	К	7045Z W/ TYPE M1 GRATE	R-3031-B W/ TYPE S GRATE
BARRIER CURB LOW POINT INLET FRAME AND COVER	К	7035Z W/ TYPE M2 GRATE	N/A
GUTTER INLET FRAME AND COVER	R	5080Z W/ TYPE 5000M2 GRATE	R-3448C, W/ TYPE S GRATE
GUTTER LOW POINT INLET FRAME AND COVER	R	7034Z W/ TYPE M GRATE	N/A
MOUNTABLE CURB INLET ASSEMBLY		7065	N/A
YARD DRAIN (BEE HIVE) FRAME AND COVER	G	1040Z, TYPE 02 GRATE	R-2560-E1
WATER VALVE BOX ASSEMBLY IN PAVEMENT		8560	N/A
MONUMENT BOX ASSEMBLY		8360	N/A

\*FACH COVER SHALL HAVE "SANITARY". "STORM". OR "WATER" CAST IN THE SURFACE. WHICHEVER IS APPLICABLE. SANITARY SEWER COVERS SHALL BE GASKETED IN FLOOD PRONE AREAS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE PSAA. FRAMES AND COVERS MUST HAVE MACHINED BEARING SURFACES.

## STANDARD CASTING SCHEDULE SD-GU-



- DRAIN SHALL BE INSTALLED AT THE DEPTH AS INDICATED ON THE PLANS, OR AS DIRECTED BY ENGINEER. IN NO CASE SHALL THE EDGE DRAIN BE INSTALLED AT A GRADE LESS THAN 0.50% OR AT A DEPTH OF LESS THAN 2' BELOW TOP OF PROPOSED PAVEMENT.
- 2. FOR PAVEMENT BASE AND SUBBASE THICKNESS, SEE TYPICAL PAVEMENT CROSS-SECTION(S)
- 6. ADDITIONAL LENGTHS OF EDGE DRAIN MAY BE REQUIRED BY THE ENGINEER BASED ON EXISTING SITE

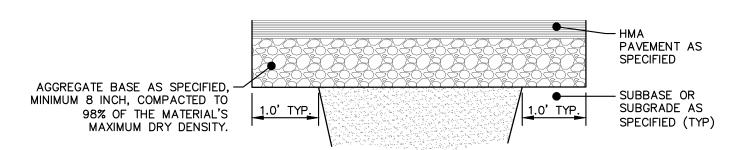
# **TYPICAL EDGE DRAIN TRENCH SD-TD-4**

# PRECAST LOW POINT INLET SD-ST-4

# SÚRFACE RESTORATION AS SPECÍFIED SEE SD-TD-3 - MDOT CLASS II GRANULAR MATERIAL COMPACTED TO 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY. PIPE BEDDING PER CITY TOF ANN ARBOR TSTANDARDS, ARTICLE \_ 10. BEDDING 4" MIN. EACH SIDE AT PIPE BELL. MINIMUM TRENCH WIDTH PER CITY OF ANN ARBOR STANDARDS, ARTICLE 10. BEDDING TO EXTEND 6" MIN. EACH SIDE OF PIPE BARREL.

- . ALL TRENCH EXCAVATION, BEDDING, BACKFILLING, AND SURFACE RESTORATION SHALL COMPLY WITH CITY OF ANN ARBOR STANDARDS, ARTICLE 10.
- 2. TRENCH DETAILS SHOW TYPE OF BACKFILL AND TRENCHING REQUIREMENTS ONLY.
- 3. ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. AND CITY STANDARDS.
- 4. PIPE BEDDING THICKNESS UNDER CONCRETE PIPE 66" OR LARGER SHALL BE INCREASED TO 6".
- 5. SEE SD-TD-1B FOR SANITARY BEDDING AREA DETAIL. SEE SD-TD-4 FOR EDGE DRAIN BEDDING AND BACKFILL.
- 6. SURFACE RESTORATION SHALL NOT BE INCLUDED IN THE UNIT PRICE FOR PIPE AND WILL BE PAID FOR SEPARATELY.

**UTILITY TRENCH - TYPE IA EXCLUDING SANITARY SEWER** AND EDGE DRAIN



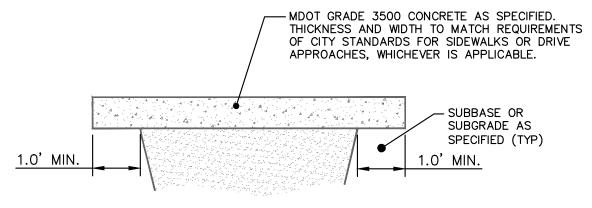
REINFORCED CONCRETE MIN. 4" 21AA STONE BEDDING AND BACKFILL UNDER BASE AND TO FIRST PIPE JOINT

(EDGE-OF-METAL)

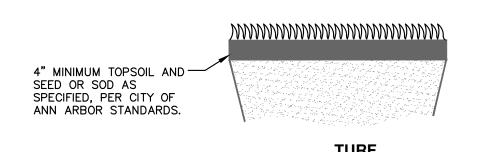
## **BITUMINOUS PAVEMENT RESTORATION**

1. FRONT EDGE OF INLET CASTING SHALL BE FLUSH WITH FRONT EDGE OF GUTTER

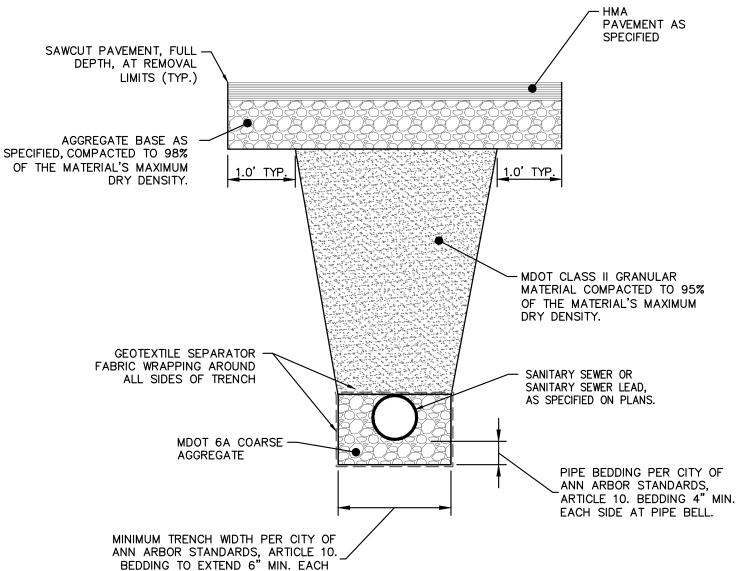
## **UTILITY TRENCH SURFACE RESTORATION SD-TD-3A**



## **SIDEWALK OR DRIVE APPROACH**



## **UTILITY TRENCH SURFACE RESTORATION SD-TD-3B**



- 1. ALL TRENCH EXCAVATION, BEDDING, BACKFILLING, AND SURFACE RESTORATION SHALL COMPLY WITH CITY OF ANN ARBOR STANDARDS, ARTICLE 10.
- 2. TRENCH DETAILS SHOW TYPE OF BACKFILL AND TRENCHING REQUIREMENTS ONLY.
- 3. ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. AND CITY STANDARDS.

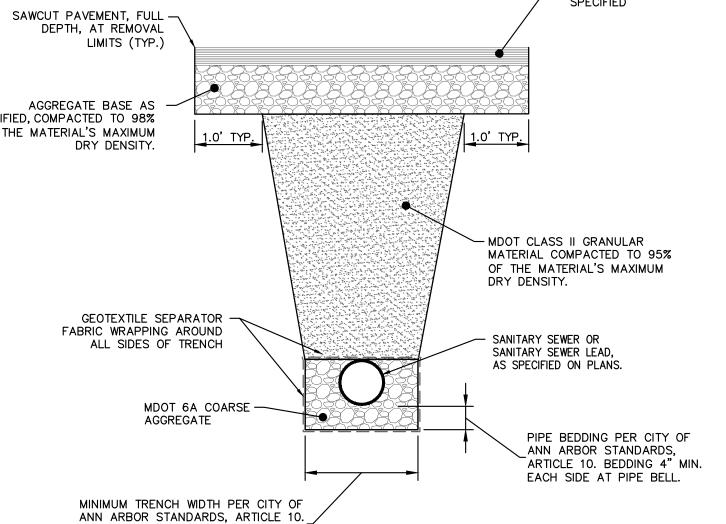
SIDE OF PIPE BARREL.

- 4. PIPE BEDDING THICKNESS UNDER CONCRETE PIPE 66" OR LARGER SHALL BE INCREASED TO 6".
- 5. SEE SD-TD-4 FOR EDGE DRAIN BEDDING AND BACKFILL DETAILS.
- WILL BE PAID FOR SEPARATELY.

6. SURFACE RESTORATION SHALL NOT BE INCLUDED IN THE UNIT PRICE FOR PIPE AND

**UTILITY TRENCH - TYPE IB SANITARY SEWER** 

SE AIN



- 1. IN AREAS WHERE EDGE DRAIN CANNOT BE INSTALLED IN ACCORDANCE WITH THE DETAIL, THE EDGE
- 3. TRENCH DETAILS SHOW TYPE OF BACKFILL AND SURFACE RESTORATION ONLY
- 4. ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. STANDARDS
- 5. EDGE DRAINS SHALL BE CONNECTED TO A DRAINAGE STRUCTURE AND WILL EXTEND A MINIMUM OF 100 FEET UPSLOPE FROM THE STRUCTURE.
- CONDITIONS, INCLUDING CONDITION OF THE SUBGRADE.

SHEET No.

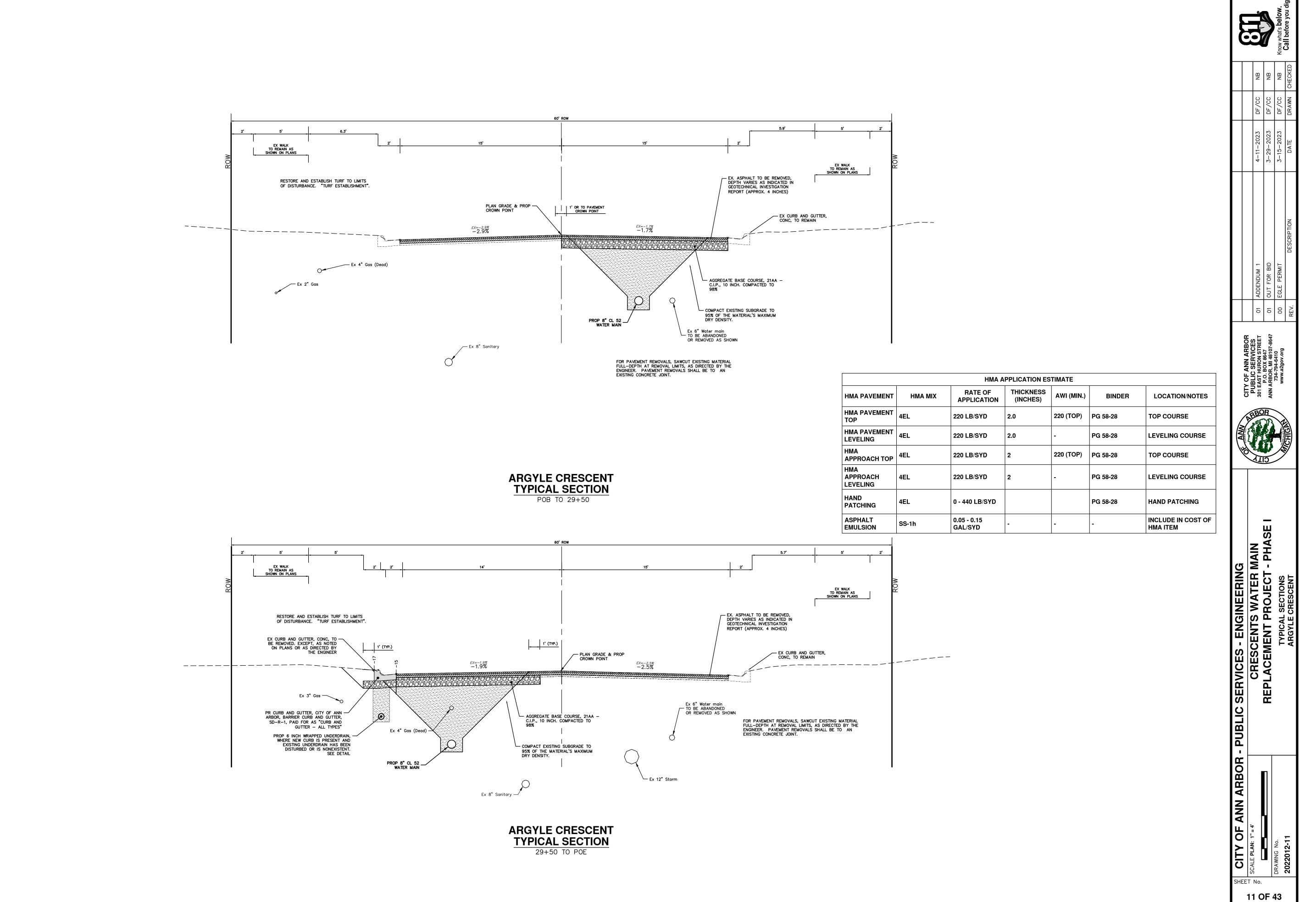
9 OF 43

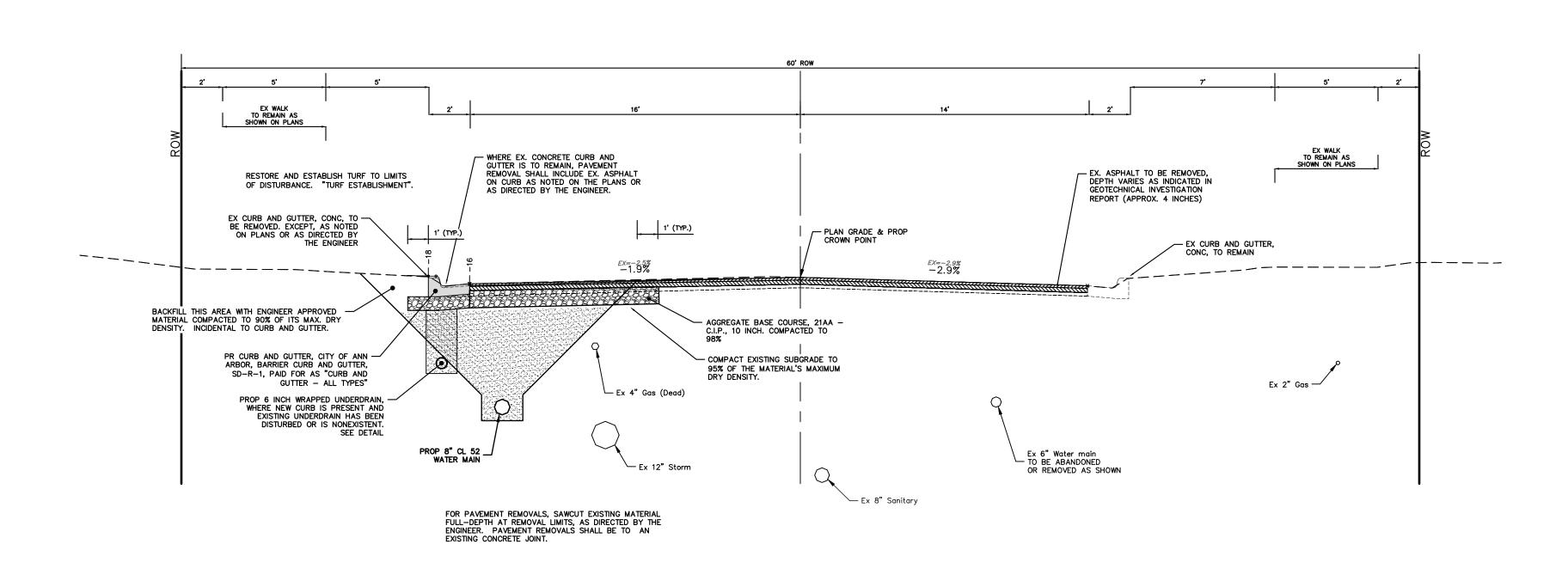
ANN

ARBOR

CITY

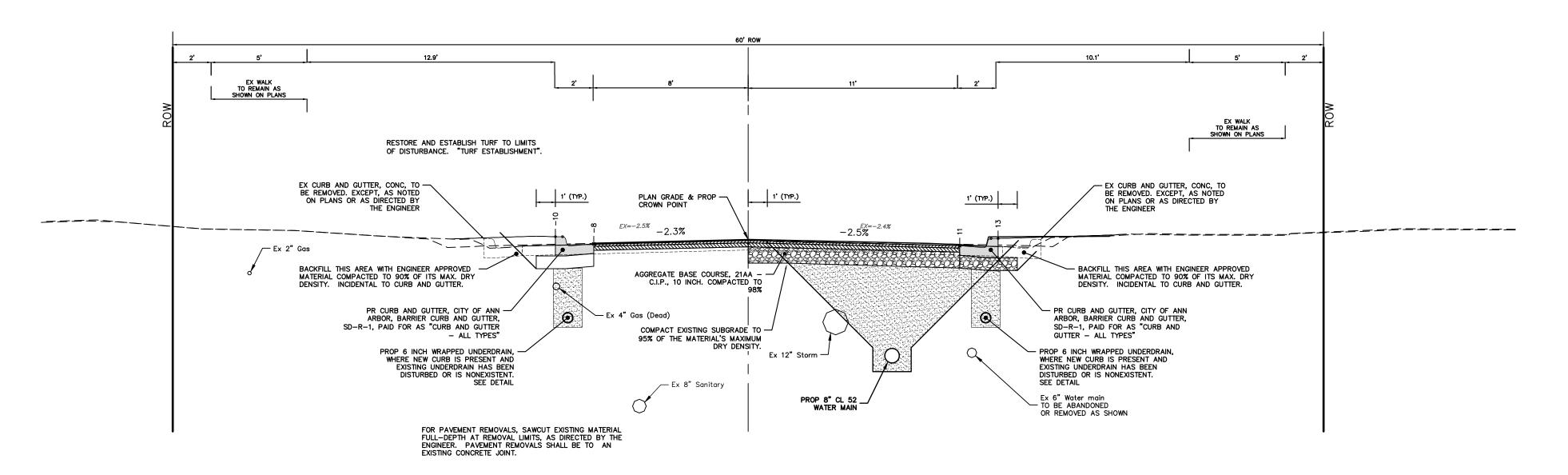
SERVICES - ENGINEERING
CRESCENTS WATER M
REPLACEMENT PROJECT STORM SEWER AND TRENCH DET





## **CREAL CRESCENT TYPICAL SECTION**

WATERMAIN TRENCH LEFT



## **CREAL CRESCENT TYPICAL SECTION**

STA.: 40+05 TO 41+00

01	01 ADDENDUM 1	4-11-2023	DF/cc	ЯN
01	01 OUT FOR BID	3-29-2023	DF/cc	ЯN
00	00 EGLE PERMIT	3-15-2023	DF/cc	ЯN
REV.	DESCRIPTION	DATE	DRAWN	DRAWN CHECKED



SE CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

SCALE PLAN: 1"=4\*

CRESCENTS WATER MAIN

PRAWING NO.

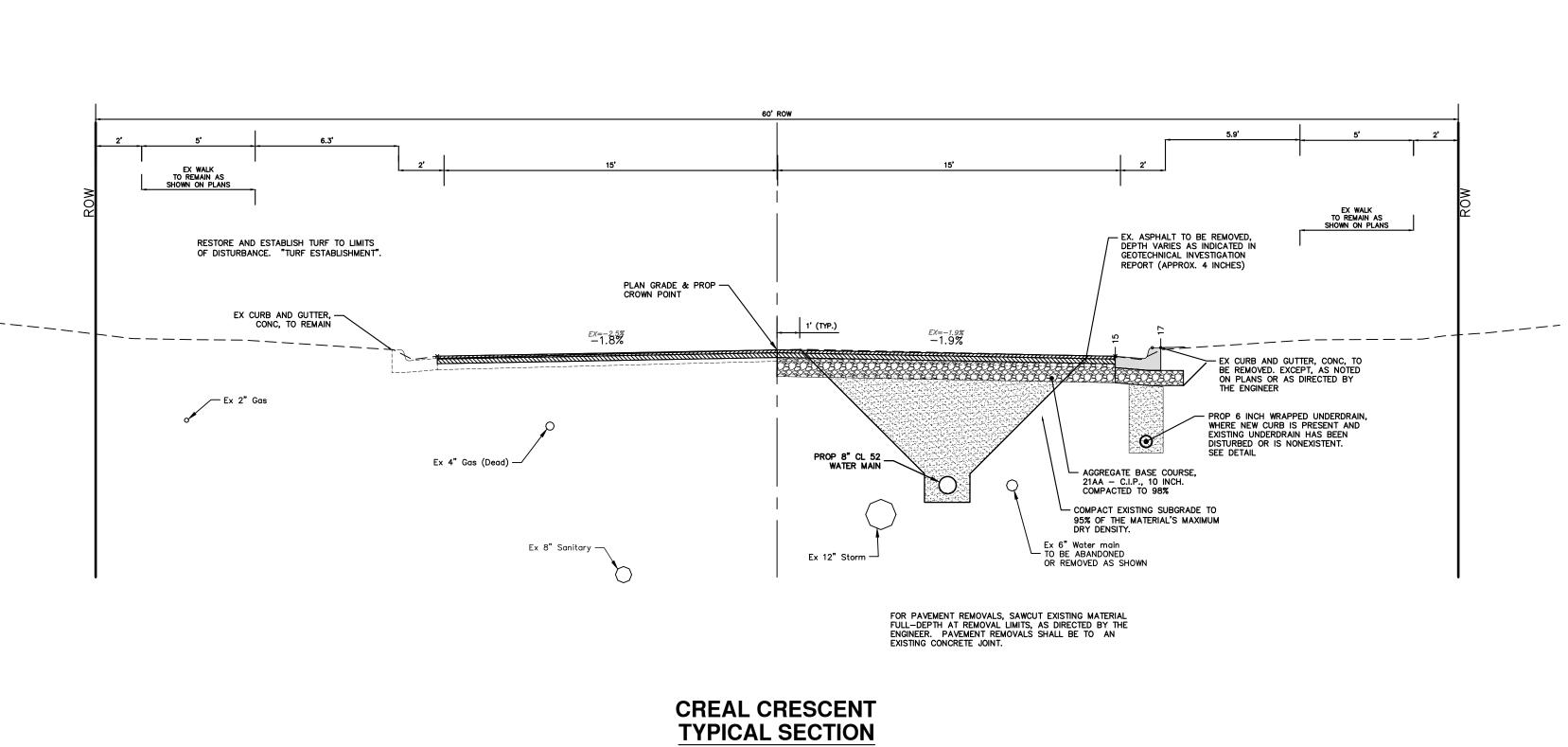
TYPICAL SECTIONS

CREAL CRESCENT

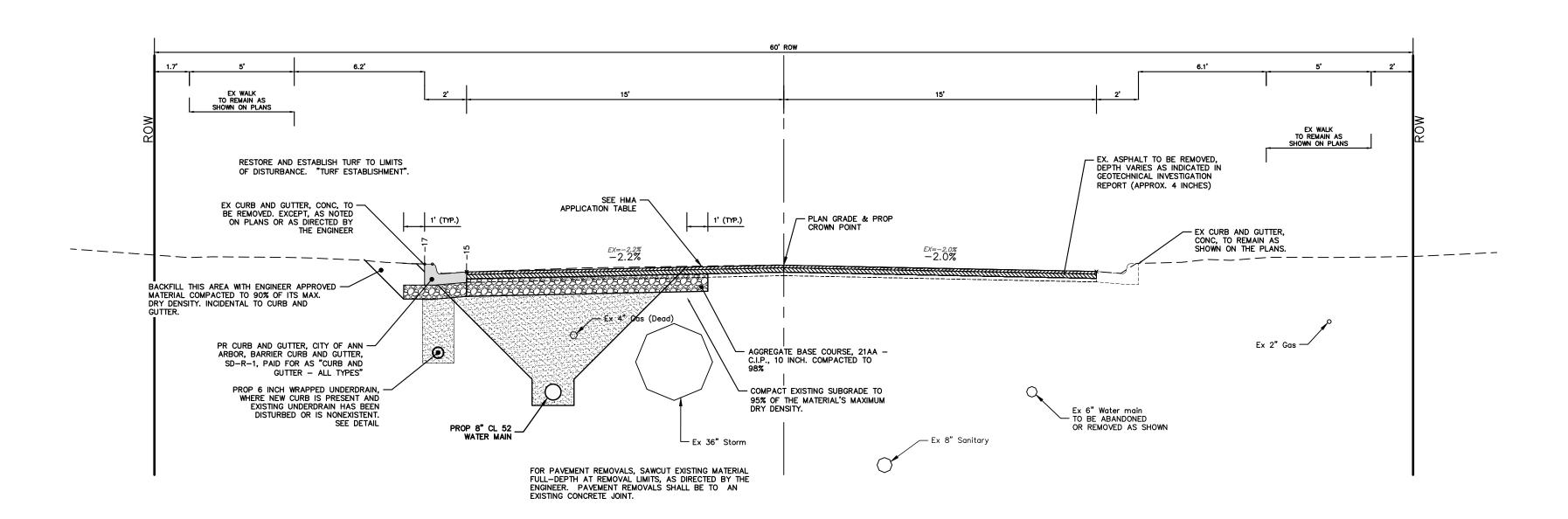
CREAL CRESCENT

SHEET No.

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WATERMAIN TRENCH RIGHT



HELEN STREET TYPICAL SECTION

FE T         01         ADDENDUM 1         4-11-2023         DF/CC         NB           7-8647         01         OUT FOR BID         3-29-2023         DF/CC         NB           REV.         DESCRIPTION         DATE         DRAWN         CHECKED	BOR
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

CRESCENTS WATER MAIN

CRESCENTS WATER MAIN

REPLACEMENT PROJECT - PHASE

ATPICAL SECTIONS

CREAL CRESCENT & HELEN

STREET

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