

## ADDENDUM No. 2

RFP No. 23-25

### Earhart Road Improvements Project

**Due: May 23, 2023 at 10:00 AM (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 32 pages with 85 plan sheets for a total 117 pages.**

The Proposer is to acknowledge **receipt of this Addendum No. 2 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**

**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.**

#### 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. Changes to the Detailed Specifications are **highlighted in yellow.**

<b>Section/Page(s)</b>	<b>Change</b>
Plan Sheets 7	Revised Electrical Details
New Plan Sheet 8	Include sidewalk retaining wall typical cross-sections
Plan Sheets 16-25	Revised Maintenance of Traffic Plan to use Temp paint pavement markings vs Temporary Tape.
Plan Sheet 36	Revised Electrical Call Outs
Plan Sheet 41	Revised to include retaining wall in plan view

New Plan Sheets 46-50	Include plan and profile of new curb line along lane narrowing.
New Plan Sheets 55-59	Include plan and profile sheets for new sidewalk.
Plan Sheets 61-63	Revised to include Detail Grades
Plan Sheets 66-74	Revised pavement marking plans to reflect use of Cold Plastic Bike Symbols and arrows.
Plan Sheet 75	Revised cross sections to include sidewalk retaining wall.
Replace Plans Sheets 1-85	Entire plan set is re-issued as addendum.
Wage Decisions Pg 6-7	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
Bid Form Replace Pages 15-18 with pages 15-18	The bid form has been amended to reflect the modifications of this Addendum No. 2 and other quantity corrections from original contract documents.
Replace Pages DS-1-2	Detail Spec Index, Replace to include new items
Replace Pages DS-26-27	Conduit, Direction Bore
Replace Pages DS-58-64	Machine Grading, Excavation Earth
Replace Pages DS-98-99	Temporary Pavement Marking
Replace Pages DS-100-101	Vertical Delineator
Replace Pages DS-107-108	Trees and Plantings
Replace Pages DS-109-110	Street Light Assemble
Replace Pages DS-111-112	Electrical Handholes
New Detail Spec DS-113	Temporary Raised Pavement Markings
New Detail Spec DS-114	Sidewalk Retaining Wall
New Content 1-3	Pre-Proposal Meeting 5-9-2023 Minutes

## II. QUESTIONS AND ANSWERS

The City did not received questions.

**E. Schedule of Pricing/Cost – 20 Points**

**Company:**

**Project: Earhart Road Improvements Project**

**File # 2021-023 RFP 23-25**

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
101	General Conditions, Max \$120,000	LS	1	\$	\$
102	Digital Audio Visual Tape Coverage	LS	1	\$	\$
120	Project Supervision, Max \$90,000	LS	1	\$	\$
200	Certified Payroll Compliance and Reporting	LS	1	\$	\$
201	Allowance for Unforeseen Site Conditions	DLR	1	\$ 1.00	\$ <b>75,000</b>
205	Project Clean-up & Restoration, Special, Max \$30,000	LS	1	\$	\$
210	Minor Traffic Control, Max \$50,000	LS	1	\$	\$
211	Lighted Arrow Board	EA	4	\$	\$
212	Sign, Portable Changeable Message	EA	4	\$	\$
215	"No Parking" Signs	EA	75	\$	\$
215	Pedestrian Type II Barricade, Temp	EA	25	\$	\$
217	Temporary Pedestrian Mat	EA	4	\$	\$
219	Barricade Type III - Lighted	EA	10	\$	\$
220	Temporary Sign, Type B	SFT	768	\$	\$
221	Temporary Sign, Type B, Special	SFT	66	\$	\$
222	Plastic Drum - Lighted	EA	836	\$	\$
223	Channelizing Device, 42 Inch	EA	75	\$	\$
230	Protective Fencing	FT	412	\$	\$
235.1	Tree Removal, 6-inch to 12-inch	EA	25	\$	\$
235.2	Tree Removal, 13-inch to 24-inch	EA	3	\$	\$
235.3	Tree Removal, Greater than 24-inch	EA	2	\$	\$
240.0	Exploratory Excavation (0-10' deep)	EA	8	\$	\$
240.1	Excavation, Earth	CYD	1,300	\$	\$
320.0	12" CL IV RCP Storm Sewer Pipe, Trench Detail I	FT	672	\$	\$
358.2	Sewer Remove, Any Size or Depth	FT	717	\$	\$
360.2	Sewer Tap, 12 inch	EA	1	\$	\$
TOTAL THIS PAGE 15				\$	\$

**Company:**  
**Project: Earhart Road Improvements Project**  
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(Also to be entered on Page 18)

366.1 Dr Structure, Inlet Junction, 36 inch dia	EA	2	\$	_____	\$	_____
367.1 Dr Inlet Structure, 24 inch dia	EA	23	\$	_____	\$	_____
386.2 Structure Remove, Any Size or Depth	EA	<b>25</b>	\$	_____	\$	_____
500.1 HMA Pavement Removal, Any Depth	SYD	<b>5,690</b>	\$	_____	\$	_____
502.1 Remove Concrete Curb or Curb & Gutter - Any Type	FT	<b>4,206</b>	\$	_____	\$	_____
503.2 Remove Concrete Sidewalk, Ramp - Any Thickness	SFT	2,839	\$	_____	\$	_____
504.1 Remove Block Retaining Wall	SFT	<b>900</b>	\$	_____	\$	_____
510.1 Cold Milling, <b>2-inches</b>	SYD	32,204	\$	_____	\$	_____
510.2 Cold Milling HMA Surface, Modified -[Contingency]	SYD	6,450	\$	_____	\$	_____
516.0 6" Wrapped Edge Drain	FT	<b>5,770</b>	\$	_____	\$	_____
520.1 Machine Grading	SYD	1,417	\$	_____	\$	_____
520.2 <b>Machine Grading, Modified</b>	SYD	1,274	\$	_____	\$	_____
521.1 Subgrade Undercutting- [Contingency]	CYD	250	\$	_____	\$	_____
521.2 Sidewalk Ramp Grading	EA	<b>11</b>	\$	_____	\$	_____
521.3 Sidewalk Grading	FT	1,962	\$	_____	\$	_____
524.1 Class II Granular Material, C.I.P. -Sidewalk	CYD	468	\$	_____	\$	_____
525.1 21AA Limestone, C.I.P.	CYD	<b>570</b>	\$	_____	\$	_____
535.1 HMA, 4EL - Pavement Wearing Course	TON	3,721	\$	_____	\$	_____
535.2 HMA, 4EL - Pavement Leveling Course	TON	<b>338</b>	\$	_____	\$	_____
539.2 Hand Patching, Modified -[Contingency]	TON	1,100	\$	_____	\$	_____
550.1 Concrete Curb or Curb and Gutter - All Types	FT	4,206	\$	_____	\$	_____
550.2 Concrete Curb or Curb and Gutter - All Ty High Early	FT	50	\$	_____	\$	_____
552.1 4" Concrete Sidewalk	SFT	11,166	\$	_____	\$	_____
553.1 6" Concrete Sidewalk, Ramp, Drive Approach	SFT	2,158	\$	_____	\$	_____
553.2 6" Concrete Drive or Sidewalk - High Early	SFT	113	\$	_____	\$	_____
TOTAL THIS PAGE 16			\$	_____	\$	_____

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554.1 8" Concrete Drive or Sidewalk - High Early	SFT	1,414	\$	_____	\$	_____
<b>554.2 Sidewalk Retaining Wall, 6 to 18 inch</b>	<b>SFT</b>	<b>152</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>
<b>554.3 Sidewalk Retaining Wall, 18 to 36 inch</b>	<b>SFT</b>	<b>410</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>
<b>554.3 Barrier Curb - Central Island</b>	<b>FT</b>	<b>165</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>
<b>554.4 Mountable Curb &amp; Gutter - Central Island</b>	<b>FT</b>	<b>329</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>
555.1 Driveway Opening, Conc, Detail M - High Early	FT	73	\$	_____	\$	_____
555.2 8" Concrete Pavement - Central Island	SFT	3,008	\$	_____	\$	_____
557.1 Detectable Warning, Cast In Place	FT	220	\$	_____	\$	_____
563.1 Structure Covers	EA	25	\$	_____	\$	_____
566.1 Adjust Structure Cover	EA	25	\$	_____	\$	_____
567.1 Adjust Monument Box or Gate Valve Box	EA	2	\$	_____	\$	_____
584.1 Pavt Mrkg, Polyurea, 4 inch, White	FT	8,943	\$	_____	\$	_____
584.2 Pavt Mrkg, Polyurea, <b>Long</b> , 6 inch, White	FT	<b>14,180</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>
<b>584.3 Pavt Mrkg, Polyurea, 6 inch, White</b>	<b>FT</b>	<b>2,530</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>
585.1 Pavt Mrkg, Polyurea, 6 inch, Yellow	FT	9,240	\$	_____	\$	_____
586.1 Recessing Pavt Mrkg, Longit	FT	31,492	\$	_____	\$	_____
586.2 Recessing Pavt Mrkg, Transv	FT	1,580	\$	_____	\$	_____
587.1 Pavt Mrkg, Polyurea, 12 inch, Crosswalk	FT	1,580	\$	_____	\$	_____
587.2 Pavt Mrkg, Ovly Cold Plastic, Bike Symbol	EA	19	\$	_____	\$	_____
587.3 Pavt Mrkg, Ovly Cold Plastic, Arrow	EA	19	\$	_____	\$	_____
587.4 Pavt Mrkg, Ovly, 12 inch, Cross Hatch, Yellow	FT	560	\$	_____	\$	_____
584.1 Pavt Mrkg, MMA, Bike Lane, Green	SFT	1,735	\$	_____	\$	_____
594.1 Pavt Mrkg, Cover, Type R, Black	FT	<b>260</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>
594.2 Pavt Mrkg, Wet Ref, Type R, Tape, 4 inch, White, Temp	FT	<b>240</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>
594.3 Pavt Mrkg, Wet Ref, Type R, Tape, 4 inch, Yellow, Temp	FT	<b>400</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>
<b>594.4 Temp</b> <b>Pavt Mrkg, Wet Ref, Type NR, Paint, 4 inch, White,</b>	<b>FT</b>	<b>8,350</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>
<b>594.5 Temp</b> <b>Pavt Mrkg, Wet Ref, Type NR, Paint, 4 inch, Yellow,</b>	<b>FT</b>	<b>8,260</b>	<b>\$</b>	<b>_____</b>	<b>\$</b>	<b>_____</b>

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\$

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<b>594.6 Pavt Mrkg, Waterborne, 4 inch, Yellow</b>	<b>FT</b>	<b>7,680</b>	\$	_____	\$	_____
<b>594.7 Pavt Mrkg, Waterborne, 4 inch, White</b>	<b>FT</b>	<b>21,560</b>	\$	_____	\$	_____
<b>595.1 TRPMs, Yellow, Monodirectional</b>	<b>EA</b>	<b>500</b>	\$	_____	\$	_____
599.1 City Posts, 3 inch, <b>Black</b>	EA	<b>240</b>	\$	_____	\$	_____
599.2 City Posts, 3 inch, Yellow	EA	<b>30</b>	\$	_____	\$	_____
599.3 <b>Quick Kurb, Separator- [Contingency]</b>	FT	400	\$	_____	\$	_____
599.4 <b>Quick Kurb, Separator End Unit- [Contingency]</b>	EA	12	\$	_____	\$	_____
<b>599.5 Quick Kurb, Sign</b>	<b>EA</b>	<b>26</b>	\$	_____	\$	_____
702.1 Erosion Control, Inlet Filter	EA	80	\$	_____	\$	_____
703.1 Erosion Control, Silt Fence	FT	500	\$	_____	\$	_____
799.1 Tree, 3 inch caliper, Large Shade Trees	EA	50	\$	_____	\$	_____
800.1 Tree, 2 inch caliper, Medium Shade Trees	EA	40	\$	_____	\$	_____
882.1 Turf Establishment	SYD	<b>5,800</b>	\$	_____	\$	_____
882.2 Mulch Blanket, High Velocity	SYD	<b>1,900</b>	\$	_____	\$	_____
892.1 Irrigation System, Protection and Maintenance	DLR	5,000	\$	1.00	\$	5,000
900.1 Street Light Assembly	EA	4	\$	_____	\$	_____
900.2 Light Std Fdn	EA	4	\$	_____	\$	_____
900.3 Electrical Handhole Assembly Comp 17"x30"	EA	6	\$	_____	\$	_____
900.4 Conduit, Schedule 80, 3 inch	FT	<b>626</b>	\$	_____	\$	_____
900.5 Cable, Sec, 600V 3 - #6	FT	313	\$	_____	\$	_____
TOTAL THIS PAGE 18			\$	_____	\$	_____
TOTAL FROM PAGE 15			\$	_____	\$	_____
TOTAL FROM PAGE 16			\$	_____	\$	_____
TOTAL FROM PAGE 17			\$	_____	\$	_____
<b>TOTAL BASE BID</b>			\$	_____	\$	_____

## DETAILED SPECIFICATIONS

Detailed Specification	No. of Pages
1... Project Schedule and Payment .....	3
2... General Conditions.....	3
3... Audio Visual Recording .....	3
4... Project Supervision.....	4
5... Certified Payroll Compliance and Reporting .....	2
6... Allowance for Unforeseen Site Conditions.....	1
7... Coordination and Cooperation with Others and Work by Others.....	1
8... General Construction Notes .....	1
9... Protection of Utilities.....	1
10. Quantities and Unit Prices .....	1
11. Materials and Supplies Certifications.....	1
12. Soil Boring Pavement Section and Geotechnical Data .....	1
13. Vacuum Type Street and Utility Cleaning Equipment.....	1
14. Maintenance of Traffic.....	3
15. Minor Traffic Control.....	3
16. Traffic Control Signs and Barricades .....	3
17. Protective Fencing.....	2
18. Tree Removal .....	2
19. Exploratory Excavation .....	2
20. Sewer Removal and Abandonment .....	1
21. Drainage Structures.....	3
22. HMA Pavement Removal .....	2
23. HMA Pavement Repair.....	1
24. Concrete Removal.....	3
25. 6-Inch Wrapped Underdrain .....	2
26. Machine Grading Earth Ex.....	7
27. Sidewalk Grading .....	2
28. Subgrade Undercutting.....	1
29. Subbase and Aggregate Base.....	2
30. HMA Paving .....	5
31. Concrete Curb, Sidewalk, Driveway Approach and Pavement.....	5
32. Concrete Durability .....	7
33. Concrete Placement and Protection .....	2
34. Detectable Warning, Cast in Place .....	2
35. Structure Covers .....	2
36. Structure Cover Adjustments.....	3
37. Pavement Markings.....	1
38. Special Pavement Markings .....	2
39. Temporary Pavement Markings.....	2
40. <b>Vertical Delineators</b> .....	2
41. Soil Erosion Control.....	1
42. Restoration.....	3
43. Protect Irrigation System .....	2
44. Trees and Plantings.....	2
45. Street Light Assembly.....	2
46. Electrical and Comm Handholes.....	2

47. Conduit, Directional Bore.....	2
48. <b>Temporary Raised Pavement Markers</b> .....	1
49. <b>Sidewalk Retaining Wall</b> .....	1



CITY OF ANN ARBOR  
SPECIAL PROVISION  
FOR  
**CONDUIT, DIRECTIONAL BORE**

AA:NJB

1 of 2

5/11/23

**Description.**

This work consists of furnishing and installing underground conduit, in accordance with sections 819 and 820 of the 2020 MDOT Standard Specifications for Construction, and additional requirements as specified herein.

**Materials.**

Furnish and install underground conduit as specified in the Plans. All conduit installed shall have tracer wire and pull string installed.

1. All conduit used on this project shall be a minimum of Schedule 80.
2. Tracer wire for directional boring installation shall be a 10 AWG solid, PRO-TRACE HDD-CCS PE45, by Pro-line Safety Products Company, or an approved equal. Conductor shall be hard-drawn, 21% IACS, copper clad steel, utilizing an AISI 1065 high carbon steel core (required to meet break load), with rated break load of 1,940 lbs (238,000 psi). Conductor shall be extruded with a 45 mil, high-density, high molecular weight polyethylene (HMW-HDPE) pursuant to ASTM D1248 standard. The color of tracer wire outside jacket shall be orange. Ensure wire connectors are 3M DBR, IDEAL UnderGround, or approved equal, and are watertight to provide electrical continuity.
3. Pull tape shall be a polyester tape providing at a minimum 1250 lb of tensile strength, flat with printed foot markings, pre-lubricated for reduced pulling tension at start of cable pull, and moisture resistant.

**Construction.**

1. Conduit shall be installed at a typical depth of 36 inches below finished grade. The Contractor may reroute proposed conduit and/or adjust proposed conduit depth to a minimum of 18 inches from grade when proposed conduit installation is near and/or in conflict with an existing underground utility line and as directed by the Engineer. The conduit depth shall be adjusted only in the area of the conflict.
2. Conduit shall enter new rectangular handholes from the bottom of handhole using sweep bend pipes, unless reviewed and approved by the Engineer. Furnish and install Bell Ends on all conduit ends in handholes and signal cabinets.
- ~~3. Conduit shall enter new round handholes from wall knock-outs. Mortar around the area where conduits enter handhole wall to seal the connection.~~

4. All new conduit installed and all existing conduit used under this Contract shall be blown and/or rodded clean to the satisfaction of the Engineer prior to the installation of any cable or wire in that conduit.
5. All conduit installed by use of directional boring shall include the installation of a tracer wire. The conduit tracer wire shall be pulled with, but not in, the bored conduit. For more than one conduit being installed in a single bore, only one conduit tracer wire shall be required.
6. Ensure the tracer wire is accessed/connectorized from each handhole. The tracer wire shall be continuous and unspliced between handholes. Coil and secure 6 feet tracer wire slack at each head end of tracer wire.
7. Perform a continuity test on all tracer wire. If the tracer wire is found to be not continuous after testing, repair or replace the failed segment of the wire. Perform the test using a transmitter and tracer provided by the City of Ann Arbor, or approved equal. Arrange for the test to be witnessed by the Engineer / Signs and Signals.
8. Install pull tape, by hand pulling, blowing, or via vacuum method into each new conduit during conduit installation. Install and secure 6 feet of slacked pull tape in each handhole.
- 9. Each Handhole needs a 5/8", 8ft ground rod**
- 10. Electrical connections in streetlight pole handholes should be made with aluminum terminal blocks (Connector Cable Tap Alum #8-1/0) and covers (Cover Plastisol F/Utilco SLC4-0)**
- 11. From connector to Luminaire #12 cable (THHN, Black, White, Green for Luminaire)**
- 12. Each streetlight should be fused in the pole handhole with a fuse holder and boots kit (BUSS HEB-AA) and a 5A fuse (BUSFNM-5)**
- 13. All electrical connections in handholes need electrical putty insulation (3m Scotchfill) and then rubber taped**
- 14. Each electrical circuit #6 cable 6 awg xlp/use-2/rhh/rhw-2 in black; 6 awg xlp/use-2/rhh/rhw-2 in white; 6 awg xlp/use-2/rhh/rhw-2 in green**

**Measurement and Payment.**

The completed item will be measured and paid for at the contract unit price using the following pay item:

<b>Pay Item</b>	<b>Pay Unit</b>
Conduit, Schedule 80, ___ inch.....	Foot
Cable, Sec, 600 V, 3- ___# .....	Foot

**Conduit, Schedule 80, \_\_\_ inch** includes the cost of installing the type, number, and size of direct bored conduit shown on the plans, and furnishing and installing sweep bend pipe, bell end, tracer wire, pull tape, round handhole wall knock-outs and mortar as specified herein.

**Cable, Sec, 600 V, 3- \_\_\_#** includes the cost of **installing three strands as one ft** (white, black and green) the type, and size of cable within the conduit, as specified herein.

CITY OF ANN ARBOR  
 DETAILED SPECIFICATION  
 FOR  
**MACHINE GRADING  
 EXCAVATION, EARTH**

AA:NJB

1 of 7

5/12/23

**Description**

The pay item “Machine Grading” shall be completed in accordance with Section 205 the Michigan Department of Transportation 2020 Standard Specifications for Construction (MDOT 2020 SSC) and shall include all work indicated in the MDOT 2020 SSC, shown on the plans, and as specified herein, with the exception that “Subgrade Undercutting, \_\_\_ Backfill,” “Excavation, Earth,” “Class II Granular Material, C.I.P.,” “21AA Limestone, C.I.P.,” “Tree Removals, \_\_ inch”, and “Turf Establishment” shall be paid for separately when separate pay items for the respective items are included in the proposal. “Machine Grading” shall include all the work specified herein for which there is no separate pay item.

“Excavation, Earth” shall include excavation and removal of soil to provide subgrade elevations. This shall include the roadway, and swale, and incidental cross-section removal of existing Materials establish planned subgrades, or in the case of planned swale to the limit of the limits for a 4-inch topsoil layer as part of Turf Establishment. This pay item shall exclude excavation and removal incidental to utility installation, which shall be paid for separately. **This shall not apply to areas where Sidewalk Grading, Ft pay item is paid, Excavation Earth effort is incidental to that pay item.**

Areas that are deemed by the Engineer to require subgrade undercutting with engineered backfill to provide a stable subgrade shall be paid for as “Subgrade Undercutting, \_\_\_ Backfill”.

The following abbreviated table of contents for Section 205 (Roadway Earthwork) of the MDOT 2020 SSC is provided for reference. It is not a complete table of contents for all Section 205 work required to complete the project.

<b><u>SECTION/TITLE</u></b>	<b><u>PAGE</u></b>
205.01 Description .....	2-18
205.02 Materials .....	2-18
205.03 Construction .....	2-19
A. Preparing Roadway Foundation .....	2-19
1. Removing and Salvaging Topsoil.....	2-19
B. Rock Excavation .....	2-20
E. Subgrade Undercutting .....	2-21
F. Subgrade Manipulation.....	2-22
G. Earth Excavation.....	2-22
H. Roadway Embankment .....	2-23
4. Placing and Compacting Embankment .....	2-24
205.04 Measurement and Payment .....	2-31

**Soils Information**

Soil information provided as part of the contract documents is for informational purposes only and shall not relieve the Contractor of the responsibility of investigating all local conditions before bidding.

CITY OF ANN ARBOR  
DETAILED SPECIFICATION  
FOR  
**MACHINE GRADING  
EXCAVATION, EARTH**

AA:NJB

2 of 7

5/12/23

**Materials**

All materials and mixtures shall meet the requirements as specified in Section 205 of the MDOT 2020 Standard Specifications for Construction, except as specified herein.

**General Provisions**

The contractor shall:

1. Grade around mailboxes, trees, light poles, power poles, and the like, which are to remain in place. The Contractor shall be responsible for any damage caused to such structures.
2. Maintain the work in a finished condition until it is accepted by the Engineer.

**Removal of Trees and Vegetation**

The Contractor shall remove and properly dispose of off-site all vegetation; brush; roots; and stumps, as shown on the plans and as directed by the Engineer as required to complete the project. Unless the size of the tree is otherwise provided in the Tree Removal pay items, this work will be paid for as “Machine Grading, Swale” and will not be paid for separately.

**Removal and Salvaging of Topsoil**

The removal, salvaging and stockpiling of topsoil, and all related work, shall be performed in accordance with Section 205.03.A.1 (Removing and Salvaging Topsoil) of the MDOT 2020 SSC.

**Miscellaneous Removals**

“Machine Grading” includes the removal of any surface feature located within the grading limits which must be removed and for which there is no specific pay item established in the proposal for its removal.

**Protection of Grade**

The work shall be kept well drained at all times. Foundation, roadway embankment or subgrade that becomes damaged by rain shall be undercut and backfilled, or otherwise remedied, by the Contractor, at his/her sole expense, as directed by the Engineer.

The Contractor shall be responsible for the maintenance of the foundation, roadway embankment, and subgrade. Any damage caused by traffic or the Contractor’s operations, to the foundation, roadway embankment or subgrade shall be remedied by the Contractor at his/her sole expense.

The Contractor shall conduct his/her operations and provide the necessary equipment to ensure

CITY OF ANN ARBOR  
DETAILED SPECIFICATION  
FOR  
**MACHINE GRADING  
EXCAVATION, EARTH**

AA:NJB

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5/12/23

the satisfactory completion of the work without damaging the foundation, roadway embankment or subgrade. This may require the transporting and movement of materials over additional distances.

**Protection of Utilities and Vaults/Structures**

Utility lines, vaults, and structures may become exposed at, above, or below, the foundation or subgrade elevation during machine grading or subgrade undercutting operations. If this occurs, the Contractor shall protect facilities and excavate around, above and/or below the utility lines, as directed, to complete the machine grading or subgrade undercutting operations. Payment, at contract unit prices, for "Machine Grading" or "Subgrade Undercutting" or "Exploratory Excavation," whichever applies, will be considered as payment in full for this work. The contractor shall protect vaults and structures and not undermine or damage facilities.

**Removal of Cable, Conduits, and Pipe**

The Contractor shall remove, and properly dispose of off-site, all abandoned cables, conduit, and pipe encountered at, or above the bottom of any earthwork excavation or undercut. Where the inverts of abandoned, or to be abandoned or removed, conduits or pipe are less than 16 inches below the bottom of any earth excavation or undercut, the conduits and/or pipe shall be removed and the resulting void filled with an Engineer approved material. The fill material shall be compacted to 95% of its maximum unit weight in lifts not exceeding 12 inches. No separate payment will be made for removal of conduit or pipe, or any of the work, described in this section.

**Subgrade Construction**

Subgrade is defined as the final earth grade which extends from grading limit to grading limit. The subgrade shall be constructed by performing earth excavation and roadway embankment work in accordance with Section 205.03.G (Earth Excavation) and Section 205.03 H (Roadway Embankment) of the MDOT 2020 SSC, as shown on the plans, and as specified herein.

The subgrade shall be constructed to the contours and cross-sections shown on the plans, as specified herein. To achieve this, the work shall include, but not be limited to:

1. Removal and disposal off-site of any surplus or unsuitable materials.
2. Furnishing from off-site any additional Engineer approved fill materials necessary.
3. Moving existing and/or furnished materials longitudinally and transversely as necessary.
4. Cutting, placing, compacting, and trimming existing and/or furnished materials to construct the roadway embankment and subgrade to the specified tolerances.
5. Stockpiling, and moving again, any cut materials which cannot be immediately placed upon excavation due to construction staging.

The subgrade shall be graded to accommodate all subbases and aggregate bases wherever used, all roadway pavements, other similar structures, topsoil and any other features which the subgrade supports.

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FOR  
**MACHINE GRADING  
EXCAVATION, EARTH**

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The subgrade shall be prepared so as to ensure uniform support for the pavement structure. The finished subgrade shall be placed to within 1 inch below and  $\frac{3}{4}$  inch above plan grade. Variations within this tolerance shall be gradual.

The subgrade shall be compacted to a minimum of 95% of its maximum unit weight, as measured by the AASHTO T-180 method, to a depth of 10 inches. If this cannot be achieved, in the opinion of the Engineer, he/she may direct the Contractor to perform "Subgrade Undercutting" as described herein.

**Proof Rolling**

The Contractor shall proof-roll the foundation and/or subgrade with a pneumatic tired roller with a suitable body for ballast loading and a gross load capacity that can be varied from 25 and 40 tons. In lieu of this test roller, with the approval of the Engineer, the Contractor may use a fully loaded single axle or tandem axle dump truck.

**Subgrade Undercutting**

"Subgrade Undercutting" shall be performed on the foundation or subgrade in accordance with Section 205.03.E (Subgrade Undercutting) of the MDOT 2020 SSC, as shown on the plans, as specified herein, and as directed by the Engineer.

**Rock Excavation**

Rock excavation shall be performed in accordance with Section 205.03.B (Rock Excavation) of the MDOT 2020 SSC, as shown on the plans, and as directed by the Engineer.

The pay item "Rock Excavation" will apply only to boulders over  $\frac{1}{2}$  cubic yard in volume. Boulders will be measured individually, and the volume computed from the average dimension measured in three directions. The removal of rocks, concrete and masonry less than  $\frac{1}{2}$  cubic yard in volume shall not be included in the pay item "Rock Excavation," but shall be included in the pay item "Machine Grading".

If the proposal does not include a pay item for "Rock Excavation," rocks measuring over  $\frac{1}{2}$  cubic yard in volume shall be paid for as extra work.

**Lowering Structures**

All structures shall be lowered prior to Machine Grading, paid for as part of "Adjust Structure Cover" or "Adjust Monument Box or Gate Valve Box".

**Structure and Sewer Cleanliness**

All sewers, and structures, including manholes, gate wells, valve boxes, inlet structures and curbs shall be protected from damage and contamination by debris and construction materials.

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FOR  
**MACHINE GRADING  
EXCAVATION, EARTH**

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Structures shall be maintained clean of construction debris and properly covered at all times during the construction. The Contractor shall immediately clean any structures and/or sewers that become contaminated with construction debris. The Contractor shall be responsible for all direct and indirect damages which are caused by sewers or structures which have been made unclean or have been damaged by the Contractor.

**Contractor's Calculations**

Existing and proposed cross sections are provided in the plans. The Contractor shall perform his/her own computations and is responsible to inspect the site to determine his/her own estimate of the quantities of work involved.

Deviations between the existing contours and the existing and proposed cross-sections shown on the plans shall not be cause for additional compensation.

**Construction Method**

The Contractor shall construct earth grades as required to develop the typical and/or detailed cross-section(s) as shown on the Plans, as detailed in the Specifications, and as directed by the Engineer. This shall include, but not be limited to, the excavation of miscellaneous concrete and miscellaneous HMA pavement, soil, rocks of any size, stumps, trees less than 6-inches, logs, and bricks; the removal and proper disposal off-site of surplus excavated material; the scarifying, plowing, disking, moving and shaping of earth; the trimming, grading, compaction and proof-rolling of the prepared subgrade; the importing, furnishing, placement and compaction of embankment and/or fill materials; the full depth saw-cutting of pavement at the removal limits; the grading of sideslopes; general restoration in accordance with the Detailed Specifications elsewhere herein and the general items of the work as specified herein. Road subbase and base materials shall be paid for separately.

The Contractor shall remove, add to, re-shape, re-grade, and re-compact the existing roadbed materials, and shall construct the roadway to the cross-section(s) as indicated on the Plans, as detailed in the Specifications, and as directed by the Engineer. The Contractor shall use blade graders, maintainers, vibratory rollers, and/or other equipment as necessary, and as detailed in the Specifications and as directed by the Engineer, for this work. Use of each specific piece of equipment is subject to the approval of the Engineer.

The Contractor shall remove, dispose or salvage, deliver to any location within the City limits, and neatly stack/stockpile all bricks, if present, as directed by the Engineer.

Signs in the grading limits shall be salvaged and provided to City as directed by the Engineer.

The Contractor shall move excavated and/or imported materials longitudinally and/or transversely where necessary, and as directed by Engineer.

The Contractor shall keep the work well graded and drained at all times.

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FOR  
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EXCAVATION, EARTH**

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The Contractor shall not use rubber-tired equipment on the subgrade, when its use causes or may cause, in the opinion of the Engineer, damage to the subgrade. The Contractor shall conduct its operation(s), and provide all necessary equipment, to insure the satisfactory completion of the work without damaging the subgrade. This includes the transporting, stockpiling, re-handling, and movement of materials over additional distances, in-lieu-of driving on an unprotected, or partially unprotected, subgrade.

The Contractor is solely responsible for the maintenance and protection of the subgrade. Further, any damage to the subgrade which, in the opinion of the Engineer, is caused as a result of the Contractor's operation(s), or its subcontractors' or suppliers' operation(s), shall be repaired by the Contractor at the Contractor's expense. This includes any additional earthwork and/or maintenance materials as directed by the Engineer, for the purposes of the Contractor's maintenance and protection of the subgrade. The Contractor shall not be entitled to any additional compensation for the implementation of these procedures.

The Contractor shall perform all rough and/or finish grading and compaction to the grades shown on the Plans, as detailed in the Specifications, and as directed by the Engineer.

The Contractor shall proof roll all graded and compacted surfaces in the presence of the Engineer as detailed in the Specifications. The Engineer will monitor the proof rolling operation to locate deleterious and/or uncompacted materials and will direct undercuts, as necessary.

At various times throughout the work, the Engineer may direct the Contractor to use smaller and/or lighter equipment, and to defer certain work tasks, in order to protect the grade and/or adjacent areas. The Contractor shall not be entitled to any additional compensation for the use of smaller equipment, lighter equipment, or work task deferral.

The Contractor shall coordinate with the City Forester prior to the removal of any tree roots 2-inch or larger in size.

**Measurement and Payment**

Measurement for payment for the item "Machine Grading" shall be measured as the site area of disturbance within the limits of the work. The measurement shall exclude areas protected by tree fence and any area outside the limits of disturbance provided in the plans.

The completed work as measured for this item of work will be paid for at the Contract unit price for the following Contract (Pay) Item:

<b><u>Contract Item (Pay Item)</u></b>	<b><u>Pay Unit</u></b>
Machine Grading .....	Square Yard
Machine Grading, <b>Modified</b> .....	Square Yard
Excavation, Earth .....	Cubic Yard



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EXCAVATION, EARTH**

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**Machine Grading or Machine Grading, Modified** shall be paid for one time per square yard regardless of any re-working that may be necessary.

The pay item **Machine Grading** shall include all the work specified herein, the complete the fine grading of the aggregate prior to the placement of HMA.

The pay item **Machine Grading, Modified** shall include all the work specified herein, the fine grading of the area which had Earth Ex, or prior pavement removal in the case of a lane narrowing including prior curb and gutter removal in preparation for turf establishment. Area which will receive a new sidewalk shall have the Machine Grading effort incidental to the Sidewalk Grading, Ft pay item and shall not be paid for twice under this pay item.

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

The Contractor is advised that due to the phasing of the project and the probable unsuitability of some or all of the excavated material for use as approved fill material, there may be imbalances between the amount of earth cut which is suitable for reuse as fill, and the amount of earth needed to construct the lines and grades shown on the plans, or as directed by the Engineer. The Contractor shall make provisions for such imbalances and shall include in the bid price for this work the cost of importing/furnishing, placement, and compaction of the material, as well as the cost of stockpiling and re-handling of imported and/or on-site Engineer approved materials as necessary to complete the work of constructing the embankment and subgrade to the cross sections shown on the plans.

CITY OF ANN ARBOR  
DETAILED SPECIFICATION  
FOR  
**TEMPORARY PAVEMENT MARKING**

AA:NJB

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**Description**

This work consists of furnishing, installing, and disposing of temporary symbol special pavement markings in accordance with the contract and as directed by the Engineer. Where temporary special pavement markings are required in this contract, use Type R/ NR temporary wet reflective special markings if the markings applied during the project require removal during the life of the contract.

**Materials**

Temporary Special Markings - Wet Reflective, Type R, Tape. Provide Type R temporary special markings from the Qualified Products List (subsection 922.06.A.1 of the Standard Specifications for Construction). Apply and remove tape in accordance with the manufacturer's instructions. The tape must remain flexible and conform to the texture of the pavement surface during use. All curved arrows, curved legends, and curved symbols must be precut or fabricated prior to placement in the field.

**Temporary Special Markings - Wet Reflective, Type NR, Paint. Provide Type NR temporary special markings from the Qualified Products List (subsection 922.06.A.2 of the Standard Specifications for Construction). Apply paint in accordance with the manufacturer's instructions. Paint will be removed in subsequent phased pavement milling.**

**Construction**

Install the temporary pavement markings in accordance with the Michigan Department of Transportation (MDOT) Pavement Marking Standard Plan PAVE-900 Series.

Temporary Special Markings - Wet Reflective, Type R, Tape. Between April 15 and November 1, place Type R wet reflective tape in accordance with the manufacturer's specifications for existing temperature and pavement conditions.

Fabricate symbols prior to placement in the field.

Replace Type R wet reflective tape that fails, as directed by the Engineer. The Engineer will not pay for special markings that fail due to improper installation per the manufacturer's specifications. The Engineer will document the failure and meet with the Contractor and/or supplier to discuss reason for failure. Payment will be as determined by the Engineer. Unless documented in the Inspector's Daily Report (IDR) the Engineer will otherwise assume marking failure is a result of damage by traffic. The Engineer will pay for marking failure due to traffic or not clearly documented in an IDR at the contract unit price.

**Measurement and Payment**

The completed work, as described, will be measured and paid for at contract unit prices using the following pay items:

CITY OF ANN ARBOR  
DETAILED SPECIFICATION  
FOR  
**TEMPORARY PAVEMENT MARKING**

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<u>Pay Item</u>	<u>Pay Unit</u>
Pavt Mrkg, Cover, Type R, Black .....	Foot
Pavt Mrkg, Wet Reflective, Type R Tape, 4 inch White, Temp .....	Foot
Pavt Mrkg, Wet Reflective, Type R Tape, 4 inch Yellow, Temp .....	Foot
<b>Pavt Mrkg, Wet Reflective, Type NR Paint, 4 inch White, Temp .....</b>	<b>Foot</b>
<b>Pavt Mrkg, Wet Reflective, Type NR Paint, 4 inch Yellow, Temp .....</b>	<b>Foot</b>

The unit price for these items of work shall include; labor, equipment and materials necessary to provide, place, maintain (as noted), remove, and properly dispose of the temporary pavement marking.

CITY OF ANN ARBOR  
DETAILED SPECIFICATION  
FOR  
**VERTICLE DELINEATORS**

AA:NJB

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5/12/23

### **Description**

This work shall consist of fabricating, shipping and installing permanent signs, vertical delineators, and plastic curb. Work shall be in accordance with Sections 810 and 919 of MDOT 2020 Standard Specifications

### **Materials**

Signs are to be fabricated in accordance with Section 919.02 Traffic Signs of the Michigan Department of Transportation (MDOT) 2020 Standard Specifications for Construction and the 2011 Michigan Manual of Uniform Traffic Control Devices (MMUTCD). The plans indicate the signs to be fabricated.

Materials for traffic signs include steel posts and hardware needs to install signs.

**Quick Kurb Signs** R1-6 "State Law Yield to Ped" base shall be manufactured by Qwick Kurb, Inc, model number L60 in Yellow or white base color as indicated on the plans. End sections shall be model number L61. The assembly shall include L65 reflective arcs, a reboundable flex boot with bolt in construction, **with a L104 Mega Marker, with 224 sq. in.** reflective crosswalk marker sticker MDOT sign R1-6. All pavement mounting hardware shall be stainless steel meeting the dimensional and strength capacity of the manufacturer's recommendation.

**Quick Kurb Separator.** Base shall be manufactured by Qwick Kurb, Inc, model number L60- White 44-inch Sperator with L125SH Short Big Bollard, at 88-inch intervals, 33-inch high, White, with two bands, 4-inch wide white reflective sheeting type III. **End units** shall be L61 and L62 in conjunction with Separator.

**City Post** shall be manufactured by Pexco. Model shall be **29 36-inch white black** or yellow City Post Surface Mount Model SM, **3" OF Flexible, Bolt-Down Anchor with 5-inch long Stainless Steel Coil Anchor Bolts.** ~~Embedded Anchor Cup 2-inch diameter, 4-inch deep, Model P/N 800BASE243.~~ Sheeting color for posts shall be white on the **white black** posts and yellow on the yellow posts AR1000.

### **Construction**

Signs shall be installed per manufacturer's specifications at locations determined by the Engineer.

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DETAILED SPECIFICATION  
FOR  
**VERTICLE DELINEATORS**

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**Measurement and Payment**

The completed work will be measured and paid for the following pay items:

<u><b>Contract Item (Pay Item)</b></u>	<u><b>Pay Unit</b></u>
City Posts, 3-inch, (color).....	Each
Quick Kurb, <b>Separator</b> .....	Foot
Quick Kurb, <b>Separator</b> End Unit.....	Each
<b>Quick Kurb, Sign</b> .....	Each

The approved price for this item shall include all labor, material, and equipment costs required to complete the work.

CITY OF ANN ARBOR  
DETAILED SPECIFICATION  
FOR  
**TREES AND PLANTINGS**

AA:NJB

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5/12/23

**Description**

This work shall consist of planting trees or shrubs, and placement of shredded bark mulch at the locations shown on the plans or as directed by the Engineer. Work shall be in accordance with Sections 815, 816 and 917 of the 2020 Michigan Department of Transportation Standard Specifications for Construction with the following amendments or additions.

Watering, removing weeds, and completing all necessary tasks to maintain a healthy stand of plants, and Balled and Burlapped (B&B) Trees shall be included in this work. Extent of work shall include a two year warranty and maintenance period, including but not limited to the following:

1. Watering
2. Weed Control
3. Mulching
4. Disease and Insect Control
5. Pruning
6. Fertilizer Application
7. Removal of Tree Support and Tags

The Contractor shall attend a site walkthrough to review final plantings within the project area.

Tree drip irrigation bags are in addition to planting specifications 815, 816 and 917 of the 2020 Michigan Department of Transportation Standard Specifications.

**Materials**

All planting methods and materials shall conform to Sections 815, 816 and 917 and the planting details shown on the plans. In addition, tree planting shall include and Tree Drip Irrigation Bags and Watering and Cultivating. Tree and plant types shall be as shown on the Drawings or as directed by the Engineer.

Tree Drip Irrigation Bags shall be Treegator Original 20-gallon slow release watering bags, or approved substitution.

Fertilizer shall be slow release, at minimum 50% derived from a natural, organic source, 12-0-6 or approved substitution.

The Contractor shall submit a minimum size sample of ½-gallon sized container of structural soil and topsoil for approval prior to installation.

The Contractor shall submit to the ENGINEER sources for all plant material.

CITY OF ANN ARBOR  
DETAILED SPECIFICATION  
FOR  
**TREES AND PLANTINGS**

AA:NJB

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**Construction Methods**

The construction methods shall be in accordance with the 2020 Michigan Department of Transportation Standard Specifications for Construction Section 815.03 unless otherwise stated in this special provision.

All open tree pits shall be excavated to the full extent of their dimensions as shown in the details SD-L-1, SD-L-2.

Watering and Cultivating shall follow the schedule in the 2020 Michigan Department of Transportation Standard Specifications for construction Section 815 with the adjustment of filling the tree drip irrigation bags with water and using the fertilizer as dictated in this special provision. For each watering and cultivating visit, verification in the form of a report of maintenance activities and certified payroll covering visits, shall be provided to the OWNER by the end of each month that the visits have taken place.

**Measurement and Payment**

The completed work as measured shall be paid for at the Contract unit price for the following Contract items (pay items):

<b><u>Contract Item (Pay Item)</u></b>	<b><u>Pay Unit</u></b>
Tree, 3 inch caliper, Large Shade Trees.....	Each
Tree, 2 inch caliper, Medium Shade Trees .....	Each

Measurement and payment for the item Trees and Plantings shall include excavation, backfill, topsoil, shredded bark mulch, tree drip irrigation bags, water, and all other equipment necessary, and as described herein, for a complete installation. Warranty and maintenance for two seasons shall also be included in the prices provided under this allowance.

The final inspection of all planting work under the Contract will be made by the Contractor and Engineer at the end of the maintenance and establishment periods. Before final acceptance is given, the terms of the establishment shall be met and the site shall be cleared of all debris, soil and containers.

Species shall be a mix of shade trees see list on plan sheet 34 of 74.

CITY OF ANN ARBOR  
SPECIAL PROVISION  
FOR  
**STREET LIGHT ASSEMBLY**

AA:NJB

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5/12/23

**Description.**

This work consists of furnishing and installing street light assemblies at the locations shown in the plans. Each street light assembly includes pole, mast arm, luminaire, wiring, enclosure box, hardware and all associated material required to complete the work. ~~Fixtures shall be cobra head unless specified otherwise on the plans.~~ All work should be completed in accordance with sections 818, 819, 901, 918, and 921 of the 2020 MDOT Standard Specifications for Construction, and additional requirements as specified herein.

**Materials.**

Provide materials ~~conforming to Buy America provisions and~~ in accordance with sections 818, 819, 901, 918, and 921 of the 2020 MDOT Standard Specifications for Construction and the following requirements of this special provision:

1. Pole

**A. As Manufactured by Shakespeare: AS30-10S1DB01  
30' smooth finish  
Anchor Base Pole with handhole 4"x12"  
Drilled for 6' alum Mast Arm and Base Cover  
Black Powder Coated 1pc Base Cover  
1" diameter anchor bolts**

~~B. The pole shaft shall be round tapered fiberglass with a .14" per foot taper. The hand hole shall be 2.5" x 5" with a cover. The hand hole area and hardware attachment areas shall be reinforced. The poles shall be designed with have a maximum deflection of 15% under full wind loading conditions. The post shall be non-conductive and chemically inert.~~

~~C. The pole shall include an anchor base, with an 11.5 inch bolt circle.~~

~~D. Unless specified otherwise, the pole shall be 30 foot in length, and have a smooth black finish.~~

2. Mast Arm

**A. As Manufactured by Shakespeare /OPAR6-BK-H**

~~B. The mast arm shall be constructed of tapered aluminum, with a span of 68" and rise of 24" as manufactured by Shakespeare;~~

~~C. The mast arm shall be attached to the pole with a bracket and hardware specifically intended for use with the specified mast arm and pole.~~

4. Luminaire

~~A. The luminaire shall consist of a die cast aluminum housing with a clear glass lens; mountable to mast arm with a 2 3/8" OD.~~

~~B. The light shall be nominal 60W (250W equivalent) surge protected LED, Color temperature 3000K, rated for 100,000 hours continuous operation at ambient temperatures 40F to 95F.~~



**As manufactured by Lumecon; LWS-LSL- 60-GR-1-T2-OW-7P**  
**LED Street Luminaire, 58W,8,201**  
**Delivered Lumens, Type II Distribution**  
**120/277V, 3000K,**  
**7-Pin Receptacle**  
**20kA Surge Suppression**

5. Foundation

- A. Cast in place using 4,000 psi concrete.
- B. Min 24” diameter, Min 6 ft deep, **upper 24” shall be sonotube formed.**
- C. Anchor shall be as per pole manufacturer’s recommendation, min 1 inch diameter.
- D. Conduit shall come into the foundation a min of 24-inch below grade and using a **2” conduit** pipe ~~the same diameter of that use on the project,~~ with a sweeping bend shall come up at the center point of the foundation.  
**Foundation includes 2” conduit from the foundation to the nearest Hand Hole is not paid for separately.**

**Construction.**

Complete this work in accordance with sections 818, 819, 918, and 921 of the 2020 MDOT Standard Specifications for Construction, as shown the plans, and per this special provision.

- 1. Obtain shop drawing approval from the Engineer prior to installation of units.
- 2. Mount the street light assemblies per manufacturer’s requirements and as specified, in locations directed by the Engineer.

**Measurement and Payment.**

The completed work, as described, will be measured and paid for at the contract unit price for the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
Street Light Assembly .....	Each
Light Std Fdn .....	Each

**Street Light Assembly** includes all labor, equipment, and materials required to furnish and install a new street light, arm, as specified herein.

**Light Std Fdn** includes all labor, equipment, and materials required to excavate, form, furnish concrete, vibrate, furnish conduit, and sweeps and install, **including 2” conduit furnish and install to the nearest Hand Hole**, furnish anchor bolts and install, and finish concrete surface for a finished foundation ready for use with the new streetlight, as specified herein.

CITY OF ANN ARBOR  
SPECIAL PROVISION  
FOR  
**ELECTRICAL HANDHOLES**

AA:NJB

1 of 2

5/12/23

**Description.**

This work shall consist of furnishing and installing electrical handholes, traffic signal handholes and communication handhole assemblies at the locations shown in the Plans, or as directed by the Engineer. All work shall be completed in accordance with the current National Electric Code (NEC), Sections 818 and 819 of the Michigan Department of Transportation 2020 Standard Specifications for Construction, except as specified herein.

**Materials.**

All materials shall be new and meet the requirements of the current IEEE, NEMA, ANSI Standards as applicable, and as specified herein.

The Contractor shall submit product data sheets for all handholes, covers and other parts for Engineer approval prior to ordering materials. The manufacturer "Quazite Composites," referenced below, is located in Lenoir City, Tennessee.

**Methods of Construction.**

Handholes shall be placed at all junctions of traffic signal or electrical conduit, and as shown on the plans. Maximum distance between any two handholes shall be as shown on the Plans, but in no case shall exceed 500 feet.

The Pay Item Electrical Handhole Assembly, Complete shall include:

1. The complete work as shown on plans and in the details.
2. Excavation and disposal of excavated materials.
3. Placement of foundation material consisting of 4 inches of MDOT Class II sand compacted to 95% of its maximum unit weight.
4. **"Quazite Composites" box 17" x 30" x 18" = PG1730BA18.**
5. **The cover shall be, 17" x 30" x 2" = PG17300HH0041 (Street Lighting) Logo a locking heavy-duty bolt-down type.**
6. All work related to connecting handholes to new and existing conduits, whether shown on the plans or not.
7. MDOT Class II backfill compacted to 95% of its maximum unit weight around the perimeter of the handhole

All conduits shall be connected to the handholes in accordance with the latest revision of Article 346 of the National Electrical Code (NEC).

**Measurement and Payment.**

The completed work shall be paid for at the contract unit price for the following contract items (pay items):

<u><b>Contract Item (Pay Item)</b></u>	<u><b>Pay Unit</b></u>
Electrical Handhole Assembly, Complete _x_ .....	Each

**Electrical Handhole Assembly, Complete** shall be paid for at their contract unit prices and shall include all labor, equipment, and materials to complete the work as specified herein.

CITY OF ANN ARBOR  
SPECIAL PROVISION  
FOR  
**TEMPORARY RAISED PAVEMENT MARKINGS**

AA:NJB

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5/12/23

**Description.**

This work consists of furnishing and installing temporary raised pavement markings. All work should be completed in accordance with sections 812. 12 d of the 2020 MDOT Standard Specifications for Construction.

**Materials.**

Provide materials conforming to 812 of the 2020 MDOT Standard Specifications for Construction and the following requirements of this special provision:

- 1) Use markers manufactured by extruding plastic into an “L” shape, with nominal dimensions of 4 in (100 mm) long x 2 in (50 mm) high (vertical face) x 1 in (25 mm) wide (base leg). Ensure that the markers have the following: A pressure-sensitive adhesive with a paper release liner to the bottom of the base leg. Strips of metallized acrylic reflective sheeting on one sides of the vertical face.

**Construction.**

Place with adhesive to the asphalt road surface after placing asphalt to help demark lanes before permanent pavement marking are placed.

**Measurement and Payment.**

The completed work, as described, will be measured and paid for at the contract unit price for the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
TRPMs, Yellow, Monodirectional.....	Each

**Street Light Assembly** includes all labor, equipment, and materials, required to furnish and install temporary raised pavement markings and remove after permanent pavement markings are in place.

CITY OF ANN ARBOR  
SPECIAL PROVISION FOR

**SIDEWALK RETAINING WALL**

AA: NJB

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5/12/23

**Description.**

This work shall consist of constructing concrete retaining walls adjacent to sidewalks, in accordance with Section 802 of the 2020 edition of the MDOT Standard Specifications for Construction, except as specified herein, as described in this Detailed Specification, as shown in the typical section, and as directed by the Engineer.

**Materials.**

Concrete mixtures shall be 3500 concrete, or as directed by the Engineer, meeting the requirements specified in Section 803 of the 2020 edition of the MDOT Standard Specifications. Epoxy Coated Reinforcement Steel meeting the requirements specified in Section 905 of the MDOT Standard Specifications, Course Aggregate 6A; 3/4 inch thick fiber expansion joint paper; shall be included in "Sidewalk Retaining Wall" and not paid for separately. Reinforcing bar shall stop short of control joints at 10 centers and maintain a min 3 inch cover.

**Construction Method.**

The Contractor shall construct the Sidewalk Retaining Walls as shown in accordance with the detail contained in the plans. Construction shall be in accordance with Section 802 of the 2020 MDOT Standard Specifications for Construction.

**Measurement and Payment.**

Payment shall be measured by the exposed face area of the retaining wall in square feet. The completed work, as described, will be measured and paid for at the contract unit price for the following payitem:

**Contract Item (Pay Item)**

**Pay Unit**

Sidewalk Retaining Wall, 6 to 18 inch .....	Square Foot
Sidewalk Retaining Wall, 18 to 36 inch .....	Square Foot

Payment for Sidewalk Retaining Wall for the respective height shall include all labor, equipment and materials to complete this work. Sidewalk placed along the frontage of the wall will be paid for separately.

**Sidewalk Retaining Wall, 6 to 18 inch** has an integral 12 inch deep 8 inch wide footer below the finished grade of the sidewalk, with longitudinal rebar.

**Sidewalk Retaining Wall, 18 to 36 inch** has in addition to the 6 to 18 inch integral footer a 8 inch thick by 24 inch wide toe footer with transvers bend "L" shaped transvers bars.

**Pre-Proposal Meeting Minutes for the  
Earhart Road Improvements Project**

**Request for Proposal: RFP-23-25  
May 9, 2023 @ 10:00 a.m. via Teams Meeting**

Attendees: Fonson Company

**I. Introductions Project Overview**

- i. 1.3 mile work zone, Single access to 2 Schools open in the summer and Earhart Village Condos, Pine Brae, Glacier Hills Senior Complex
- ii. 8.5 ft Widening between Pine Brae and Pine Brae, 950 ft
- iii. Lane Narrowing, 2,000 ft:
  1. Waldon South Deceleration, right lane
  2. Greenhills South to Glazier Way NB, 0-10 ft
- iv. Mini Roundabouts:
  1. Greenhills South, Oval, 30 ft Dia
  2. Waldon North, Round 50 ft Dia
  3. Glazier Way, Oval, 48 x 16 ft
  4. Median crossing closure at Ridgmaar/ Greenhills Court
- v. Pavement configuration proposed 1ea 10 ft lane each direction with a 4 ft buffer and 5-6 ft bikelane

**b. Resurfacing**

- i. Cold Mill 2-inch 4C from 1994
- ii. Cold Mill Modified, 2<sup>nd</sup> pass to base Agg at select locations
- iii. Hand patch HMA 4EL, at Cold Mill Mod, Contingency 1,100 Ton
- iv. New Curb 4,200 ft Type F4
- v. Place 1 lift 2-inch of HMA 4EL Leveling 4 ft next to new curb, 275 Ton
- vi. Place 1 lift 2-inch of HMA 4EL Wearing, 3,720 Ton

**c. Sidewalk**

- i. Sidewalk Grade in 1,900 ft
- ii. Retaining Wall, as integral, curb, Sft part of Addendum #2
- iii. Sidewalk 4-inch, 11,160 Sft
- iv. Ramps 6-inch 2,770 Sft

**d. Storm**

- i. Rem & Rep all Drop Inlets and Stm Leads, and Structures at Curb Realignment
- ii. 2 ft Dia, Inlet Structures, 23 Ea, 3 ft Dia Junction 2 Ea
- iii. 672 ft 12-inch RCP Storm for CB Leads to Structure
- iv. 6-inch Underdrain, 6,855 ft, along widening and along new curb NB

**II. Addendum Items**

- a. Addendum #1 –Issued May 1, included a new:
  - i. Bid Form
- b. Addendum #2 – will include the following and will be issued May 15:
  - i. New Set of Plans

- ii. Revised Bid Form
- iii. Any revisions to Specs, Integral Wall (new), Electrical Pay Items (rev) (pg 166-169), Vertical Delineators (rev) (pg 157)
- iv. Pre-Proposal Meeting Minutes

Question and Answers

- 1. Written Question Deadline is May 11, 2023 10:00 a.m. sent to [nbayley@a2gov.org](mailto:nbayley@a2gov.org) and [cspencer@a2gov.org](mailto:cspencer@a2gov.org)

III. Standard Specifications and Detailed Specifications

- i. Project Schedule
  - Bid Due Date – May 23, 2023 at 10:00 a.m.
  - Starting Date – July 17, 2023. City Council Award date is anticipated to be July 3, 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 - \$4.2 million
- iv. General Conditions
  - 1. Street sweeping & dust control
  - 2. Maintaining drainage
  - 3. Sediment build up on inlet filters, site is low Greenhill South
- v. Access to driveways - Contractor responsible for maintaining access to driveways during construction, and notifying residents when access will be unavailable (i.e. during concrete work and paving)

IV. Construction

- a. Construction
  - i. 2 Phases of MOT, both one way NB only, Full length of the Project; Geddes to US-23, Phase 1 Cold Mill, Narrowing and Sidewalk, Phase 2 Widening, Roundabouts and Wearing Course
  - 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. Machine Grading, to fine grade agg before paving.
- c. Machine Grading, Mod for grading ahead of turf establishment areas of road narrowing at Waldon or along the swale area along the Widening. Narrowing associated with the sidewalk setting grade prep is paid for under the Sidewalk Grading, Longitudinal Foot.
- d. Sidewalk and ADA Ramps – ADA compliance MUST be achieved at all locations
- e. Restoration
  - i. Turf Establishment, 4,325 Syd item 882.1, includes: 4-inch topsoil, seed, fertilizer and blown mulch (all in)
  - ii. High Velocity Mulch Blanket, on steep slopes or in ditch will be paid for separately

- V. Certified Payroll Compliance – 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. Award Recommendation Best Value 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 see Appendix 1 (reference pages 170-210)
- VIII. Questions are due, **Thursday May 11, 2023** at 10:00 a.m.
- IX. Bids are due **May 23, 2023 by 10:00** a.m. 2 ea hard copy submittals with 1 full .pdf copy via USB only

Questions and Answers:

None at this time

Meeting concluded at 10:45 a.m.

Contact Information:

**Nicholas Bayley**  
**Project Manager**  
**Phone: (734) 794-6410 ext. 43685**  
**E-mail: [nbayley@a2gov.org](mailto:nbayley@a2gov.org)**





# CITY OF ANN ARBOR ENGINEERING

## EARHART ROAD IMPROVEMENTS (GEDDES - US23)

### NOTES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

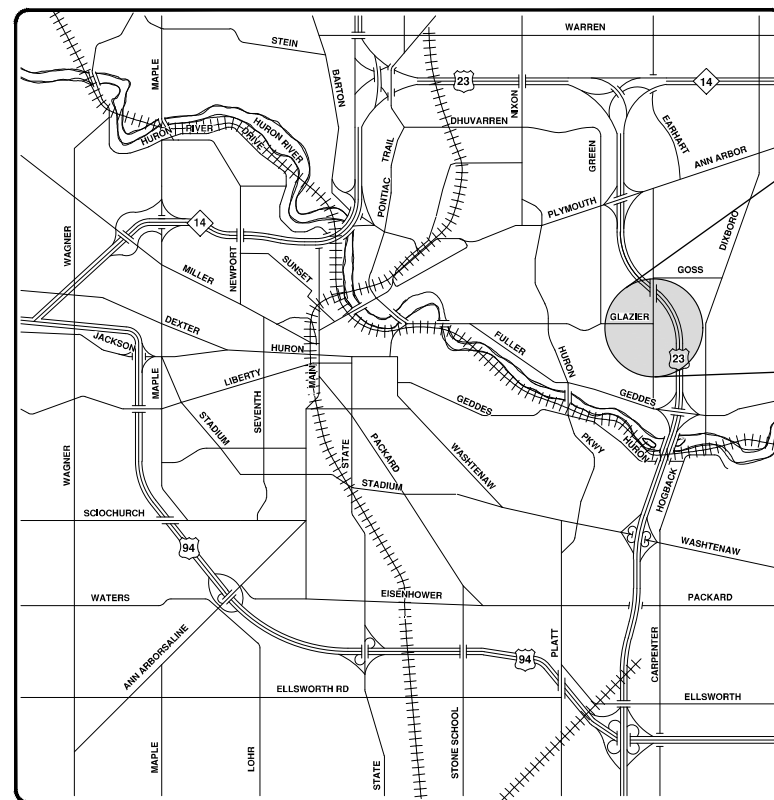
THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, ITS DETAILS, WHICH ARE INCLUDED BY REFERENCE, AND THIS PROJECT'S CONTRACT DOCUMENTS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.

Sheet List Table	
Sheet Number	Sheet Title
1	Cover Sheet
2	Standard Notes
3	Legend
4	SESC Notes and Details
5	Details
6	Details
7	Details
8	Sidewalk Retaining Wall Details
9	Earhart Road Typical Sections
10	Earhart Road Typical Sections
11	Alternate Pedestrian Route (APR) Detour
12	Alternate Pedestrian Route (APR) Bypass
13	TPAR Ramps
14	TPAR Walkway Devices
15	Detour Plan
Maintenance of Traffic - Ph I	
16	Sta. 0+00 Sta. 4+00
17	Sta. 4+00 - Sta. 22+00
18	Sta. 22+00 - Sta. 40+00
19	Sta. 40+00 - Sta. 58+00
0	Sta. 58+00 - P.O.E.
Maintenance of Traffic - Ph II	
21	Sta. 0+00 Sta. 4+00
22	Sta. 4+00 - Sta. 22+00
23	Sta. 22+00 - Sta. 40+00
24	Sta. 40+00 - Sta. 58+00
25	Sta. 58+00 - P.O.E.
Removals	
26	Sta. 3+14 - Sta. 11+00
27	Sta. 11+00 - Sta. 20+00
28	Sta. 20+00 - Sta. 29+00
29	Sta. 29+00 - Sta. 38+00
30	Sta. 38+00 - Sta. 47+00
31	Sta. 47+00 - Sta. 56+00
32	Sta. 56+00 - Sta. 65+00
33	Sta. 65+00 - Sta. 67+84
Road Plan & Profile	
34	Sta. 3+14 - Sta. 5+50
35	Sta. 5+50 - Sta. 9+50
36	Sta. 9+50 - Sta. 13+50
37	Sta. 13+50 - Sta. 17+50
38	Sta. 17+50 - Sta. 21+50
39	Sta. 21+50 - Sta. 25+50
40	Sta. 25+50 - Sta. 29+50
41	Sta. 29+50 - Sta. 34+00
42	Sta. 34+00 - Sta. 43+00
43	Sta. 43+00 - Sta. 52+00
44	Sta. 52+00 - Sta. 61+00
45	Sta. 61+00 - Sta. 67+84
46	Northbound EOM LT Sta. 34+00 - Sta. 37+00
47	Northbound EOM LT Sta. 37+00 - Sta. 41+50

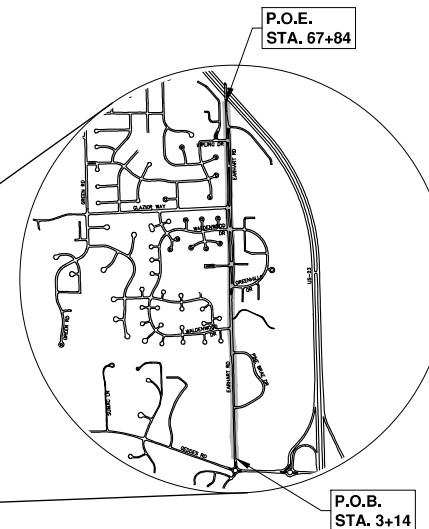
48	Northbound EOM LT Sta. 41+50 - Sta. 44+75
49	Northbound EOM LT Sta. 44+75 - Sta. 49+00
50	Northbound EOM LT Sta. 49+00 - Sta. 50+75
Storm Sewer Plan & Profile	
51	R117, R118, R119, R120, R121, R122
52	R112, R113, R114, R115, R116
53	R100, R101, R102, R103, R104, R105, R106
54	R107, R108, R109, R110, R111
Sidewalk Plan & Profile	
55	Sta. 0+00 - Sta. 4+50
56	Sta. 4+50 - Sta. 9+00
57	Sta. 9+00 - Sta. 13+50
58	Sta. 13+50 - Sta. 18+00
59	Sta. 18+00 - Sta. 20+75
Intersection Grades	
60	Waldenwood Dr (S) and Green Hills Dr (S)
61	Ridgmaar Sq
62	Waldenwood Dr (N) and Green Hills Dr (N)
63	Glazier Way
64	Glacier Hills Cir
65	Kipling Dr
Pavement Markings	
66	Sta. 2+29 - Sta. 11+00
67	Sta. 11+00 - Sta. 20+00
68	Sta. 20+00 - Sta. 29+00
69	Sta. 29+00 - Sta. 38+00
70	Sta. 38+00 - Sta. 42+50
71	49 Sta. 42+50 - Sta. 47+00
72	Sta. 47+00 - Sta. 51+50
73	Sta. 51+50 - Sta. 60+50
74	Sta. 60+50 - 68+07
Cross Sections	
75	Northbound 31+10 to 33+50
76	Northbound 33+75 to 36+50
77	Northbound 36+75 to 39+50
78	Northbound 39+75 to 42+50
79	Northbound 42+75 to 45+50
80	Northbound 45+75 to 49+25
81	Southbound 34+00 to 36+75
82	Southbound 37+00 to 39+75
83	Southbound 40+00 to 42+75
84	Southbound 43+00 to 45+75
85	Southbound 46+00 to 49+25

Denotes new sheets added in Addendum #2

R.F.P. 23-25, FILE No. 2021023



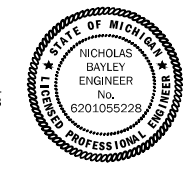
VICINITY MAP



P.O.B. STA. 3+14

P.O.E. STA. 67+84

PREPARED UNDER THE SUPERVISION OF  
*Nicholas Bayley*  
NICHOLAS BAYLEY, P.E. - MI LICENSE No. 6201055228  
PROJECT ENGINEER  
4 / 27 / 2023  
DATE



811 Know what's below. Call before you dig.

REV.	DATE	DESCRIPTION
01	5-15-23	ADDENDUM #1
00	4-27-23	OUT TO BID

CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-6647  
www.a2gov.org

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS - APPROXIMATELY 1.3 MILES OF HMA 2-INCH MILL AND OVERLAY, AREAS OF FULL DEPTH HMA REMOVAL AND REPLACEMENT, 960 FT SECTION OF ROAD WIDENING, 2000 FT OF SINGLE LANE NARROWING, 3 MINI ROUNDABOUTS, 1,950 FT OF 5 FT WIDE SIDEWALK, ADA RAMPS IMPROVEMENTS, CATCH BASIN REPLACEMENTS, PAVEMENT MARKING FOR ON-STREET DEDICATED BIKE LANES BETWEEN GEDDES AND US-23.

SCALE: \_\_\_\_\_  
DRAWING No.: 2021023-1  
SHEET No.: 1 OF 85

© EARHART ROAD IMPROVEMENTS (GEDDES - US23); R.F.P. 23-25; 2021023

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Cov.dwg - \_a2 standard bw.stb - Plot Date: 5/15/2023 11:18:08 AM

**GENERAL NOTES:**

1. Driveways and entrances to buildings, real property, and the like shall not be blocked except for short durations and only when approved by the Engineer. Vehicular and pedestrian access shall be maintained at all times. It shall be the Contractor's responsibility to coordinate all necessary driveway closures with the property owner(s) and resident(s) in the areas of construction.
2. The location and depth of all existing utilities and service leads are to be field verified by the Contractor prior to construction.
3. During non-working hours no more than ten (10) feet of trench shall remain open; any open trench shall be properly secured with protective fencing. This work shall be included in the items of work being undertaken and will not be paid for separately.
4. The location of material stock piles and on-site staging areas shall be approved by the Engineer.
5. For mainline HMA Paving, the width of the mat for each pass of the paver shall be not less than 10.5', nor greater than 16', except as noted in the plans and as directed by the Engineer. The Engineer will direct the layout of all HMA Longitudinal Joints during construction.
6. All excavation required for roadway grading within the project limits, including proposed curbs, pavement and infiltration trench, shall be included in "Machine Grading, Modified, \_\_\_\_\_".
7. All excavation required for project grading within the project limits, including proposed sidewalks and sidewalk ramps, shall be included in "Sidewalk Grading" and "Sidewalk Ramp Grading".
8. Excavation and backfill behind curb and gutter shall be included in "Machine Grading, Modified, \_\_\_\_\_". All backfill under proposed concrete pavements such as drive approaches, ramps, sidewalk, etc., shall be MDOT Class II Granular Material, compacted to 95% of its max. dry density and will be paid for as "Subbase, CIP, Class II, Modified." Backfill for other areas must be approved by the Engineer and compacted to 95% of its max. dry density. No payment will be made for sub-base or aggregate base that extends beyond 12" behind the back of curb. Reference the Typical Cross Sections.
9. Excavation and backfill for sidewalks and sidewalk ramps shall be included in "Sidewalk Grading" and "Sidewalk Ramp Grading". All backfill under proposed concrete pavements such as drive approaches, ramps, sidewalk, etc., shall be MDOT Class II Granular Material, compacted to 95% of its max. dry density and will be paid for as "Subbase, CIP, Class II, Modified." Backfill for other areas must be approved by the Engineer and compacted to 95% of its max. dry density. No payment will be made for sub-base or aggregate base that extends beyond 6" behind the back of walk. Reference the Typical Cross Sections.
7. Where existing sewer and/or drainage structures are to be removed, they shall be properly disposed of off-site and the excavation shall be backfilled with MDOT Class II Granular Material compacted to 95% of its max. dry density. This work shall be included in the appropriate contract items and will be paid for at the corresponding contract unit price.
8. All Structures shall receive new castings, as specified on the Standard Casting Schedule. The existing castings shall be neatly stocked on-site in a single location so that City of Ann Arbor forces can retrieve them at a later date. The Contractor shall assist City forces by loading them into City trucks. All costs associated with storing, stockpiling, and loading castings into City vehicles shall be included in the item of work "Mobilization, Max. \_\_\_\_\_" and will not be paid for separately.
9. All fittings, hydrants, valves and castings removed during construction shall become the property of the City of Ann Arbor. The Contractor shall coordinate pick up by the City of Ann Arbor Public Works.
10. Payment for drainage structure sumps, where specified, shall be included in the payment for the various drainage structures sizes and/or types.
11. Where pipes of different sizes or materials are joined, Engineer approved flexible couplings with stainless steel shear rings shall be used. The Contractor's purchase price for these devices, including shipping, shall be paid as an extra. Prior to payment for this item, the Contractor shall submit receipts for the Engineer's review and approval. All other costs associated with the installation of these devices shall be included in the payment for the sewer.
12. If the Contractor encounters existing edge drain(s) during construction of the proposed edge drains, inlet leads, or catch basins, it shall be capped at each end to prevent material from entering the pipe. The cost of this work will not be paid for separately, but shall be included in the particular item of work being performed.
13. In areas where edge drain cannot be installed in accordance with the details, the edge drain shall be installed at the depth as indicated on the plans, or as directed by the Engineer. In no case shall the edge drain be installed at a grade less than 0.50% or at a depth less than 3.25' below the top of pavement.
14. Existing street name signs, guide, bus stop, and regulatory signs which conflict with the proposed construction shall be removed prior to construction, stored in a manner which will prevent damage, and re-set in locations as directed by the Engineer. This work will not be paid for separately, but shall be included in the pay item "Minor Traf Devices".
15. All curb, sidewalk, driveway approach removals shall be approved by the Engineer before the work is performed.
16. Place 4" (minimum) thickness Class II Granular Material compacted to 95% of its max. dry density under concrete sidewalk as shown on the details. This work shall be included in the contract items "Subbase, CIP, Class II, Modified."
17. Place 8" (minimum) MDOT Dense Graded Aggregate 21AA, compacted to 95% of its max. dry density under drive approaches. This work shall be included in the contract item "Aggregate Base."
18. Prior to placing the adjacent paving pass on the leveling and wearing courses of HMA, the Contractor shall cut and remove 6" to 8" of the previously placed pavement by means of a couler wheel. The Engineer reserves the right to reject any method(s) for cutting the pavement that does not provide a satisfactory edge as determined by the Engineer. Any method(s) employed by the Contractor shall be completely effective. The cut edge shall have a uniform bead of Craftco Joint Adhesive applied. The removal of this HMA material, cleaning the HMA surface and pavement edge, and condition of the resulting edge must be approved by the Engineer prior to proceeding with the placement of the succeeding pass of HMA. The base course of HMA will only have its edges tacked in accordance with standard paving practices. All costs associated with complying with these requirements will be included in the pay item "Edge Trimming".

EARHART ROAD BENCHMARKS		
BM #	ELEV	DESCRIPTION
AA1033	814.118	CITY OF ANN ARBOR VERTICAL CONTROL STATION. BRASS DISC IN CENTER OF ROUNDABOUT
1	814.540	EAST SIDE OF CONC. LIGHT BASE 55'+/- NORTH OF CL OF ENTRANCE TO CONCORDIA UNIV. MAINTENANCE BARN
AA2032	843.380	CITY OF ANN ARBOR BENCH MARK
2	883.330	SOUTH SIDE OF CONC. CROSS BASE JUST SOUTH OF ST PAUL LUTHERAN SCHOOL SIGN, NW CORNER ENTRANCE OF SCHOOL DRIVEWAY.
3	872.450	SOUTH FLANGE BOLT ON HYDRANT SE CORNER OF EARHART & PINE BRAE. 20'+/- FROM CL OF PINE BRAE, 36'+/- FROM CL OF EARHART. NEAR HOUSE #491
4	855.970	NE BOLT ON CONC. BASE OF LIGHT POLE ON THE NW CORNER OF EARHART & WALDENWOOD, 75'+/- FROM CL OF EARHART.
1	872.119	CHISEL "X" ON NE BOLT OF LAMP POST ON SOUTHSIDE OF SOUTH ENTRANCE TO GREENHILLS DRIVE AND 76'± EAST OF CENTERLINE OF EARHART ROAD.
2	888.672	TOP OF SE BOLT ON FLANGE OF HYDRANT, EAST SIDE OF EARHART ROAD, 4' BACK OF CURB AND 182'± NORTH OF ENTRANCE TO EARHART VILLAGE UNITS 810-832 OFF EARHART ROAD.
3	894.025	TOP OF SW BOLT ON FLANGE OF HYDRANT, NW CORNER OF EARHART ROAD AND WALDENWOOD DRIVE.
4	893.891	BOAT SPIKE IN NE FACE OF UTILITY POLE AT SOUTHWEST CORNER OF GLAZIER WAY AND EARHART ROAD.
5	892.352	RAILROAD SPIKE IN WEST FACE OF UTILITY POLE, EAST SIDE OF EARHART ROAD, 10' FROM BACK OF CURB AND 234'± NORTH OF CENTERLINE OF GLACIER HILLS DRIVE SOUTH
6	895.813	RAILROAD SPIKE WEST FACE OF UTILITY POLE AT THE SE CORNER OF EARHART ROAD AND MAIN ENTRANCE OF GLACIER HILLS #1200
7	888.399	RAILROAD SPIKE WEST FACE OF UTILITY POLE ON EAST SIDE OF EARHART ROAD 8' FROM BACK OF CURB AND 148'± SOUTH OF CENTERLINE OF KIPLING DR.
8	893.903	RAILROAD SPIKE WEST FACE OF UTILITY POLE ON THE EAST SIDE OF EARHART ROAD, 35'± FROM BACK OF CURB AND 95'± NORTH FROM CENTERLINE OF GLACIER HILLS DR. NORTH ENTRANCE
9	892.060	CITY BENCHMARK #2009 DISC IN ROUND MONUMENT, 12.8'± S OF BACK OF CURB AND 13.1'± E OF BACK OF CURB IN THE SOUTH ISLAND AT THE INTERSECTION OF GLAZIER WAY & EARHART ROAD.

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.	
PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT*	CITY OF ANN ARBOR ENGINEERING
"NO PARKING" SIGNS PERMIT*	CITY OF ANN ARBOR ENGINEERING
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
RIGHT-OF-WAY PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
* NO COST TO CONTRACTOR	

PERMITS REQUIRED TO BE OBTAINED BY THE CITY OF ANN ARBOR PRIOR TO THE BEGINNING OF CONSTRUCTION.	
PERMIT	ISSUING AUTHORITY
EGLWATER MAIN CONSTRUCTION PERMIT	MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

CONTACT INFORMATION		
PUBLIC UTILITIES	OWNER	CONTACT
WATER	CITY OF ANN ARBOR PUBLIC WORKS W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	(734) 794-6350
SANITARY		
STORM		
FORESTRY		
SIGNS SIGNALS STREET LIGHTS	MARK MORENO (734) 794-6361	
FIBER OPTIC	CITY OF ANN ARBOR INFORMATION TECHNOLOGY LARCOM CITY HALL 301 E. HURON STREET ANN ARBOR, MI 48107	(734) 794-6550
PRIVATE UTILITIES	OWNER	CONTACT
GAS	DTE ENERGY 3150 E. MICHIGAN AVE, YPSILANTI TOWNSHIP, MI 48198	ROBERT CZAPIEWSKI (734) 544-7818
ELECTRIC	DTE ENERGY WESTERN WAYNE SERVICE CENTER 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	ANTHONY IGNASIAK (734) 397-4447
CABLE	COMCAST 27800 FRANKLIN ROAD SOUTHFIELD, MI 48034	RON SOUTHERLAND (313) 999-8300
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	STEVEN ALLSHOUSE (734) 996-5381
FIBER OPTIC	MCI 2800 N. GLENFILLE ROAD RICHARDSON, TX 75082	DEAN BOYERS (972) 729-6016
FIBER OPTIC	WINDSTREAM 1295 S LINDEN ROAD, SUITE B FLINT, MI 48532	GREG SERICH (810) 244-3500
STREET LIGHTING	DTE ENERGY 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	LANCE ALLEY (734) 397-4188



Know what's below.  
Call before you dig.

			CC/DF	CC/DF					
		9-15-23	4-27-23						
		01	00						
		ADDENDUM #1	OUT TO BID						
									DESCRIPTION
									REV.



CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
P.O. BOX 8647  
ANN ARBOR, MI 48108  
734-794-6410  
www.a2gov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)

SCALE: NTS



DRAWING No. 2021023-2

SHEET No. 2 OF 85

EXISTING LEGEND

- FIRE HYDRANT
- GATE VALVE IN BOX
- GATE VALVE IN WELL
- STOP BOX
- WATER VAULT
- WELL
- CATCH BASIN (SQ)
- CATCH BASIN (RD)
- STORM MANHOLE
- NON-CURB CATCH BASIN (SQ)
- END SECTION
- SANITARY MANHOLE
- CLEAN-OUT
- POST
- PEDESTRIAN SIGNAL
- SIGN
- HAND HOLE
- ORNAMENTAL LIGHT
- FLOOD LIGHT
- UNKNOWN MANHOLE
- TELEPHONE MANHOLE
- TELEPHONE RISER
- GAS VALVE
- GAS VENT
- GAS BOX
- ELECTRICAL RISER
- TRANSFORMER
- UTILITY POLE
- LAMP POLE
- GUY ANCHOR
- GUY POLE
- MONITORING WELL
- MAILBOX
- SOIL BORING
- TRAVERSE POINT
- BENCH MARK
- IRON PIPE
- MON BOX

- WATER MAIN
- WATER MAIN ABANDONED
- STORM SEWER
- STORM SEWER ABANDONED
- SANITARY SEWER
- SANITARY SEWER ABANDONED
- GAS MAIN
- GAS MAIN (DEAD)
- ELECTRICAL OVER HEAD
- ELECTRICAL UNDER GROUND
- Electrical duct bank
- TELEPHONE OVER HEAD
- TELEPHONE UNDER GROUND
- Telephone duct bank
- CABLE TV OVER HEAD
- CABLE TV UNDER GROUND
- FIBER OPTIC
- FIBER OPTIC DUCT BANK
- BOUNDARY
- BUILDING
- CENTERLINE OF DITCH
- CENTERLINE/CROWN OF ROAD
- CONTOUR MAJOR
- CONTOUR MINOR
- EDGE OF WATER
- FLOODPLAIN
- FENCE
- GRAVEL
- GUARDRAIL
- STONE WALL
- R.O.W.
- TREELINE
- WETLAND
- EDGE OF BRUSH
- HEDGE

- TREE (DECIDUOUS)
- TREE (CONIFEROUS)
- SHRUB (DECIDUOUS)
- STUMP
- TREE TO REMAIN & PROTECT (DECIDUOUS)  
CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREST HEIGHT (INCHES) X 10
- TREE TO REMAIN & PROTECT (CONIFEROUS)  
CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREST HEIGHT (INCHES) X 10

PROPOSED LEGEND

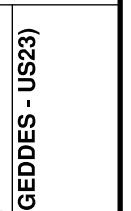
- HYDRANT (PLAN)
- WATER GATE WELL
- REDUCER
- WATER GATE VALVE
- WATER STOP BOX
- WATER VAULT
- INLET
- DOUBLE INLET
- INLET JUNCTION CHAMBER
- ROUND CATCH BASIN
- STORM MANHOLE
- DRAIN ARROW
- FLARED END SECTION
- SANITARY MANHOLE
- CLEAN-OUT
- SIGN
- PUSH BUTTON
- HAND HOLE
- WATER MAIN
- STORM SEWER
- SANITARY SEWER
- FIBER OPTIC
- ELECTRICAL
- CENTERLINE OF DITCH
- CENTERLINE OF ROAD
- FENCE
- GRAVEL
- SILT FENCE
- PROTECTIVE FENCE
- GUARDRAIL
- LOT/UNIT
- CURB
- TEMPORARY GRADING PERMIT
- CONTOUR MAJOR
- CONTOUR MINOR
- WATER EASMENT
- STORM EASEMENT
- SANITARY EASEMENT
- R.O.W.
- LIMITS OF CONSTRUCTION
- LIMIT OF GRADING
- STONE WALL

- DETECTABLE WARNING
- ASPHALT
- CONCRETE
- SIDEWALK
- TREE (DECIDUOUS)
- TREE (CONIFEROUS)
- TREE TO BE REMOVED (DECIDUOUS)
- TREE TO BE REMOVED (CONIFEROUS)
- STUMP TO BE REMOVED



01	ADDENDUM #1	5-15-23	CC/DF	CC/DF	DRAWN	CHECKED
00	OUT TO BID	4-27-23			DATE	
					DESCRIPTION	

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
SCALE: NTS  
DRAWING No. 2021023-3  
SHEET No. 3 OF 85

**GENERAL**  
 NOTIFY THE CITY OF ANN ARBOR SOIL EROSION CONTROL OFFICE 48 HOURS PRIOR TO BEGINNING WORK ON THE PROJECT. PHONE: 734-794-6265.

- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SOIL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER AT ALL TIMES DURING CONSTRUCTION. ANY MODIFICATIONS OR ADDITIONS TO THE SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE AS DIRECTED AND APPROVED BY THE ENGINEER.
- ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE CITY OF ANN ARBOR, THE LAWS OF THE STATE OF MICHIGAN, AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- DAILY, OR AFTER ANY STORM EVENT, INSPECTIONS OF EROSION CONTROL MEASURES SHALL BE MADE BY THE CONTRACTOR. PERIODIC INSPECTIONS MAY BE MADE BY THE ENGINEER TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY CORRECTIONS SHALL BE MADE WITHOUT DELAY, AND WITHOUT ADDITIONAL COST TO THE CITY OF ANN ARBOR.
- EROSION AND SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED ON THE SITE AND NOT BE ALLOWED TO COLLECT ON ANY OFF-SITE AREAS, ROADWAYS OR WATERWAYS.
- ALL MUD/SOIL TRACKED ONTO ROADWAYS FROM THE SITE DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. IF SO ORDERED, THE CONTRACTOR SHALL PROVIDE AND OPERATE A VACUUM-TYPE STREET SWEEPER, AT NO ADDITIONAL COST TO THE CITY OF ANN ARBOR.
- RESTORATION OF ALL DISTURBED AREAS, INCLUDING PLACEMENT OF TOPSOIL, SEED, FERTILIZER AND MULCH AND/OR SOD SHALL BE PERFORMED WITHIN FIVE (5) DAYS OF THE COMPLETION OF FINAL GRADE.
- CONSTRUCTION OPERATIONS SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE SOIL EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION IN CRITICAL AREAS AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING OPERATIONS.
- SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
- PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF

- WATER TRUCKS AND/OR OTHER METHODS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND REMOVAL OF SOME MEASURES UPON AUTHORIZED COMPLETION OF THE PROJECT. FINAL COMPLETION OF PROJECT WILL NOT BE AUTHORIZED UNTIL ALL SITE WORK AND UTILITY CONSTRUCTION IS COMPLETE AND ALL SOILS ARE STABILIZED.
  - THE CONTRACTOR SHALL NOT GRADE INTO ADJACENT PROPERTIES. SILT AND PROTECTIVE FENCE SHALL BE INSTALLED AND MAINTAINED TO PREVENT GRADING, EROSION AND SEDIMENTATION INTO THE ADJACENT PROPERTIES.
  - TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.

**SEQUENCE OF EROSION CONTROL MEASURES:**

- THE CONTRACTOR IS TO SUBMIT TO THE ENGINEER, A SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION CONTROL MEASURES FOR REVIEW, COMMENT AND APPROVAL. THIS SCHEDULE IS TO INCLUDE INSPECTION AND REPAIR OF ALL TEMPORARY EROSION CONTROL MEASURES DAILY AND WITHIN 24 HOURS OF A STORM EVENT.

**SAMPLE SOIL EROSION AND SEDIMENTATION CONTROL INSTALLATION MINIMUM REQUIREMENTS:**

- INSTALL SILT FENCE, TREE PROTECTION FENCING, MUD MATS, INLET FILTERS ON EXISTING DRAINAGE FEATURES, AND ALL OTHER TEMPORARY SOIL EROSION CONTROLS, PRIOR TO ANY CLEARING OR EARTH MOVING OPERATION.
- STRIP AND STOCKPILE TOPSOIL. STABILIZE STOCKPILE AS REQUIRED.
- INSTALL WATER MAINS, STORM AND SANITARY SEWERS, AND OTHER ENCLOSED DRAINAGE FEATURES. NEW INLET FILTERS SHALL BE INSTALLED IMMEDIATELY FOLLOWING INSTALLATION OF NEW DRAINAGE INLETS.
- PERFORM MACHINE GRADING OPERATIONS AND CONSTRUCT PAVEMENTS (MAINLINE, SIDEWALKS, DRIVES, ETC.).
- CONTINUALLY MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES, AS REQUIRED TO ALLOW DRAINAGE AND SEDIMENT REMOVAL. REMOVE ANY ACCUMULATED SEDIMENT IMMEDIATELY.
- COMPLETE ALL FINE GRADING.

- TEMPORARY SEED AND INSTALL EROSION CONTROL BLANKET IN ALL DISTURBED AREAS.
- REFER TO LANDSCAPE PLANTING PLANS FOR PERMANENT SITE STABILIZATION.
- CLEAN OUT STORM SEWER SYSTEMS.
- REMEDY ANY NOTED DEFECTS TO THE SATISFACTION OF THE CITY OF ANN ARBOR'S SOIL EROSION AND SEDIMENTATION CONTROL OFFICIAL.
- ALL TEMP. SOIL EROSION CONTROL MEASURES MUST BE REMOVED, WITH ENGINEERS APPROVAL, PRIOR TO FINAL INSPECTION

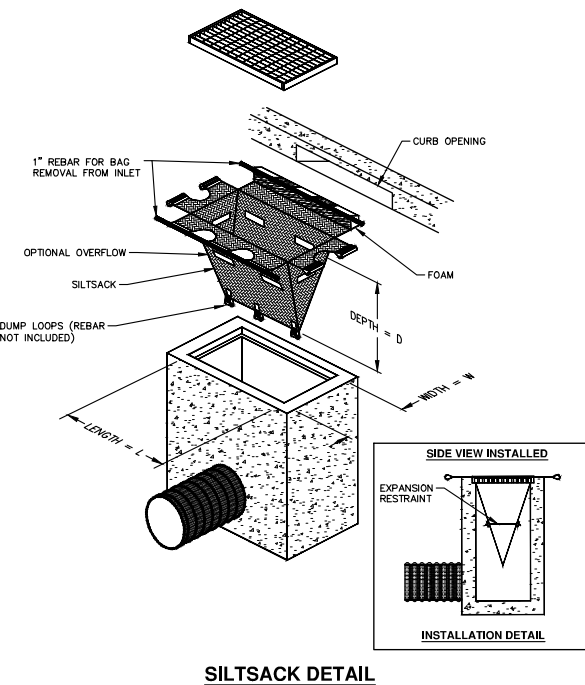
NOTE: THIS SEQUENCE IS FOR INFORMATION ONLY. IT IS INTENDED TO SHOW THE SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THEIR OWN DETAILED CONSTRUCTION SEQUENCE AND SCHEDULE TO THE ENGINEER FOR REVIEW, COMMENT, AND APPROVAL.

**TEMPORARY SEEDING:**

- SEED IN ACCORDANCE WITH PROJECT DRAWINGS AND SPECIFICATIONS.
- ANY DISTURBED AREA NOT PAVED, SEEDED, MULCHED, SODDED OR BUILT UPON BY NOVEMBER 15TH OR JUNE 30TH IS TO BE TEMPORARILY STABILIZED PER SPECIFICATIONS.

THE ESTIMATED COST OF SOIL EROSION AND SEDIMENTATION CONTROL MEASURES, TOPSOIL, SEEDING, AND MULCH = \$17,500.

IMPERVIOUS PROJECT AREA  
 6.65 AC - PRE-IMPROVEMENT PROJECT  
 6.01 AC - POST-IMPROVEMENT PROJECT  
 TOTAL AREA OF PROPOSED DISTURBANCE  
 6.73 AC - EARTHART ROAD



NOTE: THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

**REGULAR FLOW SILTSACK**

(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	REQUIRED VALUE	TEST METHOD
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

**HI-FLOW SILTSACK**

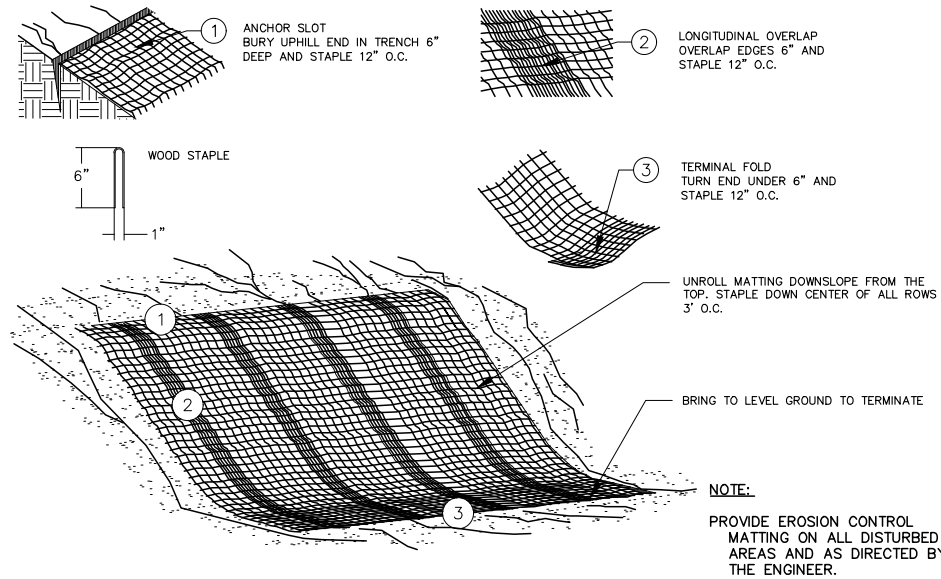
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	REQUIRED VALUE	TEST METHOD
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

**OIL-ABSORBANT SILTSACK**

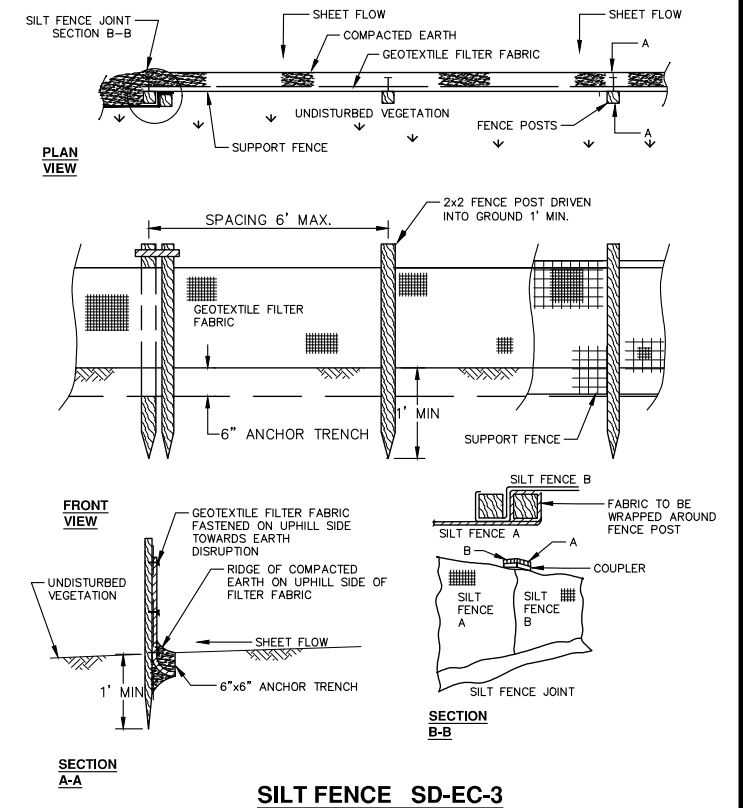
(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

IT IS THE INTENT OF THE PLANS AND SPECIFICATIONS THAT THE CONTRACTOR INSTALL THE REBAR AS SHOWN IN THIS DETAIL TO PROVIDE A FULLY FUNCTIONING UNIT. ALL COSTS ASSOCIATED WITH FURNISHING, CLEANING AS MANY TIMES AS REQUIRED, DISPOSAL OF SEDIMENT, AND REMOVING THE INLET FILTER WHEN NO LONGER NEEDED IS INCLUDED IN THE ITEM OF WORK AND WILL NOT BE PAID FOR SEPARATELY.



**MULCH BLANKET DETAIL**

APPLIES TO ALL AREAS TO BE PERMANENTLY RESTORED WITH GRASS. SEE LANDSCAPE PLANS FOR MORE DETAILS.



**SILT FENCE SD-EC-3**

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Cov.dwg Dwg Created: 9-May-23 - \_02 standard bw.stb - Plot Date: 15-May-23



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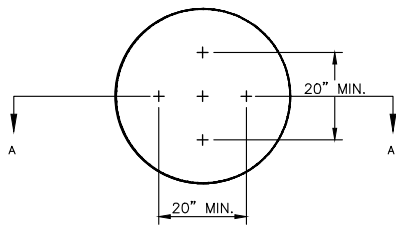
			CC/DF	CC/DF	DATE				
01	ADDENDUM #1	5-15-23		4-27-23					
00	OUT TO BID								

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

SCALE: NTS  
 DRAWING No. 2021023-4  
 SHEET No. 4 OF 85

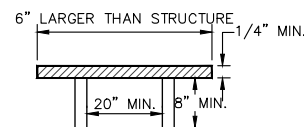
SESC NOTES AND DETAILS

CITY OF ANN ARBOR  
 PUBLIC SERVICES  
 301 EAST HURON STREET  
 P.O. BOX 8647  
 ANN ARBOR, MI 48108-8647  
 734.794.4410  
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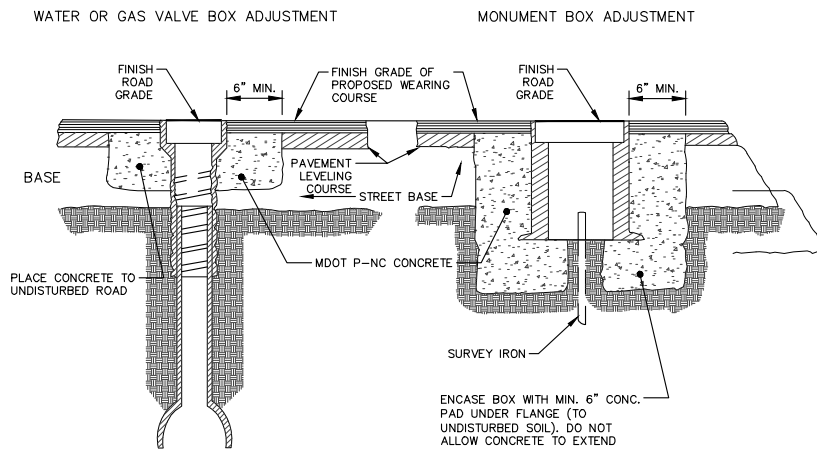
NOTE: PLATE MAY BE CIRCULAR, SQUARE OR RECTANGULAR

SECTION A - A



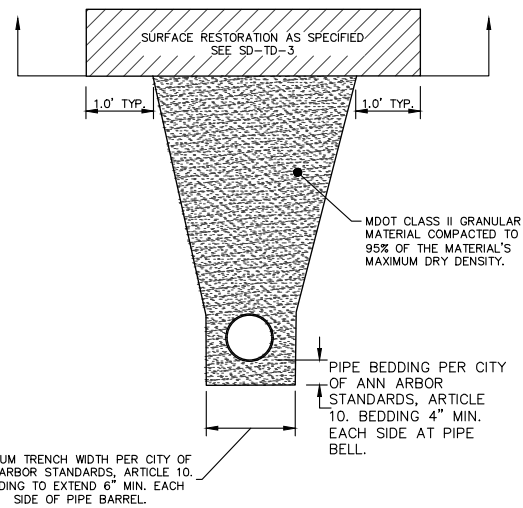
1/4" MIN. THICKNESS AND SUFFICIENT TO CARRY THE CONSTRUCTION LOAD.

**STRUCTURE PLATE SD-GU-8**



- NOTES:
1. GAS VALVE BOXES TO BE ADJUSTED BY THE GAS COMPANY.
  2. PLACE CENTER OF [MONUMENT] BOX OVER SURVEY IRON.
  3. RAISE CASTING TO PROPOSED FINISH STREET GRADE AFTER PLACEMENT OF LEVELING COURSE(S) AND PRIOR TO PLACING FINAL SURFACE COURSE.

**VALVE AND MONUMENT BOX ADJUSTMENT SD-GU-6**



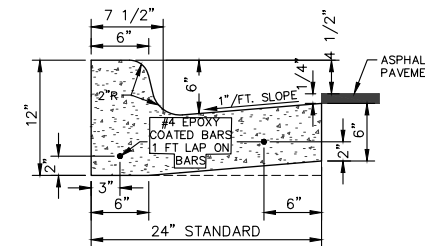
- NOTES:
1. ALL TRENCH EXCAVATION, BEDDING, BACKFILLING, AND SURFACE RESTORATION SHALL COMPLY WITH CITY OF ANN ARBOR STANDARDS, ARTICLE 10.
  2. TRENCH DETAILS SHOW TYPE OF BACKFILL AND TRENCHING REQUIREMENTS ONLY.
  3. ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. AND CITY STANDARDS.
  4. PIPE BEDDING THICKNESS UNDER CONCRETE PIPE 66" OR LARGER SHALL BE INCREASED TO 6".
  5. SEE SD-TD-18 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 SD-TD-1A**

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	K	7045Z W/ TYPE M1 GRATE	R-3031-B W/ TYPE S GRATE
BARRIER CURB LOW POINT INLET FRAME AND COVER	K	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 O2 GRATE	R-2560-E1
WATER VALVE BOX ASSEMBLY IN PAVEMENT		8560	N/A
MONUMENT BOX ASSEMBLY		8360	N/A

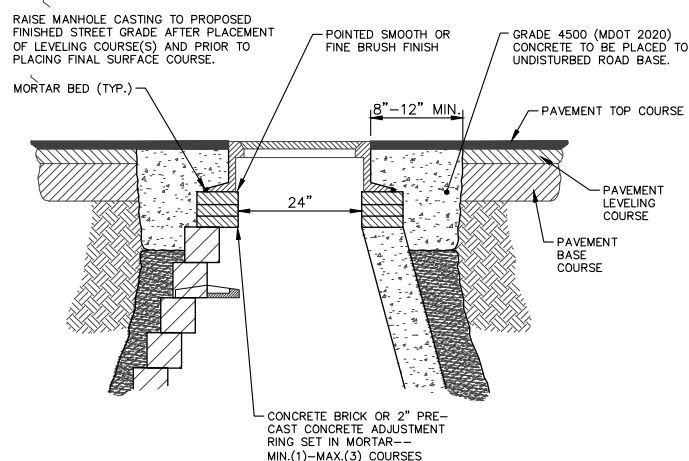
NOTES:  
EACH COVER SHALL HAVE "SANITARY", "STORM", OR "WATER" CAST IN THE SURFACE, WHICHEVER IS APPLICABLE. SANITARY SEWER COVERS SHALL BE GASKETED IN FLOOD PRONE AREAS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE PSAA. FRAMES AND COVERS MUST HAVE MACHINED BEARING SURFACES.

**STANDARD CASTING SCHEDULE SD-GU-1**



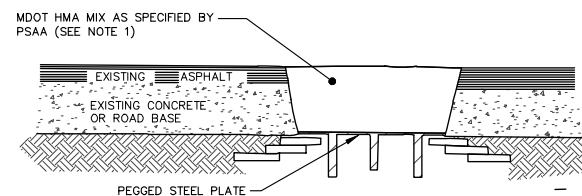
- NOTES:
1. BARRIER CURB AND GUTTER ON ASPHALT STREETS SHALL CONFORM TO THIS DETAIL.
  2. BARRIER CURB AND GUTTER ON CONCRETE STREETS SHALL CONFORM TO MDOT CURB AND GUTTER DETAIL F3.

**CONCRETE CURB AND GUTTER SD-R-1**

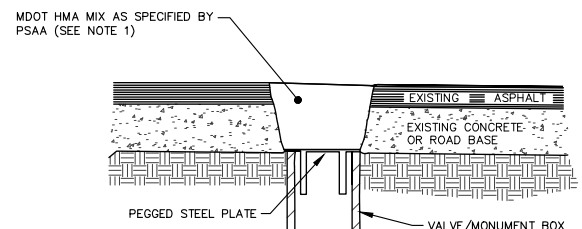


- NOTE:
1. IF MANHOLE WILL BE PLACED IN GRAVEL ROAD, CASTING TO BE SET 6" TO 8" BELOW ROADWAY GRADE. ALL CONSTRUCTION METHODS SHALL REMAIN AS SHOWN ABOVE.

**MANHOLE CASTING ADJUSTMENT SD-GU-5**



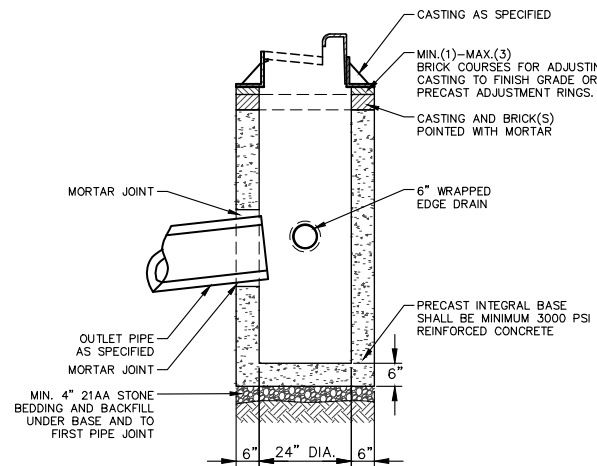
**MANHOLE LOWERING DETAIL**



**VALVE BOX/MONUMENT BOX LOWERING DETAIL (SEE NOTE 3)**

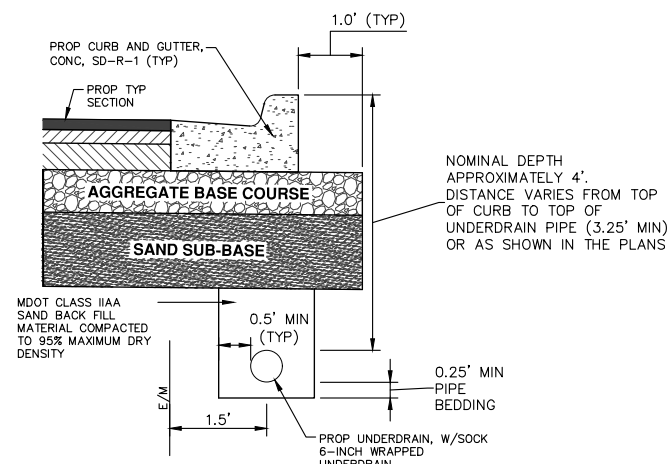
- NOTES:
1. IF TRAFFIC IS TO BE MAINTAINED ON THE ROADWAY BEFORE OR AFTER THE COLD MILLING OPERATION, THE STRUCTURE SHALL BE LOWERED TO THE EXTENT THAT A MINIMUM OF THREE(3) INCHES ASPHALT MATERIAL MDOT HMA MIX AS SPECIFIED BY PSAA, OR ENGINEER APPROVED EQUAL, REMAINS TO SUPPORT TRAFFIC.
  2. IF THE ROADWAY BEING MILLED IS CLOSED TO TRAFFIC, THE STRUCTURE SHALL BE LOWERED SUCH THAT THE STEEL PLATE IS A MINIMUM OF FOUR(4) INCHES BELOW THE PROPOSED ROAD GRADE AND THE RESULTING VOID SHALL BE FILLED WITH MDOT HMA MIX AS SPECIFIED BY PSAA OR ENGINEER APPROVED EQUAL.
  3. WHERE A MONUMENT IS TO BE LOWERED, THE CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF 48 HOURS WRITTEN NOTICE SO THAT THE MONUMENT CAN BE PROPERLY WITNESSED OR PROTECTED. FAILURE TO DO SO SHALL RESULT IN THE ENGINEER REPLACING SAID MONUMENT AT THE CONTRACTORS EXPENSE.

**MANHOLE & VALVE/MONUMENT BOX LOWERING SD-GU-9**



- NOTES:
1. MAY BE USED WITH SINGLE OUTLET PIPE AND SINGLE INLET PIPE.
  2. FRONT EDGE OF INLET CASTING SHALL BE FLUSH WITH FRONT EDGE OF GUTTER (EDGE-OF-METAL).

**PRECAST SINGLE INLET SD-ST-3**



- NOTES:
1. IN AREAS WHERE EDGE DRAIN CANNOT BE INSTALLED IN ACCORDANCE WITH THE DETAIL, THE EDGE 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)
  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.
  6. ADDITIONAL LENGTHS OF EDGE DRAIN MAY BE REQUIRED BY THE ENGINEER BASED ON EXISTING SITE CONDITIONS, INCLUDING CONDITION OF THE SUBGRADE.

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

R: \\2021023 Earhart (Geddes to US23)\Plan Production\2021023Det2.dwg Dwg Created: 15-May-23 - \_02 standard bw.stb - Plot Date: 15-May-23



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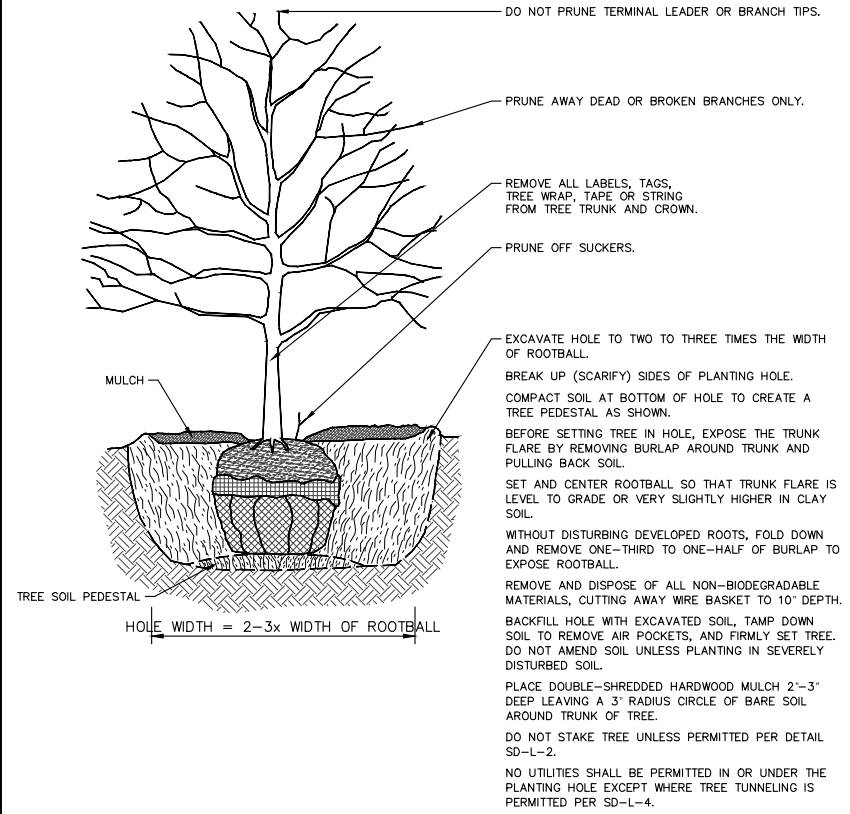


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING EARHART ROAD IMPROVEMENTS (GEDDES - US23)

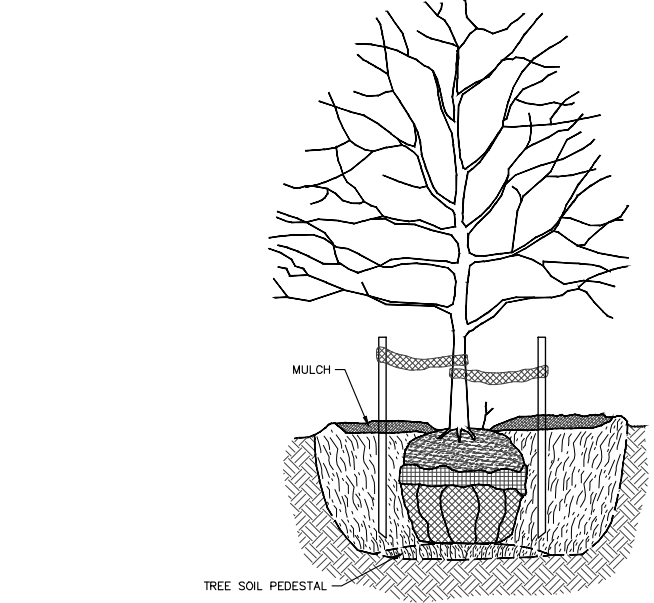
SHEET No.

5 OF 85

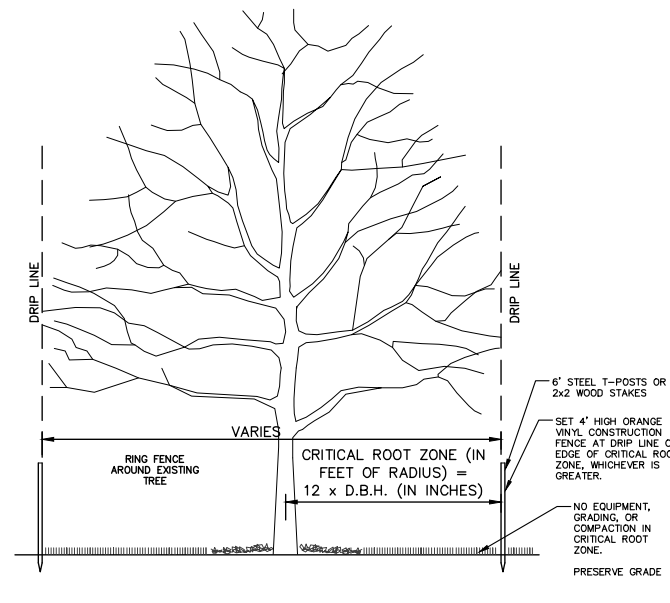
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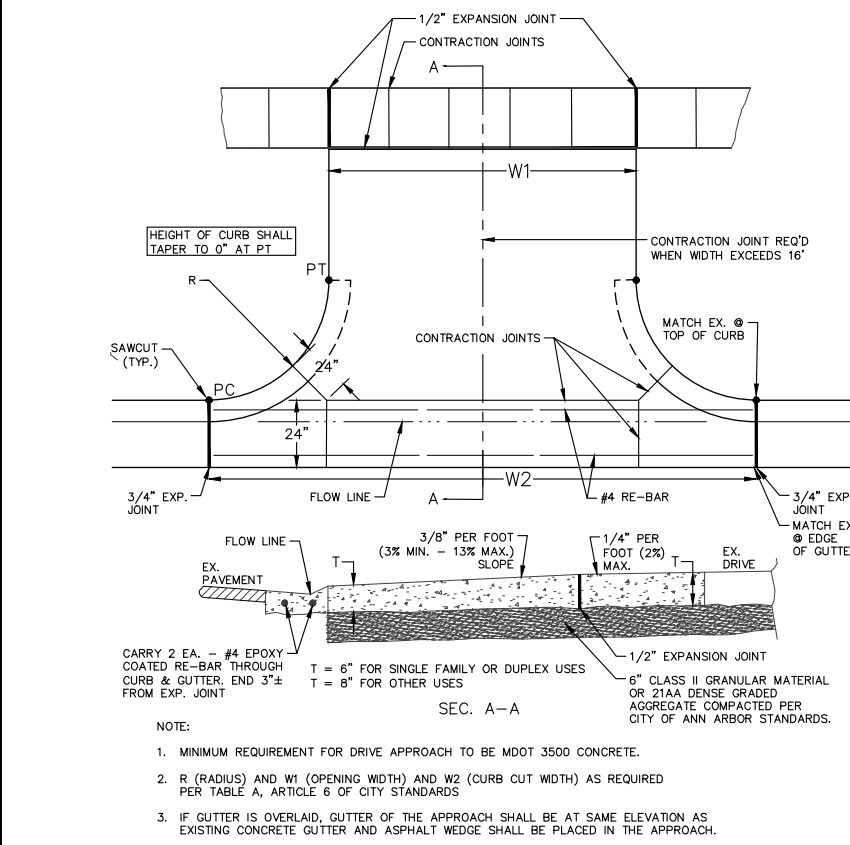
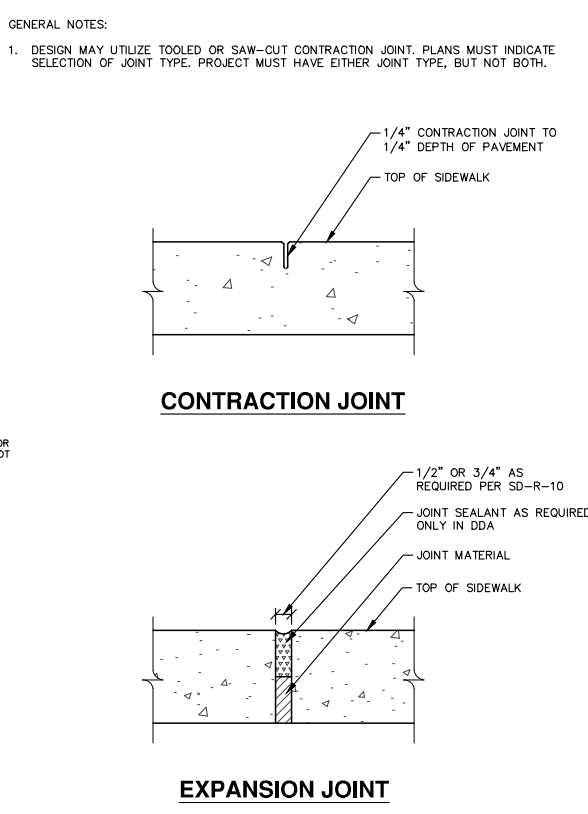
**TREE PLANTING SD-L-1**



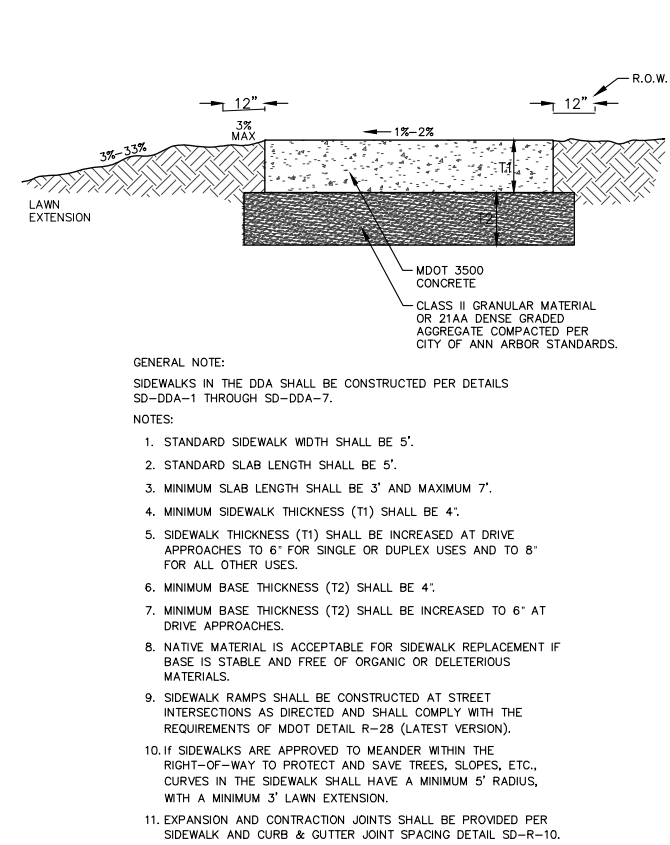
**TREE STAKING SD-L-2**



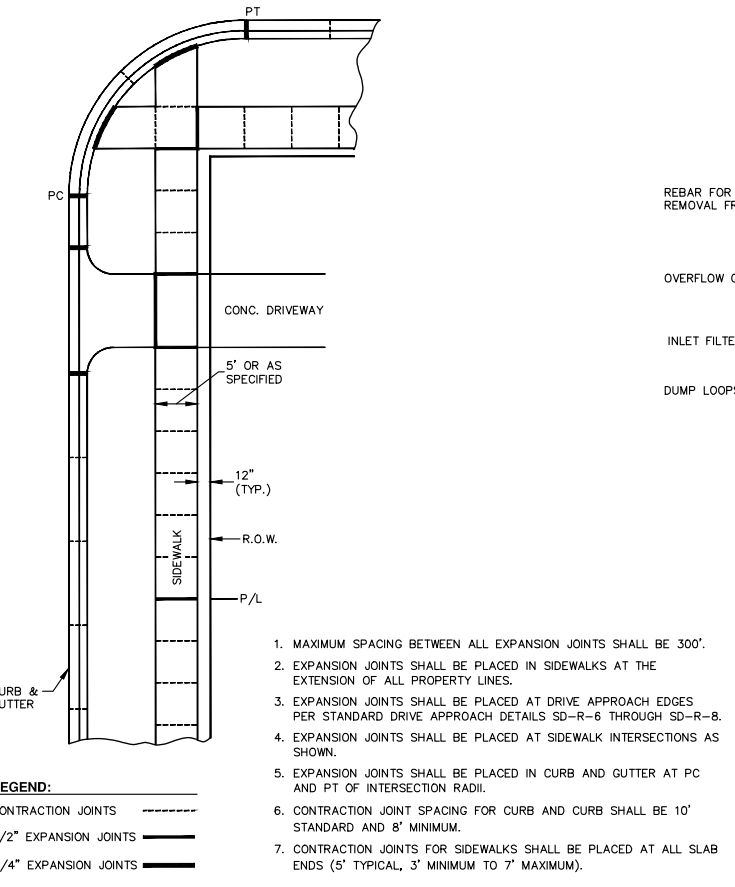
**TREE PROTECTION SD-L-3**



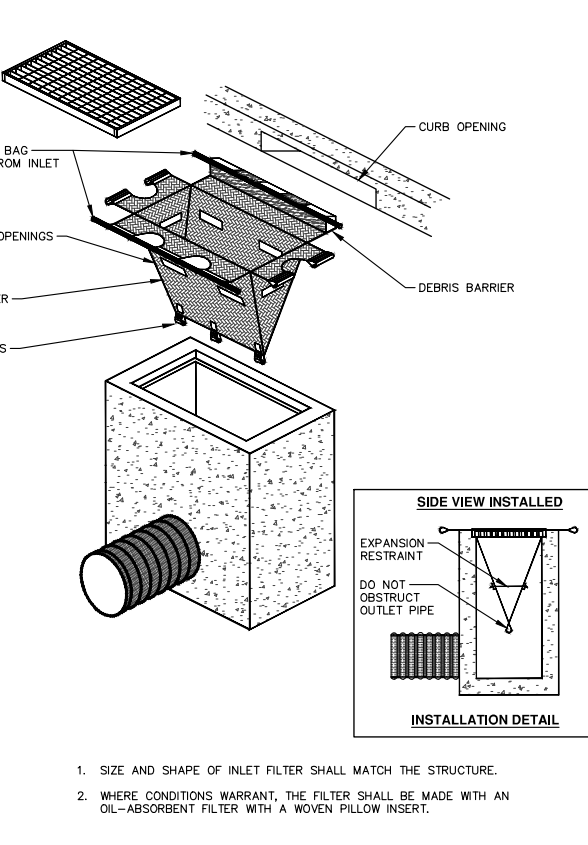
**TYPE M DRIVE APPROACH FOR ASPHALT STREETS WITH BARRIER CURB SD-R-6**



**SIDEWALK CROSS SECTION SD-R-9**



**SIDEWALK AND CURB & GUTTER JOINT SPACING SD-R-10**



**INLET PROTECTION SD-SESC-1**

**811** Know what's below. Call before you dig.

01	ADDENDUM #1	OUT TO BID	REV.
9-15-23	CC/DF	4-27-23	DATE
			DRAWN
			CHECKED

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**CITY OF ANN ARBOR PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

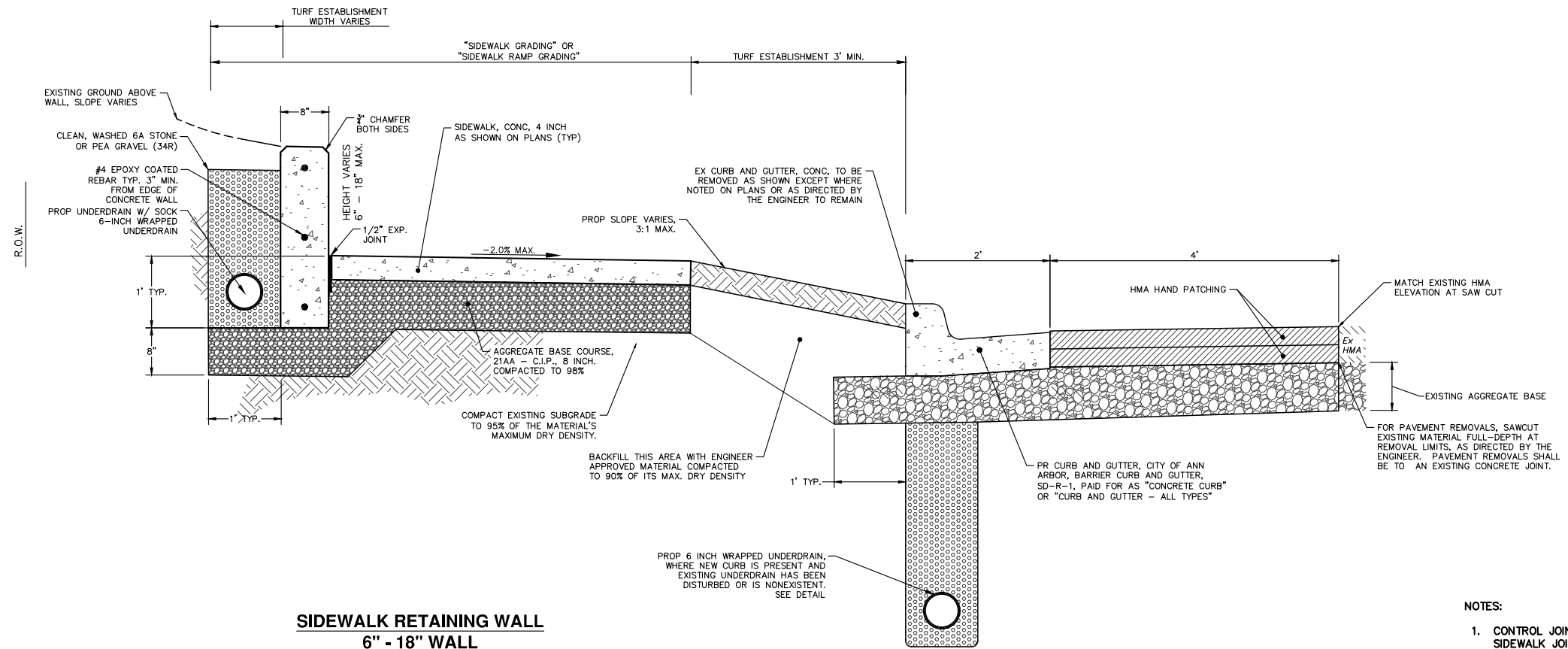
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DRAWING No: 2021023-6

SHEET No. 6 OF 85



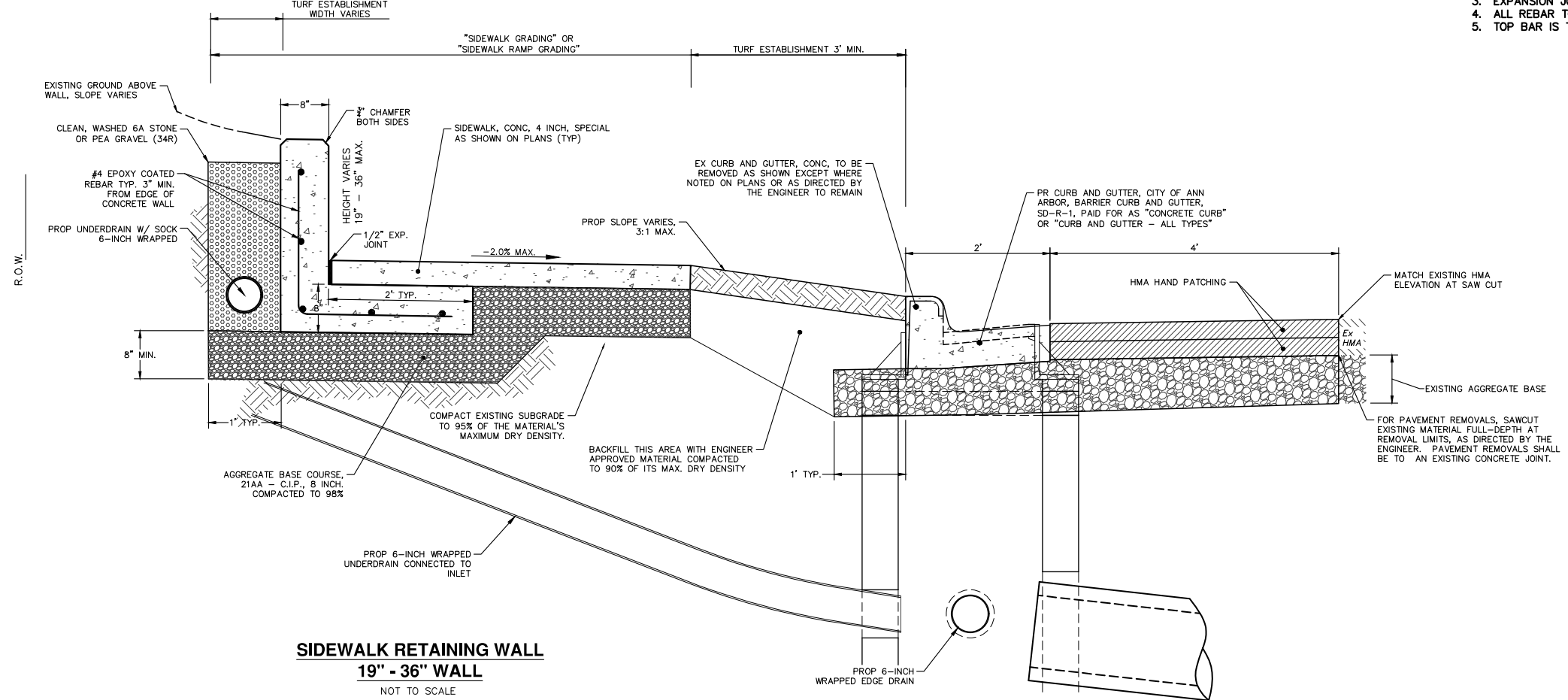
R: \\2021023 Earhart (Geddes to US23)\Plan Production\2021023Det2.dwg Dwg Created: 15-May-23 - \_g2 standard bw.stb - Plot Date: 15-May-23



**SIDEWALK RETAINING WALL**  
**6" - 18" WALL**  
 NOT TO SCALE

**NOTES:**

1. CONTROL JOINT TO BE PLACED AT TEN (10) FEET ON CENTER AND SHALL MATCH THE SIDEWALK JOINTS.
2. 3/4 INCH EXPANSION JOINTS TO BE PLACED AT 60 FEET MAXIMUM ON CENTER, AT A PROPERTY LINE EXTENDED, OR MATCH SIDEWALK EXPANSION JOINTS.
3. EXPANSION JOINTS TO USE A RESILIENT FILLER, UNLESS SPECIFIED OTHERWISE.
4. ALL REBAR TO MAINTAIN A THREE (3) INCH MINIMUM COVER AT END OF BARS.
5. TOP BAR IS TO BE PARALLEL TO THE TOP OF THE WALL.



**SIDEWALK RETAINING WALL**  
**19" - 36" WALL**  
 NOT TO SCALE



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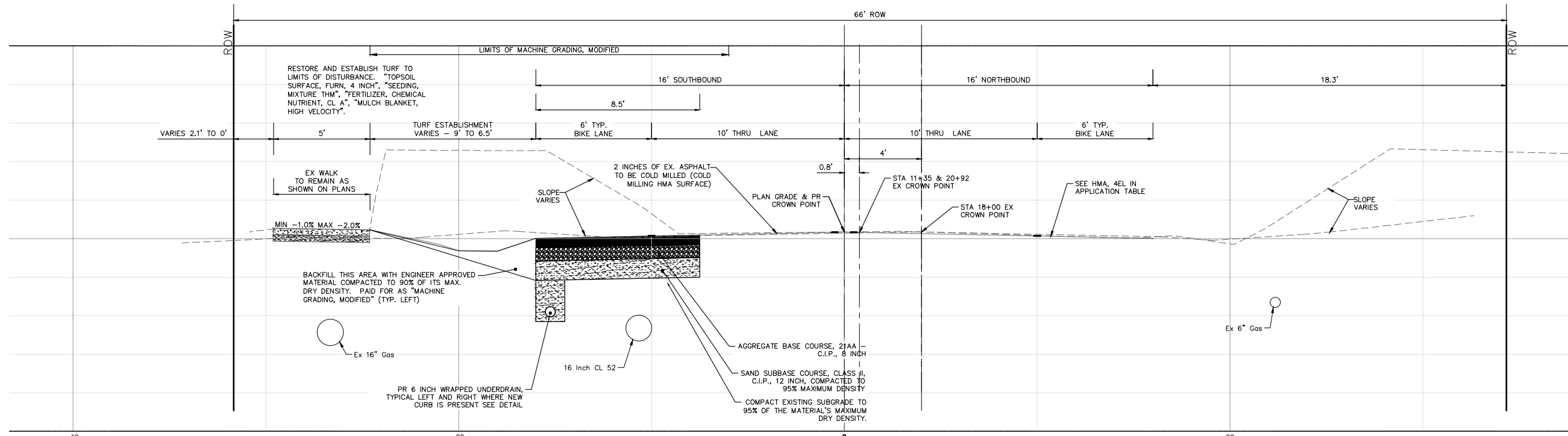
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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 SCALE: N/A  
 DRAWING No. 2021023-8  
 SHEET No. 8 OF 85  
 SIDEWALK RETAINING WALL DETAILS



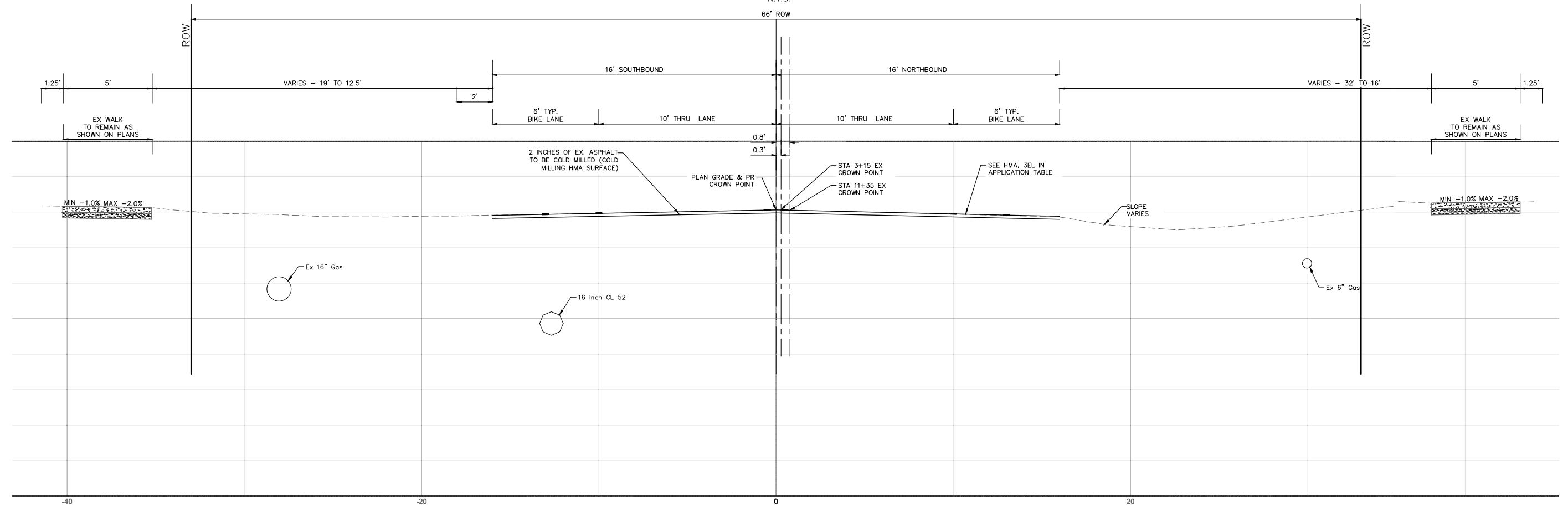
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**EARHART ROAD  
TYPICAL SECTION**

STA. 11+35 TO STA. 20+92

N.T.S.



**EARHART ROAD  
TYPICAL SECTION**

P.O.B. STA. 3+15 TO STA. 11+35

N.T.S.



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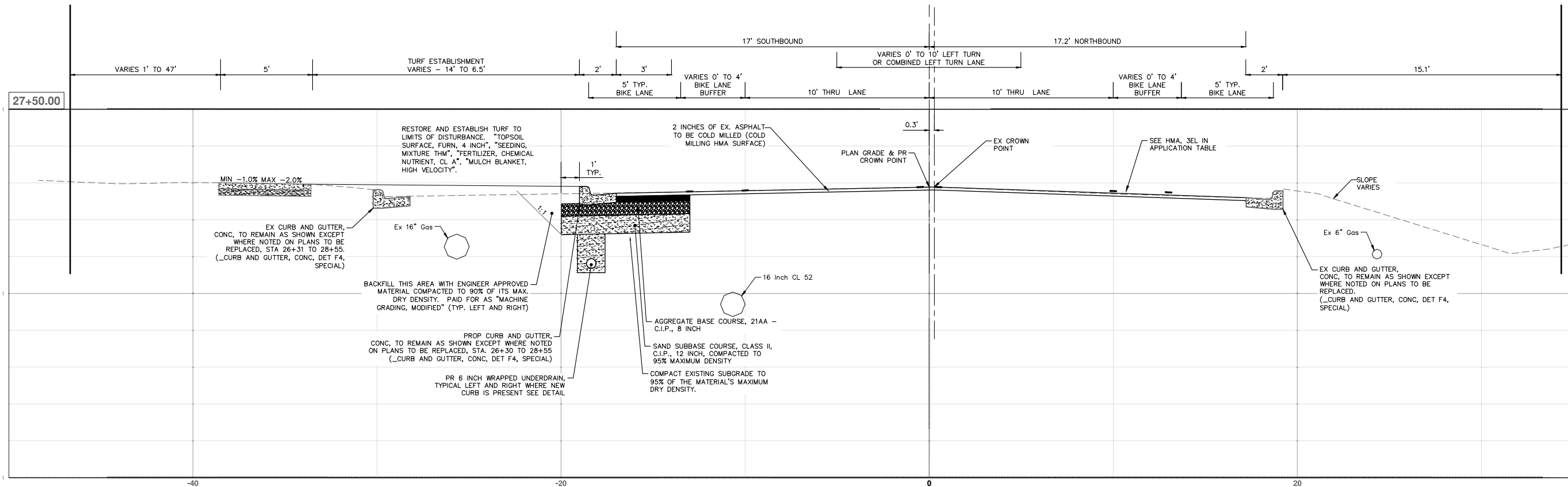


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EARHART ROAD IMPROVEMENTS (GEDDES - US23)

SCALE PLAN: NTS  
DRAWING No. 2021023-9

SHEET No.

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HMA APPLICATION ESTIMATE						
SUPERPAVE MIX	RATE OF APPLICATION	THICKNESS (INCHES)	AWI (MIN.)	BINDER	LOCATION/NOTES	
4EL	220 LB/SYD	2.0	260	58-28	TOP	
4EL	330 LB/SYD	3.0	-	58-28	BASE & LEVELING	
4EL	275 LB/SYD	2.5	260	-	HMA APPROACH	
4EL	275 LB/SYD	2.5	-	-	HAND PATCHING	
Bond Coat SS-1h	0.05 - 0.15 GAL/SYD	-	-	-	INCLUDE IN COST OF HMA ITEM	

EARHART ROAD  
TYPICAL SECTION  
STA. 20+92 TO STA. 31+00 P.O.E.  
N.T.S.



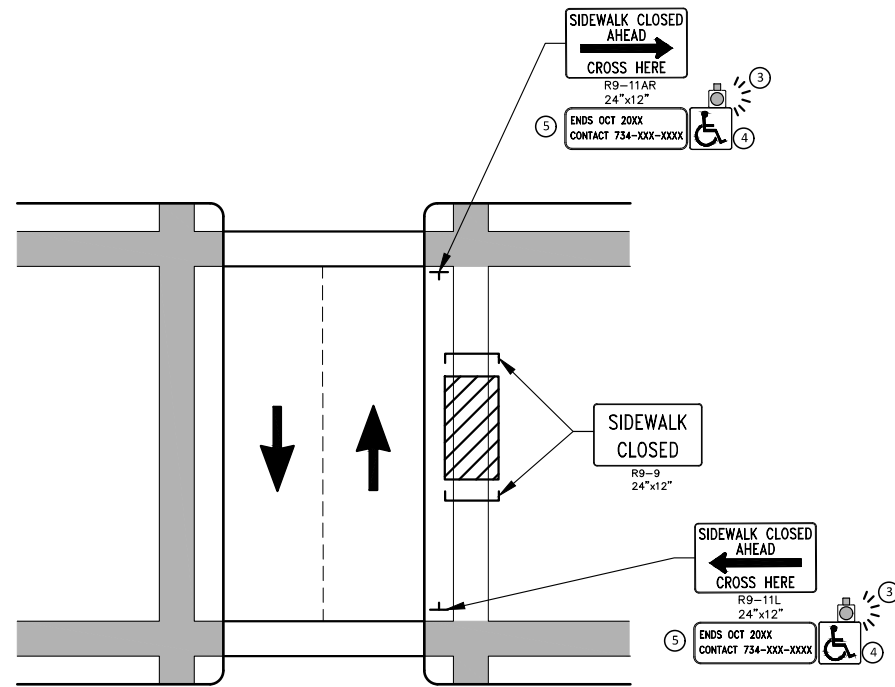
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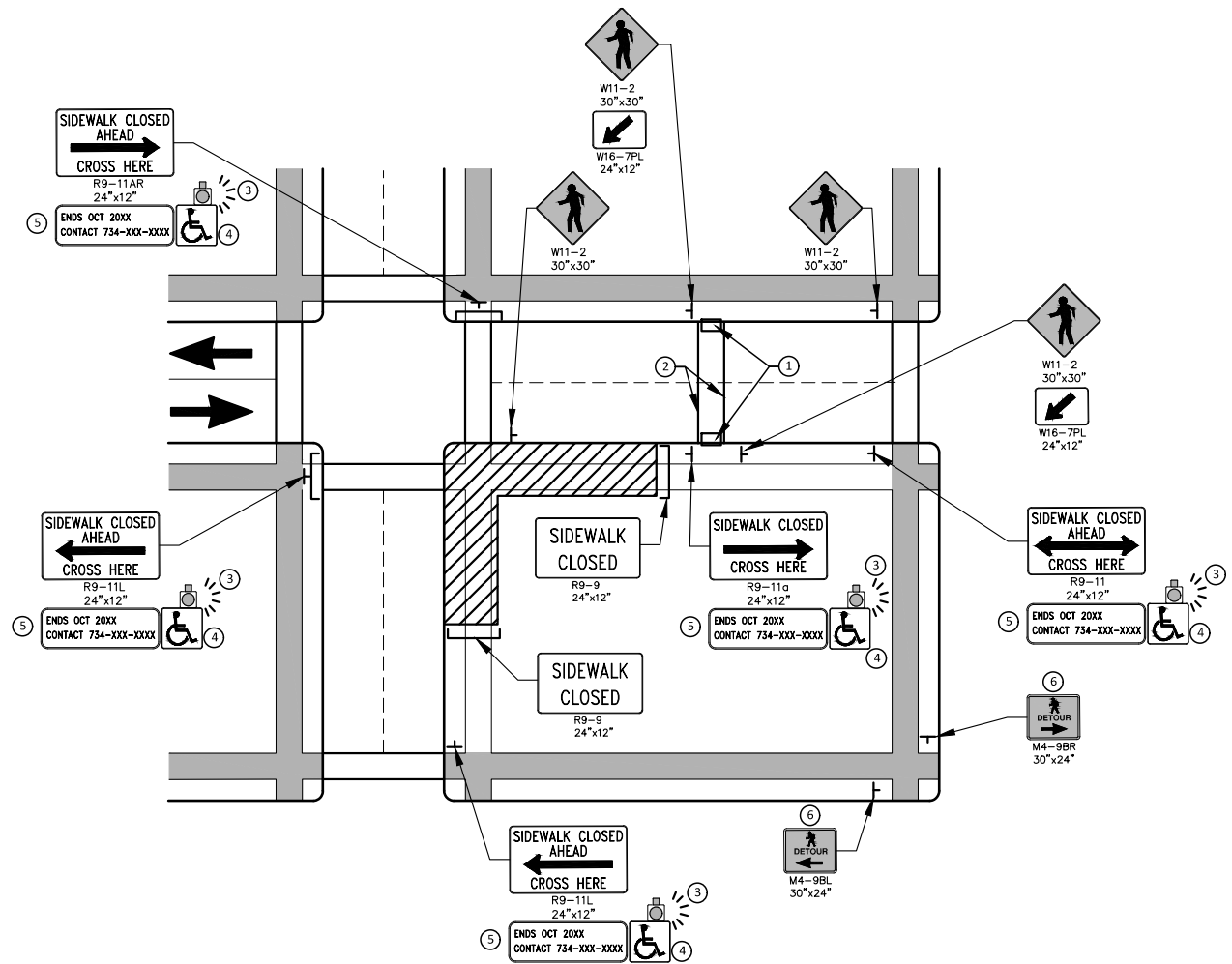


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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
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SHEET No. 10 OF 85

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PEDESTRIAN DETOUR USING OPPOSITE SIDE OF STREET



OTHER SIDE OF STREET DETOUR OR DETOUR WITH TRAILBLAZING SIGNS  
(FOR CORNER SIDEWALK CLOSURE WITH OPTIONAL TEMPORARY CROSSWALK)

**GENERAL NOTES**

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, THE CONTRACTOR SHALL PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED. PROVIDE A FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND.

THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS SHALL BE COVERED OR DEACTIVATED BY THE CITY OF ANN ARBOR. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE THIS WORK WITH THE ENGINEER A MINIMUM OF 72 HOURS (NOT INCLUDING WEEKENDS & HOLIDAYS) PRIOR TO THE BEGINNING OF WORK THAT REQUIRES A SIDEWALK CLOSURE.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

WHEN THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS OR PLACEMENT OF TRAFFIC CONTROL DEVICES HAS CAUSED A SITUATION THAT THE VISIBILITY OF IS REDUCED ENOUGH TO CREATE A HAZARD, THE TRAFFIC CONTROL DEVICES SHALL BE DELINEATED WITH FLAGS OR OTHER ENGINEER-APPROVED DEVICES AT NO ADDITIONAL COST TO THE PROJECT.

MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

1. PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE UTILIZING BYPASSES.
2. WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME SIDE APR, PROVIDE A DETOUR ON THE OTHER SIDE OF THE STREET.
3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON THE OTHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS AS SHOWN ON THE PROJECT PLANS.

**SPECIFIC NOTES**

1. TEMPORARY CURB RAMPS WITH DETECTABLE WARNINGS.
2. TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
3. AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE SHALL BE PROVIDED FOR SIGHT-IMPAIRED PEDESTRIANS.
4. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHOULD BE DISPLAYED WHEN ANY WALKWAY THROUGH A WORK ZONE HAS BEEN DETERMINED TO BE TPAR COMPLIANT. THE SYMBOL OF ACCESSIBILITY SHALL NOT BE DISPLAYED IF PERSONS WITH DISABILITIES SHOULD NOT USE THE PRIMARY TEMPORARY PEDESTRIAN DETOUR. THE REASON FOR THE NON-COMPLIANCE SHALL BE POSTED AND AN ALTERNATE ROUTE SHALL BE POSTED WHEN THE PRIMARY TEMPORARY PEDESTRIAN DETOUR IS NON-COMPLIANT TO TPAR STANDARDS.
5. TYPICAL SIGN MESSAGE FOR A TEMPORARY PEDESTRIAN DETOUR SHALL INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24 / 7 QUESTIONS OR REPORTING HAZARDS.
6. PEDESTRIAN DETOUR TRAILBLAZING SIGNS SHALL BE USED IF THE PEDESTRIAN DETOUR IS IN A LOCATION OTHER THAN ACROSS THE STREET FROM THE SIDEWALK CLOSURE.

**PEDESTRIAN TEMPORARY TRAFFIC CONTROL NOTES**

1. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE MMUTCD, PART 6.
2. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES AND COMMERCIAL PROPERTIES AT ALL TIMES. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.
3. IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4 FEET. IF THE TPAR IS LESS THAN 5 FEET IN WIDTH, A 5 FOOT BY 5 FOOT PASSING SPACE SHALL BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE SMOOTH AND CONTINUOUS FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICTS WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.
4. IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROP-OFFS, THEN CRASH WORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF NCHRP 350 AND THE MMUTCD SHALL BE USED.
5. THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.
6. THE CONTRACTOR'S OPERATIONS SHALL NOT OCCUPY SIDEWALKS EXCEPT WHERE PROPER PROTECTION AND A TPAR HAVE BEEN PROVIDED.
7. WHEN DIRECTED BY THE ENGINEER, OR STATED ON THE PLANS, THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN FOR REVIEW AND WRITTEN APPROVAL BY THE ENGINEER A MINIMUM OF THREE WEEKS BEFORE SUCH PLAN IS IMPLEMENTED. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPARS AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC. NO WORK SHALL BE ALLOWED TO BEGIN UNTIL THIS PLAN IS APPROVED BY THE ENGINEER IN WRITING.

**LEGEND**

- SIGN
- EXISTING PEDESTRIAN SURFACE
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- BARRIER
- SIDEWALK BARRICADE
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DEVICE



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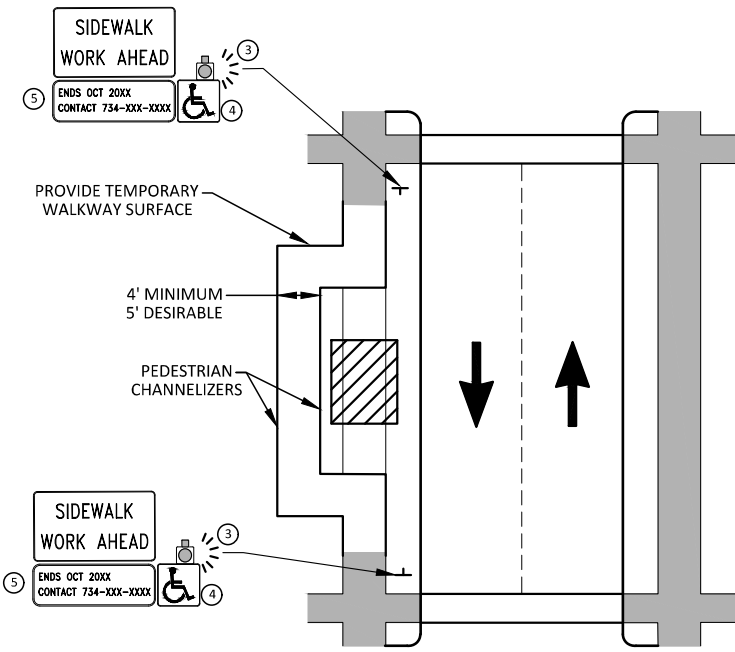
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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
ALTERNATE PEDESTRIAN ROUTE (APR) DETOUR

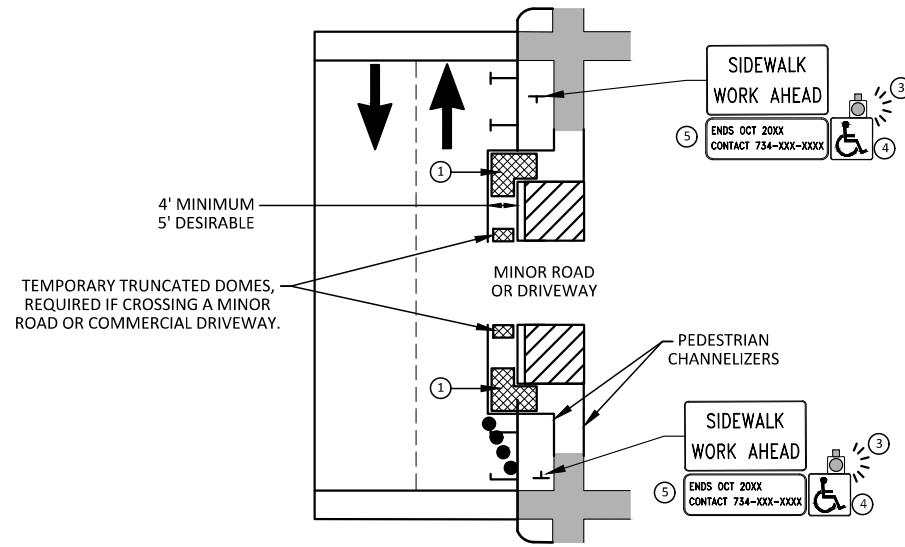
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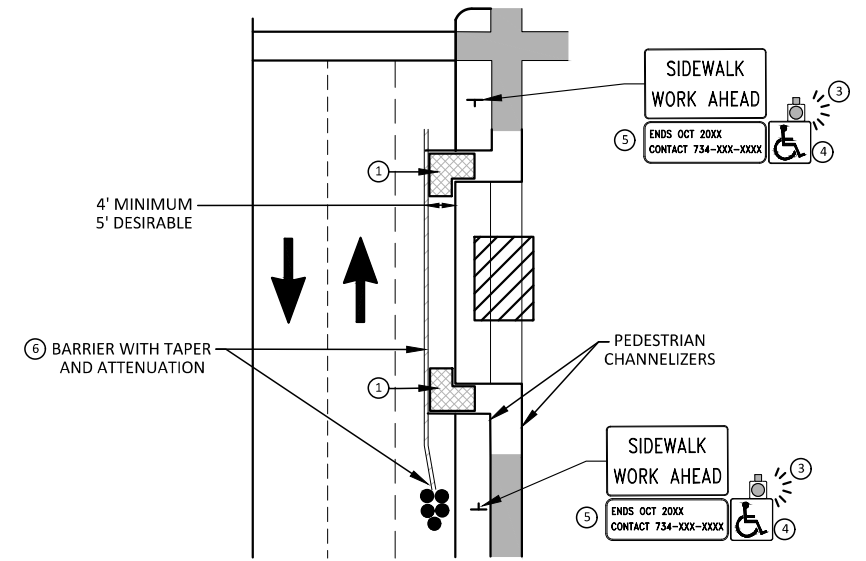


**BYPASS ON ADJACENT AVAILABLE  
RIGHT OF WAY  
BYPASS TYPE A**

NOTE: MAY ONLY BE USED ON ROADWAY WITH POSTED  
SPEED OF 45 MPH OR LESS.



**SIDEWALK BYPASS USING PARKING OR  
SHOULDER ON LOW SPEED ROADWAY  
BYPASS TYPE B**



**SIDEWALK BYPASS USING  
SHOULDER OR PARKING LANE ON  
HIGH SPEED ROADWAY  
BYPASS TYPE C**

**GENERAL NOTES**

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PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED. PROVIDE A FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND.

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POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

WHEN THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS OR PLACEMENT OF TRAFFIC CONTROL DEVICES HAS CAUSED A SITUATION THAT THE VISIBILITY OF A TRAFFIC CONTROL DEVICE IS REDUCED ENOUGH TO CREATE A HAZARD, THE TRAFFIC CONTROL DEVICES SHALL BE DELINEATED WITH FLAGS OR OTHER ENGINEER-APPROVED DEVICES AT NO ADDITIONAL COST TO THE PROJECT.

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3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON THE OTHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS AS SHOWN ON THE PROJECT PLANS.

**SPECIFIC NOTES**

1. TEMPORARY CURB RAMPS WITH DETECTABLE WARNINGS.
2. 5 DEVICE TAPER 25 FEET LONG, RECOMMENDED WHEN THE CLOSED AREA WAS USED AS AN INTERMITTENT TRAFFIC LANE OR BYPASS LANE. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
3. AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE SHOULD BE PROVIDED FOR SIGHT-IMPAIRED PEDESTRIANS.
4. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE DISPLAYED WHEN ANY WALKWAY THROUGH A WORK ZONE HAS BEEN DETERMINED TO BE TPAR COMPLIANT. THE SYMBOL OF ACCESSIBILITY SHALL NOT BE DISPLAYED IF PERSONS WITH DISABILITIES SHOULD NOT USE THE PRIMARY TEMPORARY PEDESTRIAN DETOUR. THE REASON FOR THE NON-COMPLIANCE SHALL BE POSTED AND AN ALTERNATE ROUTE SHALL BE POSTED WHEN THE PRIMARY TEMPORARY PEDESTRIAN DETOUR IS NON-COMPLIANT TO TPAR STANDARDS.
5. TYPICAL SIGN MESSAGE FOR A TEMPORARY PEDESTRIAN DETOUR SHALL INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24 / 7 QUESTIONS OR REPORTING HAZARDS.
6. SEE MMUTCD FOR GUIDANCE ON PLACEMENT AND USAGE OF BARRIER.

**LEGEND**

- SIGN
- ▨ EXISTING PEDESTRIAN SURFACE
- ▨ WORK AREA
- ▨ PEDESTRIAN CHANNELIZATION DEVICE
- BARRIER
- SIDEWALK BARRICADE
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DEVICE



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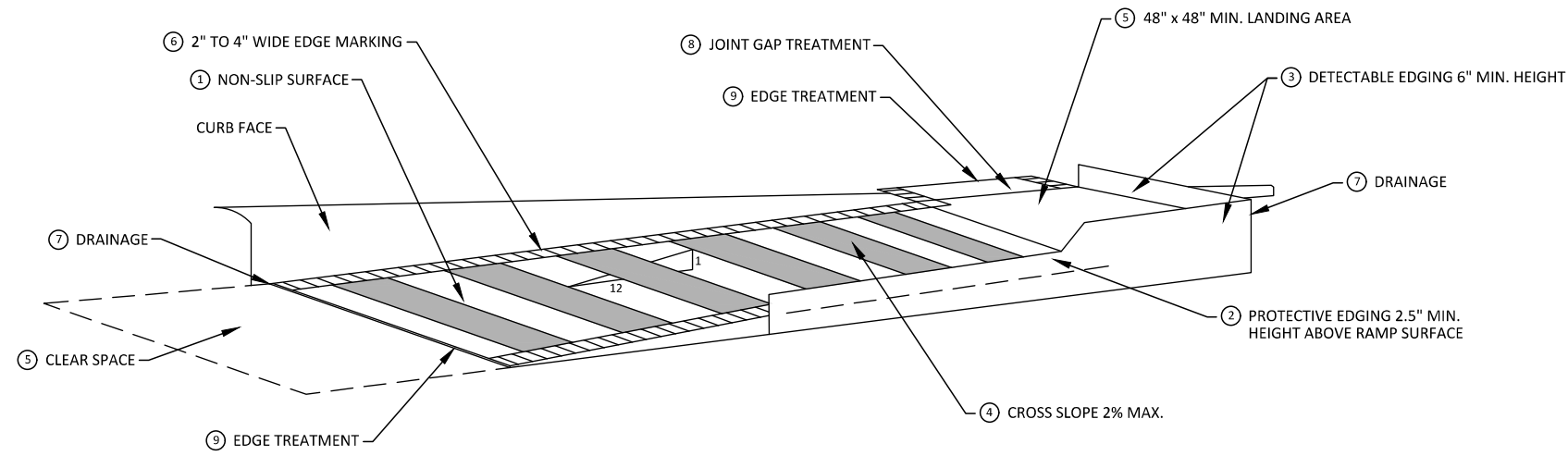
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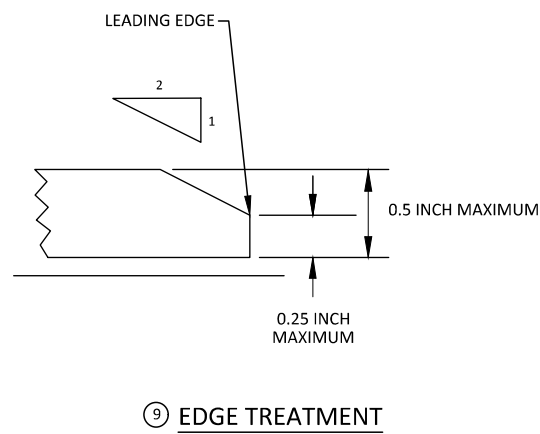
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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
ALTERNATE PEDESTRIAN ROUTE (APR) BYPASS

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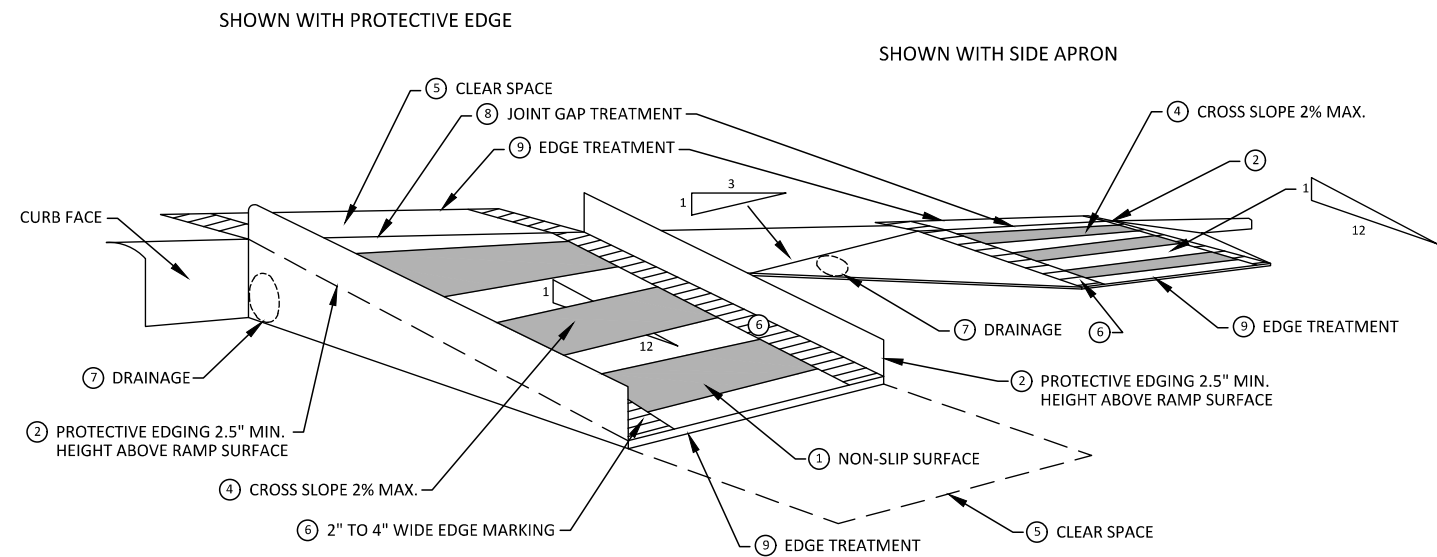
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**TEMPORARY CURB RAMP  
PARALLEL TO CURB**



**EDGE TREATMENT**



**TEMPORARY CURB RAMP  
PERPENDICULAR TO CURB**

**SPECIFIC NOTES**

- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. PROTECTIVE EDGING WITH A 2.5" MIN. HEIGHT ABOVE THE RAMP SHALL BE PLACED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3. PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- 2 DETECTABLE EDGING ANYTIME A HANDRAIL IS REQUIRED, AND ANYTIME THE PATH CHANGES DIRECTION. THIS INCLUDES A TURN ONTO THE RAMP FROM THE PATH. DETECTABLE EDGING MUST BEGIN A MAXIMUM OF 2.5" ABOVE THE RAMP SURFACE, AND EXTEND AT LEAST 6" ABOVE THE RAMP SURFACE. CONTRASTING COLOR SHALL BE PLACED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- 3 CURB RAMPS AND LANDINGS SHALL HAVE A 2% MAX. CROSS SLOPE.
- 4 CLEAR SPACE OF 48" x 48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- 5 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A CONTRASTING COLOR, 2" TO 4" WIDE MARKING. THE MARKING IS OPTIONAL WHERE COLOR CONTRASTING EDGING IS USED.
- 6 WATER FLOW IN THE GUTTER SYSTEM SHALL NOT BE IMPEDED.
- 7 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- 8 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHOULD BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2" HEIGHT.
- 9



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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
TPAR RAMPS

SCALE : N.T.S.  
DRAWING No. 2021023-13

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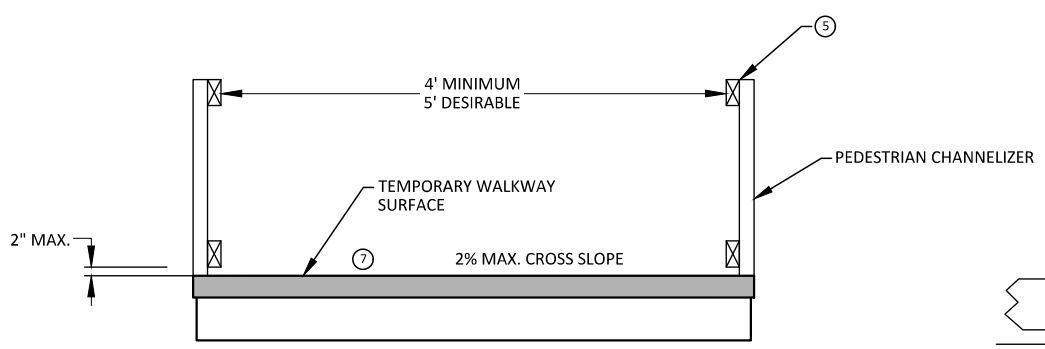
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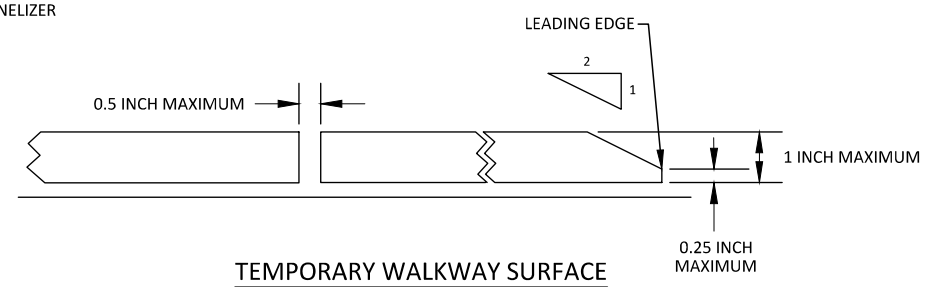


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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
TPAR WALKWAY DEVICES

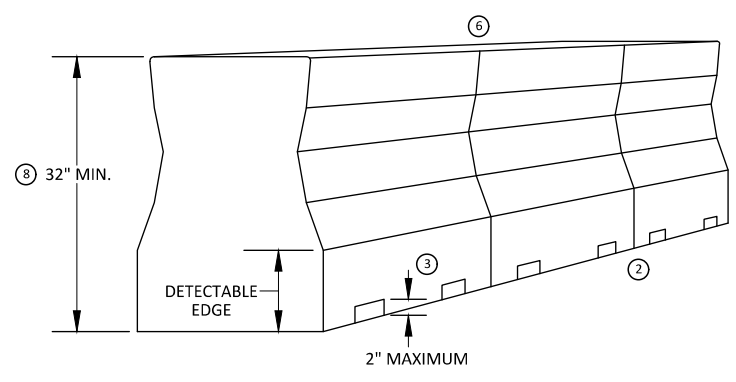
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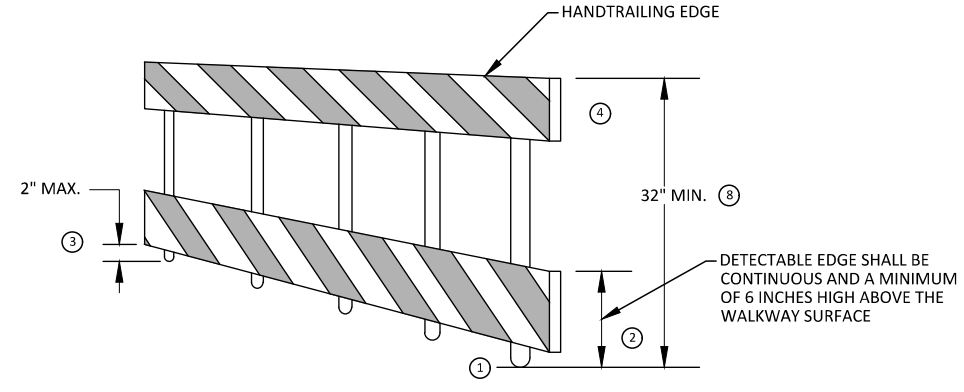
TEMPORARY PEDESTRIAN ACCESS



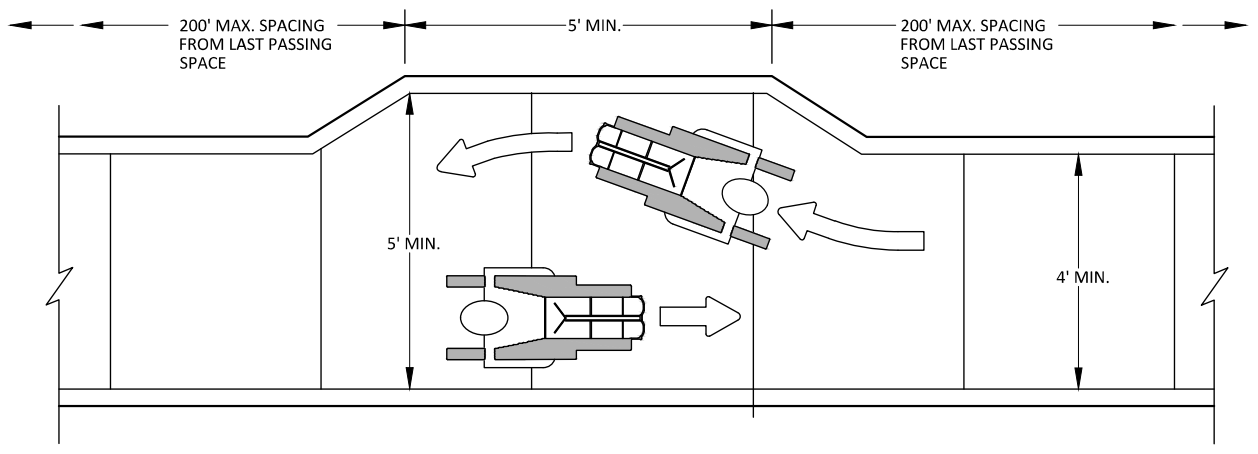
TEMPORARY WALKWAY SURFACE



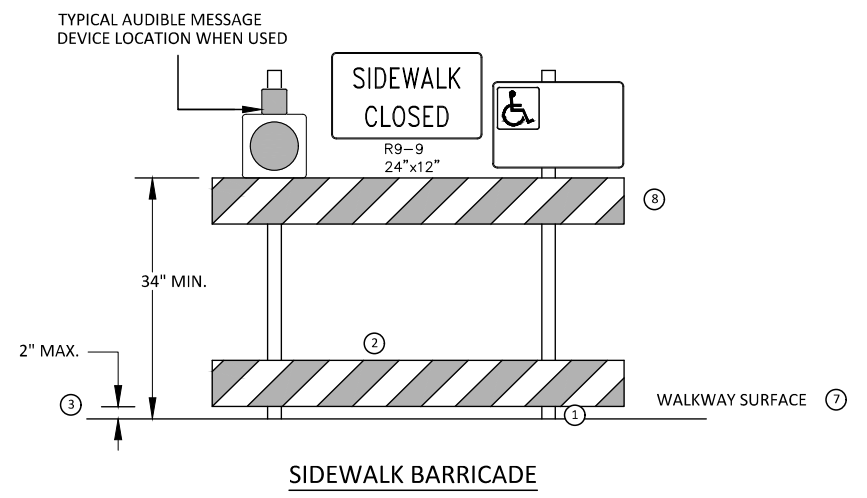
PEDESTRIAN CHANNELIZER USING A BARRIER  
(MINIMUM REQUIREMENTS)



PEDESTRIAN CHANNELIZER  
(MINIMUM REQUIREMENTS)



NARROW TEMPORARY PEDESTRIAN ACCESS ROUTE PASSING DETAIL



SIDEWALK BARRICADE

GENERAL NOTES

RAILINGS OR OTHER OBJECTS MAY PROTRUDE A MAXIMUM OF 4 INCHES INTO THE WALKWAY CLEAR SPACE WHEN LOCATED A MINIMUM OF 27 INCHES ABOVE THE WALKWAY SURFACE.

ANY PEDESTRIAN DEVICES USED TO PROVIDE POSITIVE PROTECTION FOR PEDESTRIANS OR WORKERS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS APPROPRIATE FOR THE BARRIER'S APPLICATION.

BARRICADES SHALL BE PLACED CONTINUOUSLY ACROSS THE ENTIRE WIDTH OF THE WALKWAY SURFACE BEING CLOSED.

SPECIFIC NOTES

1 ANY TRIPPING HAZARD IN THE WALKWAY NEEDS A DETECTABLE EDGE. BALLAST SHALL BE LOCATED BEHIND OR INTERNAL TO THE DEVICE. ANY SUPPORT ON THE FRONT OF THE DEVICE SHALL NOT EXTEND INTO THE 48 INCH MINIMUM WALKWAY CLEAR SPACE AND SHALL NOT EXCEED 0.5 INCHES IN HEIGHT ABOVE THE WALKWAY SURFACE.

2 DETECTABLE EDGES SHALL BE CONTINUOUS AND A MINIMUM OF 6 INCHES IN HEIGHT ABOVE WALKWAY SURFACE AND HAVE COLOR MARKINGS CONTRASTING WITH THE WALKWAY SURFACE.

3 DEVICES SHALL NOT BLOCK WATER DRAINAGE FROM THE WALKWAY. A GAP HEIGHT OR OPENING FROM THE WALKWAY SURFACE UP TO A MAXIMUM OF 2 INCHES IS ALLOWED FOR DRAINAGE PURPOSES.

4 PROVIDE A HANDRAIL ON BOTH SIDES OF THE RAMP IF THE RAMP IS NOT EXPOSED TO VEHICLE TRAFFIC AND HAS A TOTAL RISE GREATER THAN 6 INCHES, AND A LENGTH GREATER THAN 72 INCHES.

- ENSURE THE HANDRAIL IS 1.25 AND 1.5 INCHES WIDE AND CONFIGURED TO BE A "GRASPABLE" CROSS-SECTION.

WHEN THE RAMP IS EXPOSED TO TRAFFIC, IN LIEU OF HANDRAILS, USE A PROTECTIVE EDGE 2.5 INCHES MINIMUM HEIGHT ABOVE THE RAMP SURFACE OR 1:10 FLARE ON BOTH SIDES OF THE RAMP.

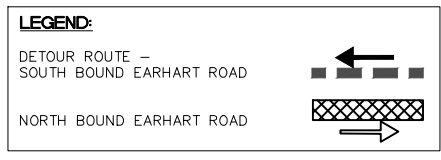
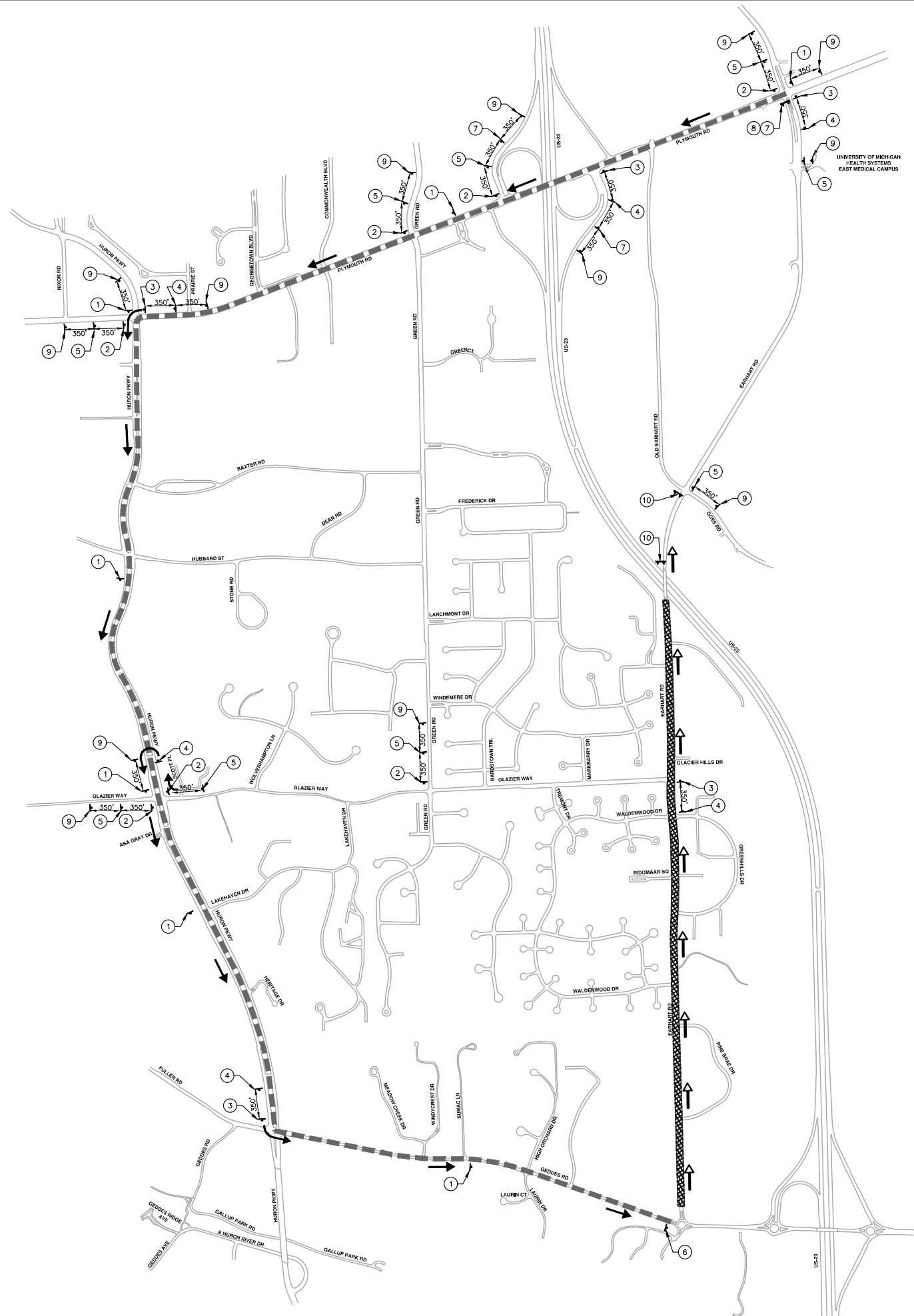
5 ALL DEVICES SHALL BE FREE OF SHARP OR ROUGH EDGES, AND FASTENERS (BOLTS) SHALL BE ROUNDED TO PREVENT HARM TO HANDS, ARMS OR CLOTHING OF PEDESTRIANS.

6 ALL DEVICES USED TO CHANNELIZE PEDESTRIAN FLOW SHOULD INTERLOCK SUCH THAT GAPS DO NOT ALLOW PEDESTRIANS TO STRAY FROM THE INTENDED CHANNELIZED PATH.

7 A WALKWAY SURFACE SHALL BE FIRM, STABLE, AND SLIP RESISTANT. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED.

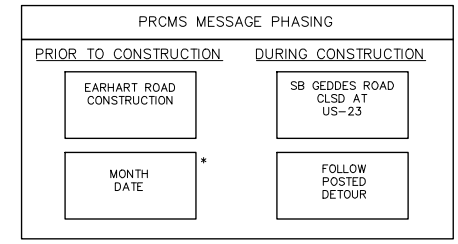
8 LONGITUDINAL CHANNELIZING DEVICES FOR PEDESTRIANS SHALL BE 32 INCHES IN HEIGHT OR GREATER.

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Dtr.dwg Dwg Created: 25-Apr-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



SOUTH BOUND EARHART ROAD			
	SIGN	NUMBER	QUANTITY
1	SB EARHART ROAD DETOUR ↑	D3-1 M4-9S 30"x24"	7 7
2	SB EARHART ROAD DETOUR →	D3-1 M4-9R 30"x24"	7 7
3	SB EARHART ROAD DETOUR ←	D3-1 M4-9L 30"x24"	5 5
4	SB EARHART ROAD DETOUR ↶	D3-1 M4-9L (MOD) 30"x24"	6 6
5	SB EARHART ROAD DETOUR ↷	D3-1 M4-9R (MOD) 30"x24"	9 9
6	SB EARHART ROAD END DETOUR	D3-1 M4-8A 24"x18"	1 1
7	EARHART RD CLOSED AT US-23	SPECIAL 48x66	3
8	DETOUR →	M4-10R 48"x18"	1
9	DETOUR AHEAD	D3-1 W20-2 36"x36"	13 13
10	ROAD CLOSED	R11-2 48"x30"	2
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED – 2 EACH			
SIGN, PORTABLE, CHANGEABLE MESSAGE, NTCIP-COMPLIANT – 2 EACH			
VERIFY EXACT QUANTITY AND LOCATION WITH ENGINEER PRIOR TO ORDERING			

- DETOUR CONSTRUCTION NOTES:**
1. DEPENDING ON THE DETOUR ROUTE THAT IS PUT IN PLACE, CONFLICTING SIGNS MAY BE PRESENT. PRIOR TO THE ORDERING OR PLACEMENT OF ANY SIGNS, MEET WITH THE ENGINEER TO VERIFY THE EXACT NUMBER AND LOCATION OF THE SIGNS TO BE PLACED. THE ENGINEER AND THE CONTRACTOR SHALL WORK TOGETHER TO ELIMINATE ALL CONFLICTS.
  2. THE CITY RESERVES THE RIGHT TO ORDER ADDITIONAL SIGNS AND PLACE THEM INTO SERVICE IN ORDER TO SAFELY MAINTAIN TRAFFIC. ADJUSTMENTS IN THE UNIT PRICE FOR THESE ITEMS OF WORK SHALL NOT BE ALLOWED FOR THESE OCCURRENCES.
  3. THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS WITH THOSE OF THE CITY OF ANN ARBOR'S SIGNS AND SIGNALS UNIT DURING THE COURSE OF THE DETOUR ROUTE ESTABLISHMENT TO EFFECTIVELY AND SAFELY MAINTAIN TRAFFIC. DO NOT ERECT ANY SIGNS UNTIL ITS LOCATION AND PROPOSED DATE OF INSTALLATION IS APPROVED BY THE ENGINEER.
  4. THE DETOUR IS TO BE IN PLACE DURING EARHART ROAD IMPROVEMENTS, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL CLOSE AND DETOUR SOUTH BOUND EARHART ROAD TRAFFIC. SEE "SPECIAL PROVISION FOR MAINTAINING TRAFFIC AND CONSTRUCTION SEQUENCING" FOR DETAILS ON CONSTRUCTION STAGING, SEQUENCING, CLOSURE AND DETOUR LIMITATIONS, AND OTHER DETAILS.
  5. REFERENCE THE "SPECIAL PROVISION FOR MAINTAINING TRAFFIC AND CONSTRUCTION SEQUENCING" FOR ADDITIONAL PROJECT REQUIREMENTS. THE CONTRACTOR'S ATTENTION IS SPECIFICALLY DIRECTED TO THE SECTION OF SAME SPECIAL PROVISION REGARDING COORDINATION WITH THE CITY SIGNS AND SIGNALS UNIT FOR MODIFICATIONS TO TRAFFIC SIGNALS FOR THE DETOUR.
  6. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN SIGNS AS SHOWN ON THE PLANS OR OTHERWISE DIRECTED BY THE ENGINEER.
  7. CONSTRUCTION WARNING SIGNS SHALL HAVE AN ORANGE, HIGH-INTENSITY, REFLECTORIZED BACKGROUND.
  8. SIGNS SHALL CONFORM TO THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
  9. THE CONTRACTOR SHALL DRIVE ALL SIGNS INTO EXPOSED GROUND OR INSERT INTO A BORED HOLE IN PAVEMENT AS NECESSARY TO PERMANENTLY SECURE. ALL HOLES IN PAVEMENT SHALL BE FILLED WITH ENGINEER-APPROVED MORTAR WHEN THE SIGN IS REMOVED AND NO LONGER NEEDED. COSTS FOR THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TEMPORARY SIGN, TYPE B, FURNISH AND OPERATE"
  10. ADVANCE WARNING SIGNS SHALL BE PROVIDED WITH TWO (2) TYPE A FLASHING LIGHTS AND ONE (1) DAY-GLOW ORANGE FLAG.
  11. CITY TO BE NOTIFIED A MINIMUM OF 7 DAYS PRIOR TO IMPLEMENTING SOUTH BOUND EARHART ROAD DETOUR. MESSAGE BOARDS TO BE PLACED 7 DAYS PRIOR TO IMPLEMENTATION OF DETOUR.



NOTE: PRCMS LOCATIONS AND MESSAGES WILL BE AS DIRECTED BY THE ENGINEER. TO BE PLACED ONE WEEK PRIOR TO CONSTRUCTION.

\* THE CONTRACTOR SHALL PLACE THE APPROPRIATE DATE AS APPROVED BY THE ENGINEER.

**811**  
Know what's below.  
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01	ADDENDUM #1	9-15-23	CC/DF	CC/DF	DATE	DRAWN	CHECKED
00	OUT TO BID	4-27-23					
	REV.					DESCRIPTION	

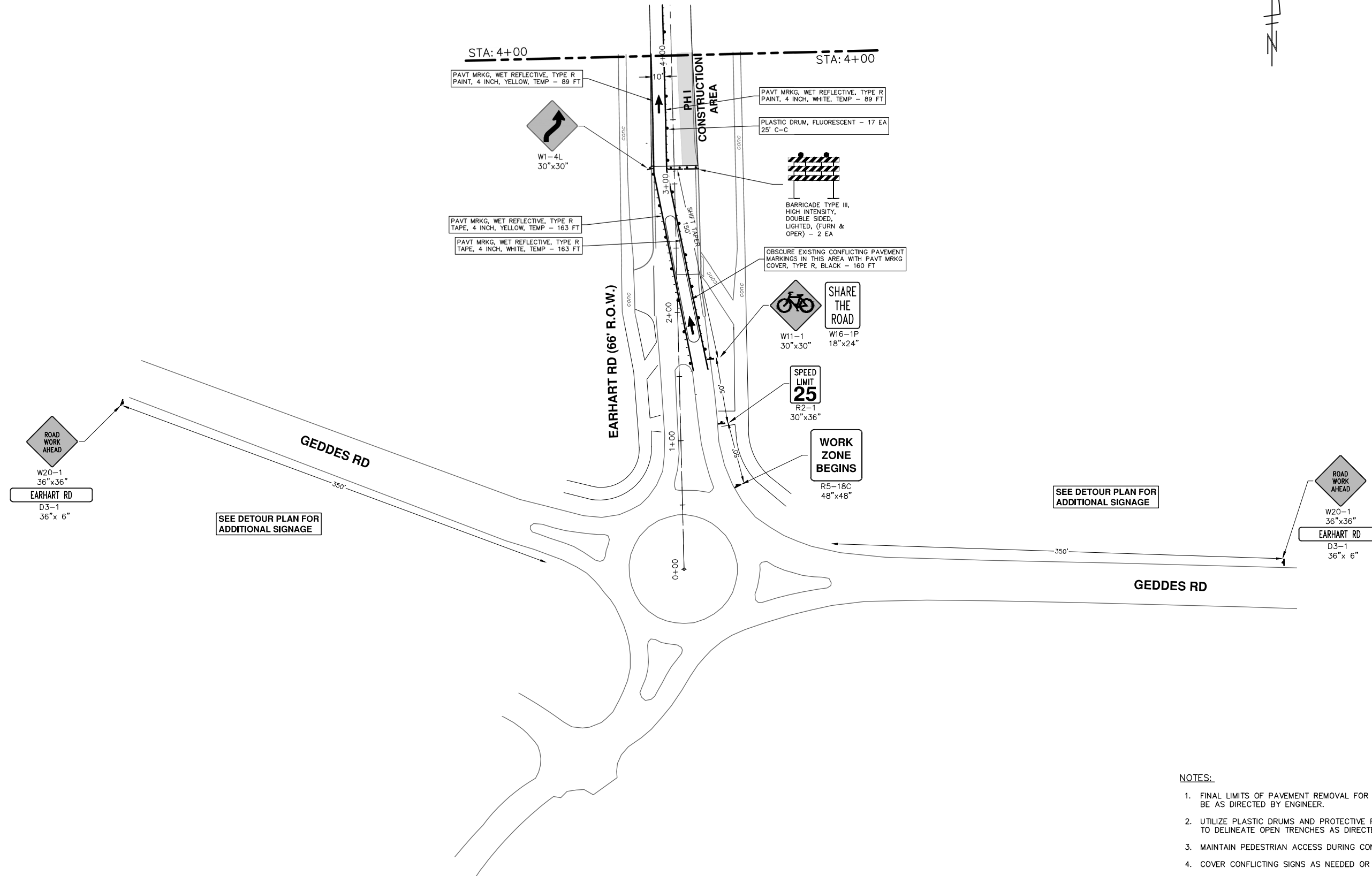
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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)SCALE PLAN: NTS  
DRAWING No. 2021023-15  
SHEET No. 15 OF 85

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**DETOUR PLAN**

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**NOTES:**

1. FINAL LIMITS OF PAVEMENT REMOVAL FOR UTILITY INSTALLATION WILL BE AS DIRECTED BY ENGINEER.
2. UTILIZE PLASTIC DRUMS AND PROTECTIVE FENCING WITHIN WORK ZONE TO DELINEATE OPEN TRENCHES AS DIRECTED BY ENGINEER.
3. MAINTAIN PEDESTRIAN ACCESS DURING CONSTRUCTION.
4. COVER CONFLICTING SIGNS AS NEEDED OR AS DIRECTED BY ENGINEER.
5. REMOVE CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
6. CONTRACTOR SHALL PLACE PORTABLE, CHANGEABLE MESSAGE SIGNS A MINIMUM OF ONE (1) WEEK PRIOR TO THE START OF CONSTRUCTION IN LOCATIONS INDICATED BY ENGINEER. MESSAGE TO BE PROVIDED BY THE ENGINEER.



REV.	DATE	DESCRIPTION
01	5-15-23	CC/DF
00	4-27-23	CC/DF

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CITY OF ANN ARBOR MICHIGAN

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 MAINTENANCE OF TRAFFIC - PH I  
 STA. 0+00 STA. 4+00

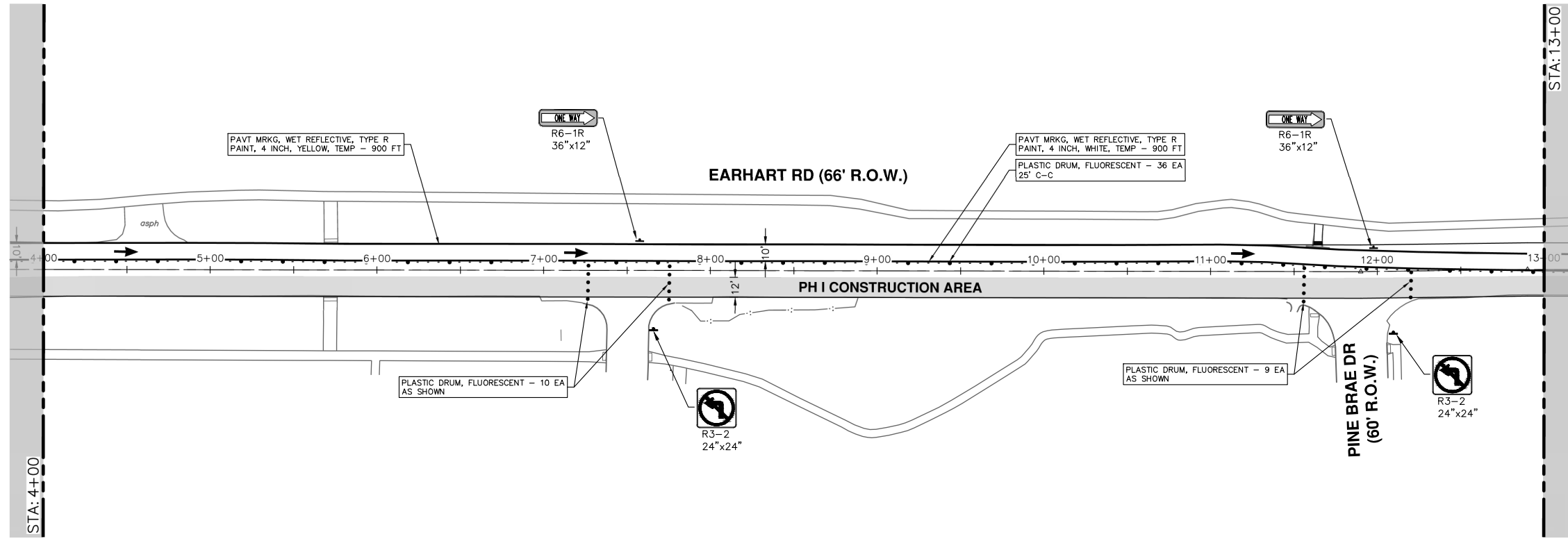
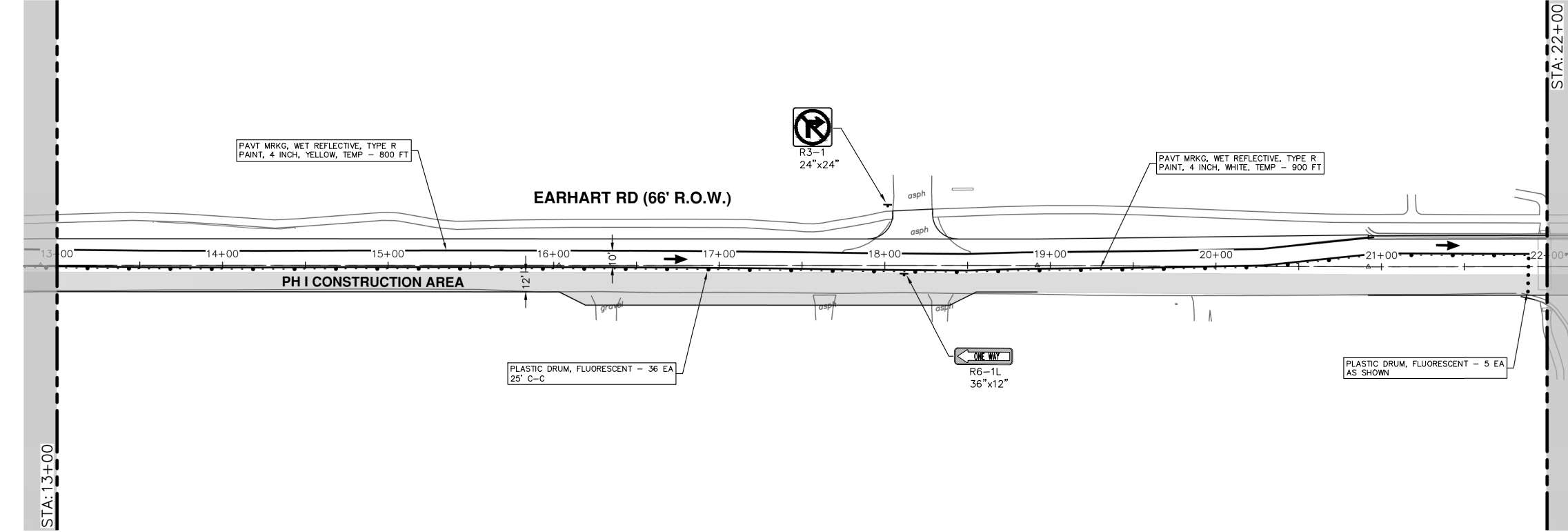
SCALE: 1" = 40'

DRAWING No. 2021023-16

SHEET No. 16 OF 85



R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Mtrfi.dwg Dwg Created: 4-May-23 --\_a2\_standard bw.stb -- Plot Date: 15-May-23



SHEET No.  
SCALE: 1" = 40'  
DRAWING No.  
2021023-17

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
MAINTENANCE OF TRAFFIC - PH I  
STA. 4+00 - STA. 22+00

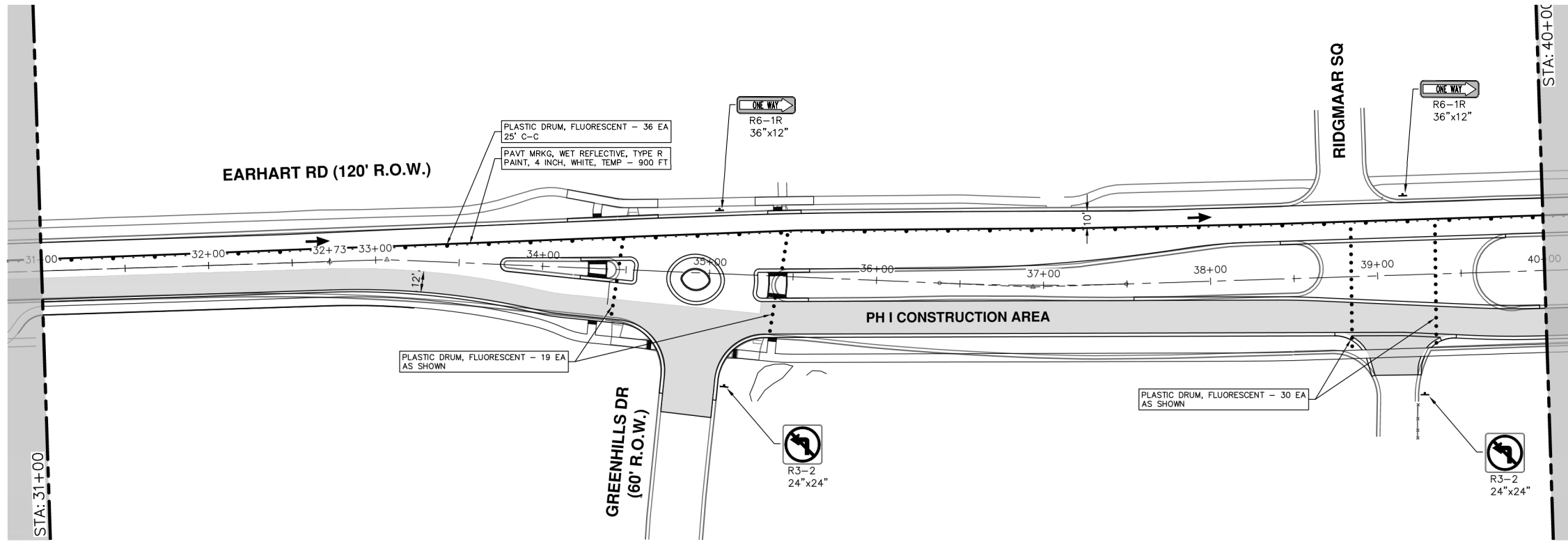
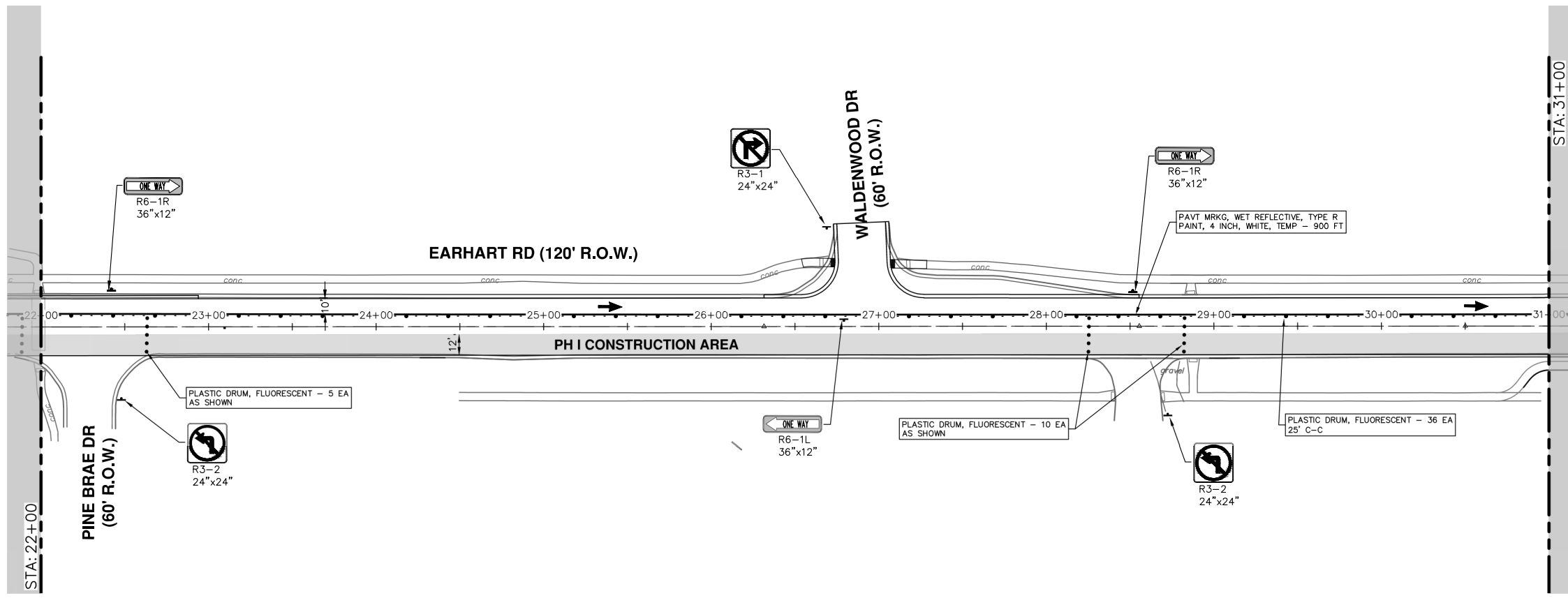


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00	OUT TO BID	4-27-23	CC/DF	NB



R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Mtrfi.dwg Dwg Created: 4-May-23 --\_a2\_standard bw.stb -- Plot Date: 15-May-23



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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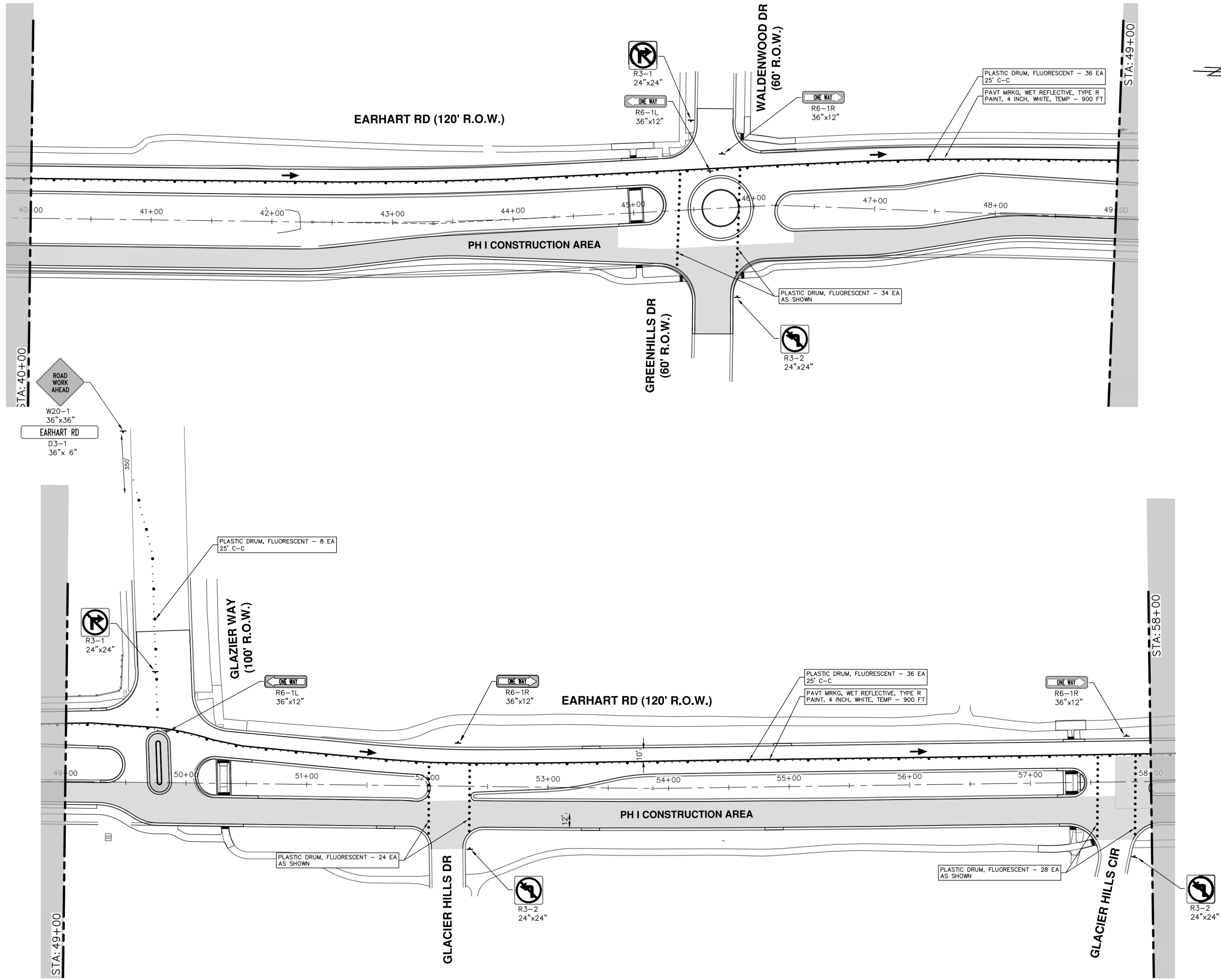
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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
MAINTENANCE OF TRAFFIC - PH I  
STA. 22+00 - STA. 40+00

SCALE: 1" = 40'  
DRAWING No. 2021023-18

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Mtrfi.dwg Dwg Created: 4-May-23 --\_a2\_standard bw.stb -- Plot Date: 15-May-23



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

MAINTENANCE OF TRAFFIC - PH I

SCALE: 1" = 40'

DRAWING No. 2021023-19

SHEET No. 19 OF 85

STA. 40+00 - STA. 58+00

PLASTIC DRUM, FLUORESCENT - 36 EA  
25' C-C

PAVT MRKG, WET REFLECTIVE, TYPE R  
PAINT, 4 INCH, WHITE, TEMP - 900 FT

PLASTIC DRUM, FLUORESCENT - 34 EA  
AS SHOWN

PLASTIC DRUM, FLUORESCENT - 8 EA  
25' C-C

PLASTIC DRUM, FLUORESCENT - 24 EA  
AS SHOWN

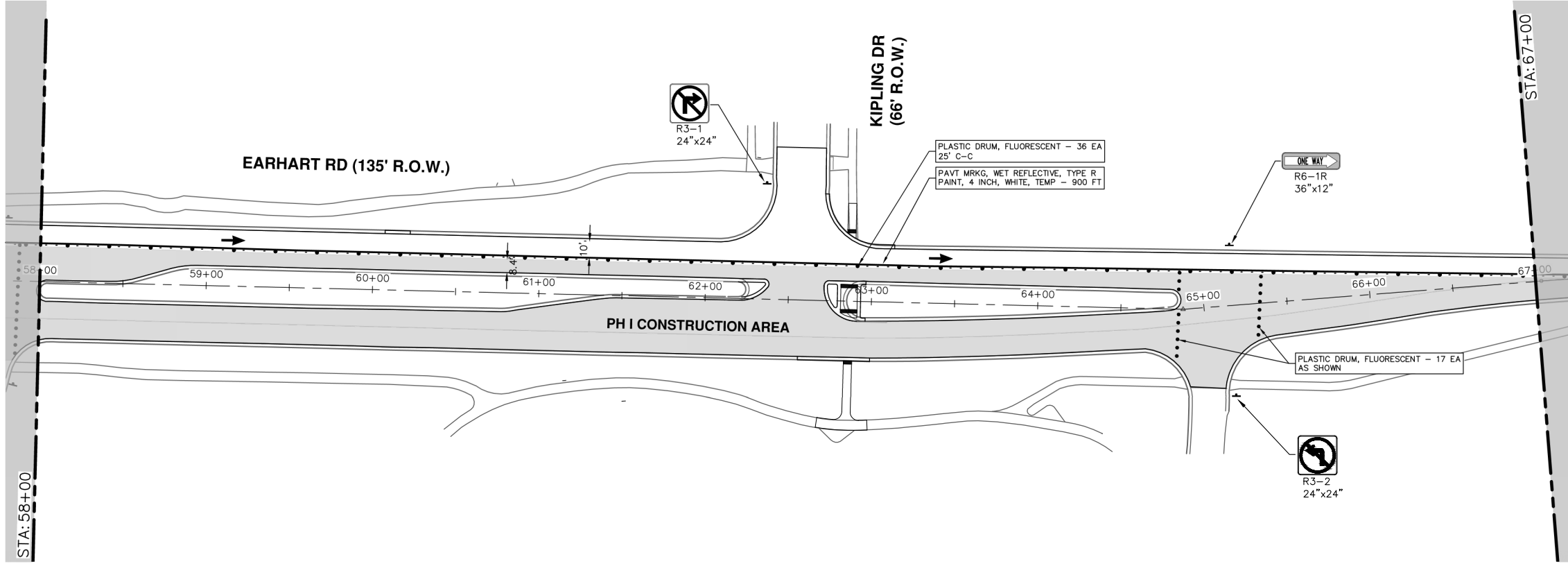
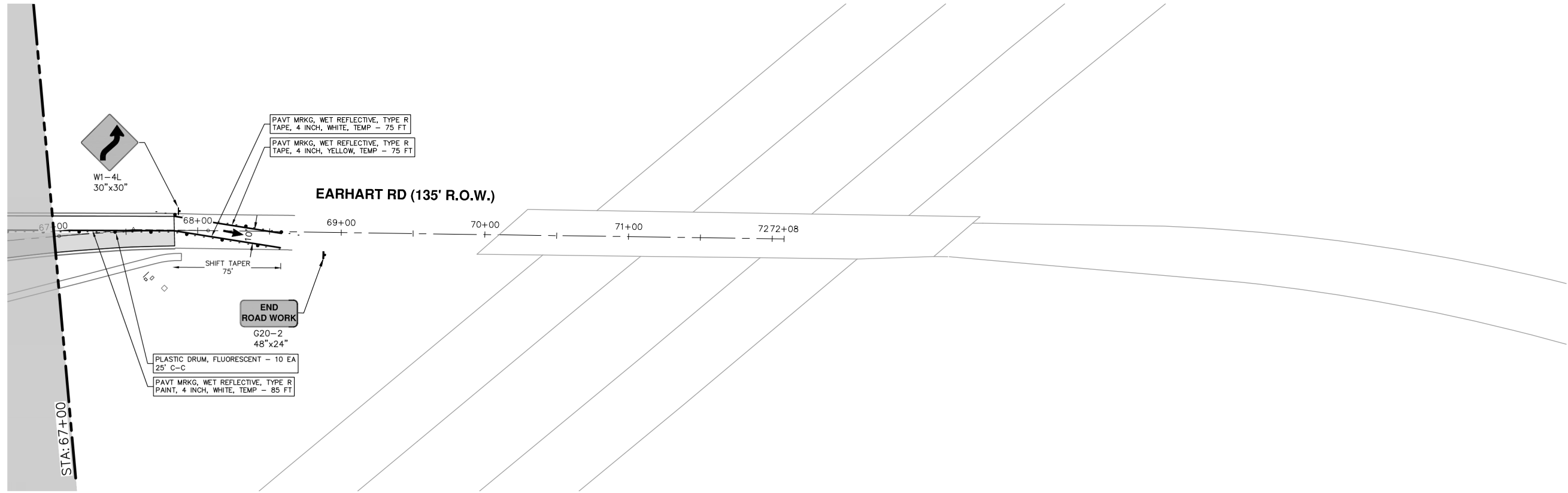
PLASTIC DRUM, FLUORESCENT - 28 EA  
AS SHOWN

01	ADDENDUM #1	5-15-23	CC/DF	NB					
00	OUT TO BID	4-27-23	CC/DF	NB					
	REV.	DATE	DRAWN	CHECKED					

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SHEET No.

20 OF 85

SCALE: 1" = 40'  
DRAWING No. 2021023-20

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
MAINTENANCE OF TRAFFIC - PH I  
STA. 58+00 - P.O.E.

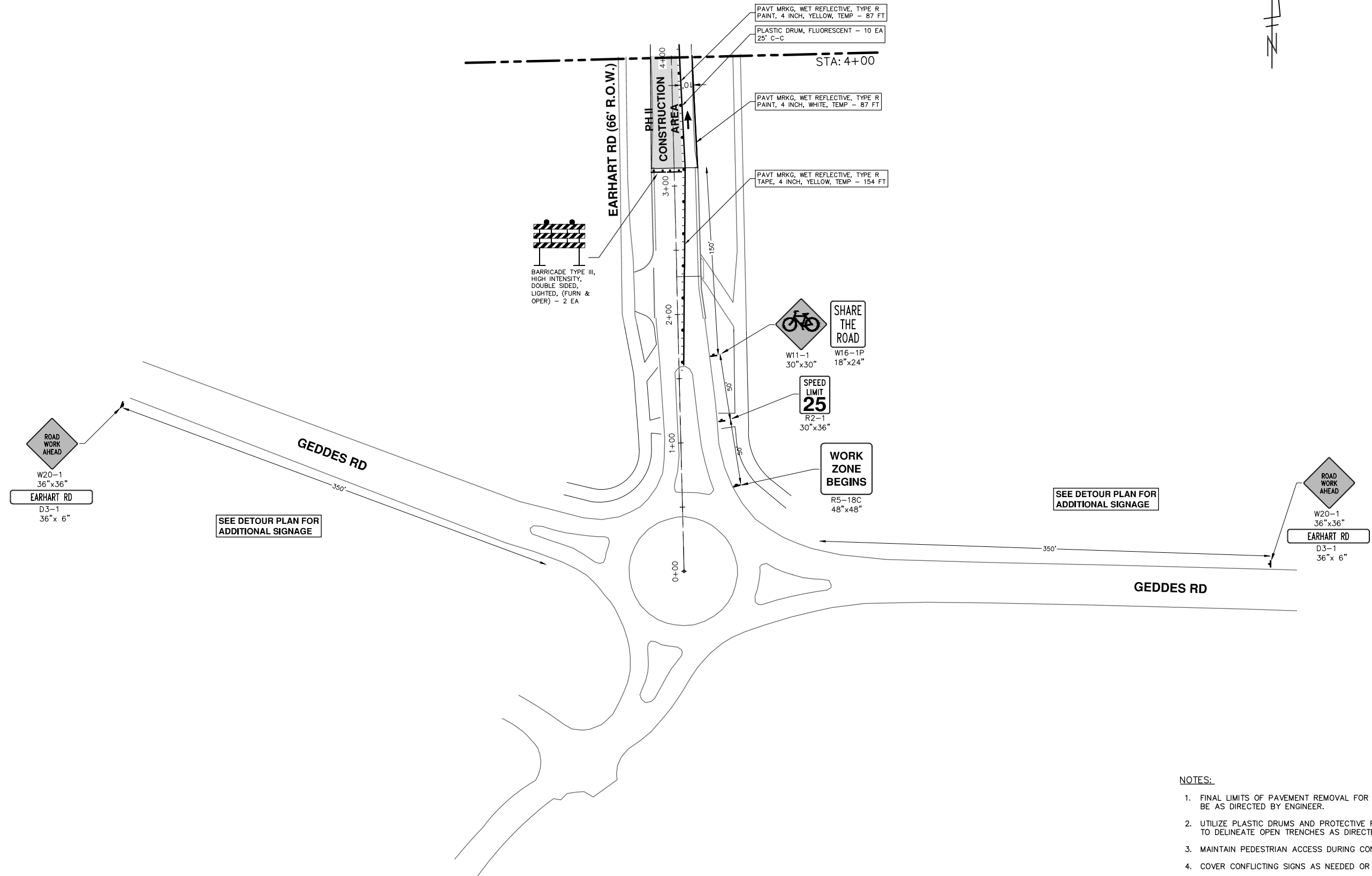


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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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00	OUT TO BID	4-27-23	CC/DF	NB



R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Mtrf.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



**NOTES:**

1. FINAL LIMITS OF PAVEMENT REMOVAL FOR UTILITY INSTALLATION WILL BE AS DIRECTED BY ENGINEER.
2. UTILIZE PLASTIC DRUMS AND PROTECTIVE FENCING WITHIN WORK ZONE TO DELINEATE OPEN TRENCHES AS DIRECTED BY ENGINEER.
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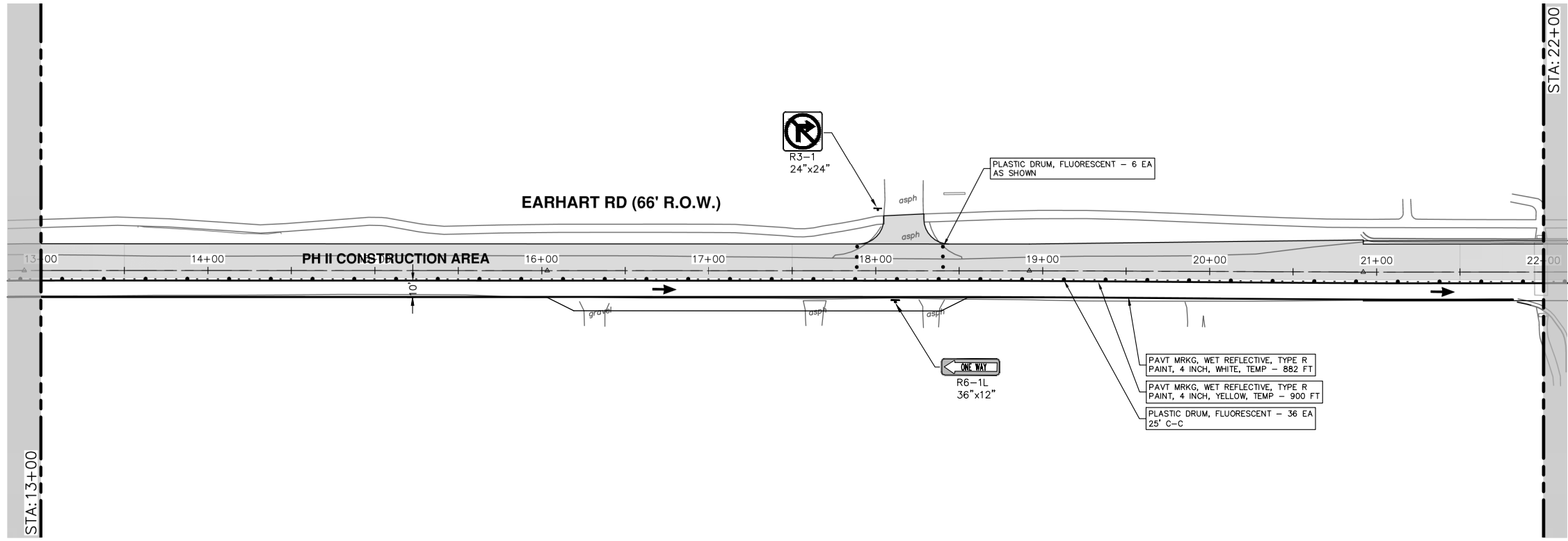
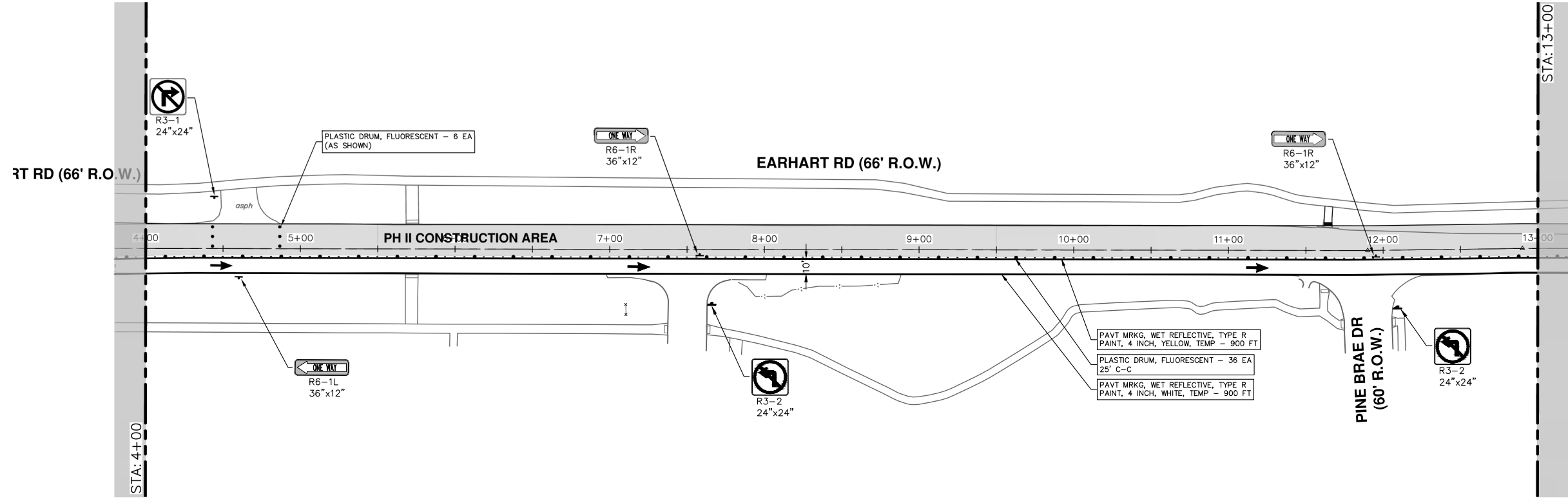
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00	4-27-23	CC/DF

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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 MAINTENANCE OF TRAFFIC - PH II  
 STA. 0+00 STA. 4+00

SCALE: 1" = 40'  
 DRAWING No. 2021023-21  
 SHEET No. 21 OF 85

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Mtrf.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



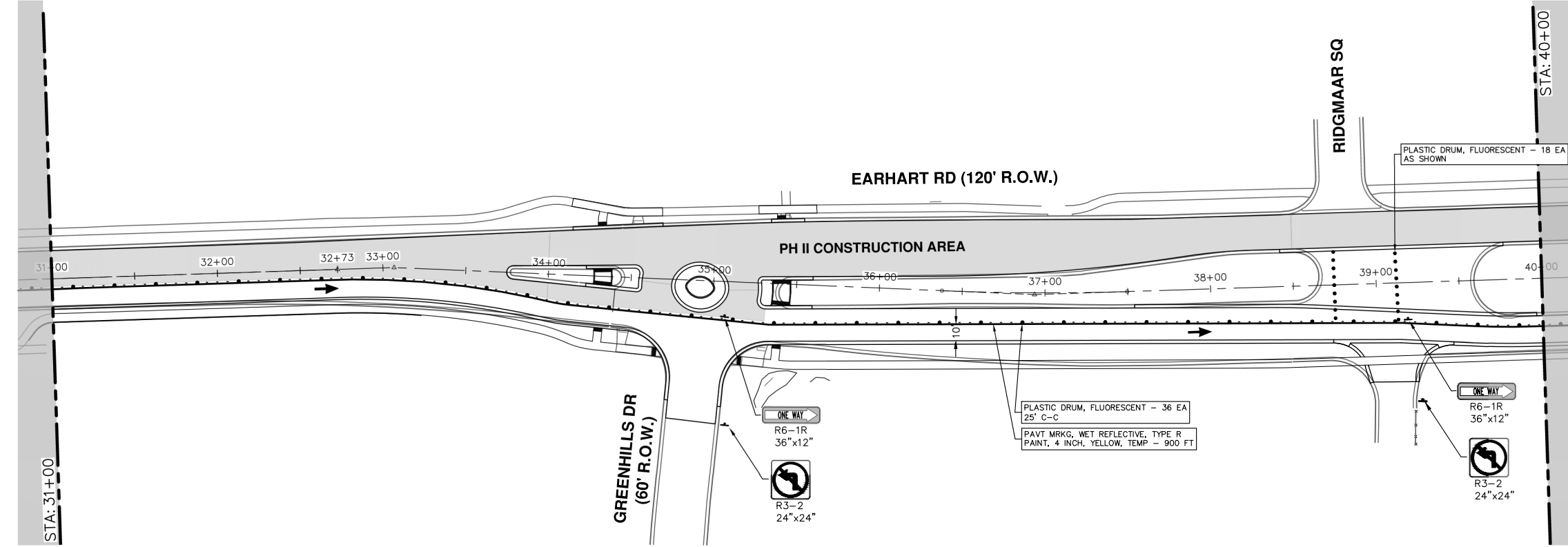
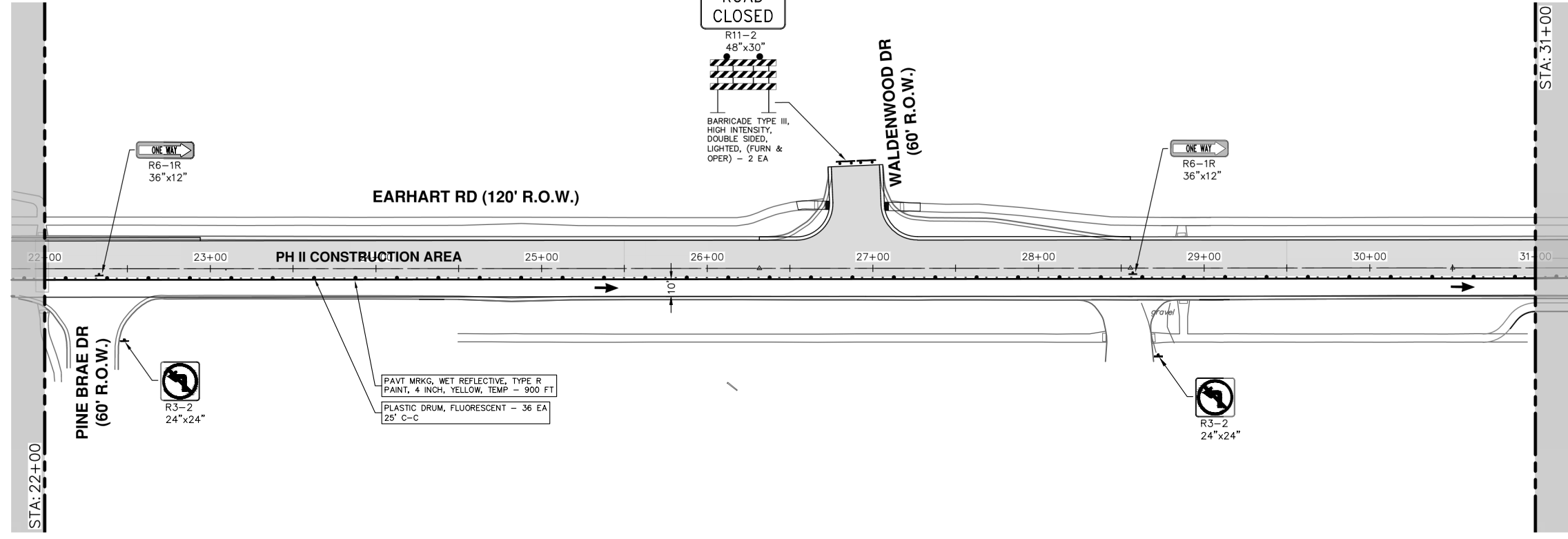
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00	OUT TO BID	4-27-23	CC/DF	NB

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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
MAINTENANCE OF TRAFFIC - PH II  
STA. 4+00 - STA. 22+00  
SCALE: 1" = 40'  
DRAWING No. 2021023-22

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Mtrf.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

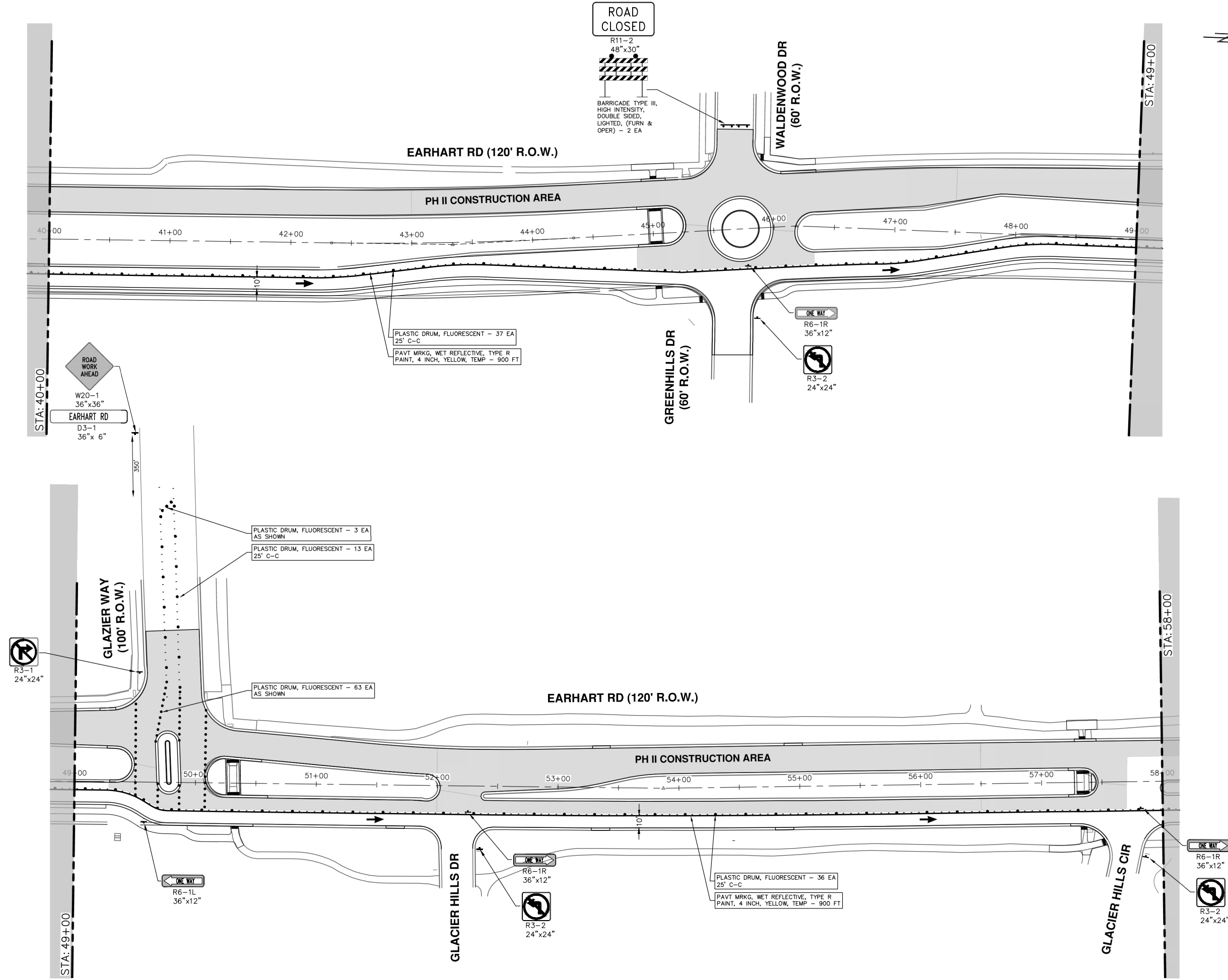
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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
MAINTENANCE OF TRAFFIC - PH II  
STA. 22+00 - STA. 40+00

SCALE: 1" = 40'  
DRAWING No. 2021023-23

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Mtrf.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	9-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

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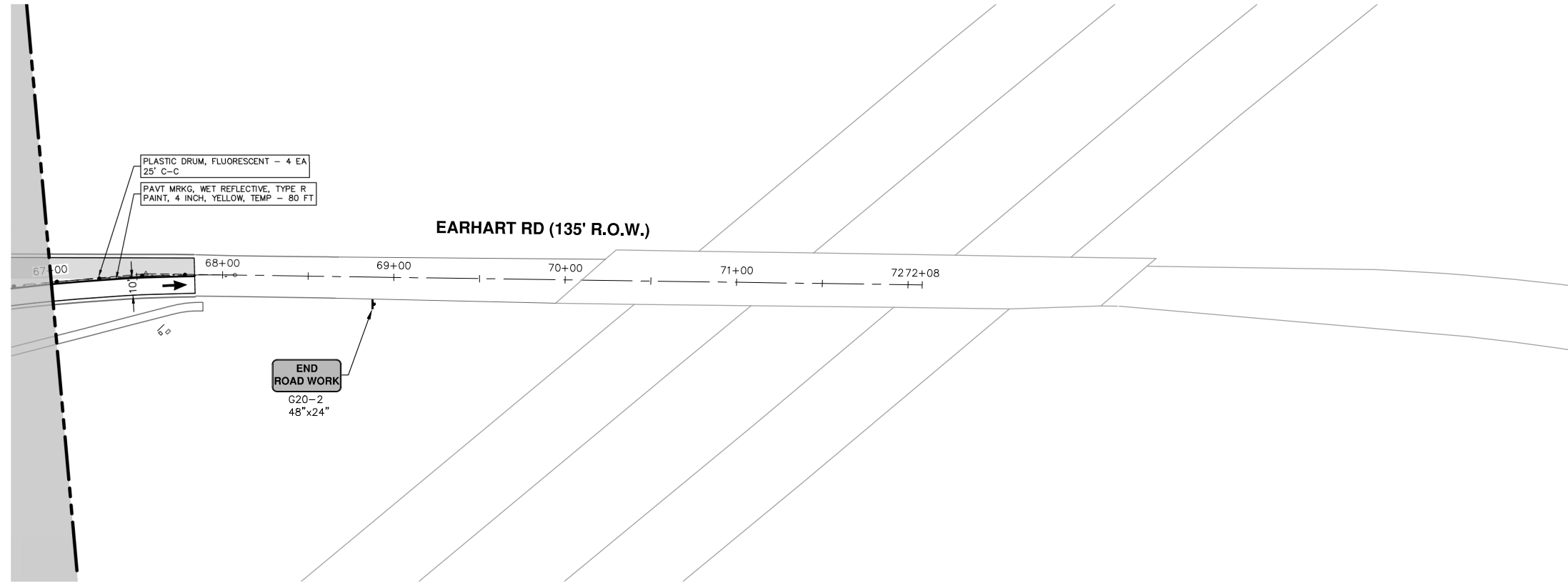
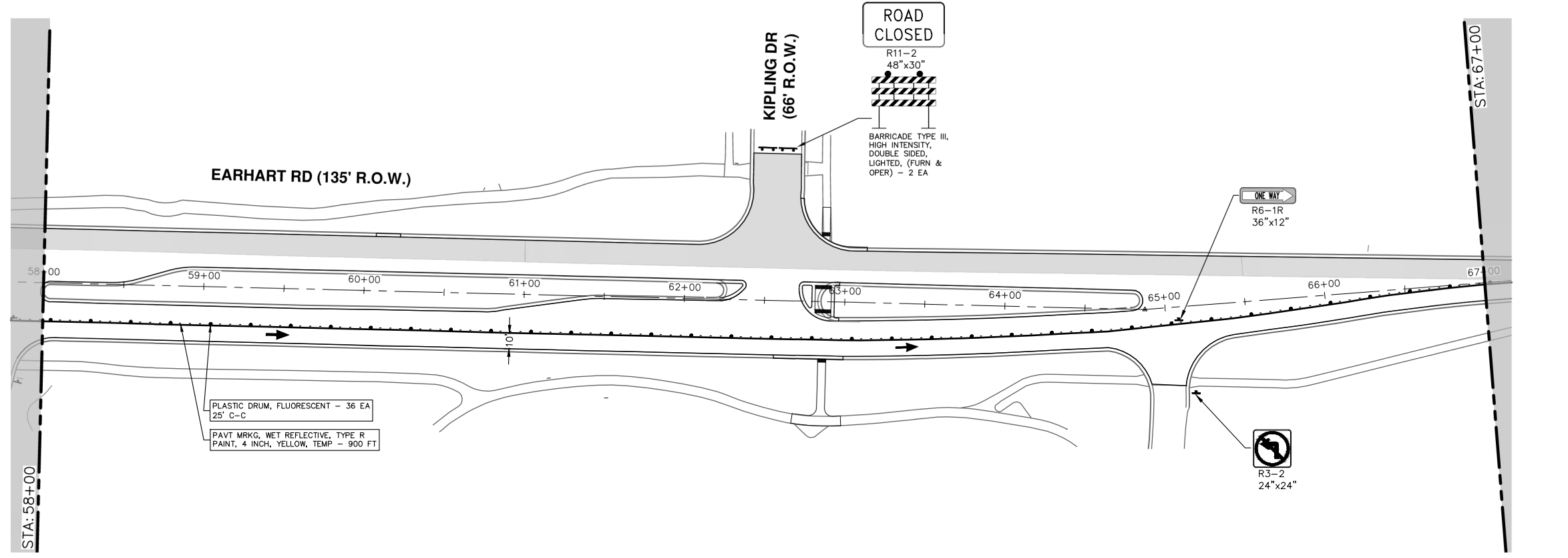


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
MAINTENANCE OF TRAFFIC - PH II

SCALE: 1" = 40'  
DRAWING No. 2021023-24  
SHEET No. 24 OF 85



R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Mtrf.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	9-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

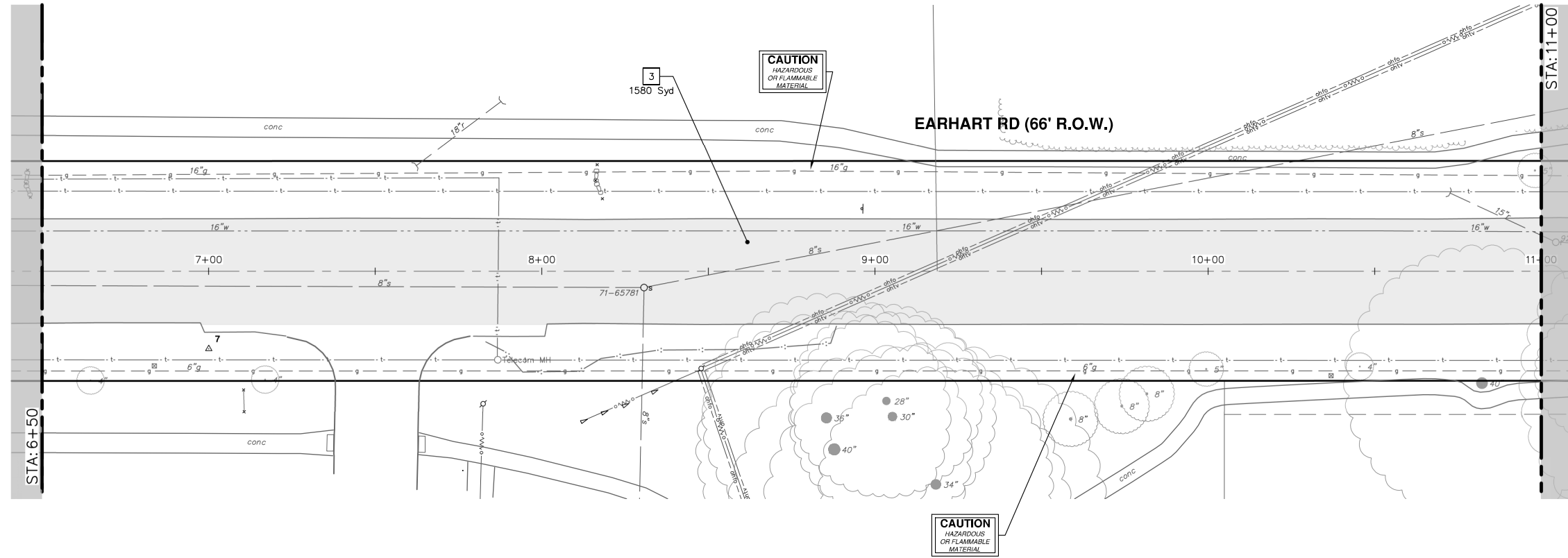
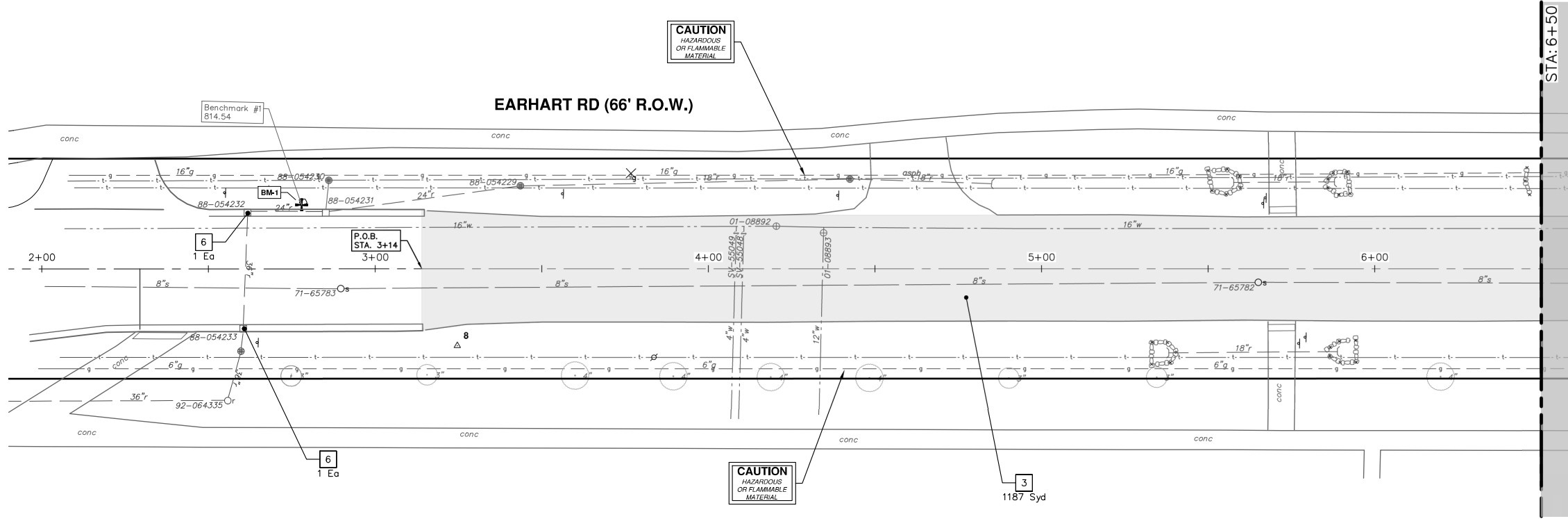
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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
MAINTENANCE OF TRAFFIC - PH II  
STA. 58+00 - P.O.E.

SCALE: 1" = 40'  
DRAWING No. 2021023-25

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Rem.dwg Dwg Created: 4-May-23 - \_a2 standard b.w.stb - Plot Date: 15-May-23



REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB AND GUTTER, - ANY TYPE*
2	REMOVE CONCRETE SIDEWALK AND DRIVE - ANY THICKNESS*
3	COLD MILLING HMA SURFACE
4	PAVEMENT REMOVAL, ANY DEPTH*
5	PROTECTIVE FENCING
6	INLET FILTER
7	TREE REMOVAL, 6 INCH - 12 INCH
8	TREE REMOVAL, 13 INCH - 24 INCH
9	TREE REMOVAL, 25 INCH AND LARGER

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 REMOVALS

SCALE: 1" = 20'

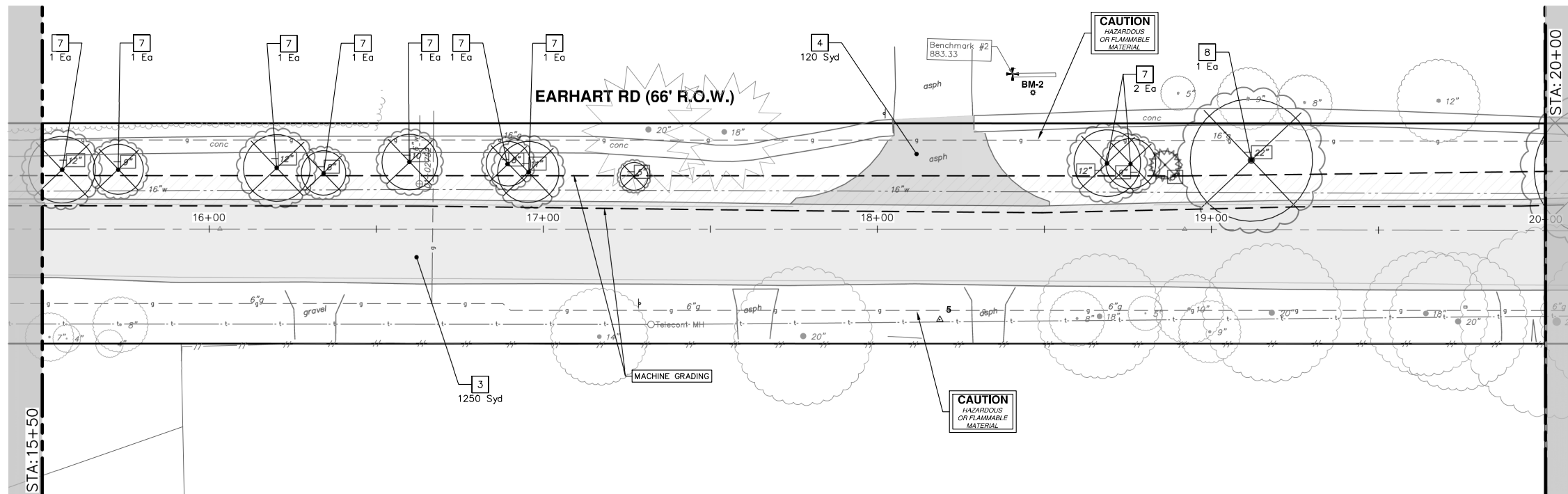
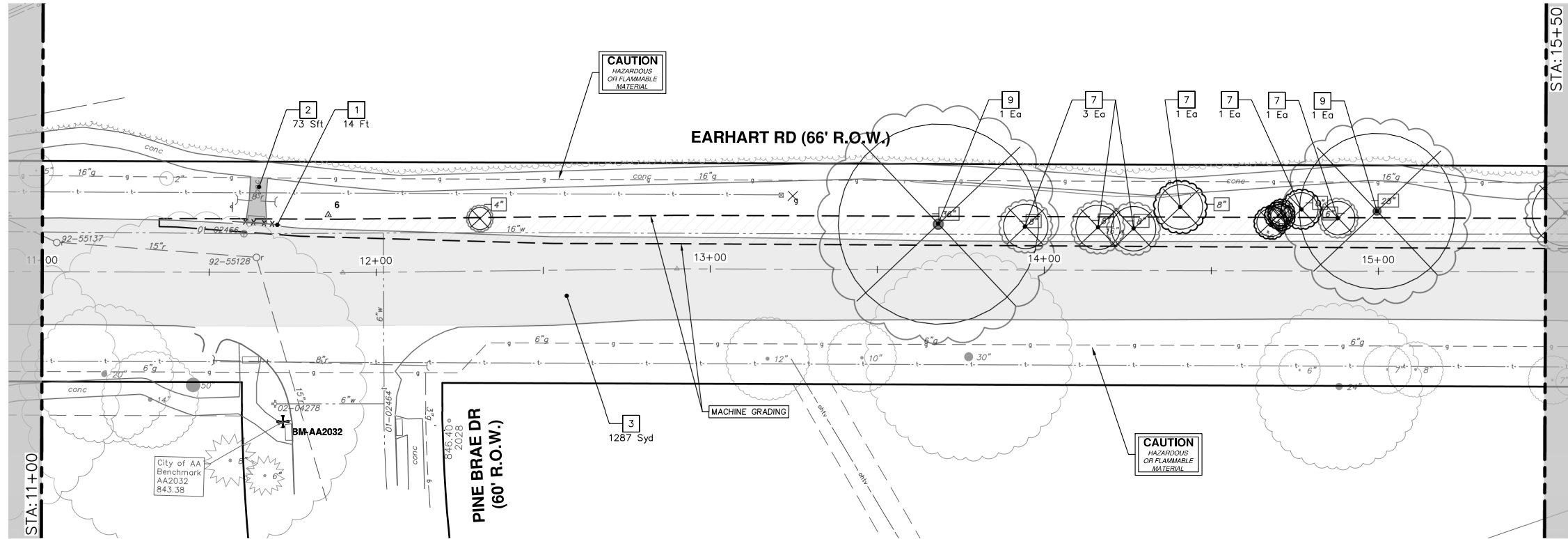
DRAWING No. 2021023-26

SHEET No. 26 OF 85

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APPENDIX #1  
 OUT TO BID  
 DATE: 4-27-23  
 DRAWN: CC/DF  
 CHECKED: NB

Know what's below. Call before you dig.



TREE REMOVAL TABLE				
Tag No.	Size	Species	Northing	Easting
	36"		284414.7151	13308565.9089
	8"		284440.8826	13308565.8666
	8"		284473.1677	13308565.6274
	8"		284462.4934	13308565.5318
	6"		284534.3033	13308560.7022
	8"		284486.9813	13308558.7283
	6"		284523.2160	13308558.3802
	28"		284545.8926	13308558.2864
	12"		284602.2434	13308557.1213
	9"		284619.0833	13308556.5501
	8"		284680.5390	13308556.0928
	12"		284666.5199	13308554.9597
	11"		284741.8037	13308554.2470
	10"		284706.2605	13308552.1806
	8"		284735.7861	13308551.9235
	22"		284958.0876	13308545.2038

TREE REMOVAL TABLE				
Tag No.	Size	Species	Northing	Easting
	12"		284915.0050	13308547.2100
	9"		284922.0220	13308547.1310

REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB AND GUTTER, - ANY TYPE*
2	REMOVE CONCRETE SIDEWALK AND DRIVE - ANY THICKNESS*
3	COLD MILLING HMA SURFACE
4	PAVEMENT REMOVAL, ANY DEPTH*
5	PROTECTIVE FENCING
6	INLET FILTER
7	TREE REMOVAL, 6 INCH - 12 INCH
8	TREE REMOVAL, 13 INCH - 24 INCH
9	TREE REMOVAL, 25 INCH AND LARGER

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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00	OUT TO BID	4-27-23	CC/DF	NB

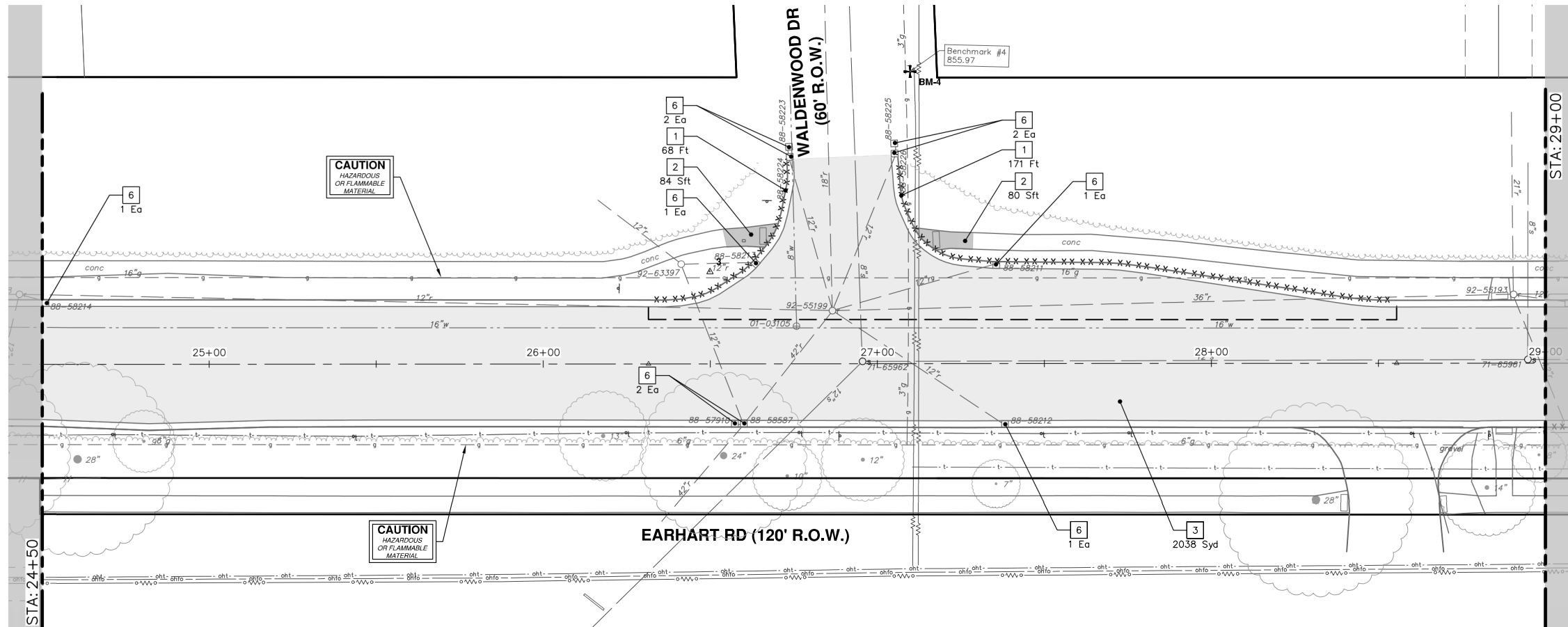
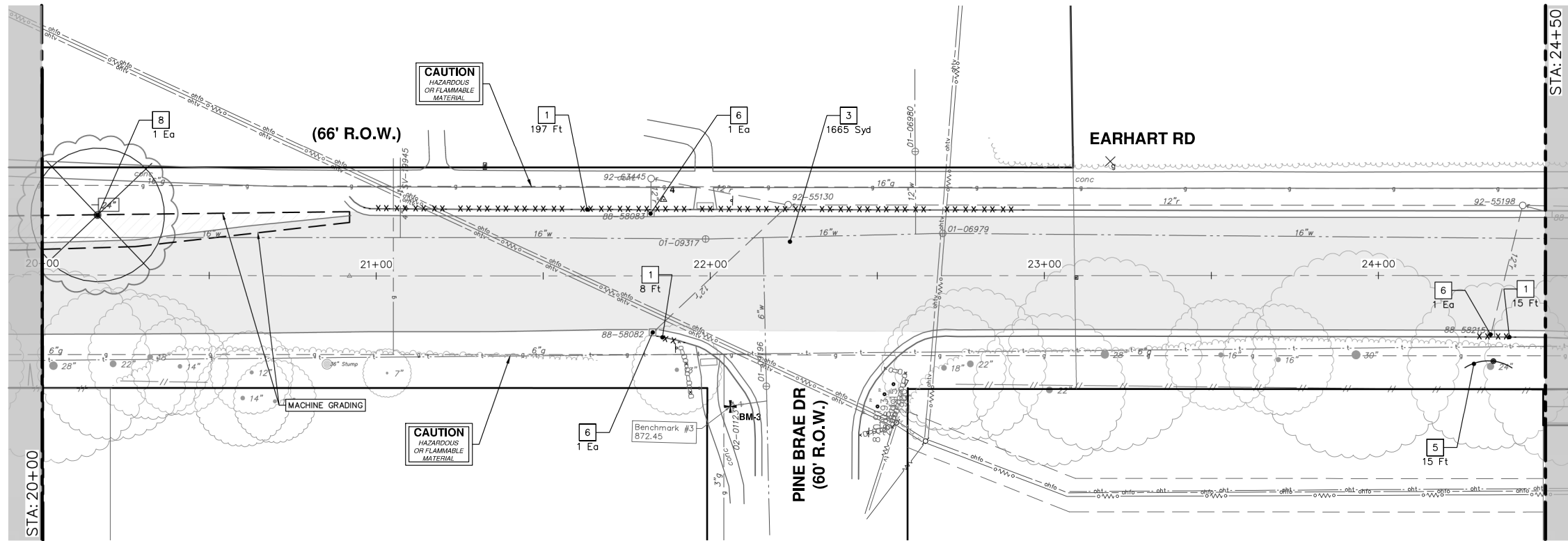
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PUBLIC SERVICES  
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
REMOVALS  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
STA. 11+00 - STA. 20+00

SCALE: 1" = 20'  
DRAWING No. 2021023-27  
SHEET No. 27 OF 85

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Rem.dwg Dwg Created: 4-May-23 - \_a2 standard bw.stb - Plot Date: 15-May-23



REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB AND GUTTER, - ANY TYPE*
2	REMOVE CONCRETE SIDEWALK AND DRIVE - ANY THICKNESS*
3	COLD MILLING HMA SURFACE
4	PAVEMENT REMOVAL, ANY DEPTH*
5	PROTECTIVE FENCING
6	INLET FILTER
7	TREE REMOVAL, 6 INCH - 12 INCH
8	TREE REMOVAL, 13 INCH - 24 INCH
9	TREE REMOVAL, 25 INCH AND LARGER

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER

TREE REMOVAL TABLE				
Tag No.	Size	Species	Northing	Easting
24*			285062.7729	13306545.7864

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 REMOVALS

SCALE: 1" = 20'

DRAWING No. 2021023-28

SHEET No. 28 OF 85

STA. 20+00 - STA. 29+00

REVISIONS:

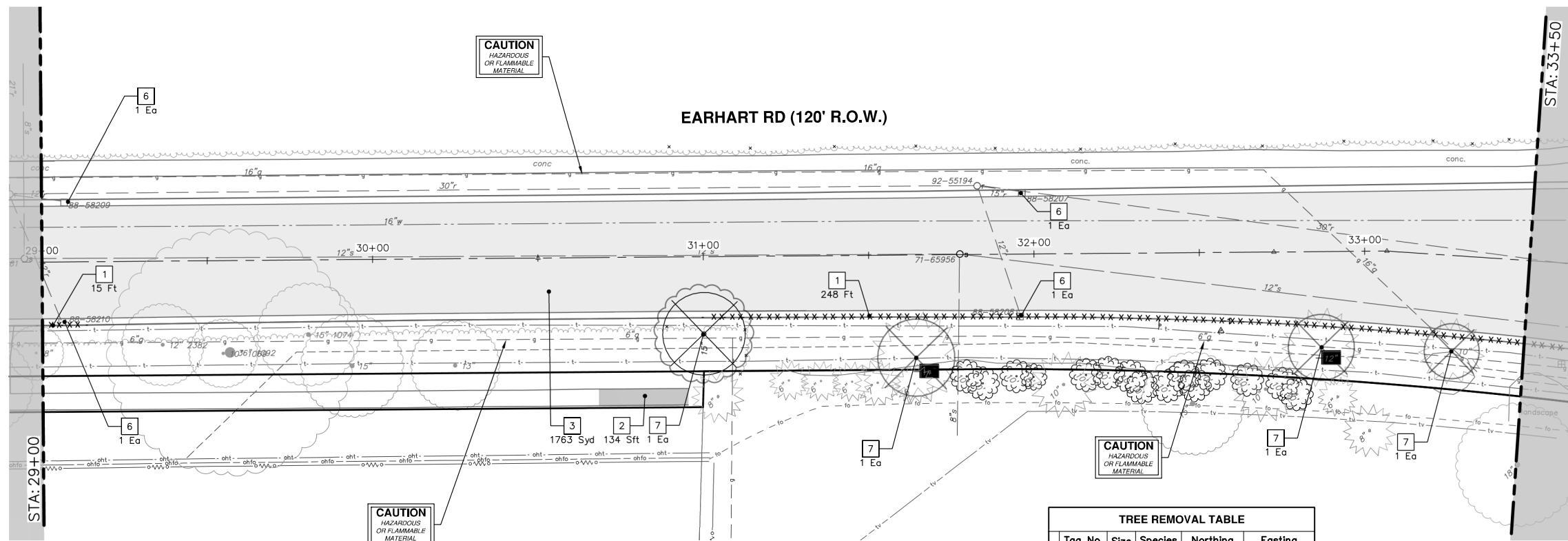
NO	DATE	DESCRIPTION	BY	CHECKED
01 <td>9-15-23 <td>ADDENDUM #1 <td>CC/DF <td>NB</td> </td></td></td>	9-15-23 <td>ADDENDUM #1 <td>CC/DF <td>NB</td> </td></td>	ADDENDUM #1 <td>CC/DF <td>NB</td> </td>	CC/DF <td>NB</td>	NB
00 <td>4-27-23 <td>OUT TO BID <td>CC/DF <td>NB</td> </td></td></td>	4-27-23 <td>OUT TO BID <td>CC/DF <td>NB</td> </td></td>	OUT TO BID <td>CC/DF <td>NB</td> </td>	CC/DF <td>NB</td>	NB

REV. DATE DRAWN CHECKED

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R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Rem.dwg Dwg Created: 4-May-23 - \_a2 standard b.w.sib - Plot Date: 15-May-23

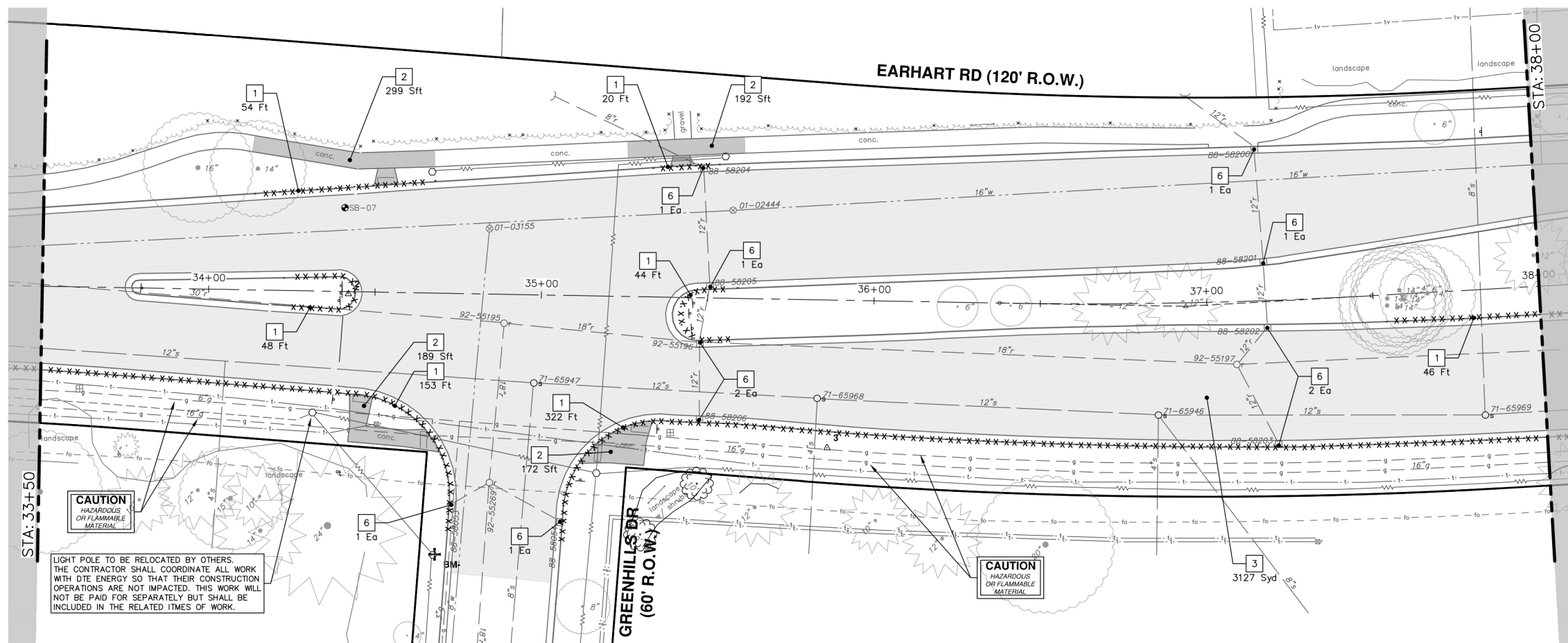


Tag No.	Size	Species	Northing	Easting
15"			286146.8980	13308559.2360

Tag No.	Size	Species	Northing	Easting
	14"		286211.1963	13308565.3055
	10"		286373.0583	13308560.5098
	12"		286333.6174	13308560.0656

KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB AND GUTTER, - ANY TYPE*
2	REMOVE CONCRETE SIDEWALK AND DRIVE - ANY THICKNESS*
3	COLD MILLING HMA SURFACE
4	PAVEMENT REMOVAL, ANY DEPTH*
5	PROTECTIVE FENCING
6	INLET FILTER
7	TREE REMOVAL, 6 INCH - 12 INCH
8	TREE REMOVAL, 13 INCH - 24 INCH
9	TREE REMOVAL, 25 INCH AND LARGER

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER



LIGHT POLE TO BE RELOCATED BY OTHERS. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH DTE ENERGY SO THAT THEIR CONSTRUCTION OPERATIONS ARE NOT IMPACTED. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE RELATED ITEMS OF WORK.



REV.	DATE	DESCRIPTION
01	9-15-23	CC/DF
00	4-27-23	CC/DF

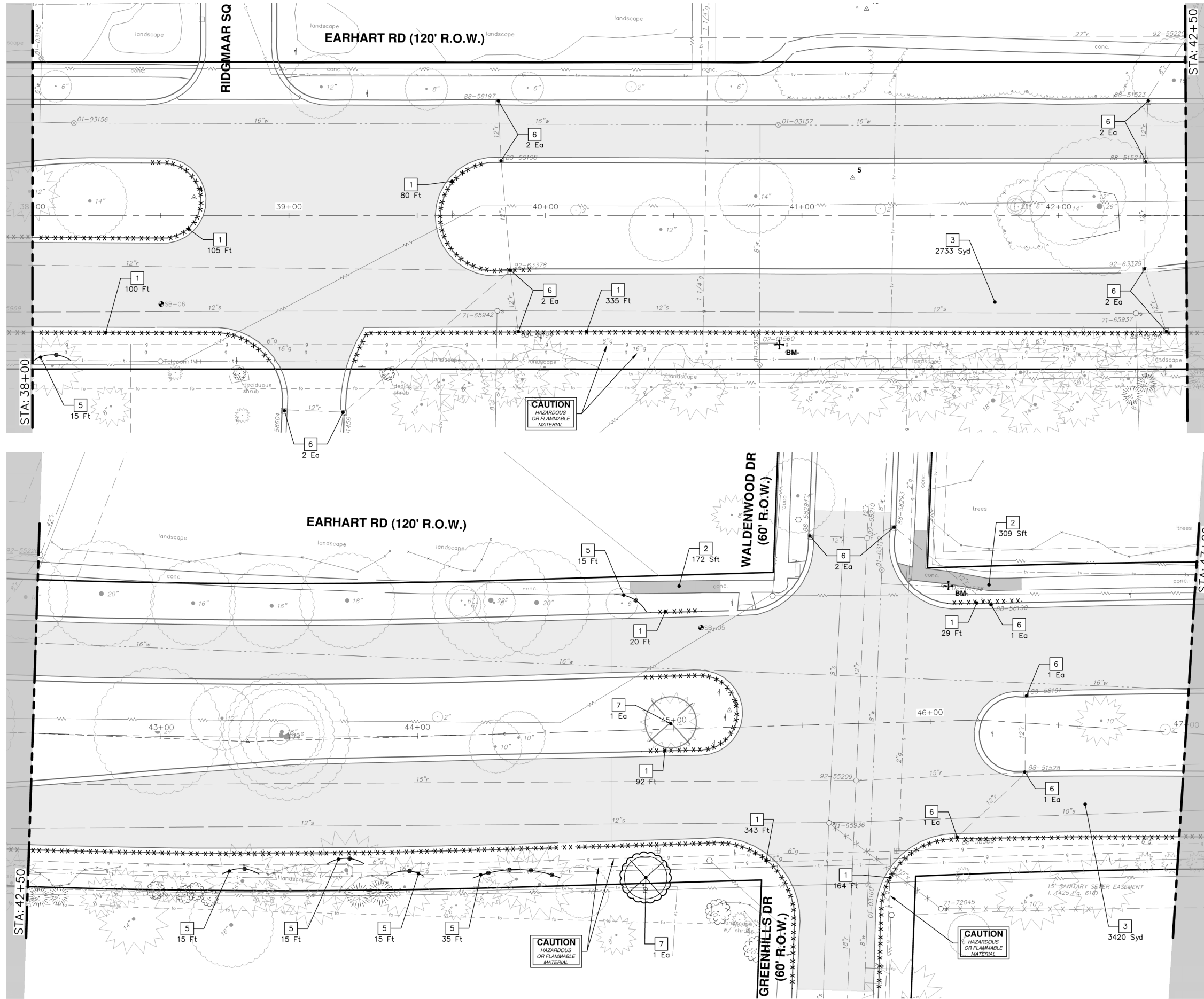
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
REMOVALS  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)

SCALE: 1" = 20'  
DRAWING No. 2021023-29  
SHEET No. 29 OF 85

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Rem.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



**REMOVAL KEY**

KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB AND GUTTER, - ANY TYPE*
2	REMOVE CONCRETE SIDEWALK AND DRIVE - ANY THICKNESS*
3	COLD MILLING HMA SURFACE
4	PAVEMENT REMOVAL, ANY DEPTH*
5	PROTECTIVE FENCING
6	INLET FILTER
7	TREE REMOVAL, 6 INCH - 12 INCH
8	TREE REMOVAL, 13 INCH - 24 INCH
9	TREE REMOVAL, 25 INCH AND LARGER

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER

**TREE REMOVAL TABLE**

Tag No.	Size	Species	Northing	Easting
	12"		287543.5632	13308515.7878

**TREE REMOVAL TABLE**

Tag No.	Size	Species	Northing	Easting
	10"		287537.6440	13308576.9080



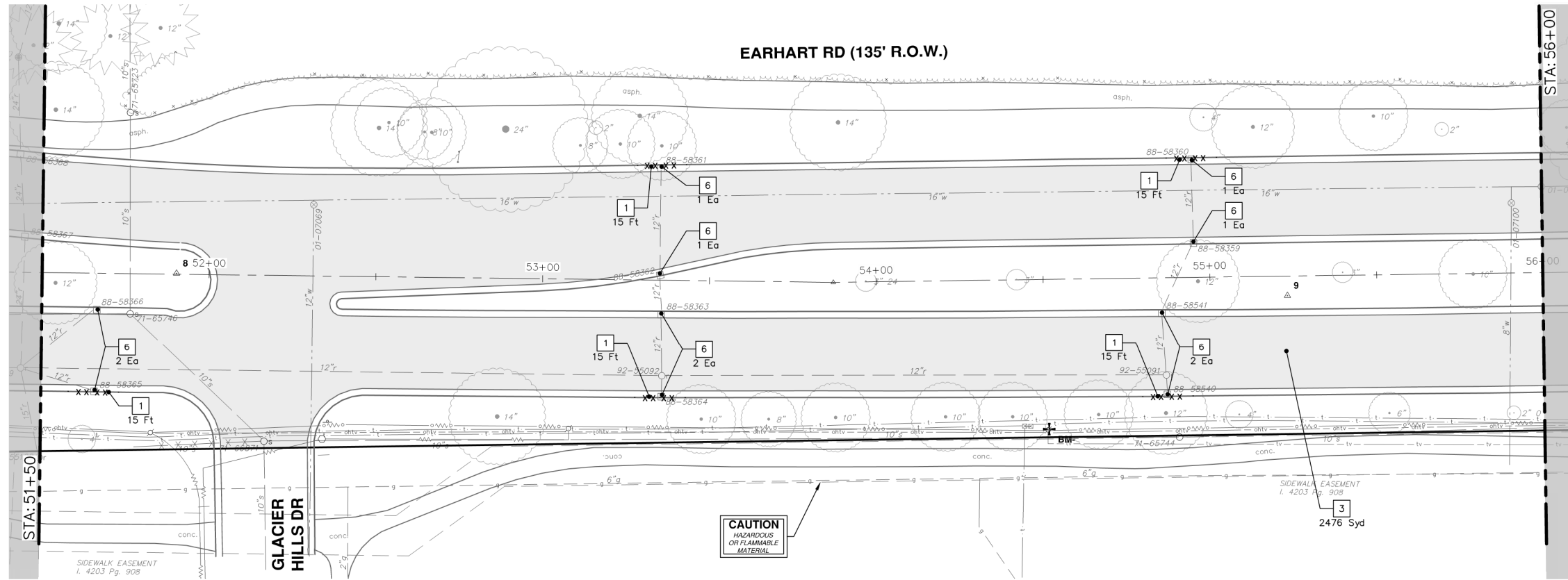
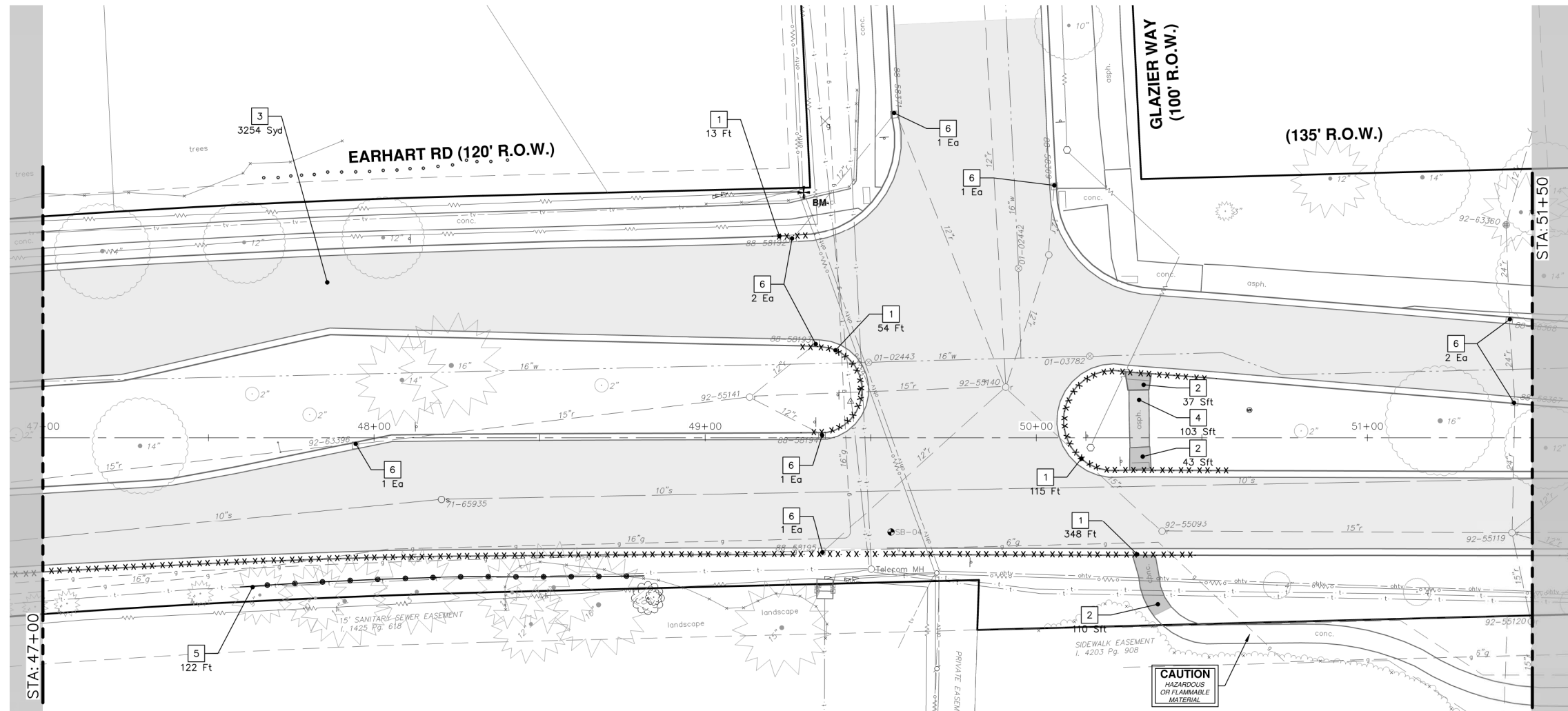
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ANN ARBOR 734.774.6410  
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
REMOVALS  
SCALE: 1" = 20'  
DRAWING No. 2021023-30

REV	DATE	DESCRIPTION
00	4-27-23	DRAWN
01	5-15-23	CC/DF
01	5-15-23	CC/DF
01	5-15-23	CC/DF

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Rem.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB AND GUTTER, - ANY TYPE*
2	REMOVE CONCRETE SIDEWALK AND DRIVE - ANY THICKNESS*
3	COLD MILLING HMA SURFACE
4	PAVEMENT REMOVAL, ANY DEPTH*
5	PROTECTIVE FENCING
6	INLET FILTER
7	TREE REMOVAL, 6 INCH - 12 INCH
8	TREE REMOVAL, 13 INCH - 24 INCH
9	TREE REMOVAL, 25 INCH AND LARGER

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER

REV	DATE	DRAWN	CHECKED
01	9-15-23	CC/DF	NB
00	4-27-23	CC/DF	NB

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
REMOVALS  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)

STA. 47+00 - STA. 56+00

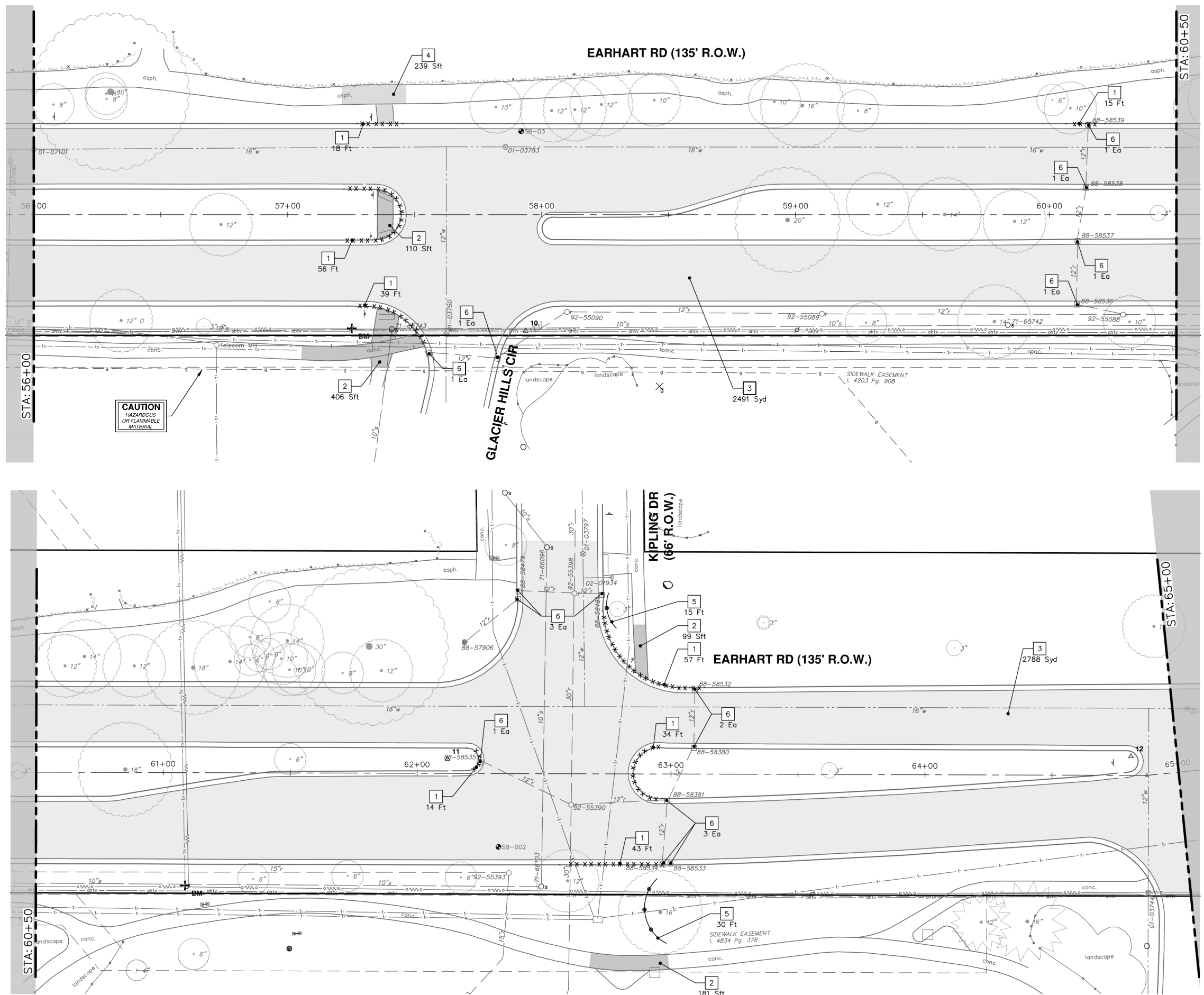
SCALE: 1" = 20'

DRAWING No. 2021023-31

SHEET No.

31 OF 85

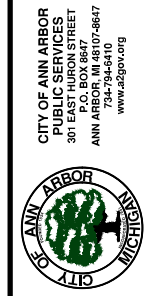
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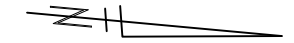
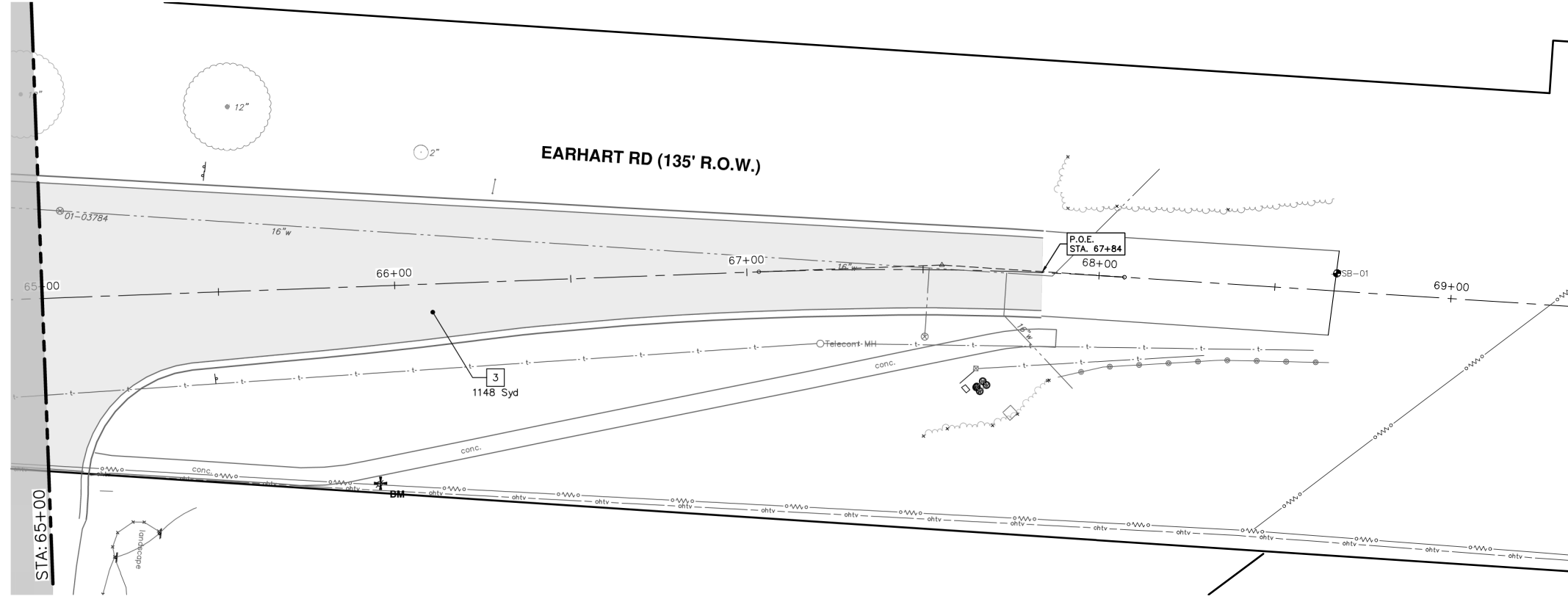
REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB AND GUTTER, - ANY TYPE*
2	REMOVE CONCRETE SIDEWALK AND DRIVE - ANY THICKNESS*
3	COLD MILLING HMA SURFACE
4	PAVEMENT REMOVAL, ANY DEPTH*
5	PROTECTIVE FENCING
6	INLET FILTER
7	TREE REMOVAL, 6 INCH - 12 INCH
8	TREE REMOVAL, 13 INCH - 24 INCH
9	TREE REMOVAL, 25 INCH AND LARGER

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER

<b>811</b> Know what's below. Call before you dig.			
	CC/DF	NB	CHECKED
	9-15-23	4-27-23	DATE
01	APPENDIX #1	DESCRIPTION	REV.
00	OUT TO BID	DRAWN	REV.
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING EARHART ROAD IMPROVEMENTS (GEDDES - US23) REMOVALS STA. 56+00 - STA. 65+00 SCALE: 1" = 20' DRAWING No. 2021023-32 SHEET No. 32 OF 85			







REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB AND GUTTER, - ANY TYPE*
2	REMOVE CONCRETE SIDEWALK AND DRIVE - ANY THICKNESS*
3	COLD MILLING HMA SURFACE
4	PAVEMENT REMOVAL, ANY DEPTH*
5	PROTECTIVE FENCING
6	INLET FILTER
7	TREE REMOVAL, 6 INCH - 12 INCH
8	TREE REMOVAL, 13 INCH - 24 INCH
9	TREE REMOVAL, 25 INCH AND LARGER

\* SAWCUT FULL DEPTH AT REMOVAL LIMITS AS DIRECTED BY ENGINEER

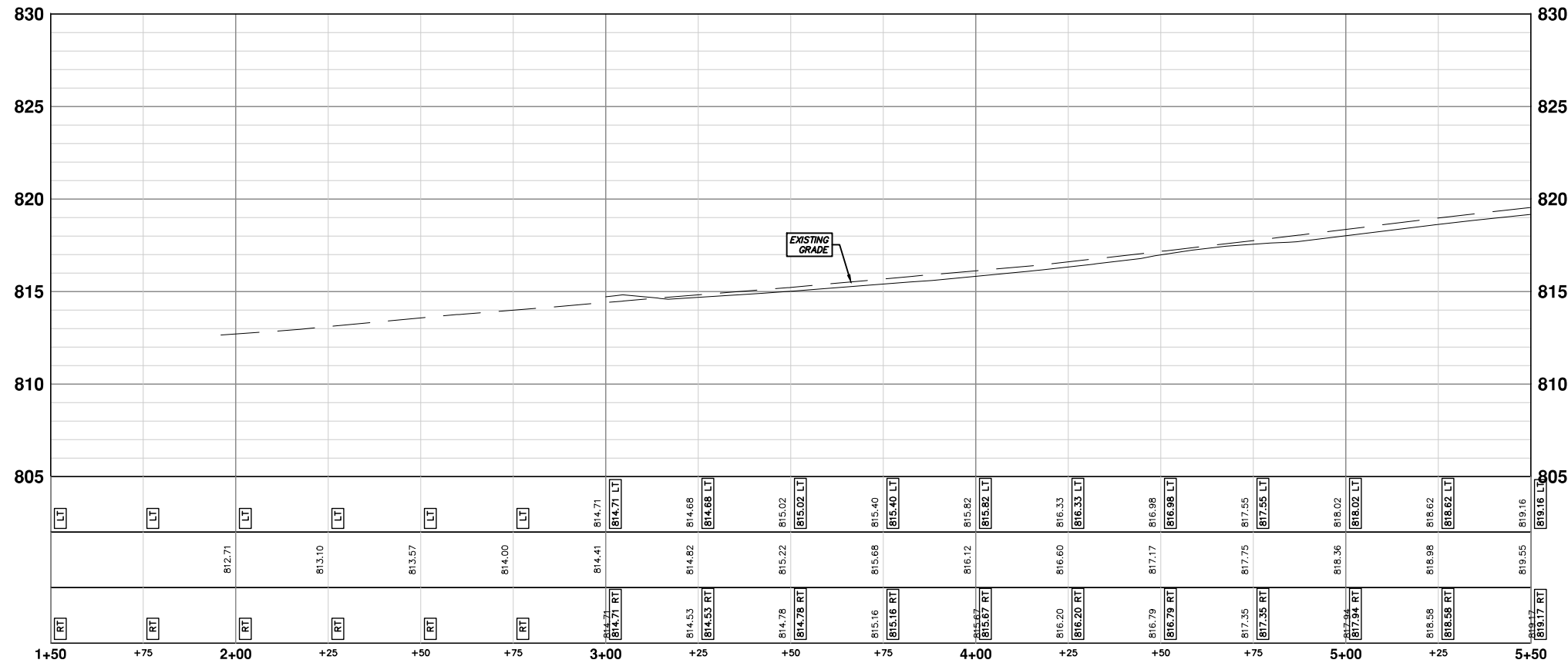
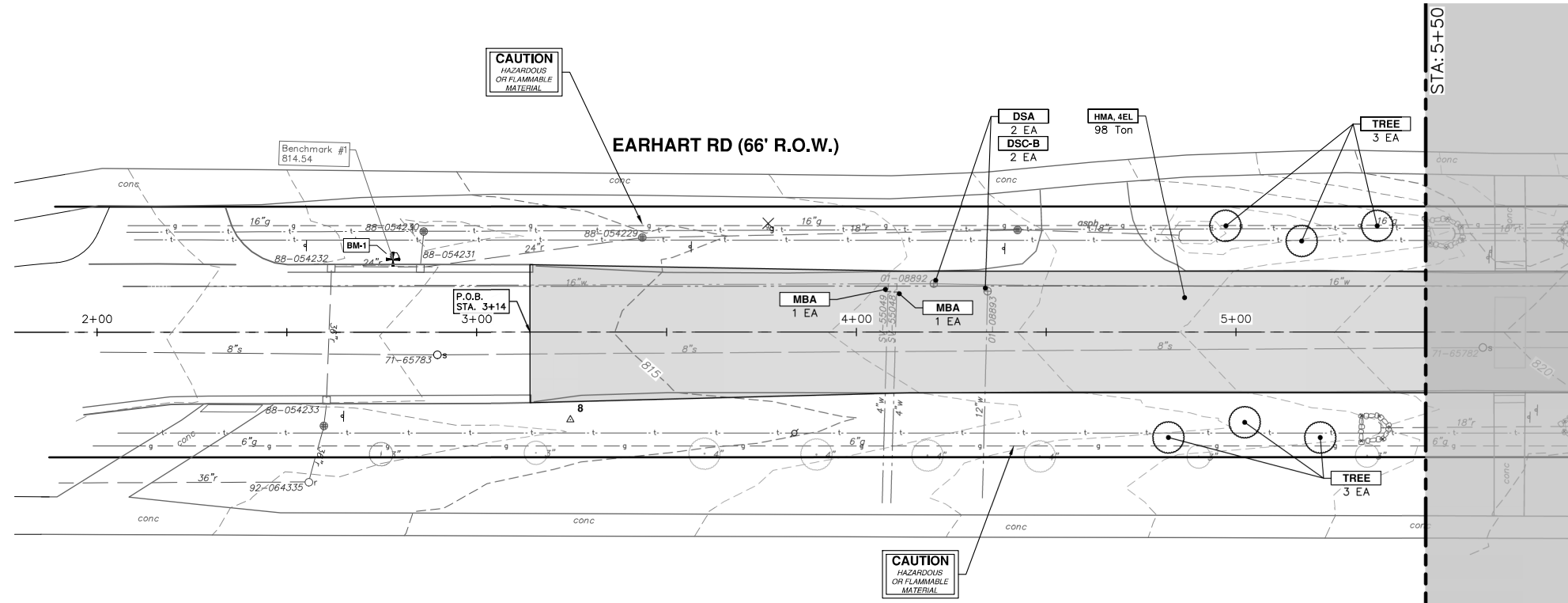


REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
REMOVALS  
SCALE: 1" = 20'  
DRAWING No. 2021023-33  
STA. 65+00 - STA. 67+84

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Prd.dwg Dwg Created: 5-May-23 --\_a2 standard bw.stb -- Plot Date: 15-May-23



CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ. CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, OR AGGREGATE BASE, 6 INCH

TREES SHOWN SHALL BE PLANTED AS A MIX OF SPECIES WITH THE MAJORITY BEING LARGE SHADE TREES INTERMIXED WITH MEDIUM AND SMALL TREES.

TOTAL TREES SHOWN = 90  
 LARGE SHADE TREES (L) = 50

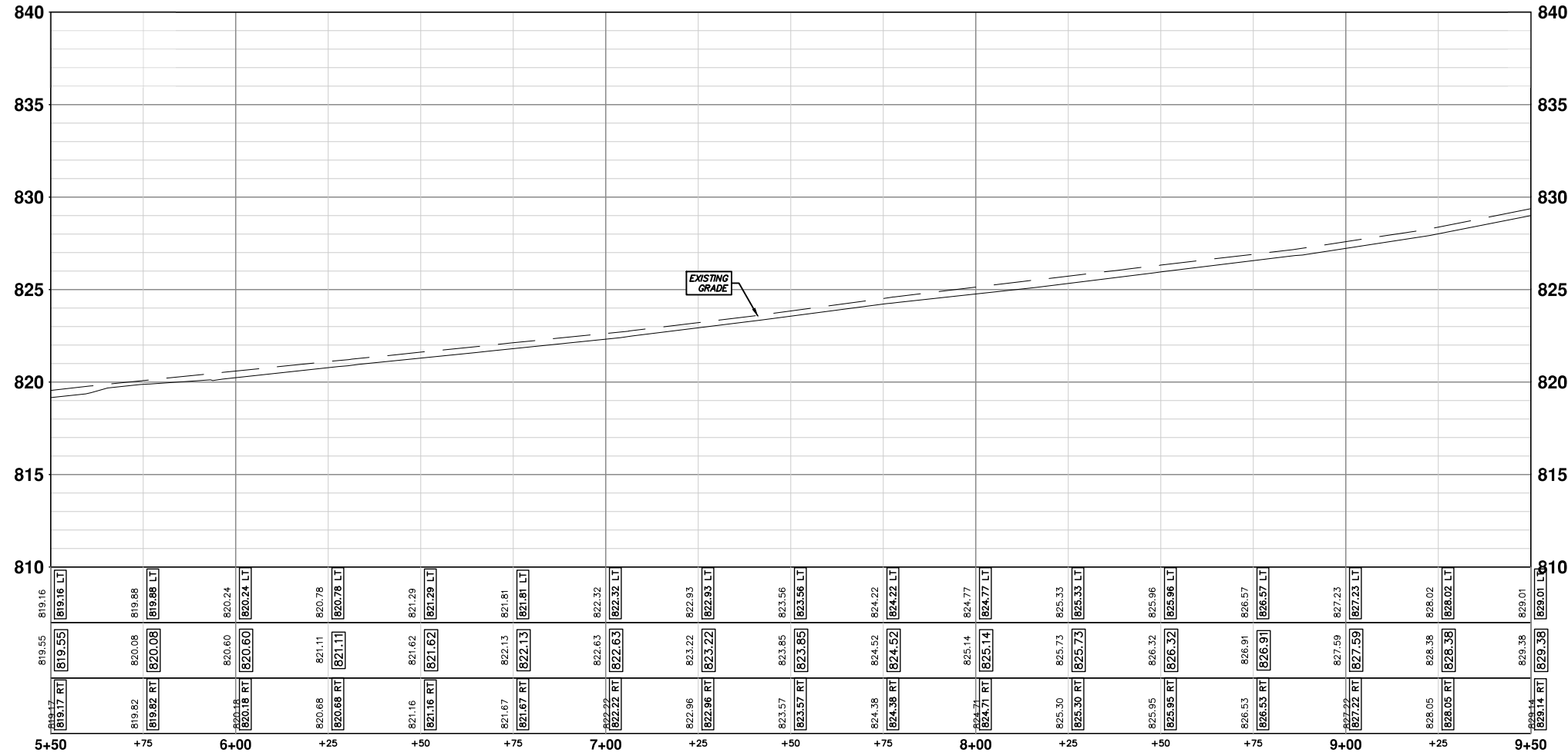
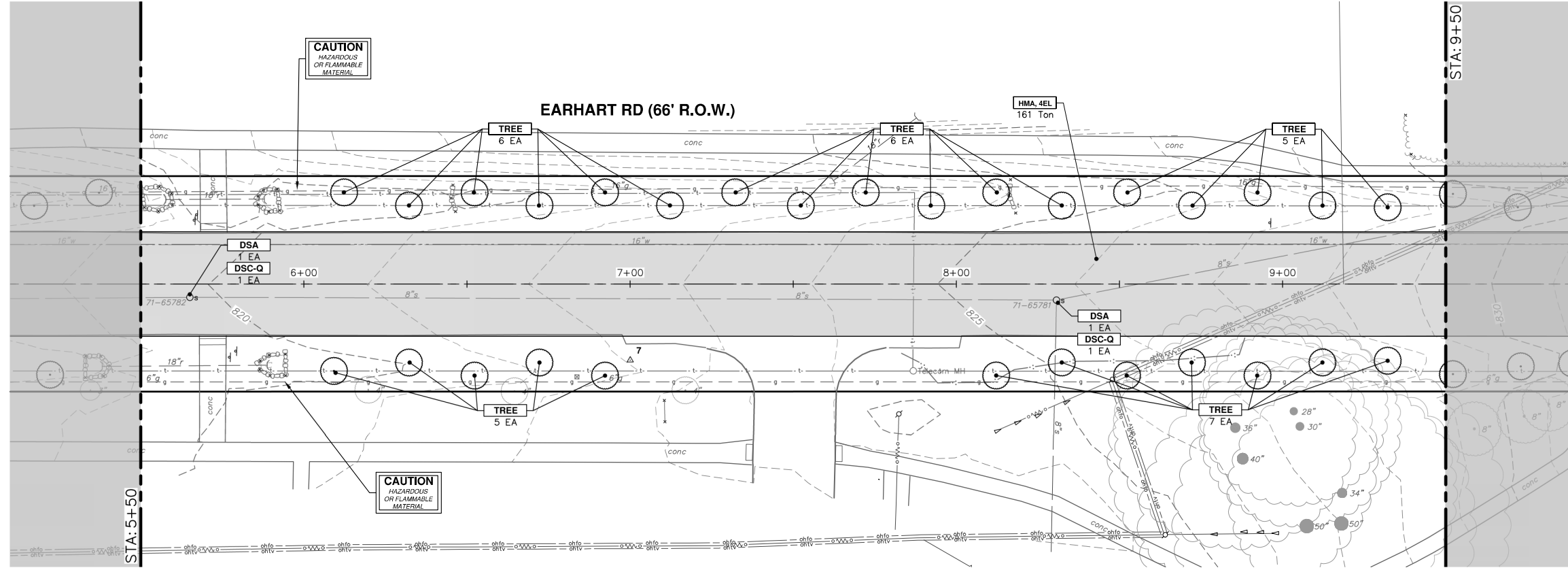
LATIN NAME (MATURE SIZE) - COMMON NAME:  
 • Gleditsia triacanthos inermis 'Skyline' (L) - Honeylocust  
 • Gymnocladus dioica (L) - Kentucky coffeetree  
 • Liquidambar styraciflua (M) - Sweetgum  
 • Liriodendron tulipifera (L) - Tuliptree  
 • Nyssa sylvatica (M) - Blackgum  
 • Ostrya virginiana (M) - Ironwood  
 • Quercus rubra (L) - Red oak  
 • Quercus macrocarpa (L) - Bur oak  
 • Amelanchier canadensis, tree form (S) - Serviceberry  
 • Celtis occidentalis (L) - Hackberry  
 • Cercis canadensis (S) - Redbud  
 • Cornus florida (S) - flowering dogwood



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 ROAD PLAN & PROFILE  
 STA. 3+14 - STA 5+50

REV.	DATE	DRAWN	CHECKED	DESCRIPTION
01	5-15-23	CC/DF	CC/DF	ADDENDUM #1
00	4-27-23	CC/DF	CC/DF	OUT TO BID

SHEET No. **34 OF 85**



CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, B INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ. CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, OR AGGREGATE BASE, 6 INCH

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

ROAD PLAN & PROFILE

STA. 5+50 - STA. 9+50

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

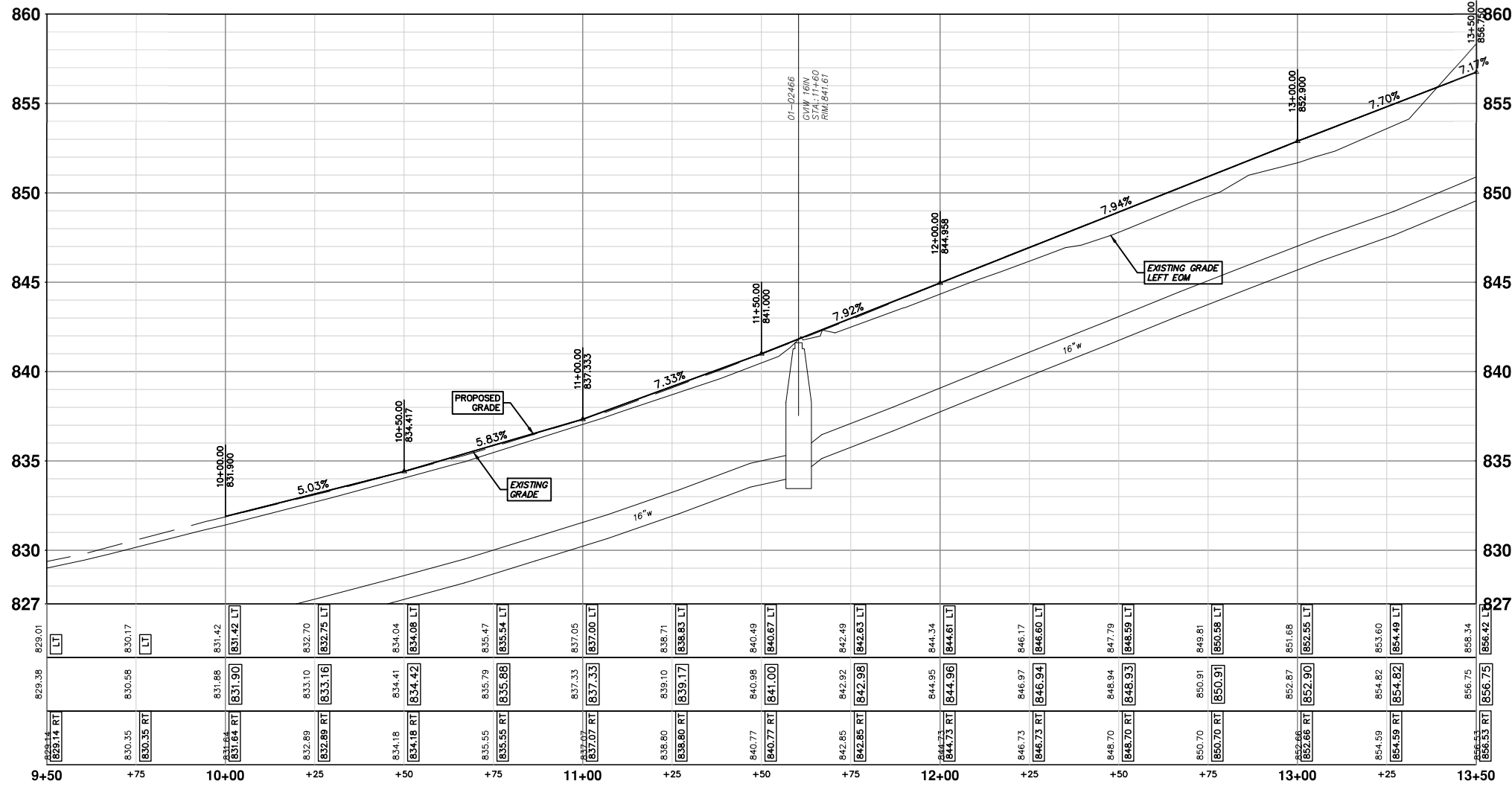
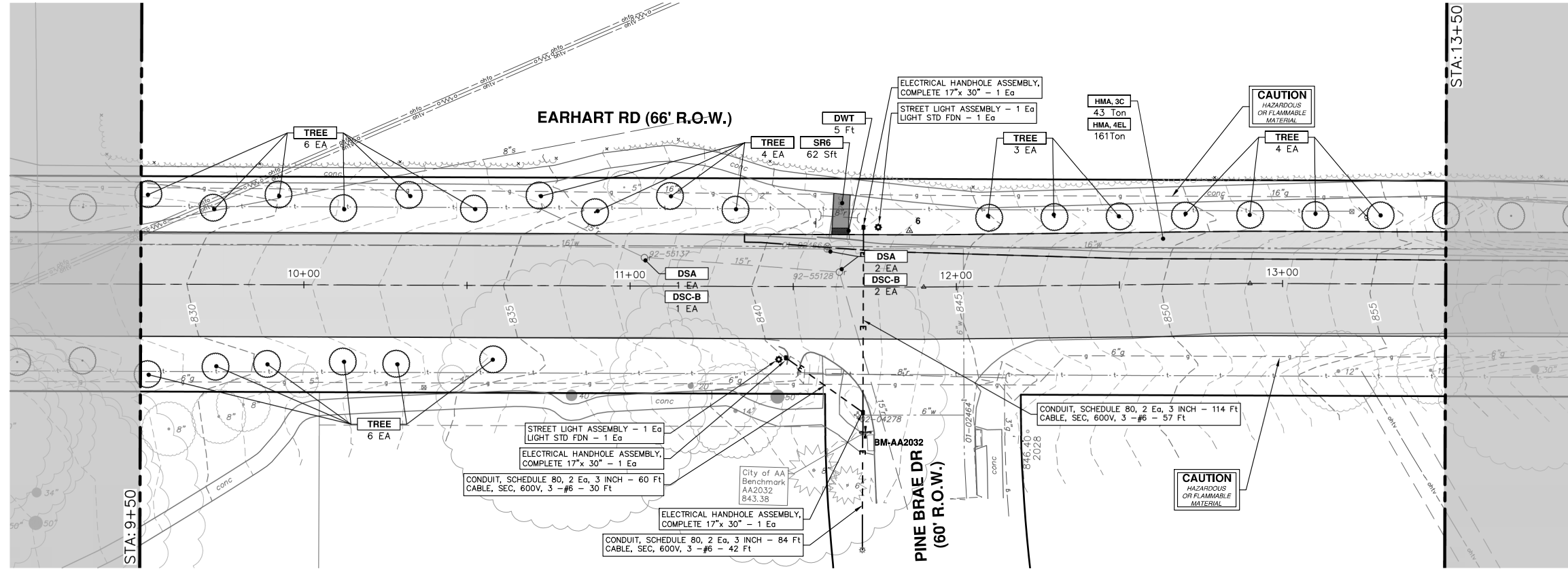
DRAWING No. 2021023-35

SHEET No. 35 OF 85

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Know what's below.  
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REV.	DESCRIPTION	CHECKED
01	ADDENDUM #1	CC/DF
00	OUT TO BID	CC/DF
DATE	DATE	DRAWN
9-15-23	4-27-23	NB
5-15-23		NB

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CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ. CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, OR AGGREGATE BASE, 6 INCH

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

ROAD PLAN & PROFILE

STA. 9+50 - STA. 13+50

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

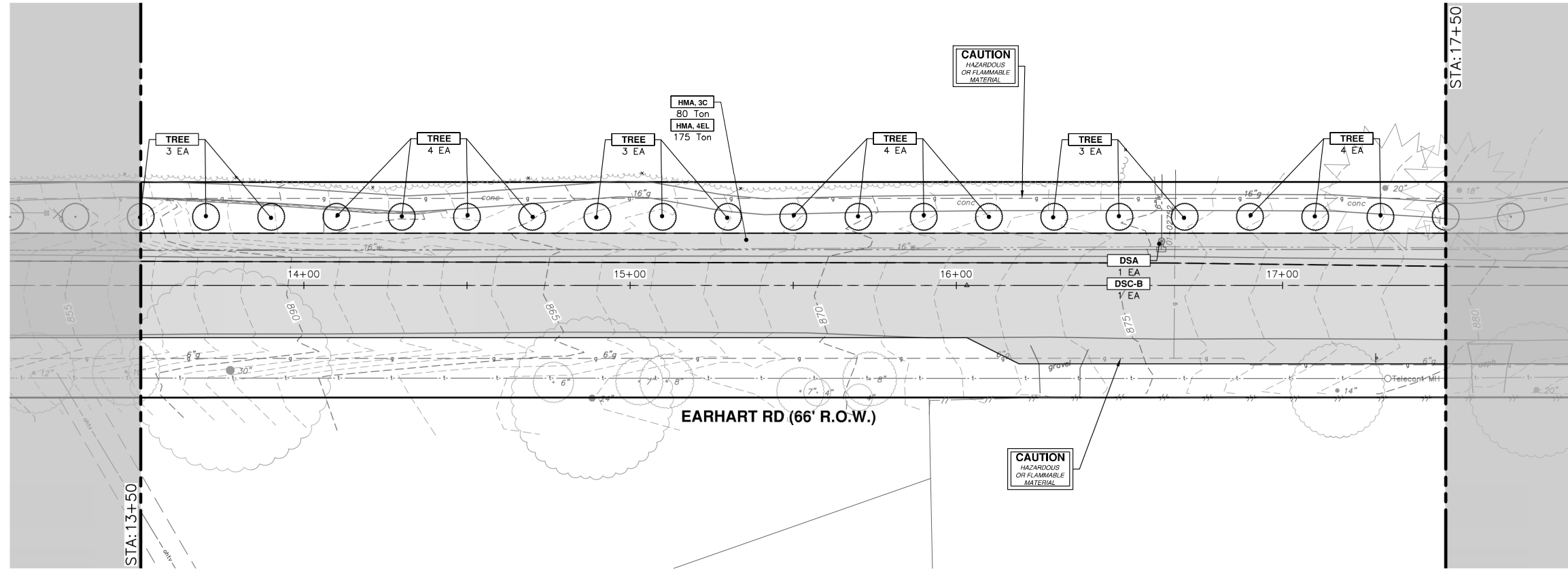
DRAWING NO. 2021023-36

SHEET NO. 36 OF 85

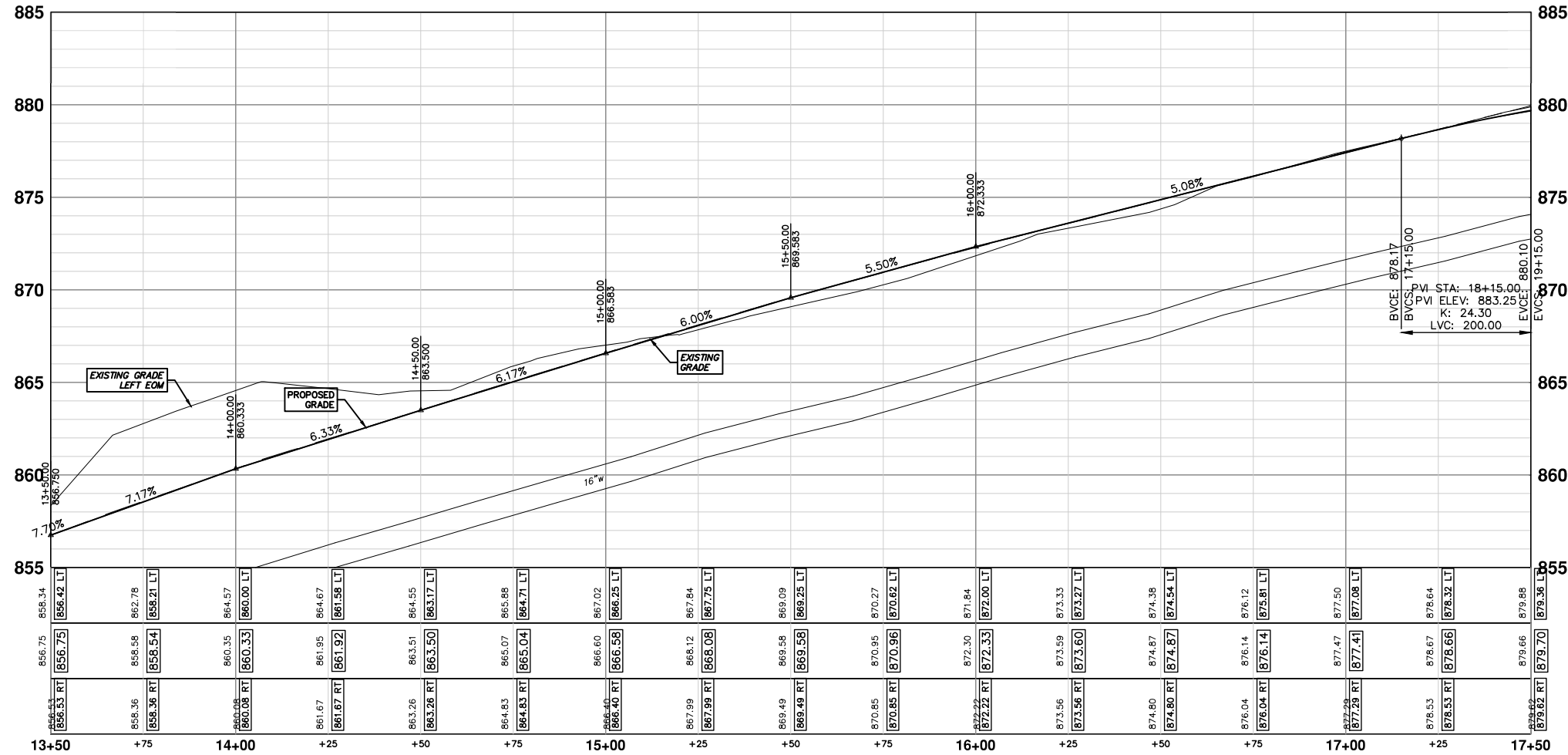
**811**  
Know what's below.  
Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	9-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

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P.O. BOX 8647  
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CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ. CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, OR AGGREGATE BASE, 6 INCH



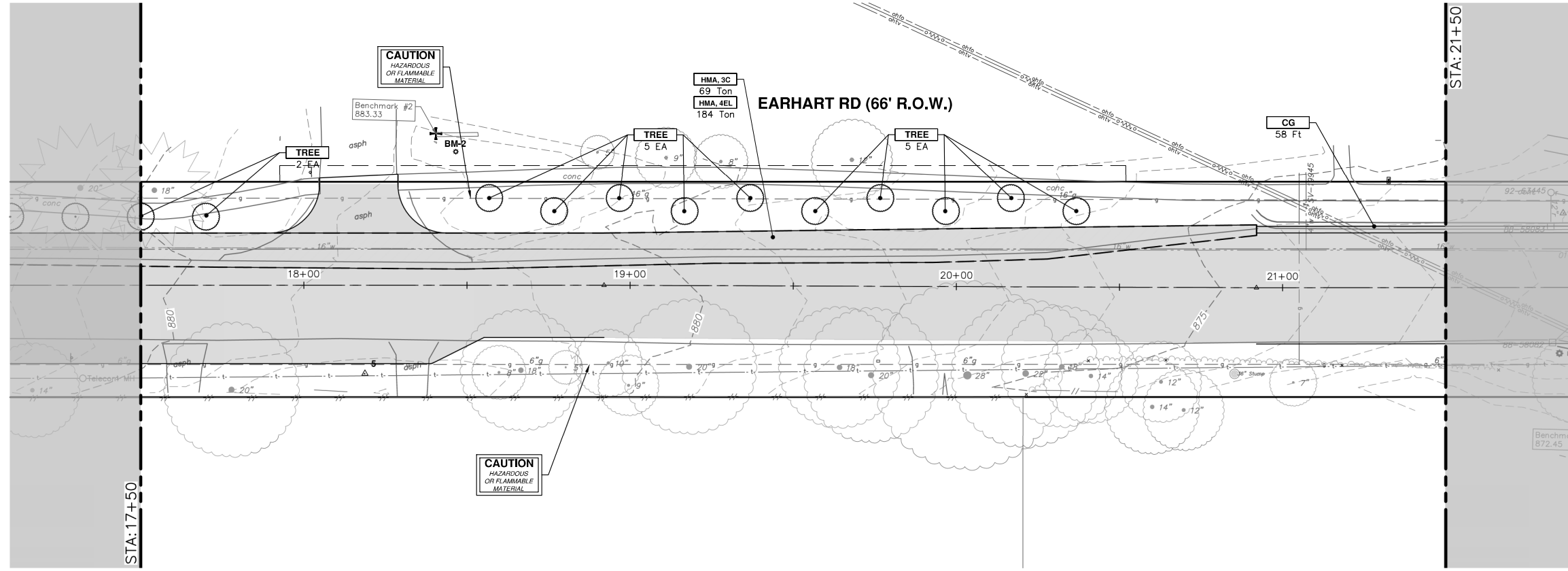
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

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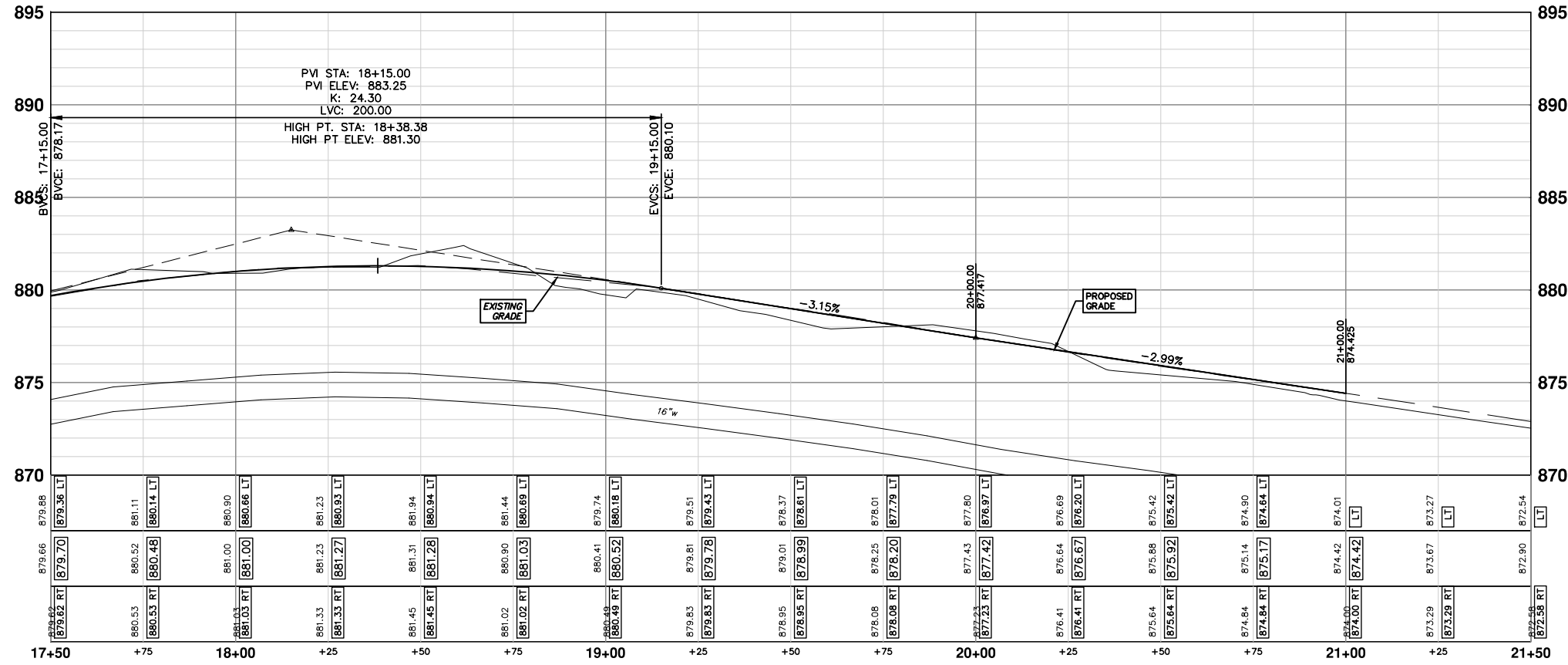


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
ROAD PLAN & PROFILE  
STA. 13+50 - STA. 17+50

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'  
DRAWING No. 2021023-37



CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ. CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, OR AGGREGATE BASE, 6 INCH

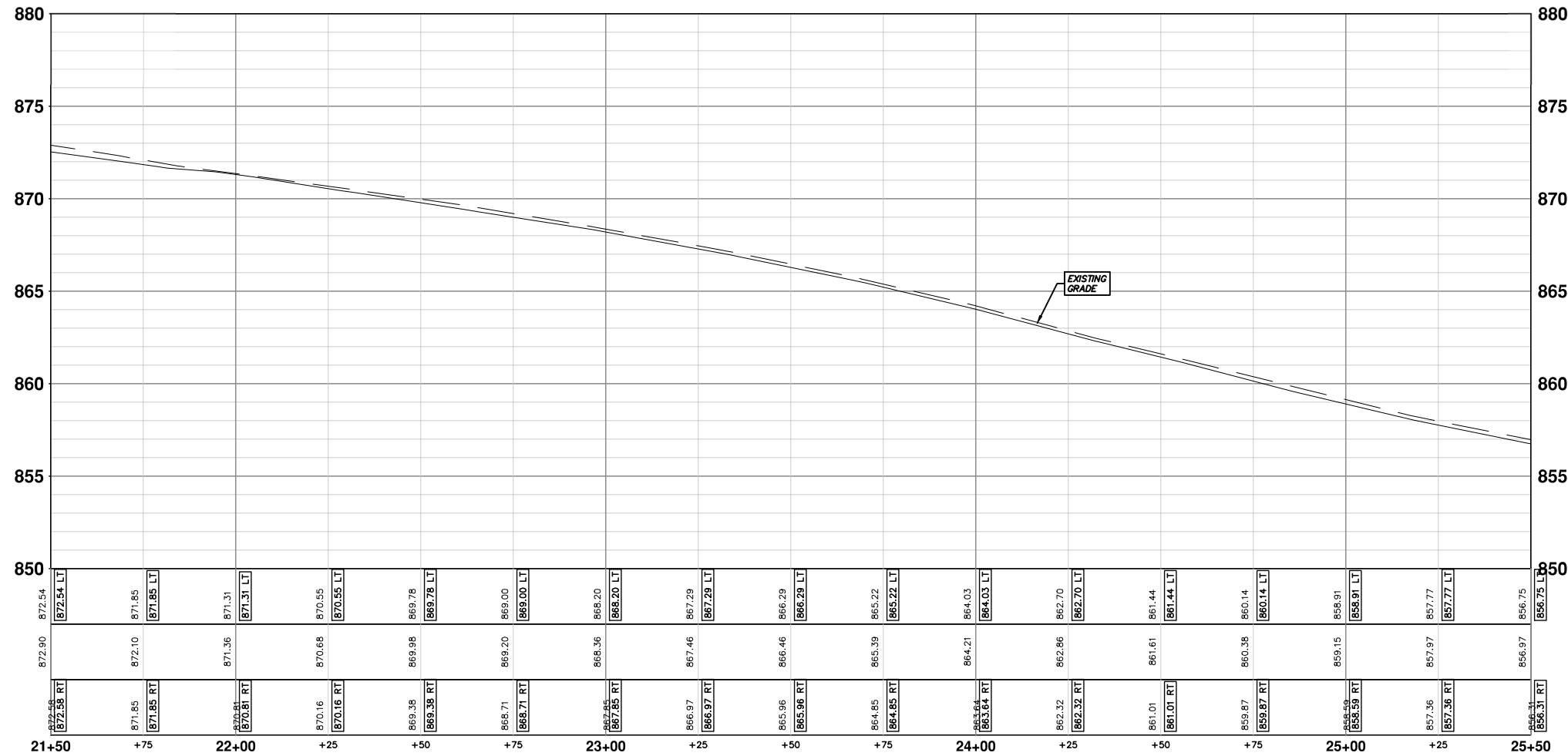
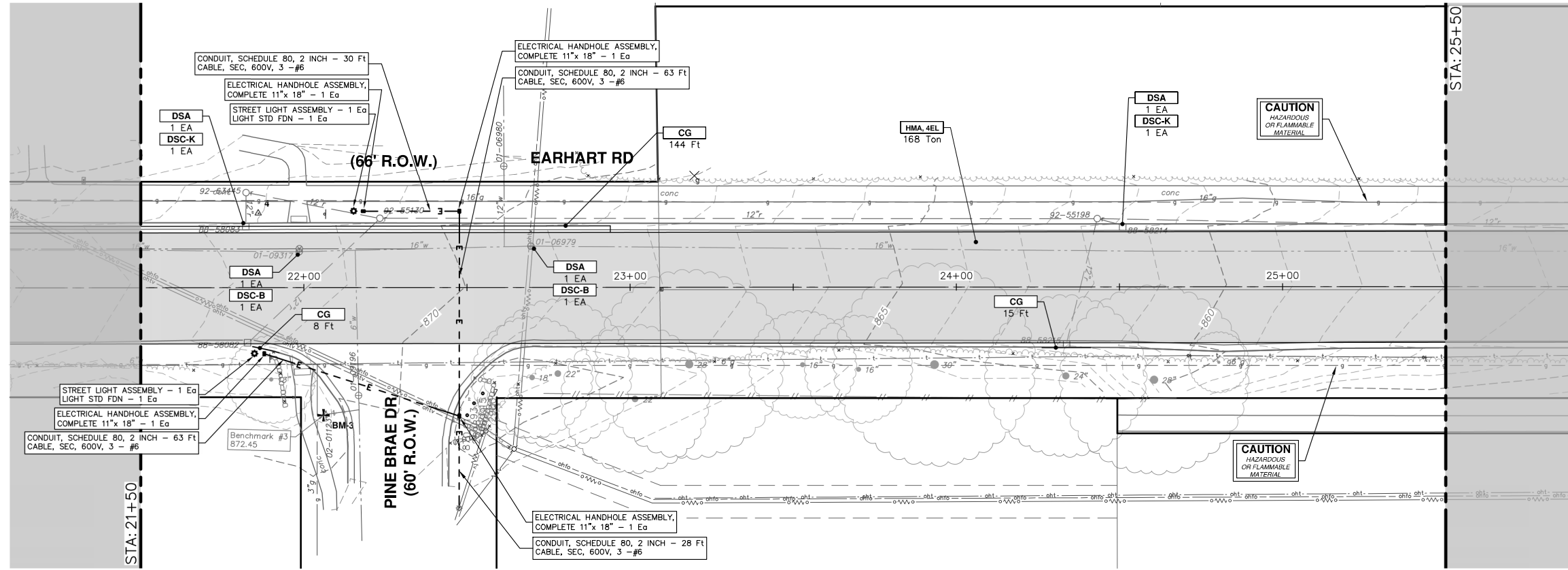


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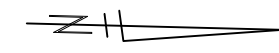


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
ROAD PLAN & PROFILE  
STA. 17+50 - STA. 21+50

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'  
DRAWING No. 2021023-38



CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ. CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, OR AGGREGATE BASE, 6 INCH



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

ROAD PLAN & PROFILE

STA. 21+50 - STA. 25+50

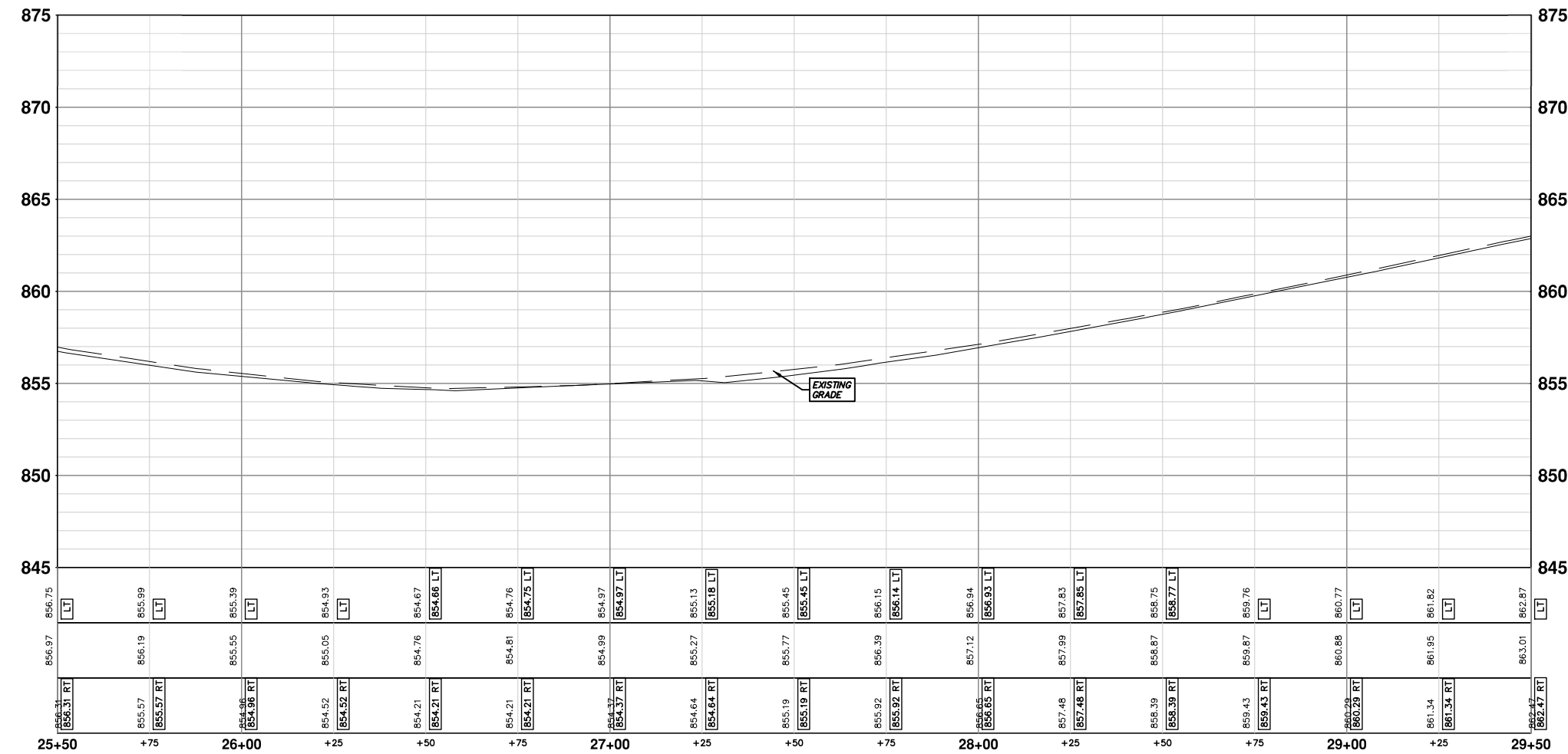
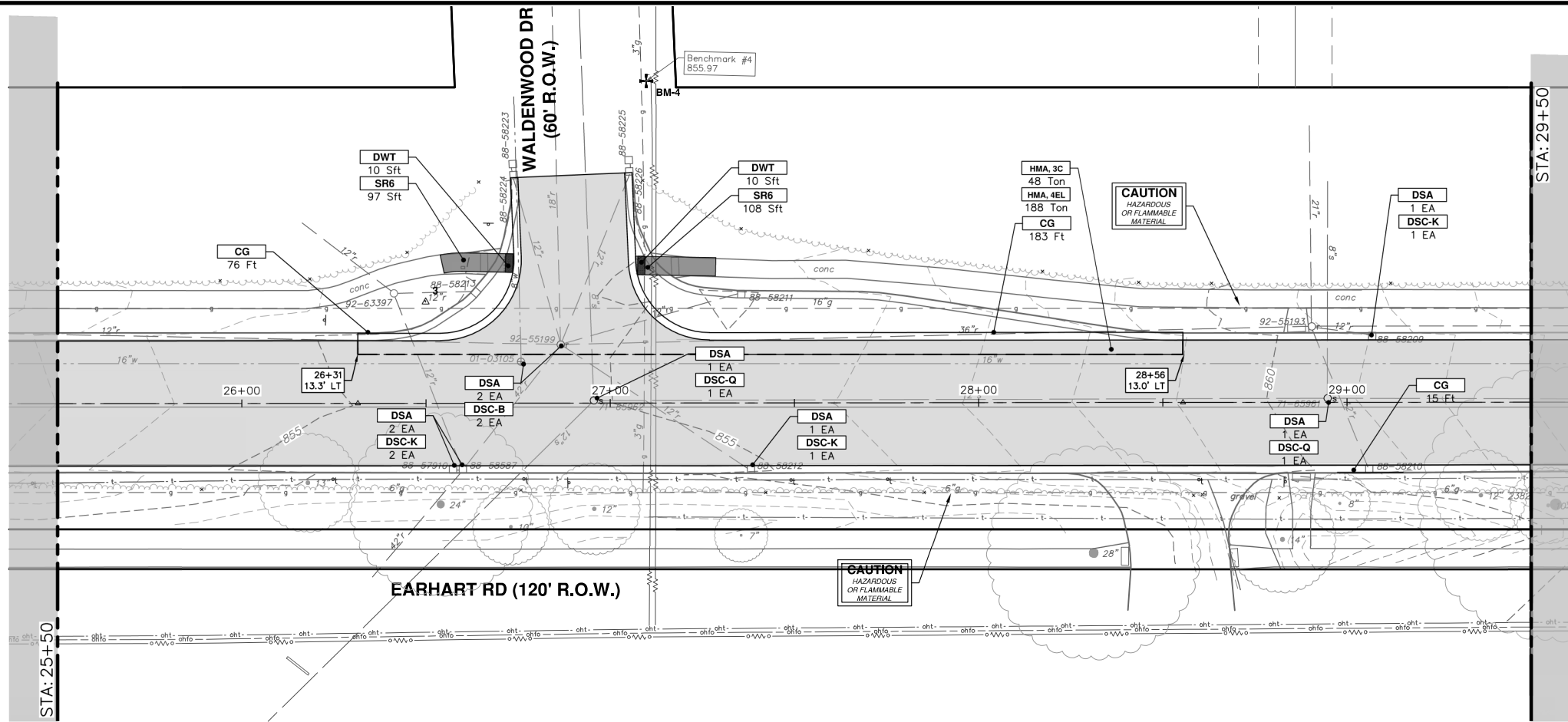
SHEET No. **39 OF 85**

**811**  
Know what's below.  
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01	ADDENDUM #1	9-15-23	CC/DF	CC/DF	DRAWN	CHECKED
00	OUT TO BID	4-27-23	CC/DF	CC/DF	DRAWN	CHECKED

REV. DESCRIPTION DATE DRAWN CHECKED

CITY OF ANN ARBOR  
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CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ. CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, OR AGGREGATE BASE, 6 INCH

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

ROAD PLAN & PROFILE

STA. 25+50 - STA. 29+50

SHEET No. 40 OF 85

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APPENDIX #1

OUT TO BID

DESCRIPTION

REV.

DATE

DRAWN

CHECKED

CC/DF

CC/DF

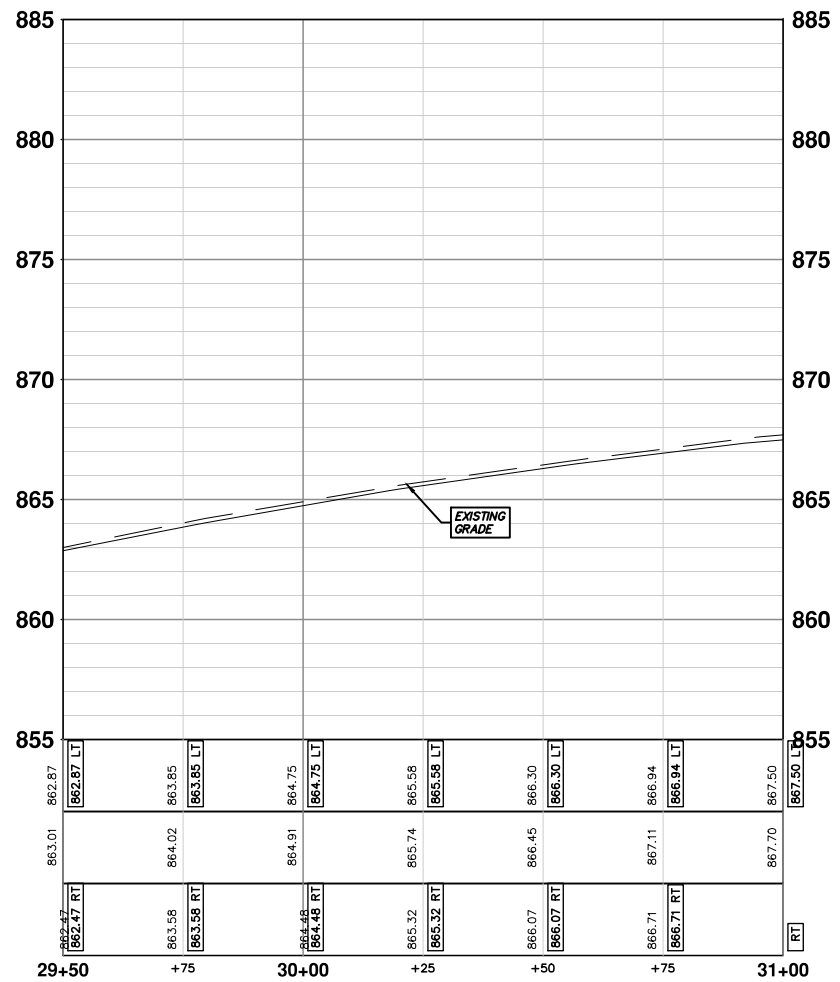
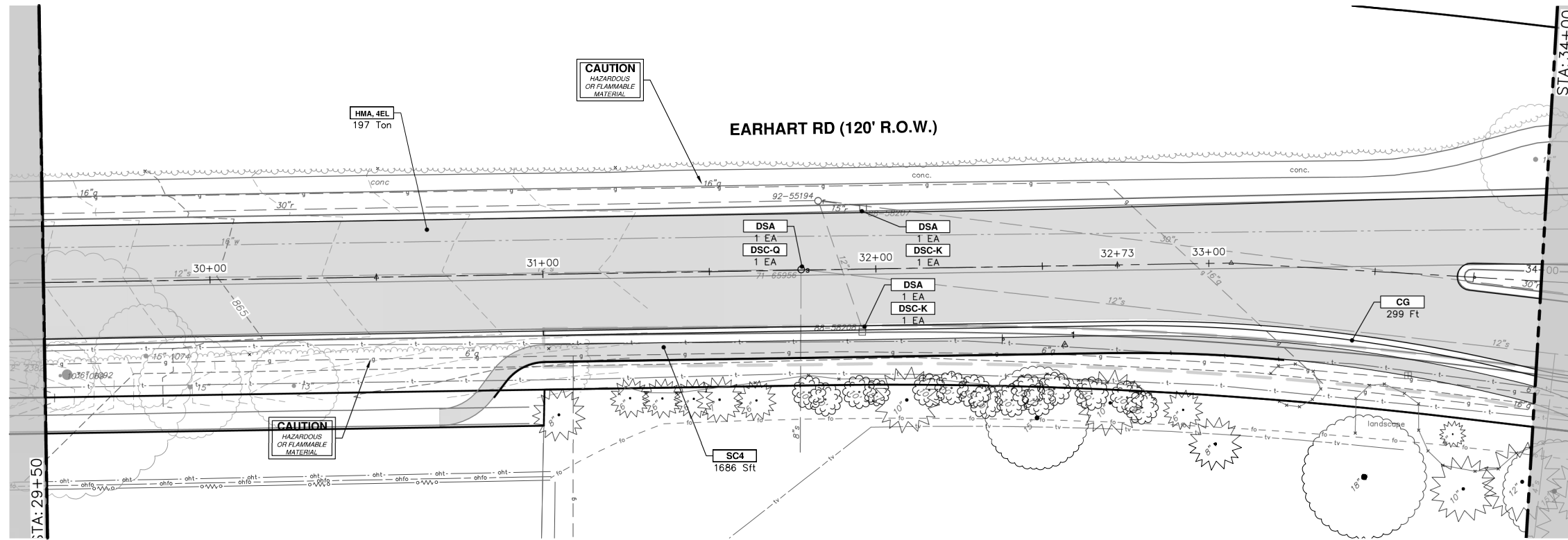
NB

NB

9-15-23

4-27-23





CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ, CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CP, OR AGGREGATE BASE, 6 INCH

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

ROAD PLAN & PROFILE

STATION: 29+50 - STA. 34+00

SHEET No. **41 OF 85**

**811**  
Know what's below.  
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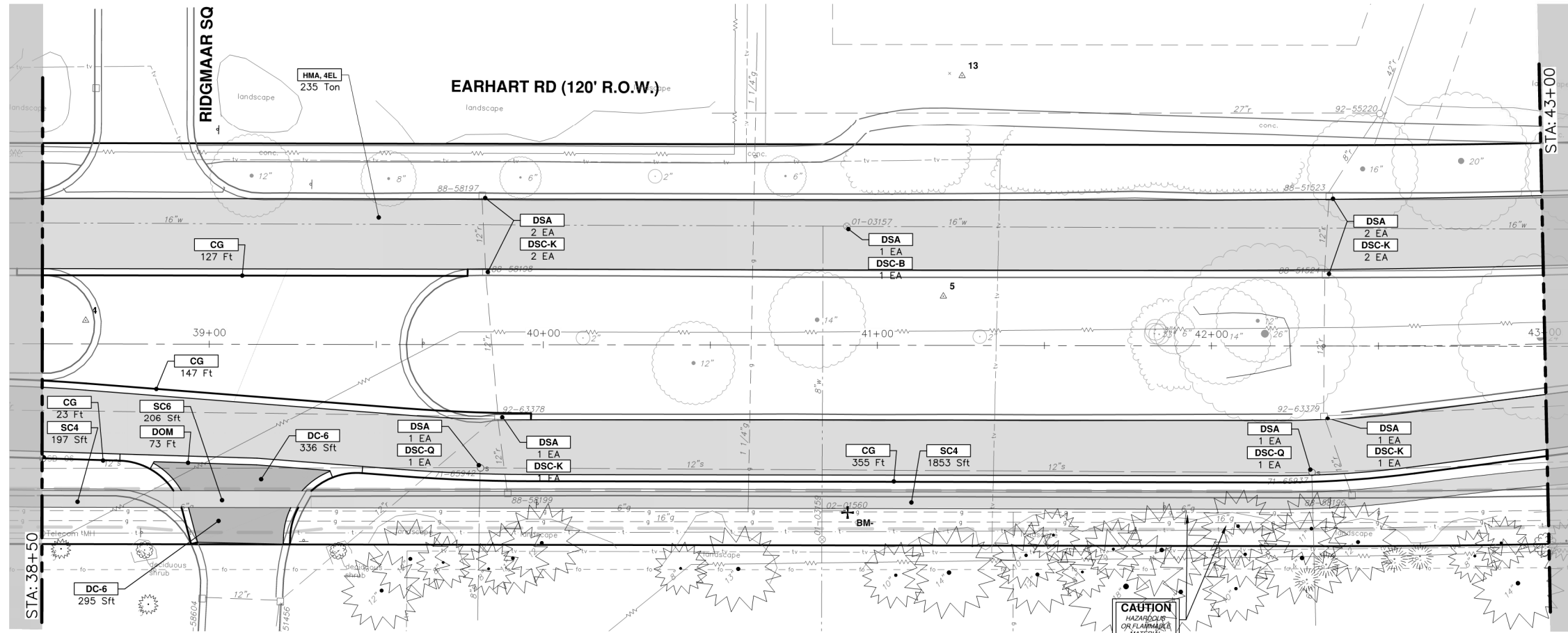
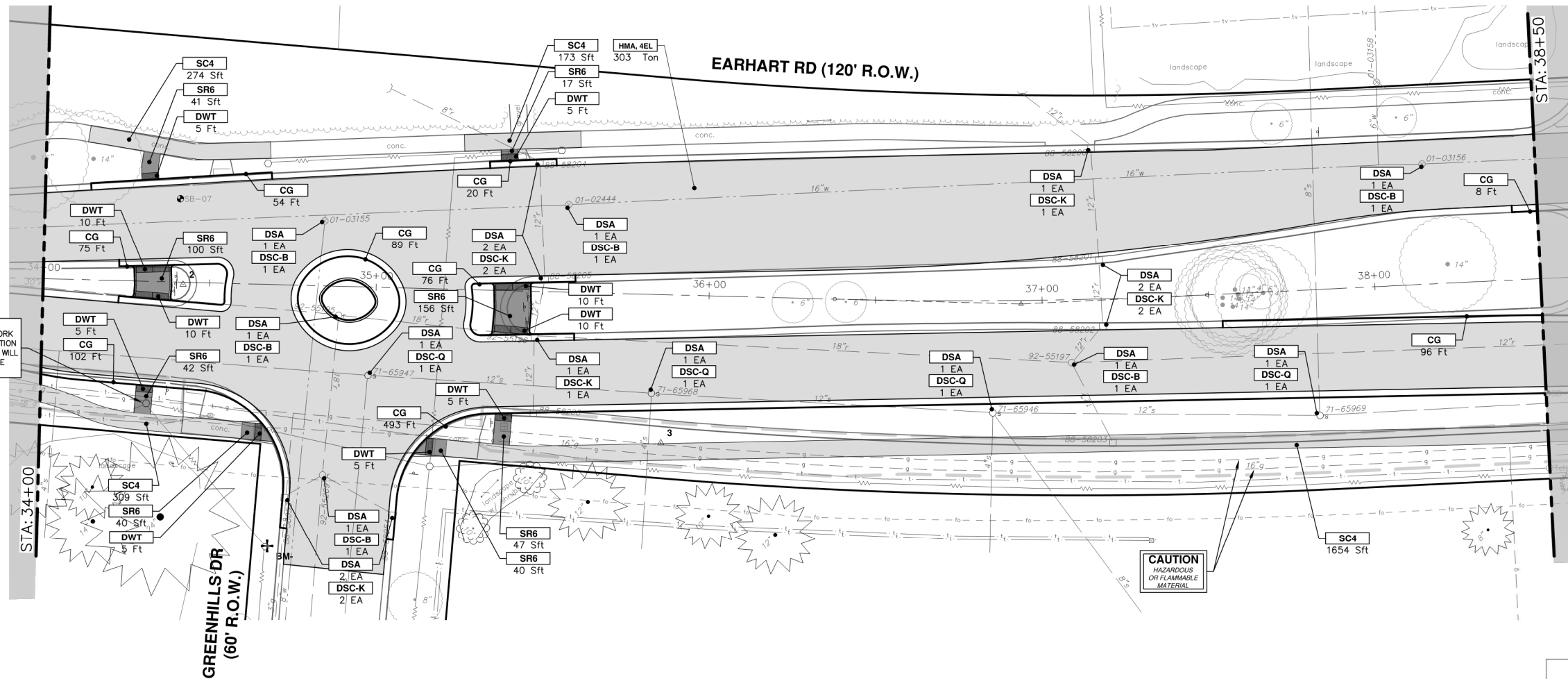
CITY OF ANN ARBOR  
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SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

DRAWING No. **2021023-41**

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

LIGHT POLE TO BE RELOCATED BY OTHERS. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH DTE ENERGY SO THAT THEIR CONSTRUCTION OPERATIONS ARE NOT IMPACTED. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE RELATED ITEMS OF WORK.



CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ, CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CP, OR AGGREGATE BASE, 6 INCH



REV	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

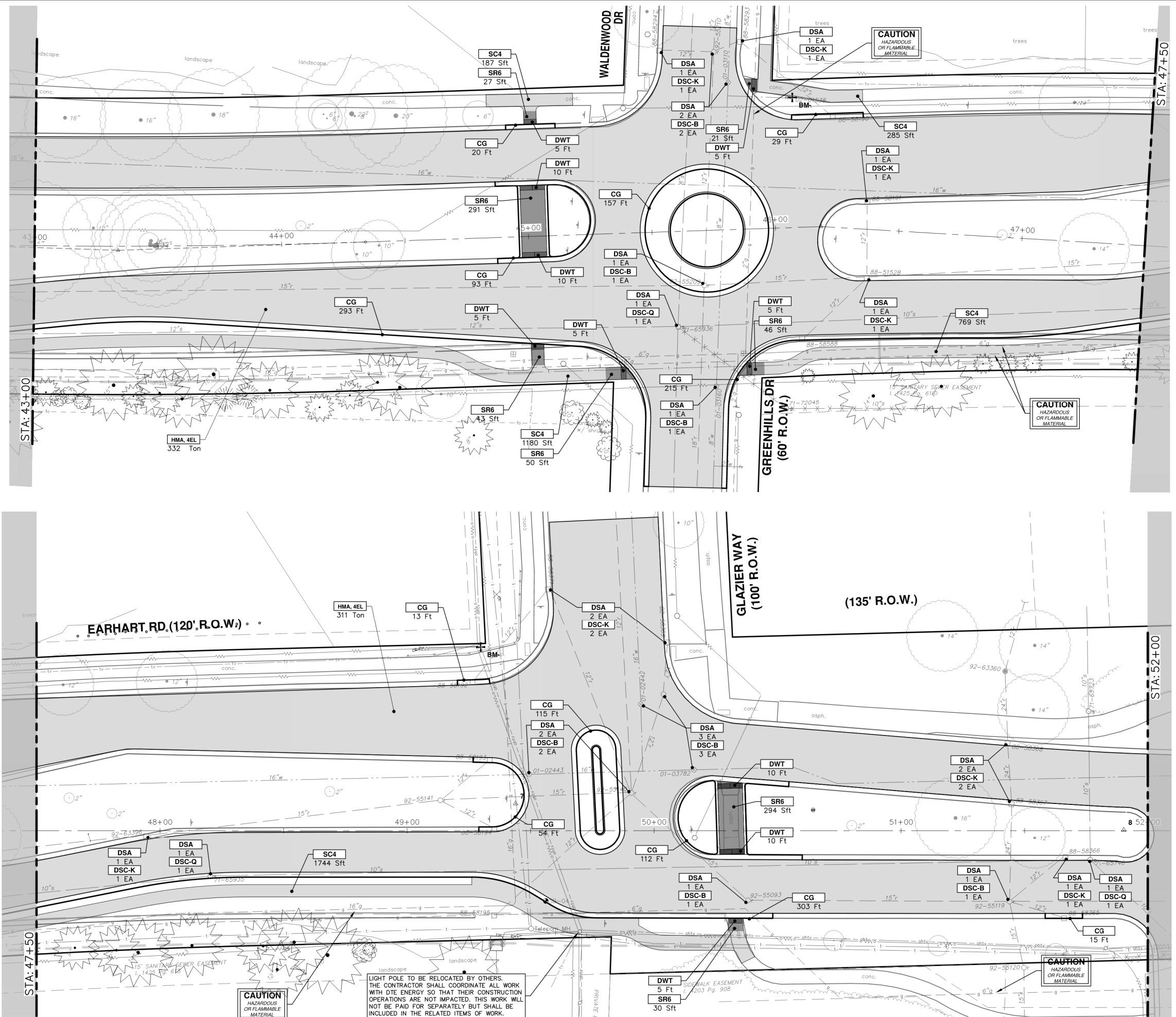
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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
ROAD PLAN & PROFILE  
STA. 34+00 - STA. 43+00

DRAWING No. 2021023-42  
SHEET No. 42 OF 85

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Prd1.dwg Dwg Created: 4-May-23 - \_o2 standard bw.stb - Plot Date: 15-May-23



CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ, CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, OR AGGREGATE BASE, 6 INCH

LIGHT POLE TO BE RELOCATED BY OTHERS. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH DTE ENERGY SO THAT THEIR CONSTRUCTION OPERATIONS ARE NOT IMPACTED. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE RELATED ITEMS OF WORK.

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 ROAD PLAN & PROFILE  
 STA. 43+00 - STA. 52+00

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ADDENDUM #	9-15-23	CC/DF	NB
OUT TO BID	4-27-23	CC/DF	NB
REV	DATE	DRAWN	CHECKED

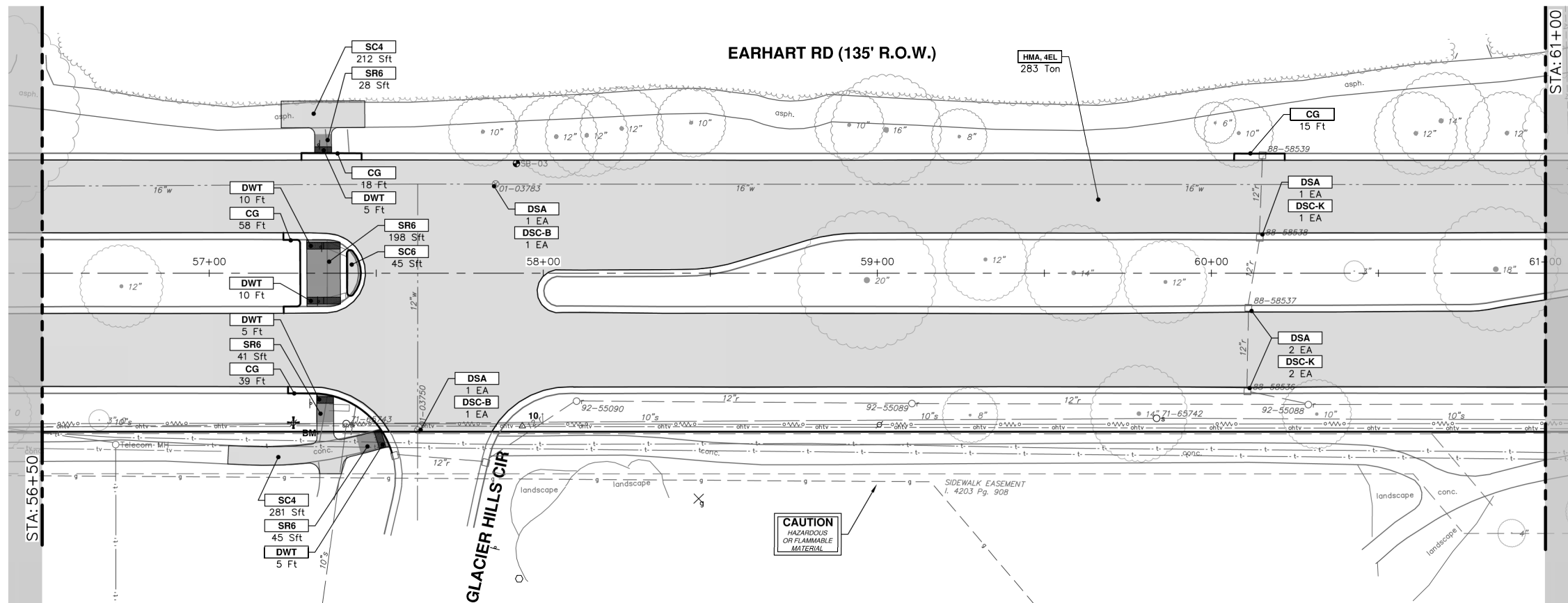
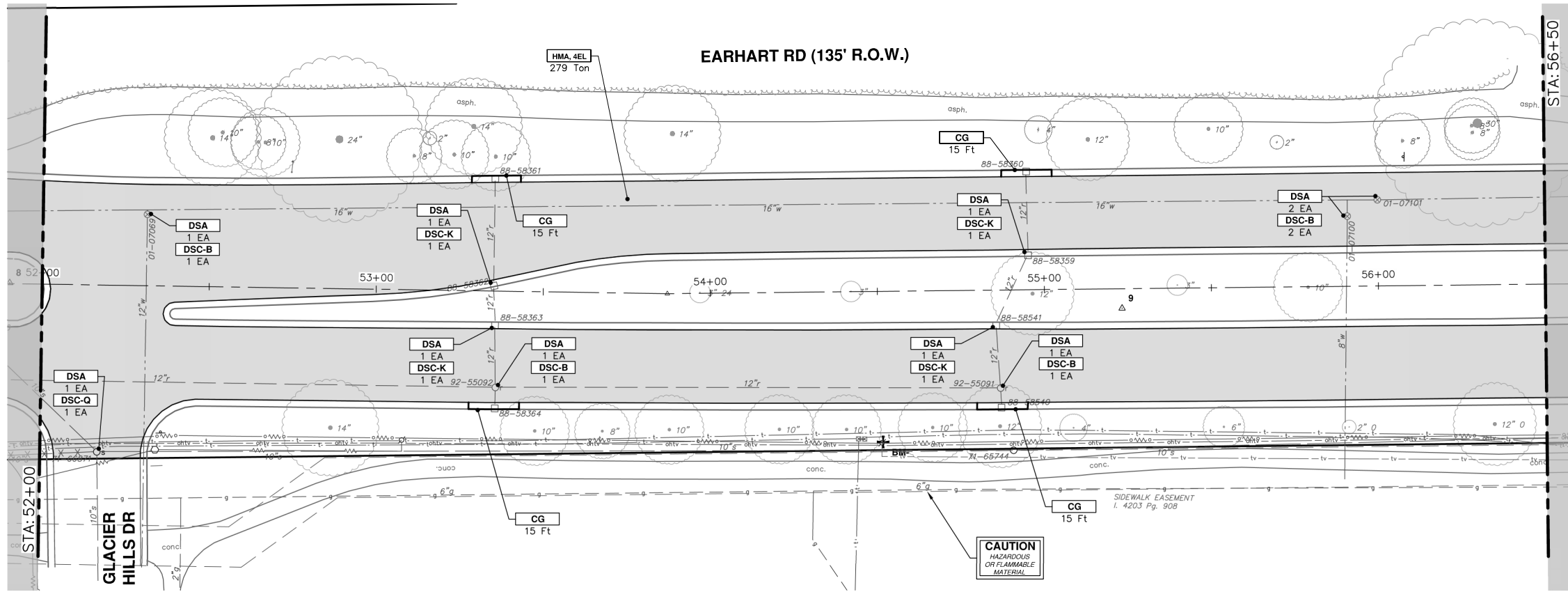
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**CITY OF ANN ARBOR MICHIGAN**

SCALE: 1" = 20'

DRAWING No. **2021023-43**  
 SHEET No. **43 OF 85**

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Prd1.dwg Dwg Created: 4-May-23 - \_a2 standard bw.stb - Plot Date: 15-May-23



CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4EML / 4EL / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ, CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, OR AGGREGATE BASE, 6 INCH

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

ROAD PLAN & PROFILE

STA. 52+00 - STA. 61+00

SCALE: 1" = 20'

DRAWING No. 2021023-44

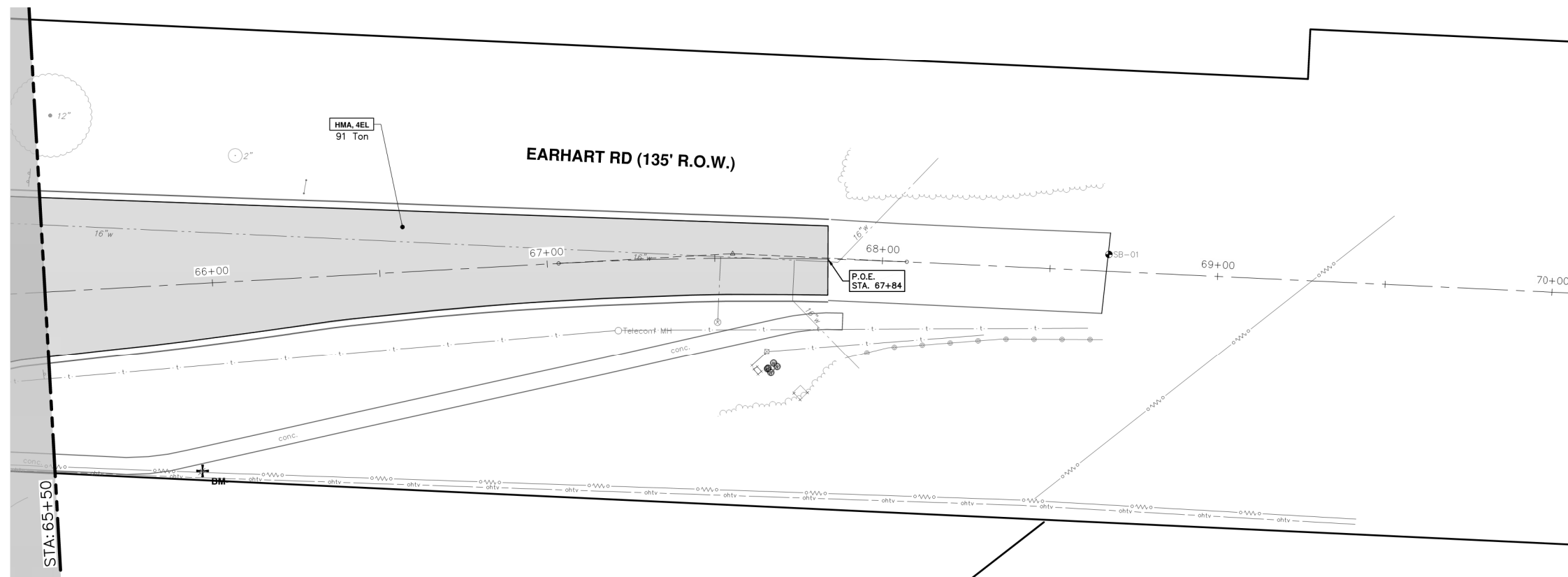
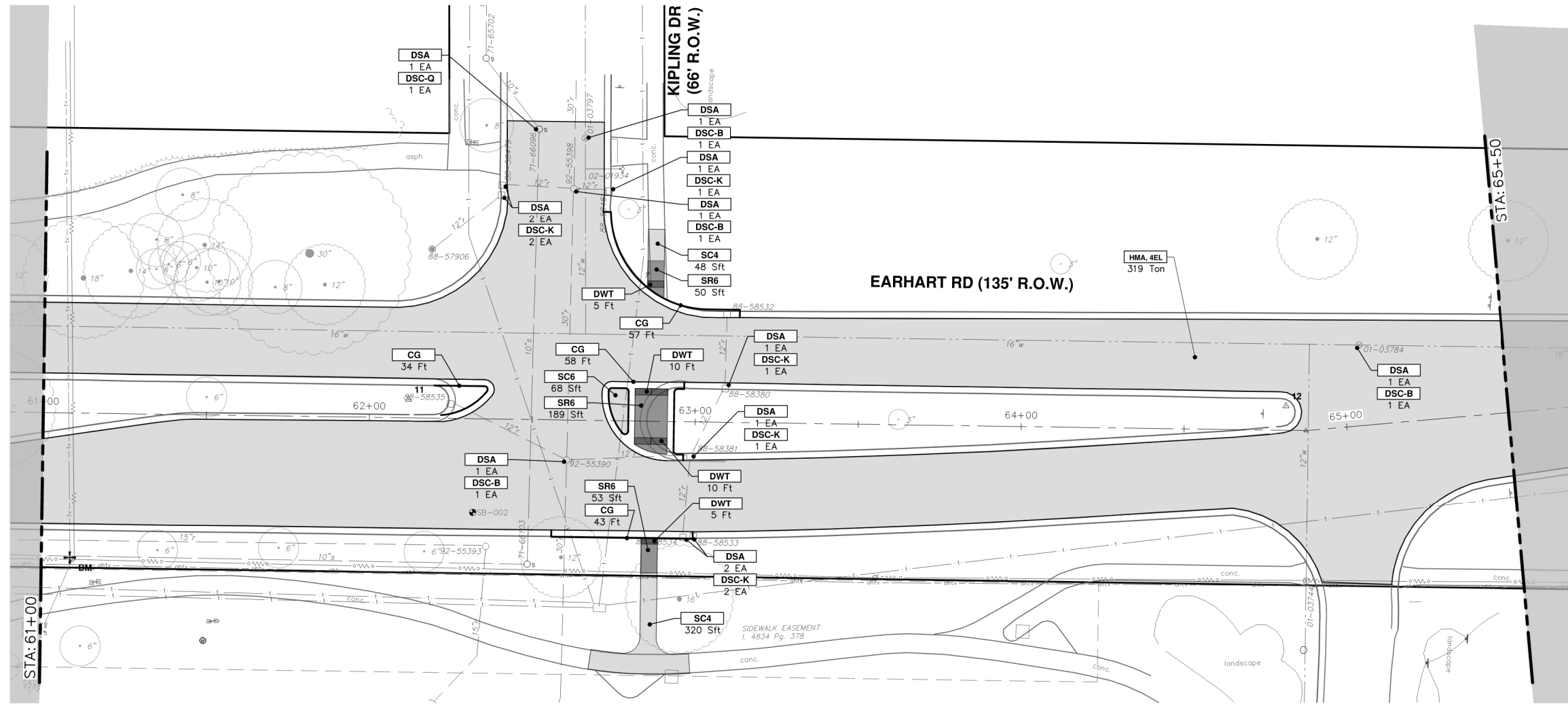
SHEET No. 44 OF 85

**811**  
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REV.	DATE	DRAWN	CHECKED	DESCRIPTION
01	9-15-23	CC/DF	NB	
00	4-27-23	CC/DF	NB	

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R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Prd1.dwg Dwg Created: 4-May-23 - \_o2 standard bw.stb - Plot Date: 15-May-23



CONSTRUCTION KEY	
KEY	DESCRIPTION
CP	CONC PAVT WITH INTEGRAL CURB, NONREINF, 8 INCH
CG	CURB AND GUTTER, CONC, DET F4, SPECIAL
APP	HMA APPROACH
SR6	CURB RAMP, CONCRETE, 6 INCH, P-NC, ADA, MODIFIED
SC4	SIDEWALK, CONCRETE, 4 INCH, SPECIAL
SC6	SIDEWALK, CONCRETE, 6 INCH, SPECIAL
DWT	DETECTABLE WARNING TILES
HMA	HMA, 4FMI / 4F1 / 3C
DSC-B	DR STRUCTURE COVER, TYPE B
DSC-K	DR STRUCTURE COVER, TYPE K
DSC-Q	DR STRUCTURE COVER, TYPE Q
ABO	ADJUST BY OTHERS
DSA	DR STRUCTURE COVER, ADJ, CASE 1
MBA	ADJUST MONUMENT BOX OR VALVE BOX
DOM	DRIVEWAY OPENING, CONC, DET M, P-NC
DC-6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH, PLACE AND COMPACT 6 INCH SUBBASE, OP, OR AGGREGATE BASE, 6 INCH

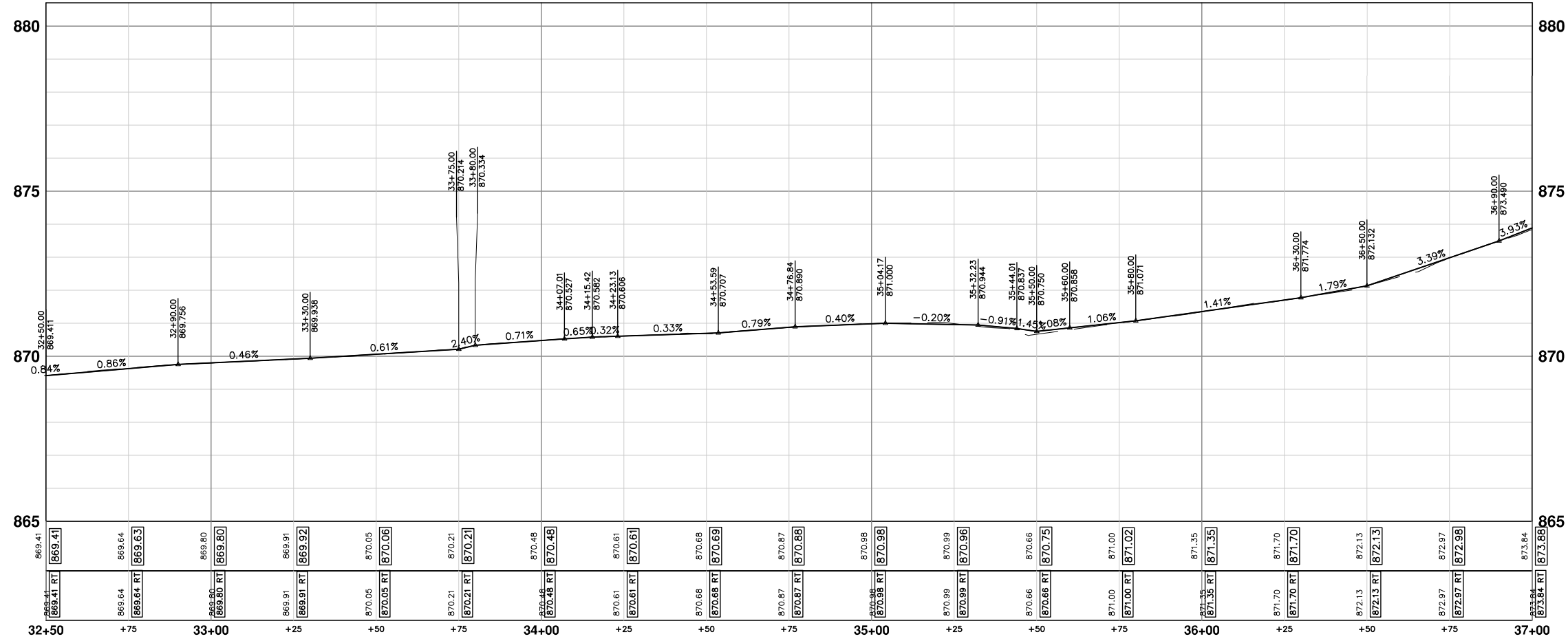
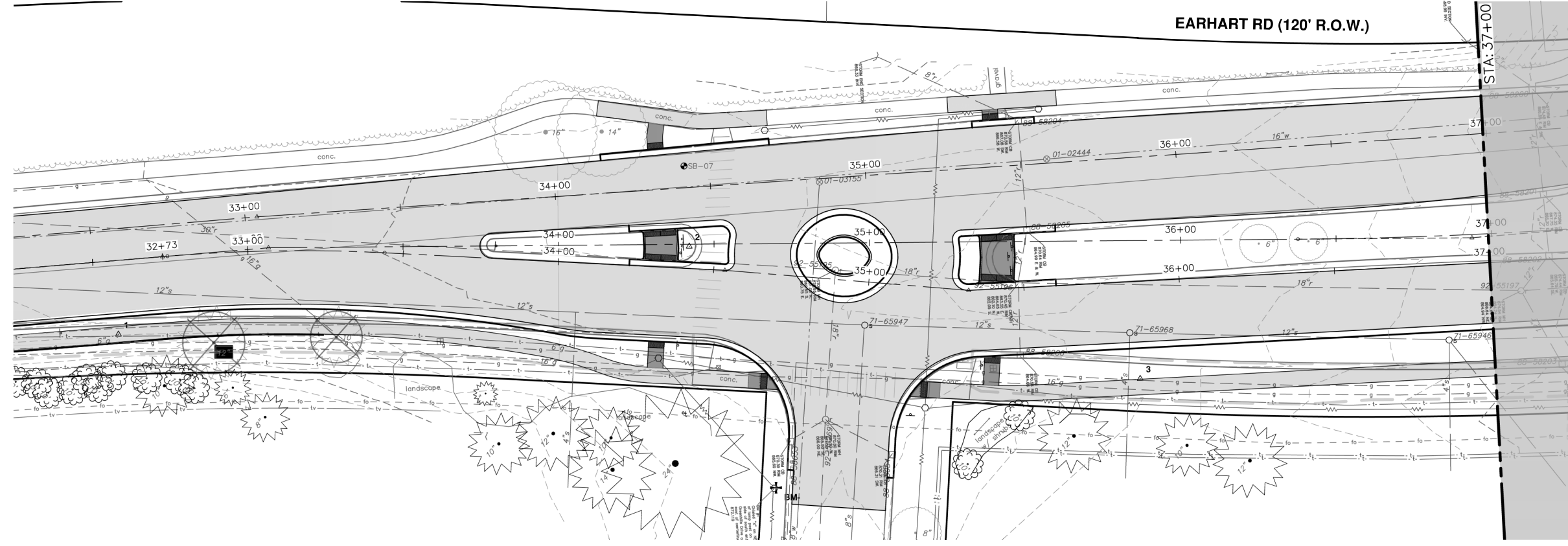
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 ROAD PLAN & PROFILE  
 STA. 61+00 - STA. 67+84

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01	ADDENDUM #1	5-15-23	CC/DF	NB	CHECKED
00	OUT TO BID	4-27-23	CC/DF	NB	DRAWN
	REV.		DATE		

SCALE: 1" = 20'  
 DRAWING No. 2021023-45  
 SHEET No. 45 OF 85

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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

ROAD PLAN & PROFILE

NORTHBOUND EOM LT STA. 34+00 - STA. 37+00

SHEET No. **46 OF 85**

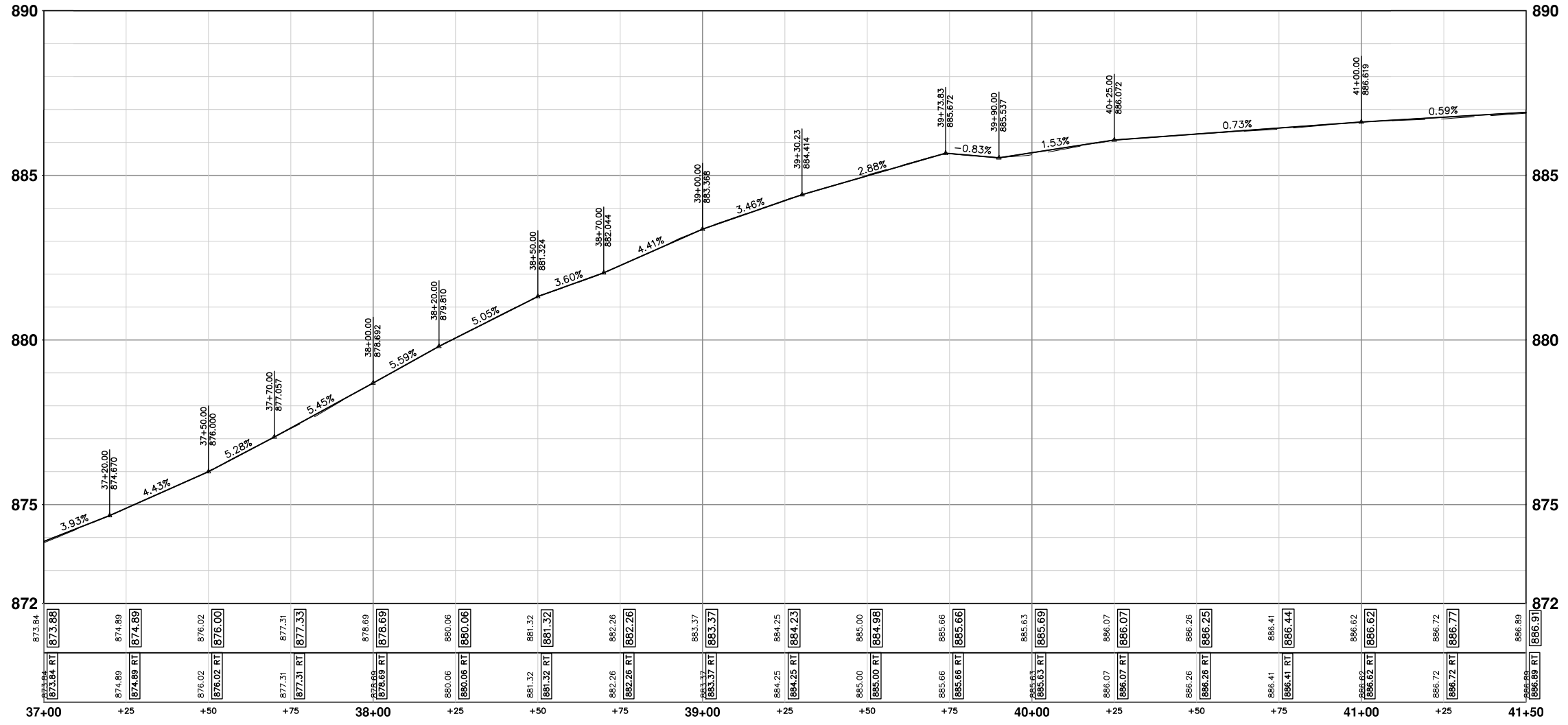
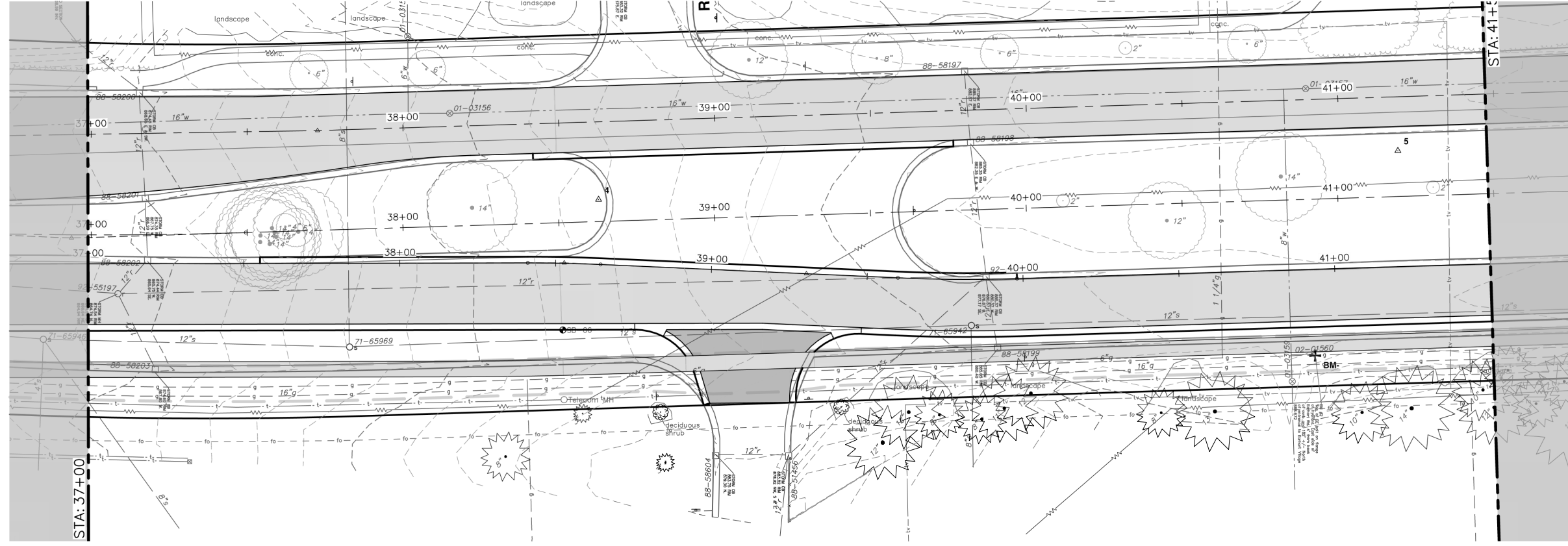
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PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR MI 48106-1667  
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SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING No. **2021023-46**

REV.	DATE	DESCRIPTION
01	5-15-23	CC/DF
00	4-27-23	CC/DF



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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 ROAD PLAN & PROFILE

SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 4'

DRAWING NO. 2021023-47

SHEET NO. 47 OF 85

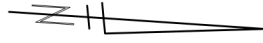
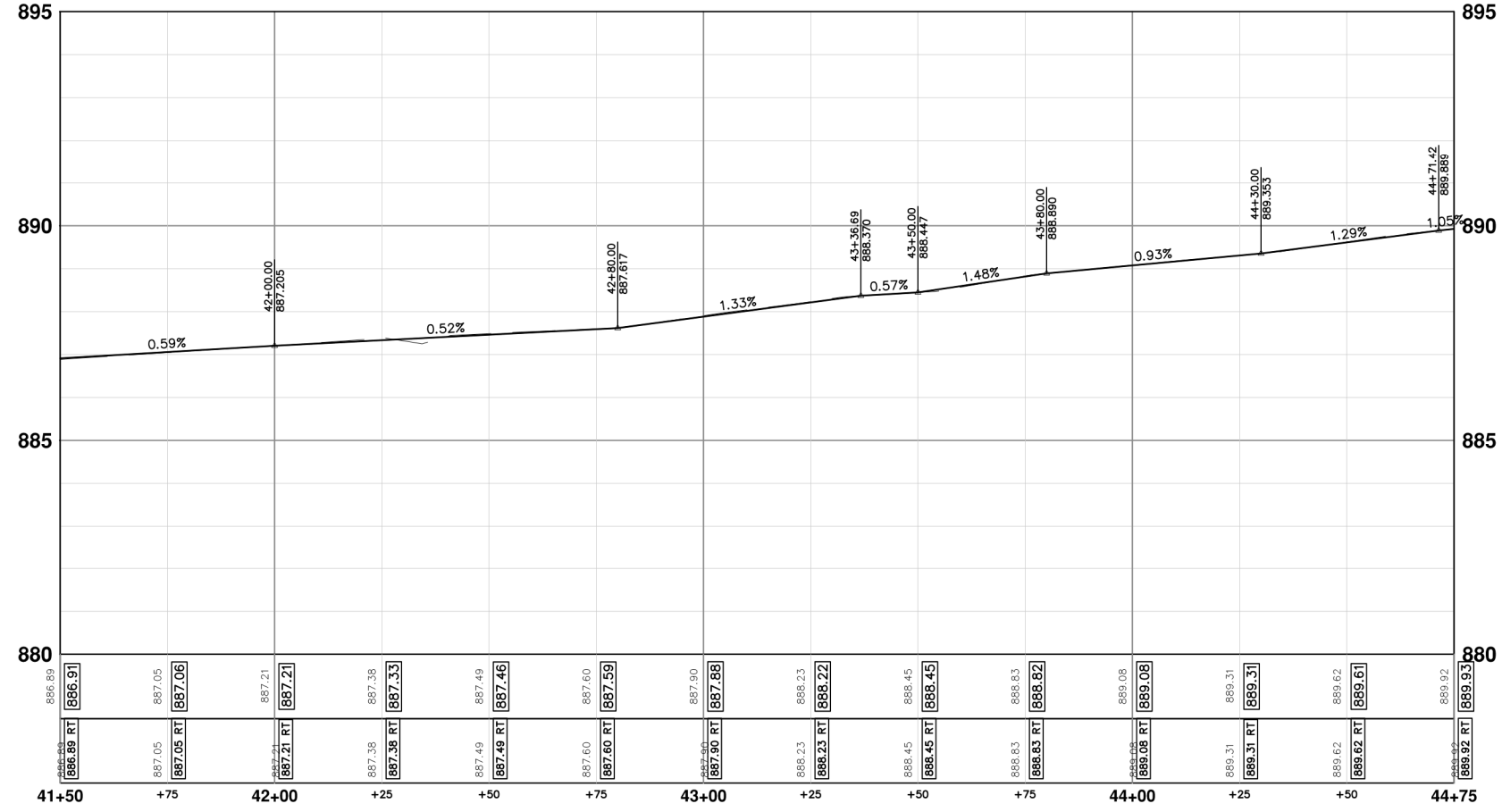
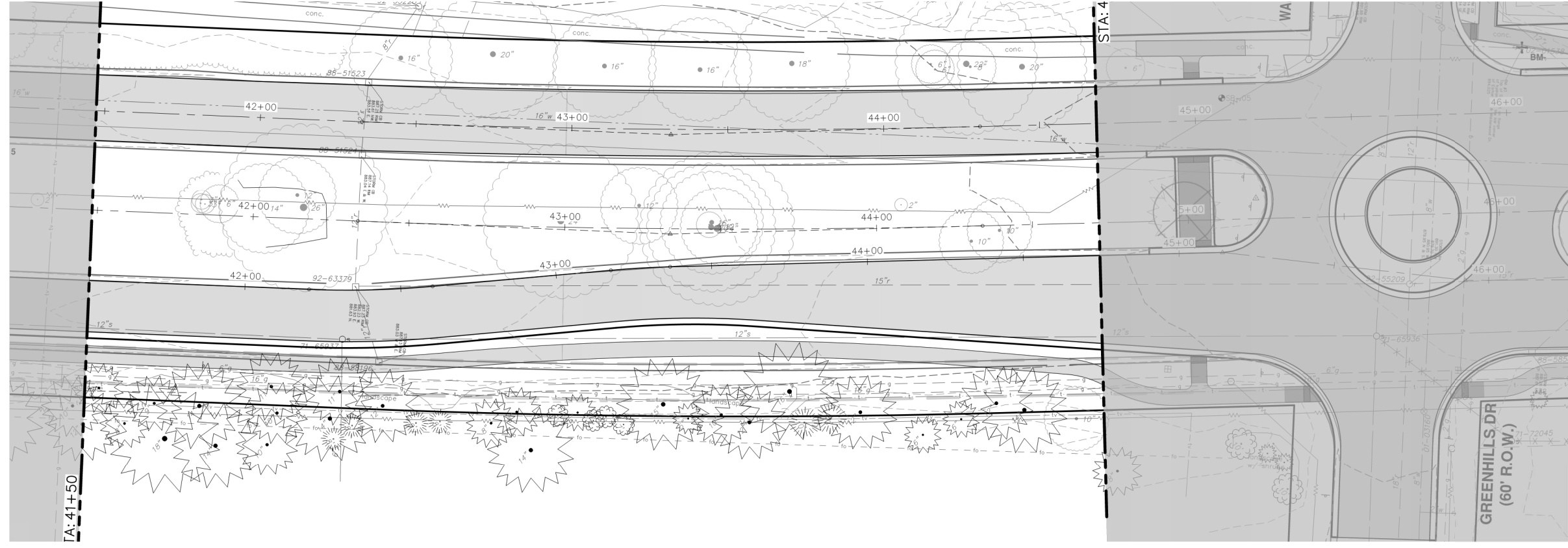
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 PUBLIC SERVICES  
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 ANN ARBOR, MI 48106  
 734.794.4410  
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REV. DESCRIPTION DATE DRAWN CHECKED

01 APPENDIX #1 5-15-23 CC/DF NB

00 OUT TO BID 4-27-23 CC/DF NB

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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

ROAD PLAN & PROFILE

NORTHBOUND EOM LT STA. 41+50 - STA. 44+75

**811**  
Know what's below.  
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REV.	DATE	DESCRIPTION
01	5-15-23	CC/DF
00	4-27-23	CC/DF
		DRAWN
		CHECKED

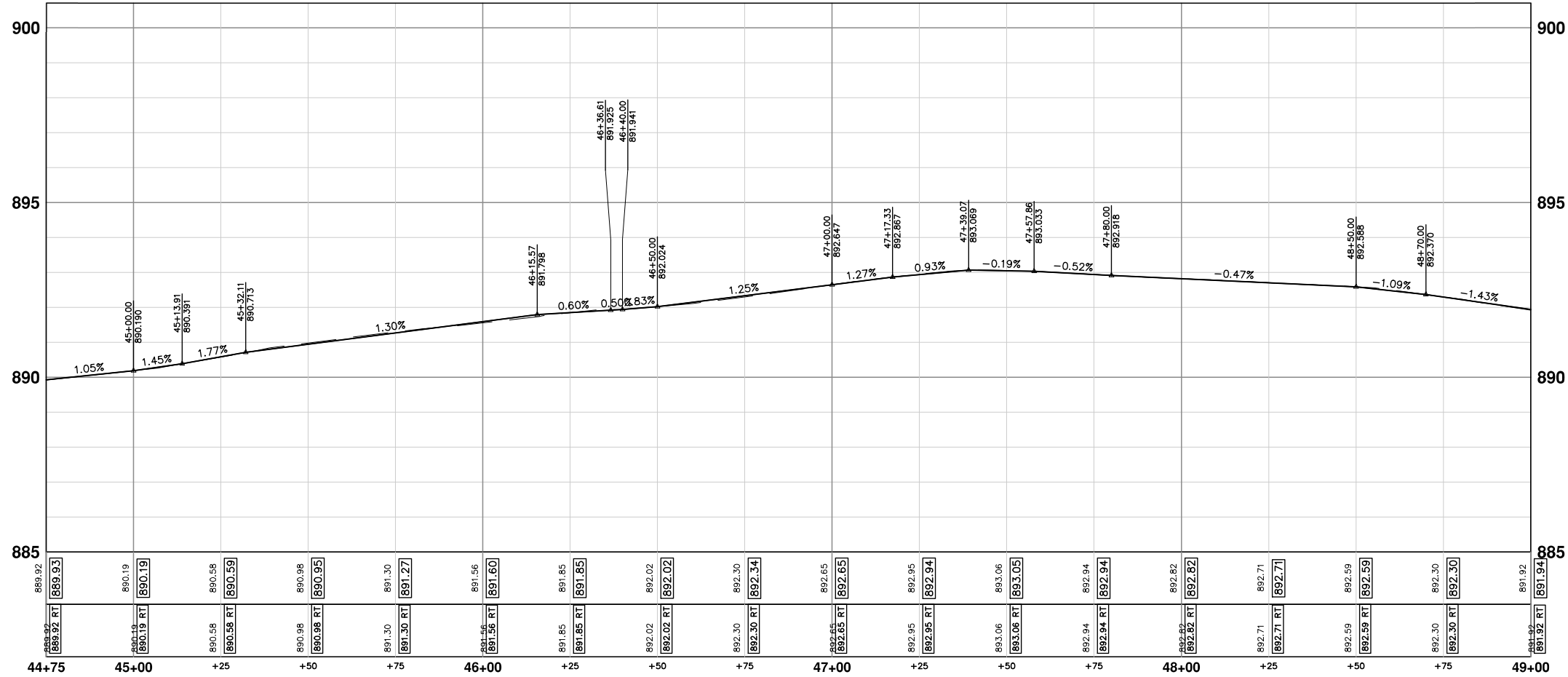
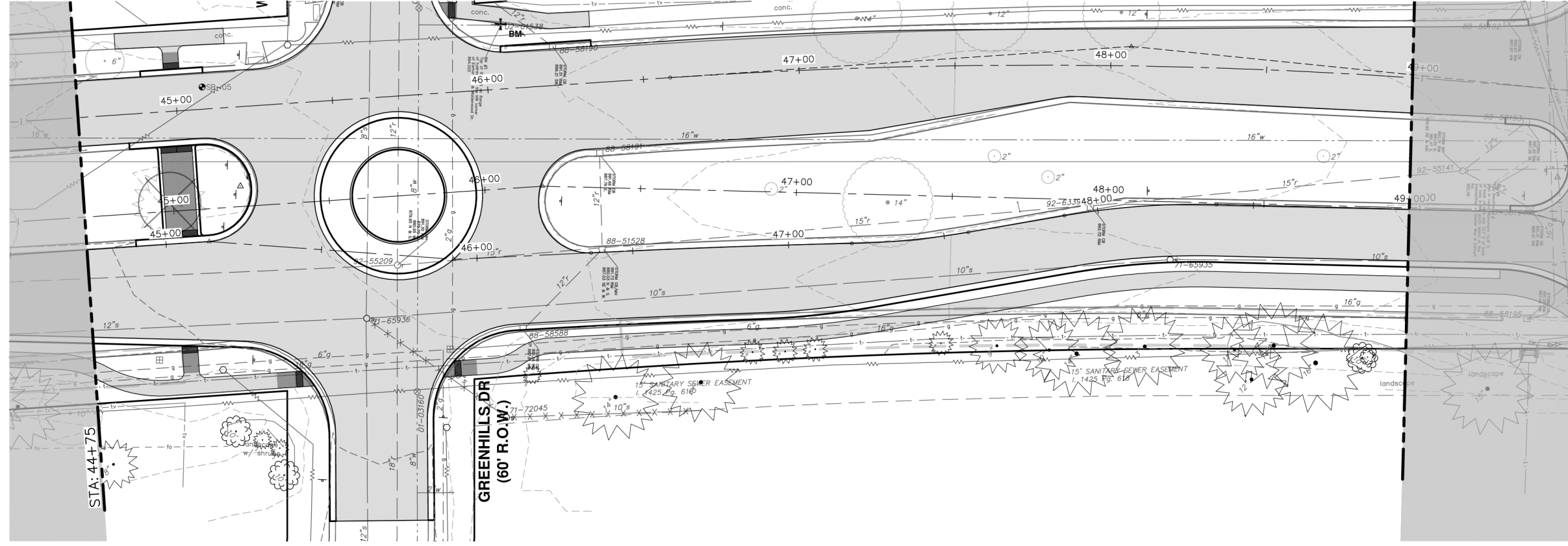
CITY OF ANN ARBOR  
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SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING No. **2021023-48**

SHEET No. **48 OF 85**





**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

ROAD PLAN & PROFILE

NORTHBOUND EOM LT STA. 44+75 - STA. 49+00

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING NO. 2021023-49

SHEET NO. 49 OF 85

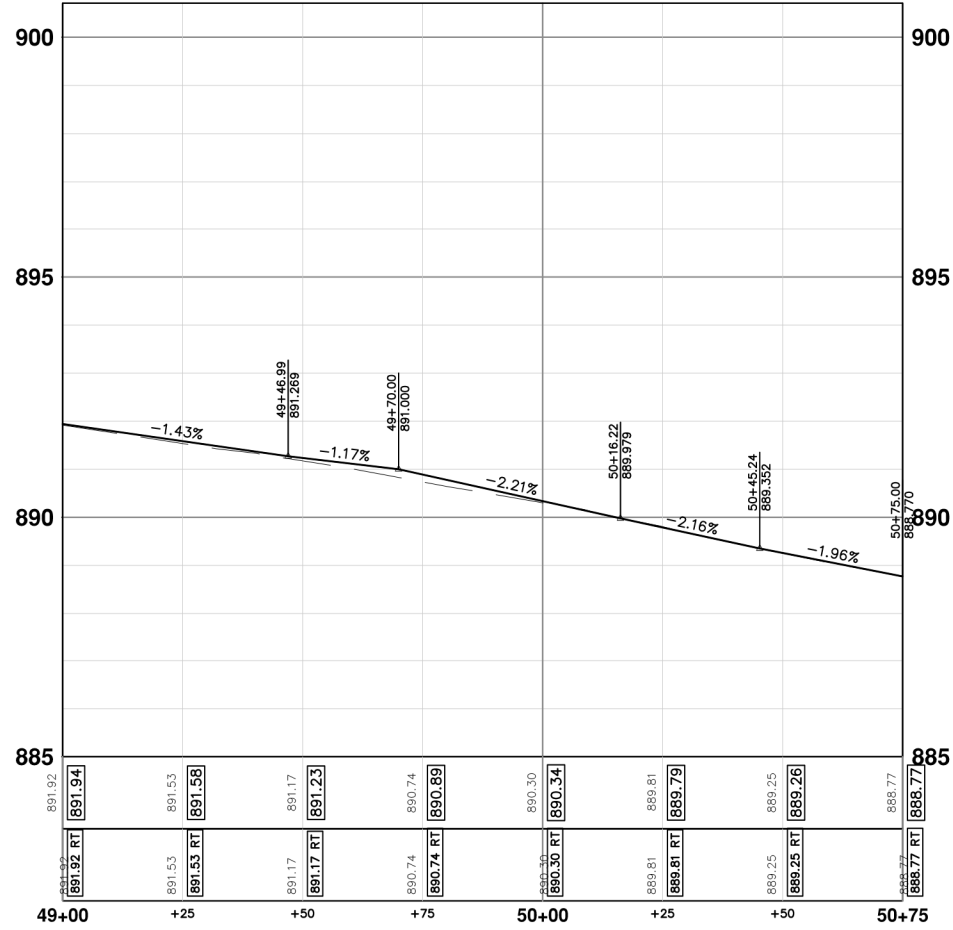
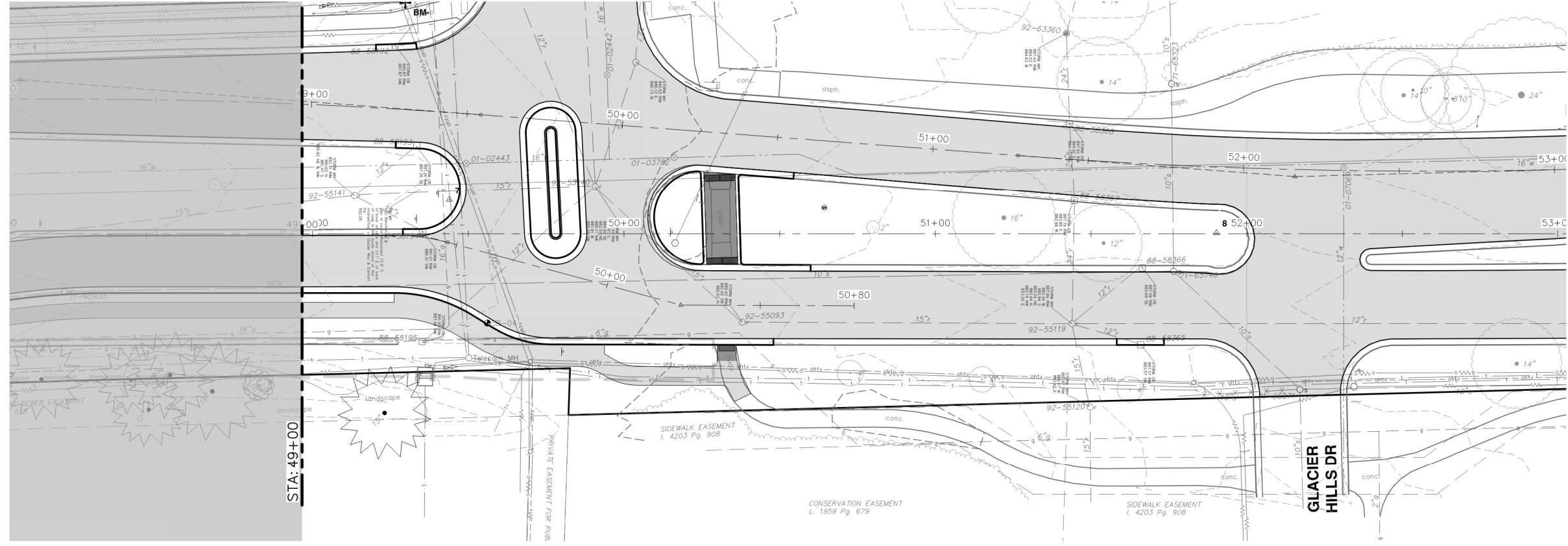
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PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-1647  
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**ANN ARBOR MICHIGAN**

REV.	DATE	DESCRIPTION
01	5-15-23	CC/DF
00	4-27-23	CC/DF

APPENDIX #1  
OUT TO BID  
DRAWN  
CHECKED

Know what's below.  
Call before you dig.



REV.	DATE	DESCRIPTION
01	5-15-23	CC/DF
00	4-27-23	CC/DF

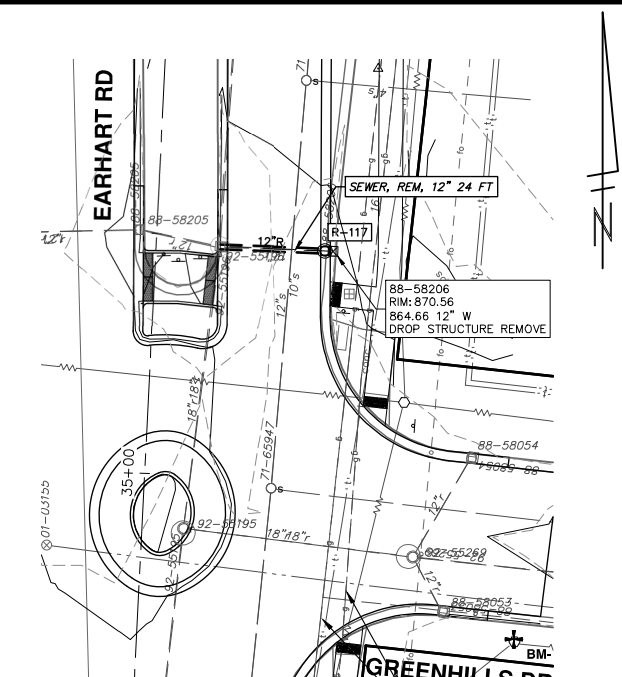
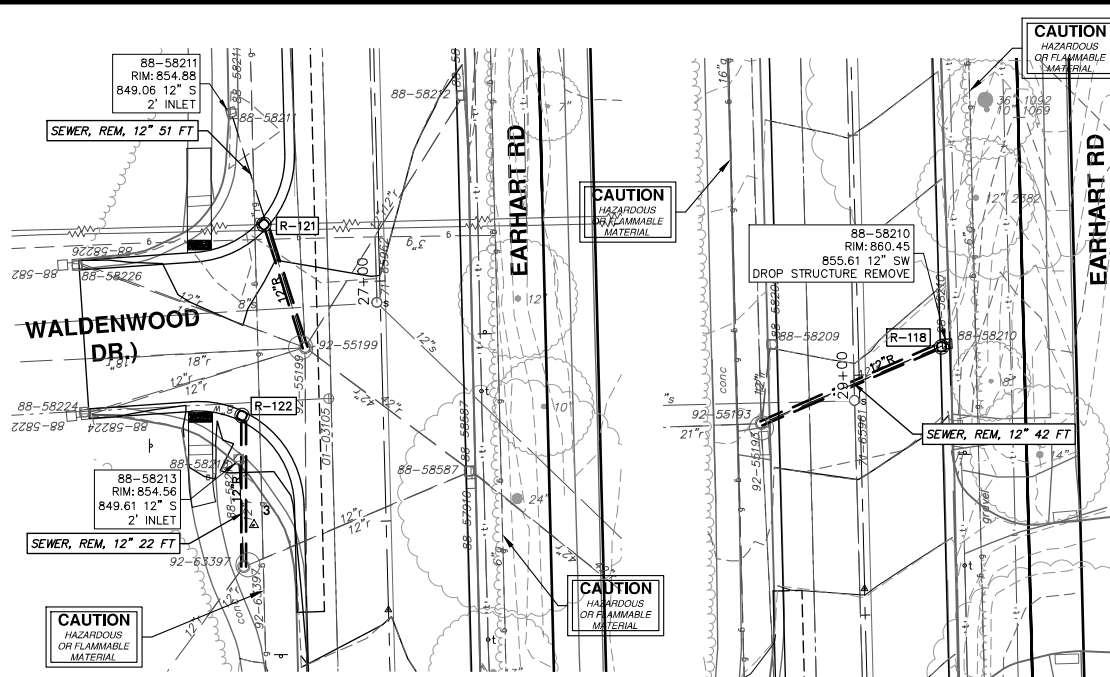
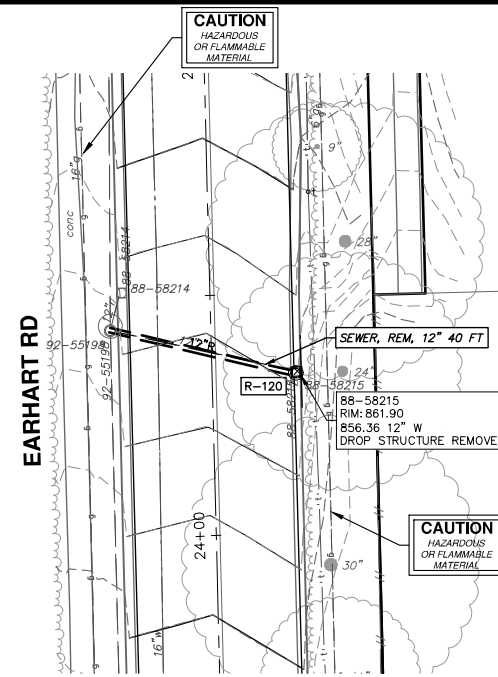
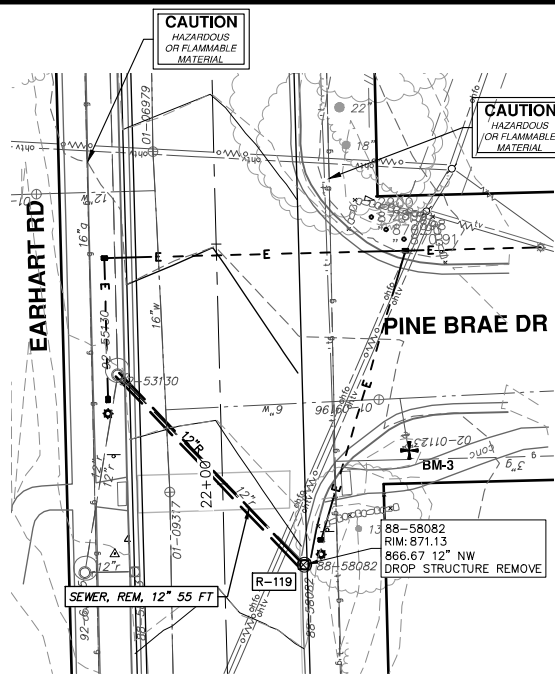
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PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR MI 48106  
734.794.6410  
www.a2gov.org



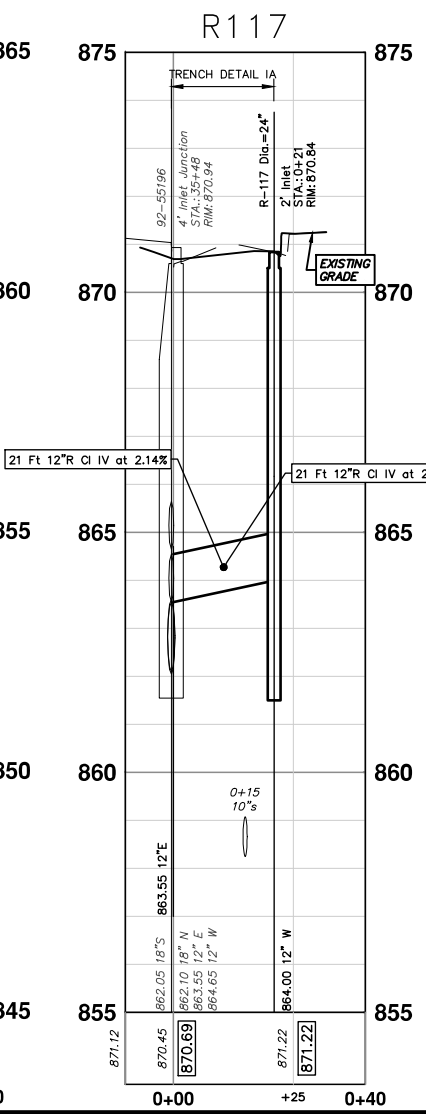
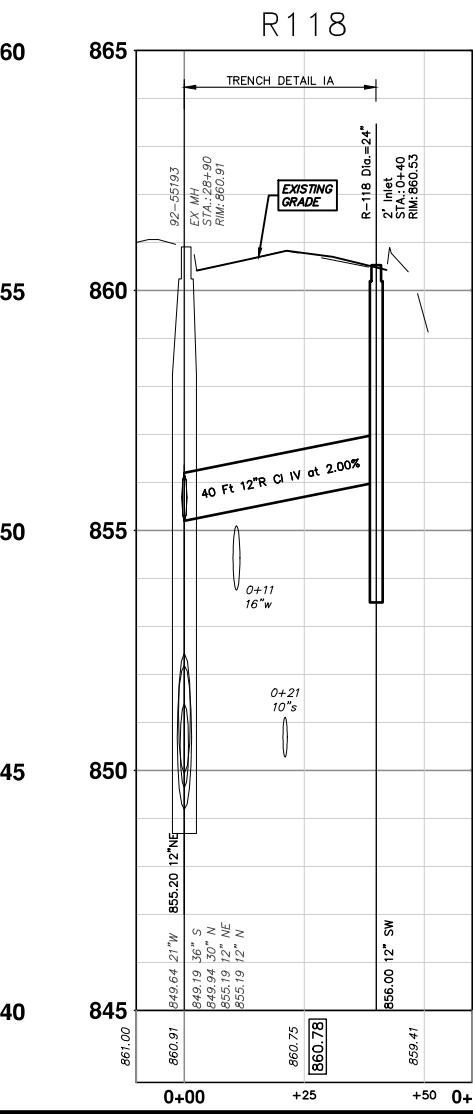
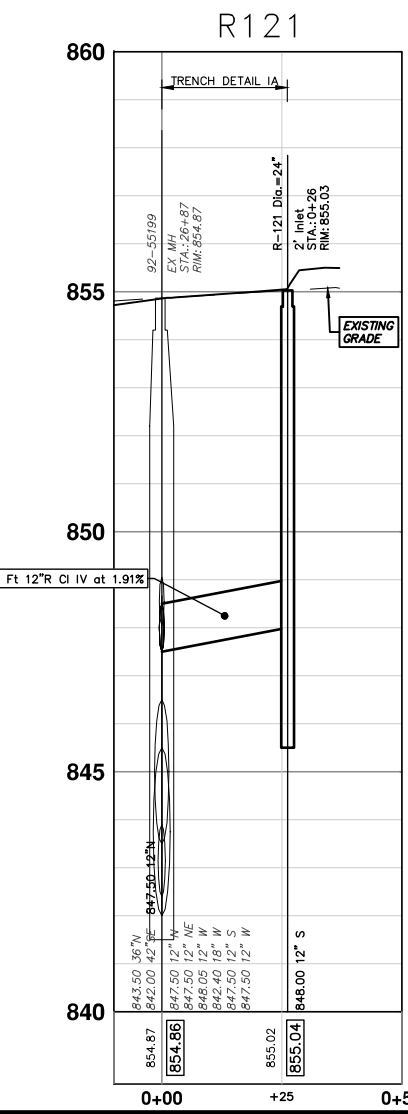
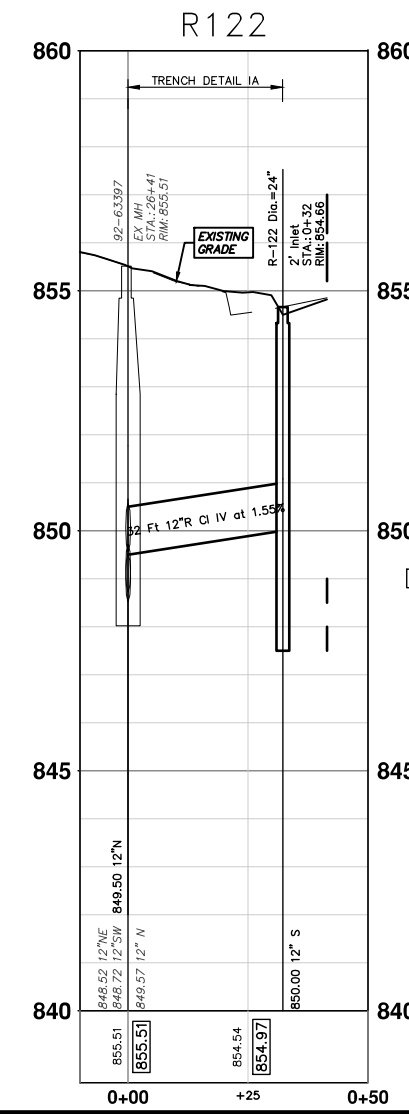
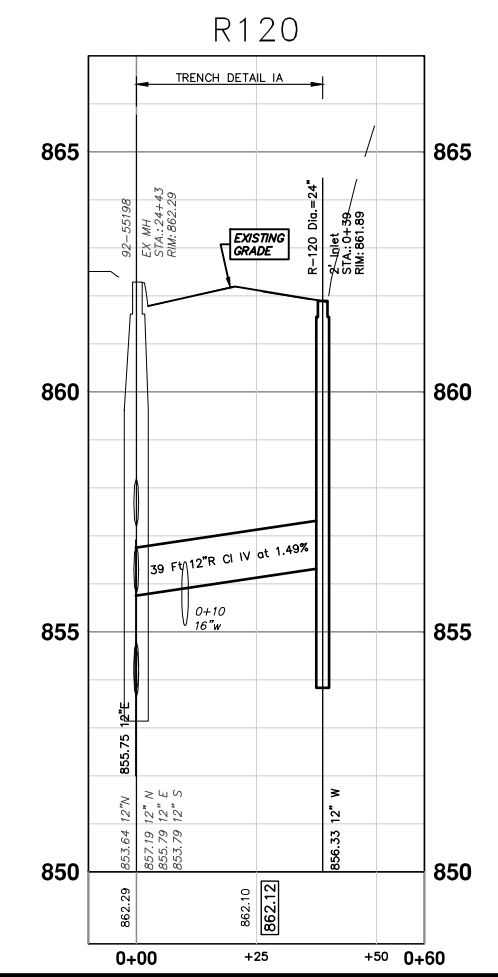
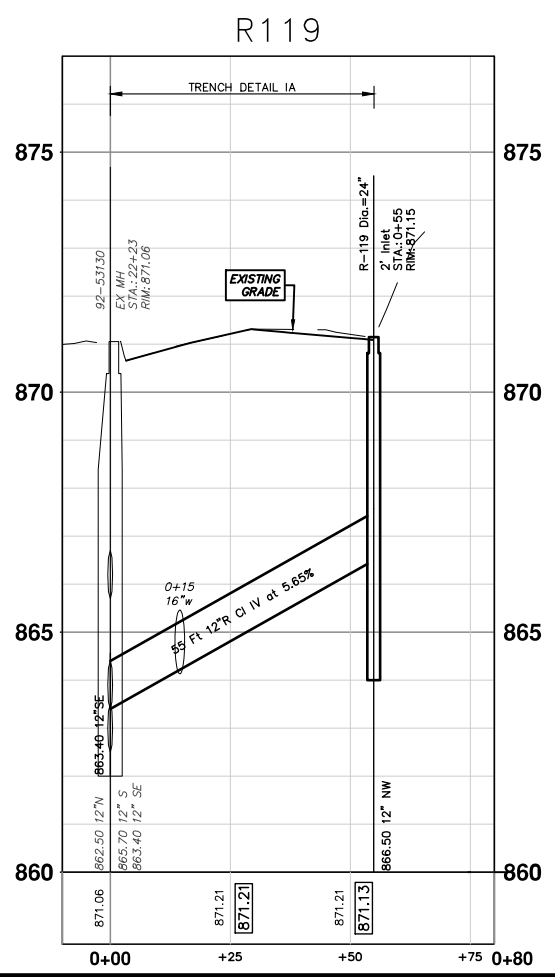
**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
ROAD PLAN & PROFILE

NORTHBOUND EOM LT STA. 49+00 - STA. 50+75

SHEET No. **50 OF 85**  
SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'  
DRAWING No. **2021023-50**



STORM SEWER STRUCTURE TABLE						
STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-117	O+21	2' Inlet	870.84	12" W 864.00	8.84	2'
R-118	O+40	2' Inlet	860.53	12" SW 856.00	6.53	2'
R-119	O+55	2' Inlet	871.15	12" NW 866.50	6.65	2'
R-120	O+39	2' Inlet	861.89	12" W 856.33	7.56	2'
R-121	O+26	2' Inlet	855.03	12" S 848.00	9.03	2'
R-122	O+32	2' Inlet	854.66	12" S 850.00	6.66	2'



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 STORM SEWER PLAN & PROFILE  
 R117, R118, R119, R120, R121, R122

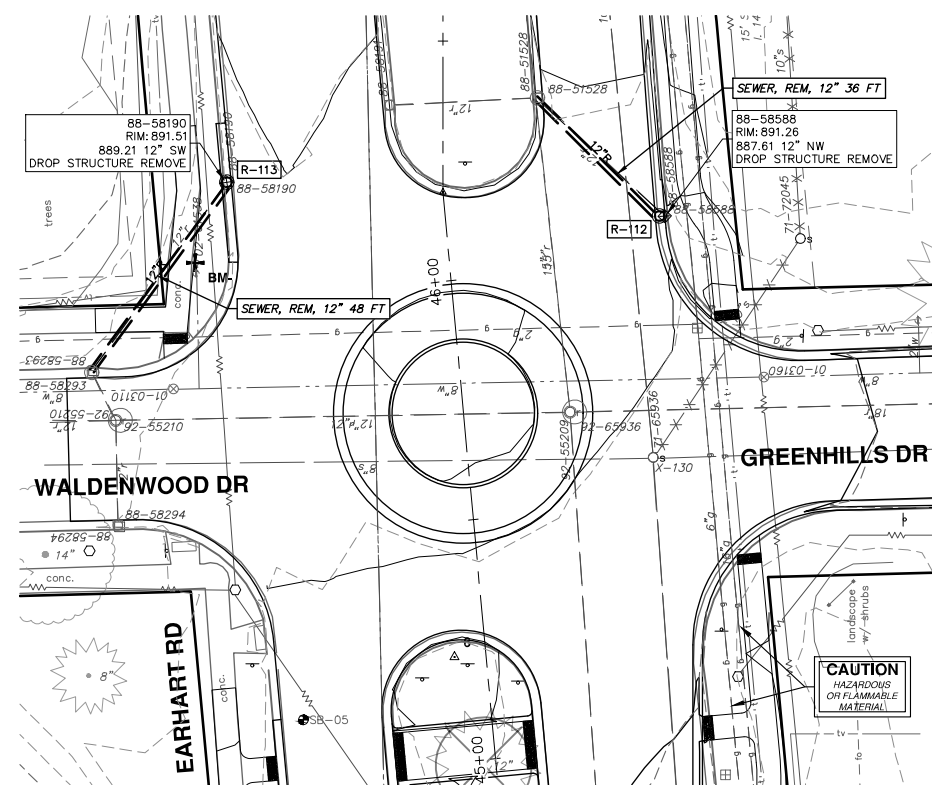
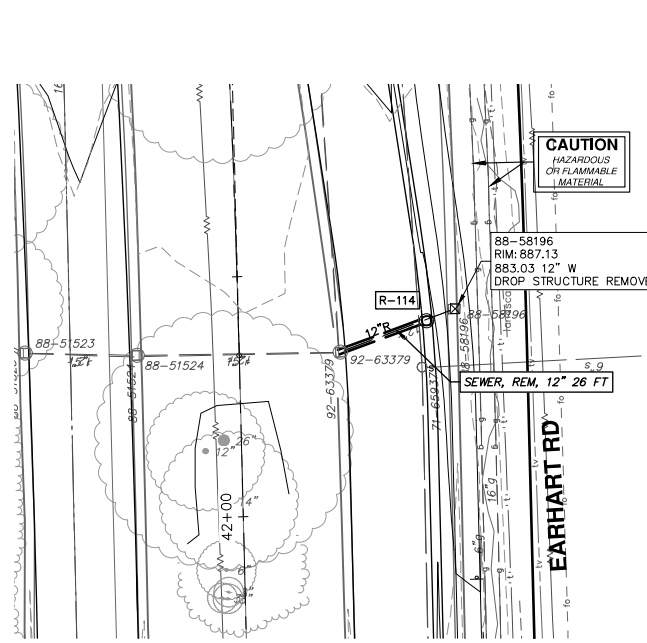
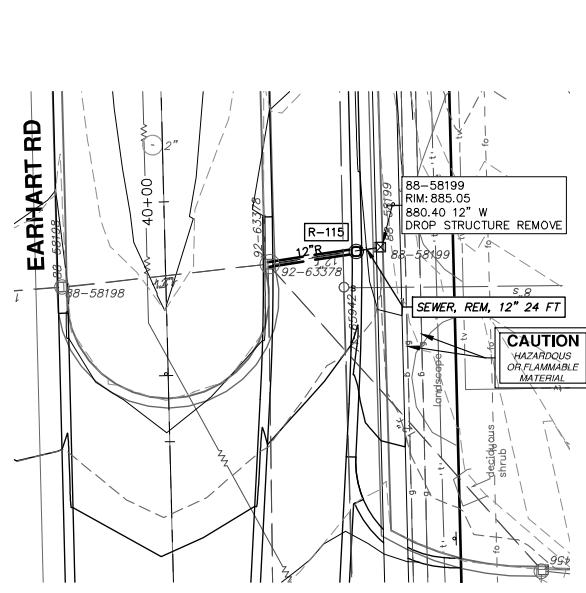
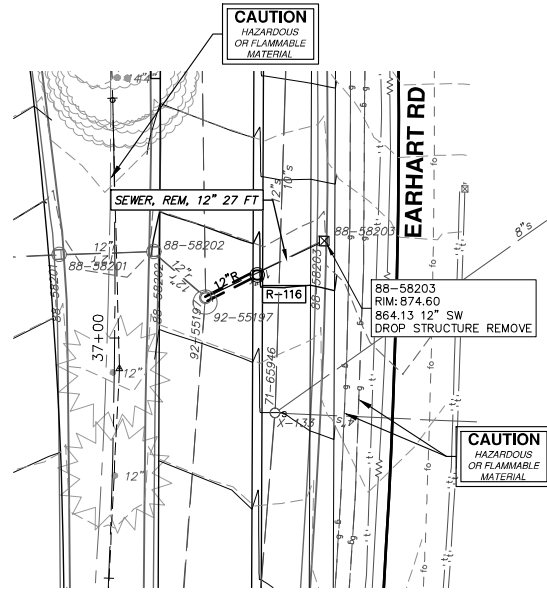
**811**  
 Know what's below.  
 Call before you dig.

REV.	DATE	DESCRIPTION
01	5-15-23	CC/DF
00	4-27-23	CC/DF
		DRAWN
		CHECKED
		NB
		NB

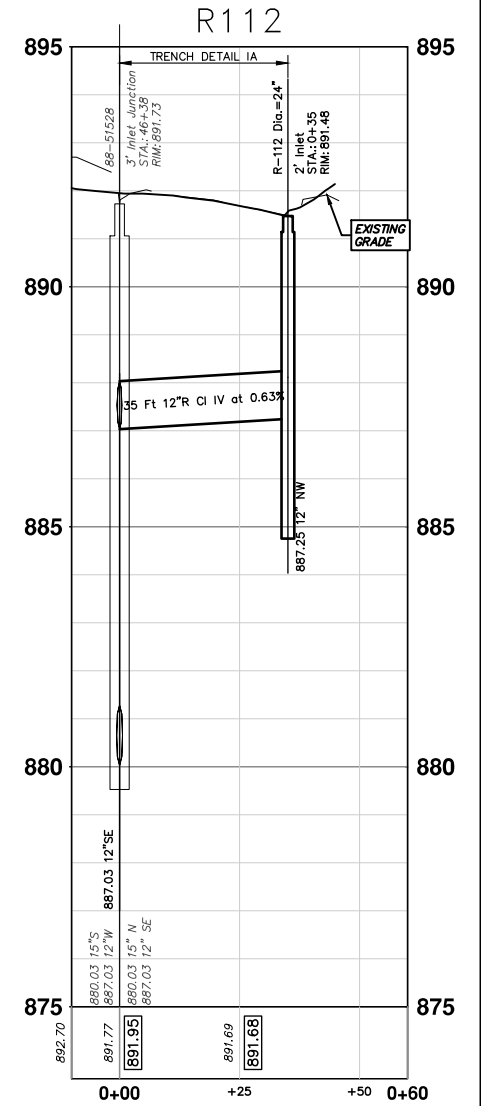
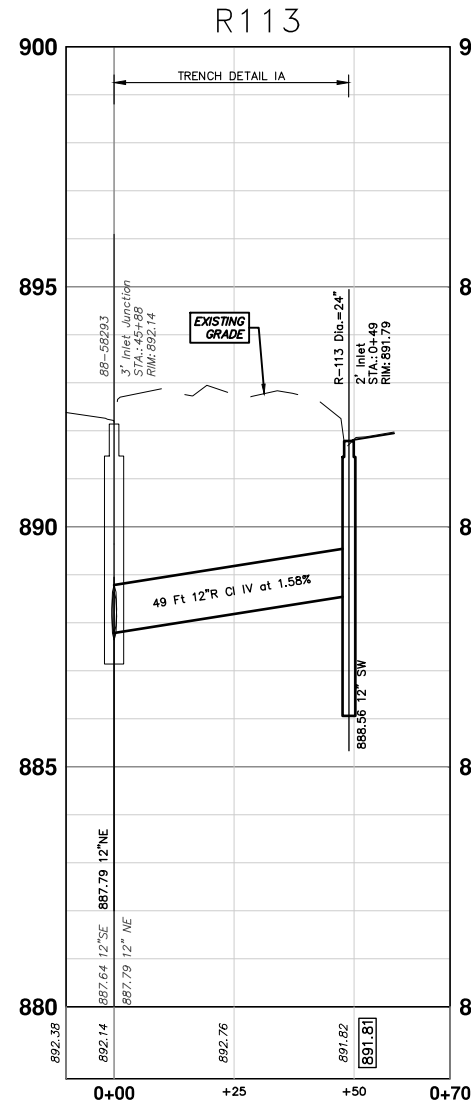
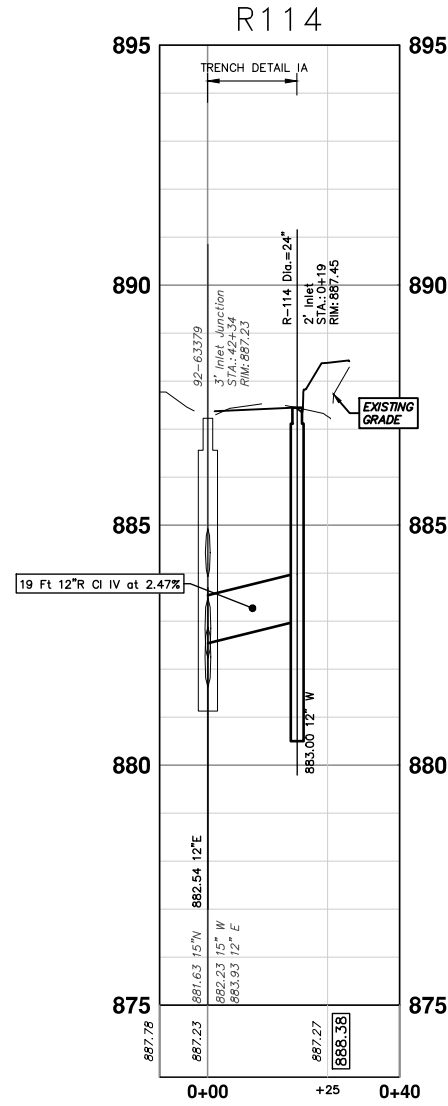
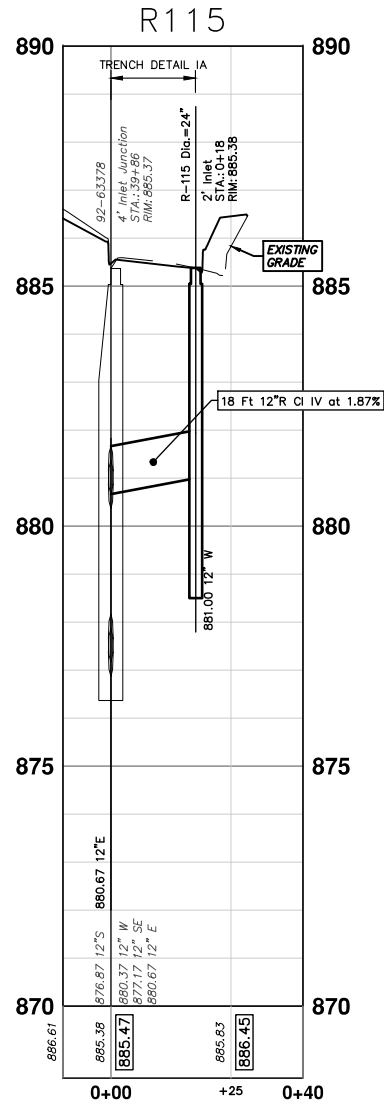
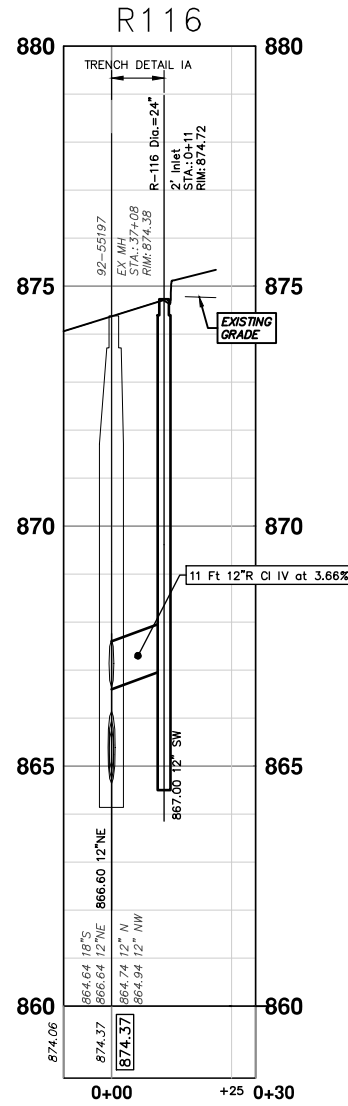
SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 2'

DRAWING NO. 2021023-51  
 SHEET NO. 51 OF 85

CITY OF ANN ARBOR  
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 ANN ARBOR, MI 48106-1667  
 WWW.A2GOV.GOV



STORM SEWER STRUCTURE TABLE						
STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-112	0+35	2' Inlet	891.48	12" NW 887.25	6.23	2'
R-113	0+49	2' Inlet	891.79	12" SW 888.56	5.23	2'
R-114	0+19	2' Inlet	887.45	12" W 883.00	6.45	2'
R-115	0+18	2' Inlet	885.38	12" W 881.00	6.38	2'
R-116	0+11	2' Inlet	874.72	12" SW 867.00	9.72	2'



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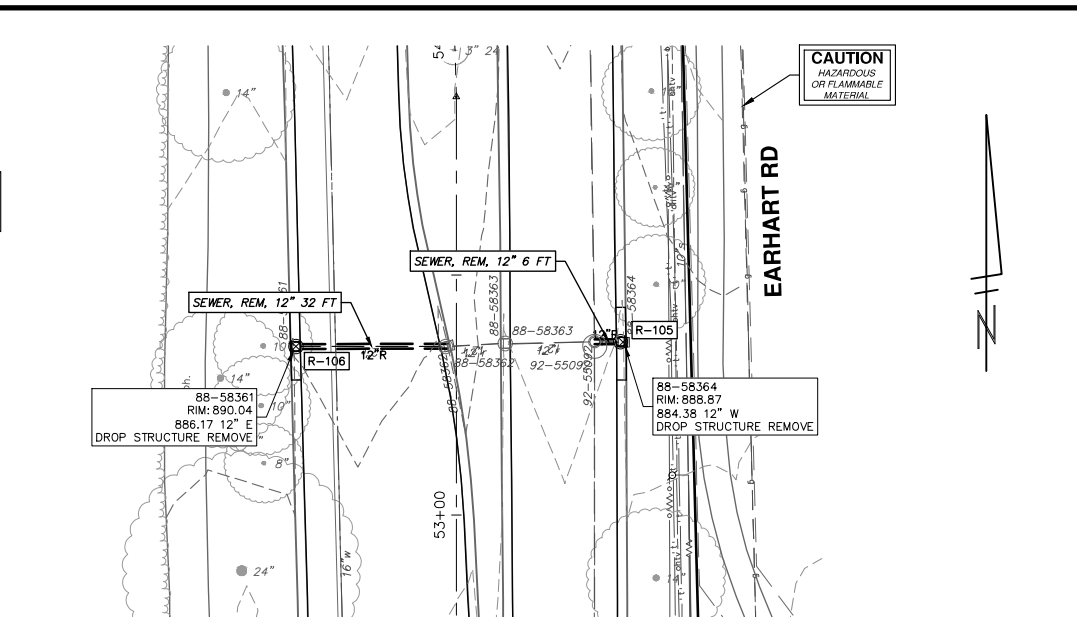
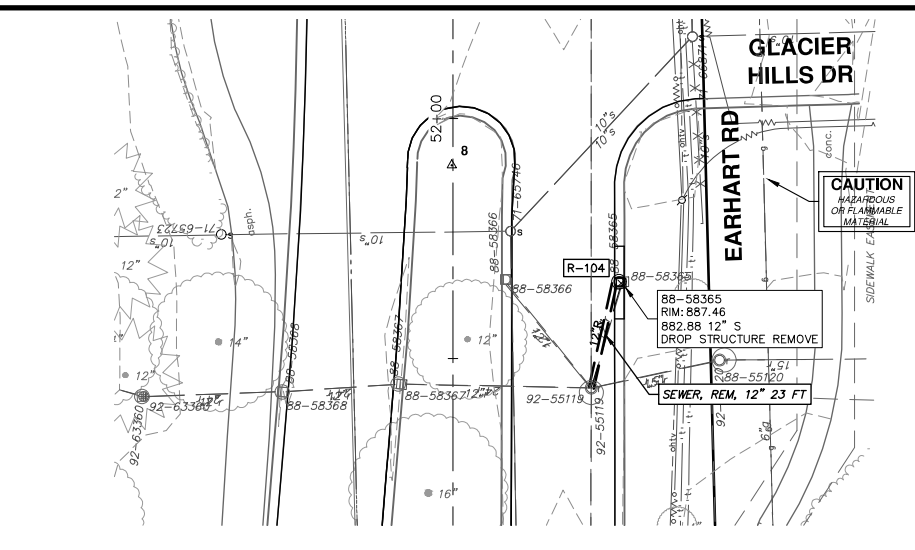
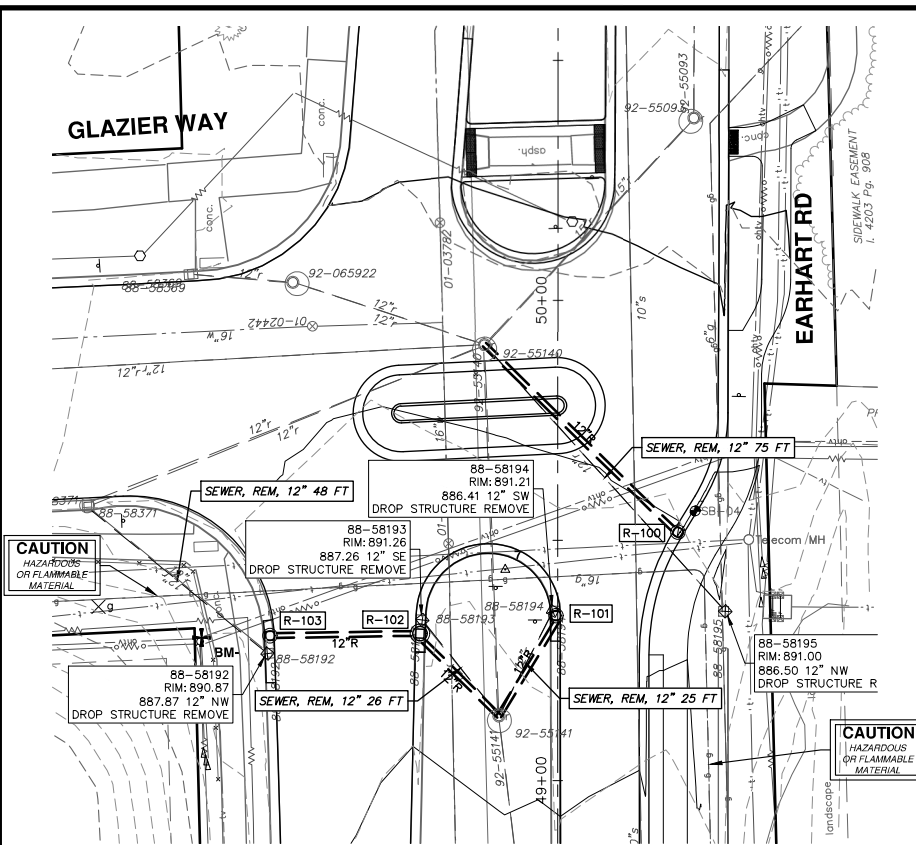


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
STORM SEWER PLAN & PROFILE  
R112, R113, R114, R115, R116

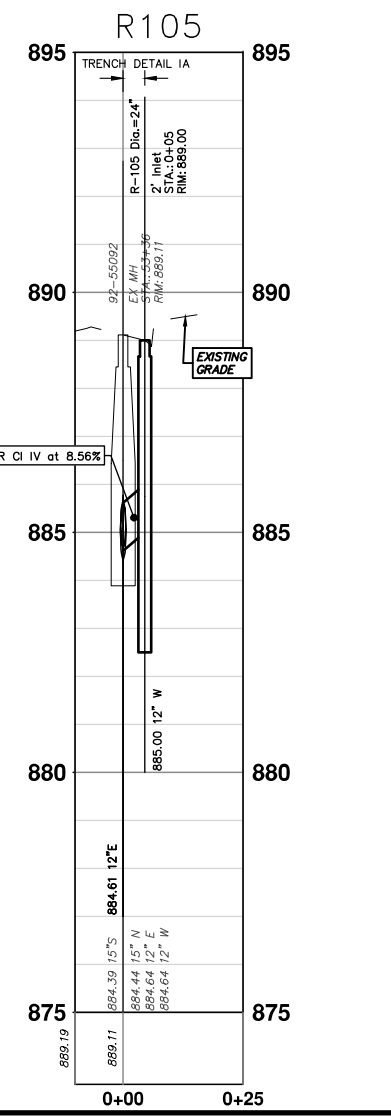
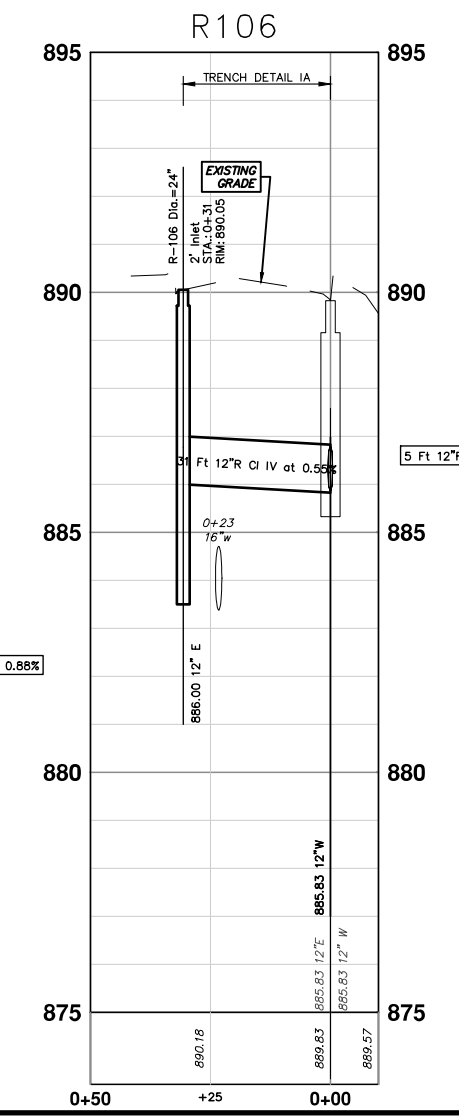
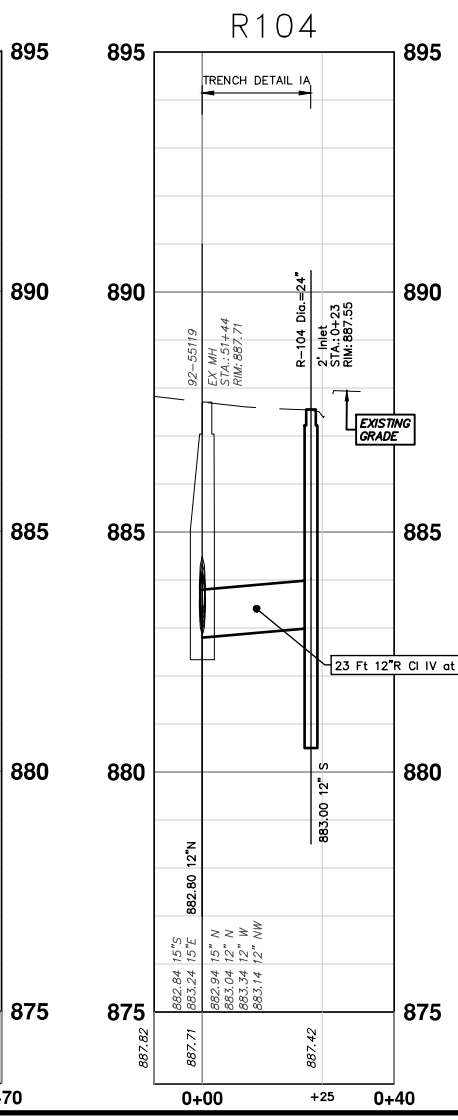
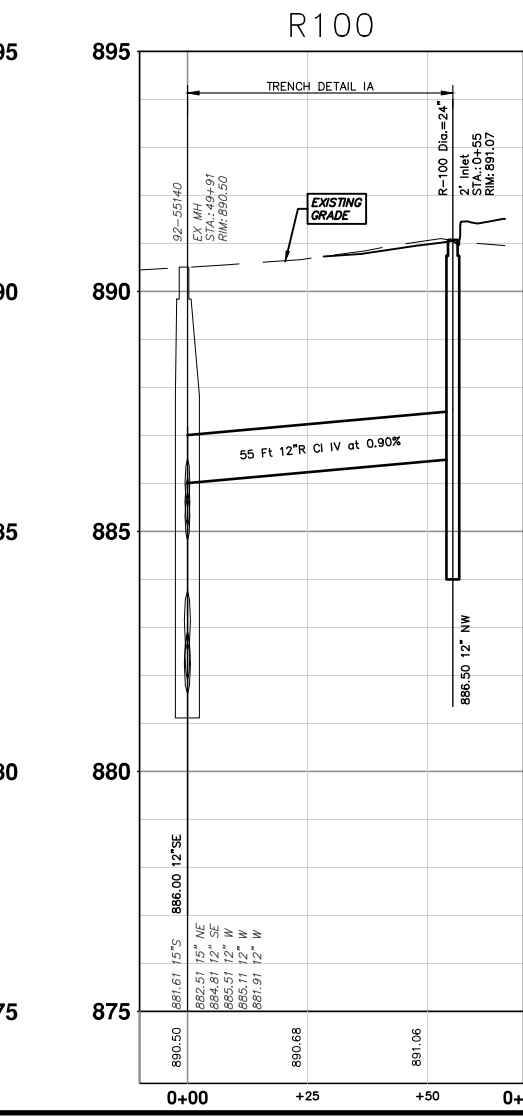
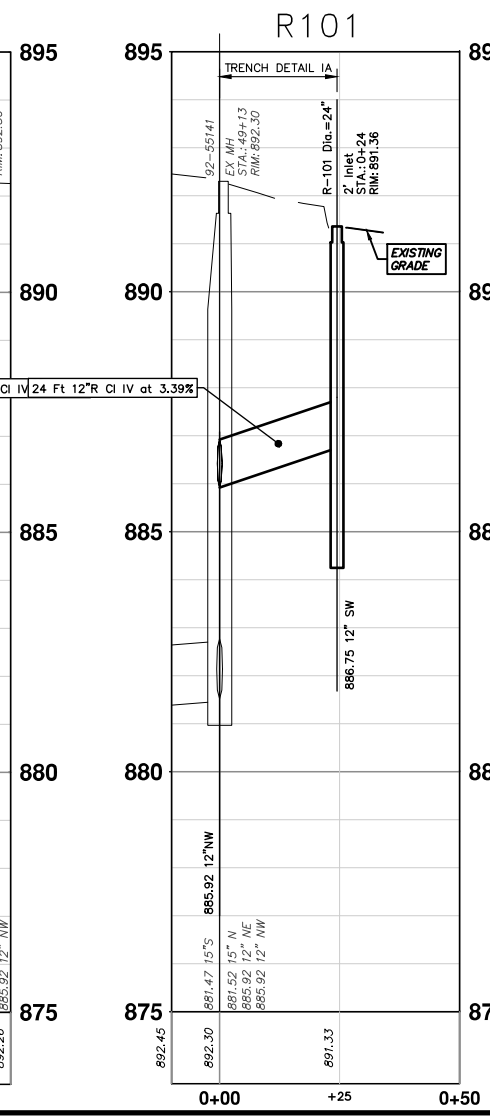
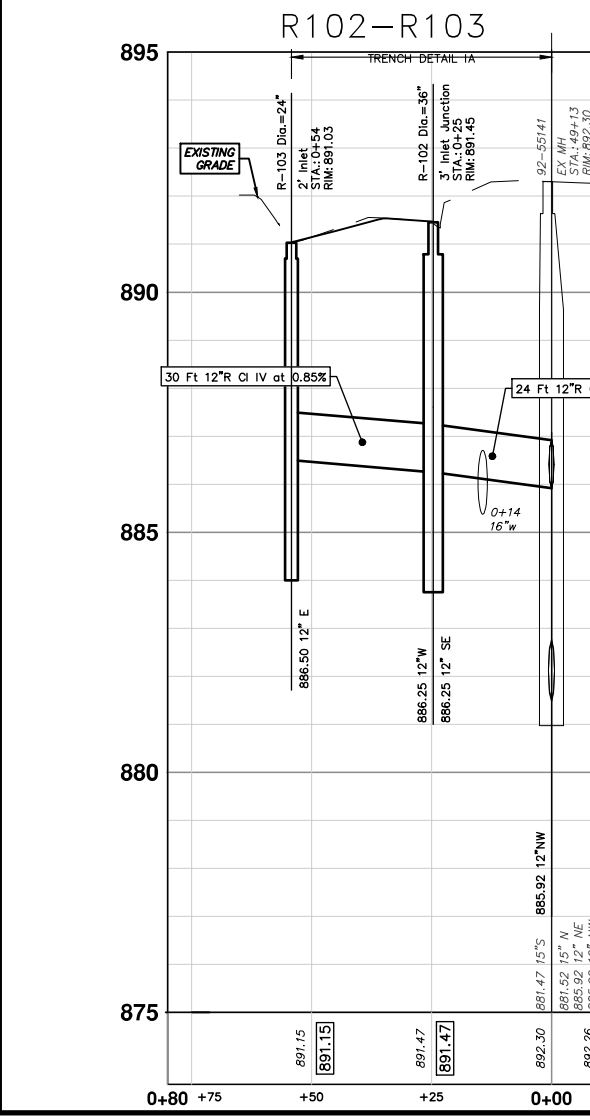
SHEET No. 52 OF 85  
SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'  
DRAWING No. 2021023-52

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
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00	4-27-23	CC/DF	CC/DF	

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Stm.dwg Dwg Created: 27-Apr-23 --\_a2 standard bw.stb -- Plot Date: 15-May-23



STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-100	0+55	2' Inlet	891.07	12" NW 886.50	6.57	2'
R-101	0+24	2' Inlet	891.36	12" SW 886.75	6.61	2'
R-102	0+25	3' Inlet Junction	891.45	12" SE 886.25 12" W 886.25	7.20	2'
R-103	0+54	2' Inlet	891.03	12" E 886.50	6.53	2'
R-104	0+23	2' Inlet	887.55	12" S 883.00	6.55	2'
R-105	0+05	2' Inlet	889.00	12" W 885.00	6.00	2'
R-106	0+31	2' Inlet	890.05	12" E 886.00	6.05	2'





Know what's below.  
Call before you dig.

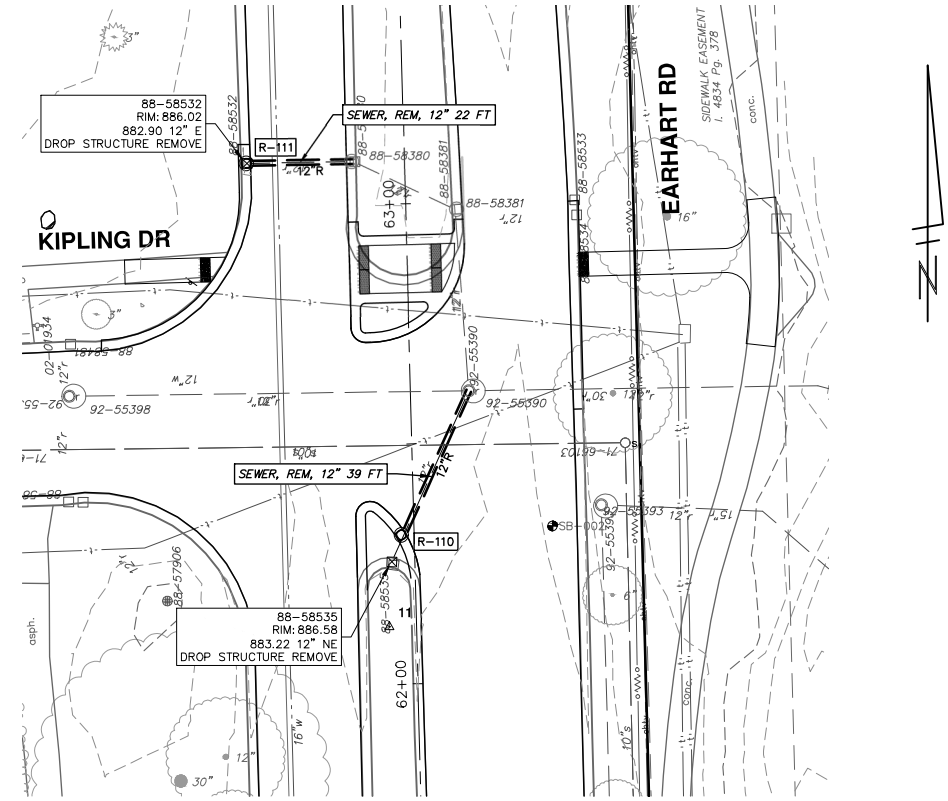
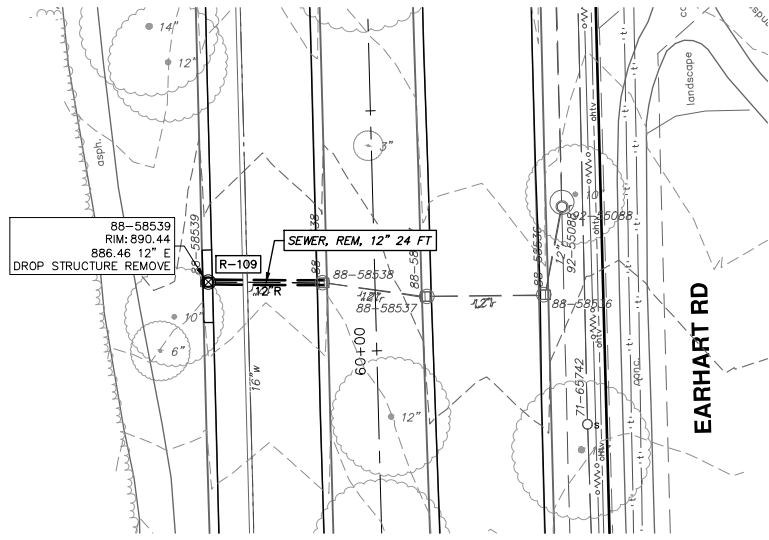
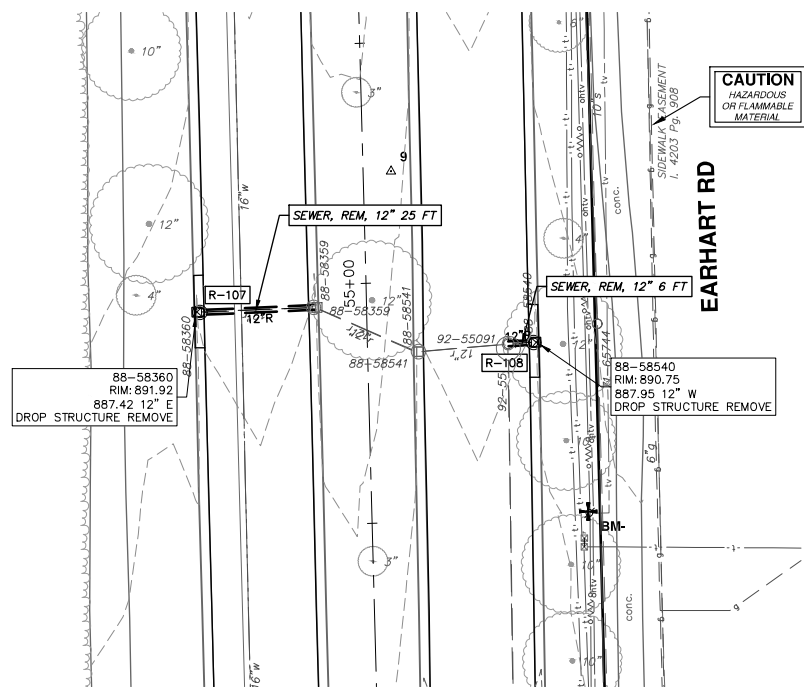
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00	4-27-23	CC/DF



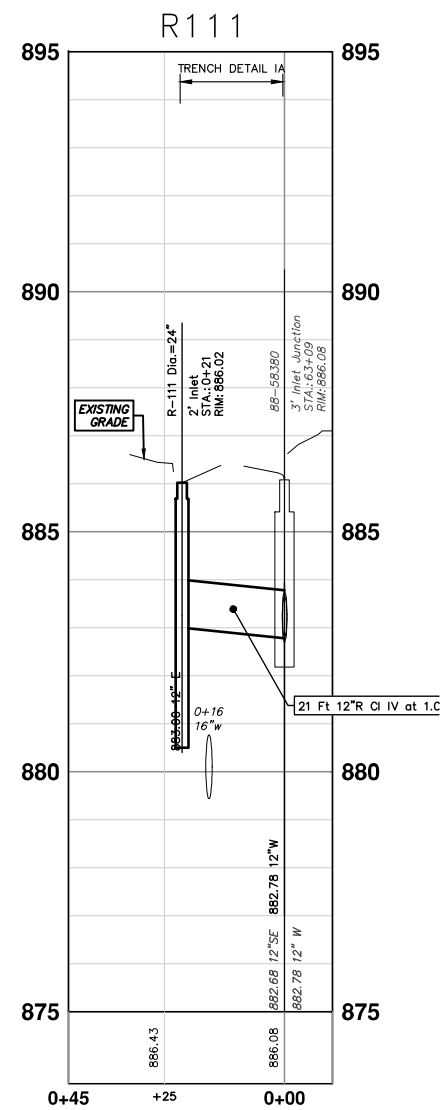
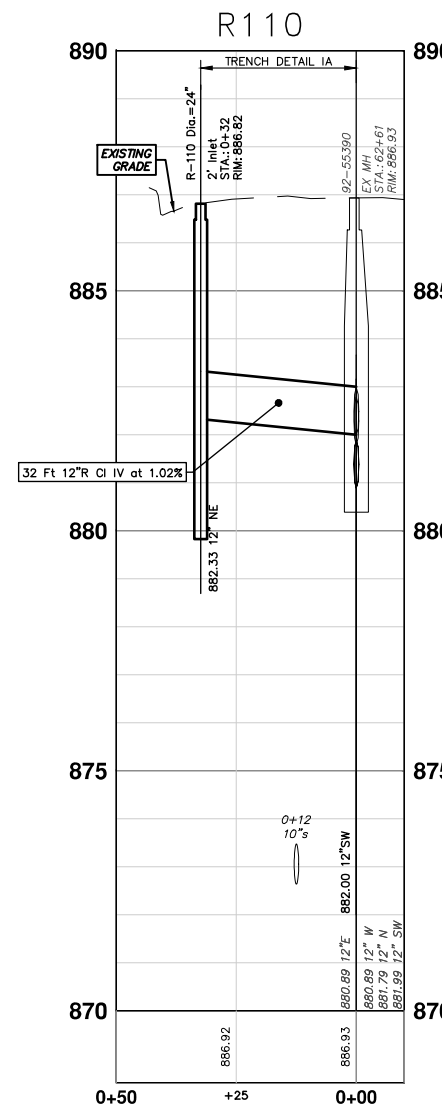
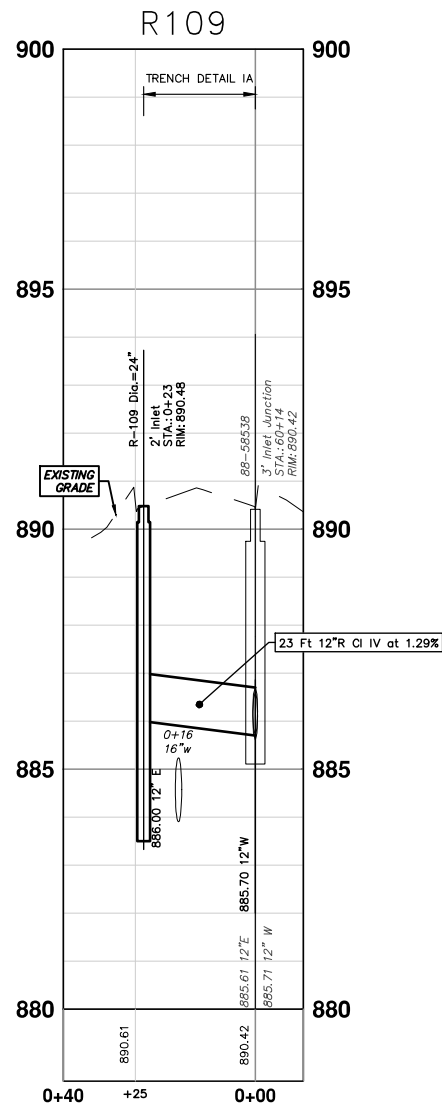
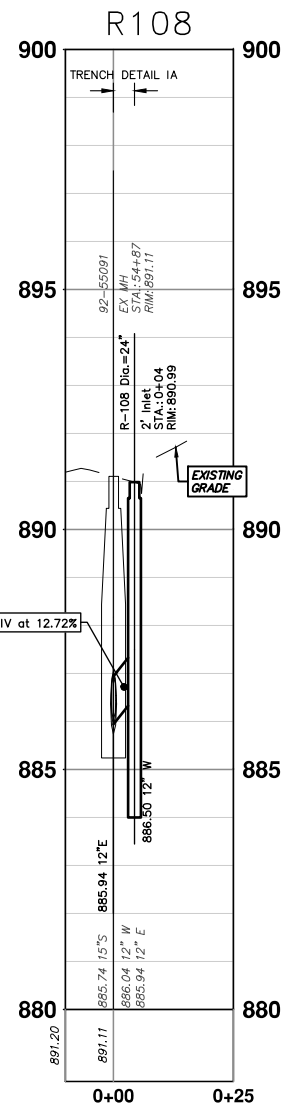
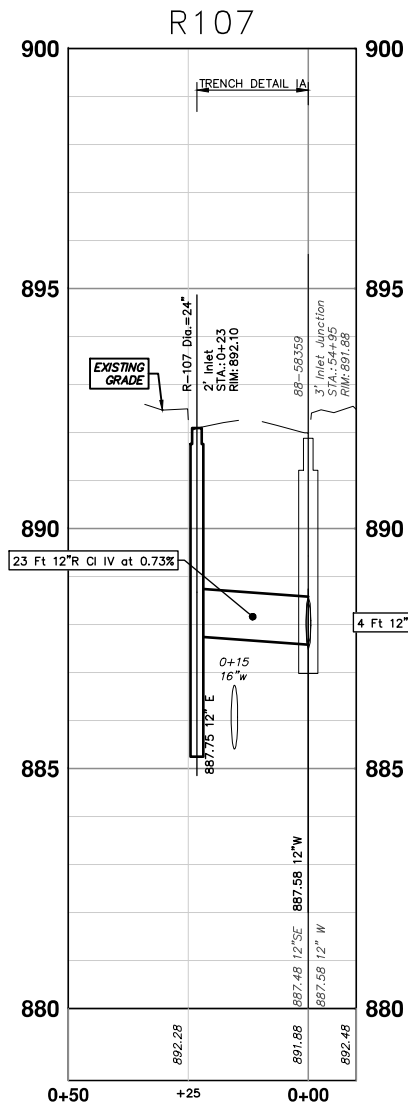
**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 STORM SEWER PLAN & PROFILE  
 R100, R101, R102, R103, R104, R105, R106

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

DRAWING NO. 2021023-53  
SHEET NO. 53 OF 85



STORM SEWER STRUCTURE TABLE						
STRUCTURE	UTILITY STATION	TYPE	RIM	INVERTS	DEPTH (Feet)	SUMP
R-107	0+23	2' Inlet	892.10	12" E 887.75	6.35	2'
R-108	0+04	2' Inlet	890.99	12" W 886.50	6.49	2'
R-109	0+23	2' Inlet	890.48	12" E 886.00	6.48	2'
R-110	0+32	2' Inlet	886.82	12" NE 882.33	6.49	2'
R-111	0+21	2' Inlet	886.02	12" E 883.00	5.02	2'



Know what's below. Call before you dig.

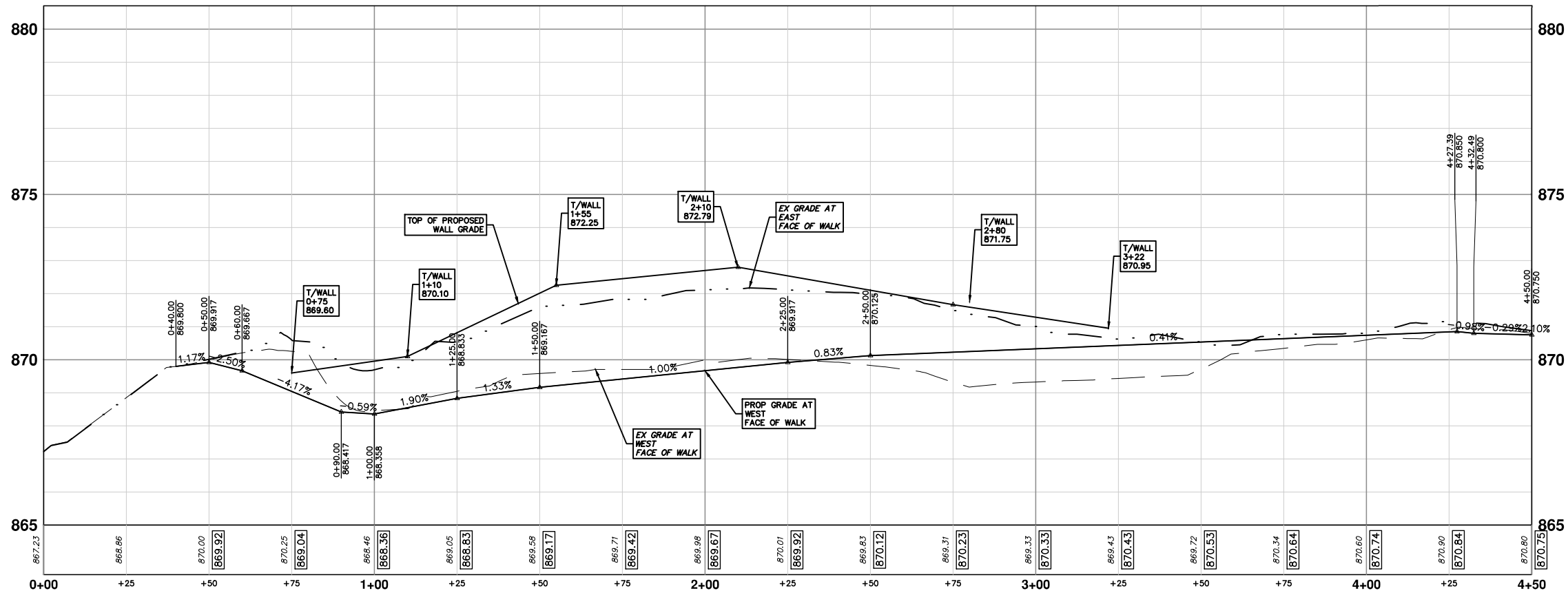
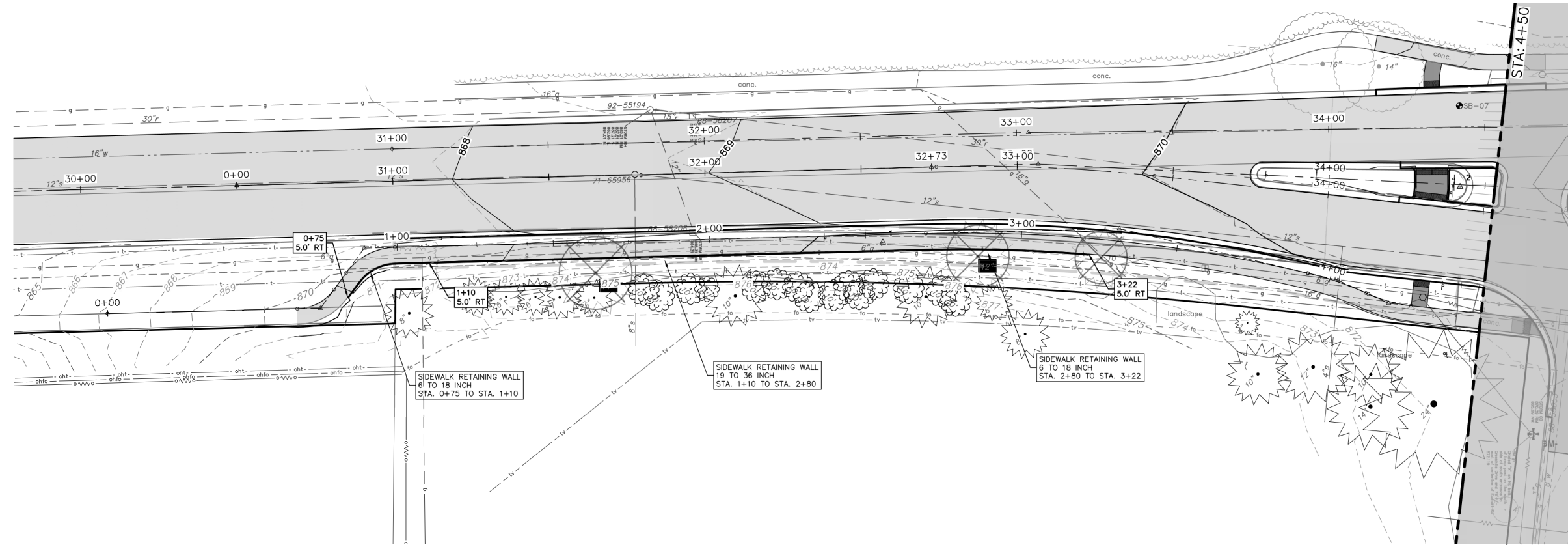
REV.	DATE	DESCRIPTION	CHECKED	DRAWN
01	5-15-23	CC/DF	CC/DF	CC/DF
00	4-27-23	OUT TO BID	CC/DF	CC/DF

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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
STORM SEWER PLAN & PROFILE  
R107, R108, R109, R110, R111

SHEET No. 54 OF 85  
SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'  
DRAWING No. 2021023-54



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

SIDWALK PLAN & PROFILE

STA. 0+00 - STA. 4+50

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

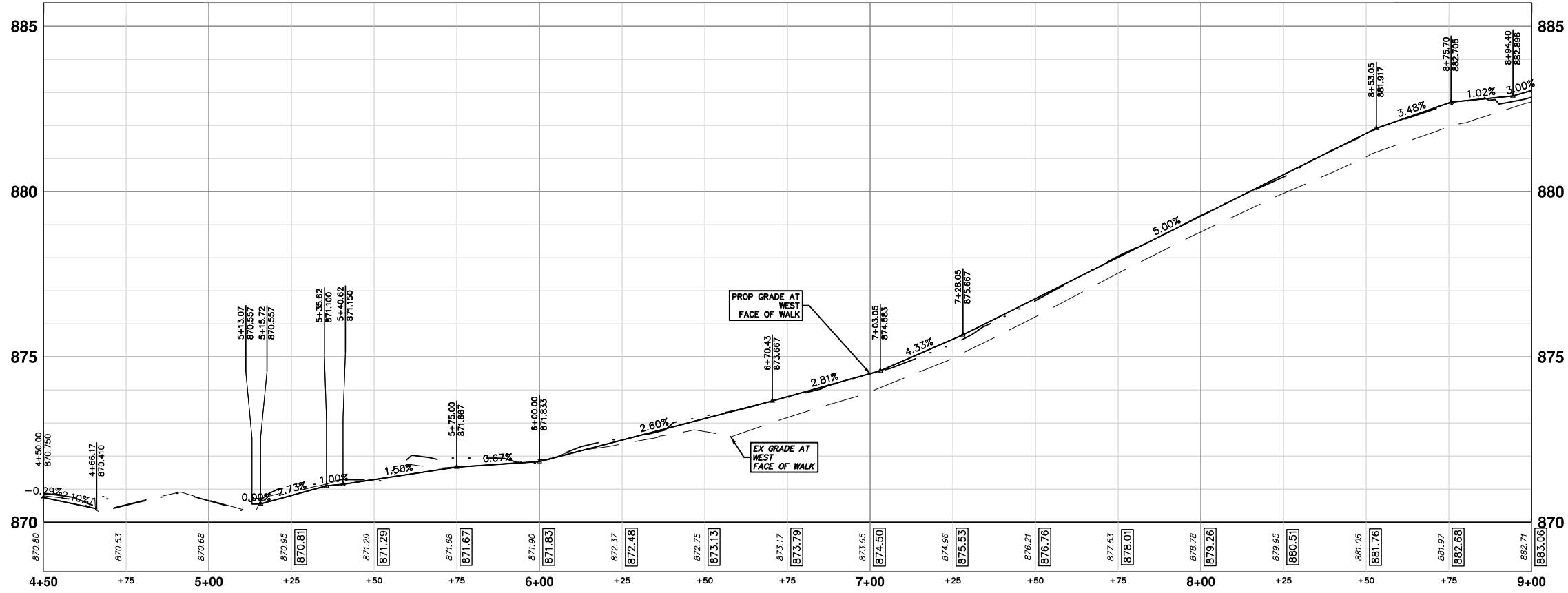
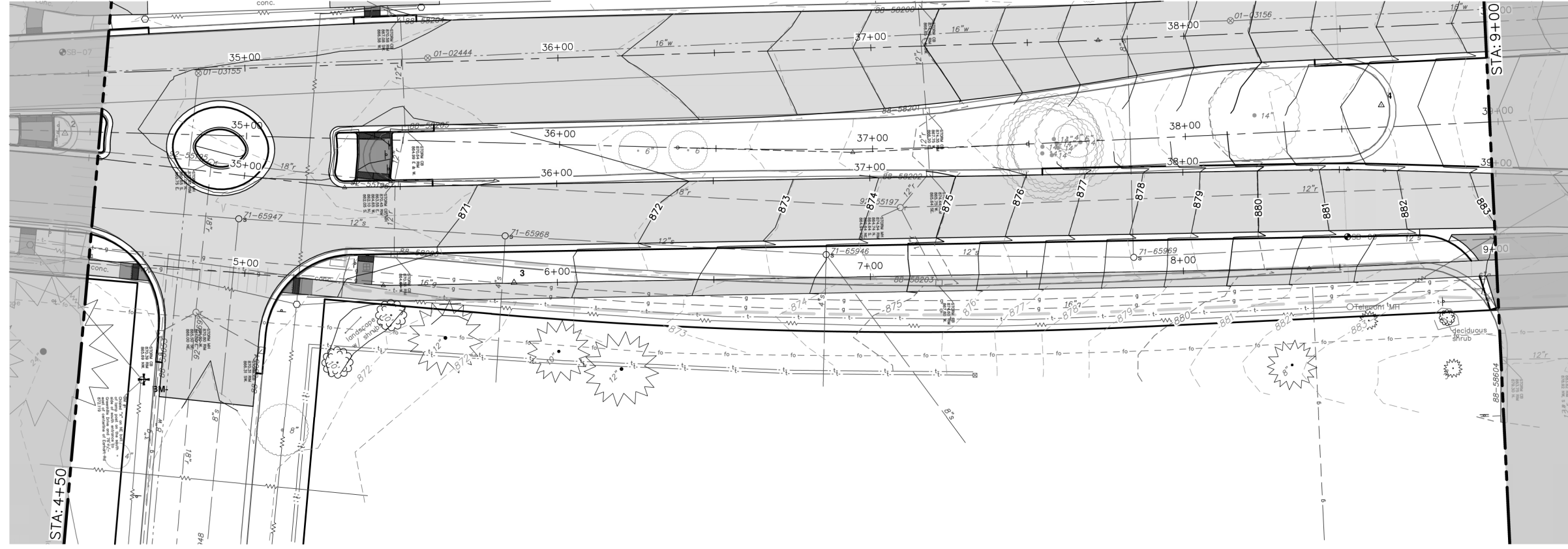
DRAWING No. 2021023-55

SHEET No. 55 OF 85

**811**  
Know what's below.  
Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	9-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 SIDEWALK PLAN & PROFILE

SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 4'

DRAWING No. 2021023-56

SHEET No.



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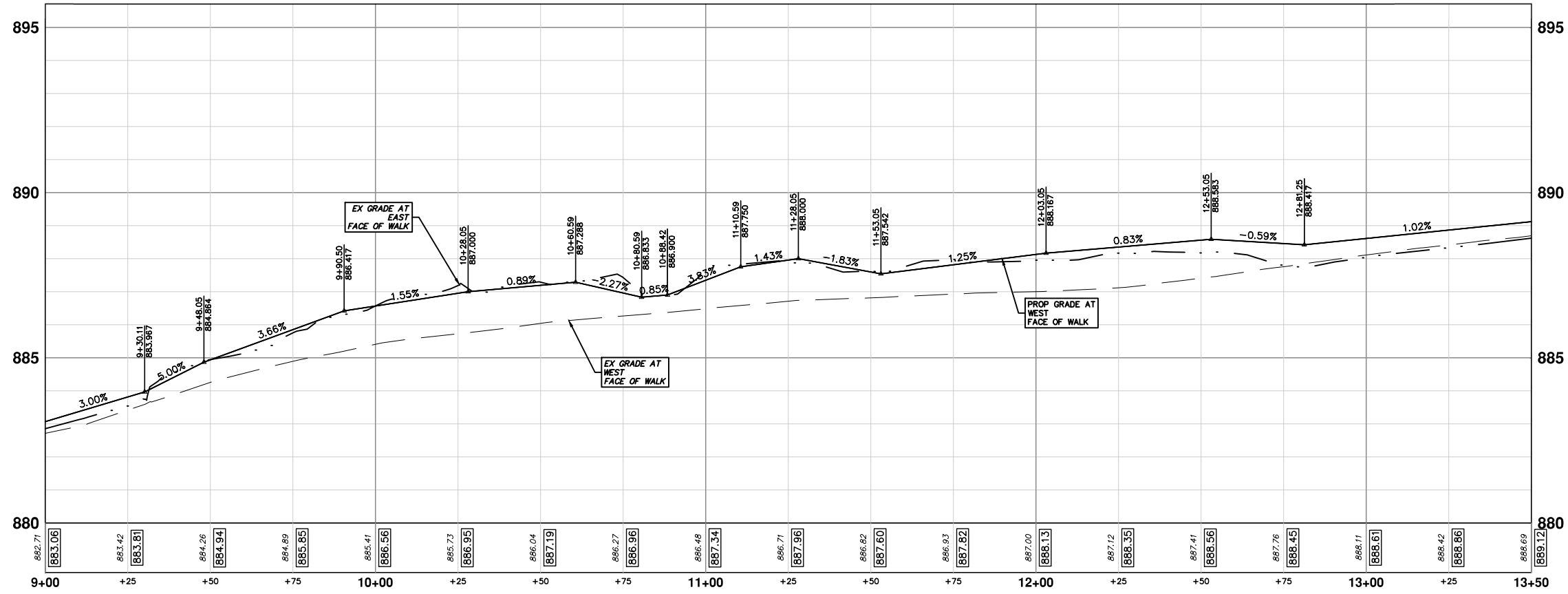
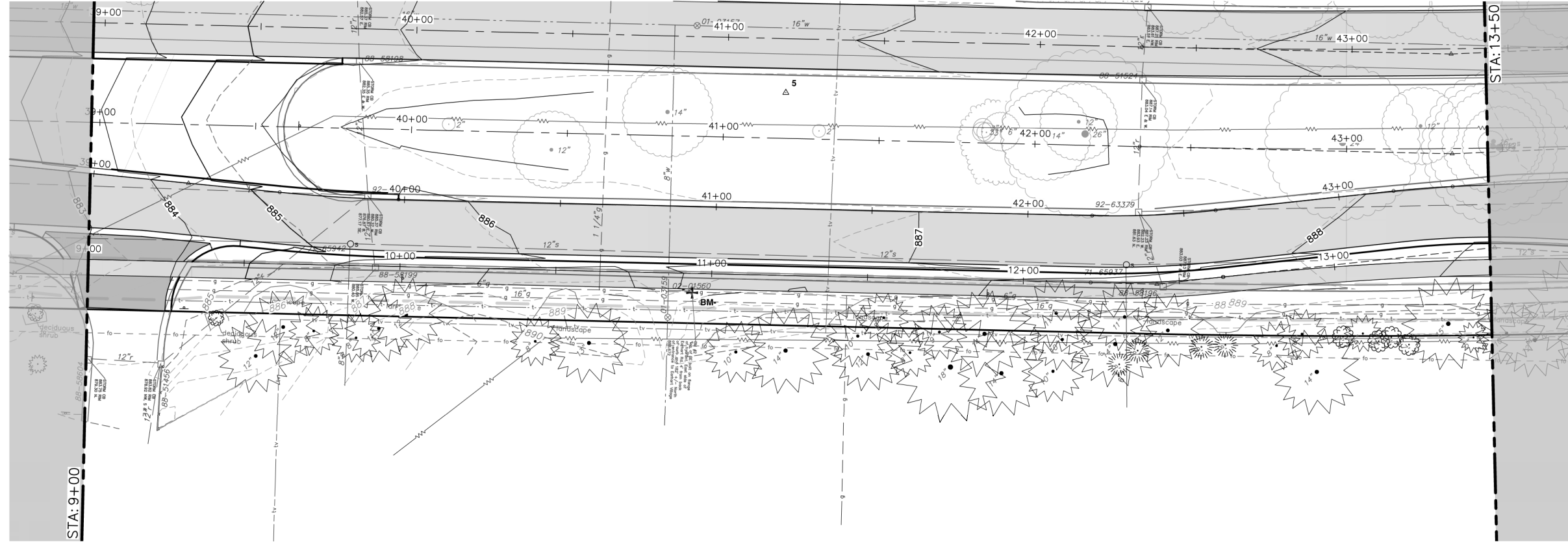
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01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB





R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023pssw.dwg Dwg Created: 11-May-23 - \_o2 standard bw.stb - Plot Date: 15-May-23



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**

SIDWALK PLAN & PROFILE

STA. 9+00 - STA. 13+50

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'

DRAWING No. 2021023-57

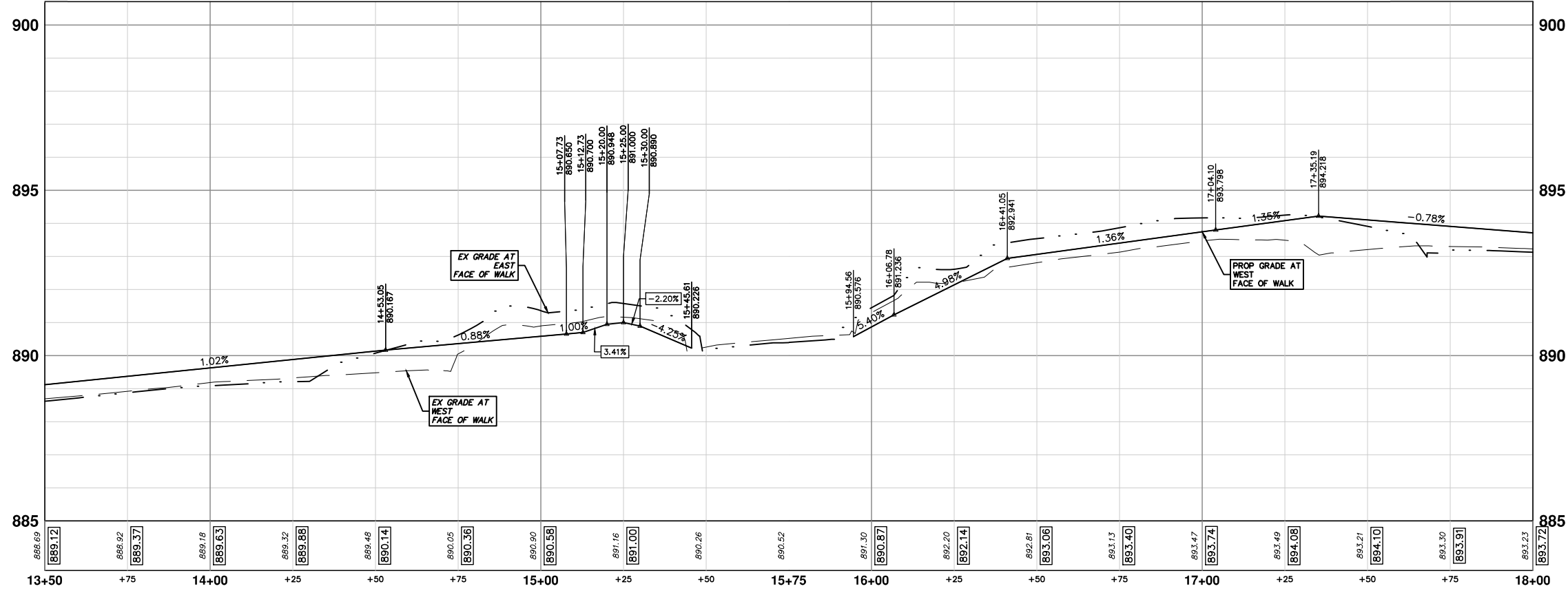
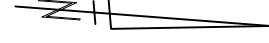
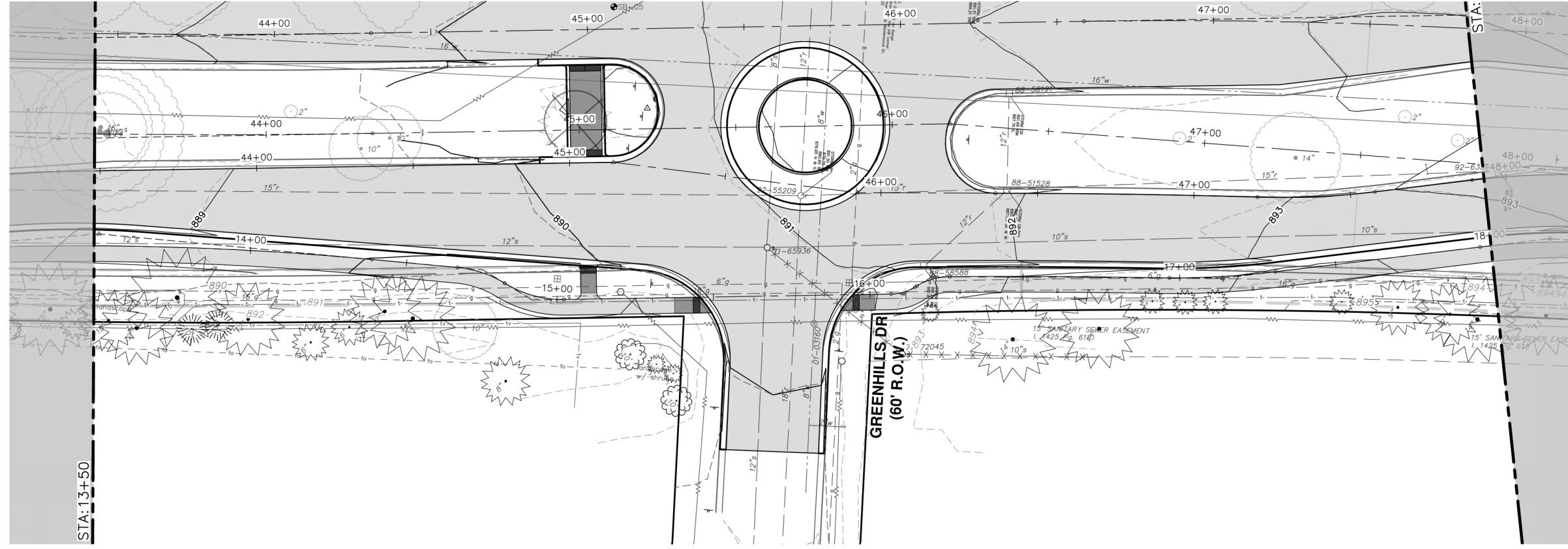
SHEET No. 57 OF 85

**811**  
Know what's below.  
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	APPENDIX #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

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R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Ppsw.dwg Dwg Created: 11-May-23 - \_g2 standard bw.stb - Plot Date: 15-May-23



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 SIDEWALK PLAN & PROFILE

SCALE PLAN: 1" = 20'  
 PROFILE: 1" = 4'

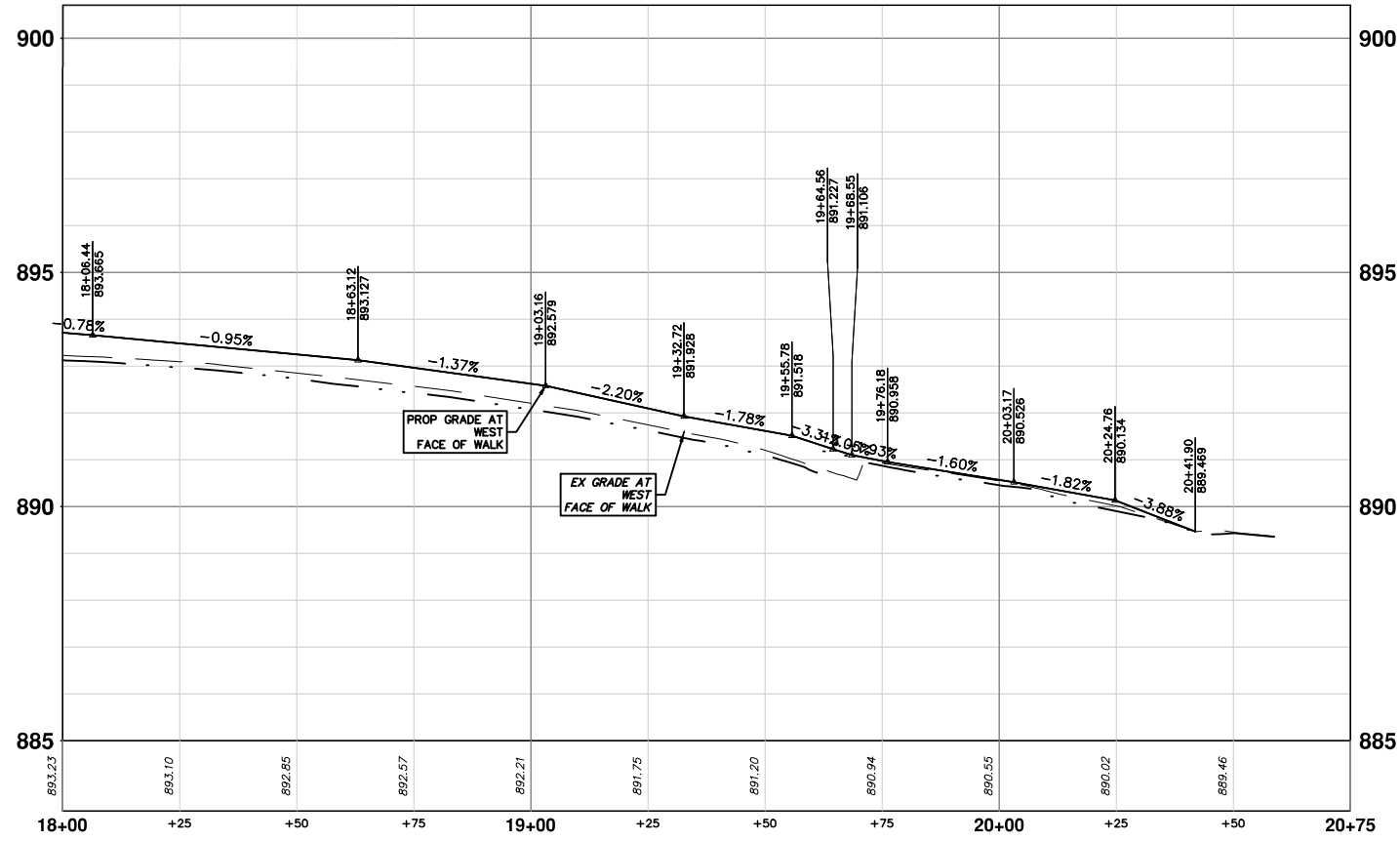
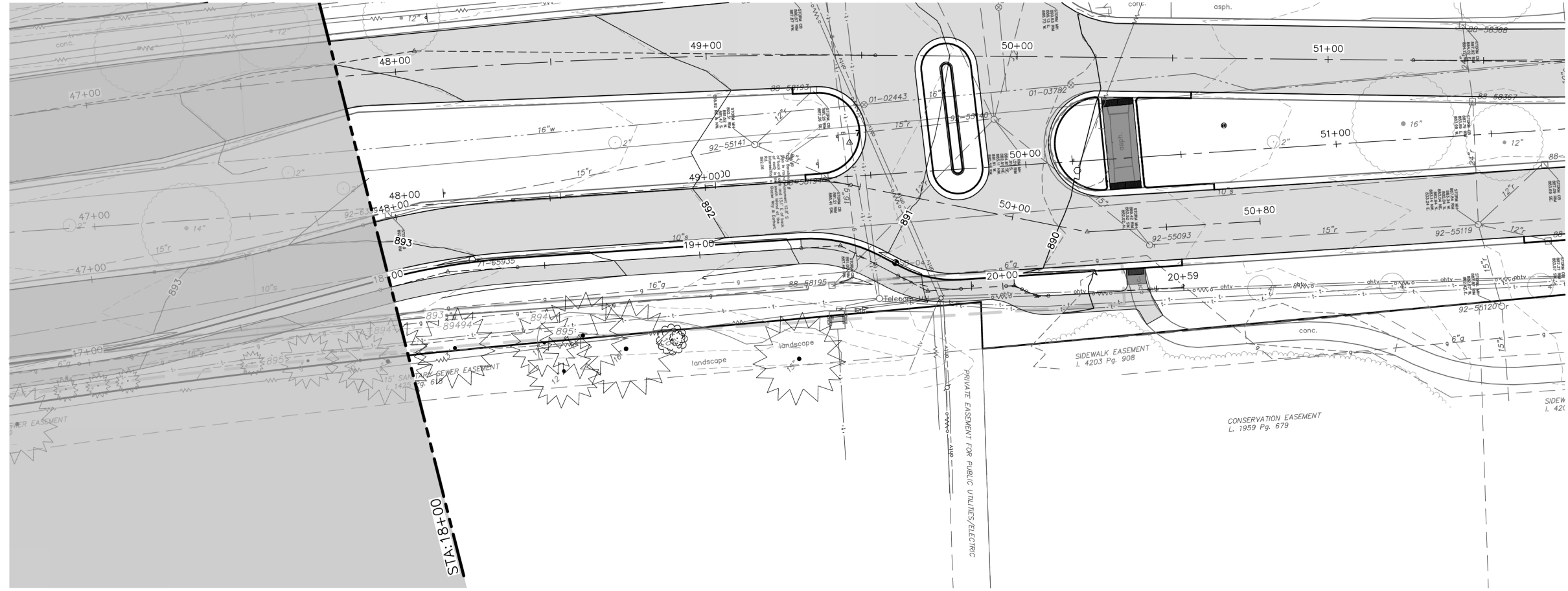
DRAWING No. 2021023-58

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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB





Know what's below. Call Before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	APPENDIUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

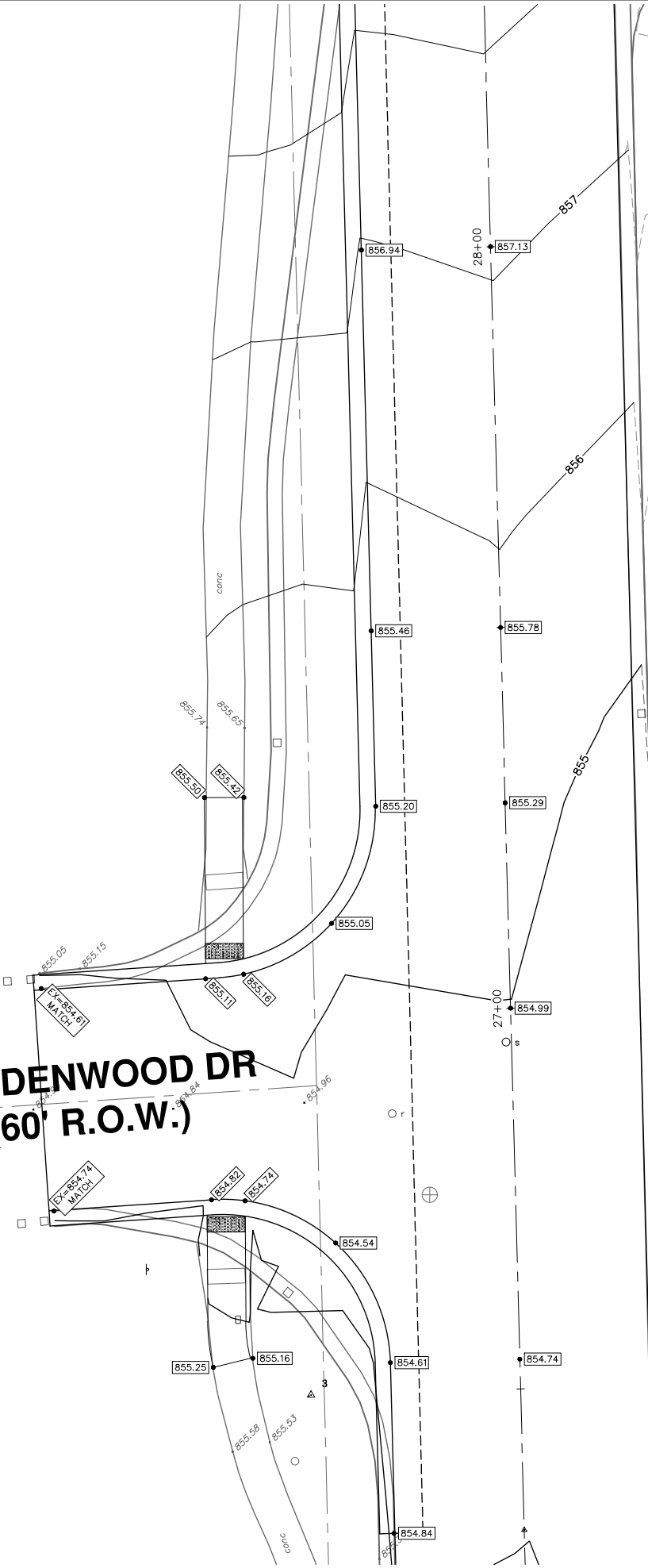
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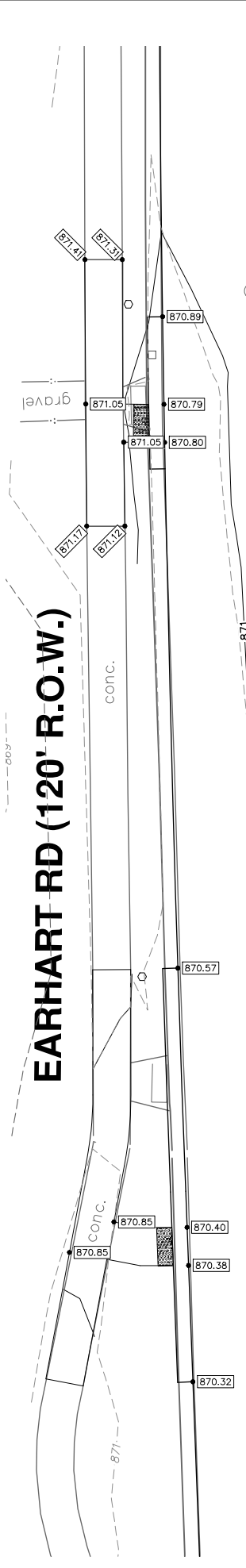
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
SIDEWALK PLAN & PROFILE  
STA. 18+00 - STA. 20+75

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 4'  
DRAWING No. 2021023-59

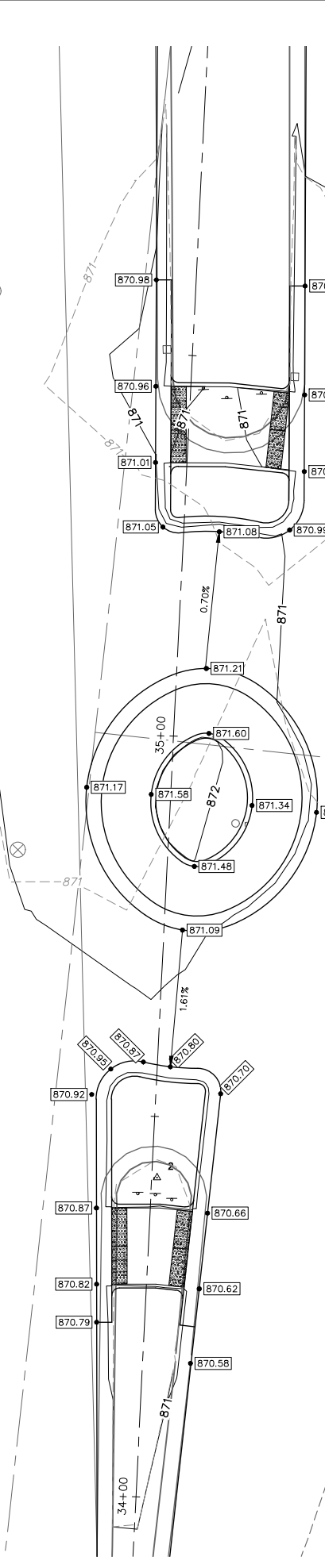
**WALDENWOOD DR  
(60' R.O.W.)**



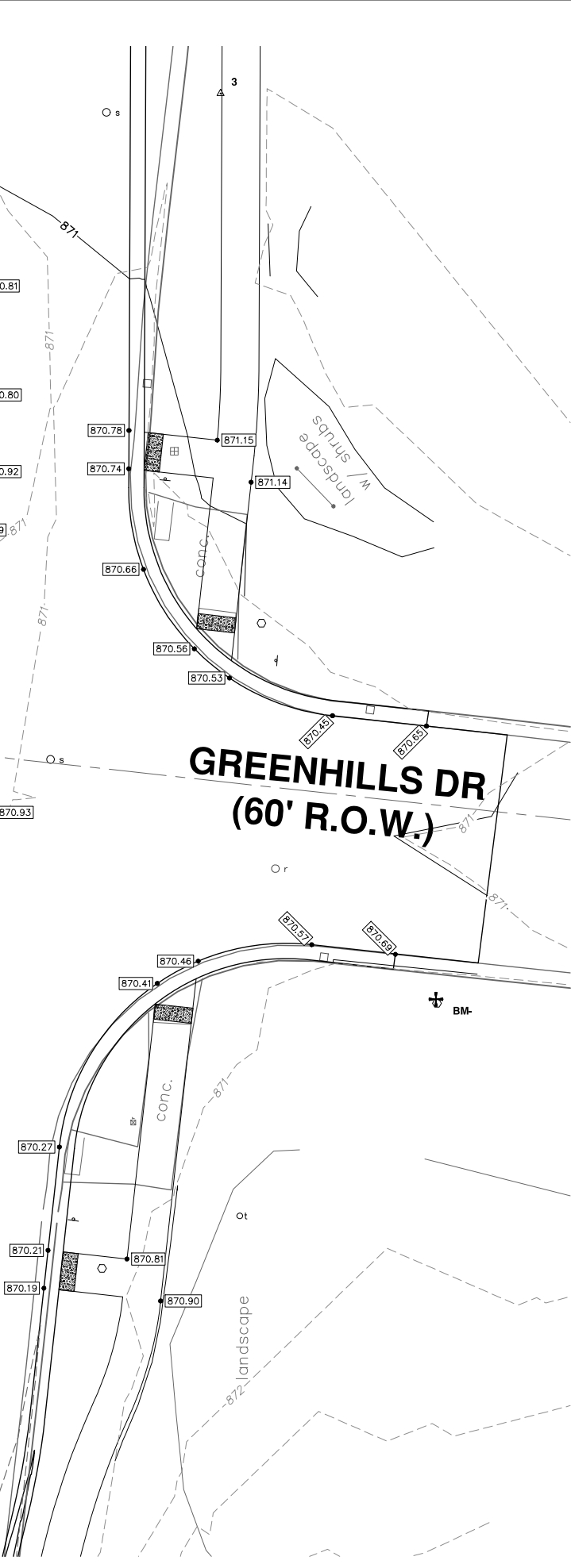
**EARHART RD (120' R.O.W.)**



**EARHART RD (120' R.O.W.)**

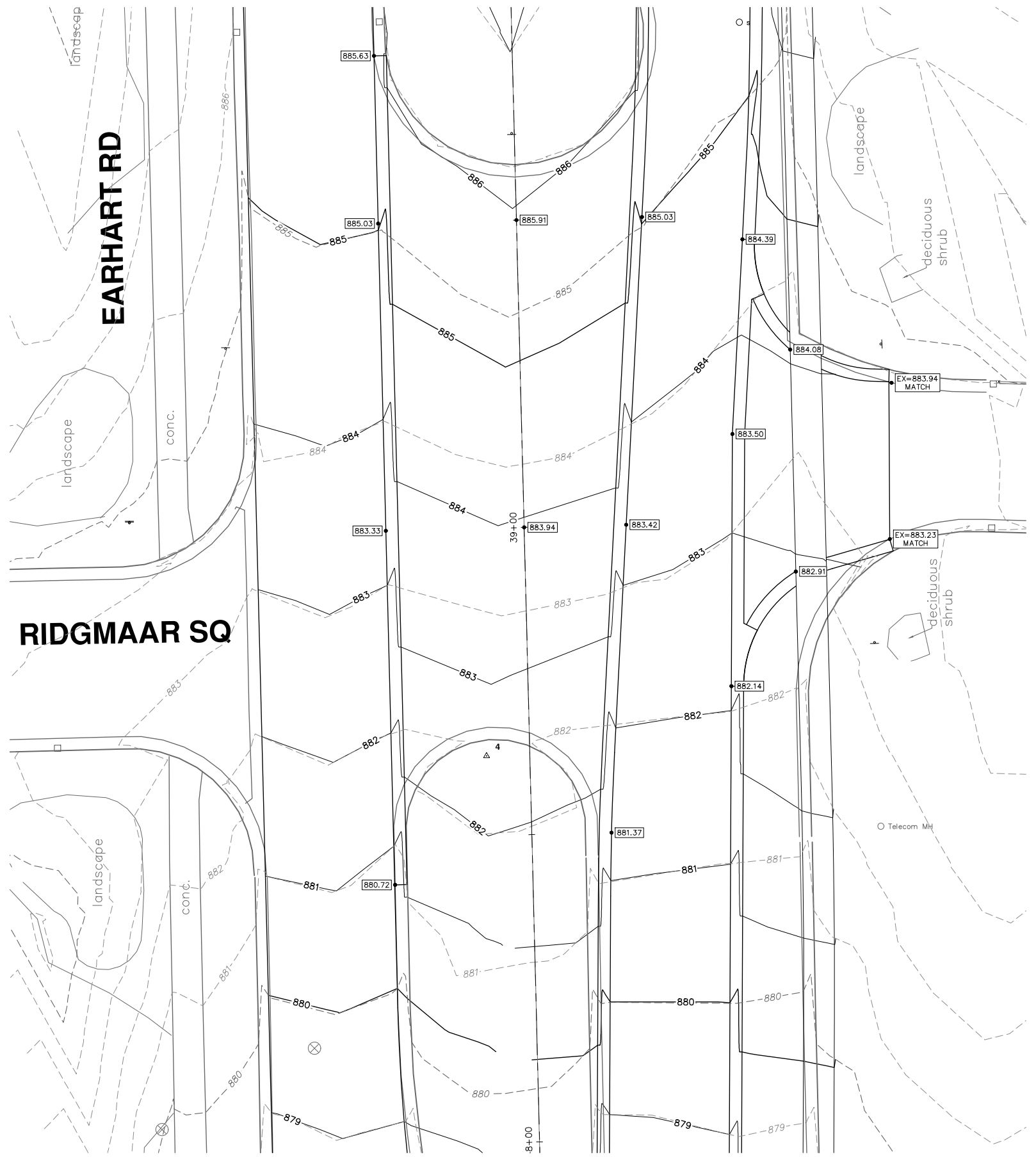


**GREENHILLS DR  
(60' R.O.W.)**



REV.	DATE	DESCRIPTION
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00	4-27-23	CC/DF

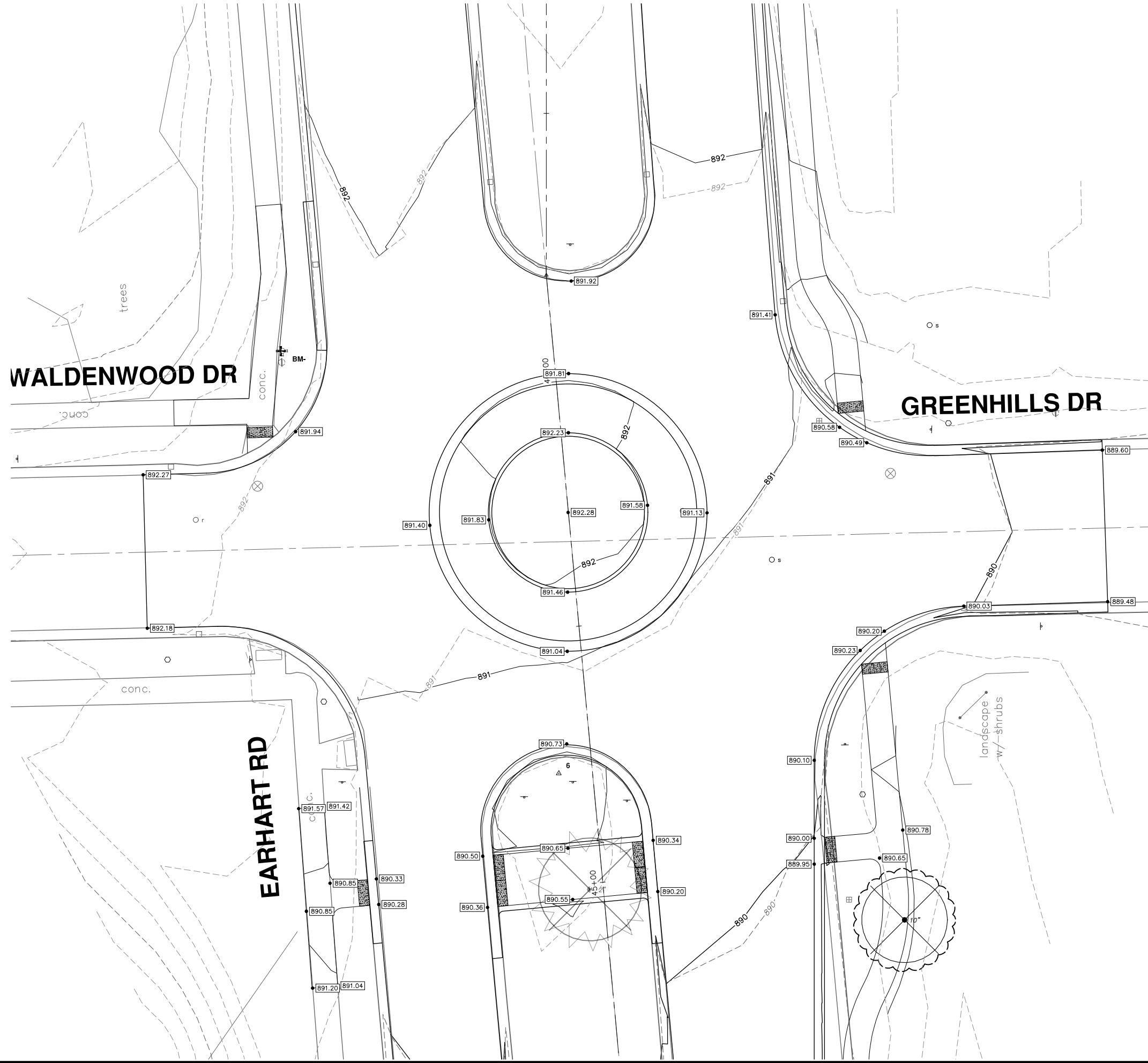




REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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00	OUT TO BID	4-27-23	CC/DF	NB



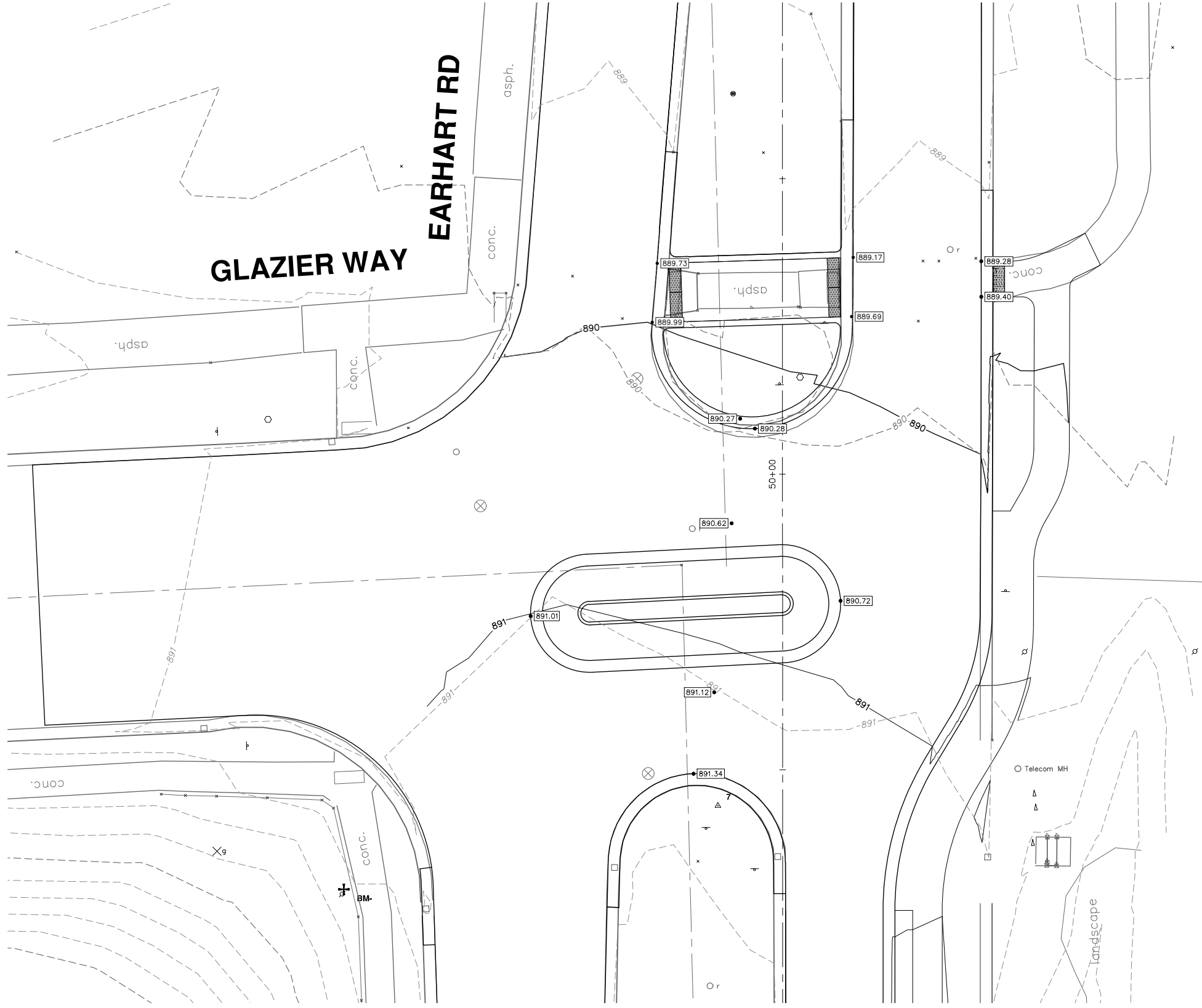
R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023IG-E.dwg Dwg Created: 15-May-23 -- \_o2 standard bw.stb -- Plot Date: 15-May-23



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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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00	OUT TO BID	4-27-23	CC/DF	NB

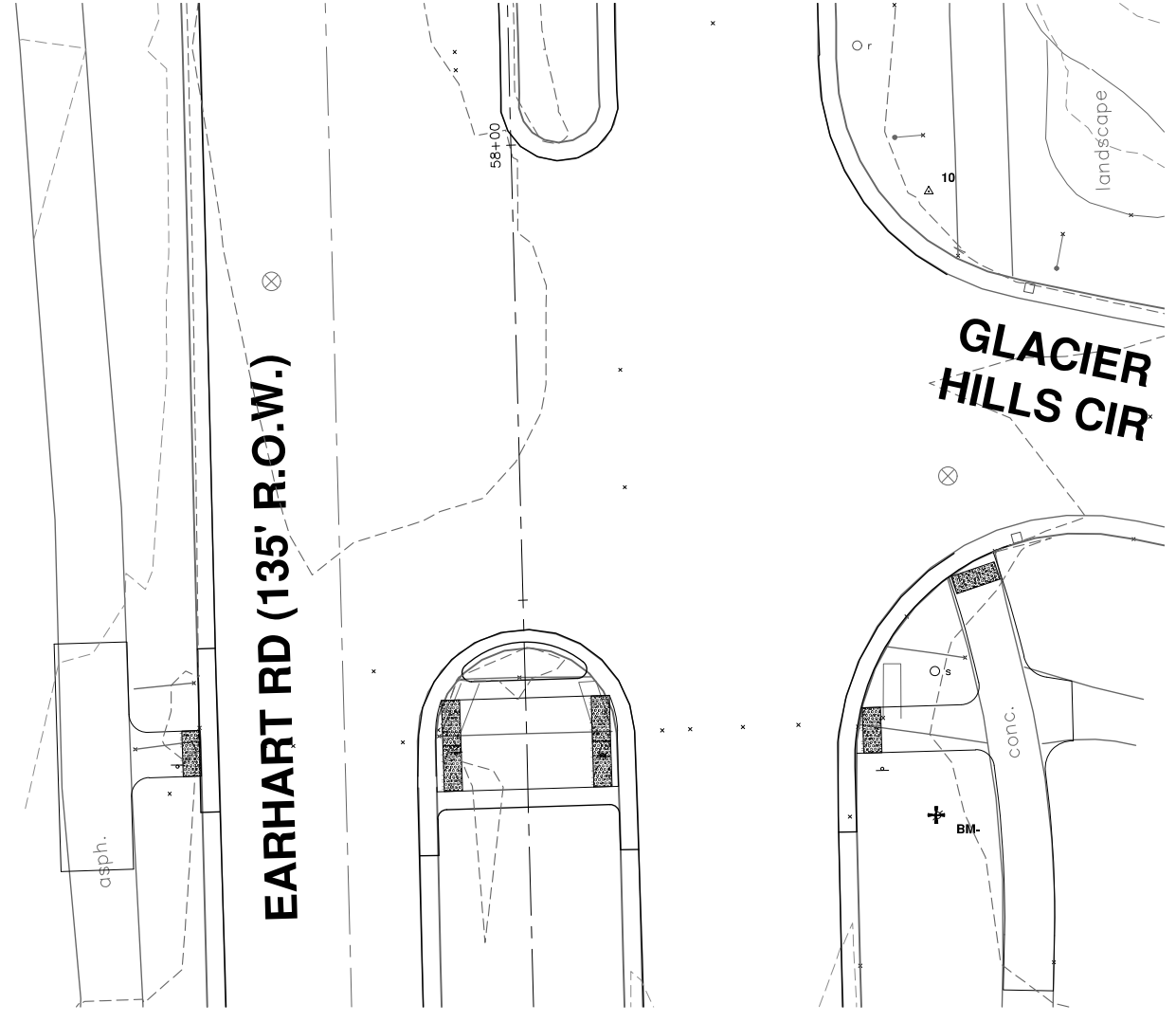




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 ANN ARBOR, MI 48106-1667  
 www.a2gov.org

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	APPENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB





**EARHART RD (135' R.O.W.)**

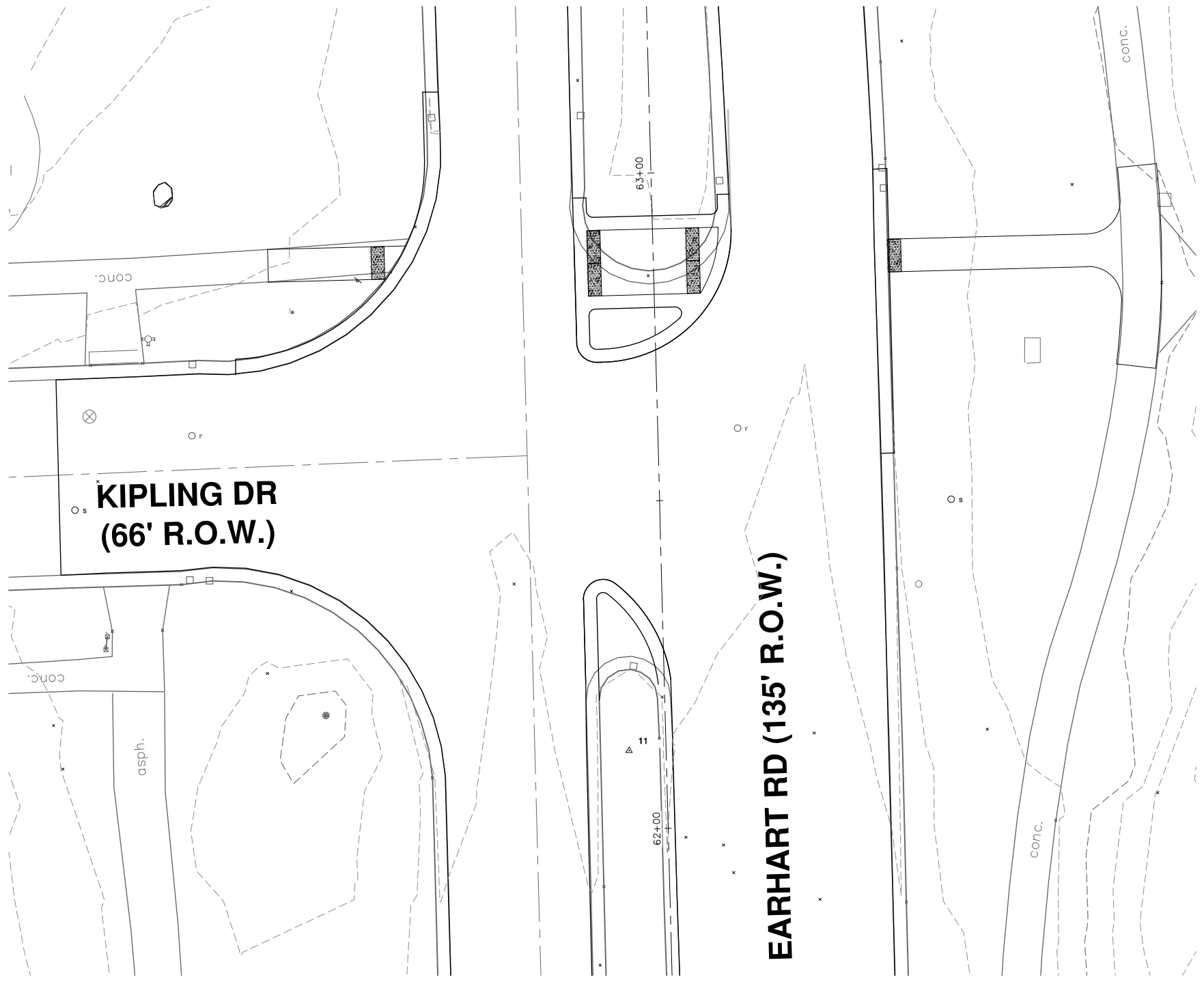
**GLACIER HILLS CIR**



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	APPENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

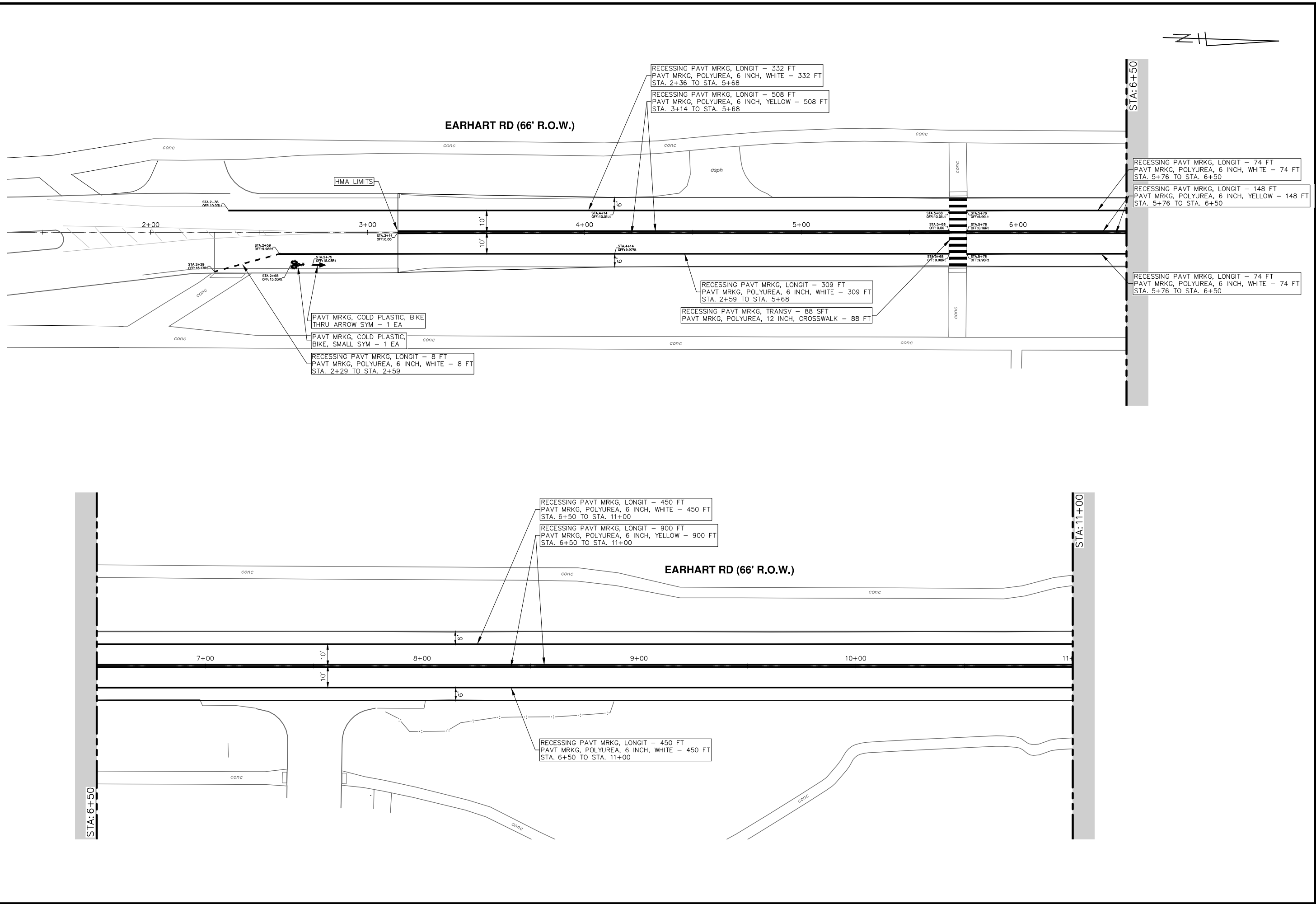






REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Pmk.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 PAVEMENT MARKINGS  
 STA. 2+29 - STA. 11+00

811  
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

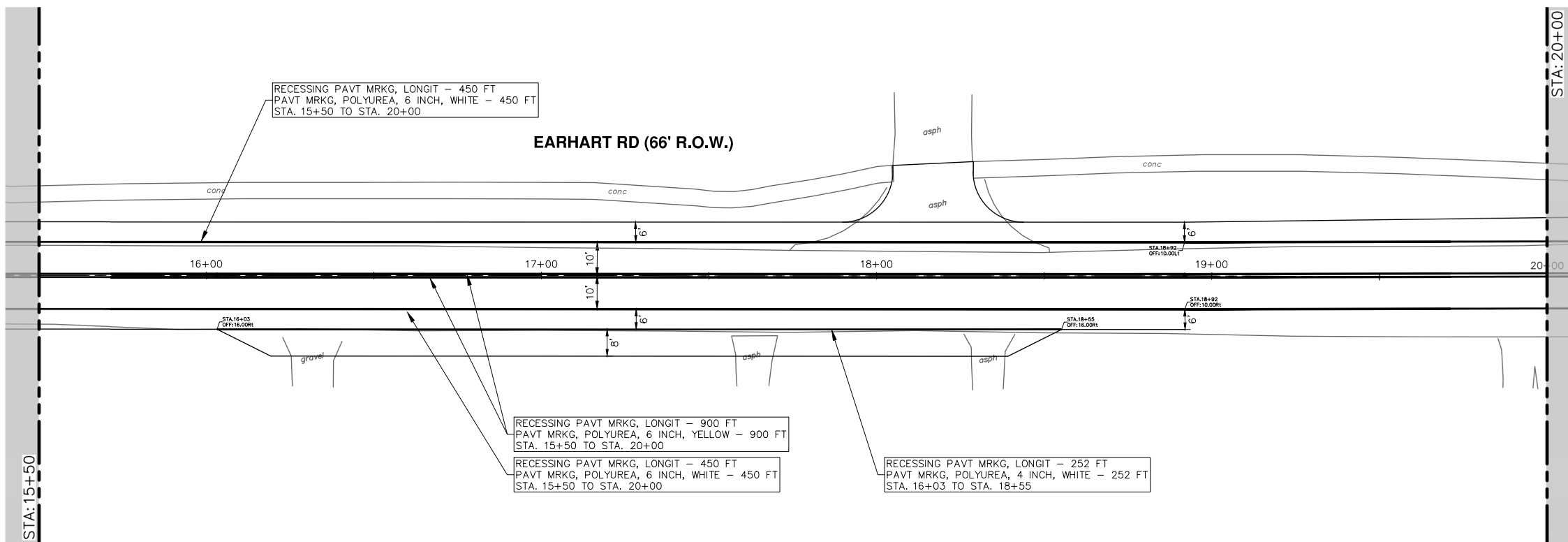
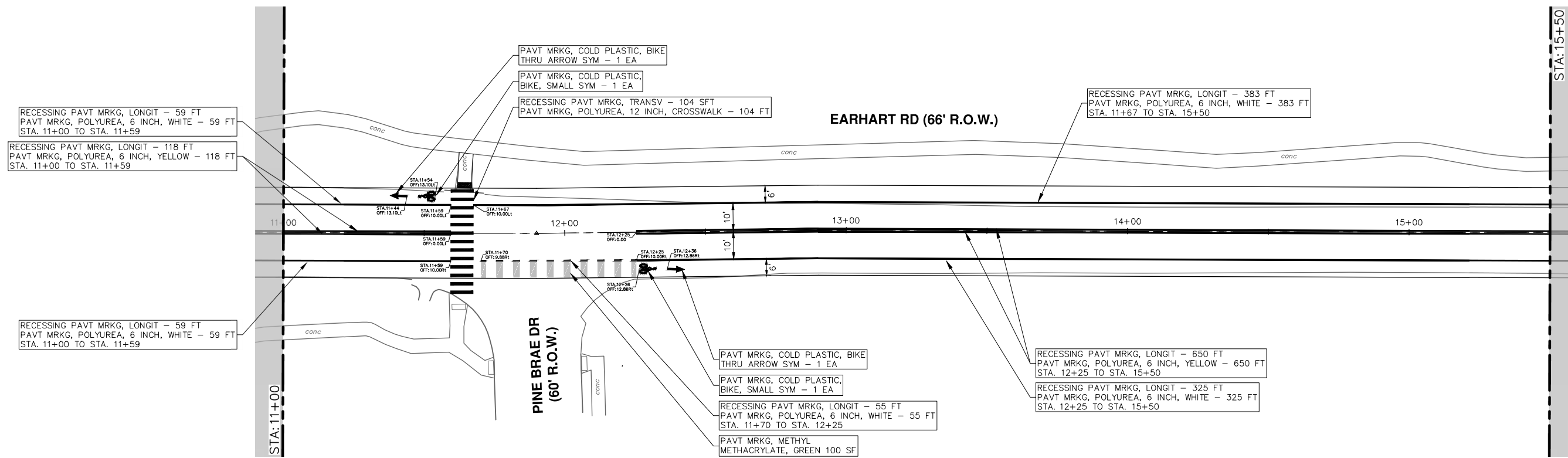
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 PUBLIC SERVICES  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48106-1867  
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SCALE: 1" = 20'

DRAWING No.  
**2021023-66**

SHEET No.  
**66 OF 85**

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Pmk.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



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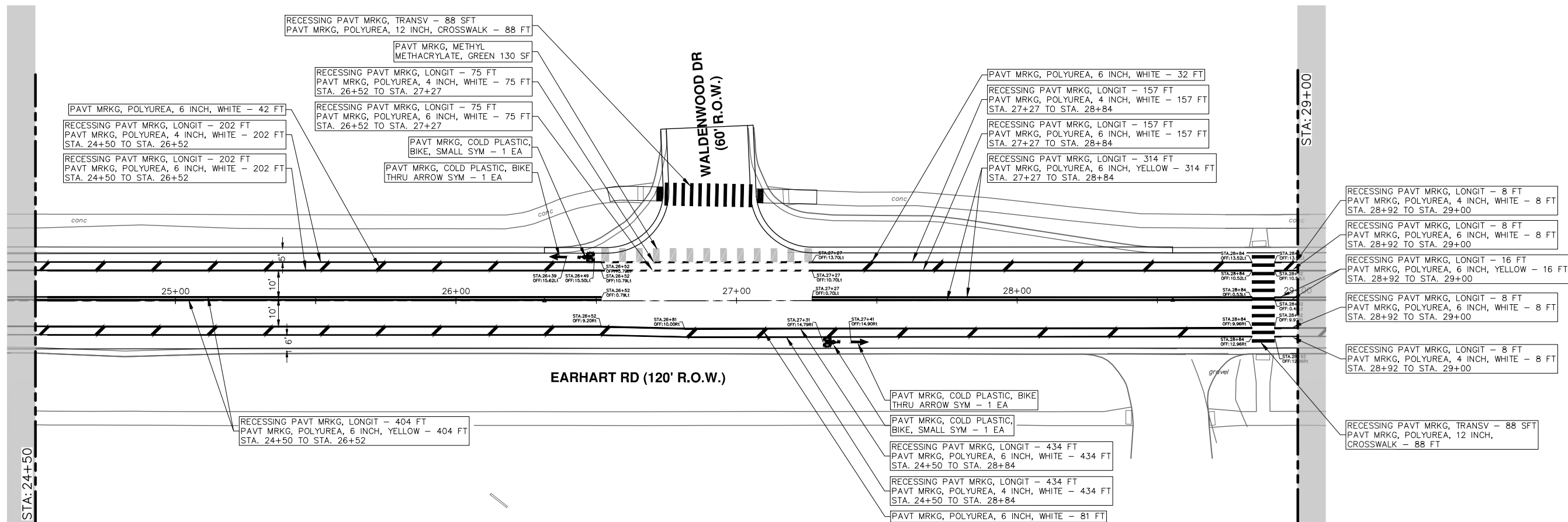
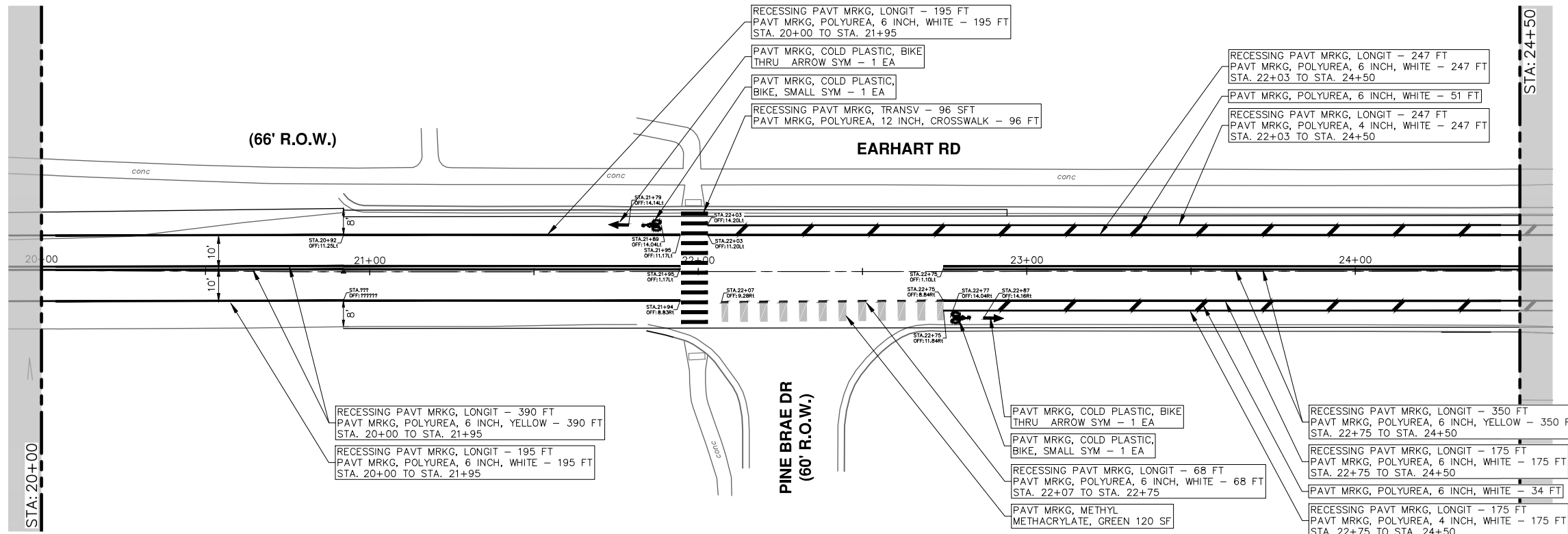
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
PAVEMENT MARKINGS  
STA. 11+00 - STA. 20+00

SCALE: 1" = 20'  
DRAWING No. 2021023-67



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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00	OUT TO BID	4-27-23	CC/DF	NB

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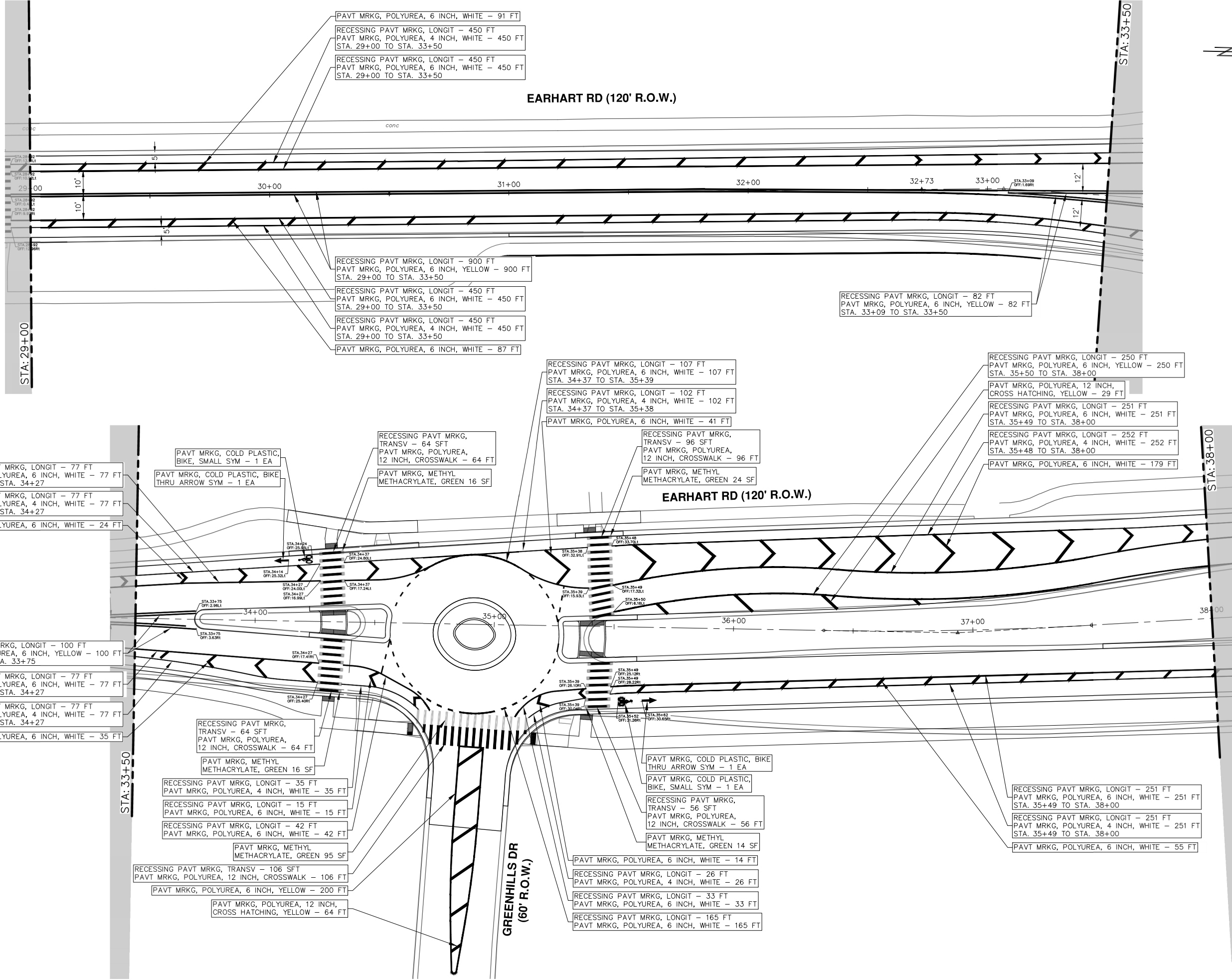
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01	5-15-23	ADDENDUM #1
00	4-27-23	OUT TO BID

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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
PAVEMENT MARKINGS  
STA. 20+00 - STA. 29+00

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Pmk.dwg Dwg Created: 4-May-23 - \_a2 standard bw.stb - Plot Date: 15-May-23



EARHART RD (120' R.O.W.)

EARHART RD (120' R.O.W.)

GREENHILLS DR (60' R.O.W.)



**811**  
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REV.	DATE	DRAWN	CHECKED
01	9-15-23	CC/DF	NB
00	4-27-23	CC/DF	NB

DESCRIPTION

REV.

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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
PAVEMENT MARKINGS  
STA. 29+00 - STA. 38+00

SCALE: 1" = 20'

DRAWING No. 2021023-69

SHEET No. 69 OF 85

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Pmk.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23

RECESSING PAVT MRKG, LONGIT - 72 FT  
PAVT MRKG, POLYUREA, 4 INCH, WHITE - 72 FT  
STA. 38+45 TO STA. 39+16

RECESSING PAVT MRKG, LONGIT - 72 FT  
PAVT MRKG, POLYUREA, 6 INCH, WHITE - 72 FT  
STA. 38+44 TO STA. 39+16

PAVT MRKG, COLD PLASTIC, BIKE, SMALL SYM - 1 EA

PAVT MRKG, COLD PLASTIC, BIKE THRU ARROW SYM - 1 EA

PAVT MRKG, POLYUREA, 6 INCH, WHITE - 17 FT

RECESSING PAVT MRKG, LONGIT - 44 FT  
PAVT MRKG, POLYUREA, 4 INCH, WHITE - 44 FT  
STA. 38+00 TO STA. 38+44

RECESSING PAVT MRKG, LONGIT - 44 FT  
PAVT MRKG, POLYUREA, 6 INCH, WHITE - 44 FT  
STA. 38+00 TO STA. 38+44

RECESSING PAVT MRKG, LONGIT - 22 FT  
PAVT MRKG, POLYUREA, 6 INCH, YELLOW - 22 FT  
STA. 38+00 TO STA. 38+22

PAVT MRKG, POLYUREA, 6 INCH, WHITE - 21 FT

RECESSING PAVT MRKG, LONGIT - 79 FT  
PAVT MRKG, POLYUREA, 6 INCH, WHITE - 79 FT  
STA. 38+00 TO STA. 38+79

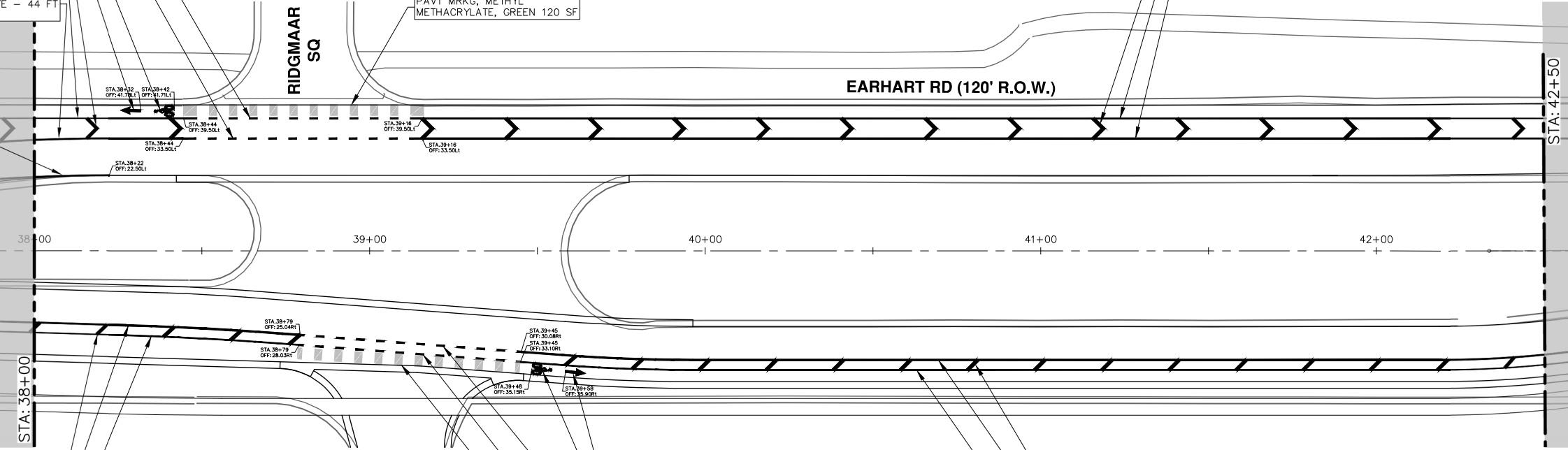
RECESSING PAVT MRKG, LONGIT - 79 FT  
PAVT MRKG, POLYUREA, 4 INCH, WHITE - 79 FT  
STA. 38+00 TO STA. 38+79

RIDGMAAR SQ

PAVT MRKG, METHYL METHACRYLATE, GREEN 120 SF

EARHART RD (120' R.O.W.)

STA: 42+50



PAVT MRKG, COLD PLASTIC, BIKE THRU ARROW SYM - 1 EA

PAVT MRKG, COLD PLASTIC, BIKE, SMALL SYM - 1 EA

RECESSING PAVT MRKG, LONGIT - 66 FT  
PAVT MRKG, POLYUREA, 6 INCH, WHITE - 66 FT  
STA. 38+79 TO STA. 39+45

RECESSING PAVT MRKG, LONGIT - 66 FT  
PAVT MRKG, POLYUREA, 4 INCH, WHITE - 66 FT  
STA. 38+79 TO STA. 39+45

PAVT MRKG, METHYL METHACRYLATE, GREEN 120 SF

PAVT MRKG, POLYUREA, 6 INCH, WHITE - 64 FT

RECESSING PAVT MRKG, LONGIT - 305 FT  
PAVT MRKG, POLYUREA, 6 INCH, WHITE - 305 FT  
STA. 39+45 TO STA. 42+50

RECESSING PAVT MRKG, LONGIT - 305 FT  
PAVT MRKG, POLYUREA, 4 INCH, WHITE - 305 FT  
STA. 39+45 TO STA. 42+50

PAVT MRKG, POLYUREA, 6 INCH, WHITE - 119 FT

RECESSING PAVT MRKG, LONGIT - 334 FT  
PAVT MRKG, POLYUREA, 4 INCH, WHITE - 334 FT  
STA. 39+16 TO STA. 42+50

RECESSING PAVT MRKG, LONGIT - 334 FT  
PAVT MRKG, POLYUREA, 6 INCH, WHITE - 334 FT  
STA. 39+16 TO STA. 42+50



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

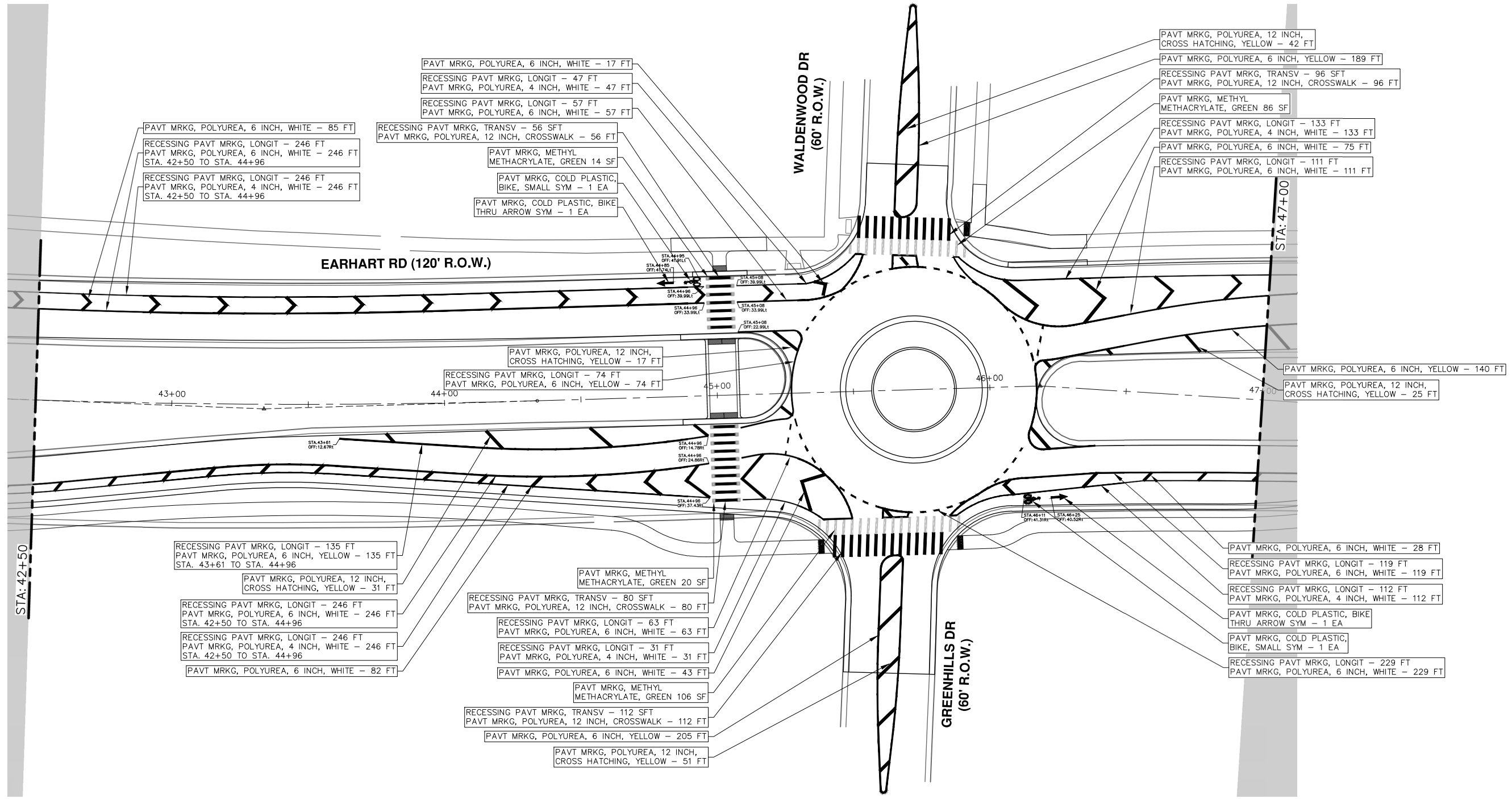
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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
PAVEMENT MARKINGS  
STA. 38+00 - STA. 42+50

SCALE: 1" = 20'  
DRAWING No. 2021023-70

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Pmk.dwg Dwg Created: 4-May-23 - \_a2 standard bw.stb - Plot Date: 15-May-23



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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 SCALE: #####  
 DRAWING No. 2021023-71  
 SHEET No. 71 OF 85

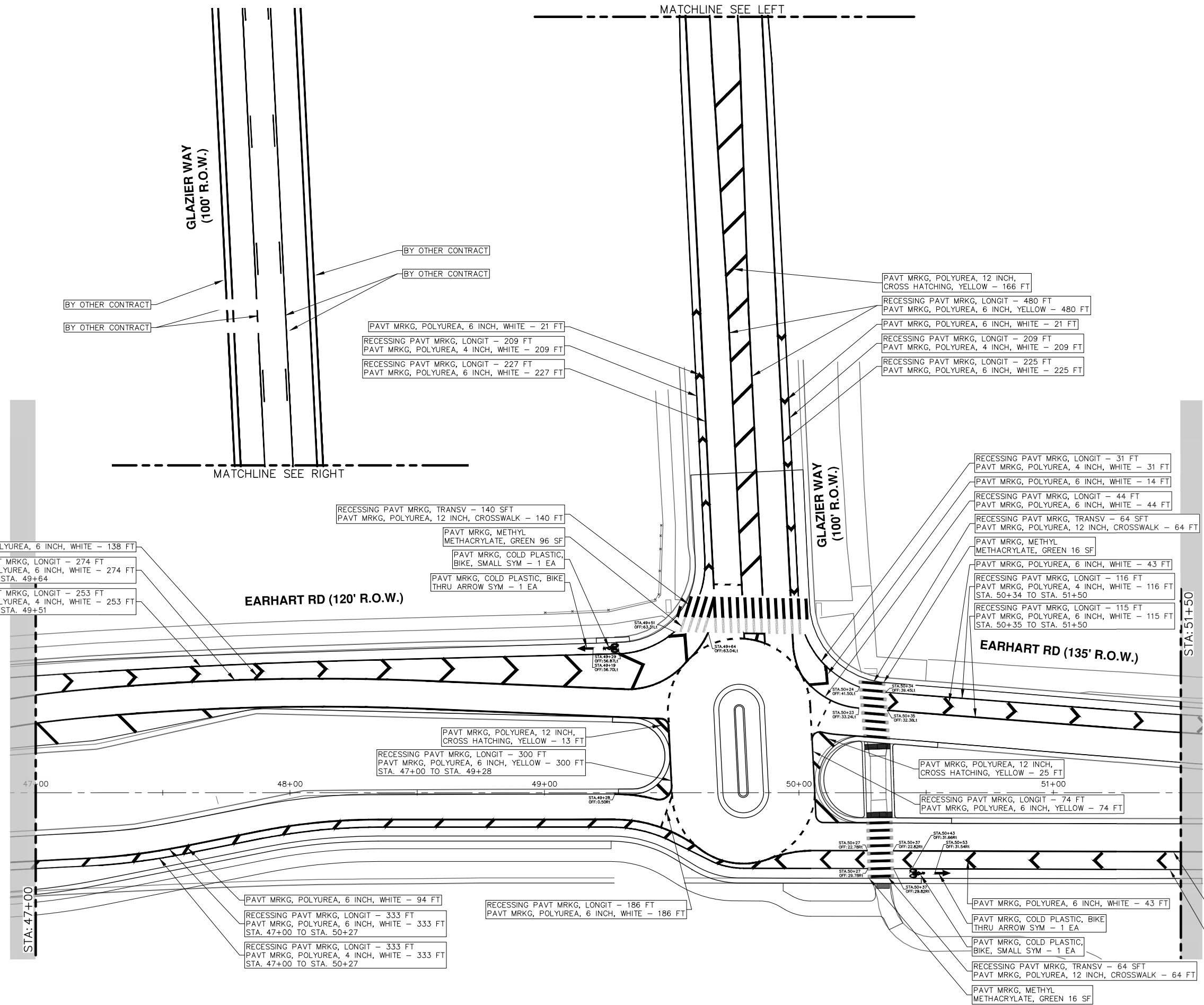
**PAVEMENT MARKINGS**  
 49 STA. 42+50 - STA. 47+00

REV.	DATE	DESCRIPTION
01	5-15-23	CC/DF
00	4-27-23	CC/DF

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REV.	DATE	DESCRIPTION
01	9-15-23	CC/DF
00	4-27-23	CC/DF

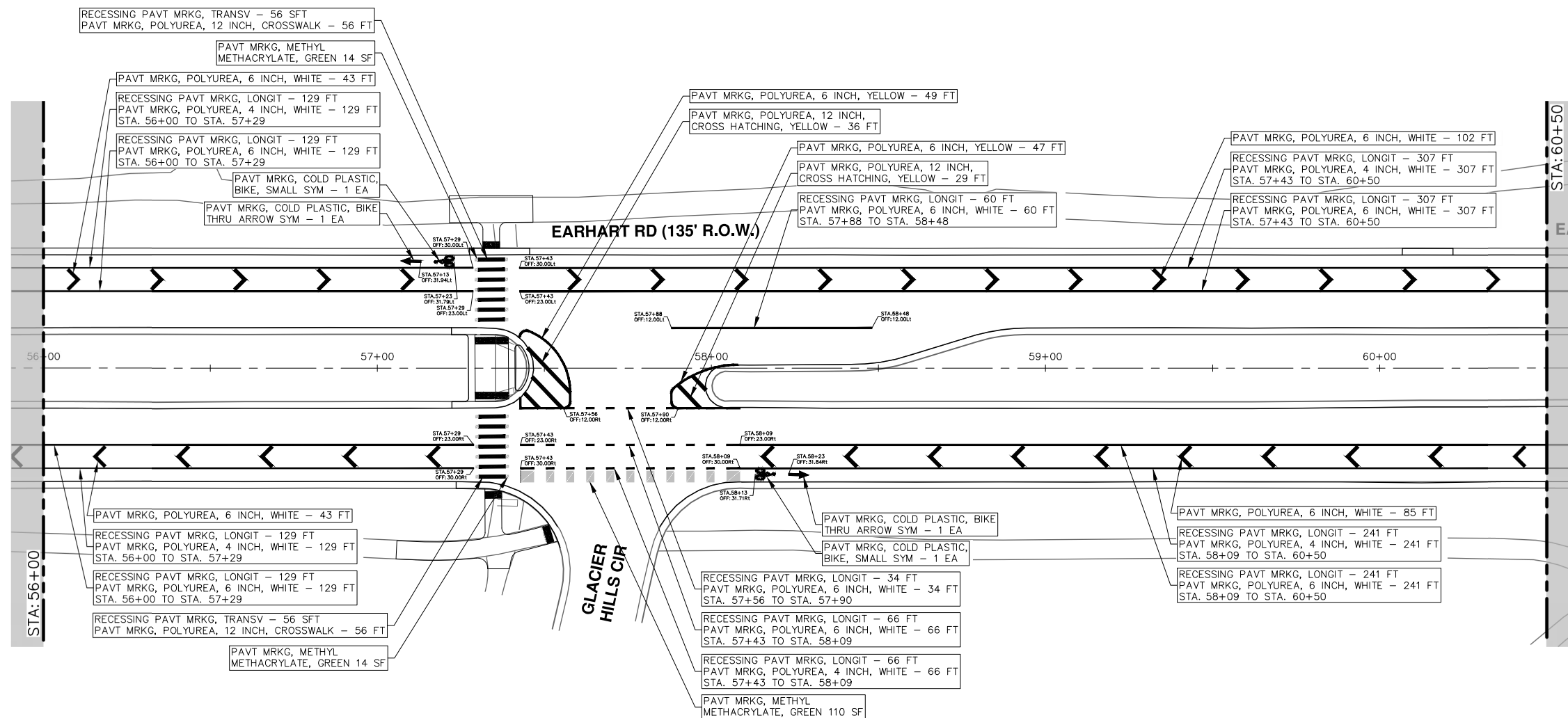
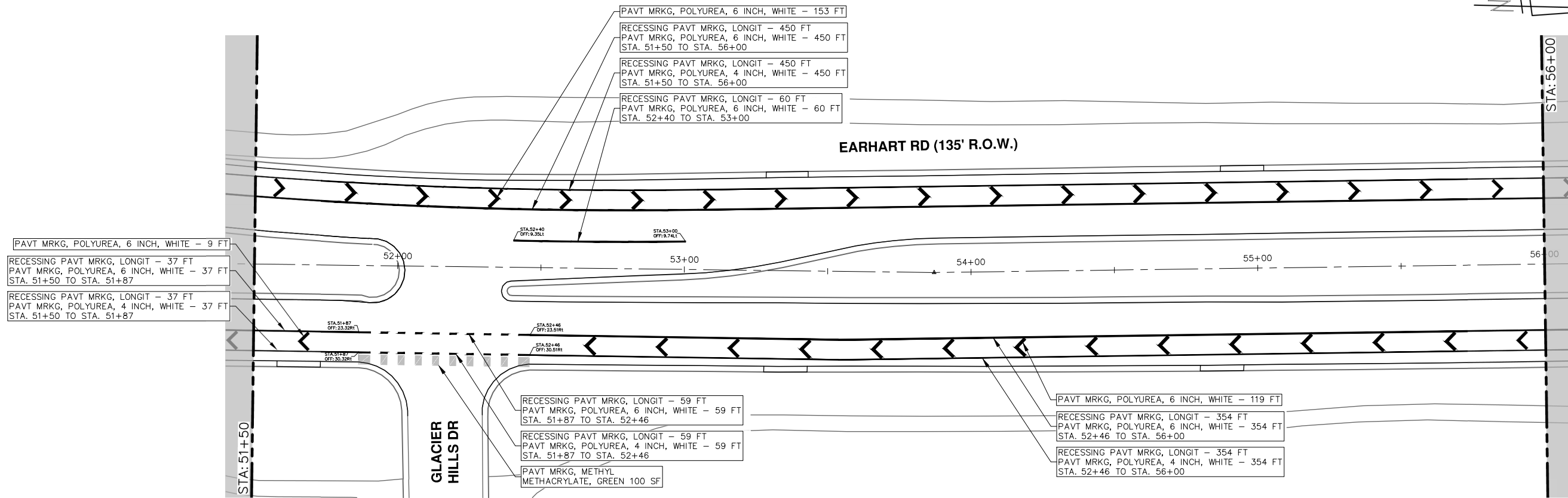
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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
PAVEMENT MARKINGS  
STA. 47+00 - STA. 51+50  
DRAWING No. 2021023-72  
SHEET No. 72 OF 85



R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Pmk.dwg Dwg Created: 4-May-23 - \_a2 standard bw.stb - Plot Date: 15-May-23



REV.	DATE	DESCRIPTION
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00	4-27-23	CC/DF

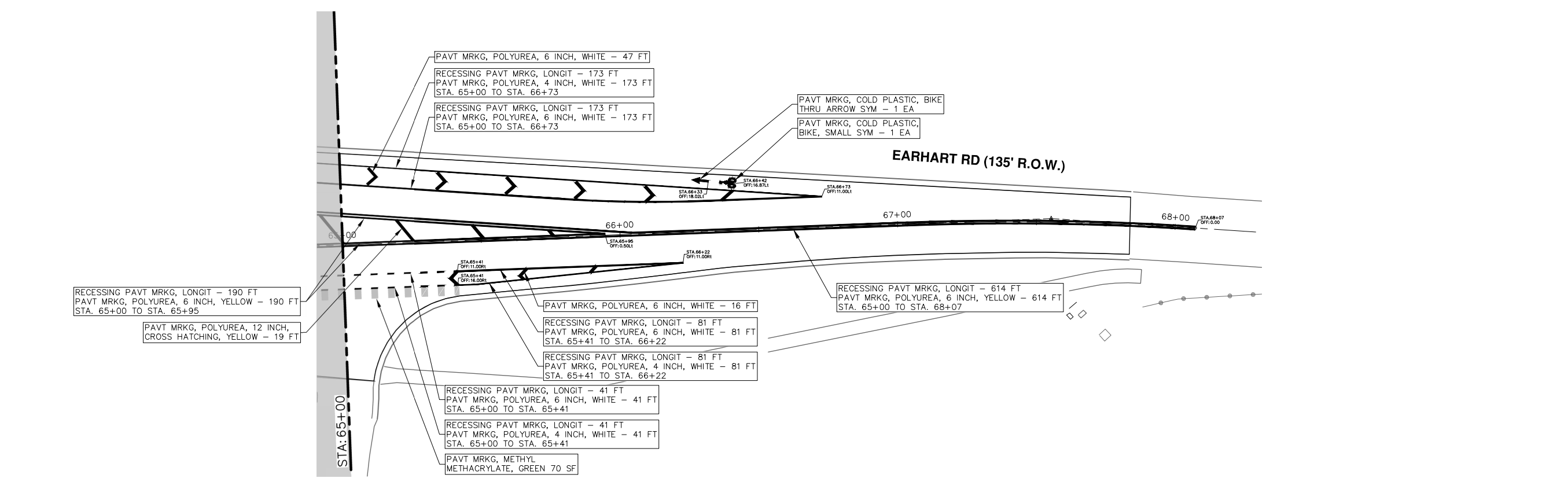
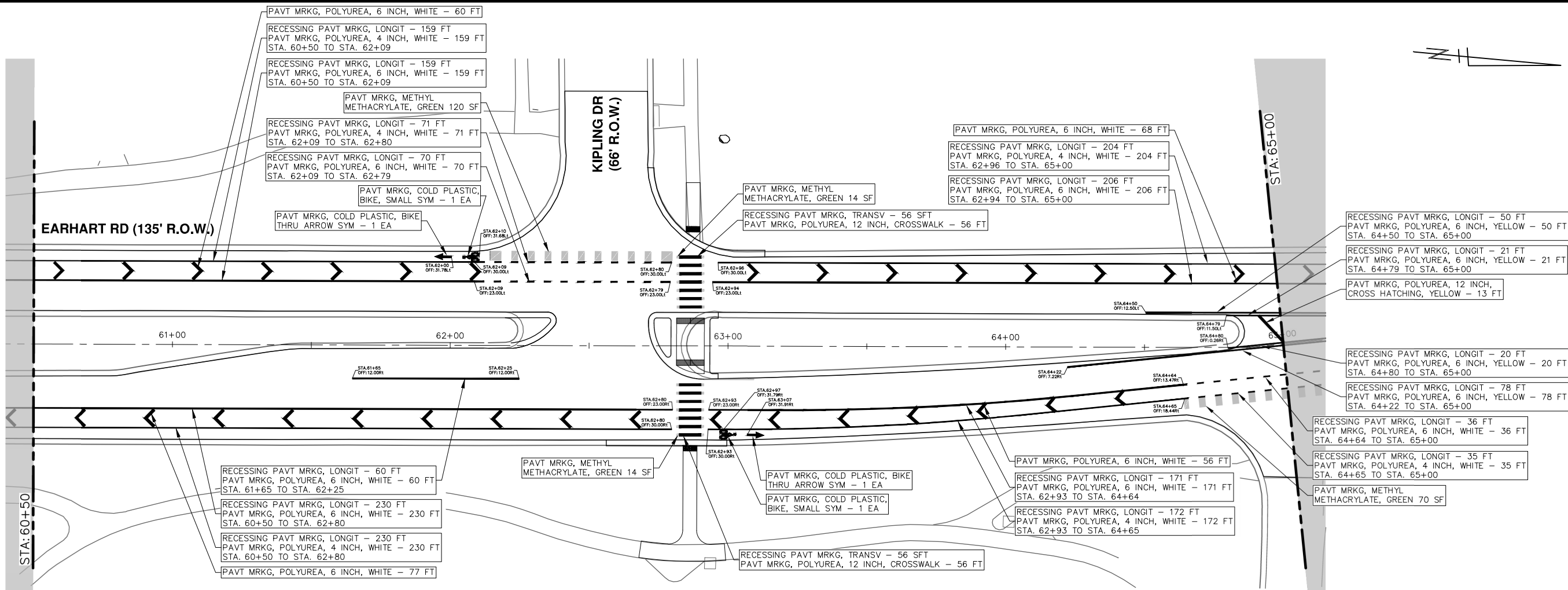
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EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
PAVEMENT MARKINGS  
STA. 51+50 - STA. 60+50

SCALE: 1" = 20'  
DRAWING No. 2021023-73

R:\2021023 Earhart (Geddes to US23)\Plan Production\2021023Pmk.dwg Dwg Created: 4-May-23 - \_a2\_standard bw.stb - Plot Date: 15-May-23



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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 PAVEMENT MARKINGS

SCALE: 1" = 20'  
 DRAWING No. 2021023-74

STA. 60+50 - 68+07

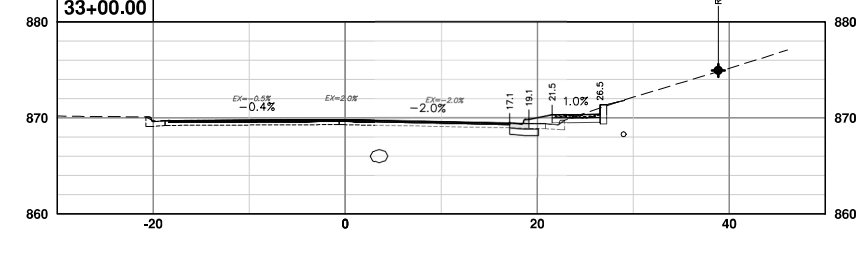
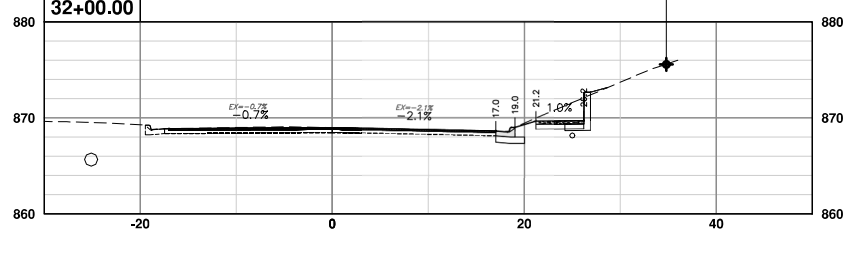
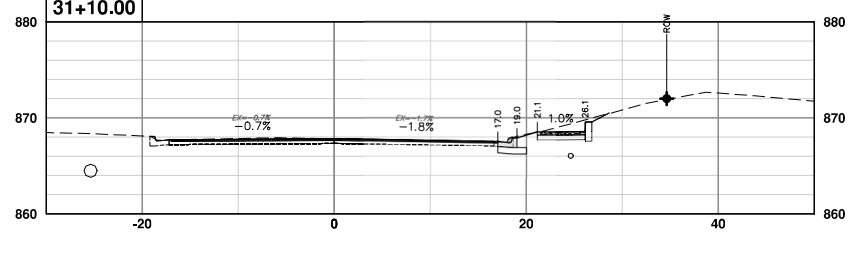
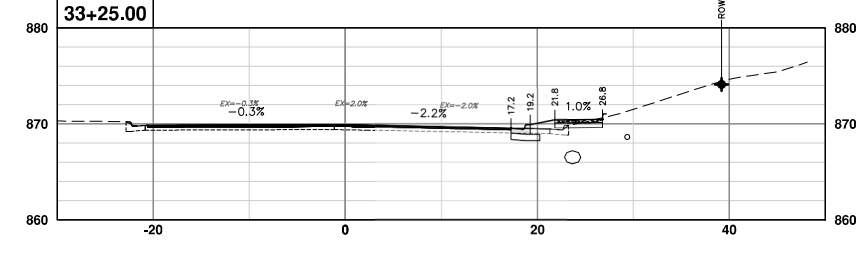
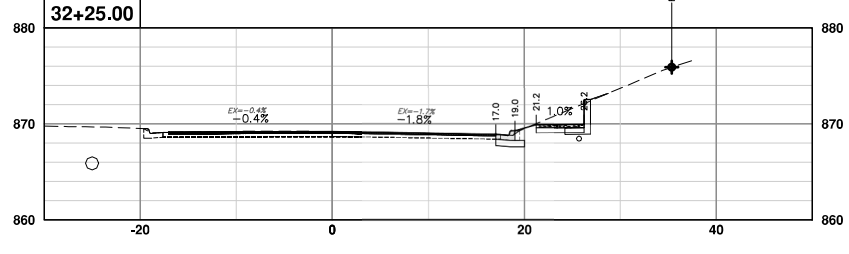
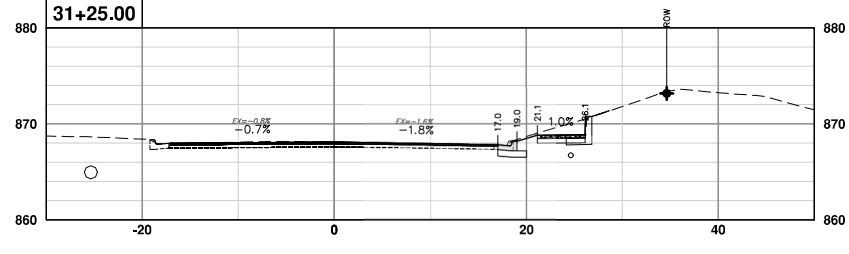
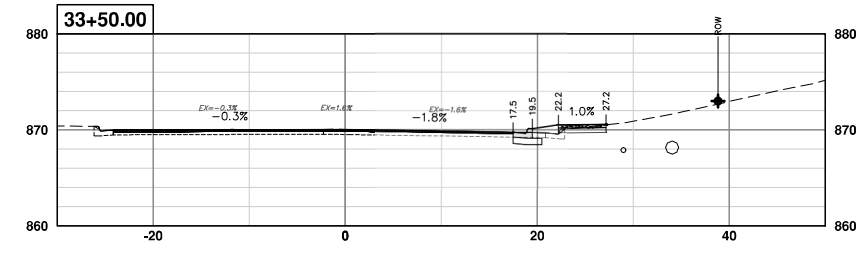
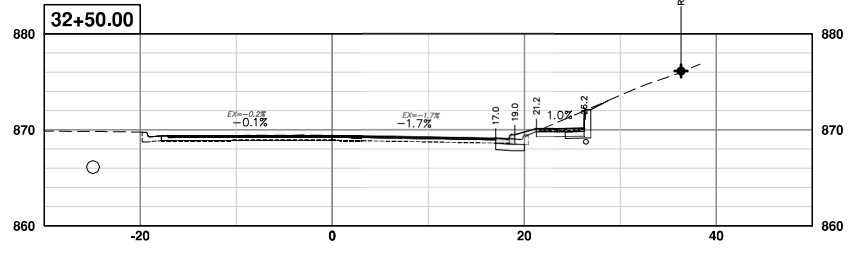
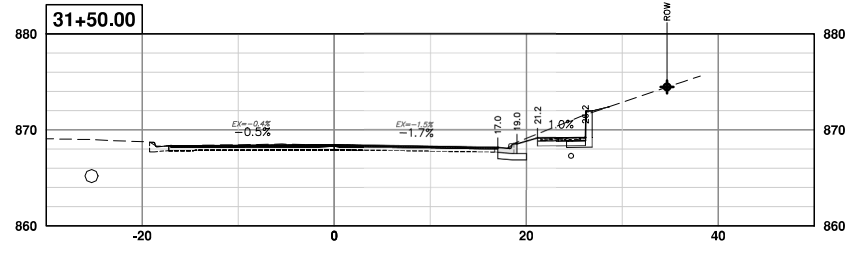
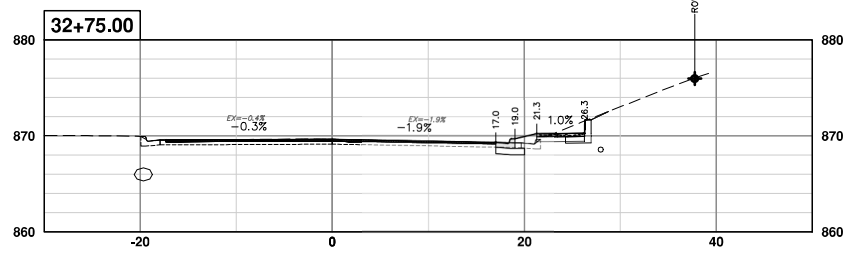
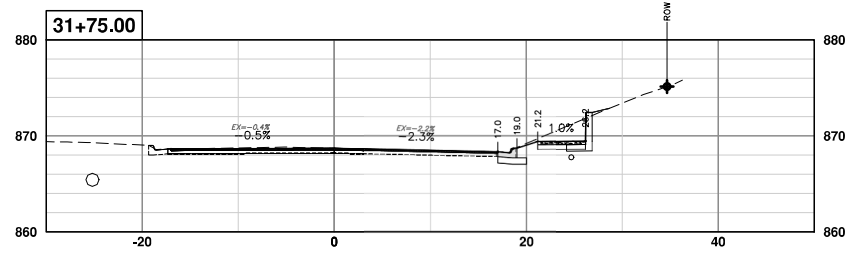
74 OF 85

REV.	DATE	DESCRIPTION
01	5-15-23	ADDENDUM #1
00	4-27-23	OUT TO BID

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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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00	OUT TO BID	4-27-23	CC/DF	NB

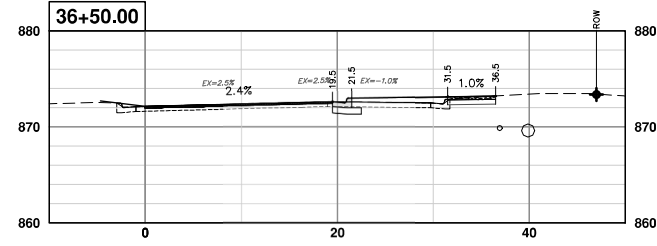
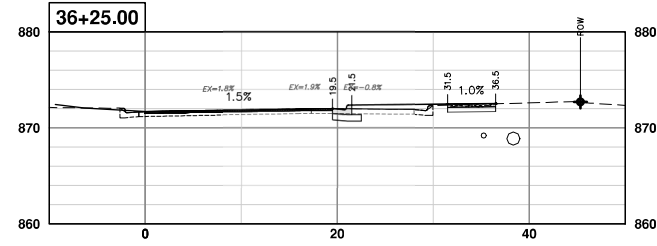
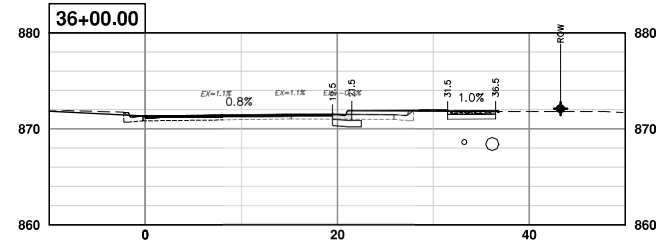
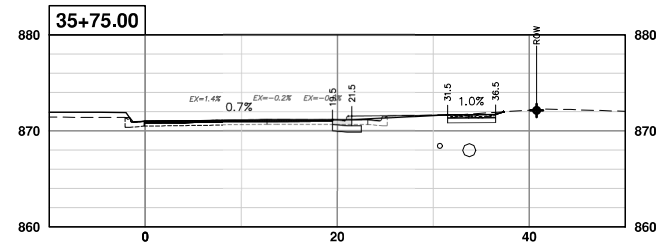
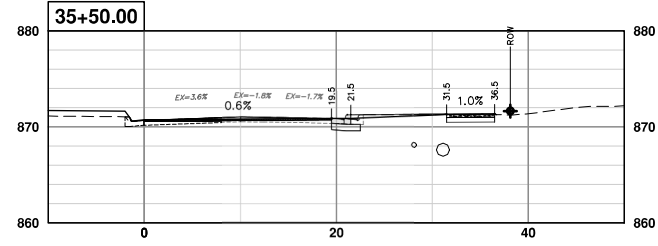
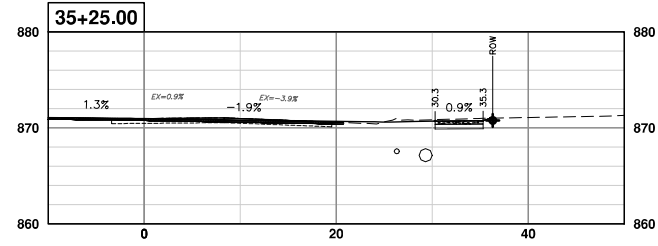
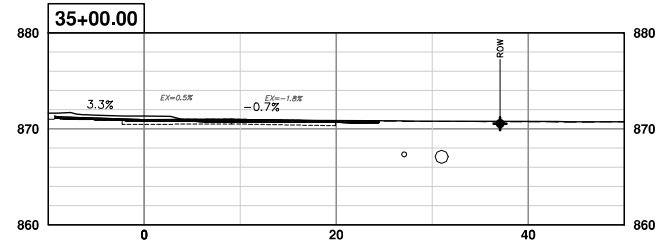
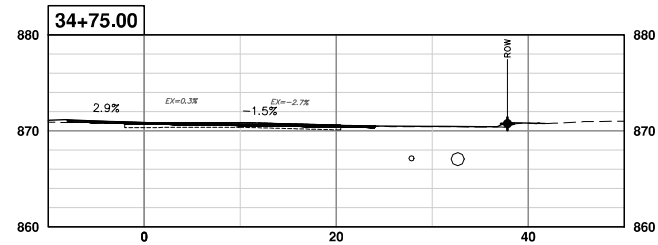
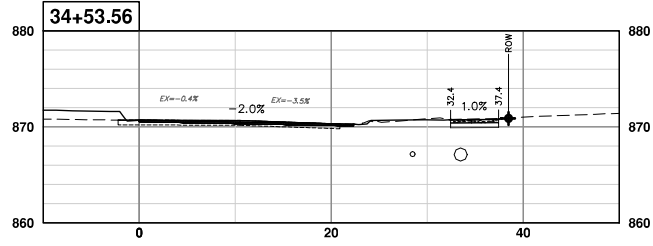
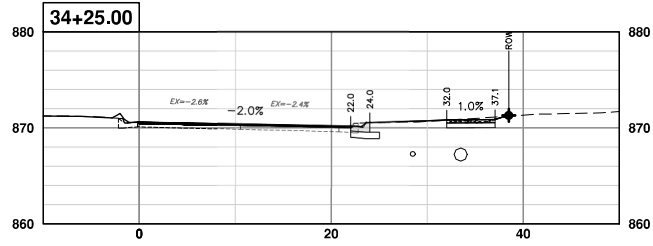
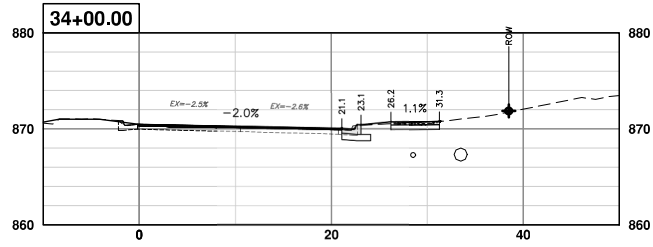
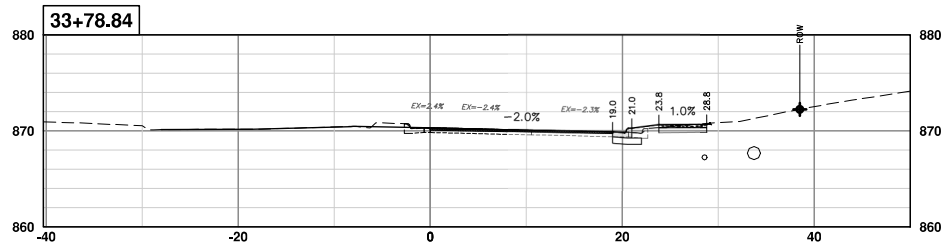
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**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
CROSS SECTIONS  
NORTHBOUND 31+10 TO 33+50

SHEET No. **75 OF 85**  
SCALE PLAN: 1" = 10' PROFILE: 1" = 10'  
DRAWING No. **2021023-75**

R:\2021023 Earhart (Geddes to US23)\Source Drawings\Align-Corridor\2021023\sectin--2.0.dwg Dwg Created: 9-May-23 - \_g2 standard b.w.stb - Plot Date: 15-May-23



**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
 CROSS SECTIONS  
 NORTHBOUND 33+75 TO 36+50

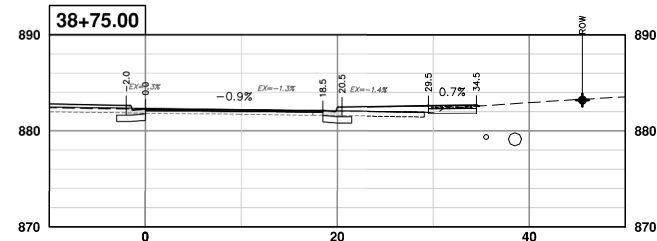
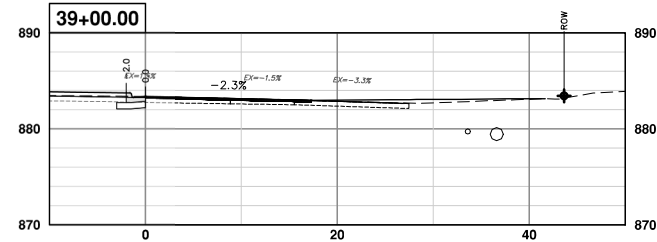
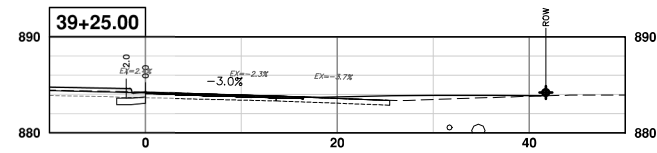
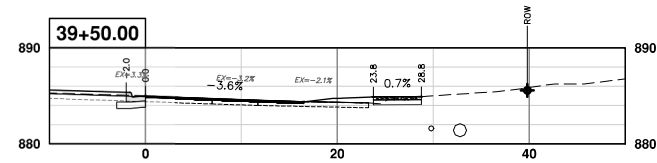
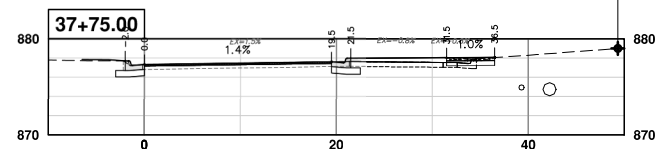
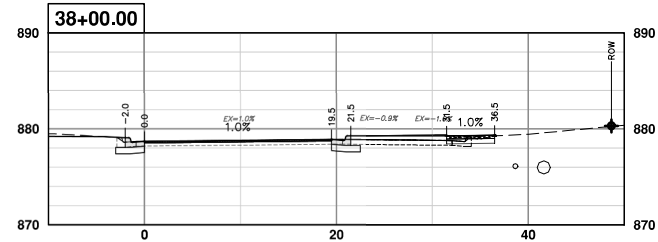
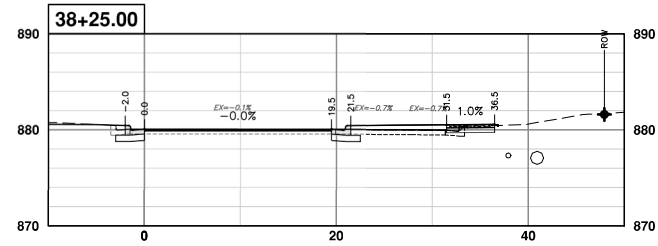
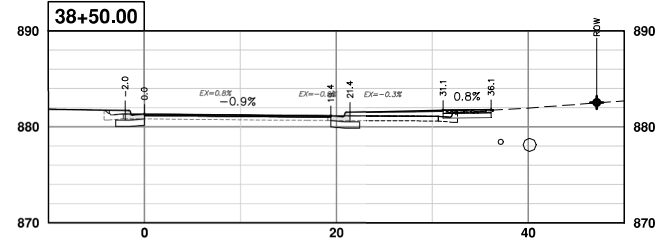
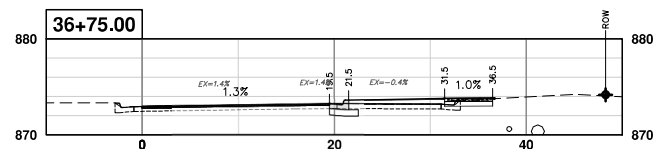
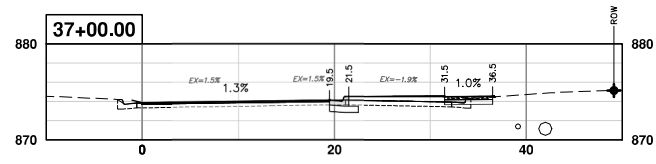
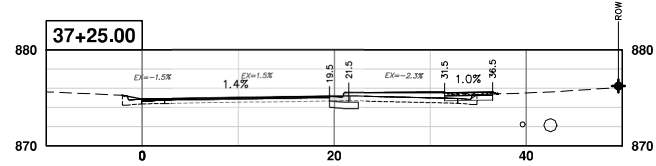
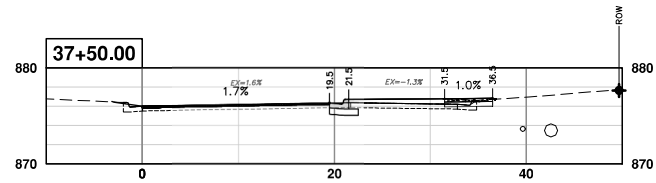


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01	APPENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB



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REV.	DATE	DESCRIPTION
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00	4-27-23	CC/DF

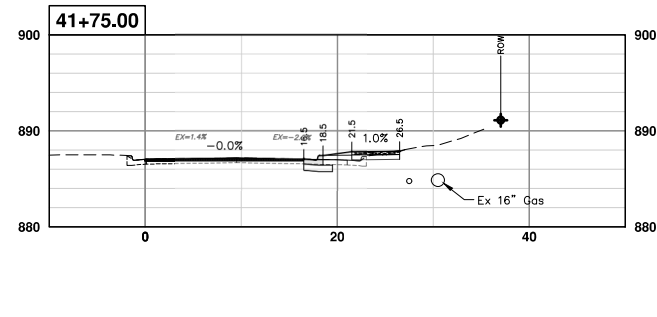
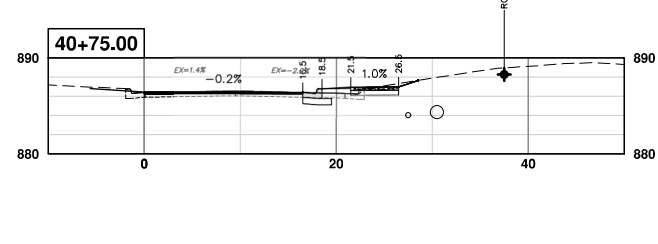
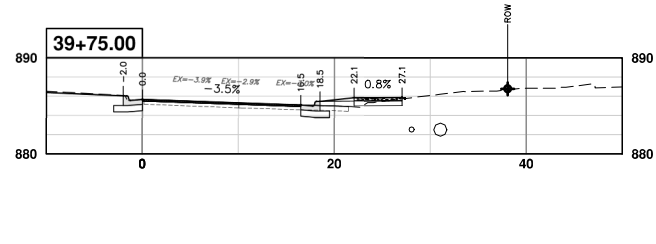
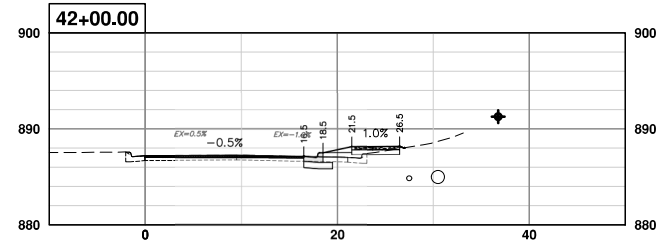
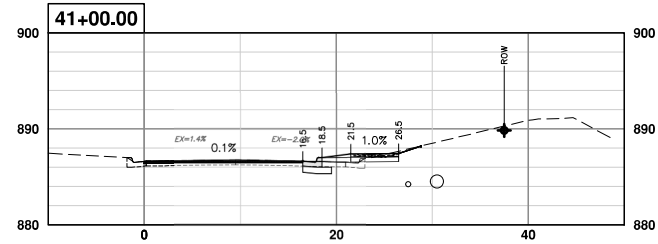
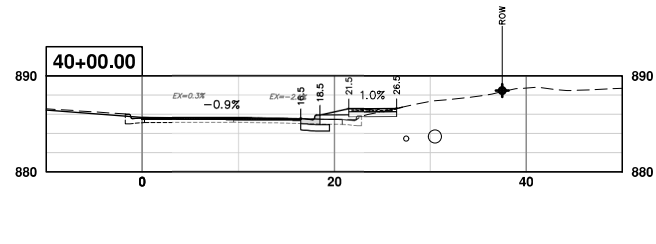
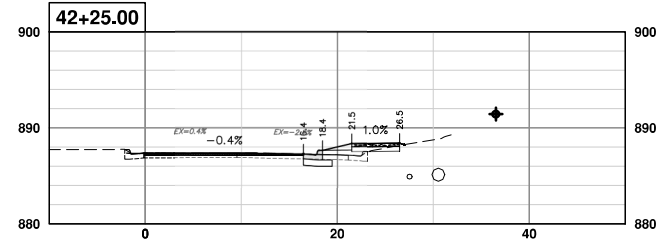
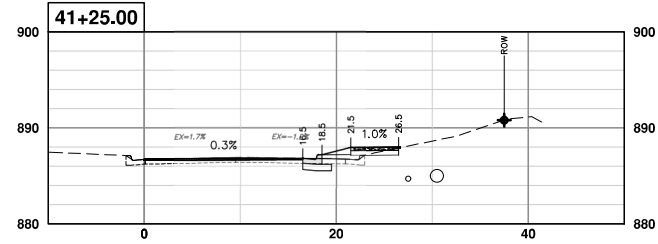
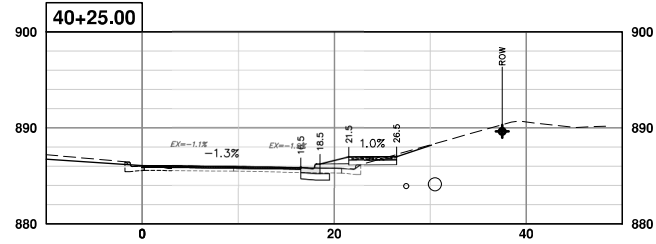
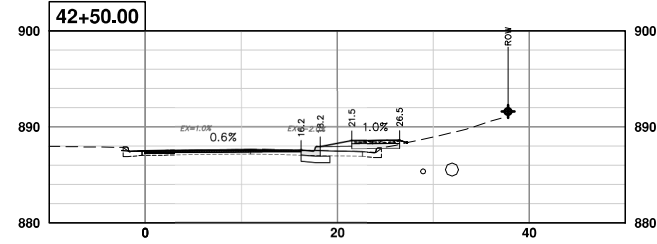
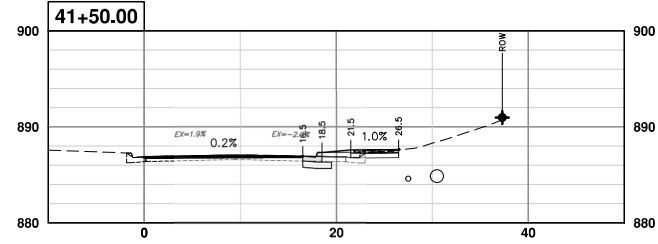
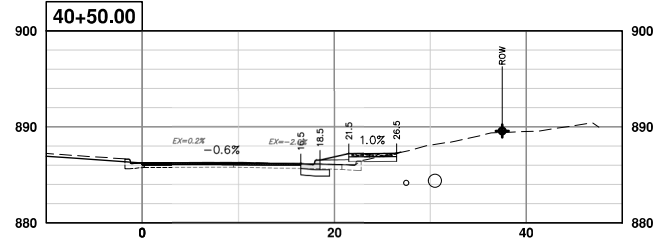
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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
CROSS SECTIONS  
NORTHBOUND 36+75 TO 39+50

SCALE PLAN: 1" = 10'  
PROFILE: 1" = 10'  
DRAWING No. 2021023-77

R:\2021023 Earhart (Geddes to US23)\Source Drawings\Align-Corridor\2021023\sectn-2.0.dwg Dwg Created: 9-May-23 - \_g2 standard bw.stb - Plot Date: 15-May-23



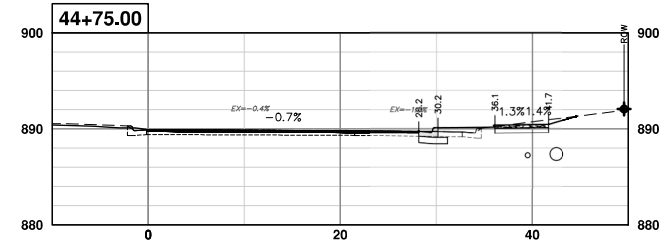
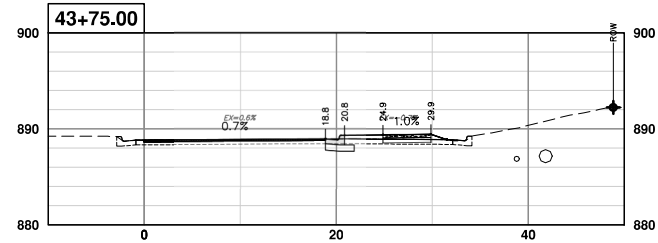
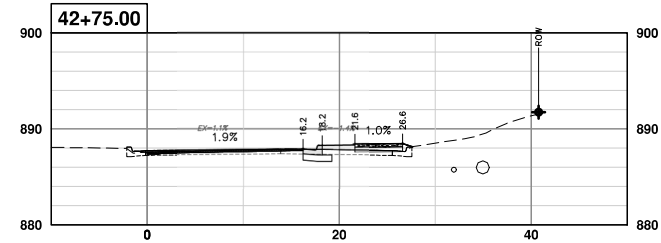
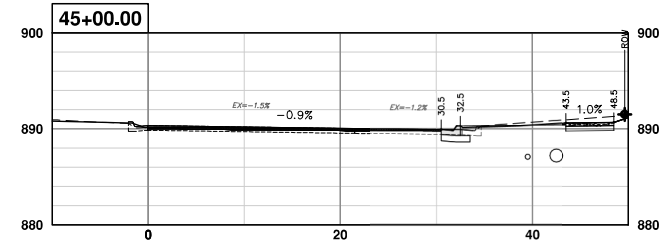
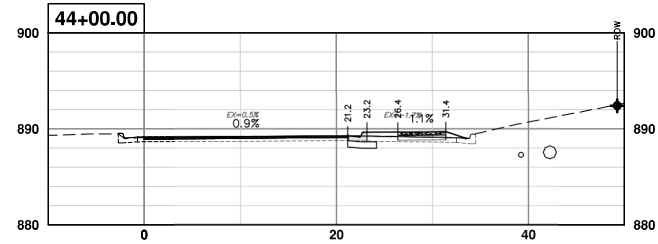
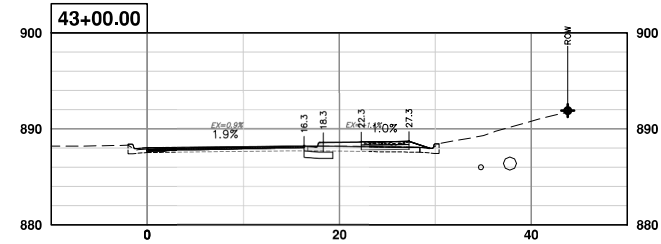
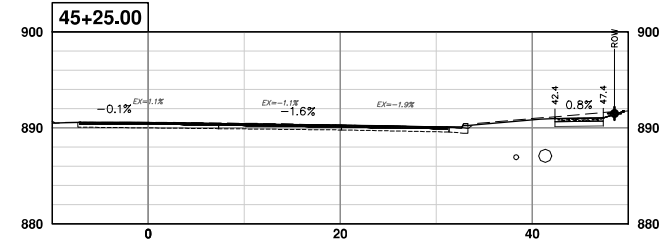
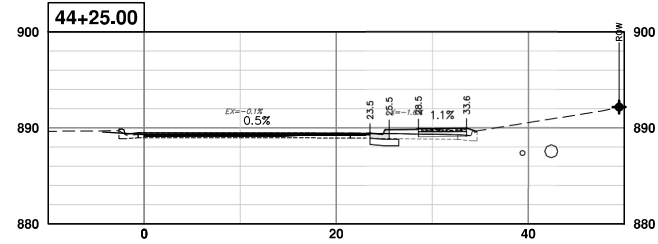
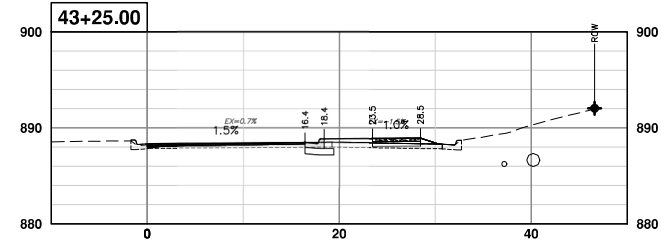
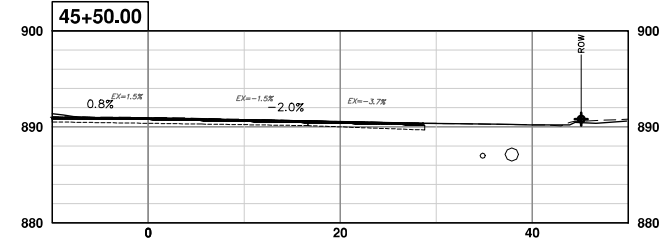
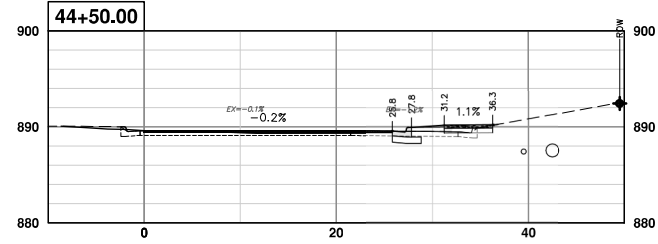
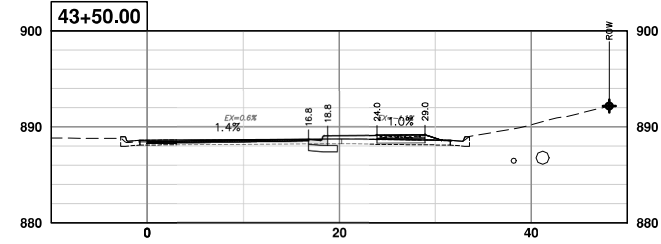
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01	5-15-23	CC/DF
00	4-27-23	CC/DF

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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
CROSS SECTIONS  
NORTHBOUND 39+75 TO 42+50

SHEET No. **78 OF 85**  
SCALE PLAN: 1" = 10'  
PROFILE: 1" = 10'  
DRAWING No. **2021023-78**

R:\2021023 Earhart (Geddes to US23)\Source Drawings\Align-Corridor\2021023\sectn-2.0.dwg Dwg Created: 9-May-23 - \_g2 standard bw.stb - Plot Date: 15-May-23



REV	DESCRIPTION	DATE	DRAWN	CHECKED
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00	OUT TO BID	4-27-23	CC/DF	NB

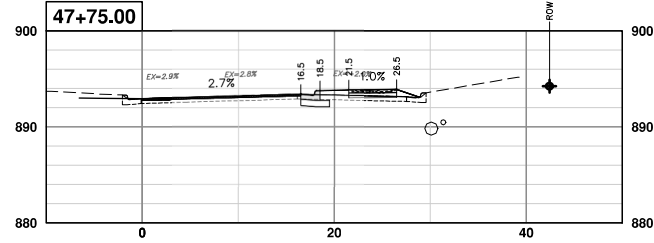
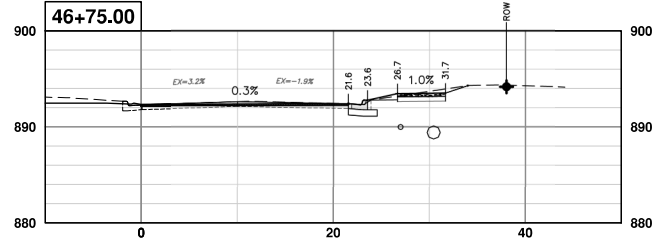
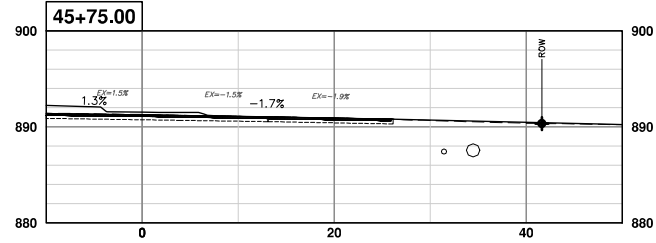
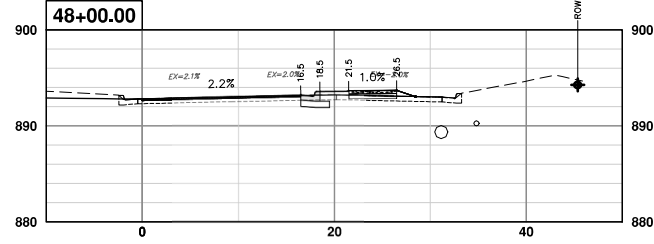
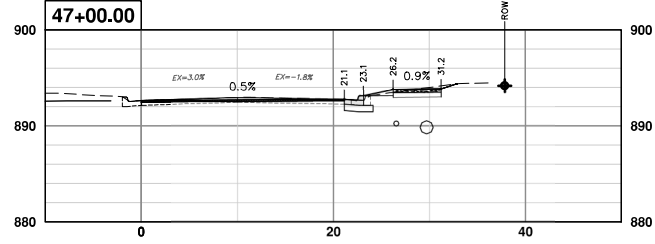
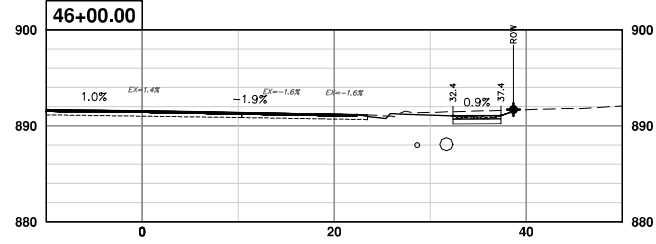
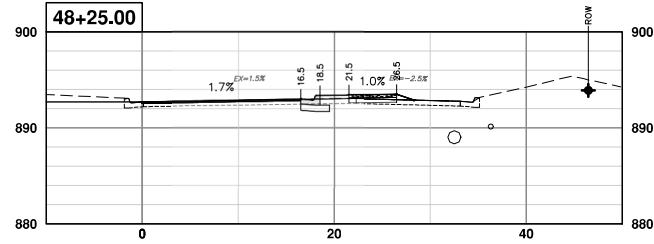
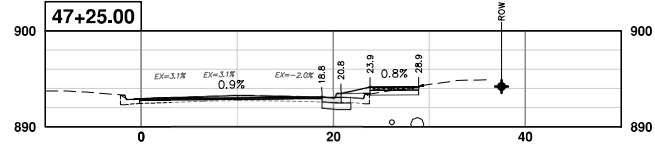
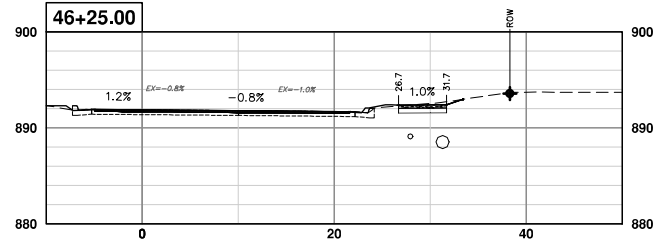
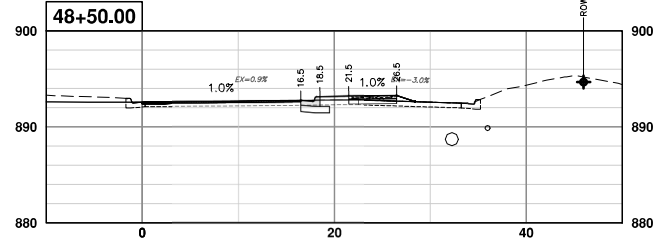
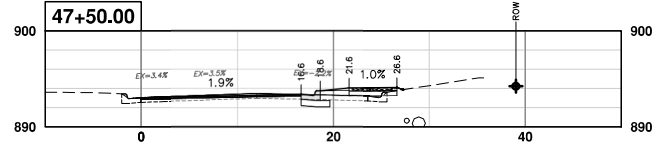
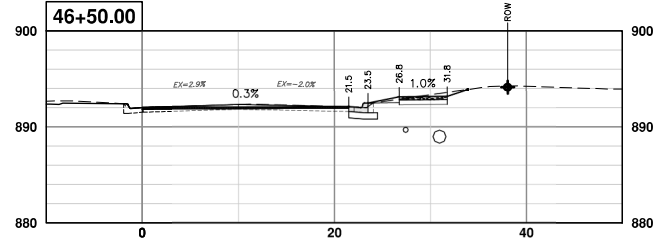
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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
CROSS SECTIONS  
NORTHBOUND 42+75 TO 45+50

SCALE PLAN: 1" = 10'  
PROFILE: 1" = 10'  
DRAWING No. 2021023-79

R:\2021023 Earhart (Geddes to US23)\Source Drawings\Align-Corridor\2021023\sectn-2.0.dwg Dwg Created: 9-May-23 - \_g2 standard bw.stb - Plot Date: 15-May-23



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM #1	5-15-23	CC/DF	NB
00	OUT TO BID	4-27-23	CC/DF	NB

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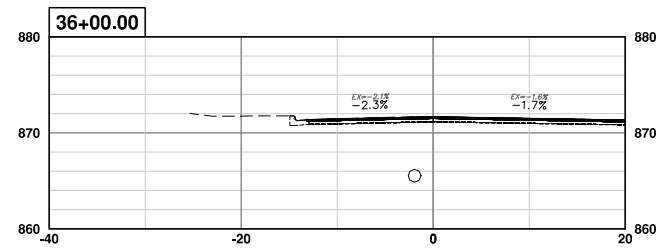
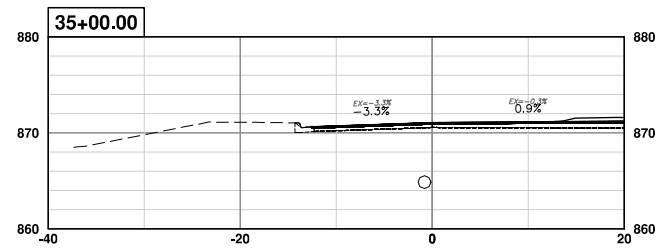
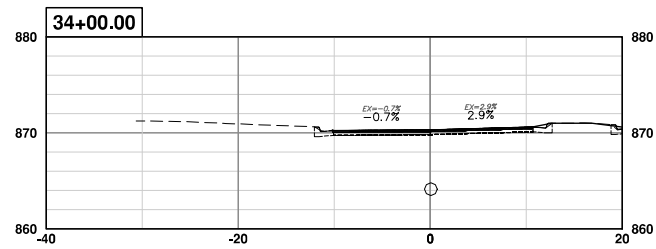
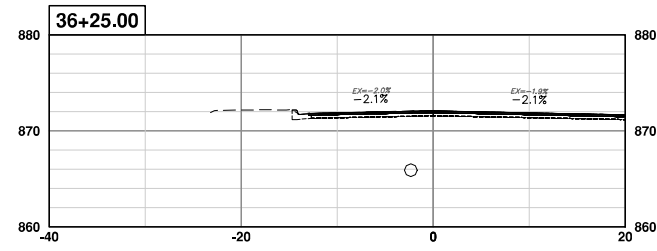
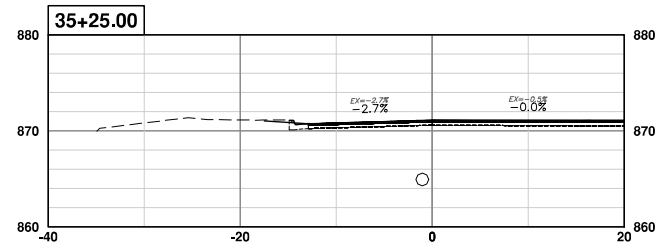
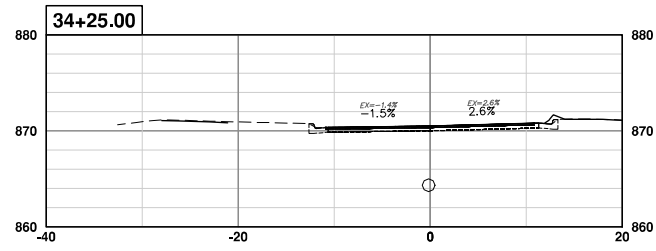
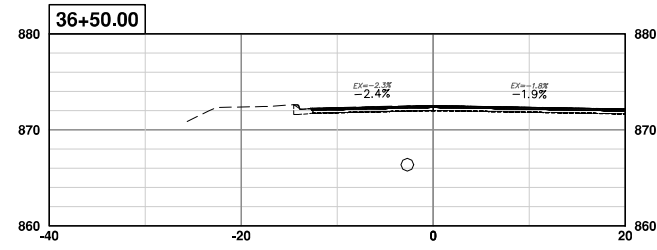
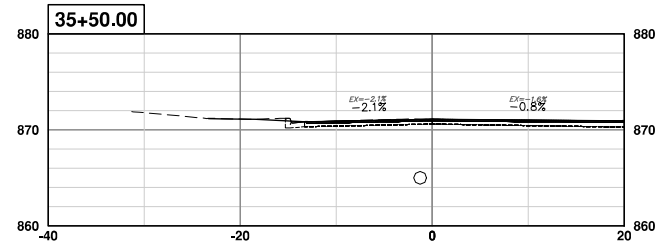
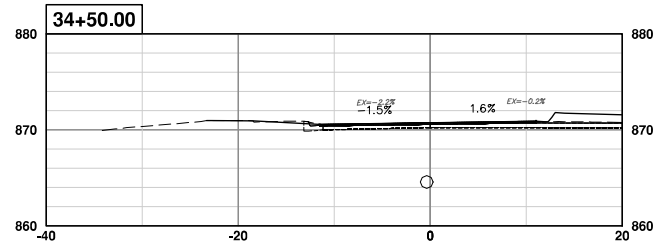
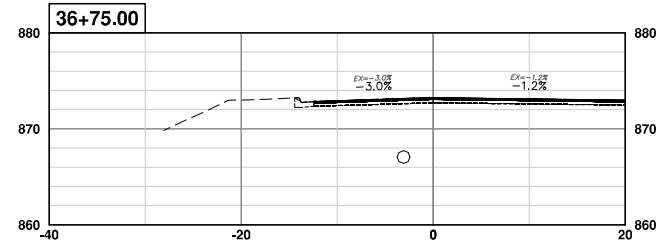
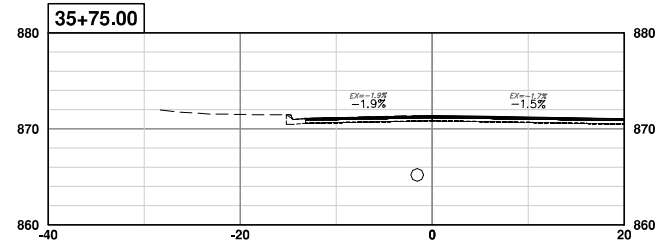
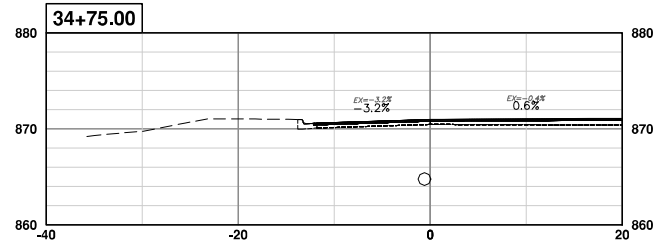


**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
CROSS SECTIONS  
NORTHBOUND 45+75 TO 49+25

SCALE PLAN: 1" = 10'  
PROFILE: 1" = 10'  
DRAWING No. 2021023-80



R:\2021023 Earhart (Geddes to US23)\Source Drawings\Align-Corridor\2021023\sectn--2.0.dwg Dwg Created: 9-May-23 - \_g2 standard bw.stb - Plot Date: 15-May-23



REV.	DATE	DESCRIPTION
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00	4-27-23	CC/DF

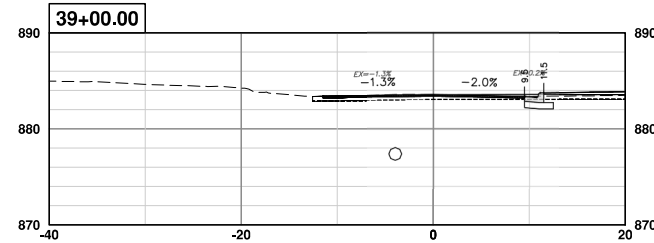
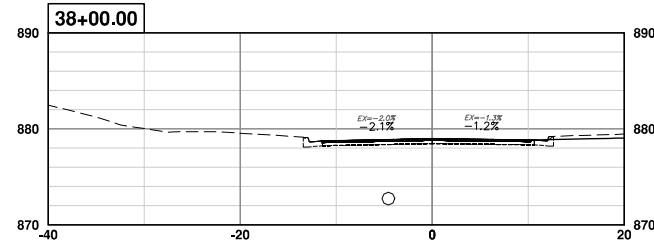
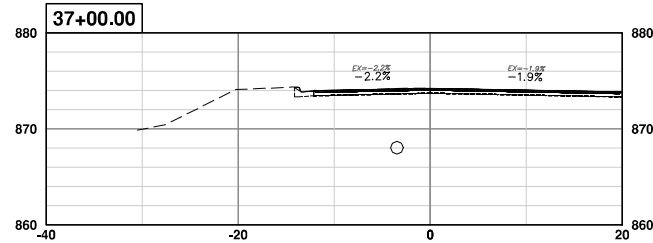
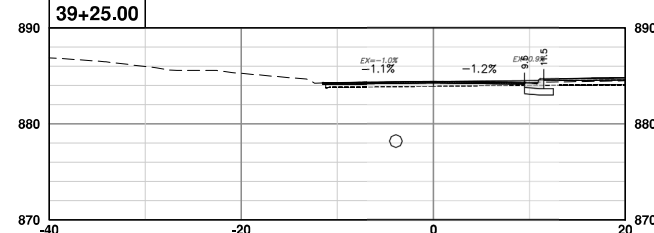
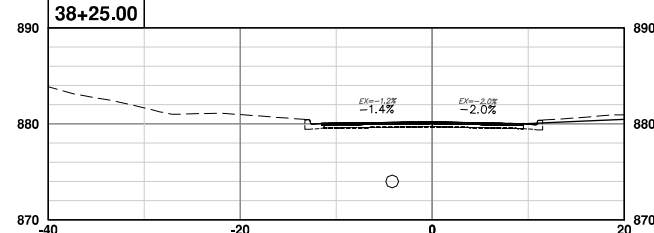
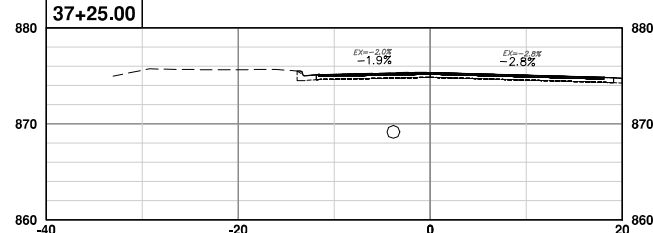
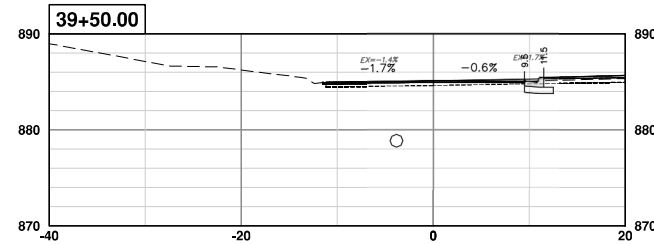
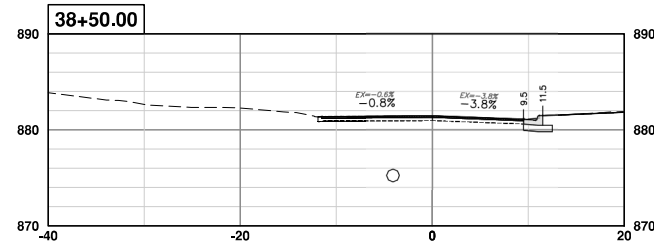
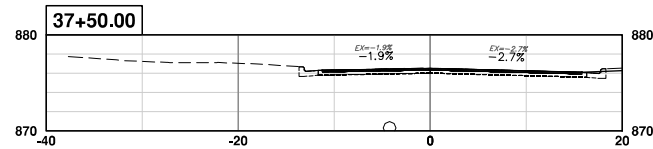
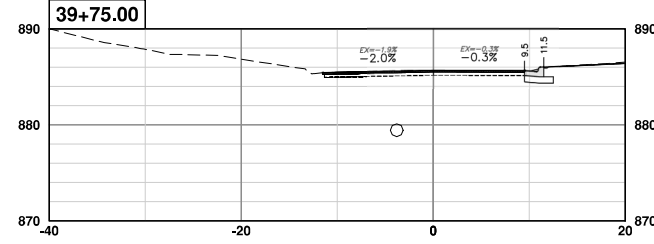
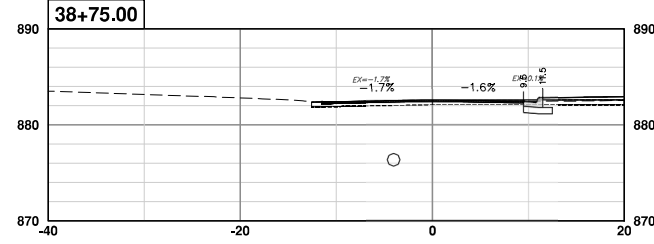
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
EARHART ROAD IMPROVEMENTS (GEDDES - US23)  
CROSS SECTIONS  
SOUTHBOUND 34+00 TO 36+75

SCALE PLAN: 1" = 10'  
PROFILE: 1" = 10'

DRAWING No. 2021023-81

R:\2021023 Earhart (Geddes to US23)\Source Drawings\Align-Corridor\2021023\sectn-2.0.dwg Dwg Created: 9-May-23 - \_g2 standard bw.stb - Plot Date: 15-May-23



REV.	DATE	DESCRIPTION
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00	4-27-23	CC/DF

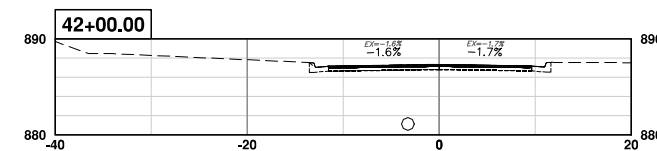
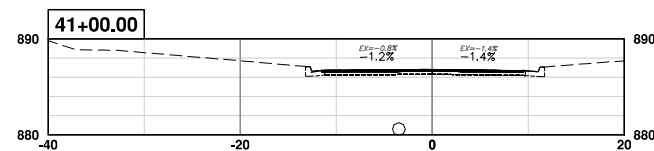
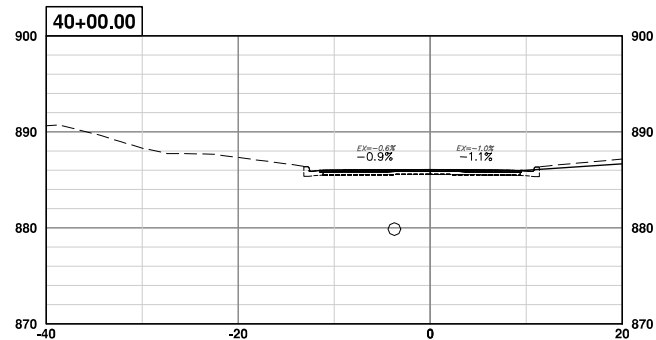
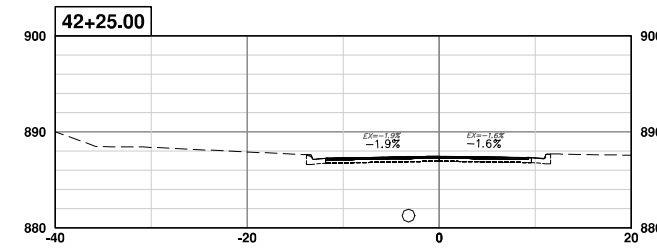
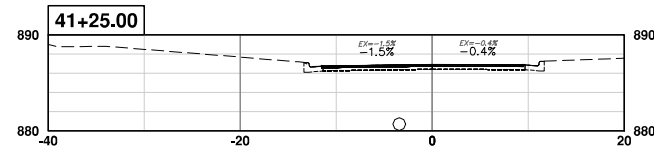
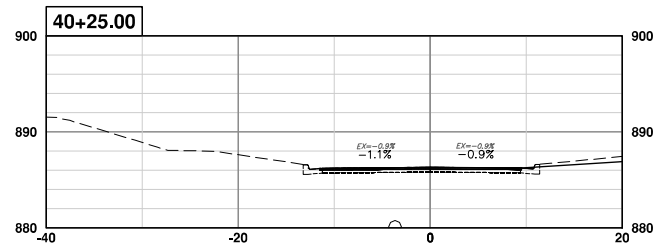
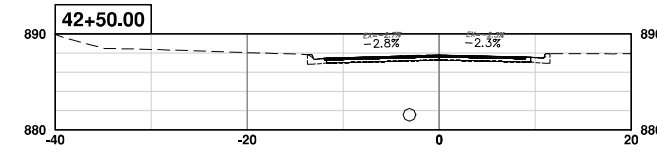
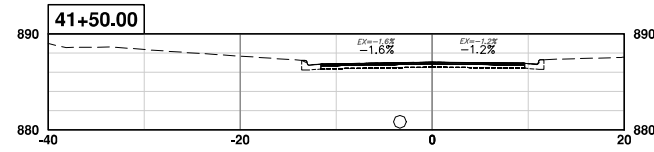
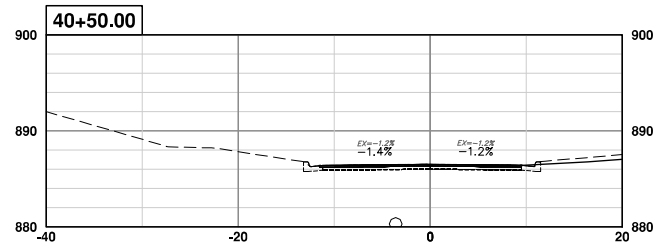
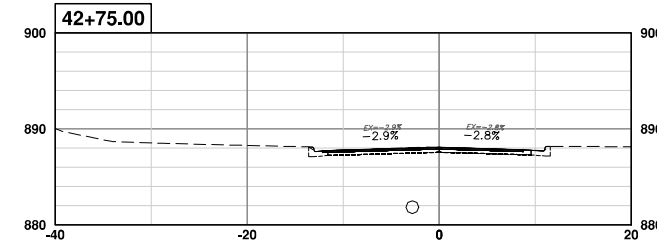
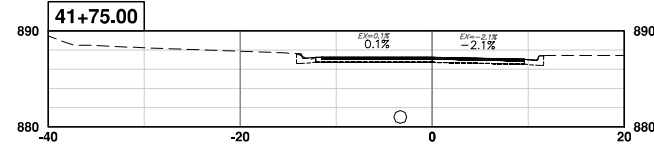
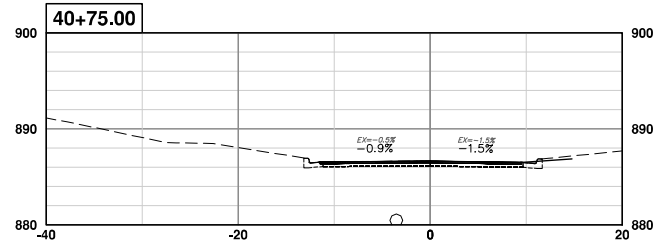
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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**EARHART ROAD IMPROVEMENTS (GEDDES - US23)**  
CROSS SECTIONS  
SOUTHBOUND 37+00 TO 39+75

SCALE PLAN: 1" = 10' PROFILE: 1" = 10'  
DRAWING No. 2021023-82  
SHEET No.

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00	4-27-23	CC/DF

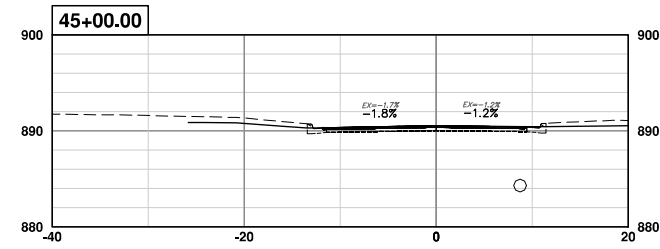
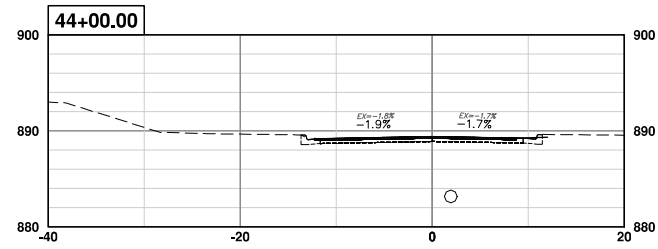
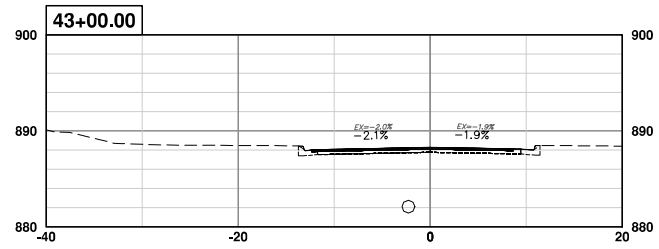
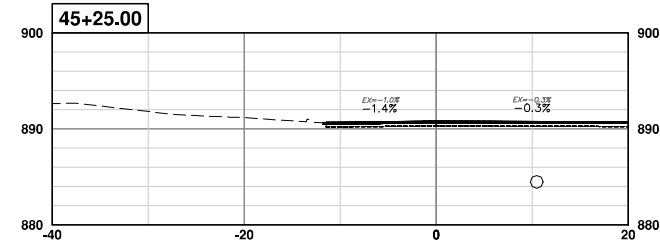
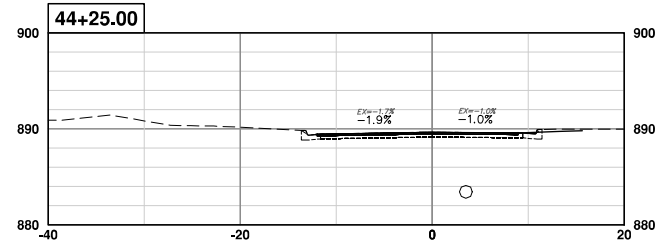
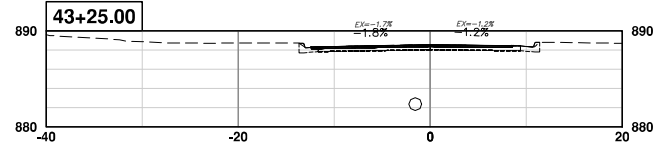
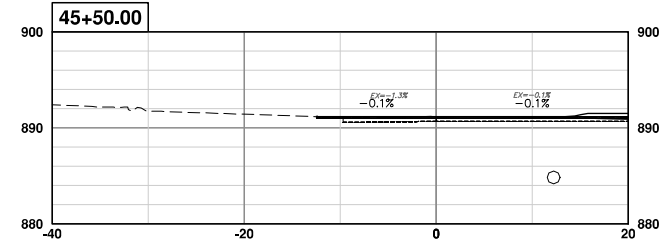
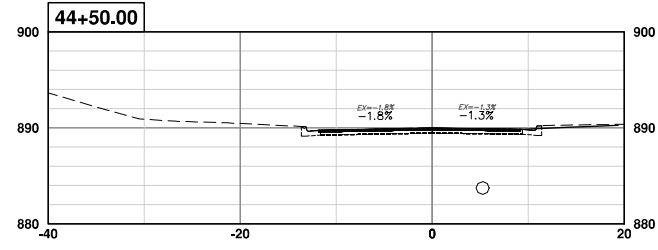
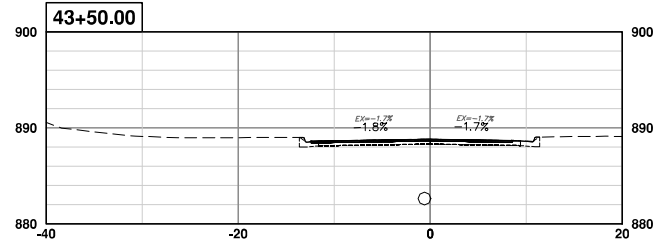
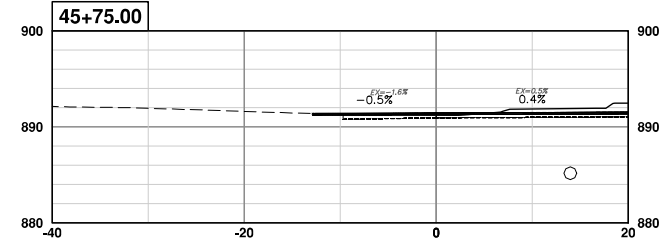
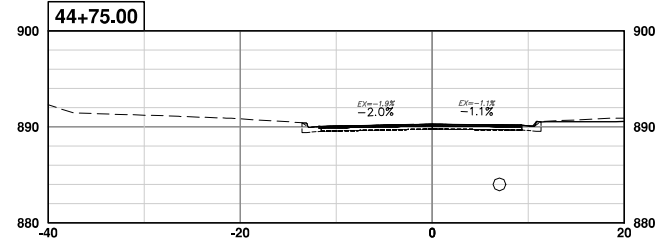
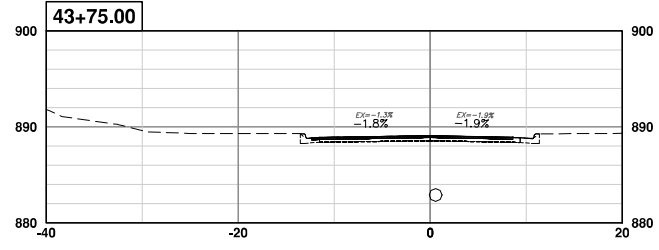
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CROSS SECTIONS  
SOUTHBOUND 40+00 TO 42+75

SCALE PLAN: 1" = 10'  
PROFILE: 1" = 10'  
DRAWING No. 2021023-83

R:\2021023 Earhart (Geddes to US23)\Source Drawings\Align-Corridor\2021023\sectn-2.0.dwg Dwg Created: 9-May-23 - \_g2 standard bw.stb - Plot Date: 15-May-23



REV.	DATE	DESCRIPTION
01	5-15-23	CC/DF
00	4-27-23	CC/DF

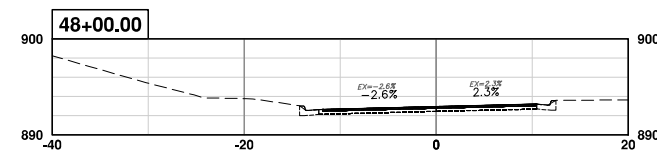
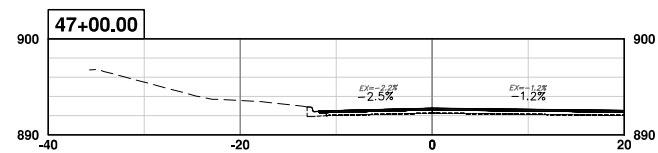
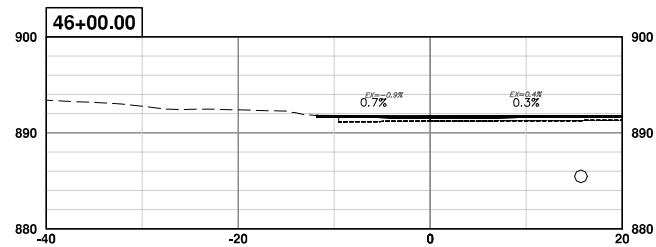
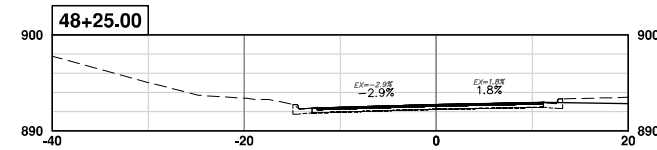
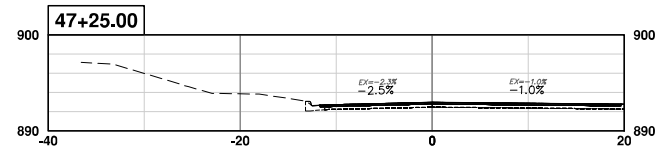
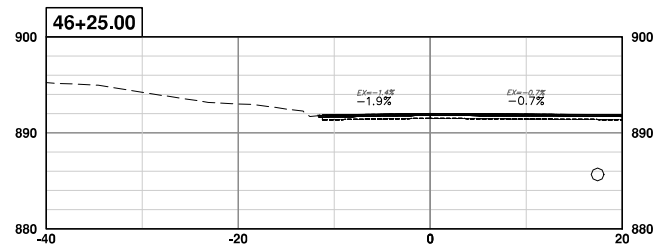
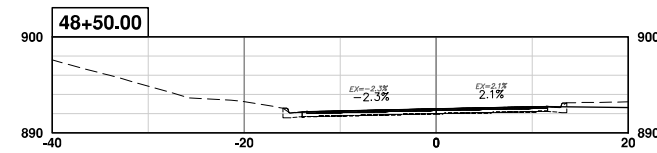
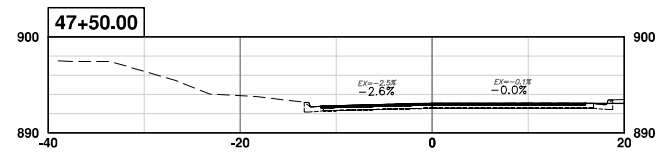
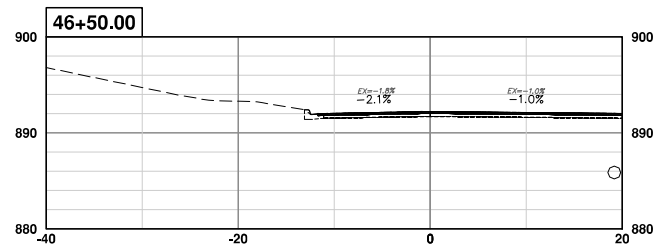
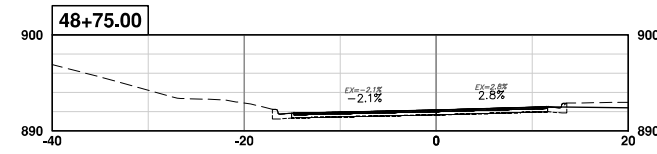
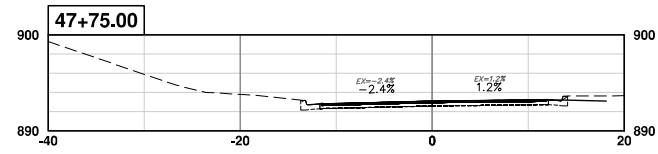
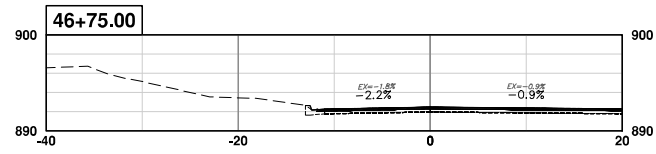
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CROSS SECTIONS  
SOUTHBOUND 43+00 TO 45+75

SHEET No. **84 OF 85**  
SCALE PLAN: 1" = 10'  
PROFILE: 1" = 10'  
DRAWING No. **2021023-84**

R:\2021023 Earhart (Geddes to US23)\Source Drawings\Align-Corridor\2021023xactn-2.0.dwg Dwg Created: 9-May-23 - \_g2 standard bw.stb - Plot Date: 15-May-23



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REV.	DATE	DESCRIPTION
01	9-15-23	CC/DF
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CROSS SECTIONS  
SOUTHBOUND 46+00 TO 49+25

SCALE PLAN: 1" = 10'  
PROFILE: 1" = 10'

DRAWING No. 2021023-85