

ADDENDUM No. 2

ITB No. 4620

Street Resurfacing Project - 2020

Bids Due: March 30, 2020 at 10:00AM (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 two hundred thirty-five (235) pages.**

Bidder is to acknowledge receipt of this Addendum No. 2, including all attachments (if any) in its Bid by so indicating on page ITB-1 of the Invitation to Bid Form. Bids submitted without acknowledgment of receipt of this addendum may be considered nonconforming.

The following forms provided within the ITB document must be included in submitted bids:

- **City of Ann Arbor Prevailing Wage Declaration of Compliance**
- **City of Ann Arbor Living Wage Ordinance Declaration of Compliance**
- **Vendor Conflict of Interest Disclosure Form**
- **City of Ann Arbor Non-Discrimination Ordinance Declaration of Compliance**

Bids that fail to provide these forms listed above upon bid opening may be rejected as non-responsive and will not be considered for award.

I. CORRECTIONS/ADDITIONS/DELETIONS

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

Section/Page(s)

Change

Bid Forms/BF-1 to 10

Base Bid Forms; replace with pages Addendum-2-7 thru 15. Revised to remove original line items 150, 475, 550, 555, 560, 565, 570, 580, 585, 590, 625, 630, 635, 640 and 645; modify the pay item descriptions for original/new line items 80, 85, 90 and 120, and the pay unit for original(new) line item 720(660); and add new pay items for _HMA, Bike Lane, _Shared use Path, Grading, Modified, _Pavt Mrkg, Thermopl, Railroad Sym, respective new line items 310, 470 and 585.

Contract/C-3 and 4

Contract; replace with pages Addendum-2-16 and 17.

Bonds/B-1 and 2	Performance Bond & Labor and Material Bond; replace with pages Addendum-2-18 and 19.
Detailed Specifications/DS-11 to 17	Detailed Specification for Project Schedule; replace with pages Addendum-2-20 thru 26. Revised the requirements for the completion of work. Revised “Schedule of Streets” to include the Miller Avenue Bike Lane Paving, remove Minor (Local) Street Phases 6 and 7, organize streets alphabetically for the remaining Minor (Local) Street phases, and add AAATA and AAPW to the Date Restrictions and Project Coordination section.
Detailed Specifications/DS-21 to 23	Detailed Specification In-Situ Soils and Removal and Disposal of Contaminated Soil; remove these pages.
Detailed Specifications/DS-26	Detailed Specification for Grading Sidewalks, Sidewalk Ramps, and Driveways; replace with pages Addendum-2-27 and 28. Revised the “Construction” section to show additional or modified work items.
Detailed Specifications/DS-32	Detailed Specification for Subgrade Undercutting; replace with new Detailed Specification for Undercutting pages Addendum-2-29 and 30.
Detailed Specifications/DS-55 to 56	Detailed Specification for Hot Mix Asphalt (HMA) Application Estimate; replace with pages Addendum-2-31 thru 32. Reorganized and revised to include the pay item “HMA, Bike Lane”.
Detailed Specifications	Insert new Detailed Specification for HMA Bike Lane Paving pages Addendum-2-33 and 34.
Detailed Specifications/DS-60	Detailed Specification for Hot Mix Asphalt (HMA) Pavement Repair; replace with pages Addendum-2-35. Revised the “Measurement and Payment” section related to the pay item for “Hand Patching, Modified”.
Detailed Specifications/DS-61	Detailed Specification for HMA Traffic Calming Measures; replace with pages Addendum-2-36 and 37. Revised the “Construction” section to address temporary traffic controls and pavement markings. Revised the “Measurement and Payment” section to add further description related to the costs included in unit prices, and to address temporary traffic controls and pavement markings.
Detailed Specifications/DS-62	Detailed Specification for HMA, Wedging, 36A; replace with pages Addendum-2-38. Revised the “Measurement and Payment” section to add further description related to the costs included in the unit price.

Detailed Specifications	Insert new Detailed Specification for Shared Use Path Grading pages Addendum-2-39 and 40.
Detailed Specifications/DS-80 to 81	Detailed Specification for Hot Mix Asphalt (HMA), Shared Use Path Wedging; replace with pages Addendum-2-41 and 42. Revised the “Measurement and Payment” section to add further description related to the costs included in the unit price.
Detailed Specifications/DS-87 to 135	Detailed Specification for Maintenance of Traffic; replace with pages Addendum-2-43 thru 73. Revised the “Description” section to show correct MDOT Maintaining Traffic Typical, to remove references to the S State St project location and change modify the requirements for placing temporary and permanent pavement markings. Revised the “Construction” section to remove references to the S State St project location and correct which pay item will include the cost traffic regulators (flag control). Revised the “Measurement and Payment” section to add and modify pay items.
APPENDIX	Notice to Bidders - Project Coordination; replace with Addendum-2-74.
APPENDIX	Geotechnical Information; insert pages Addendum-2-75 thru 110. Added to include the soil boring logs for Barrington Place, Brampton Court, Dicken Drive, Dunmore Road, Greenview Drive, Kent Street, Las Vegas Drive, Mershon Drive, Morehead Court, Norfolk Avenue, Runnymede Boulevard, Tudor Drive, Waltham Drive, Winsted Boulevard and Court.
APPENDIX	Insert General Decision Number: MI20200001 02/07/2020 pages Addendum-2-111 thru 140.
ATTACHMENTS	Living Wage Declaration of Compliance Form and Ordinance Poster; replace with pages Addendum-2-141 thru 142.
Plans	Plans; replace originally issued Bid Set dated 03/05/2020 with that issued for “Addendum 2” dated 03/25/2020. Revisions are as follows.
Sheet 1	Revised project name, sheet index and vicinity maps, and title block. Added ITB No. 4620.
Sheets 2 and 3	Interchanged the order of these sheets. Updated contact information for public and private utilities, added table showing miscellaneous project quantities on new sheet 2. Revised title block (both sheets).

Sheets 4 thru 5	Revised title block (both sheets).
Sheets 6 and 7	Revised to reflect up to date planned local (minor) street work and related temporary traffic control signage. Revised title block (both sheets).
Sheet 8	Revised to correct quantity tables, to replace Constriction Method and Sequencing notes with new ones entitled Construction Scope and Sequencing that reflect proposed work activities and their anticipated order of execution for project location, and to add a Construction Key. Revised title block.
Sheets 9 thru 16	Minor changes related to details, notations, dimensioning, shading and cross hatching, and other related CAD work. Revised title block.
Sheet 17	Revised to correct quantity tables, to add Construction Scope and Sequencing notes that reflect proposed work activities and their anticipated order of execution for project location, and to add a Construction Key. Revised title block.
Sheets 18 thru 22,	Minor changes related to details, notations, dimensioning, shading and cross hatching, and other related CAD work. Revised title block.
Sheet 23	Revised to correct quantity tables, to add Construction Scope and Sequencing notes that reflect proposed work activities and their anticipated order of execution for project location, and to add a Construction Key. Revised title block.
Sheet 24	Minor changes related to details, notations, dimensioning, shading and cross hatching, and other related CAD work. Revised title block.
Sheets 25 and 26	Replaced with new Traffic Control and Typical Cross Section plan sheets.
Sheet 27	Replaced with revised removal and construction plan sheet (Sta. 10+00 to Sta. 20+00).
Sheet 28	Replaced with revised removal and construction plan sheet (Sta. 20+00 to Sta. 30+00).
Sheet 29	Replaced with pavement marking plan sheet (Sta. 10+00 to Sta. 20+00).
Sheet 30	Replaced with pavement marking plan sheet (Sta. 20+00 to Sta. 30+00).

Sheet 31	Revised to correct quantity tables, to replace Constriction Method and Sequencing notes with new ones entitled Construction Scope and Sequencing that reflect proposed work activities and their anticipated order of execution at each project location, and to add a Construction Key. Revised title block.
Sheets 32 thru 34	Minor changes related to details, notations, dimensioning, shading and cross hatching, and other related CAD work. Revised title block.
Sheets 35 thru 37	Reorganized plan set and replaced these sheets with sheets 47 thru 50. Revised sheet 47 to correct quantity tables, to replace Constriction Method and Sequencing notes with new ones entitled Construction Scope and Sequencing that reflect proposed work activities and their anticipated order of execution at each project location, and to add a Construction Key. Added permanent pavement marking plan (sheet 50). All sheets - minor changes related to details, notations, dimensioning, shading and cross hatching, and other related CAD work; revised title block.
Sheets 38 thru 44	Reorganized plan set and replaced these sheets with sheets 35 thru 41. Revised sheet 35 to correct quantity tables, to replace Constriction Method and Sequencing notes with new ones entitled Construction Scope and Sequencing that reflect proposed work activities and their anticipated order of execution at each project location, and to add a Construction Key. All sheets - minor changes related to details, notations, dimensioning, shading and cross hatching, and other related CAD work; revised title block.
Sheets 45 thru 49	Reorganized plan set and replaced these sheets with sheets 42 thru 46. Revised sheet 42 to correct quantity tables, to replace Constriction Method and Sequencing notes with new ones entitled Construction Scope and Sequencing that reflect proposed work activities and their anticipated order of execution at each project location, and to add a Construction Key. All sheets - minor changes related to details, notations, dimensioning, shading and cross hatching, and other related CAD work; revised title block.

Sheets 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 68, 69, 70, 71, 72, 73, 74, 75, 76, 78, 79, 83, 84, 85, 86, 87, 88, 94, 95, 96, 97 and 98

Reorganized plan set and replaced these sheets respectively with the following sheets 79, 80, 81, 59, 68, 62, 66, 52, 58, 86, 90, 93, 54, 56, 70, 72, 60, 61, 67, 71, 74, 77, 91, 87, 82, 55, 57, 88, 89, 92, 73, 75, 76, 83, 84, 63, 64 and 65. Revised to add or correct quantity tables, and to replace Constriction Method and Sequencing notes with new ones entitled Construction Scope and Sequencing that reflect proposed work activities and their anticipated order of execution at each location.

Sheets 51, 58, 69, 78 and 85

Reorganized plan set and replaced these sheets with new subset cover sheets for each minor (local) street phase.

Sheets 66, 67, 77, 80, 81, 82, 89, 90, 91, 92 and 93.

The street work depicted on these sheets was removed from the project.

II. QUESTIONS AND ANSWERS

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

Question 1: How are bids to be delivered in light of the shelter in place directive from the governor?

Answer 1: City leadership considers the on-going, uninterrupted bidding process an essential function of its business operations, and therefore exempt from the shelter in place directive given by State of Michigan Governor, Gretchen Whitmer, as part of Executive Order No. 2020-21 (COVID-19). Bids submittals can either be mailed or dropped off in the north and south vestibules adjacent to the main lobby of the Ann Arbor City Hall building (not the Justice Center building). If dropped off during normal business hours (8:00 a.m. to 5:00 p.m.), please notify Customer Service by use of the phone located in each vestibule.

Question 2: In what instances will the Agg Base Modified pay item be used?

Answer 2: The objective of pay item, _Aggregate Base, Modified, is to address non-uniform areas of the existing aggregate base that may require grade adjustments. These adjustments may be required to fill low areas in the grade, to make crown/cross slope corrections or for some other reason encountered during construction. It may also be used for new aggregate base in areas that are difficult to construct to uniform dimensions.

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

BID FORM

Section 1 - Schedule of Prices

City of Ann Arbor Street Resurfacing Project - 2020
 File No. 2020-004
 Bid No. 4620

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
5	1047051	_Certified Payroll Compliance and Reporting	LSUM	1.00	\$ _____	\$ _____
10	1047051	_General Conditions, Max \$400,000.00	LSUM	1.00	\$ _____	\$ _____
15	1047051	_Project Supervision, Max \$75,000.00	LSUM	1.00	\$ _____	\$ _____
20	2030011	Dr Structure, Rem	Ea	160.00	\$ _____	\$ _____
25	2030015	Sewer, Rem, Less than 24 inch	Ft	1,600.00	\$ _____	\$ _____
30	2040005	Pavt, Rem	Syd	4,540.00	\$ _____	\$ _____
35	2040065	Track, Rem	Ft	71.00	\$ _____	\$ _____
40	2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	19,978.00	\$ _____	\$ _____
45	2047001	_Exploratory Excavation, Vertical	Ft	9.00	\$ _____	\$ _____
50	2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	5,434.00	\$ _____	\$ _____
55	2050023	Granular Material, CI II	Cyd	50.00	\$ _____	\$ _____
60	2057011	_Grading, Driveway Approach	Syd	3,631.00	\$ _____	\$ _____
65	2057011	_Grading, Sidewalk	Syd	1,468.00	\$ _____	\$ _____
70	2057011	_Grading, Sidewalk Ramp	Syd	608.00	\$ _____	\$ _____
75	2057011	_Machine Grading, Special	Syd	55,086.00	\$ _____	\$ _____
80	2057021	_Undercutting, Type IIA	Cyd	3,930.00	\$ _____	\$ _____
85	2057021	_Undercutting, Type IIB	Cyd	50.00	\$ _____	\$ _____
90	2057021	_Undercutting, Type IIC	Cyd	3,625.00	\$ _____	\$ _____
TOTAL THIS PAGE					\$ _____	\$ _____

BID FORM

Section 1 - Schedule of Prices

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
95	2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	432.00	\$ _____	\$ _____
100	2080036	Erosion Control, Silt Fence	Ft	1,355.00	\$ _____	\$ _____
105	2090001	Project Cleanup	LSUM	1.00	\$ _____	\$ _____
110	3010002	Subbase, CIP	Cyd	50.00	\$ _____	\$ _____
115	3027011	_Aggregate Base, 12 inch, Modified	Syd	3,698.00	\$ _____	\$ _____
120	3027011	_Aggregate Base, 6 inch, Modified	Syd	250.00	\$ _____	\$ _____
125	3027031	_Aggregate Base, Modified	Ton	1,271.00	\$ _____	\$ _____
130	3050010	Material, Surplus and Unsuitable, Rem, LM	Cyd	18.00	\$ _____	\$ _____
135	3050015	Salv Crushed Material, LM	Cyd	29.00	\$ _____	\$ _____
140	3057011	_Shared use Path, HMA Base Crushing and Shaping	Syd	11,023.00	\$ _____	\$ _____
145	3060020	Maintenance Gravel	Ton	250.00	\$ _____	\$ _____
150	3080010	Geotextile, Stabilization	Syd	100.00	\$ _____	\$ _____
155	3087011	_Structural Geogrid (Base)	Syd	250.00	\$ _____	\$ _____
160	4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	1,705.00	\$ _____	\$ _____
165	4021260	Trench Undercut and Backfill	Cyd	10.00	\$ _____	\$ _____
170	4030200	Dr Structure, 24 inch dia	Ea	160.00	\$ _____	\$ _____
175	4030210	Dr Structure, 48 inch dia	Ea	3.00	\$ _____	\$ _____
180	4030280	Dr Structure, Adj, Add Depth	Ft	5.00	\$ _____	\$ _____
185	4030306	Dr Structure, Tap, 6 inch	Ea	5.00	\$ _____	\$ _____
					TOTAL THIS PAGE	\$ _____

BID FORM

Section 1 - Schedule of Prices

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
190	4030312	Dr Structure, Tap, 12 inch	Ea	2.00	\$ _____	\$ _____
195	4037050	_Dr Structure Cover, Special	Ea	2.00	\$ _____	\$ _____
200	4037050	_Dr Structure Cover, Type B, Modified	Ea	77.00	\$ _____	\$ _____
205	4037050	_Dr Structure Cover, Type C, Modified	Ea	3.00	\$ _____	\$ _____
210	4037050	_Dr Structure Cover, Type D, Modified	Ea	2.00	\$ _____	\$ _____
215	4037050	_Dr Structure Cover, Type K, Modified	Ea	181.00	\$ _____	\$ _____
220	4037050	_Dr Structure, Adj, Case 1, Modified	Ea	312.00	\$ _____	\$ _____
225	4037050	_Dr Structure, Adj, Case 2, Modified	Ea	2.00	\$ _____	\$ _____
230	4037050	_Dr Structure, Cleaning, Modified	Ea	30.00	\$ _____	\$ _____
235	4037050	_Dr Structure, Double Inlet	Ea	2.00	\$ _____	\$ _____
240	4037050	_Dr Structure, Point	Ea	15.00	\$ _____	\$ _____
245	4037050	_Dr Structure, Temp Lowering, Modified	Ea	151.00	\$ _____	\$ _____
250	4037050	_Structure, Reconstruct	Ea	2.00	\$ _____	\$ _____
255	4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	3,220.00	\$ _____	\$ _____
260	5010001	Pavt, Cleaning	LSUM	1.00	\$ _____	\$ _____
265	5010002	Cold Milling HMA Surface	Syd	129,354.00	\$ _____	\$ _____
270	5010005	HMA Surface, Rem	Syd	2,985.00	\$ _____	\$ _____
275	5010015	Joint and Crack, Cleanout	Ft	1,500.00	\$ _____	\$ _____
280	5010025	Hand Patching	Ton	227.00	\$ _____	\$ _____
TOTAL THIS PAGE						\$ _____

BID FORM

Section 1 - Schedule of Prices

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
285	5010050	HMA, 4E1	Ton	1,270.00	\$ _____	\$ _____
290	5010051	HMA, 4E3	Ton	204.00	\$ _____	\$ _____
295	5010056	HMA, 5E1	Ton	2,124.00	\$ _____	\$ _____
300	5010057	HMA, 5E3	Ton	544.00	\$ _____	\$ _____
305	5010061	HMA Approach	Ton	86.00	\$ _____	\$ _____
310	5017011	HMA, Bike Lane	Ton	235.00	\$ _____	\$ _____
315	5010703	HMA, LVSP	Ton	18,872.00	\$ _____	\$ _____
320	5017011	_Cold Milling Conc Pavt	Syd	450.00	\$ _____	\$ _____
325	5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	775.00	\$ _____	\$ _____
330	5017011	_Cold Milling HMA Surface, Modified	Syd	650.00	\$ _____	\$ _____
335	5017011	_HMA, Raised Crosswalk	Syd	60.00	\$ _____	\$ _____
340	5017011	_HMA, Raised Intersection	Syd	175.00	\$ _____	\$ _____
345	5017011	_HMA, Speed Hump	Syd	35.00	\$ _____	\$ _____
350	5017031	_Hand Patching, Modified	Ton	100.00	\$ _____	\$ _____
355	5017031	_HMA, Wedging, 36A	Ton	24.00	\$ _____	\$ _____
360	6020054	Conc Pavt, Misc, Nonreinf, 8 inch	Syd	130.00	\$ _____	\$ _____
365	6027021	_Flowable Fill	Cyd	452.00	\$ _____	\$ _____
370	6030005	Cement	Ton	86.00	\$ _____	\$ _____
375	6030030	Lane Tie, Epoxy Anchored	Ea	107.00	\$ _____	\$ _____
TOTAL THIS PAGE						\$ _____

BID FORM

Section 1 - Schedule of Prices

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
380	8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	3,089.00	\$ _____	\$ _____
385	8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	268.00	\$ _____	\$ _____
390	8027001	_Curb and Gutter, Conc, Barrier	Ft	4,874.00	\$ _____	\$ _____
395	8027001	_Curb and Gutter, Conc, Barrier or Mountable, Slip Form	Ft	2,781.00	\$ _____	\$ _____
400	8027001	_Curb and Gutter, Conc, Mountable	Ft	150.00	\$ _____	\$ _____
405	8027001	_Driveway Opening, Conc, Det M, Modified	Ft	11,430.00	\$ _____	\$ _____
410	8030030	Curb Ramp Opening, Conc	Ft	900.00	\$ _____	\$ _____
415	8037001	_Detectable Warning Surface, Modified	Ft	585.00	\$ _____	\$ _____
420	8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	5,893.00	\$ _____	\$ _____
425	8037010	_Sidewalk Ramp, Conc, 8 inch, Modified	Sft	50.00	\$ _____	\$ _____
430	8037010	_Sidewalk Retaining Wall, Integral, 6 inch to 18 inch Height	Sft	350.00	\$ _____	\$ _____
435	8037010	_Sidewalk Retaining Wall, Integral, 18 inch to 30 inch Height	Sft	150.00	\$ _____	\$ _____
440	8037010	_Sidewalk, Conc or Clay Brick Pavers, Rem and Reinstall	Sft	30.00	\$ _____	\$ _____
445	8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	7,659.00	\$ _____	\$ _____
450	8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	5,411.00	\$ _____	\$ _____
455	8037010	_Sidewalk, Conc, 8 inch, Modified	Sft	130.00	\$ _____	\$ _____
460	8060010	Shared use Path, Aggregate	Ton	610.00	\$ _____	\$ _____
465	8060040	Shared use Path, HMA	Ton	2,268.00	\$ _____	\$ _____
470	8067011	_Shared use Path, Grading, Modified	Syd	1,933.00	\$ _____	\$ _____
					TOTAL THIS PAGE	\$ _____

BID FORM

Section 1 - Schedule of Prices

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
475	8067031	_Shared use Path, HMA, Wedging	Ton	50.00	\$ _____	\$ _____
480	8087001	_Fence, Protective, Modified	Ft	1,500.00	\$ _____	\$ _____
485	8110049	Pavt Mrkg, Ovly Cold Plastic, Direction Arrow Sym, Bike	Ea	18.00	\$ _____	\$ _____
490	8110058	Pavt Mrkg, Ovly Cold Plastic, Bike, Small Sym	Ea	18.00	\$ _____	\$ _____
495	8110079	Pavt Mrkg, Ovly Cold Plastic, Sharrow Symbol	Ea	6.00	\$ _____	\$ _____
500	8110195	Pavt Mrkg, Thermopl, 4 inch, White	Ft	726.00	\$ _____	\$ _____
505	8110196	Pavt Mrkg, Thermopl, 4 inch, Yellow	Ft	8,914.00	\$ _____	\$ _____
510	8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	2,516.00	\$ _____	\$ _____
515	8110198	Pavt Mrkg, Thermopl, 6 inch, White	Ft	6,673.00	\$ _____	\$ _____
520	8110212	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, White	Ft	102.00	\$ _____	\$ _____
525	8110213	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, Yellow	Ft	275.00	\$ _____	\$ _____
530	8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	3,354.00	\$ _____	\$ _____
535	8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	689.00	\$ _____	\$ _____
540	8110332	Rem Raised Pavt Marker	Ea	50.00	\$ _____	\$ _____
545	8110343	Rem Spec Mrkg	Sft	591.00	\$ _____	\$ _____
550	8117001	_Pavt Mrkg, Thermopl, 4 inch, Parking Sym, White	Ft	293.00	\$ _____	\$ _____
555	8117050	_Pavt Mrkg, Thermopl, Lt Turn Arrow Sym	Ea	6.00	\$ _____	\$ _____
560	8117050	_Pavt Mrkg, Thermopl, Only	Ea	5.00	\$ _____	\$ _____
565	8117050	_Pavt Mrkg, Thermopl, Rt Turn Arrow Sym	Ea	2.00	\$ _____	\$ _____
					TOTAL THIS PAGE	\$ _____

BID FORM

Section 1 - Schedule of Prices

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
570	8117050	_Pavt Mrkg, Thermopl, School	Ea	4.00	\$ _____	\$ _____
575	8117050	_Pavt Mrkg, Thermopl, Speed Hump Chevron, White	Ea	5.00	\$ _____	\$ _____
580	8117050	_Pavt Mrkg, Thermopl, Thru and Rt Turn Arrow Sym	Ea	1.00	\$ _____	\$ _____
585	8117050	_Pavt Mrkg, Thermopl, Railroad Sym	Ea	2.00	\$ _____	\$ _____
590	8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	206.00	\$ _____	\$ _____
595	8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	287.00	\$ _____	\$ _____
600	8120030	Channelizing Device, 42 inch, Furn	Ea	200.00	\$ _____	\$ _____
605	8120031	Channelizing Device, 42 inch, Oper	Ea	200.00	\$ _____	\$ _____
610	8120140	Lighted Arrow, Type C, Furn	Ea	2.00	\$ _____	\$ _____
615	8120141	Lighted Arrow, Type C, Oper	Ea	2.00	\$ _____	\$ _____
620	8120200	Pavt Mrkg Cover, Type R, Black	Ft	100.00	\$ _____	\$ _____
625	8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	1,260.00	\$ _____	\$ _____
630	8120235	Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, White, Temp	Ft	2,500.00	\$ _____	\$ _____
635	8120236	Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, Yellow, Temp	Ft	7,500.00	\$ _____	\$ _____
640	8120245	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, White, Temp	Ft	250.00	\$ _____	\$ _____
645	8120246	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, Yellow, Temp	Ft	860.00	\$ _____	\$ _____
650	8120250	Plastic Drum, High Intensity, Furn	Ea	1,005.00	\$ _____	\$ _____
655	8120251	Plastic Drum, High Intensity, Oper	Ea	1,005.00	\$ _____	\$ _____
660	8120265	Pavt Mrkg, Wet Reflective, Type R, Tape, 24 inch, Stop Bar	Ft	50.00	\$ _____	\$ _____
TOTAL THIS PAGE						\$ _____

BID FORM

Section 1 - Schedule of Prices

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
665	8120310	Sign Cover	Ea	72.00	\$ _____	\$ _____
670	8120330	Sign, Portable, Changeable Message, Furn	Ea	4.00	\$ _____	\$ _____
675	8120331	Sign, Portable, Changeable Message, Oper	Ea	10.00	\$ _____	\$ _____
680	8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	4,092.00	\$ _____	\$ _____
685	8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	4,092.00	\$ _____	\$ _____
690	8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	1,296.00	\$ _____	\$ _____
695	8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	1,296.00	\$ _____	\$ _____
700	8120370	Traf Regulator Control	LSUM	1.00	\$ _____	\$ _____
705	8127050	_Pedestrian Type II Barricade, Temp	Ea	104.00	\$ _____	\$ _____
710	8127050	_Pedestrian Type II Channelizer, Temp	Ea	18.00	\$ _____	\$ _____
715	8127050	_Temporary No Parking Sign	Ea	989.00	\$ _____	\$ _____
720	8127051	_Minor Traffic Control, Max \$185,000.00	LSUM	1.00	\$ _____	\$ _____
725	8157060	_Irrigation System, Protection and Maintenance	Dir	2,500.00	\$ _____	\$ _____
730	8167011	_Slope Restoration	Syd	16,691.00	\$ _____	\$ _____
735	8190159	Conduit, Schedule 80 PVC, 3 inch	Ft	50.00	\$ _____	\$ _____
740	8190244	Hh, Adj	Ea	5.00	\$ _____	\$ _____
745	8197050	_Handhole Assembly, 12 Inch x 18 Inch	Ea	1.00	\$ _____	\$ _____
750	8197050	_Handhole Assembly, 17 Inch x 30 Inch	Ea	1.00	\$ _____	\$ _____
755	8197050	_Handhole Assembly, 24 inch x 36 inch	Ea	1.00	\$ _____	\$ _____
					TOTAL THIS PAGE	\$ _____

BID FORM

Section 1 - Schedule of Prices

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
760	8217050	_Monument Box, Adj	Ea	12.00	\$ _____	\$ _____
765	8230431	Gate Box, Adj, Case 1	Ea	14.00	\$ _____	\$ _____
770	8230432	Gate Box, Adj, Case 2	Ea	5.00	\$ _____	\$ _____
775	8507050	_HMA Surface, Around Structure Cover, Rem	Ea	200.00	\$ _____	\$ _____
TOTAL THIS PAGE						\$ _____
TOTAL FROM PAGE BF-1						\$ _____
TOTAL FROM PAGE BF-2						\$ _____
TOTAL FROM PAGE BF-3						\$ _____
TOTAL FROM PAGE BF-4						\$ _____
TOTAL FROM PAGE BF-5						\$ _____
TOTAL FROM PAGE BF-6						\$ _____
TOTAL FROM PAGE BF-7						\$ _____
TOTAL FROM PAGE BF-8						\$ _____
TOTAL BASE BID						\$ _____

including real or personal property taxes. City shall have the right to set off any such debt against compensation awarded for services under this agreement.

ARTICLE VIII - Notice

All notices given under this Contract shall be in writing and shall be by personal delivery or by certified mail with return receipt requested to the parties at their respective addresses as specified in the Contract Documents or other address the Contractor may specify in writing. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; or (2) three days after mailing certified U.S. mail.

ARTICLE IX - Indemnification

To the fullest extent permitted by law, Contractor shall indemnify, defend and hold the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney's fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this Contract, by the Contractor or anyone acting on the Contractor's behalf under this Contract. Contractor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City's sole negligence. The provisions of this Article shall survive the expiration or earlier termination of this contract for any reason.

ARTICLE X - Entire Agreement

This Contract represents the entire understanding between the City and the Contractor, and it supersedes all prior representations, negotiations, agreements, or understandings whether written or oral. Neither party has relied on any prior representations in entering into this Contract. No terms or conditions of either party's invoice, purchase order or other administrative document shall modify the terms and conditions of this Contract, regardless of the other party's failure to object to such form. This Contract shall be binding on and shall inure to the benefit of the parties to this Contract and their permitted successors and permitted assigns and nothing in this Contract, express or implied, is intended to or shall confer on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Contract. This Contract may be altered, amended or modified only by written amendment signed by the City and the Contractor.

ARTICLE XI – Electronic Transactions

The City and Contractor agree that signatures on this Contract may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this Contract. This Contract may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

FOR CONTRACTOR

By _____

Its: _____

FOR THE CITY OF ANN ARBOR

By _____
Christopher Taylor, Mayor

By _____
Jacqueline Beaudry, City Clerk

Approved as to substance

By _____
Tom Crawford
Interim City Administrator

By _____
Craig A. Hupy, P.E.
Public Services Area Administrator

Approved as to form and content

Stephen K. Postema, City Attorney

PERFORMANCE BOND

- (1) _____ (referred to as "Principal"), and _____, a corporation duly authorized to do business in the State of Michigan (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for \$ _____, the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written Contract with the City dated _____, 20__, for: _____ and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq.
- (3) Whenever the Principal is declared by the City to be in default under the Contract, the Surety may promptly remedy the default or shall promptly:
- (a) complete the Contract in accordance with its terms and conditions; or
 - (b) obtain a bid or bids for submission to the City for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, arrange for a Contract between such bidder and the City, and make available, as work progresses, sufficient funds to pay the cost of completion less the balance of the Contract price; but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amount set forth in paragraph 1.
- (4) Surety shall have no obligation to the City if the Principal fully and promptly performs under the Contract.
- (5) Surety agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder, or the specifications accompanying it shall in any way affect its obligations on this bond, and waives notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work, or to the specifications.
- (6) Principal, Surety, and the City agree that signatures on this bond may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this bond. This bond may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

SIGNED AND SEALED this _____ day of _____, 2020.

(Name of Surety Company)
By _____
(Signature)

Its _____
(Title of Office)

Approved as to form:

Stephen K. Postema, City Attorney

(Name of Principal)
By _____
(Signature)

Its _____
(Title of Office)

Name and address of agent:

LABOR AND MATERIAL BOND

- (1) _____ of _____ (referred to as "Principal"), and _____, a corporation duly authorized to do business in the State of Michigan, (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for the use and benefit of claimants as defined in Act 213 of Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq., in the amount of \$ _____, for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written Contract with the City, dated _____, 20____, for _____; and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963 as amended;
- (3) If the Principal fails to promptly and fully repay claimants for labor and material reasonably required under the Contract, the Surety shall pay those claimants.
- (4) Surety's obligations shall not exceed the amount stated in paragraph 1, and Surety shall have no obligation if the Principal promptly and fully pays the claimants.
- (5) Principal, Surety, and the City agree that signatures on this bond may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this bond. This bond may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

SIGNED AND SEALED this _____ day of _____, 2020.

(Name of Surety Company)

By _____
(Signature)

Its _____
(Title of Office)

Approved as to form:

Stephen K. Postema, City Attorney

(Name of Principal)

By _____
(Signature)

Its _____
(Title of Office)

Name and address of agent:

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
PROJECT SCHEDULE

AA:DAD

1 of 3

03/23/20

Complete the entirety of work under this Contract in accordance with, and subject to, the scheduling requirements as outlined below, and all other requirements of the Contract Documents.

Organize, coordinate and diligently execute the work at the locations shown on the Schedule of Streets included herein. This schedule details the requirements, if any, for the Start of Work (on or after dates specified), the Completion of Work (on or before dates specified), Restricted Dates, the Maximum Calendar Days for Open to Traffic, and the Liquidated Damages per Calendar Day for each street or phase of work. For the purpose of this Contract, the "Start of Work" definition is the date when the temporary "No-Parking" signs become effective and all required temporary traffic control and SESC measures are in place and ready for use. The City will consider individual major street locations and local street phases to be open to traffic once they have met the "Approved for Traffic" requirements defined in subsection 107.21 of the Michigan Department of Transportation 2012 Standard Specifications for Construction. Within 10 days of opening to traffic an individual major street location or local street phase the Contractor shall complete all work, which includes, but is not limited to, placement of permanent pavement markings, minor slope restoration, clean-up, street cleaning, underground utility and utility structure cleaning (minor street phases), the removal of all temporary traffic control and SESC devices and temporary "No Parking" signs, and other necessary work and as directed by the Engineer. Failure to complete work in a timely manner may result in the suspension of active project work or a delay in starting subsequently planned project work.

The Engineer shall limit the Contractor's work operations to the number of streets that, in its opinion, is reasonable to allow for proper and thorough inspection, and to limit traffic control and/or safety concerns. The Contractor shall not have more than two (2) major street or shared use path locations and one (1) local phase "active" simultaneously at any given time throughout the project unless otherwise noted in the Schedule of Streets or approved by the Engineer. A location is "active" if work has begun and it has not yet been completed.

Conduct the local street phased work as shown on the Schedule of Streets beginning with one phase and opening it to traffic before progressing to the next and continue in this manner until all phases are complete. Begin work on Phase 1 and continue in order through Phase 7 unless otherwise directed or approved by the Engineer. The Engineer will allow preparation of subsequent project phase work up to five (5) days in advance of the planned open to traffic date for the phase on which the Contractor is currently working. This work includes placement/installation of temporary "No-Parking" signs and temporary traffic control and SESC devices. In no case will work be allowed to progress on a subsequent project phase beyond that considered preparational until the current phase is open to traffic or the Engineer directs otherwise. During this five (5) day period the Contractor will cover all temporary "No-Parking" and temporary traffic control signs by methods approved by the Engineer until such time they become effective and are needed for use.

The City expects to furnish the Contractor with two (2) copies of the Contract, for its execution, on or before **April 3, 2020**. The Contractor shall properly execute both copies of the Contract and return them, with the required Bonds and Insurance documentation, to the City by **April 24,**

2020. The Contractor shall not begin the work before the applicable date(s) as described herein without approval from the Project Engineer, and in no case before the receipt of the fully executed Contract and Notice to Proceed.

By no later than **April 29, 2020**, the Contractor shall submit a detailed schedule of work (progress schedule) for the Engineer's review and approval. The progress schedule must fully comply with the scheduling requirements contained on the Schedule of Streets. The schedule shall clearly indicate, in detail, the start and the finish date of each work task on each street. The Contractor shall update the approved progress schedule each week and present it to the Engineer at the weekly progress meeting and must consult with the Engineer for review and approval of any proposed deviations from the most current, approved, schedule.

The Contractor shall begin the work of this project on or after **May 4, 2020**, and only upon receipt of the fully executed Contract, Notice to Proceed and approved Progress Schedule. The City will consider granting appropriate time extensions should delays prevent the Contractor from starting work on this date.

Complete the entire project on or before **November 14, 2020**. Completion of the project means all locations shown on the Schedule of Streets are complete and ready for use in accordance with the "Completion of Work" as defined above.

Failure to open to traffic or complete all work as specified within the times specified, including time extensions granted thereto as determined by the Engineer, shall entitle the City to deduct dollar amounts specified in the Schedule of Streets as "Liquidated Damages" from the payments due the Contractor. The City will assess "Liquidated Damages" for delays in the opening to traffic and/or the completion of work for each street or phase, for each calendar day the street or phase remains unopen and/or the work remains incomplete beyond the required contract completion date or timeframe.

Time is of the essence in the performance of the work of this contract. The Contractor is expected to mobilize sufficient personnel and equipment and work throughout all authorized hours to complete the project by the intermediate (location specific) and final completion dates. Should the Contractor demonstrate that they must work on some Sundays in order to maintain the project schedule, they may do so between the hours of 9:00 a.m. and 5:00 p.m. with prior approval from the City. There will be no additional compensation due to the Contractor for work performed on Sundays.

The Engineer may delay or stop the work due to threatening weather conditions. No compensation shall be due the Contractor for unused materials or downtime due to rain, or the threat of rain. The Contractor is solely responsible for repairing all damages to the work and to the site, including any City infrastructure, and any adjacent properties resulting from its decision to work in the rain.

The Contractor shall not work in the dark except as approved by the Engineer and shall provide lighting for night work as detailed elsewhere in this contract. The Engineer may stop the work or may require the Contractor to defer certain work to another day, if, in the Engineer's opinion, the Contractor cannot be complete the work within the remaining daylight hours, or if inadequate daylight is present to properly perform or inspect the work. No compensation shall be due to the Contractor for unused materials or downtime, when the Engineer directs work stoppage for reasons due to darkness and/or inadequate remaining daylight. The Contractor is solely

responsible for repairing all damages to the work and to the site, including any City infrastructure, and any adjacent properties, which result from working in the dark.

Assessment of Liquidated Damages will occur until the required work is complete in the current construction season. If, with the Engineer's approval, work extends beyond seasonal limitations, the assessment of Liquidated Damages will discontinue until the work resumes in the following construction season.

If the construction contract is not complete within the specified period(s) including any extensions of time granted thereto, at the sole discretion of the City of Ann Arbor it may terminate the Contract. Should this occur no additional compensation will be due to the Contractor, and the Contractor may be forbidden to bid on future City of Ann Arbor projects for a period of at least three (3) years. If the Engineer elects to terminate the Contract, payment for contract items with a Lump Sum unit price will be up to a maximum amount equal to the percentage of the contract work that is complete at the time of termination.

The City's decision to delete streets or phases, add streets, change the construction limits on streets, or, the City's contribution to a delay of the construction on any one street shall not entitle the Contractor to receive additional compensation for work on any other street(s) or phase(s), nor shall it relieve the Contractor of any responsibilities for completion of work on any other street(s) or phase(s).

Include any/all efforts to organize, coordinate, and schedule the project work in the contract unit price bid for the pay item **General Conditions, Max \$_____**.

Street Resurfacing Project – 2020
Schedule of Streets

Location (Street)	Limits of Work	Start of Work	Open to Traffic or *Completion of Work	Date Restrictions and Project Coordination	**Maximum Calendar Days	Liquidated Damages per Calendar Day
MAJOR STREETS						
Boardwalk Drive	E Eisenhower Pkwy to End of Cul-de-Sac	07/13/2020	08/29/2020		49	\$750
E Madison Street	S Main St to S Forth Ave		*06/15/2020	A2RR, MMRL	21	\$500
Geddes Avenue	Church St to Observatory St			AAAF, DTE, INDP, MMRL, UMR, UMRB	28	\$750
Granger Avenue	S State St to Packard St	05/04/2020		CAA, INDP, MMRL,	81	\$750
Miller Avenue Bike Lane Paving	Linda Vista Avenue to Chapin Street			AAPW, INDP, MMRL, UMFB	3	\$250
S Main St HMA Shared Use Path	W Eisenhower Pkwy to Ann Arbor-Saline Rd/S Main St		*09/11/2020	INDP, MMRL, UMFB	30	\$500
W Oakbrook Drive HMA Shared Use Path	Ann Arbor-Saline Rd to S Main St		*06/30/2020	AAATA, MMRL	32	\$500
W Washington Street	S First St to Third St			AAAF, DDA, INDP, MMRL, LABR, WKND	19	\$500
MINOR (LOCAL) STREETS						
Phase 1						
Ardmoor Avenue	Avondale Ave to W Stadium Blvd					
Avondale Avenue	Maywood Ave to Ardmoor Ave					
Barnard Road	Mershon Dr to Greenview Dr					
Glen Leven Road	Greenview Dr to Woodland Dr			MMRL	32	\$750
Normandy Road	Mershon Dr to Greenview Dr					
Woodland Drive	Glen Leven Rd to W Stadium Blvd					
Phase 2						
Amesbury Drive	Churchill Dr to Delaware Dr			INDP	35	\$750
Braeside Pl	S 7th St to End of Cul-de-sac					

Street Resurfacing Project – 2020
Schedule of Streets

Location (Street)	Limits of Work	Start of Work	Open to Traffic or *Completion of Work	Date Restrictions and Project Coordination	**Maximum Calendar Days	Liquidated Damages per Calendar Day
MINOR (LOCAL) STREETS - CONTINUED						
Phase 2 - Continued						
Chaucer Drive	End of Cul-de-sac to Scio Church Rd			INDP	35	\$750
Mershon Drive	End of Cul-de-sac to Scio Church Rd					
Saxon Road	Waltham Dr to Waltham Dr					
Waltham Drive	Scio Church Rd to Saxon Rd					
Windsor Drive	Waltham Dr to Covington St					
Winsted Boulevard	End of Cul-de-sac to Scio Church Rd					
Worthington Place	Lans Way to End of Cul-de-sac					
Yeoman Court	Wiltshire Dr to End of Cul-de-sac					
Phase 3						
Barrington Place	Dunmore Rd to Runnymede Blvd			INDP	30	\$750
Carol Drive	Runnymede Blvd to Stephen Ter/Wimpole St					
Dunmore Road	Waverly Rd to Barrington Pl/ Weldon Blvd					
Kent Street	Dicken Dr to Waltham Dr					
Stephen Terrace	Runnymede Blvd to Carol Dr/ Wimpole St					
Waltham Drive	Warwick Ct to Covington St					
Warwick Court	Waltham Dr to End of Cul-de-sac					
Wimpole Street	Carol Dr/Stephen Ter to Dead End					
Phase 4						
Agincourt	Covington St to End of Cul-de-sac			AAPS, INDP	40	\$750
Brampton Court	Covington St to End of Cul-de-sac					
Covington Street	Brampton Ct to End of Cul-de-sac					
Dicken Drive	S Maple Rd to End of Cul-de-sac					
Runnymede Boulevard	Las Vegas Dr to Dead End					
Wimpole Street	Runnymede Blvd to Dicken School Prkg Lot					

Street Resurfacing Project – 2020

Schedule of Streets

Location (Street)	Limits of Work	Start of Work	Open to Traffic or *Completion of Work	Date Restrictions and Project Coordination	**Maximum Calendar Days	Liquidated Damages per Calendar Day
MINOR (LOCAL) STREETS - CONTINUED						
Phase 5						
Avondale Avenue	Las Vegas Dr to Westfield Ave			LABR	34	\$750
Coronada Street	Alhambra Dr/Sue Pkwy to Alhambra Dr					
Hanover Court	Mershon Dr to End of Cul-de-sac					
Hanover Road	Waverly Rd to Mershon Dr					
Las Vegas Drive	Coronada St to Avondale Ave					
Sue Pkwy	Runnymede Blvd to Alhambra Dr/Coronada St					
Waverly Road	Hanover Rd to Dunmore Rd					
Westfield Avenue	Avondale Ave to W Stadium Blvd					

*Complete all work required for this project location by the date shown.

**Maximum calendar days allowed to open project location or phase to traffic, or to complete all required work if so designated in the above table.

Date Restrictions and Project Coordination

AAATA - Coordinate work and maintenance of traffic with that of the Ann Arbor Area Transportation Authority for bus stop repairs and additions.

AAPS - No work permitted when Ann Arbor Public Schools are in session (before June 15, 2020 or after September 8, 2020).

AAPW - Coordinate work and maintenance of traffic with City of Ann Arbor Public Works Department.

AAAF - No work permitted from July 16, 2020 thru July 19, 2020 due to the Ann Arbor Street Art Fairs.

A2RR – Coordinate work and maintenance of traffic with City of Ann Arbor & Watco Companies/Ann Arbor Railroad Project.

CAA - Coordinate work and maintenance of traffic with City of Ann Arbor Street Surface Treatment Project – FY2020 work planned for E Stadium Blvd and Packard St.

DDA – Coordinate work and maintenance of traffic with Ann Arbor Downtown Development Authority First & Ashley Street Project.

DTE - Coordinate work with DTE Energy Conduit Duct Bank Project restoration work in the vicinity of the Church St and Geddes Ave intersection.

INDP - No work during the Independence Day holiday period from 3:00 p.m. July 3 to 7:00 a.m. July 6, 2020.

LABR - No work during the Labor Day holiday period from 3:00 p.m. September 4 to 7:00 a.m. September 8, 2020.

Street Resurfacing Project – 2020

Schedule of Streets

Date Restrictions and Project Coordination (continued)

UMFB - No work permitted during scheduled home game dates (9/12, 9/19, 9/26, 10/3, 10/24) for University of Michigan Football.

MMRL - No work during the Memorial Day holiday period from 3:00 p.m. May 22 to 7:00 a.m. May 26, 2020.

UMR - Coordinate work with University of Michigan Ruthven Building Renovation and Expansion Project.

UMRB - Coordinate work with University of Michigan Central Campus Recreation Building Project.

UMSM - No work permitted during University of Michigan Student Move-in (September 2 thru September 4, 2020).

WKND – Perform cold milling of existing asphalt pavement and placement of new hot mix asphalt pavement only during the weekend between the hours of 7:00 AM – 8:00 PM on Saturday and 9:00 AM – 6:00 PM on Sunday. Obtain approval from City by no later than 12:00 NOON the Wednesday prior to the planned cold milling and paving work.

Notes

1. Date Restrictions shown above are based on a preliminary project construction schedule developed by the City for planning purposes. These may change for project locations with no specific required start and/or open to traffic or completion of work dates.
2. Work operations on the E Madison Street, W Washington Street, and Miller Avenue locations are not included in the limitations specified in the Project Schedule and may occur in conjunction with two (2) major street or shared use path locations and one (1) local phase; however, the Contractor will not be permitted to work on any of these locations simultaneously unless approved by the Engineer.

CITY OF ANN ARBOR

DETAILED SPECIFICATION
FOR
GRADING SIDEWALKS, SIDEWALK RAMPS, AND DRIVEWAYS

AA:DAD

1 of 2

03/23/20

a. Description. Remove miscellaneous structures and materials, and complete all earthwork required to construct new and replacement sidewalks, sidewalk ramps and driveway approaches to the lines and grades shown on the plans and/or as directed by the Engineer. Complete this work according to the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, this detailed specification, and as directed by the Engineer.

b. Materials. Provide materials in accordance with subsection 205.02 of the MDOT 2012 Standard Specifications for Construction as necessary to achieve the required cross section(s). The Contractor may use excavated material, if suitable, as embankment with approval by the Engineer.

c. Construction. Complete this work, as applicable, according to subsection 205.03 of the MDOT 2012 Standard Specifications for Construction. Grading for sidewalks, sidewalk ramps and driveway approaches includes, but is not limited to, the following work:

1. Stripping and stockpiling topsoil for use in turf establishment as approved.
2. Removing rocks or boulders less than 0.5 cubic yards in volume.
3. Excavating material to a depth necessary for construction.
4. Disposing of excess and unsuitable material according to section 205 of the MDOT 2012 Standards Specifications for Construction.
5. Shaping, grading, and compacting the subgrade to proposed grades to prepare it for embankment, subbase or aggregate base bedding materials or for an aggregate surface course.
6. Furnishing and placing embankment material to the grades necessary for construction.
7. Shaping, grading, and compacting embankment to proposed grades to prepare it for subbase or aggregate base bedding materials or for an aggregate surface course.
8. Matching new sidewalk, sidewalk ramp, and driveway approach grades with existing grades as required.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the contract unit price using the following pay items:

<u>Pay Item</u>	<u>Pay Unit</u>
Grading, Driveway Approach	Square Yard
Grading, Sidewalk	Square Yard
Grading, Sidewalk Ramp	Square Yard

Measure **Grading, Driveway Approach; Grading, Sidewalk;** and **Grading, Sidewalk Ramp** areas in place by the unit square yard and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials necessary to complete the work.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
UNDERCUTTING

AA:DAD

1 of 2

03/23/20

a. Description. This work includes the removal of existing unstable and/or unsuitable base, subbase and/or subgrade soil material(s) that may be susceptible to frost heaving or differential frost action in the areas and limits identified by the Engineer. It also includes installing stabilization geotextile and/or structural geogrid as necessary and backfilling to replace these material(s) and remedy the unstable soil conditions. Perform this work in accordance with section 205 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, as directed by the Engineer, and as modified herein.

b. Materials. Provide Granular Material Class II and 21AA dense-graded aggregate materials in accordance with those specified in section 902 of the MDOT 2012 Standard Specifications for Construction.

Provide Coarse Aggregate 3x1 in accordance with sections 902 and 916 the MDOT 2012 Standard Specifications for Construction, except as modified herein. Coarse crushed aggregate must consist of a well graded crushed natural aggregate ranging from one (1) inch to three (3) inch inches in size with no more than 7 percent by weight passing the No. 200 sieve. Coarse aggregate crushed content must be at least 95%.

Provide stabilization geotextile materials in accordance with section 910 of the MDOT 2012 Standard Specifications for Construction.

Provide structural geogrid materials in accordance with the Detailed Specification for Structural Geogrid.

c. Construction. Use construction methods as described in subsection 205.03.E of the Standard Specifications for Construction, and as directed by the Engineer.

After either removing the pavement, performing rough/finish grading, and/or at the time of proof rolling, the Engineer will inspect the grade to determine the need for, and the limits of, undercuts. Excavate to the required depth, trim, shape, and re-compact the undercut areas as directed by the Engineer. Properly dispose of all excess materials.

Backfill areas of Undercutting, Type IIA with class 21AA dense-graded aggregate, areas of Undercutting, Type IIB with Granular Material Class II, and areas Undercutting, Type IIC with Coarse Aggregate 3x1 unless directed otherwise by the Engineer.

Place stabilization geotextile and structural geogrid as directed by the Engineer in areas where subgrade soils require added stability. Place stabilization geotextile as directed by the Engineer in areas where is the potential of intermixing of dissimilar materials.

Place and compact the aggregate fill in maximum lifts of not more than 12 inches thick. At the discretion of the Engineer, aggregate fill lifts of up to 24 inches may be allowed based on the assessment of subgrade soil conditions.

Compact undercutting backfill material (>12 inches below the finish base grade) to not less than 95% of its maximum unit weight. Compact undercutting backfill material (≤12 inches below the finish base grade) to not less than 98% of its maximum unit weight. Determine the maximum unit weight of backfill materials using the AASHTO T-180 test.

The Engineer may elect to use one or more types of undercutting to address poor soil conditions identified in a specific area of the project.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the contract unit prices using the following pay items:

<u>Pay Item</u>	<u>Pay Unit</u>
Undercutting, Type IIA.....	Cubic Yard
Undercutting, Type IIB.....	Cubic Yard
Undercutting, Type IIC	Cubic Yard

Measure **Subgrade Undercutting, Type IIA, Subgrade Undercutting, Type IIB, and Subgrade Undercutting, Type IIC** volumes in place by the unit cubic yard and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials necessary to complete the work.

When one or more than types of undercutting are used to address poor soil conditions identified in a specific area of the project, each type will be measured and paid for separately.

Stabilization geotextile and structural geogrid will each be measured and paid for separately.

CITY OF ANN ARBOR
 DETAILED SPECIFICATION
 FOR
HOT MIX ASPHALT (HMA) APPLICATION ESTIMATE

AA:DAD

1 of 2

03/23/20

a. Description. Perform this work in accordance with the requirements of section 501 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, and as herein specified.

b. Materials.

PAY ITEM	HMA MIX	APPLICATION RATE	ESTIMATED THICKNESS	PERFORMANCE GRADE	AWI (min)
Boardwalk Drive and West Washington Street					
HMA, 5E1	5E1 (top)	220 lb/syd	2.0 inches	PG 64-28	260
HMA, 4E1	4E1 (leveling)	165-220 lb/syd	1.5-2.0 inches	PG 64-28	N/A
East Madison Street and Geddes Avenue					
HMA, 5E3	5E3 (top)	220 lb/syd	2.0 inches	PG 64-28	260
HMA, 4E3	4E3 (leveling)	220 lb/syd	2.0 inches	PG 64-28	N/A
Granger Avenue					
HMA, LVSP	LVSP (leveling & top)	220 lb/syd	2.0 inches	PG 58-28	220
South Main Street and West Oakbrook Drive Shared Use Paths					
Shared use Path, HMA	5E1 (top)	220 lb/syd	2.0 inches	PG 64-28	260
	LVSP (leveling)	220 lb/syd	2.0 inches	PG 58-28	N/A
Shared use Path, HMA, Wedging	5E1	Varies between 55 and 250 lb/syd	Varies between 0.5 and 2.25 inches	PG 58-28	N/A
Major and Minor (Local) Streets					
*Hand Patching	<u>5E1 or 5E3 Major Streets</u>	Varies with maximum = 330 lb/syd	Varies with maximum layer = 3.0 inches	PG 64-28	N/A
	<u>LVSP Minor Streets</u>			PG 58-28	

PAY ITEM	HMA MIX	APPLICATION RATE	ESTIMATED THICKNESS	PERFORMANCE GRADE	AWI (min)
**HMA Approach	5E1 or 5E3 <u>Major Streets</u>	Place in two courses/lifts at 220 lb/syd	Varies with maximum per lift = 2.0 inches	PG 64-28	260
	LVSP <u>Minor Streets</u>			PG 58-28	220
HMA, Bike Lane	5E1, 5E3, 4E1 or 4E3	Varies between 165 and 220 lb/syd	Varies between 1.5 and 2.0 inches	PG 64-28	260
HMA, LVSP	LVSP (leveling & top)	220 lb/syd	2.0 inches	PG 58-28	220
HMA, Wedging, 36A	36A	Varies between 110 and 330 lb/syd	Varies between 1.0 and 3.0 inches	PG 58-28	220

*The Contractor may use alternative top course E mixes for Hand Patching with approval by the Engineer. LVSP is approved for use only on minor (local) streets.

**HMA Approach mix shall match that used for mainline paving (top course) on the street for which the adjacent side street approaches are being paved unless otherwise approved or directed by the Engineer.

Use the respective mixes indicated above on Major and Local streets unless the plans note otherwise or directed otherwise by the Engineer. Submit mix designs and obtain approval from the Engineer for all HMA mixtures proposed for use. For approach and hand patching work on Major Streets, use the same HMA mixture respectively as specified for the top course unless otherwise approved by the Engineer.

Use 3.5% as target air void content of for leveling courses, top courses and shoulders paved in the same operation as the leveling and top courses. Use 3% as a target air void content of for base courses and shoulders not paved in the same operation as the leveling and top courses. Use 3% as a target air void content of for shared use paths.

The Performance Grade asphalt binder range for the HMA mixture shall be as noted above. Apply Bond Coat material accordance with the requirements of the Detailed Specification for HMA Paving.

Apply bond coat at a uniform rate between 0.05 and 0.10 gallons per square yard as directed and approved by the Engineer. Bond Coat is not a separate pay item; the HMA items of work for which it applies include payment for furnishing and placing bond coat.

c. Measurement and Payment. Measure and pay for this work as provided elsewhere in the contract documents.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
HMA BIKE LANE PAVING

AA:DAD

1 of 2

03/23/20

a. Description. This work consists of placing hot mix asphalt (HMA) at the locations shown in the "Schedule of Streets" or directed by the Engineer to improve the condition and safety of bike lane pavement areas throughout the City. Coordinate this work with City of Ann Arbor Public Works, which will be performing the cold milling of the existing pavement in these areas. Complete work as directed by the Engineer and as described herein.

b. Materials. Provide materials in accordance with section 501 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction. Use MDOT HMA top course mixtures E1 or E3 as shown in the Detailed Specification for Hot Mix Asphalt Application Estimate. The Engineer must approve of all mixtures for use prior to placement including any proposed substitutes.

c. Construction. Perform work in accordance with section 501 of the MDOT 2012 Standard Specifications for Construction, and as directed by the Engineer.

Coordinate this work to complete the paving immediately following the cold milling activities being performed by City of Ann Arbor Public Works crews.

Furnish and operate all temporary traffic control devices and provide traffic regulator control necessary to complete the bike lane paving activities including those being performed by City of Ann Arbor Public Works crews and any/all others directed by the Engineer.

Submit a temporary traffic control plan to the Engineer for approval a minimum of 48 hours in advance of this work.

Clean the existing surface as directed by the Engineer with compressed air and/or vacuum type street cleaning equipment to remove dirt and debris prior to placement of HMA material. Provide compressed air from a source capable of supplying air at a minimum pressure of 90 psi and at a rate 150 cubic feet per minute of at the nozzle.

Apply MDOT SS-1h bond coat on all asphalt and concrete surfaces within the bike lane paving area. Apply at a rate between 0.05 and 0.10 gallons/square yard using a distributor tanker truck or power distributor hand sprayer. Do not place bond coat material on pavement and concrete curb and gutter surfaces adjacent to the bike lane areas that are not approved for paving.

Place HMA material using an asphalt paving machine or, where approved by the Engineer, place HMA material directly by hand. Do not place HMA materials on pavement and concrete curb and gutter surfaces adjacent to the bike lane areas that are not approved for paving.

Place HMA material in one (1) lift/layer to match the depth of the cold milled area unless otherwise directed by the Engineer. The estimated thickness and application rate of the material are respectively between 1-1/2 to 2 inches and 165 and 220 pounds/square yard. Compact HMA mixture to between 92 and 96 percent (or as determined acceptable by the Engineer) of the theoretical maximum density, as listed on the approved Job Mix Formula.

Provide a 10-foot long straight-edge and a 10-foot long level during all paving operations.

Place temporary longitudinal pavement markings to delineate the new bike lane pavement area adjacent to the existing traffic lane as directed by the Engineer.

Place permanent bike lane and longitudinal pavement markings as required and in accordance with the special details on the plans and as directed by the Engineer.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the contract unit price using the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
HMA, Bike Lane	Ton

Measure **HMA, Bike Lane** by weight in tons of the material used to construct the bike lane and pay for it at the contract unit price, which price includes the costs for all labor, equipment and materials necessary to complete the work including providing, placing and compacting the HMA mixture.

Return any/all trucks to the plant with unused HMA remaining after the work is complete. Re-weigh these trucks and provide a weight slip for this material to the Engineer. There will be no payment for any unused HMA material. All weight slips must include the type of mixture (codes are not acceptable), as well as vehicle number, gross weight, tare weight and net weight.

Temporary traffic control devices and traffic regulator control will be measured and paid for separately.

Temporary and permanent pavement markings will be measured and paid for separately.

CITY OF ANN ARBOR
 DETAILED SPECIFICATION
 FOR
HOT MIX ASHALT (HMA) PAVEMENT REPAIR

AA:DAD

1 of 1

03/23/20

a. Description. This work consists of repairing areas of failed asphalt pavement by cold milling the existing pavement and placing new hot mix asphalt (HMA) material as directed by the Engineer, and as described herein. Complete pavement repairs in the cold milled surface prior to placement of the first hot mix asphalt paving course.

b. Materials. Provide materials in accordance with subsection 501.02 of the MDOT 2012 Standard Specifications for Construction and as shown on the special detail.

c. Construction. Cold mill designated repair locations and place Hand Patching, Modified according to the details on the plans, and in accordance with subsection 501.03 of the MDOT 2012 Standard Specifications for Construction. The Engineer will designate repair locations after the pavement has been cold milled as shown on the plans. The milling machine must return to the designated repair locations to apply milling for an additional depth of 3 inches. Hand Patching, Modified must be placed in the repair area and roller compacted prior to placement of the paving course.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the respective contract unit prices using the following respective pay items:

Pay Item	Pay Unit
Cold Milling HMA Surface, Modified.....	Square Yard
Hand Patching, Modified.....	Ton

Measure **Cold Milling HMA Surface, Modified** area by the unit square yard and pay for it at the contract unit price, which price includes the cost for all labor, equipment and materials required to remove, load, haul, and dispose of the cold milled material, and cleaning the cold milled pavement. The Engineer will not pay for material picked up by cleaning after cold milling.

Measure **Hand Patching, Modified** by weight in tons of the material used to perform the work and pay for it at the contract unit price, which prices includes the cost for all labor, equipment and materials to complete the work including providing, placing by hand or other methods, and compacting the HMA mixture.

Return any/all trucks to the plant with unused HMA remaining after the Hand Patching, Modified work is complete. Re-weigh these trucks and provide a weight slip for this material to the Engineer. There will be no payment for any unused HMA material. All weight slips must include the type of mixture (codes are not acceptable), as well as vehicle number, gross weight, tare weight and net weight.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
HMA TRAFFIC CALMING MEASURES

AA:DAD

1 of 2

03/23/20

a. Description. This work consists of constructing traffic calming devices at locations directed by the Engineer, in accordance with the special details shown on the plans, and as described herein.

b. Materials. Provide materials in accordance with section 501 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction. Use MDOT mixture HMA, LVSP for this work, or an acceptable substitute approved by the Engineer.

c. Construction. Perform work in accordance with section 501 of the MDOT 2012 Standard Specifications for Construction, and as directed by the Engineer.

Furnish and operate all temporary traffic control devices and provide traffic regulator control necessary to complete traffic calming device construction.

Submit a temporary traffic control plan to the Engineer for approval a minimum of 48 hours in advance of this work.

Clean the existing surface with compressed air and/or vacuum type street cleaning equipment to remove dirt and debris prior to placement of HMA material. Provide compressed air from a source capable of supplying air at a minimum pressure of 90 psi and at a rate 150 cubic feet per minute of at the nozzle.

Apply MDOT SS-1h bond coat on all asphalt and concrete surfaces within the area where installing the traffic calming measure. Apply at a rate between 0.05 and 0.10 gallons/square yard using a power distributor hand sprayer. Do not place bond coat material on pavement and concrete curb and gutter surfaces adjacent to the traffic calming measures being placed that are not approved for paving.

Placing traffic calming devices using an asphalt paving machine or, where approved by the Engineer, place HMA material directly by hand. Do not place HMA materials on pavement and concrete curb and gutter surfaces adjacent to the traffic calming measures being placed that are not approved for paving.

Use City of Ann Arbor provided template when constructing traffic calming devices unless otherwise directed by the Engineer.

Construct traffic calming devices using two (2) lifts/layers of HMA material. Compact each lift of HMA mixture to between 92 and 96 percent (or as determined acceptable by the Engineer) of the theoretical maximum density, as listed on the approved Job Mix Formula.

Provide a 10-foot long straight-edge and a 10-foot long level during all paving operations.

Place temporary pavement markings to delineate and differentiate the traffic calming devices for traffic as directed by the Engineer.

Place permanent pavement markings as required and in accordance with the special details on the plans and as directed by the Engineer.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the contract unit price using the following pay items:

<u>Pay Item</u>	<u>Pay Unit</u>
HMA, Raised Crosswalk	Square Yard
HMA, Raised Intersection	Square Yard
HMA, Speed Hump	Square Yard

Measure **HMA, Raised Crosswalk; HMA, Raised Intersection;** and **HMA, Speed Hump** areas in place by the unit square yard and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials necessary to complete the work including providing, placing and compacting the HMA mixture.

Temporary traffic control devices and traffic regulator control will be measured and paid for separately.

Temporary and permanent pavement markings will be measured and paid for separately.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
HMA, WEDGING, 36A

AA:DAD

1 of 1

03/23/20

a. Description. This work consists of constructing hot mix asphalt (HMA) finish wedges at drive approaches, sidewalk ramps, and any other location(s) directed by the Engineer, and as described herein.

b. Materials. Provide materials in accordance with section 501 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction. Use MDOT mixture HMA, 36A for this work, or an acceptable substitute approved by the Engineer.

c. Construction. Perform work in accordance with section 501 of the MDOT 2012 Standard Specifications for Construction, and as directed by the Engineer.

Complete all finish wedging within two days of placing the top course pavement.

Have a 10-foot long straight-edge, backhoe, air-compressor and jackhammer available during all paving operations.

Use finish wedges to provide good vertical and horizontal transitions between old and new construction, to eliminate areas of standing water in the top coarse surface and to provide for positive drainage.

Construct joints by feathering the edges of all finish wedges (including the raking out of all large pieces of aggregate) to provide a high quality, smooth riding surface.

Clean the existing surface with compressed air and/or vacuum type street cleaning equipment prior to placement of wedging material.

Apply MDOT SS-1h bond coat on all asphalt and concrete surfaces within the wedging area at a rate between 0.05 and 0.10 gallons/square yard using a power distributor hand sprayer.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the contract unit price for the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
HMA, Wedging, 36A.....	Ton

Measure **HMA, Wedging, 36A** by weight in tons of the material used to perform the work and pay for it at the contract unit price, which price includes all cost for labor, equipment and materials necessary to complete the work including providing, placing and compacting the HMA mixture.

Return any/all trucks to the plant with unused HMA remaining after the work is complete. Re-weigh these trucks and provide a weight slip for this material to the Engineer. There will be no payment for any unused HMA material. All weight slips must include the type of mixture (codes are not acceptable), as well as vehicle number, gross weight, tare weight and net weight.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
SHARED USE PATH GRADING

AA:DAD

1 of 2

03/23/20

a. Description. This work consists of removing miscellaneous structures and materials, and completing all earthwork required to construct new and replacement asphalt paths to the lines and grades shown on the plans and/or as directed by the Engineer. Complete this work according to sections 205 and 806 Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, this detailed specification, and as directed by the Engineer.

b. Materials. Provide Granular Material Class II and 21AA dense-graded aggregate materials in accordance with those specified in section 902 of the MDOT 2012 Standard Specifications for Construction as necessary to achieve the required cross section(s). The Contractor may use excavated material, if suitable, as embankment with approval by the Engineer.

c. Construction. Complete this work, as applicable, according to subsections 205.03 and 806.03 of the MDOT 2012 Standard Specifications for Construction. Grading for shared use path includes, but is not limited to, the following work:

1. Stripping and stockpiling topsoil for use in turf establishment as approved.
2. Removing rocks or boulders less than 0.5 cubic yards in volume.
3. Excavating material to a depth necessary for construction.
4. Required brushing and tree trimming and removal of materials resulting from this work.
5. Removing and disposing of overburden vegetation and soils alongside the existing pathway edges prior to any crushing and shaping activities.
6. Disposing of excess and unsuitable material according to section 205 of the MDOT 2012 Standards Specifications for Construction.
7. Shaping, grading, and compacting the subgrade to proposed grades to prepare it for embankment or aggregate base bedding material.
8. Furnishing and placing embankment material to the grades necessary for construction.
9. Shaping, grading, and compacting embankment to proposed grades to prepare it for aggregate base bedding material.
10. Matching new shared use path grades with existing or new grades as required.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the contract unit price using the following pay items:

<u>Pay Item</u>	<u>Pay Unit</u>
Shared use Path, Grading, Modified	Square Yard

Measure **Shared use Path, Grading, Modified** area in place by the unit square yard and pay for it at the contract unit price, which price includes the costs for all labor, equipment and materials necessary to complete the work.

CITY OF ANN ARBOR
 DETIALED SPECIFICATION
 FOR
HOT MIX ASPHALT (HMA) SHARED USE PATH WEDGING

AA:DAD

1 of 2

03/23/20

a. Description. This work consists of constructing hot mix asphalt (HMA) wedging along shared use paths as directed by the Engineer, and as described herein.

b. Materials. Provide materials in accordance with section 501 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction. Use HMA mixture shown in the Detailed Specification for Hot Mix Asphalt (HMA) Application Estimate included in the contract for this work, or an acceptable substitute approved by the Engineer.

c. Construction. Perform work in accordance with section 501 of the MDOT 2012 Standard Specifications for Construction, and as directed by the Engineer.

Place wedging material in accordance with the application rate shown in the Detailed Specification for Hot Mix Asphalt (HMA) Application Estimate included in the contract.

Have a 10-foot long straight-edge, backhoe, air-compressor and jackhammer available during all paving operations for wedging work.

Use wedging to provide good vertical and horizontal transitions between old and new construction, eliminate areas of standing water in the wearing surface and provide for positive drainage, and to perform cross slope correction to achieve compliance with current standards.

Construct joints by feathering the edges of all wedging (including the raking out of all large pieces of aggregate) to provide a high quality, smooth riding surface.

Clean the existing surface with compressed air and/or vacuum type street cleaning equipment prior to placement of wedging material.

Apply MDOT SS-1h bond coat on all asphalt and concrete surfaces within the wedging area at a rate between 0.05 and 0.10 gallons/square yard as directed by the Engineer using a power distributor hand sprayer.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the contract unit price for the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
Shared use Path, HMA, Wedging	Ton

Measure **Shared use Path, HMA, Wedging** by weight in tons of the material used to perform the work and pay for it at the contract unit price, which price includes all cost for labor, equipment and materials necessary to complete the work including providing, placing and compacting the HMA mixture.

Return any/all trucks to the plant with unused HMA remaining after the work is complete, and re-weigh these trucks to obtain an accurate quantity of unused/waste material. Provide to the Engineer, a corrected or new weight ticket/slip that accounts for the unused material. There will be no payment for any unused HMA material. All weight tickets/slips must include the type of mixture (codes are not acceptable), as well as vehicle number, gross weight, tare weight, and net weight.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
MAINTENANCE OF TRAFFIC

AA:DAD

1 of 5

03/23/20

a. Description. The work consists of maintaining traffic at the locations identified on the "Schedule of Streets" for duration of the work. Maintain traffic in accordance with the plans, subsection 104.11 and section 812 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), applicable supplemental specifications, as directed by the Engineer, and as herein specified.

The following, and herein included, Michigan Department of Transportation (MDOT) Maintaining Traffic Typical, and Work Zone Device Standard Plans and Special Details apply to the project: M0020a, M0040a, M0140a, M150a, M0232a, M250a, WZD-100-A, and WZD-125-E.

These maintaining traffic provisions are subject to change in the event of special community activities.

Place permanent pavement marking items included in the contract per the MDOT 2012 Standard Specifications for Construction prior to the removal of any devices required to temporarily maintain traffic during construction. If approved to open to traffic prior to the placement of permanent pavement markings, place temporary pavement markings as directed by the Engineer.

b. Materials. Provide materials for all devices to temporarily control and maintain traffic meeting the requirements of section 812 of the MDOT 2012 Standard Specifications for Construction, the MMUTCD, and the applicable MDOT typicals and details included herein.

Use sign sizes shown on the plans, unless otherwise directed by the Engineer. Install all temporary signs on driven posts, which are to remain in the same place for 14 days or more. Install all other temporary signs on portable supports. Install all signs to have a minimum bottom height of 7.0 feet.

Use only plastic drums for channelizing devices when implementing any/all lane closures. 42 inch channelizing devices are permissible at certain locations with approval from the Engineer.

Furnish paper bills of lading/delivery tickets to the Engineer on the jobsite for all temporary traffic control devices delivered to the various project locations.

c. Construction. Use construction methods meeting the requirements of section 812 of the MDOT 2012 Standard Specifications for Construction, and as described herein.

Furnish and place all necessary temporary traffic control devices to maintain traffic during construction. Keep all work, construction equipment, and material storage behind the curb, or behind barricades or channelizing devices, all in combination with protective fencing, if required to protect open excavations, and do not in any way hamper vehicle movement or impair traffic vision. Provide protection to all uncured concrete sidewalk, driveways, and curb and gutter as needed until all traffic, foot or otherwise, can cross without damage. Install additional barricades and protective fencing at the end of each day to insure no disturbance to the work area.

Distances between warning, regulatory, and guide signs as shown on the typical and details are approximate, and may require field adjustment, as directed by the Engineer.

Maintain two-way traffic as shown on the plans, access for local traffic on local streets, and always keep all intersections open to traffic unless specifically authorized in writing by the Engineer.

Maintain traffic to prevent vehicles from driving into active work areas. Remove and replace patch areas that extend more than halfway across the roadway to provide a minimum of half the pavement width at all times for maintaining traffic.

Remove existing pavement markings and place temporary pavement markings as directed by the Engineer.

All temporary traffic/pedestrian control devices furnished by the Contractor remain the property of the Contractor. The City is not responsible for stolen or damaged signs, barricades, plastic drums and other traffic maintenance items. Replace missing and/or damaged traffic control devices immediately, at no additional cost to the City.

1. Construction Influence Area (CIA). The CIA at each location consists of the width of the right-of-way and easements, and the limits of any advance temporary construction signing shown on the plans and applicable maintaining traffic typicals along the street under construction and any/all cross streets. Posted detour routes are not part of the CIA.

Furnish, erect, maintain, and upon completion of the work, remove all traffic control devices within and around the CIA, and along posted detour routes, for the safety and protection of traffic. This includes, but is not limited to, regulatory and warning signs, barricades, channeling devices and other minor devices where required by the Engineer.

Coordinate operations with all subcontractors, utilities, and/or other contractors performing work on this and other projects within, or adjacent to, the Construction Influence Area (CIA). Avoid conflicts in maintaining traffic operations, signing, and orderly progress of other contract work.

2. Permits. Prior to the start of construction, obtain a "Right-of-Way" Permit from City of Ann Arbor Customer Services Unit. Notify the Project Engineer and obtain a "Traffic Detour or Lane Closure" Permit from Customer Services Unit a minimum of 72 business hours prior to the implementation of any traffic shifts, lane closures and street closures. There are no fees associated with these permits.

3. Work Times and Restrictions. Conduct all work on Monday through Saturday between 7:00am and 8:00pm unless, prior to commencement of construction, the City authorizes a plan identifying alternate days and hours of work. Should night work be required for any reason, notify the Project Engineer a minimum of three (3) working days (72 hours) in advance of such work, and the work must have the approval of the City prior to commencement.

Only perform work of an emergency nature or work required to insure traffic safety on Sunday and only with prior approval by the City.

Perform no road work nor permit any traffic interruptions, including lane closures, on Sundays, and during the Memorial Day, July 4th, and Labor Day holiday periods unless otherwise authorized by the Engineer. All streets and sidewalks that can be open will be open. Trucking on or off site will not be permitted.

During non-working periods, any area with uncompleted work will have plastic drums at specific locations and protective fencing, as directed by the Engineer, and at no additional cost to the project.

4. Traffic Restrictions. At all times conduct work to insure the least possible obstruction to traffic and inconvenience to the public, and property owners including businesses and residents proximate to the work.

Do not interfere with traffic on major streets between the hours of 7:00 a.m. to 9:00 a.m. and 3:30 p.m. to 6:00 p.m. unless otherwise approved by the Engineer or as specified on a Lane Closure Permit. Make all major changes in traffic control either between 9:00 a.m. and 3:30 p.m. or between 7:00 p.m. and 6:30 a.m. in order to minimize interference with rush hour traffic. All traffic controls must be in place and ready for traffic each day by 6:30 a.m. and 3:30 p.m. The City will permit temporary obstruction of traffic for loading and unloading of trucks only if the Contractor provides traffic regulators (flag persons) in conformance with Part VI of the MMUTCD. During temporary obstructions, a minimum of two traffic regulators are required. Include the cost of traffic regulators (flag control) in the unit price for the contract pay item "**Traf Regulator Control**".

Maintain access to businesses, residences, and side street(s) within the CIA for the duration of the project. The Contractor shall make every effort to coordinate its operations to minimize interruptions affecting this access. Notify the Project Engineer forty-eight (48) hours in advance of performing any work on or near business or residential driveways, and stage work so that it is part-width when it is necessary to work in these areas. The Engineer will not allow the Contractor to prohibit access to businesses and residences during any phase of construction and may require traffic regulator control at its discretion.

Maintain 9 feet wide minimum lane widths and greater widths whenever feasible. Schedule work so not to require any traffic stoppage under any circumstance unless otherwise approved by the Engineer. Suspend work within the CIA during peak traffic hours, and/or at the direction of the Engineer when construction activity(s) unduly hamper or delay traffic.

5. Emergency Services. Notify local police, fire departments and emergency response units a minimum of three business days (72 hours) prior to the closure of any lanes, or traffic shifts causing restricted movements of traffic or restricted access. Keep "live" fire hydrants in or adjacent to the work and fire fighting forces made aware of their availability at all times during construction.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the contract unit price using the following pay items in accordance with subsection 812.04 of the Standard Specifications for Construction.

<u>Pay Item</u>	<u>Pay Unit</u>
Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Each
Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Each
Channelizing Device, 42 inch, Furn	Each
Channelizing Device, 42 inch, Oper	Each
Lighted Arrow, Type C, Furn	Each
Lighted Arrow, Type C, Oper	Each
Pavt Mrkg Cover, Type R, Black	Foot
Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Foot
Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, White, Temp.....	Foot
Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, Yellow, Temp	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
Plastic Drum, High Intensity, Lighted, Furn	Each
Plastic Drum, High Intensity, Lighted, Oper	Each
Pavt Mrkg, Wet Reflective, Type R, Tape, 24 inch, Stop Bar.....	Foot
Sign Cover	Each
Sign, Portable, Changeable Message, Furn	Each
Sign, Portable, Changeable Message, Oper.....	Each
Sign, Type B, Temp, Prismatic, Furn	Square Foot
Sign, Type B, Temp, Prismatic, Oper.....	Square Foot
Sign, Type B, Temp, Prismatic, Special, Furn	Square Foot
Sign, Type B, Temp, Prismatic, Special, Oper	Square Foot
Traf Regulator Control.....	Lump Sum
Minor Traffic Control, Modified, Max \$____	Lump Sum

The quantities for maintaining traffic are estimates and based on the signing and related traffic control devices deemed necessary for this project as shown on the plans and applicable MDOT Maintaining Traffic Typical and include traffic regulators and minor traffic devices.

Payment for furnishing and operating temporary traffic control devices shall be for the maximum quantity in use on each street at any one time with exception to lighted arrows and portable changeable message signs, which payment shall be for furnishing and operating the maximum quantity in use at any one time during the entire project (all streets and/or phases).

Any additional signing or maintaining traffic devices required to expedite the construction is at the Contractor's expense unless approved by the Engineer.

Include any/all costs for transporting temporary traffic control devices in their respective contract unit prices bid for the individual traffic control items of work set up in the contract.

The Engineer will pay for temporary traffic control devices only once irrespective of the number of times moved. Include any/all costs for temporary traffic control devices not addressed by this detailed specification, or where there is no separate pay item in the contract, in the unit price for **Minor Traffic Control, Max \$_____**.

MINIMUM MERGING TAPER LENGTH "L" (FEET)

OFFSET FEET	POSTED SPEED LIMIT, MPH (PRIOR TO WORK AREA)									
	25	30	35	40	45	50	55	60	65	70
1	10	15	20	27	45	50	55	60	65	70
2	21	30	41	53	90	100	110	120	130	140
3	31	45	61	80	135	150	165	180	195	210
4	42	60	82	107	180	200	220	240	260	280
5	52	75	102	133	225	250	275	300	325	350
6	63	90	123	160	270	300	330	360	390	420
7	73	105	143	187	315	350	385	420	455	490
8	83	120	163	213	360	400	440	480	520	560
9	94	135	184	240	405	450	495	540	585	630
10	104	150	204	267	450	500	550	600	650	700
11	115	165	225	293	495	550	605	660	715	770
12	125	180	245	320	540	600	660	720	780	840
13	135	195	266	347	585	650	715	780	845	910
14	146	210	286	374	630	700	770	840	910	980
15	157	225	307	400	675	750	825	900	975	1050

TAPER LENGTH "L" IN FEET

THE FORMULAS FOR THE MINIMUM LENGTH OF A MERGING TAPER IN DERIVING THE "L" VALUES SHOWN IN THE ABOVE TABLES ARE AS FOLLOWS:

"L" = $\frac{W \times S^2}{60}$ WHERE POSTED SPEED PRIOR TO THE WORK AREA IS 40 MPH OR LESS

"L" = S x W WHERE POSTED SPEED PRIOR TO THE WORK AREA IS 45 MPH OR GREATER

- L = MINIMUM LENGTH OF MERGING TAPER
- S = POSTED SPEED LIMIT IN MPH PRIOR TO WORK AREA
- W = WIDTH OF OFFSET

TYPES OF TAPERS


UPSTREAM TAPERS

- MERGING TAPER
- SHIFTING TAPER
- SHOULDER TAPER
- TWO-WAY TRAFFIC TAPER

DOWNSTREAM TAPERS (USE IS OPTIONAL)

TAPER LENGTH

- L - MINIMUM
- 1/2 L - MINIMUM
- 1/3 L - MINIMUM
- 100' - MAXIMUM
- 100' - MINIMUM (PER LANE)

 TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TABLES FOR "L", "D" AND "B" VALUES		
	DRAWN BY: CON:AE:djf	JUNE 2006	M0020a
CHECKED BY: BMM	PLAN DATE:	1 OF 2	
FILE: K:/DGN/TSR/STDS/ENGLISH/MNTTRF/M0020a.dgn		REV.	08/21/2006

DISTANCE BETWEEN TRAFFIC CONTROL DEVICES "D"
AND LENGTH OF LONGITUDINAL BUFFER SPACE ON
"WHERE WORKERS PRESENT" SEQUENCES


"D" DISTANCES	POSTED SPEED LIMIT, MPH (PRIOR TO WORK AREA)									
	25	30	35	40	45	50	55	60	65	70
D (FEET)	250	300	350	400	450	500	550	600	650	700

GUIDELINES FOR LENGTH OF
LONGITUDINAL BUFFER SPACE "B"

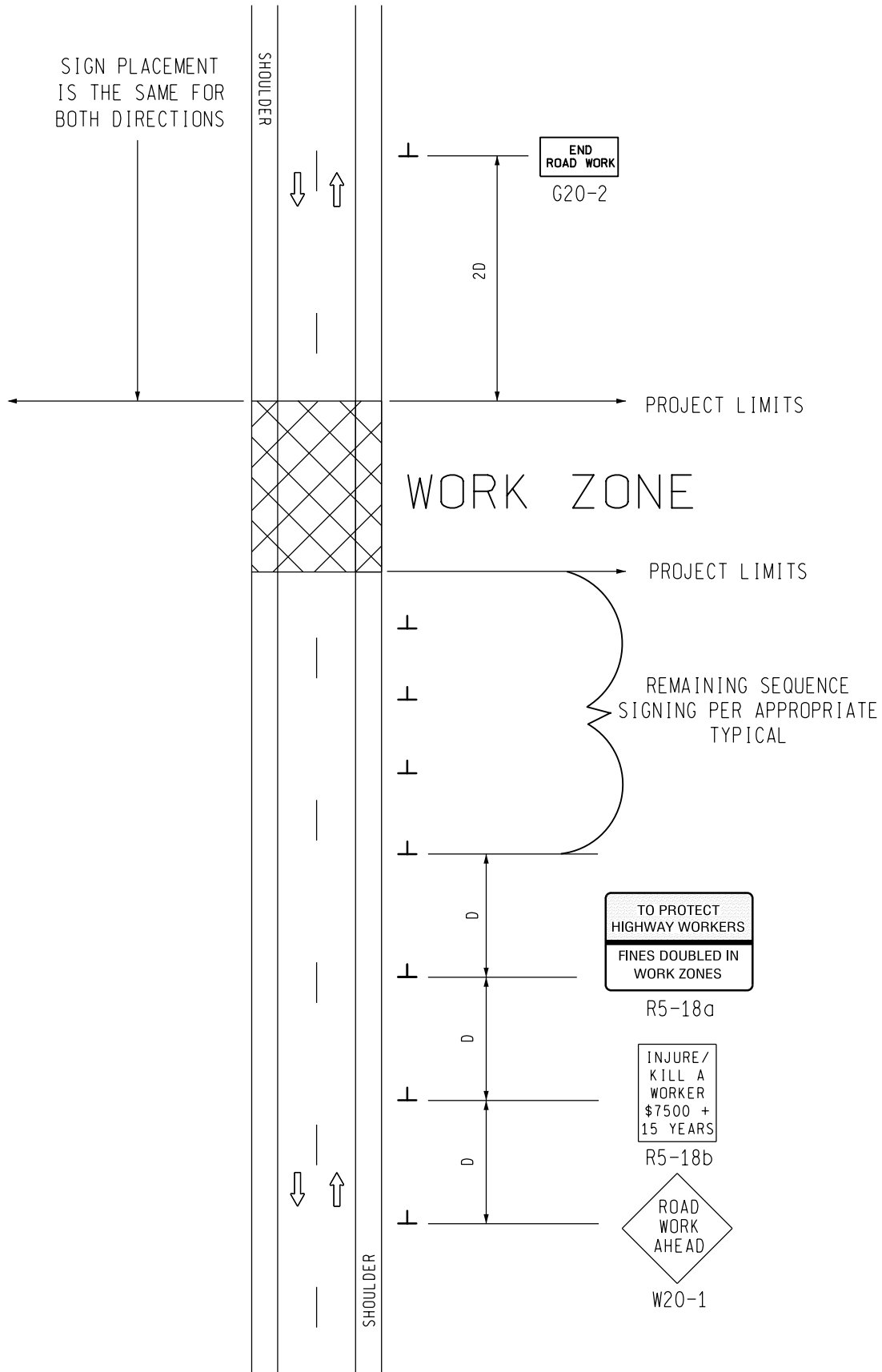
SPEED* MPH	LENGTH FEET
20	33
25	50
30	83
35	132
40	181
45	230
50	279
55	329
60	411
65	476
70	542

* POSTED SPEED, OFF PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED

1 BASED UPON AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) BRAKING DISTANCE PORTION OF STOPPING SIGHT DISTANCE FOR WET AND LEVEL PAVEMENTS (A POLICY ON GEOMETRIC DESIGN OF HIGHWAY AND STREETS), AASHTO. THIS AASHTO DOCUMENT ALSO RECOMMENDS ADJUSTMENTS FOR THE EFFECT OF GRADE ON STOPPING AND VARIATION FOR TRUCKS.

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TABLES FOR "L", "D" AND "B" VALUES		
	DRAWN BY: CON:AE:djf CHECKED BY: BMM	JUNE 2006 PLAN DATE:	M0020a
FILE: K:/DGN/TSR/STDS/ENGLISH/MNTTRF/M0020a.dgn REV. 08/21/2006			

SIGN PLACEMENT IS THE SAME FOR BOTH DIRECTIONS



SIGN = 68 f+2 - TYPE B
FOR ONE DIRECTION OF TRAFFIC
W20-1 QUANTITY INCLUDED
WITH APPROPRIATE TYPICAL
FOR SEQUENCE SIGNING

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL ADVANCE SIGNING TREATMENT FOR LONG, INTERMEDIATE AND SHORT TERM STATIONARY WORK ZONE OPERATIONS OF LESS THAN TWO MILES IN LENGTH WHERE TRAFFIC CONTROL DEVICES MAY REMAIN AT END OF WORK DAY ON AN UNDIVIDED TWO-WAY ROADWAY

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M0040a

SHEET
1 OF 2

NOT TO SCALE


FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0040a.dgn REV. 10/13/2011

NOTES

- 30. THE APPROPRIATE ADVANCE SIGNING SEQUENCE(S), (M0030a THROUGH M0080a) SHALL BE USED ON ALL PROJECTS.
- 32. THESE SIGNS SHALL BE LEFT IN PLACE AT THEIR PRESCRIBED LOCATIONS FOR THE DURATION OF THE PROJECT AND UNTIL ALL TEMPORARY TRAFFIC CONTROL HAS BEEN REMOVED.
- 35. THESE SIGNS ARE INTENDED TO BE USED WITHIN THE LIMITS OF THE TEMPORARY SEQUENCE SIGNING AS IS SHOWN ON 1 OF 2. THESE SIGNS ARE NOT TO BE INTERMINGLED WITH ANY OTHER TEMPORARY SEQUENCE SIGNING EXCEPT AS SHOWN.

SIGN SIZES

G20-2	-	48" x 24"
R5-18a	-	96" x 60"
R5-18b	-	48" x 60"
W20-1	-	48" x 48"

 TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL ADVANCE SIGNING TREATMENT FOR LONG, INTERMEDIATE AND SHORT TERM STATIONARY WORK ZONE OPERATIONS OF LESS THAN TWO MILES IN LENGTH WHERE TRAFFIC CONTROL DEVICES MAY REMAIN AT END OF WORK DAY ON AN UNDIVIDED TWO-WAY ROADWAY		
	DRAWN BY: CON:AE:djf	OCTOBER 2011	SHEET
CHECKED BY: BMM:CRB	PLAN DATE:	M0040a	2 OF 2
FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0040a.dgn REV. 10/13/2011			

NOT TO SCALE






PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL MAJOR CROSSROADS IF PERMANENT SIGNS ARE NOT IN PLACE.

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

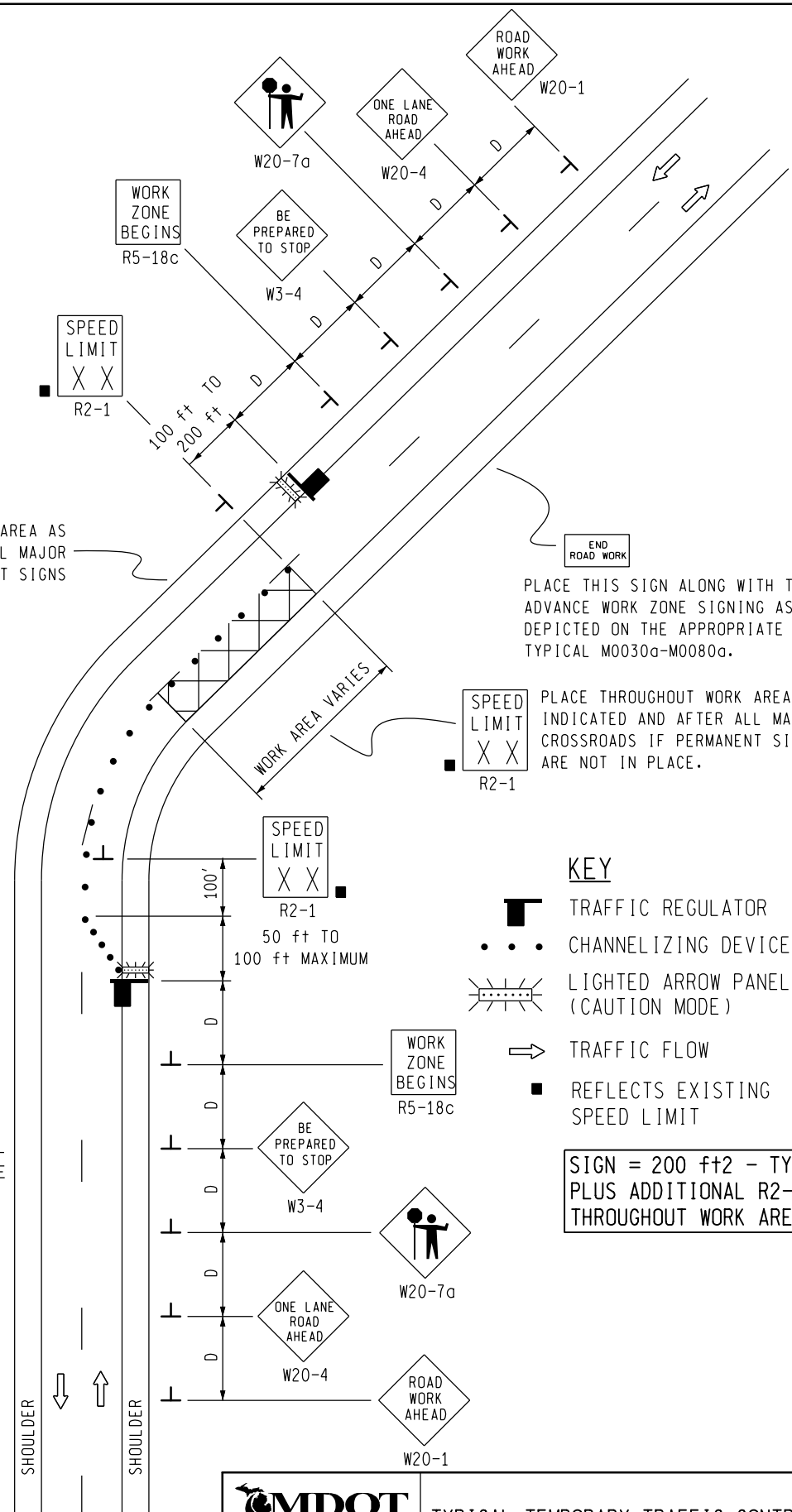
PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL MAJOR CROSSROADS IF PERMANENT SIGNS ARE NOT IN PLACE.

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

KEY

-  TRAFFIC REGULATOR
-  CHANNELIZING DEVICES
-  LIGHTED ARROW PANEL (CAUTION MODE)
-  TRAFFIC FLOW
-  REFLECTS EXISTING SPEED LIMIT

SIGN = 200 ft± - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA



TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
A TWO-LANE TWO-WAY ROADWAY WHERE ONE
LANE IS CLOSED UTILIZING TRAFFIC
REGULATORS, NO SPEED REDUCTION

DRAWN BY: CON:AE:djf
CHECKED BY: BMM:CRB

OCTOBER 2011
PLAN DATE:

M0140a

SHEET
1 OF 2

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT NON Fwy/M0140a.dgn REV. 10/04/2011


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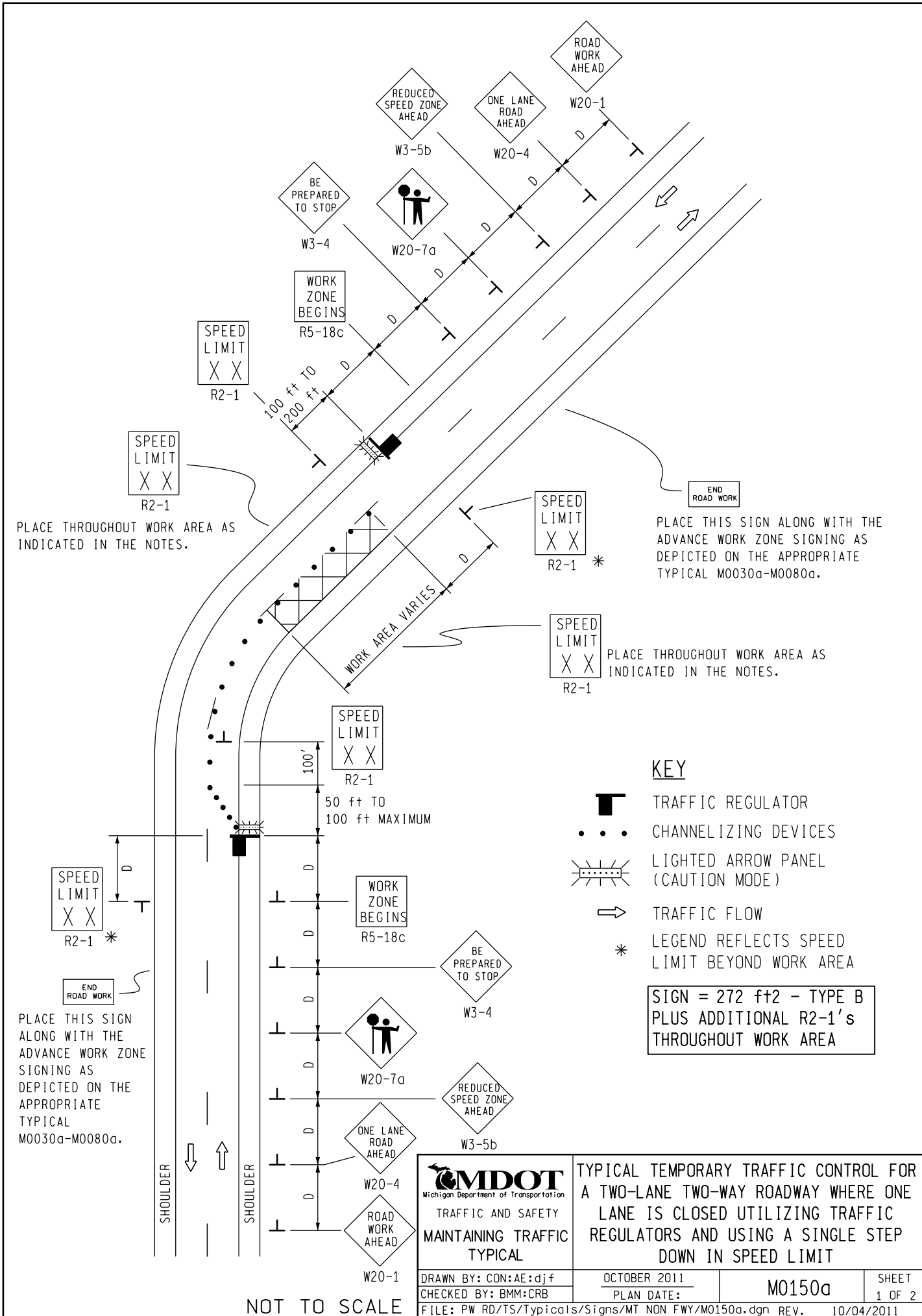
- 1H. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES AND LENGTH OF LONGITUDINAL BUFFERS
SEE **M0020a** FOR "D" VALUES.
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4A. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES IN THE TAPER AREA(S) SHOULD BE 15 FEET AND SHOULD BE EQUAL IN FEET TO TWICE THE POSTED SPEED IN MILES PER HOUR IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN THE CURRENT EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDOT WILL BE ALLOWED.
9. ALL TRAFFIC REGULATORS SHALL BE PROPERLY TRAINED AND SUPERVISED.
- 9A. IN ANY OPERATION INVOLVING MORE THAN ONE TRAFFIC REGULATOR, ONE PERSON SHOULD BE DESIGNATED AS HEAD TRAFFIC REGULATOR.
10. ALL TRAFFIC REGULATORS' CONDUCT, THEIR EQUIPMENT, AND TRAFFIC REGULATING PROCEDURES SHALL CONFORM TO THE CURRENT EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CURRENT EDITION OF THE MDOT HANDBOOK ENTITLED "TRAFFIC REGULATORS INSTRUCTION MANUAL."
11. WHEN TRAFFIC REGULATING IS ALLOWED DURING THE HOURS OF DARKNESS, APPROPRIATE LIGHTING SHALL BE PROVIDED TO SUFFICIENTLY ILLUMINATE THE TRAFFIC REGULATOR'S STATIONS.
- 12E. THE MAXIMUM DISTANCE BETWEEN THE TRAFFIC REGULATORS SHALL BE NO MORE THAN 2 MILES IN LENGTH UNLESS RESTRICTED FURTHER IN THE SPECIAL PROVISIONS FOR MAINTAINING TRAFFIC. ALL SEQUENCES OF MORE THAN 2 MILES IN LENGTH WILL REQUIRE WRITTEN PERMISSION FROM THE ENGINEER BEFORE PROCEEDING.
13. WHEN INTERSECTING ROADS OR SIGNIFICANT TRAFFIC GENERATORS (SHOPPING CENTERS, MOBILE HOME PARKS, ETC.) OCCUR WITHIN THE ONE-LANE TWO-WAY OPERATION, INTERMEDIATE TRAFFIC REGULATORS AND APPROPRIATE SIGNING SHALL BE PLACED AT THESE LOCATIONS.
14. ADDITIONAL SIGNING AND/OR ELONGATED SIGNING SEQUENCES SHOULD BE USED WHEN TRAFFIC VOLUMES ARE SIGNIFICANT ENOUGH TO CREATE BACKUPS BEYOND THE W3-4 SIGNS.
15. THE HAND HELD (PADDLE) SIGNS REQUIRED BY THE MMUTCD TO CONTROL TRAFFIC WILL BE PAID FOR AS PART OF FLAG CONTROL.
- 28E. THE TRAFFIC REGULATORS SHOULD BE POSITIONED AT OR NEAR THE SIDE OF THE ROAD SO THAT THEY ARE SEEN CLEARLY AT A MINIMUM DISTANCE OF 500 FEET. THIS MAY REQUIRE EXTENDING THE BEGINNING OF THE LANE CLOSURE TO OVERCOME VIEWING PROBLEMS CAUSED BY HILLS AND CURVES.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 R2-1 REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE TWO-WAY ROADWAY WHERE ONE LANE IS CLOSED UTILIZING TRAFFIC REGULATORS, NO SPEED REDUCTION		
	DRAWN BY: CON:AE:djf	OCTOBER 2011	M0140a
CHECKED BY: BMM:CRB	PLAN DATE:	2 OF 2	
FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0140a.dgn REV. 10/04/2011			








PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.


KEY

-  TRAFFIC REGULATOR
-  CHANNELIZING DEVICES
-  LIGHTED ARROW PANEL (CAUTION MODE)
-  TRAFFIC FLOW
-  * LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

SIGN = 272 ft x 2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

NOT TO SCALE

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL		TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE TWO-WAY ROADWAY WHERE ONE LANE IS CLOSED UTILIZING TRAFFIC REGULATORS AND USING A SINGLE STEP DOWN IN SPEED LIMIT	
DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0150a.dgn	OCTOBER 2011 PLAN DATE:	M0150a	SHEET 1 OF 2
		REV. 10/04/2011	


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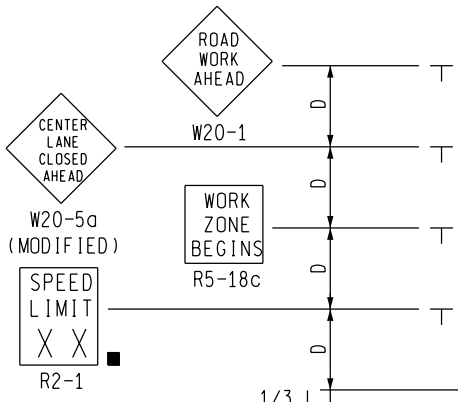
- 1H. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES AND LENGTH OF LONGITUDINAL BUFFERS
SEE M0020a FOR "D" VALUES.
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4A. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES IN THE TAPER AREA(S) SHOULD BE 15 FEET AND SHOULD BE EQUAL IN FEET TO TWICE THE POSTED SPEED IN MILES PER HOUR IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN THE CURRENT EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDOT WILL BE ALLOWED.
9. ALL TRAFFIC REGULATORS SHALL BE PROPERLY TRAINED AND SUPERVISED.
- 9A. IN ANY OPERATION INVOLVING MORE THAN ONE TRAFFIC REGULATOR, ONE PERSON SHOULD BE DESIGNATED AS HEAD TRAFFIC REGULATOR.
10. ALL TRAFFIC REGULATORS' CONDUCT, THEIR EQUIPMENT, AND TRAFFIC REGULATING PROCEDURES SHALL CONFORM TO THE CURRENT EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CURRENT EDITION OF THE MDOT HANDBOOK ENTITLED "TRAFFIC REGULATORS INSTRUCTION MANUAL."
11. WHEN TRAFFIC REGULATING IS ALLOWED DURING THE HOURS OF DARKNESS, APPROPRIATE LIGHTING SHALL BE PROVIDED TO SUFFICIENTLY ILLUMINATE THE TRAFFIC REGULATOR'S STATIONS.
- 12E. THE MAXIMUM DISTANCE BETWEEN THE TRAFFIC REGULATORS SHALL BE NO MORE THAN 2 MILES IN LENGTH UNLESS RESTRICTED FURTHER IN THE SPECIAL PROVISIONS FOR MAINTAINING TRAFFIC. ALL SEQUENCES OF MORE THAN 2 MILES IN LENGTH WILL REQUIRE WRITTEN PERMISSION FROM THE ENGINEER BEFORE PROCEEDING.
13. WHEN INTERSECTING ROADS OR SIGNIFICANT TRAFFIC GENERATORS (SHOPPING CENTERS, MOBILE HOME PARKS, ETC.) OCCUR WITHIN THE ONE-LANE TWO-WAY OPERATION, INTERMEDIATE TRAFFIC REGULATORS AND APPROPRIATE SIGNING SHALL BE PLACED AT THESE LOCATIONS.
14. ADDITIONAL SIGNING AND/OR ELONGATED SIGNING SEQUENCES SHOULD BE USED WHEN TRAFFIC VOLUMES ARE SIGNIFICANT ENOUGH TO CREATE BACKUPS BEYOND THE W3-4 SIGNS.
15. THE HAND HELD (PADDLE) SIGNS REQUIRED BY THE MMUTCD TO CONTROL TRAFFIC WILL BE PAID FOR AS PART OF FLAG CONTROL.
- 16A. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH MAJOR CROSSROAD THAT INTERSECTS THE WORK AREA WHERE THE REDUCED SPEED IS IN EFFECT, AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
- 28E. THE TRAFFIC REGULATORS SHOULD BE POSITIONED AT OR NEAR THE SIDE OF THE ROAD SO THAT THEY ARE SEEN CLEARLY AT A MINIMUM DISTANCE OF 500 FEET. THIS MAY REQUIRE EXTENDING THE BEGINNING OF THE LANE CLOSURE TO OVERCOME VIEWING PROBLEMS CAUSED BY HILLS AND CURVES.

SIGN SIZES

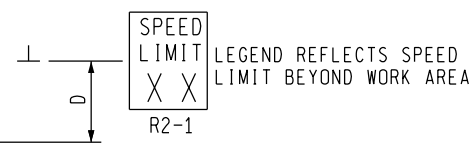
- DIAMOND WARNING - 48" x 48"
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

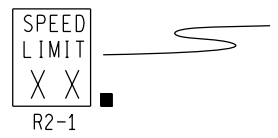
 TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE TWO-WAY ROADWAY WHERE ONE LANE IS CLOSED UTILIZING TRAFFIC REGULATORS AND USING A SINGLE STEP DOWN IN SPEED LIMIT	
	DRAWN BY: CON:AE:djf CHECKED BY: BMM:CRB	OCTOBER 2011 PLAN DATE:
FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0150a.dgn REV. 10/04/2011		



PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0050a.



NO SPEED REDUCTION THIS DIRECTION



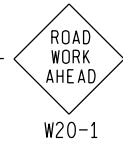
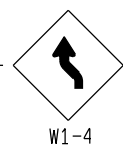
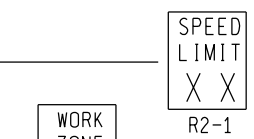
PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL MAJOR CROSSROADS IF PERMANENT SIGNS ARE NOT IN PLACE.



PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0050a.



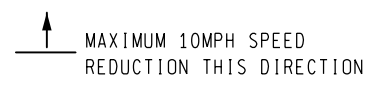
PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.



KEY

- • • CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL (CAUTION MODE)
- ➡ TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT

SIGN = 200 ft ± 2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA



<p>TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL</p>		<p>TYPICAL TEMPORARY TRAFFIC CONTROL FOR CLOSING ONE LANE OF A THREE LANE ROADWAY WITH CLFLTO AND SHIFTING ONE THROUGH LANE INTO THE CLFLTO USING A SINGLE STEP DOWN IN SPEED LIMIT IN ONE DIRECTION ONLY</p>	
<p>DRAWN BY: CON:AE:DJF CHECKED BY: BMM:CRB</p>	<p>OCTOBER 2011 PLAN DATE:</p>	<p>M0232a</p>	<p>SHEET 1 OF 2</p>
<p>FILE: PW: RD/T&S/Typicals/Signs/MT/MT NonFwy/M0232a REV. 10/18/2011</p>			

NOT TO SCALE


NOTES

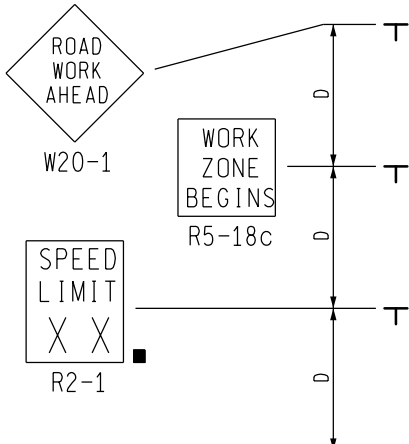
- 1F. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 $1/2 L$, AND $1/3 L$ = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE M0020a FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. THE TYPE A WARNING FLASHER SHOWN ON THE WARNING SIGNS SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS STIPULATED IN THE CURRENT EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDOT WILL BE ALLOWED.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16A. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH MAJOR CROSSROAD THAT INTERSECTS THE WORK AREA WHERE THE REDUCED SPEED IS IN EFFECT, AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. ALL EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH EITHER PROPOSED CHANGES IN TRAFFIC PATTERNS OR PROPOSED TEMPORARY TRAFFIC MARKINGS, SHALL BE REMOVED BEFORE ANY CHANGE IS MADE IN THE TRAFFIC PATTERN. EXCEPTION WILL BE MADE FOR DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.

SIGN SIZES

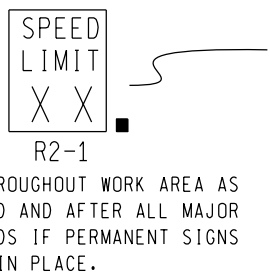
DIAMOND WARNING	- 48" x 48"
W1-6 WARNING	- 48" x 24"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE

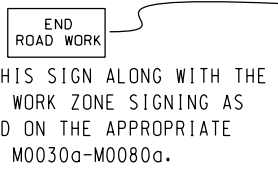
 TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL TEMPORARY TRAFFIC CONTROL FOR CLOSING ONE LANE OF A THREE LANE ROADWAY WITH CLFLTO AND SHIFTING ONE THROUGH LANE INTO THE CLFLTO USING A SINGLE STEP DOWN IN SPEED LIMIT IN ONE DIRECTION ONLY		
	DRAWN BY: CON:AE:DJF	OCTOBER 2011	M0232a
CHECKED BY: BMM:CRB	PLAN DATE:	2 OF 2	
FILE: PW: RD/T&S/Typicals/Signs/MT/MT NonFwy/M0232a REV. 10/18/2011			



NO SPEED REDUCTION THIS DIRECTION



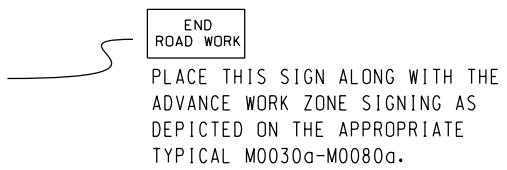
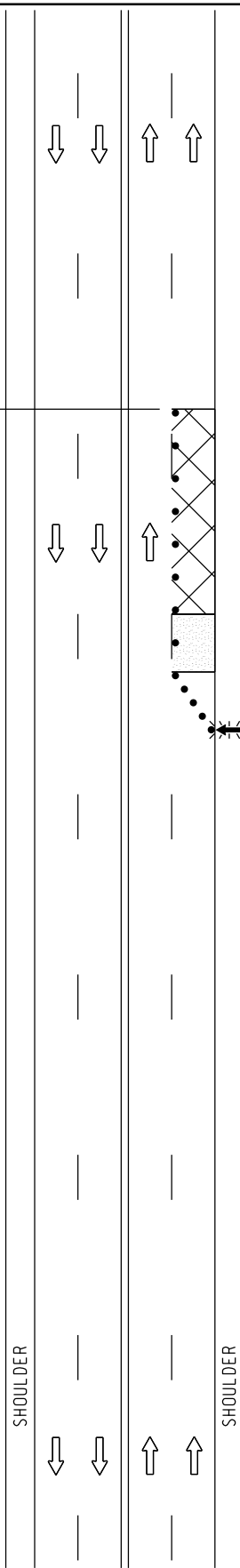
PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL MAJOR CROSSROADS IF PERMANENT SIGNS ARE NOT IN PLACE.



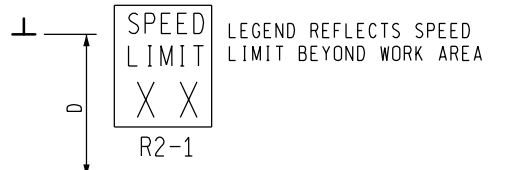
PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

- KEY**
- • • CHANNELIZING DEVICES
 - ← LIGHTED ARROW PANEL
 - TRAFFIC FLOW
 - REFLECTS EXISTING SPEED LIMIT

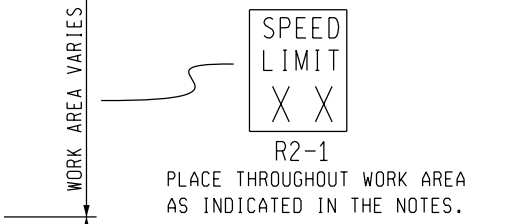
SIGN = 172 f+2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA



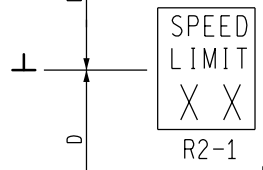
PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.



LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA



PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.



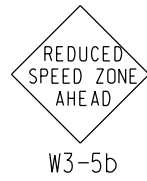
R2-1



R5-18c



W4-2



W3-5b



W20-5



W20-1

↑ MAXIMUM 10MPH SPEED REDUCTION THIS DIRECTION

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON AN UNDIVIDED MULTI-LANE ROADWAY USING A SINGLE STEP DOWN IN SPEED LIMIT IN ONE DIRECTION ONLY

DRAWN BY: CON:AE:djf	OCTOBER 2011	M0250a	SHEET 1 OF 2
CHECKED BY: BMM:CRB	PLAN DATE:		
FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0250a.dgn		REV.	10/11/2011

NOT TO SCALE


NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE **M0020a** FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS STIPULATED IN THE CURRENT EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDOT WILL BE ALLOWED.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16A. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH MAJOR CROSSROAD THAT INTERSECTS THE WORK AREA WHERE THE REDUCED SPEED IS IN EFFECT, AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
21. ALL EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH EITHER PROPOSED CHANGES IN TRAFFIC PATTERNS OR PROPOSED TEMPORARY TRAFFIC MARKINGS, SHALL BE REMOVED BEFORE ANY CHANGE IS MADE IN THE TRAFFIC PATTERN. EXCEPTION WILL BE MADE FOR DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON AN UNDIVIDED MULTI-LANE ROADWAY USING A SINGLE STEP DOWN IN SPEED LIMIT IN ONE DIRECTION ONLY		
DRAWN BY: CON:AE:djf	OCTOBER 2011	M0250a	SHEET
CHECKED BY: BMM:CRB	PLAN DATE:		2 OF 2
FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0250a.dgn REV. 10/11/2011			

SIGN MATERIAL SELECTION TABLE

SIGN SIZE	SIGN MATERIAL TYPE		
	TYPE I	TYPE II	TYPE III
≤ 36" X 36"		X	X
>36" X 36" ≤ 96" TO WIDE		X	
> 96" WIDE TO 144" WIDE	X	X	
> 144" WIDE	X		


TYPE I ALUMINUM EXTRUSION
 TYPE II PLYWOOD
 TYPE III ALUMINUM SHEET

ROUNDING OF CORNERS IS NOT REQUIRED FOR TYPE I OR II SIGNS.
 VERTICAL JOINTS ARE NOT PERMITTED.
 HORIZONTAL JOINTS THROUGH SIGN LEGEND OR SYMBOLS ARE NOT PERMITTED.

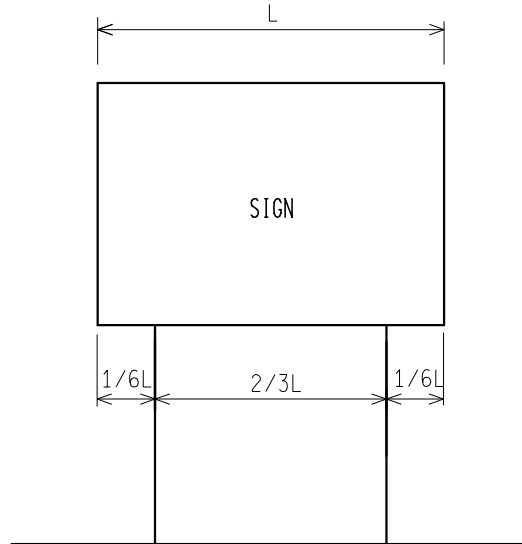
POST SIZE REQUIREMENTS TABLE

SIGN AREA (ft ²)	POST TYPE		
	U-CHANNEL STEEL	SQUARE TUBULAR STEEL	WOOD
≤ 9	1 - 3 lb/ft*	1 - 2" 12 or 14 GA*	N/A
9 ≤ 20	2 - 3 lb/ft	2 - 2" 12 or 14 GA	1 - 4" X 6"*
> 20 ≤ 30	N/A	N/A	2 - 4" X 6"
> 30 ≤ 60	N/A	N/A	2 - 6" X 8"
> 60 ≤ 84	N/A	N/A	3 - 6" X 8"

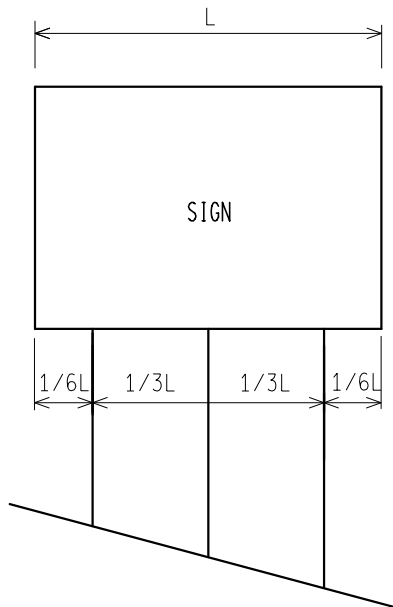
*SIGNS 4 FEET AND GREATER IN WIDTH REQUIRE 2 POSTS.
 SIGNS GREATER THAN 8 FEET IN WIDTH REQUIRE 2 OR 3 WOOD
 POSTS DEPENDING ON AREA OF SIGN.
 A MAXIMUM OF 2 POSTS WITHIN A 7' PATH IS PERMITTED.

 PREPARED BY DESIGN DIVISION	DEPARTMENT DIRECTOR Kirk T. Steudle APPROVED BY: _____ DIRECTOR, BUREAU OF FIELD SERVICES	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS		
	DRAWN BY: <u>CON/ECH</u> CHECKED BY: <u>AUG</u>	APPROVED BY: _____ DIRECTOR, BUREAU OF DEVELOPMENT	_____ F.H.W.A. APPROVAL	<u>11/2/2017</u> PLAN DATE

2 POST SIGN SUPPORT SPACING



3 POST SIGN SUPPORT SPACING



* FOR ALL 11' AND 12' LONG SIGNS ON 3 WOOD SUPPORTS, SPREAD POSTS SO AS TO HAVE A 8' MIN. TO 9' MAX. DISTANCE BETWEEN OUTSIDE POSTS.

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

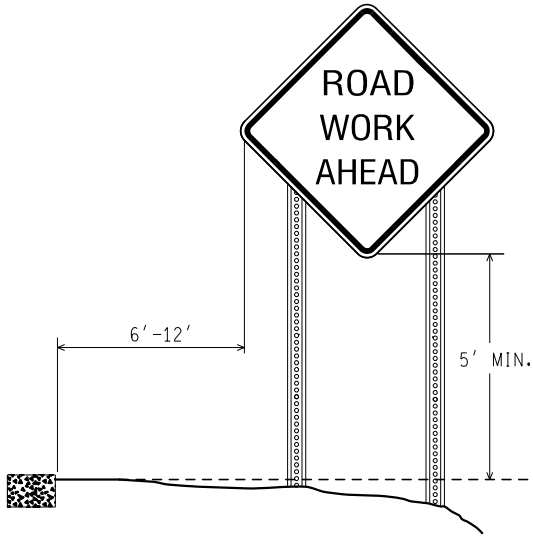
F.H.W.A. APPROVAL

11/2/2017
PLAN DATE

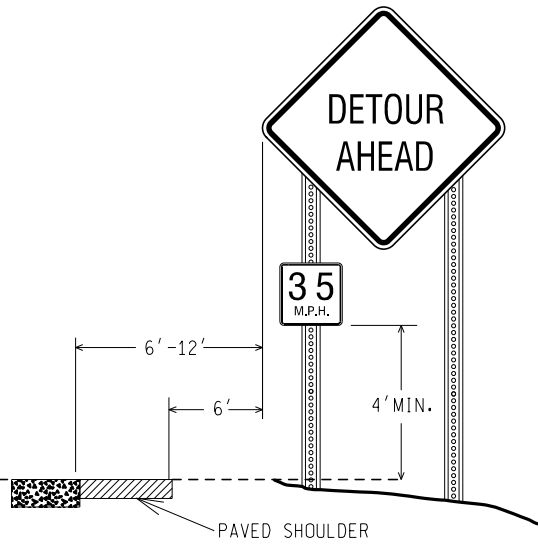
WZD-100-A

SHEET
2 OF 11

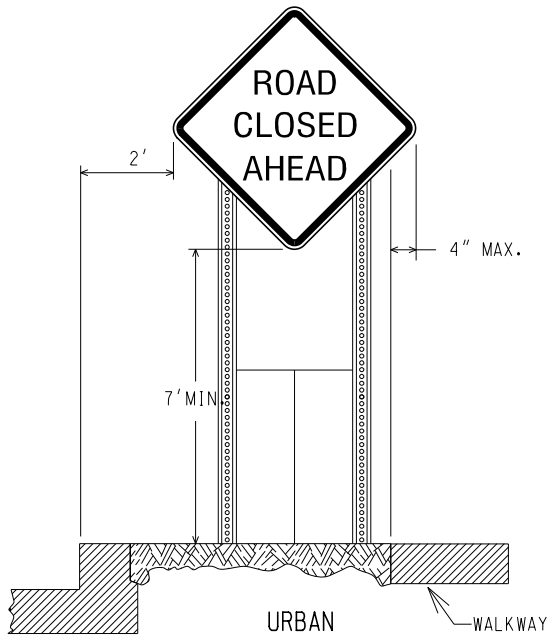
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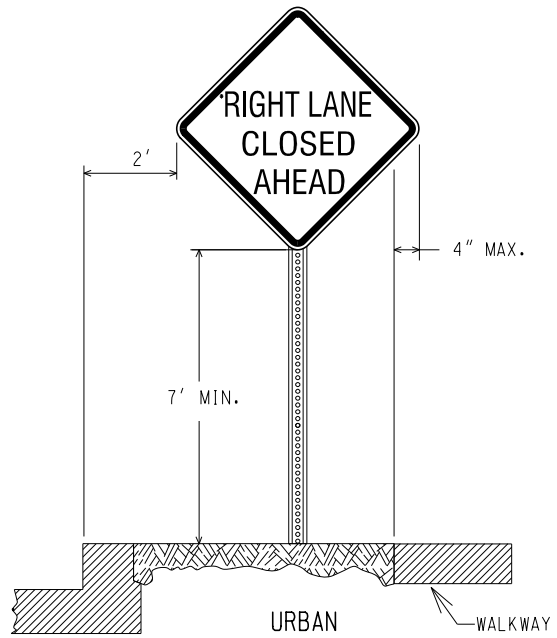
RURAL



RURAL WITH ADVISORY SPEED PLATE



(CURBED AREAS OR WHERE WALKWAYS ARE PRESENT)



(CURBED AREAS OR WHERE WALKWAYS ARE PRESENT)

BOTTOM HEIGHT AND OFFSET

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

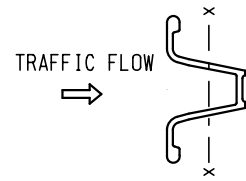
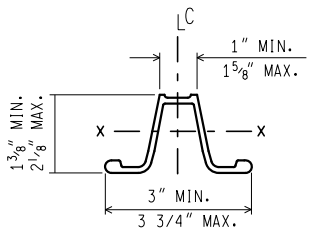
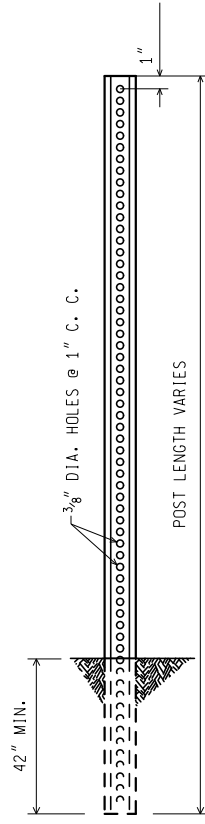
F.H.W.A. APPROVAL

11/2/2017
PLAN DATE

WZD-100-A

SHEET
3 OF 11

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WEIGHT = 3 lbs/ft
 SECT. MOD. X.-X. = 0.31 CUBIC INCHES MIN.

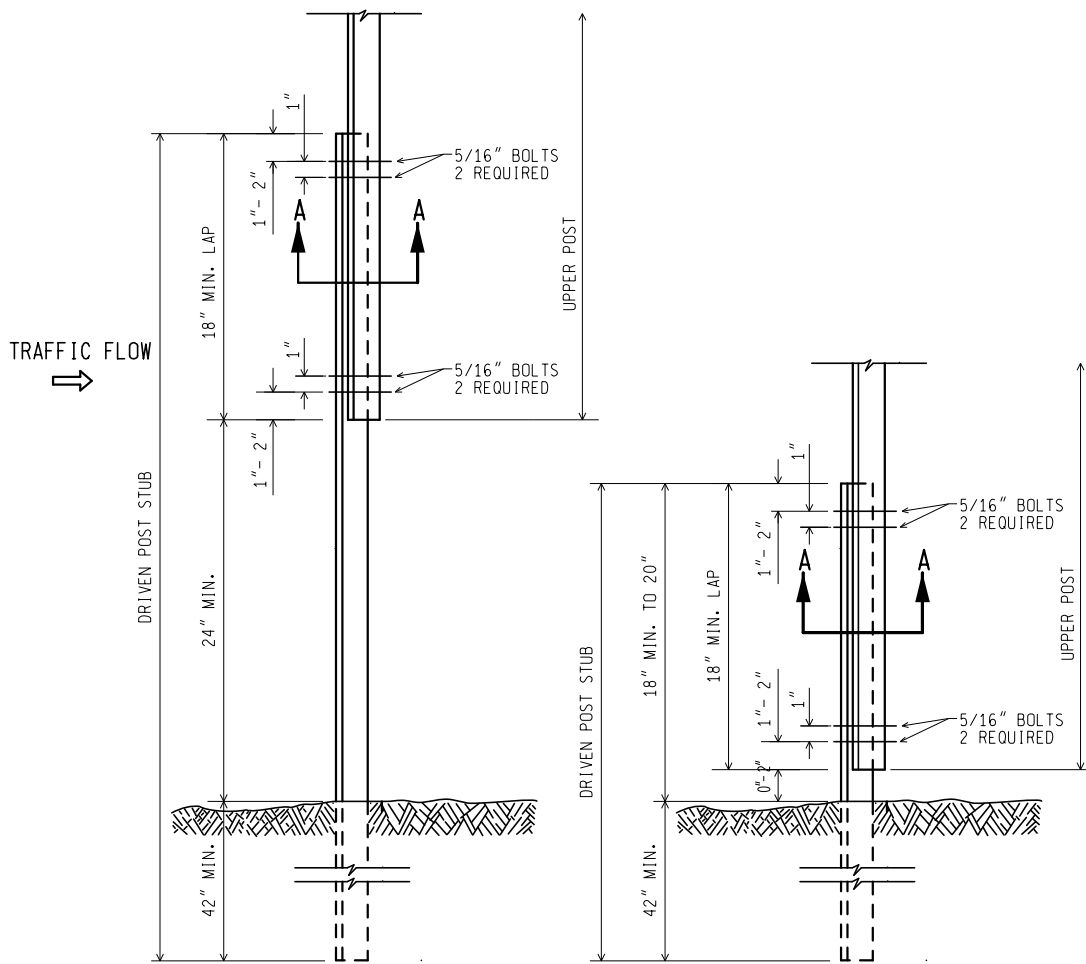
3 lb. U - CHANNEL STEEL POST
 (NO SPLICE)

MOUNT SIGN ON OPEN FACE OF
 U - CHANNEL STEEL POST

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	F.H.W.A. APPROVAL	11/2/2017 PLAN DATE	WZD-100-A	SHEET 4 OF 11
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NOTE: THE ORIGINAL SIGNED COPY IS KEPT ON FILE AT THE MICHIGAN DEPARTMENT OF TRANSPORTATION.



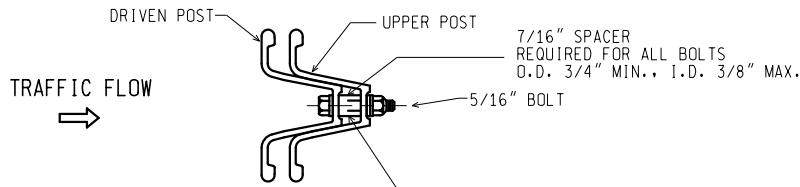
3 lb. U - CHANNEL STEEL POST
(WITH SPLICE)

MOUNT SIGN ON OPEN FACE OF
UPPER U - CHANNEL STEEL POST

NOT TO SCALE

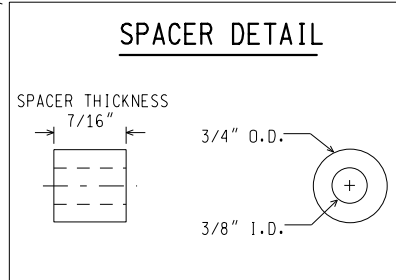
MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	F.H.W.A. APPROVAL	11/2/2017 PLAN DATE	WZD-100-A	SHEET 5 OF 11
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SECTION A-A

7/16" SPACER
 REQUIRED FOR ALL BOLTS
 O.D. 3/4" MIN., I.D. 3/8" MAX.



NOTES:

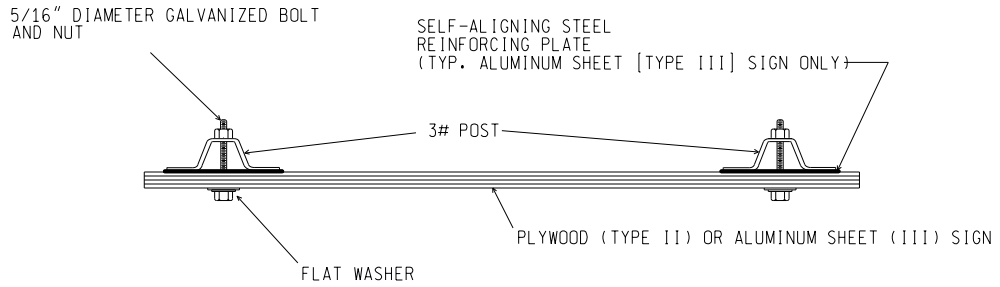
1. THE SPACER THICKNESS SHALL BE 1/16" LESS THAN THE GAP BETWEEN THE POST WHEN POSITIONED IN THE UNBOLTED CONFIGURATION.
2. THE EXTERIOR BOLT (CLOSEST TO LAP), SPACER, WASHER, AND NUT SHALL BE INSTALLED IN A PREPUNCHED HOLE 1" TO 2" FROM THE END OF THE LAP.
3. THE INTERIOR BOLT (FARTHEST FROM LAP), SPACER, WASHER, AND NUT SHALL BE INSTALLED IN THE NEXT PREPUNCHED HOLE.
4. THE DRIVEN POST SHALL ALWAYS BE MOUNTED IN FRONT OF THE UPPER POST WITH RESPECT TO THE ADJACENT ONCOMING TRAFFIC, REGARDLESS OF THE DIRECTION THE SIGN IS FACING.
5. THE SPLICE LAP SHALL BE FASTENED BY FOUR-5/16" DIA. GALVANIZED A449 BOLTS (SAE J429 GRADE 5) OR GALVANIZED A325 BOLTS.

3 lb. U - CHANNEL STEEL POST
 (WITH SPLICE)

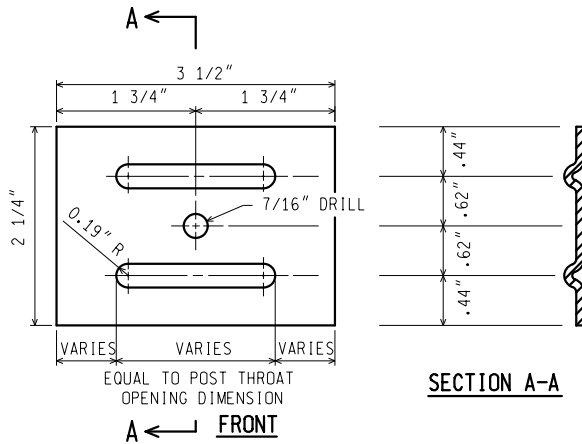
NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	F.H.W.A. APPROVAL	11/2/2017 PLAN DATE	WZD-100-A	SHEET 6 OF 11
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SIGN TO 3 lb. POST CONNECTION



NOTES: (FOR STEEL SIGN REINF' PLATE)

1. MATERIAL: 12 GAUGE CARBON STEEL.
2. TOLERANCE ON ALL DIMENSIONS $\pm 0.0625"$
3. FINISH-AFTER STAMPING AND PUNCHING, GALVANIZE ACCORDING TO CURRENT SPECIFICATIONS FOR ZINC (HOT GALVANIZE) COATINGS ON PRODUCTS FABRICATED FROM PLATES OR STRIPS

STEEL SIGN REINFORCING PLATE
REQUIRED FOR TYPE III SIGNS ONLY

3 lb. U - CHANNEL STEEL POST SIGN CONNECTION

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

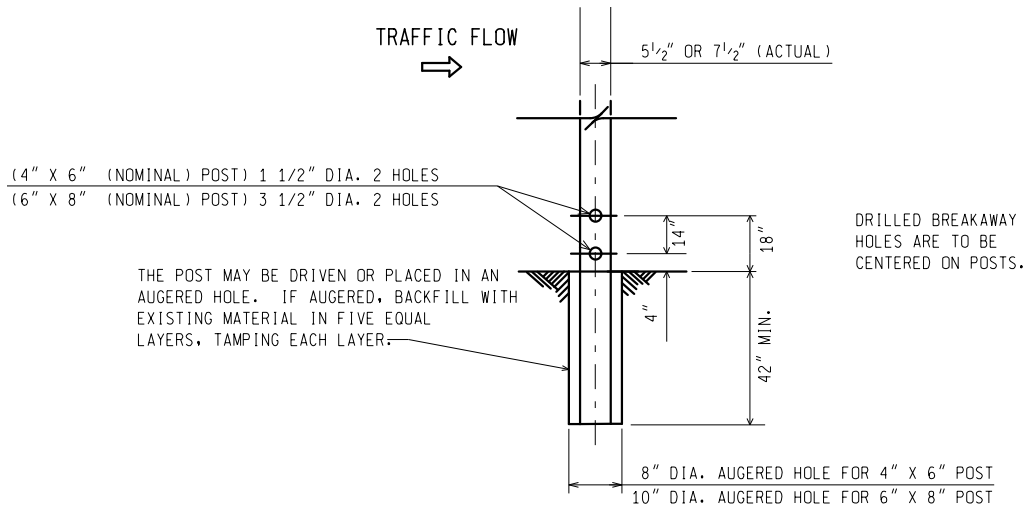
F.H.W.A. APPROVAL

11/2/2017
PLAN DATE

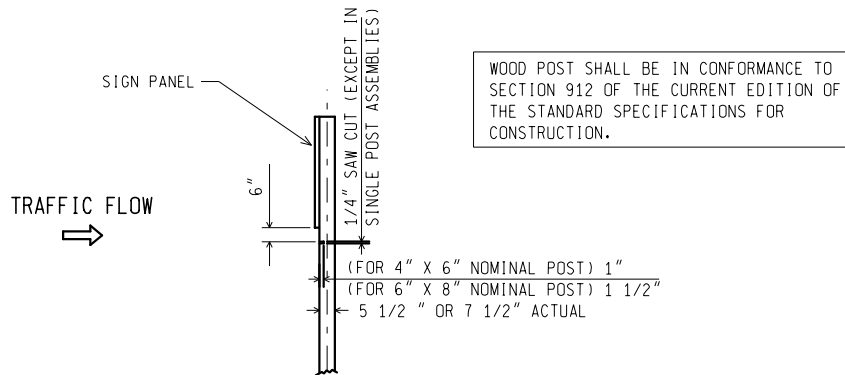
WZD-100-A

SHEET
7 OF 11

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**WOOD POST BREAKAWAY HOLES/
 DIRECT EMBEDMENT DETAILS**



**SAW CUT DETAIL
 (MULTIPLE POST INSTALLATIONS)**

WOOD POST DETAILS

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
 BUREAU OF DEVELOPMENT STANDARD PLAN

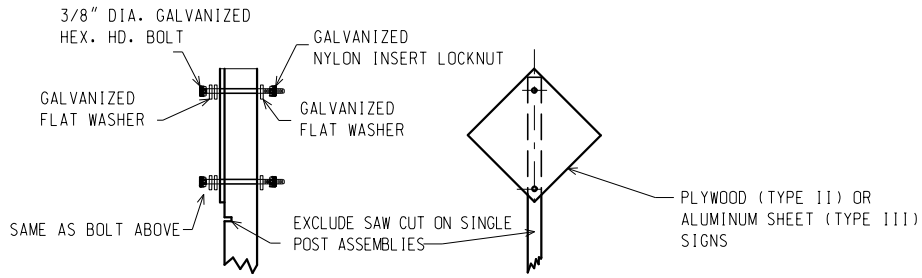
F.H.W.A. APPROVAL

11/2/2017
 PLAN DATE

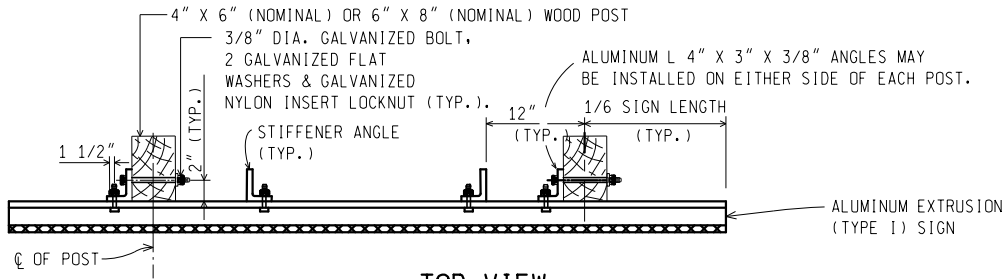
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SHEET
 8 OF 11

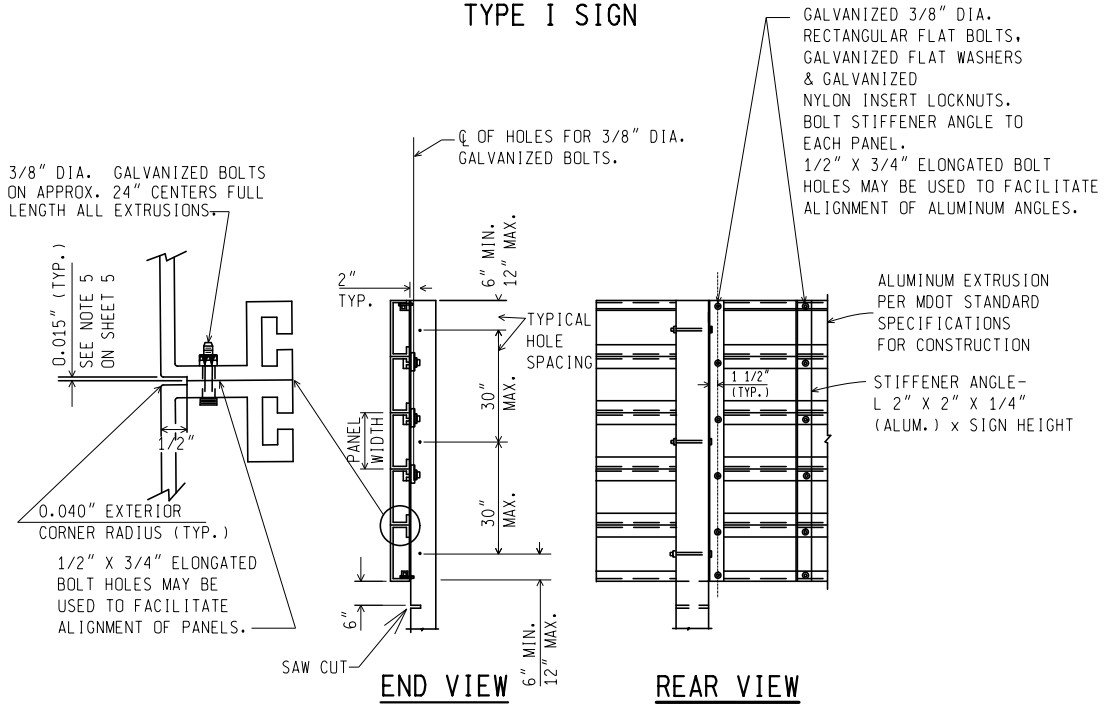
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TYPE II AND TYPE III SIGNS



**TOP VIEW
TYPE I SIGN**



TYPE I SIGN - ERECTION DETAILS

WOOD POST CONNECTIONS

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

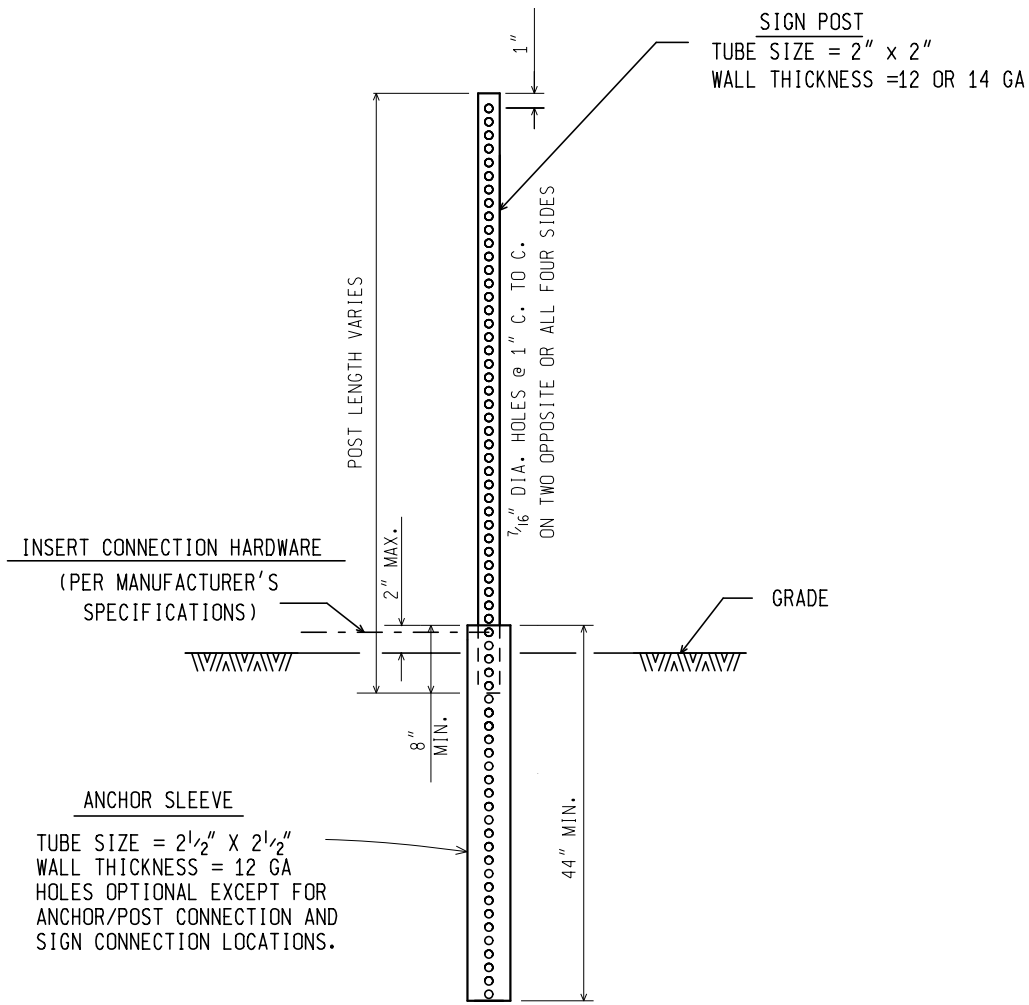
F.H.W.A. APPROVAL

11/2/2017
PLAN DATE

WZD-100-A

SHEET
9 OF 11

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SQUARE TUBULAR STEEL POST

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	F.H.W.A. APPROVAL	11/2/2017 PLAN DATE	WZD-100-A	SHEET 10 OF 11
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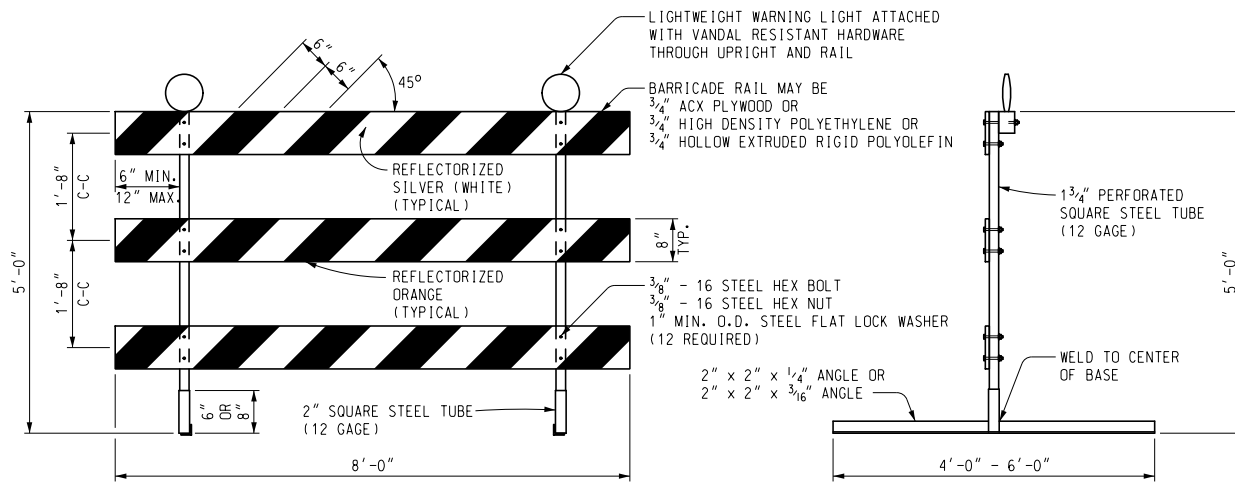
GENERAL NOTES:

1. A MAXIMUM OF TWO POSTS WITHIN A 7 FOOT PATH IS PERMITTED.
2. ALL SIGN POSTS SHALL COMPLY WITH NCHRP 350.
3. ALL POSTS SHALL BE EMBEDDED A MINIMUM OF 42".
4. BRACING OF POST IS NOT PERMITTED.
5. SIGN SHALL BE LEVEL, AND UPRIGHT FOR THE DURATION OF INSTALLATION.
6. ERECT POSTS SO THE SIGN FACE AND SUPPORTS DO NOT VARY FROM PLUMB BY MORE THAN 3/16" IN 3'. PROVIDE A CENTER-TO-CENTER DISTANCE BETWEEN POSTS WITHIN 2 PERCENT OF PLAN DISTANCE.
7. NO MORE THAN ONE SPLICE PER POST, AS SHOWN, WILL BE PERMITTED.
8. POST TYPES SHALL NOT BE MIXED WITHIN A SIGN SUPPORT INSTALLATION.
9. NO VERTICAL JOINTS ARE PERMITTED IN SIGN. NO HORIZONTAL JOINTS THROUGH SIGN LEGEND OR SYMBOLS ARE PERMITTED IN SIGN
10. REMOVE SIGN POSTS AND/OR POST STUBS IN THEIR ENTIRETY WHEN NO LONGER REQUIRED.
11. ALL LABOR, MATERIALS, AND EQUIPMENT, INCLUDING TEMPORARY SUPPORTS REQUIRED TO INSTALL, MAINTAIN, RELOCATE, AND/OR REMOVE THE TEMPORARY SIGN, INCLUDING SUPPORTS, ARE CONSIDERED TO BE INCLUDED IN THE COST OF THE TEMPORARY SIGN.
12. SAW CUTS IN WOOD POSTS ARE TO BE PARALLEL TO THE BOTTOM OF THE SIGN.
13. POSTS SHALL NOT EXTEND MORE THAN 4" ABOVE TOP OF SIGN.
14. TEMPORARY WOOD SUPPORTS DO NOT REQUIRE PRESERVATIVE TREATMENT.

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	F.H.W.A. APPROVAL	11/2/2017 PLAN DATE	WZD-100-A	SHEET 11 OF 11
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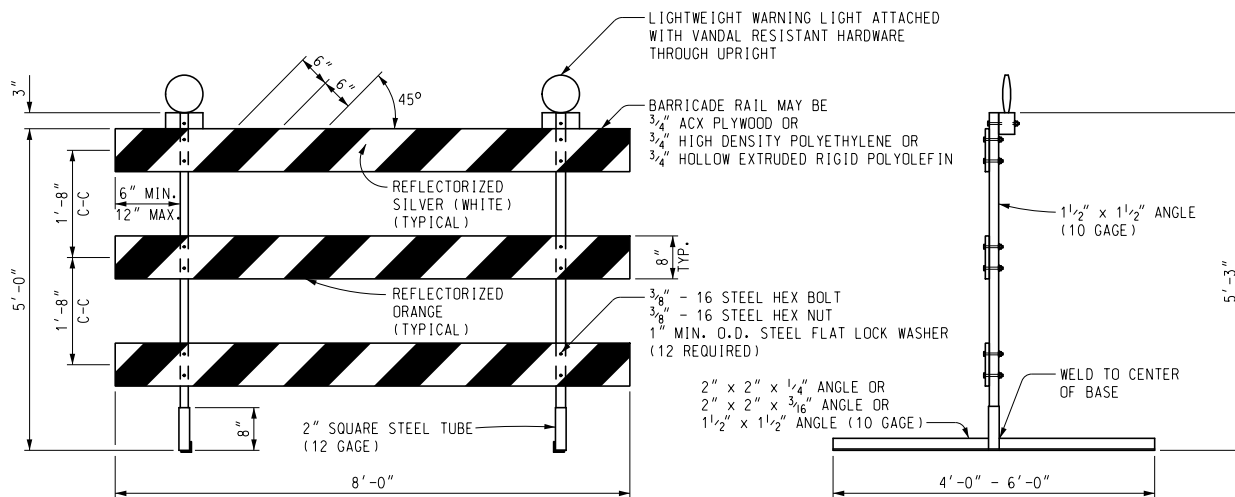
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FRONT ELEVATION

SIDE VIEW

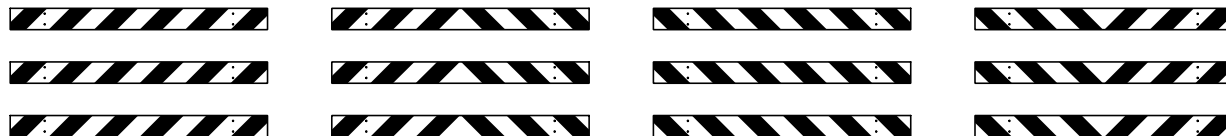
PERFORATED SQUARE STEEL TUBE OPTION



FRONT ELEVATION

SIDE VIEW

ANGLE IRON OPTION



LEFT DIRECTIONAL

BI-DIRECTIONAL

RIGHT DIRECTIONAL

CLOSURES

BARRICADE RAIL SHEETING OPTIONS
TYPE III BARRICADES

Other Type III Barricades meeting current NCHRP crash worthy criteria can be found on the FHWA Safety website at http://safety.fhwa.dot.gov/roadway_dept/road_hardware/wzd.htm



DEPARTMENT DIRECTOR
Kirk T. Steudle

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

PREPARED BY
DESIGN DIVISION

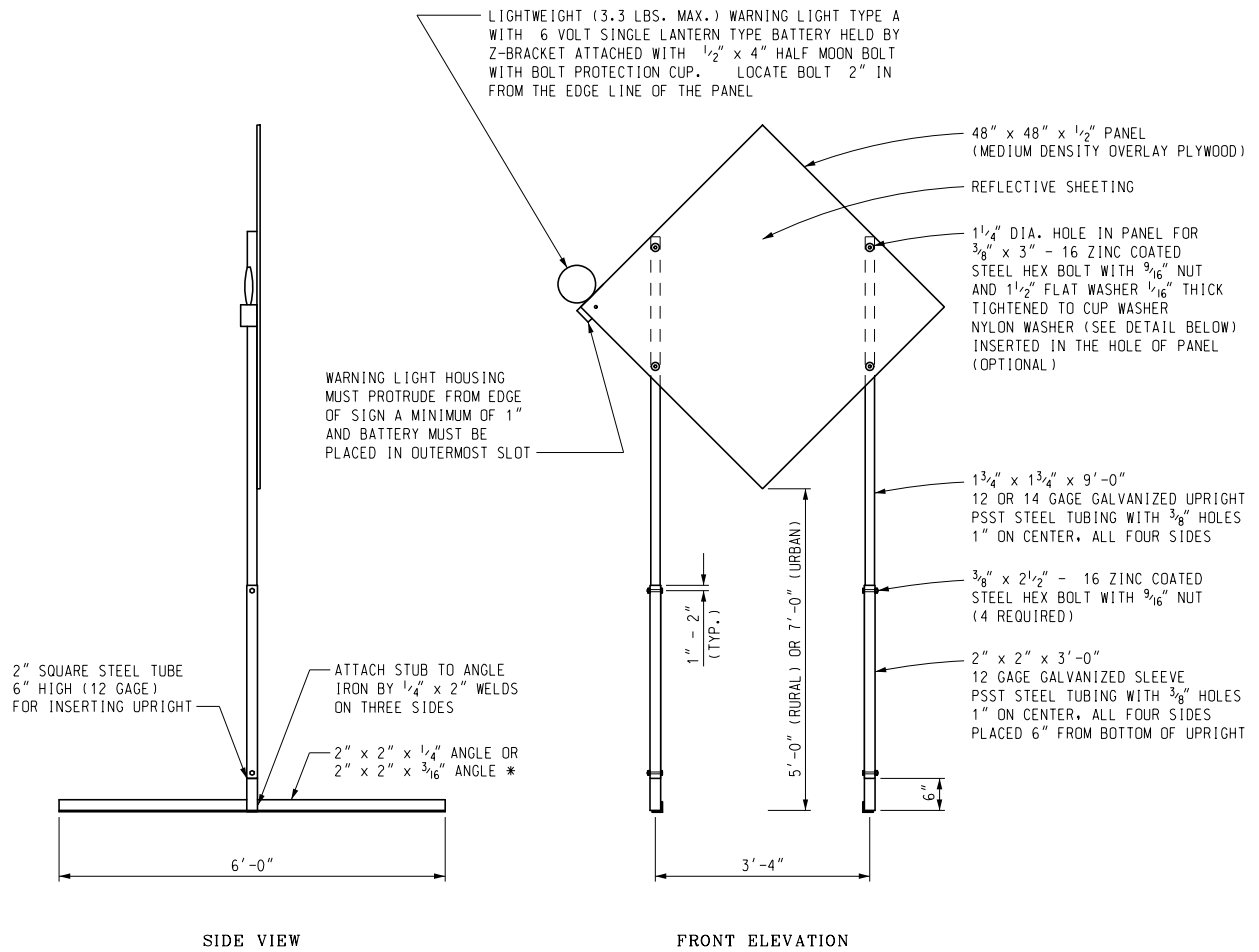
APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES
ENGINEER OF DEVELOPMENT

Temporary
Traffic Control Devices

DRAWN BY: ECH
CHECKED BY: MWB

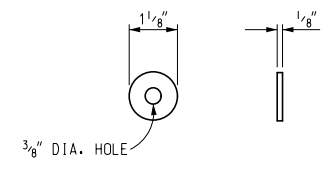
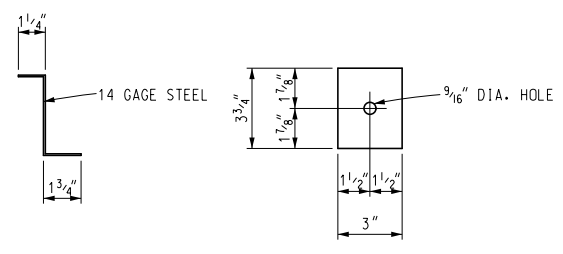
APPROVED BY: _____
(SPECIAL DETAIL)
DIRECTOR, BUREAU OF DEVELOPMENT

F.H.W.A. APPROVAL	1/18/11 PLAN DATE	WZD-125-E	SHEET 1 OF 3
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TEMPORARY SIGN SUPPORT

(WARNING LIGHT PLACED ON SIDE CLOSEST TO TRAFFIC)
 * SIGN STAND IS BALLASTED WITH FOUR OR MORE 35 LB SANDBAGS. A MINIMUM OF ONE ON EACH END.
 UPRIGHTS SHALL NOT EXTEND ABOVE THE SIGN PANEL.



Other temporary sign supports meeting current NCHRP crash worthy criteria can be found on the FHWA Safety website at http://safety.fhwa.dot.gov/roadway_dept/road_hardware/wzd.htm

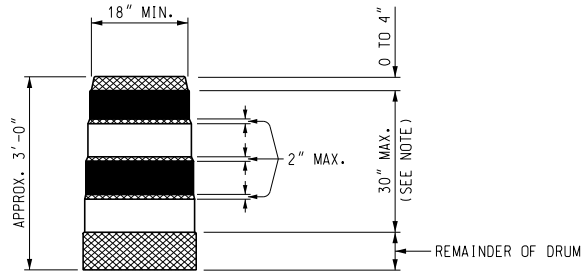
NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	SPECIAL DETAIL F.H.W.A. APPROVAL	1/18/11 PLAN DATE	WZD-125-E	SHEET 2 OF 3
--	-------------------------------------	----------------------	-----------	-----------------

NOTE: THE ORIGINAL SIGNED COPY IS KEPT ON FILE AT THE MICHIGAN DEPARTMENT OF TRANSPORTATION.

- PLASTIC DRUM
- ▲▲▲ PROPOSED TYPE III BARRICADE
- △△△ EXISTING TYPE III BARRICADE

SYMBOLS TO BE USED ON PLANS



- REFLECTORIZED ORANGE
- REFLECTORIZED WHITE
- NON REFLECTORIZED ORANGE

NOTE:
 DRUMS SHALL HAVE AT LEAST 4 HORIZONTAL REFLECTORIZED STRIPES (2 ORANGE AND 2 WHITE) OF 6" UNIFORM WIDTH, ALTERNATING IN COLOR WITH THE TOPMOST REFLECTORIZED STRIPE BEING ORANGE. NON REFLECTORIZED SPACES BETWEEN THE HORIZONTAL REFLECTORIZED ORANGE AND WHITE STRIPES SHALL BE ORANGE IN COLOR AND EQUAL IN WIDTH.

PLASTIC DRUM

NOTES:

2" PERFORATED SQUARE STEEL TUBES MAY BE USED TO FABRICATE THE HORIZONTAL BASE OF THE TYPE III BARRICADE.

WARNING LIGHTS SHALL BE PLACED ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND ALL OTHER PROVISIONS IN THE CONTRACT ON TYPE III BARRICADES.

SEE ROAD STANDARD PLANS R-113-SERIES FOR TEMPORARY CROSSOVERS FOR DIVIDED ROADWAY, AND R-126-SERIES FOR TYPICAL LOCATION AND SPACING OF PLASTIC DRUMS FOR PLACEMENT OF TEMPORARY CONCRETE BARRIER.

SIGNS, BARRICADES, AND PLASTIC DRUMS SHALL BE FACED WITH PRESSURE-SENSITIVE REFLECTIVE SHEETING ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

SANDBAGS SHALL BE USED WHEN SUPPLEMENTAL WEIGHTS ARE REQUIRED TO ACHIEVE STABILITY OF THE BARRICADE. THE SANDBAGS SHALL BE PLACED SO THEY WILL NOT COVER OR OBSTRUCT ANY REFLECTIVE PORTION OF THE TRAFFIC CONTROL DEVICE.

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
 BUREAU OF DEVELOPMENT STANDARD PLAN

(SPECIAL DETAIL)
 F.H.W.A. APPROVAL

1/18/11
 PLAN DATE

WZD-125-E

SHEET
 3 OF 3

NOTE: THE ORIGINAL SIGNED COPY IS KEPT ON FILE AT THE MICHIGAN DEPARTMENT OF TRANSPORTATION.

CITY OF ANN ARBOR

NOTICE TO BIDDERS

PROJECT COORDINATION

AA:DAD

1 of 1

03/23/20

The City of Ann Arbor hereby notifies the Contractor of several independent construction projects within the local vicinity of, or directly adjacent to, the Construction Influence Area (CIA) of the project locations listed below. These projects may affect various work activities, maintenance of traffic (MOT), and/or trucking operations involved with these locations. The City anticipates construction of these independent project during the same timeframe as this project.

- East Madison Street CIA & MOT: Coordinate with City of Ann Arbor & Watco Companies/Ann Arbor Railroad Project.
- Geddes Avenue CIA & MOT: Coordinate with DTE Energy Conduit Duct Bank restoration work in the vicinity of the Church St and Geddes Ave intersection.
- Geddes Avenue CIA & MOT: Coordinate work with University of Michigan Ruthven Building Renovation and Expansion Project.
- Geddes Avenue CIA & MOT: Coordinate work with University of Michigan Central Campus Recreation Building Project.
- Granger Avenue CIA & MOT: Coordinate with City of Ann Arbor Street Surface Treatment Project – FY2020 work on E Stadium Blvd and Packard St.
- West Oakbrook Drive Shared use Path CIA & MOT: Coordinate with Ann Arbor Area Transportation Authority bus stop work.
- West Washington Street CIA & MOT: Coordinate with Ann Arbor Downtown Development Authority First & Ashley Street Project.

The above is not necessarily a complete listing of all area projects that could potentially impact this one. Prior to commencing with any construction, the Contractor shall verify with the City the presence of any other concurrent public or permitted projects within the vicinity.

The Contractor shall coordinate its work on this project with that by Contractor(s) on all other projects within the local vicinity, as directed by the Engineer. The Engineer will make no additional compensation or adjustments to contract unit prices for costs incurred by the Contractor due to coordinating with or delays caused by other projects.



TTL Associates, Inc.
 1915 N 12th Street
 Toledo, Ohio 43624
 Telephone: 419-324-2222
 Fax: 419-241-1808

BORING NUMBER SB-BARR-1

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB MB</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>1/28/20</u> COMPLETED <u>1/28/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES <u>BARRINGTON PLACE</u>	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80 </div>
0.0			ASPHALT - 8 Inches						
			CRUSHED STONE - 8 Inches						
			Moist Stiff Gray LEAN CLAY w/Sand and Trace Gravel (CL)	SS 1	78	4-6-9 (15)	3.75		18 ▲
2.5			Moist Hard Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 2	100	9-14-18 (32)	>4.5		14 ● ▲
5.0			Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



TTL Associates, Inc.
 1915 N 12th Street
 Toledo, Ohio 43624
 Telephone: 419-324-2222
 Fax: 419-241-1808

BORING NUMBER SB-BARR-2

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB MB **RIG NO.** 844 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 1/28/20 **COMPLETED** 1/28/20 **AT TIME OF DRILLING** None

LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None

NOTES BARRINGTON PLACE **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 3 Inches									
			CRUSHED STONE - 10 Inches									
			Moist Stiff Brown SANDY LEAN CLAY w/Trace Gravel (CL)	SS 1	78	4-6-7 (13)	>4.5					13 ●
2.5			Moist Hard Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 2	100	8-13-18 (31)	>4.5					13 ● ▲
5.0			Bottom of hole at 5.0 feet.									

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BORING NUMBER SB-BARR-3

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB MB</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>1/28/20</u> COMPLETED <u>1/28/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES <u>BARRINGTON PLACE</u>	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 4 Inches									
			CRUSHED STONE - 10 Inches									
			Moist Stiff Gray/Brown SANDY LEAN CLAY w/Trace Gravel (CL)	SS 1	100	4-5-8 (13)	2.25					▲ 16
2.5			Moist Loose Brown CLAYEY SAND w/Trace Gravel (SC)	SS 2	100	4-5-4 (9)	NP					▲ 16
5.0			Bottom of hole at 5.0 feet.									

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 Fax: 419-241-1808

BORING NUMBER SB-BRAM-1

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3
PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI
DRILLING CONTRACTOR TTL Associates TB JP **RIG NO.** 111 **GROUND ELEVATION** _____
DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**
DATE STARTED 2/26/20 **COMPLETED** 2/26/20 **AT TIME OF DRILLING** None
LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None
NOTES _____ **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 3 Inches									
			CRUSHED STONE - 11 Inches									
	2.5		Moist Medium Stiff Gray/Brown SANDY LEAN CLAY w/Trace Gravel and Calcite Stain Seam (CL)	SS 1	67	4-4-3 (7)	4.00					▲ 12 ●
			Moist Medium Stiff Brown/Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 2	100	2-3-5 (8)	>4.5					▲ 18 ●
5.0	5.0		Bottom of hole at 5.0 feet.									

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 1915 N 12th Street
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 Fax: 419-241-1808

BORING NUMBER SB-BRAM-2

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB JP **RIG NO.** 111 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 3/3/20 **COMPLETED** 3/3/20 **AT TIME OF DRILLING** None

LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None

NOTES _____ **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	SPT N VALUE			
									PL	MC	LL	
0.0			ASPHALT - 3.5 Inches									
			CRUSHED STONE - 10.5 Inches									
			Moist Medium Stiff to Stiff Brown/Gray SANDY LEAN CLAY w/Trace Gravel and Calcite Stain Seam (CL)	SS 1	78	3-3-4 (7)	2.00					16
2.5			Moist Very Stiff Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 2	100	7-9-11 (20)	NI					16
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT 3/19/20



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 1915 N 12th Street
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BORING NUMBER SB-D1-1

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB MB **RIG NO.** 844 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 1/28/20 **COMPLETED** 1/28/20 **AT TIME OF DRILLING** None

LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None

NOTES DICKEN DRIVE **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	SPT N VALUE			
									PL	MC	LL	
0.0			ASPHALT - 5 Inches						20	40	60	80
			CRUSHED STONE - 9 Inches									
			Moist Medium Dense Brown CLAYEY SAND w/Trace Gravel (SC)	SS 1	67	5-5-6 (11)	NP					
2.5			Moist Very Stiff Gray/Brown SANDY LEAN CLAY w/Trace Gravel and Calcite Stain Seam (CL)	SS 2	100	9-11-14 (25)	>4.5					
5.0			Bottom of hole at 5.0 feet.									

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TTL Associates, Inc.
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 Toledo, Ohio 43624
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 Fax: 419-241-1808

BORING NUMBER SB-D1-2

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB MB</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>1/28/20</u> COMPLETED <u>1/28/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES <u>DICKEN DRIVE</u>	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 </div> <div style="text-align: center;"> ▲ SPT N VALUE ▲ 20 40 60 80 </div>
0.0			ASPHALT - 6 Inches						
			0.5'						
			CRUSHED STONE - 8 Inches						
			1.2'						
			Moist Medium Dense Brown POORLY GRADED SAND w/Clay and Trace Gravel (SP/SC)	SS 1	56	5-6-8 (14)	NP		▲
2.5									
			3.5'						
			Moist Stiff Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 2	100	4-4-9 (13)	4.00		14 ●
5.0									
			5.0'						
			Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



TTL Associates, Inc.
 1915 N 12th Street
 Toledo, Ohio 43624
 Telephone: 419-324-2222
 Fax: 419-241-1808

BORING NUMBER SB-D1-3

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB MB</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>1/28/20</u> COMPLETED <u>1/28/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES <u>DICKEN DRIVE</u>	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 </div> <div style="text-align: center;"> ▲ SPT N VALUE ▲ 20 40 60 80 </div>
0.0			ASPHALT - 5 Inches						
			CRUSHED STONE - 9 Inches						
			Moist Loose Brown POORLY GRADED SAND w/Clay and Trace Gravel (SP/SC)	SS 1	56	4-4-5 (9)	NP		▲
2.5			Moist Stiff Brown/Gray LEAN CLAY w/Sand and Trace Gravel (CL)	SS 2	100	3-4-6 (10)	3.00		▲ 21 ●
5.0			Bottom of hole at 5.0 feet.						

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TTL Associates, Inc.
 1915 N 12th Street
 Toledo, Ohio 43624
 Telephone: 419-324-2222
 Fax: 419-241-1808

BORING NUMBER SB-DUNN2-1

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB MB</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>1/28/20</u> COMPLETED <u>1/28/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES <u>DUNMORE ROAD</u>	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80 </div>
0.0			ASPHALT - 6 Inches						
			FILL - Moist Loose Brown WELL GRADED SAND w/Silt and Crushed Stone						
			Moist Stiff Brown SANDY LEAN CLAY w/Trace Gravel (CL)	SS 1	67	9-5-4 (9)	NP		▲
2.5			Moist Very Stiff Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)				NI		
			Moist Very Stiff Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)						
			Moist Very Stiff Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 2	100	5-10-16 (26)	>4.5		● ▲ 16
5.0			Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



TTL Associates, Inc.
 1915 N 12th Street
 Toledo, Ohio 43624
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BORING NUMBER SB-GR-1

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>3/5/20</u> COMPLETED <u>3/5/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES <u>GREENVIEW DRIVE</u>	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 4 Inches									
			CRUSHED STONE - 10 Inches									
			Moist Stiff Brown/Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 1	83	4-4-6 (10)	>4.5					15
2.5			@3': Very Stiff, Gray/Brown									
				SS 2	100	4-7-10 (17)	>4.5					12
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



TTL Associates, Inc.
 1915 N 12th Street
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 Fax: 419-241-1808

BORING NUMBER SB-GR-2

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB MB</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>1/28/20</u> COMPLETED <u>1/28/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES <u>GREENVIEW DRIVE</u>	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80 </div>
0.0			ASPHALT - 5 Inches						
			CRUSHED STONE - 10 Inches						
			Moist Stiff Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 1	89	3-4-5 (9)	4.25		15 ▲
2.5			@3': Very Stiff, Gray/Brown						
5.0			Bottom of hole at 5.0 feet.	SS 2	100	6-10-18 (28)	>4.5		14 ● ▲

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



TTL Associates, Inc.
 1915 N 12th Street
 Toledo, Ohio 43624
 Telephone: 419-324-2222
 Fax: 419-241-1808

BORING NUMBER SB-LA-1

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB MB **RIG NO.** 844 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 1/28/20 **COMPLETED** 1/28/20 **AT TIME OF DRILLING** None

LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None

NOTES LAS VEGAS DRIVE **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 6 Inches									
			0.5'									
			CRUSHED STONE - 6 Inches									
			1.0'									
			FILL - Moist Very Stiff Brown/Gray SANDY LEAN CLAY w/Trace Crushed Stone and Calcite Stain Seam	SS 1	56	6-6-9 (15)	>4.5					13 ●
2.5												
			3.0'									
			Moist Very Stiff Brown LEAN CLAY w/Sand and Trace Gravel (CL)	SS 2	100	6-9-16 (25)	>4.5					13 ● ▲
5.0			5.0'									
			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT 3/19/20



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BORING NUMBER SB-LA-2

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB MB</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>1/28/20</u> COMPLETED <u>1/28/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES <u>LAS VEGAS DRIVE</u>	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80 </div>
0.0			ASPHALT - 6 Inches						
			CRUSHED STONE - 7 Inches						
			Moist Stiff Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 1	78	4-6-9 (15)	>4.5		15 ●
2.5			Moist Hard Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 2	100	14-18-21 (39)	>4.5		14 ● ▲
5.0			Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-LA-3

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB MB</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>1/28/20</u> COMPLETED <u>1/28/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES <u>LAS VEGAS DRIVE</u>	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80 </div>
0.0			ASPHALT - 5 Inches						
			FILL - Moist Medium Dense Brown CRUSHED STONE w/Clay and Sand						
			Moist Stiff Gray/Brown LEAN CLAY w/Sand and Trace Gravel (CL)	SS 1	56	12-7-7 (14)	NP		▲
2.5									
				SS 2	100	6-5-5 (10)	>4.5		▲ 15
5.0			Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US LAB.GDT 3/19/20



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BORING NUMBER SB-ME-1

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>3/5/20</u> COMPLETED <u>3/5/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES _____	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80
0.0		ASPHALT - 4 Inches							
		CRUSHED STONE - 9 Inches	0.3'						
		Moist Stiff Brown/Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	1.1'						
2.5				SS 1	78	4-5-6 (11)	>4.5		16
				SS 2	100	4-5-10 (15)	>4.5		14
5.0			5.0'						
			Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-ME-2

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>3/5/20</u> COMPLETED <u>3/5/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES _____	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80
0.0		[Redacted]	ASPHALT - 3.5 Inches						
		[Redacted]	CRUSHED STONE - 11.5 Inches						
		[Redacted]	Moist Stiff Brown/Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 1	89	4-5-6 (11)	>4.5		14
2.5		[Redacted]	@3': Stiff to Very Stiff						
		[Redacted]		SS 2	94	4-5-8 (13)	3.00		17
5.0		[Redacted]	Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US LAB.GDT 3/19/20



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BORING NUMBER SB-ME-3

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB JP **RIG NO.** 844 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 3/5/20 **COMPLETED** 3/5/20 **AT TIME OF DRILLING** None

LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None

NOTES _____ **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 4.5 Inches									
			CRUSHED STONE - 9.5 Inches									
			Moist Medium Stiff Brown/Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 1	83	4-4-4 (8)	>4.5					15
2.5			Moist Stiff to Very Stiff Gray/Brown LEAN CLAY w/Sand and Trace Gravel (CL)	SS 2	100	4-6-8 (14)	4.00					10
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US LAB.GDT 3/19/20



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BORING NUMBER SB-ME-4

CLIENT City of Ann Arbor PROJECT NAME Geotechnical Bundle #3
 PROJECT NUMBER 1504704 PROJECT LOCATION Ann Arbor, MI
 DRILLING CONTRACTOR TTL Associates TB JP RIG NO. 844 GROUND ELEVATION _____
 DRILLING METHOD 3 in. SSA GROUND WATER LEVELS:
 DATE STARTED 3/5/20 COMPLETED 3/5/20 AT TIME OF DRILLING None
 LOGGED BY KKC CHECKED BY KCH AT END OF DRILLING None
 NOTES _____ 0hrs AFTER DRILLING Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	SPT N VALUE			
									PL	MC	LL	
0.0			ASPHALT - 3 Inches						20	40	60	80
			CRUSHED STONE - 11 Inches									
			Moist Stiff Gray/Brown LEAN CLAY w/Trace Sand and Calcite Stain Seam (CL)	SS 1	89	3-4-5 (9)	>4.5					
2.5			@3': Very Stiff, w/Sand and Trace Gravel									
				SS 2	100	5-7-11 (18)	3.50					
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT 3/19/20



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BORING NUMBER SB-MO-1

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>3/3/20</u> COMPLETED <u>3/3/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES _____	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80 </div>
0.0			ASPHALT - 2.5 Inches						
			CRUSHED STONE - 15.5 Inches						
			Moist Medium Dense Brown CLAYEY SAND w/Trace Gravel (SC)	SS 1	67	5-6-7 (13)	NP	8 ▲	
2.5			Moist Loose Brown POORLY GRADED SAND w/Silt (SP/SM)	SS 2	100	4-4-4 (8)	NP	▲	
5.0			Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-MO-2

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>3/3/20</u> COMPLETED <u>3/3/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES _____	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80 </div>
0.0			ASPHALT - 3 Inches						
			CRUSHED STONE - 12 Inches						
			Moist Medium Stiff Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 1	78	4-4-4 (8)	>4.5		15: ▲ ● — I
2.5			Moist Stiff to Very Stiff Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 2	100	3-4-9 (13)	4.00		15: ●
5.0			Bottom of hole at 5.0 feet.						

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BORING NUMBER SB-MO-3

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>3/3/20</u> COMPLETED <u>3/3/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES _____	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80
0.0			ASPHALT - 3 Inches						
			CRUSHED STONE - 19 Inches						
			Moist Medium Dense Brown SILTY SAND w/Trace Gravel (SM)	SS 1	67	8-9-10 (19)	NP		▲
2.5			Moist Medium Stiff Brown SANDY LEAN CLAY w/Trace Gravel and Calcite Stain Seam (CL)	SS 2	100	2-2-3 (5)	1.75		● 18
5.0			Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-NO-1

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB JP **RIG NO.** 111 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 3/6/20 **COMPLETED** 3/6/20 **AT TIME OF DRILLING** None

LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None

NOTES _____ **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 4 Inches									
			CRUSHED STONE - 8 Inches									
			Moist Stiff to Very Stiff Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Organics (CL)	SS 1	94	3-4-7 (11)	3.50					▲ 18
2.5			Moist Very Stiff Brown SILTY CLAY w/Trace Sand (CL/ML)	SS 2	100	7-12-14 (26)	2.25					▲ 20
3.0												
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT 3/19/20



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BORING NUMBER SB-NO-2

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB JP **RIG NO.** 111 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 3/6/20 **COMPLETED** 3/6/20 **AT TIME OF DRILLING** None

LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None

NOTES _____ **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 3 Inches									
			CRUSHED STONE - 12 Inches									
	1.3'		Moist Stiff to Very Stiff Dark Brown SANDY LEAN CLAY w/Gravel and Trace Organics (CL)	SS 1	78	5-5-7 (12)	2.75		10			
2.5			Moist Very Stiff Brown/Gray LEAN CLAY w/Trace Sand (CL)									
	3.0'			SS 2	17	4-7-11 (18)	NI		16			
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-RU-1

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB JP **RIG NO.** 111 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 3/6/20 **COMPLETED** 3/6/20 **▽ AT TIME OF DRILLING** 4.0 ft

LOGGED BY KKC **CHECKED BY** KCH **▼ AT END OF DRILLING** 4.0 ft

NOTES _____ **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 4.5 Inches									
			CRUSHED STONE - 9.5 Inches									
			Moist Loose Dark Brown POORLY GRADED SAND w/Gravel and Trace Silt (SP)	SS 1	78	5-5-5 (10)	NP					
2.5												
			Moist Soft Brown SANDY LEAN CLAY w/Gravel (CL)	SS 2	100	1-2-1 (3)	NP					
5.0							NI					
			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-RU-2

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>111</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>3/6/20</u> COMPLETED <u>3/6/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES _____	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80
0.0		ASPHALT - 4 Inches	0.3'						
		CRUSHED STONE - 9 Inches	1.1'						
	2.5	Moist Stiff to Very Stiff Gray SANDY LEAN CLAY w/Trace Gravel (CL)		SS 1	94	6-6-7 (13)	4.25		15
		Moist Medium Stiff Gray LEAN CLAY w/Trace Sand and Organics (CL)	3.0'						
	5.0	Bottom of hole at 5.0 feet.	5.0'	SS 2	100	2-3-5 (8)	0.75		31

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-RU-3

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB JP **RIG NO.** 111 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 3/6/20 **COMPLETED** 3/6/20 **AT TIME OF DRILLING** None

LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None

NOTES _____ **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 3 Inches									
			CRUSHED STONE - 13 Inches									
			Moist Stiff Brown LEAN CLAY w/Sand and Gravel (CL)	SS 1	89	3-6-8 (14)	4.50					15
2.5			Moist Very Stiff to Hard Gray/Brown LEAN CLAY w/Sand and Gravel (CL)	SS 2	100	5-8-8 (16)	4.50					13
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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 1915 N 12th Street
 Toledo, Ohio 43624
 Telephone: 419-324-2222
 Fax: 419-241-1808

BORING NUMBER SB-RU-4

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB JP **RIG NO.** 111 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 3/6/20 **COMPLETED** 3/6/20 **AT TIME OF DRILLING** None

LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None

NOTES _____ **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 3 Inches									
			CRUSHED STONE - 16 Inches									
			Moist Stiff to Very Stiff Dark Brown LEAN CLAY w/Trace Sand, Gravel, and Organics (CL)	SS 1	72	8-5-7 (12)	3.75					▲ 15 ●
2.5			Moist Medium Stiff Gray SANDY LEAN CLAY w/Gravel (CL)	SS 2	89	6-4-4 (8)	0.50					▲ 18 ●
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-TU-1

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>3/5/20</u> COMPLETED <u>3/5/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES _____	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 ▲ SPT N VALUE ▲ 20 40 60 80 </div>
0.0		ASPHALT - 3.5 Inches							
		CRUSHED STONE - 11.5 Inches	0.3'						
		Moist Stiff Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	1.3'	SS 1	89	4-5-6 (11)	>4.5		13
2.5		@3.5': Very Stiff, Gray/Brown		SS 2	100	7-8-11 (19)	>4.5		13
5.0			5.0'						
			Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



TTL Associates, Inc.
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BORING NUMBER SB-TU-2

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB JP **RIG NO.** 844 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 3/5/20 **COMPLETED** 3/5/20 **AT TIME OF DRILLING** None

LOGGED BY KKC **CHECKED BY** KCH **AT END OF DRILLING** None

NOTES _____ **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 4.5 Inches									
			CRUSHED STONE - 9.5 Inches									
	1.2'		Moist Stiff Brown/Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 1	83	6-5-5 (10)	>4.5					▲ 11 ●
2.5			Moist Medium Stiff Brown/Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 2	100	3-3-3 (6)	>4.5					▲ 16 ●
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-WAL-2

CLIENT City of Ann Arbor PROJECT NAME Geotechnical Bundle #3
 PROJECT NUMBER 1504704 PROJECT LOCATION Ann Arbor, MI
 DRILLING CONTRACTOR TTL Associates TB JP RIG NO. 844 GROUND ELEVATION _____
 DRILLING METHOD 3 in. SSA GROUND WATER LEVELS:
 DATE STARTED 3/5/20 COMPLETED 3/5/20 AT TIME OF DRILLING None
 LOGGED BY KKC CHECKED BY KCH AT END OF DRILLING None
 NOTES _____ 0hrs AFTER DRILLING Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 2 Inches									
			CRUSHED STONE - 14 Inches									
			Moist Stiff Gray/Brown SANDY LEAN CLAY w/Trace Gravel (CL) (Noted as Auger Sample)	SS 1	0	4-5-6 (11)	NI					12
2.5			Moist Very Stiff to Hard Brown/Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 2	100	6-10-14 (24)	>4.5					13
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT 3/19/20



TTL Associates, Inc.
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BORING NUMBER SB-WINS-1

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>2/26/20</u> COMPLETED <u>2/26/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES _____	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 4 Inches									
			CRUSHED STONE - 11 Inches									
	1.3'		Moist Medium Stiff Brown/Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 1	78	4-4-4 (8)	>4.5					▲ 14 ●
2.5			Moist Soft Brown/Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL) (Noted as Auger Sample)	SS 2	0	2-2-2 (4)	NI					▲ 14 ●
3.5'												
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-WINS-2

CLIENT City of Ann Arbor PROJECT NAME Geotechnical Bundle #3
 PROJECT NUMBER 1504704 PROJECT LOCATION Ann Arbor, MI
 DRILLING CONTRACTOR TTL Associates TB JP RIG NO. 844 GROUND ELEVATION _____
 DRILLING METHOD 3 in. SSA GROUND WATER LEVELS:
 DATE STARTED 3/3/20 COMPLETED 3/3/20 AT TIME OF DRILLING None
 LOGGED BY KKC CHECKED BY KCH AT END OF DRILLING None
 NOTES _____ 0hrs AFTER DRILLING Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 4 Inches									
			CRUSHED STONE - 13 Inches									
			Moist Stiff to Very Stiff Gray LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 1	78	3-4-5 (9)	3.75					▲ 18
2.5			@3.5': Very Stiff, Brown/Gray	SS 2	17	6-7-10 (17)	NI					● 6 ▲
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-WINS-3

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>3/3/20</u> COMPLETED <u>3/3/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES _____	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	<div style="text-align: center;"> PL MC LL 20 40 60 80 </div> <div style="text-align: center;">▲ SPT N VALUE ▲</div> <div style="text-align: center;">20 40 60 80</div>
0.0			ASPHALT - 4 Inches						
			CRUSHED STONE - 10 Inches						
			Moist Medium Dense Brown/Gray SILTY SAND w/Trace Gravel and Calcite Stain Seam (SM)	SS 1	83	20-10-7 (17)	NP		▲
2.5			Moist Medium Dense Brown POORLY GRADED SAND w/Silt and Trace Gravel (SP/SM)	SS 2	100	9-7-5 (12)	NP		▲
5.0			Bottom of hole at 5.0 feet.						

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-WINS-4

CLIENT <u>City of Ann Arbor</u>	PROJECT NAME <u>Geotechnical Bundle #3</u>
PROJECT NUMBER <u>1504704</u>	PROJECT LOCATION <u>Ann Arbor, MI</u>
DRILLING CONTRACTOR <u>TTL Associates TB JP</u>	RIG NO. <u>844</u> GROUND ELEVATION _____
DRILLING METHOD <u>3 in. SSA</u>	GROUND WATER LEVELS:
DATE STARTED <u>3/5/20</u> COMPLETED <u>3/5/20</u>	AT TIME OF DRILLING <u>None</u>
LOGGED BY <u>KKC</u> CHECKED BY <u>KCH</u>	AT END OF DRILLING <u>None</u>
NOTES _____	0hrs AFTER DRILLING <u>Backfilled w/Cuttings, Chips, and Patch</u>

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 3 Inches									
			CRUSHED STONE - 11 Inches									
			Moist Stiff Gray/Brown LEAN CLAY w/Sand, Trace Gravel, and Calcite Stain Seam (CL)	SS 1	89	3-4-5 (9)	>4.5					▲ 16 ●
2.5												
				SS 2	100	5-6-8 (14)	>4.5					▲ 11 ●
5.0			Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20



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BORING NUMBER SB-WINS-5

CLIENT City of Ann Arbor **PROJECT NAME** Geotechnical Bundle #3

PROJECT NUMBER 1504704 **PROJECT LOCATION** Ann Arbor, MI

DRILLING CONTRACTOR TTL Associates TB JP **RIG NO.** 844 **GROUND ELEVATION** _____

DRILLING METHOD 3 in. SSA **GROUND WATER LEVELS:**

DATE STARTED 3/5/20 **COMPLETED** 3/5/20 **▽ AT TIME OF DRILLING** 0.8 ft

LOGGED BY KKC **CHECKED BY** KCH **▼ AT END OF DRILLING** 0.8 ft

NOTES _____ **0hrs AFTER DRILLING** Backfilled w/Cuttings, Chips, and Patch

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	UNCONF. COMP. STR. (tsf)	DRY UNIT WT. (pcf)	PL MC LL			
									20	40	60	80
0.0			ASPHALT - 3 Inches									
			CRUSHED STONE - 8 Inches									
	2.5		Moist Medium Dense Brown POORLY GRADED GRAVEL w/Silt, Sand, and Trace Calcite Stain Seam (GP/GM)	SS 1	56	7-10-10 (20)	NP					
	3.0		Moist Medium Stiff Brown/Gray SANDY LEAN CLAY w/Trace Gravel and Calcite Stain Seam (CL)	SS 2	83	1-1-4 (5)	2.25					
5.0	5.0		Bottom of hole at 5.0 feet.									

TTL_GEOTECH_STANDARD_1504704.GPJ_GINT_US_LAB.GDT_3/19/20

General Decision Number: MI20200001 02/07/2020

Superseded General Decision Number: MI20190001

State: Michigan

Construction Types: Highway (Highway, Airport & Bridge xxxxx and Sewer/Incid. to Hwy.)

Counties: Michigan Statewide.

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	01/24/2020
2	02/07/2020

CARP0004-004 06/01/2019

REMAINDER OF STATE

	Rates	Fringes
CARPENTER (Piledriver).....	\$ 27.62	20.59

CARP0004-005 06/01/2018

LIVINGSTON (Townships of Brighton, Deerfield, Genoa, Hartland, Oceola & Tyrone), MACOMB, MONROE, OAKLAND, SANILAC, ST. CLAIR AND WAYNE COUNTIES

	Rates	Fringes
CARPENTER (Piledriver).....	\$ 30.50	27.28

ELEC0017-005 06/03/2019

STATEWIDE

	Rates	Fringes
Line Construction		
Groundman/Driver.....	\$ 28.58	15.27
Journeyman Signal Tech, Communications Tech, Tower		
Tech & Fiber Optic Splicers..	\$ 40.35	18.80
Journeyman Specialist.....	\$ 46.40	20.62
Operator A.....	\$ 34.10	16.93
Operator B.....	\$ 31.84	16.25

Classifications

Journeyman Specialist: Refers to a crew of only one person working alone.
 Operator A: Shall be proficient in operating all power equipment including: Backhoe, Excavator, Directional Bore and Boom/Digger truck.
 Operator B: Shall be proficient in operating any 2 of the above mentioned pieces of equipment listed under Operator A.

ENGI0324-003 06/01/2019

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
GROUP 1.....	\$ 46.52	24.35
GROUP 2.....	\$ 47.52	24.35
GROUP 3.....	\$ 45.02	24.35
GROUP 4.....	\$ 46.02	24.35
GROUP 5.....	\$ 43.52	24.35
GROUP 6.....	\$ 44.52	24.35
GROUP 7.....	\$ 43.25	24.35
GROUP 8.....	\$ 44.25	24.35
GROUP 9.....	\$ 42.80	24.35
GROUP 10.....	\$ 43.80	24.35
GROUP 11.....	\$ 42.07	24.35
GROUP 12.....	\$ 43.07	24.35
GROUP 13.....	\$ 41.71	24.35

GROUP 14.....	\$ 42.71	24.35
GROUP 15.....	\$ 41.07	24.35
GROUP 16.....	\$ 38.37	24.35
GROUP 17.....	\$ 23.89	11.50
GROUP 18.....	\$ 27.38	11.50

FOOTNOTE:

Paid Holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Engineer when operating combination of boom and jib 400' or longer

GROUP 2: Engineer when operating combination of boom and jib 400' or longer on a crane that requires an oiler

GROUP 3: Engineer when operating combination of boom and jib 300' or longer

GROUP 4: Engineer when operating combination of boom and jib 300' or longer on a crane that requires an oiler

GROUP 5: Engineer when operating combination of boom and jib 220' or longer

GROUP 6: Engineer when operating combination of boom and jib 220' or longer on a crane that requires an oiler

GROUP 7: Engineer when operating combination of boom and jib 140' or longer

GROUP 8: Engineer when operating combination of boom and jib 140' or longer on a crane that requires an oiler

GROUP 9: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level)

GROUP 10: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level) on a crane that requires an oiler

GROUP 11: Engineer when operating combination of boom and jib 120' or longer

GROUP 12: Engineer when operating combination of boom and jib 120' or longer on a crane that requires an oiler

GROUP 13: Crane operator; job mechanic and 3 drum hoist and excavator

GROUP 14: Crane operator on a crane that requires an oiler

GROUP 15: Hoisting operator; 2 drum hoist and rubber tired backhoe

GROUP 16: Forklift and 1 drum hoist

GROUP 17: Compressor or welder operator

GROUP 18: Oiler

ENGI0324-004 06/01/2019

AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN

AREA 2: ANTRIM, BENZIE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE AND WEXFORD COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
AREA 1		
GROUP 1.....	\$ 46.52	24.35
GROUP 2.....	\$ 43.25	24.35
GROUP 3.....	\$ 41.71	24.35
GROUP 4.....	\$ 38.37	24.35
GROUP 5.....	\$ 23.89	11.50
GROUP 6.....	\$ 27.38	11.50
AREA 2		
GROUP 1.....	\$ 46.52	24.35
GROUP 2.....	\$ 43.25	24.35
GROUP 3.....	\$ 41.71	24.35
GROUP 4.....	\$ 38.37	24.35
GROUP 5.....	\$ 23.89	11.50
GROUP 6.....	\$ 27.38	11.50

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: \$1.50 additional to the group 1 rate. Crane operator with main boom and jib 400' or longer: \$3.00 additional to the group 1 rate.

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1: Crane Operator with main boom & jib 400', 300', or 220' or longer.

GROUP 2: Crane Operator with main boom & jib 140' or longer, Tower Crane; Gantry Crane; Whirley Derrick.

GROUP 3: Regular Equipment Operator, Crane, Dozer, Loader, Hoist, Straddle Wagon, Mechanic, Grader and Hydro Excavator.

GROUP 4: Air Tugger (single drum), Material Hoist Pump 6" or

over, Elevators, Brokk Concrete Breaker.

GROUP 5: Air Compressor, Welder, Generators, Conveyors

GROUP 6: Oiler and fire tender

* ENGI0324-005 09/01/2019

AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND,
ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA,
BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS,
CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD,
DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND
TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA,
IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT,
KWEENAW, LAKE, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE,
MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE,
MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW,
ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE,
ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST.
JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

Rates Fringes

OPERATOR: Power Equipment
(Underground construction
(including sewer))

AREA 1:

GROUP 1.....	\$ 34.63	24.35
GROUP 2.....	\$ 29.90	24.35
GROUP 3.....	\$ 29.17	24.35
GROUP 4.....	\$ 28.60	24.35
GROUP 5.....	\$ 21.40	13.48

AREA 2:

GROUP 1.....	\$ 32.92	24.35
GROUP 2.....	\$ 28.03	24.35
GROUP 3.....	\$ 27.53	24.35
GROUP 4.....	\$ 27.25	24.35
GROUP 5.....	\$ 21.40	13.48

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backfiller tamper; Backhoe; Batch plant operator
(concrete); Clamshell; Concrete paver (2 drums or larger);
Conveyor loader (Euclid type); Crane (crawler, truck type
or pile driving); Dozer; Dragline; Elevating grader;
Endloader; Gradall (and similar type machine); Grader;
Mechanic; Power shovel; Roller (asphalt); Scraper
(self-propelled or tractor drawn); Side boom tractor (type
D-4 or equivalent and larger); Slip form paver; Slope
paver; Trencher (over 8 ft. digging capacity); Well
drilling rig; Concrete pump with boom operator; Hydro
Excavator

GROUP 2: Boom truck (power swing type boom); Crusher; Hoist; Pump (1 or more - 6-in. discharge or larger - gas or diesel- powered or powered by generator of 300 amperes or more - inclusive of generator); Side boom tractor (smaller than type D-4 or equivalent); Tractor (pneu-tired, other than backhoe or front end loader); Trencher (8-ft. digging capacity and smaller); Vac Truck and End dump operator;

GROUP 3: Air compressors (600 cfm or larger); Air compressors (2 or more-less than 600 cfm); Boom truck (non-swinging, non- powered type boom); Concrete breaker (self-propelled or truck mounted - includes compressor); Concrete paver (1 drum-1/2 yd. or larger); Elevator (other than passenger); Maintenance person; Pump (2 or more-4-in. up to 6-in. discharge-gas or diesel powered - excluding submersible pumps); Pumpcrete machine (and similar equipment); Wagon drill (multiple); Welding machine or generator (2 or more-300 amp. or larger - gas or diesel powered)

GROUP 4: Boiler; Concrete saw (40 hp or over); Curing machine (self-propelled); Farm tractor (with attachment); Finishing machine (concrete); Hydraulic pipe pushing machine; Mulching equipment; Pumps (2 or more up to 4-in. discharge, if used 3 hours or more a day, gas or diesel powered - excluding submersible pumps); Roller (other than asphalt); Stump remover; Trencher (service); Vibrating compaction equipment, self-propelled (6 ft. wide or over); Sweeper (Wayne type); Water wagon and Extend-a boom forklift

Group 5: Fire Person, Oiler

 * ENGI0324-006 06/01/2019

GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW, WAYNE, ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

Rates Fringes

Power equipment operators:
 (AIRPORT, BRIDGE & HIGHWAY
 CONSTRUCTION)

GROUP 1.....	\$ 34.16	24.35
GROUP 2.....	\$ 27.43	24.35
GROUP 3.....	\$ 26.87	24.35
GROUP 4.....	\$ 26.70	24.35

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt plant operator; Crane operator (does not include work on bridge construction projects when the crane operator is erecting structural components); Dragline operator; Shovel operator; Locomotive operator; Paver operator (5 bags or more); Elevating grader operator; Pile driving operator; Roller operator (asphalt); Blade grader operator; Trenching machine operator (ladder or wheel type); Auto-grader; Slip form paver; Self-propelled or tractor-drawn scraper; Conveyor loader operator (Euclid type); Endloader operator (1 yd. capacity and over); Bulldozer; Hoisting engineer; Tractor operator; Finishing machine operator (asphalt); Mechanic; Pump operator (6-in. discharge or over, gas, diesel powered or generator of 300 amp. or larger); Shouldering or gravel distributing machine operator (self-propelled); Backhoe (with over 3/8 yd. bucket); Side boom tractor (type D-4 or equivalent or larger); Tube finisher (slip form paving); Gradall (and similar type machine); Asphalt paver (self-propelled); Asphalt planer (self-propelled); Batch plant (concrete-central mix); Slurry machine (asphalt); Concrete pump (3 in. and over); Roto-mill; Swinging boom truck (over 12 ton capacity); Hydro demolisher (water blaster); Farm-type tractor with attached pan; Vacuum truck operator; Batch Plant (concrete dry batch); Concrete Saw Operator (40h.p. or over; Tractor Operator (farm type); Finishing Machine Operator (concrete); Grader Operator (self-propelled fine grade or form (concrete)).

GROUP 2: Screening plant operator; Washing plant operator; Crusher operator; Backhoe (with 3/8 yd. bucket or less); Side boom tractor (smaller than D-4 type or equivalent); Sweeper (Wayne type and similar equipment); Greese Truck; Air Compressor Operator (600 cu.ft. per min or more); Air Compressor Operator (two or more, less than 600 cfm);

GROUP 3: Boiler fire tender; Tractor operator (farm type with attachment); Concrete Breaker; Wagon Drill Operator;

GROUP 4: Oiler; Fire tender; Trencher (service); Flexplane operator; Cleftplane operator; Boom or winch hoist truck operator; Endloader operator (*under 1 yd. capacity); Roller Operator (other than asphalt); Curing equipment operator (self-propelled); Power bin operator; Plant drier (6 ft. wide or over); Guard post driver operator (power driven); All mulching equipment; Stump remover; Concrete pump (under 3-in.); Mesh installer (self-propelled); End dump; Skid Steer.

ENGI0324-007 05/01/2019

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
Compressor, welder and forklift.....	\$ 33.90	24.10
Crane operator, main boom & jib 120' or longer.....	\$ 39.87	24.10
Crane operator, main boom & jib 140' or longer.....	\$ 40.17	24.10
Crane operator, main boom & jib 220' or longer.....	\$ 40.76	24.10
Mechanic with truck and tools.....	\$ 39.00	24.10
Oiler and fireman.....	\$ 31.86	24.10
Regular operator.....	\$ 37.22	24.10

ENGI0324-008 10/01/2015

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY,
BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,
CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA,
DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND
TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA,
IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT,
KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE,
MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA,
MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE,
MUSKOGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA,
OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST.
CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA,
VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Sewer Relining)		
GROUP 1.....	\$ 30.70	12.93
GROUP 2.....	\$ 29.17	12.93

SEWER RELINING CLASSIFICATIONS

GROUP 1: Operation of audio-visual closed circuit TV system,
including remote in-ground cutter and other equipment used
in connection with the CCTV system

GROUP 2: Operation of hot water heaters and circulation
systems, water jetters and vacuum and mechanical debris
removal systems

ENGI0325-012 05/01/2019

	Rates	Fringes
Power equipment operators -		

gas distribution and duct
installation work:

GROUP 1.....	\$ 31.34	24.45
GROUP 2.....	\$ 31.31	24.45
GROUP 3.....	\$ 29.60	24.45

SCOPE OF WORK: The construction, installation, treating and reconditioning of pipelines transporting gas vapors within cities, towns, subdivisions, suburban areas, or within private property boundaries, up to and including private meter settings of private industrial, governmental or other premises, more commonly referred to as "distribution work," starting from the first metering station, connection, similar or related facility, of the main or cross country pipeline and including duct installation.

Group 1: Backhoe, crane, grader, mechanic, dozer (D-6 equivalent or larger), side boom (D-4 equivalent or larger), trencher(except service), endloader (2 yd. capacity or greater).

GROUP 2: Dozer (less than D-6 equivalent), endloader (under 2 yd. capacity), side boom (under D-4 capacity), backfiller, pumps (1 or 2 of 6-inch discharge or greater), boom truck (with powered boom), tractor (wheel type other than backhoe or front endloader). Tamper (self-propelled), boom truck (with non-powered boom), concrete saw (20 hp or larger), pumps (2 to 4 under 6-inch discharge), compressor (2 or more or when one is used continuously into the second day) and trencher(service).

GROUP 3: Oiler, hydraulic pipe pushing machine, grease person and hydrostatic testing operator.

IRON0008-007 06/01/2019

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector.....	\$ 23.70	6.95
IRONWORKER		
General contracts		
\$10,000,000 or greater.....	\$ 33.00	27.12
General contracts less than \$10,000,000.....	\$ 33.00	27.12

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0025-002 06/01/2019

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON,
 CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO,
 ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND,
 MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE,
 ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA,
 WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector		
Alcona, Alpena, Arenac, Cheboygan, Clare, Clinton, Crawford, Gladwin, Gratiot, Huron, Ingham, Iosco, Isabella, Jackson, Lapeer, Livingston (west of Burkhardt Road), Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon, Sanilac, Shiawassee, Tuscola & Washtenaw (west of U.S. 23).	\$ 24.26	22.11
Bay, Genesee, Lapeer, Livingston (east of Burkhardt Road), Macomb, Midland, Oakland, Saginaw, St. Clair, The University of Michigan, Washtenaw (east of U.S. 23) & Wayne...	\$ 25.48	23.11
IRONWORKER		
Ornamental and Structural...	\$ 36.77	29.03
Reinforcing.....	\$ 30.98	27.99

 IRON0055-005 07/01/2019

LENAWEE AND MONROE COUNTIES:

	Rates	Fringes
IRONWORKER		
Pre-engineered metal buildings.....	\$ 23.59	19.35
All other work.....	\$ 30.38	24.40

 IRON0292-003 06/01/2019

BERRIEN AND CASS COUNTIES:

	Rates	Fringes
IRONWORKER (Including pre-engineered metal building erector).....	\$ 30.95	22.25

 IRON0340-001 06/19/2017

ALLEGAN, ANTRIM, BARRY, BENZIE, BRANCH, CALHOUN, CHARLEVOIX,
 EATON, EMMET, GRAND TRAVERSE, HILLSDALE, IONIA, KALAMAZOO,
 KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA,
 MISSAUKEE, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA,
 OTTAWA, ST. JOSEPH, VAN BUREN AND WEXFORD COUNTIES:

	Rates	Fringes
IRONWORKER (Including pre-engineered metal building erector).....	\$ 24.43	24.67

LAB00005-006 10/01/2017		

	Rates	Fringes
Laborers - hazardous waste abatement: (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE AND WEXFORD COUNTIES - Zone 10)		
Levels A, B or C.....	\$ 17.45	12.75
class b.....	\$ 18.00	12.85
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D.....	\$ 16.45	12.75
class a.....	\$ 17.00	12.85
Zone 10		

Laborers - hazardous waste abatement: (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES - Zone 11)		
Levels A, B or C.....	\$ 21.63	12.88
Work performed in conjunction with site preparation not requiring the use of personal protective equipment; Also, Level D.....	\$ 20.63	12.88

Laborers - hazardous waste abatement: (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (except the city of Portland); KALAMAZOO, KENT, LAKE,		
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MANISTEE, MASON, MECOSTA,
MONTCALM, MUSKEGON, NEWAYGO,
OCEANA, OSCEOLA, OTTAWA, ST.
JOSEPH AND VAN BUREN COUNTIES
- Zone 9)

Levels A, B or C.....\$ 20.95	12.85
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;	
Also, Level D.....\$ 19.95	12.85

Laborers - hazardous waste
abatement: (ARENAC, BAY,
CLARE, GLADWIN, GRATIOT,
HURON, ISABELLA, MIDLAND,
OGEMAW, ROSCOMMON, SAGINAW
AND TUSCOLA COUNTIES - Zone 8)

Levels A, B or C.....\$ 20.65	12.85
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;	
Also, Level D.....\$ 19.65	12.85

Laborers - hazardous waste
abatement: (CLINTON, EATON
AND INGHAM COUNTIES; IONIA
COUNTY (City of Portland);
LIVINGSTON COUNTY (west of
Oak Grove Rd., including the
City of Howell) - Zone 6)

Levels A, B or C.....\$ 24.65	12.85
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;	
Also, Level D.....\$ 23.65	12.85

Laborers - hazardous waste
abatement: (GENESEE, LAPEER
AND SHIAWASSEE COUNTIES -
Zone 7)

Levels A, B or C.....\$ 23.61	13.41
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;	
Also, Level D.....\$ 22.61	13.41

Laborers - hazardous waste
abatement: (HILLSDALE,
JACKSON AND LENAWEЕ COUNTIES
- Zone 4)

Levels A, B or C.....\$ 24.19	12.85
Work performed in conjunction with site preparation not requiring	

the use of personal protective equipment;		
Also, Level D.....	\$ 23.19	12.85
Laborers - hazardous waste abatement: (LIVINGSTON COUNTY (east of Oak Grove Rd. and south of M-59, excluding the city of Howell); AND WASHTENAW COUNTY - Zone 3)		
Levels A, B or C.....	\$ 29.70	14.20
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....	\$ 28.70	14.20
Laborers - hazardous waste abatement: (MACOMB AND WAYNE COUNTIES - Zone 1)		
Levels A, B or C.....	\$ 28.35	16.75
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....	\$ 27.35	16.75
Laborers - hazardous waste abatement: (MONROE COUNTY - Zone 4)		
Levels A, B or C.....	\$ 30.85	14.45
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....	\$ 29.84	14.45
Laborers - hazardous waste abatement: (OAKLAND COUNTY and the Northeast portion of LIVINGSTON COUNTY bordered by Oak Grove Road on the West and M-59 on the South - Zone 2)		
Level A, B, C.....	\$ 28.85	16.75
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....	\$ 27.85	16.75
Laborers - hazardous waste abatement: (SANILAC AND ST. CLAIR COUNTIES - Zone 5)		
Levels A, B or C.....	\$ 25.19	15.86
Work performed in conjunction with site preparation not requiring the use of personal		

protective equipment;
 Also, Level D.....\$ 24.19 15.86

 LAB00259-001 09/01/2018

AREA 1: MACOMB, OAKLAND AND WAYNE COUNTIES
 AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA,
 BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,
 CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA,
 DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND
 TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA,
 IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT,
 KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE,
 MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE,
 MIDLAND, MISSAUKEE, MONROE, MONTCALM, MONTMORENCY, MUSKEGON,
 NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO,
 OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST.
 JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN,
 WASHTENAW AND WEXFORD COUNTIES

	Rates	Fringes
Laborers - tunnel, shaft and caisson:		
AREA 1		
GROUP 1.....	\$ 22.57	16.80
GROUP 2.....	\$ 22.68	16.80
GROUP 3.....	\$ 22.74	16.80
GROUP 4.....	\$ 22.92	16.80
GROUP 5.....	\$ 23.17	16.80
GROUP 6.....	\$ 23.50	16.80
GROUP 7.....	\$ 16.78	16.80
AREA 2		
GROUP 1.....	\$ 24.10	12.85
GROUP 2.....	\$ 24.19	12.85
GROUP 3.....	\$ 24.29	12.85
GROUP 4.....	\$ 24.45	12.85
GROUP 5.....	\$ 24.71	12.85
GROUP 6.....	\$ 25.02	12.85
GROUP 7.....	\$ 17.29	12.85

SCOPE OF WORK: Tunnel, shaft and caisson work of every type and description and all operations incidental thereto, including, but not limited to, shafts and tunnels for sewers, water, subways, transportation, diversion, sewerage, caverns, shelters, aquifers, reservoirs, missile silos and steel sheeting for underground construction.

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Tunnel, shaft and caisson laborer, dump, shanty, hog house tender, testing (on gas) and watchman

GROUP 2: Manhole, headwall, catch basin builder, bricklayer tender, mortar machine and material mixer

GROUP 3: Air tool operator (jackhammer, bush hammer and

grinder), first bottom, second bottom, cage tender, car pusher, carrier, concrete, concrete form, concrete repair, cement invert laborer, cement finisher, concrete shoveler, conveyor, floor, gasoline and electric tool operator, gunite, grout operator, welder, heading dinky person, inside lock tender, pea gravel operator, pump, outside lock tender, scaffold, top signal person, switch person, track, tigger, utility person, vibrator, winch operator, pipe jacking, wagon drill and air track operator and concrete saw operator (under 40 h.p.)

GROUP 4: Tunnel, shaft and caisson mucker, bracer, liner plate, long haul dinky driver and well point

GROUP 5: Tunnel, shaft and caisson miner, drill runner, key board operator, power knife operator, reinforced steel or mesh (e.g. wire mesh, steel mats, dowel bars, etc.)

GROUP 6: Dynamite and powder

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LAB00334-001 09/01/2018

	Rates	Fringes
Laborers - open cut:		
ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES:		
GROUP 1.....	\$ 22.42	16.80
GROUP 2.....	\$ 22.53	16.80
GROUP 3.....	\$ 22.58	16.80
GROUP 4.....	\$ 22.66	16.80
GROUP 5.....	\$ 22.72	16.80
GROUP 6.....	\$ 20.17	16.80
GROUP 7.....	\$ 16.79	16.80
ZONE 2 - LIVINGSTON COUNTY (east of M-151 (Oak Grove Rd.)); MONROE AND WASHTENAW COUNTIES:		
GROUP 1.....	\$ 23.75	12.85
GROUP 2.....	\$ 23.86	12.85
GROUP 3.....	\$ 23.98	12.85
GROUP 4.....	\$ 24.05	12.85
GROUP 5.....	\$ 24.20	12.85
GROUP 6.....	\$ 21.50	12.85
GROUP 7.....	\$ 18.14	12.85
ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); JACKSON, LAPEER AND LENAWEЕ COUNTIES; LIVINGSTON COUNTY (west of		

M-151 Oak Grove Rd.);
 SANILAC, ST. CLAIR AND
 SHIAWASSEE COUNTIES:

GROUP 1.....	\$ 21.94	12.85
GROUP 2.....	\$ 22.08	12.85
GROUP 3.....	\$ 22.20	12.85
GROUP 4.....	\$ 22.25	12.85
GROUP 5.....	\$ 22.39	12.85
GROUP 6.....	\$ 19.69	12.85
GROUP 7.....	\$ 16.84	12.85

ZONE 4 - ALCONA, ALLEGAN,
 ALPENA, ANTRIM, ARENAC,
 BARRY, BAY, BENZIE,
 BERRIEN, BRANCH,
 CALHOUN, CASS, CHARLEVOIX,
 CHEBOYGAN, CLARE,
 CRAWFORD, EMMET,
 GLADWIN, GRAND TRAVERSE,
 GRATIOT AND HURON
 COUNTIES; IONIA COUNTY
 (EXCEPT THE CITY OF
 PORTLAND); IOSCO,
 ISABELLA, KALAMAZOO,
 KALKASKA, KENT,
 LAKE, LEELANAU, MANISTEE,
 MASON, MECOSTA, MIDLAND,
 MISSAUKEE, MONTCALM,
 MONTMORENCY, MUSKEGON,
 NEWAYGO, OCEANA, OGEMAW,
 OSCEOLA, OSCODA, OTSEGO,
 OTTAWA, PRESQUE ISLE,
 ROSCOMMON, SAGINAW, ST.
 JOSEPH, TUSCOLA, VAN BUREN
 AND WEXFORD COUNTIES:

GROUP 1.....	\$ 20.97	12.85
GROUP 2.....	\$ 21.10	12.85
GROUP 3.....	\$ 21.21	12.85
GROUP 4.....	\$ 21.28	12.85
GROUP 5.....	\$ 21.40	12.85
GROUP 6.....	\$ 18.62	12.85
GROUP 7.....	\$ 16.96	12.85

ZONE 5 - ALGER, BARAGA,
 CHIPPEWA, DELTA,
 DICKINSON, GOGEBIC,
 HOUGHTON, IRON,
 KEWEENAW, LUCE, MACKINAC,
 MARQUETTE, MENOMINEE,
 ONTONAGON AND SCHOOLCRAFT
 COUNTIES:

GROUP 1.....	\$ 21.19	12.85
GROUP 2.....	\$ 21.33	12.85
GROUP 3.....	\$ 21.46	12.85
GROUP 4.....	\$ 21.51	12.85
GROUP 5.....	\$ 21.56	12.85
GROUP 6.....	\$ 18.94	12.85
GROUP 7.....	\$ 17.05	12.85

Open cut construction work shall be construed to mean work which requires the excavation of earth including industrial, commercial and residential building site excavation and preparation, land balancing, demolition and removal of concrete and underground appurtenances, grading, paving, sewers, utilities and improvements; retention, oxidation, flocculation and irrigation facilities, and also including but not limited to underground piping, conduits, steel sheeting for underground construction, and all work incidental thereto, and general excavation. For all areas except the Upper Peninsula, open cut construction work shall also be construed to mean waterfront work, piers, docks, seawalls, breakwalls, marinas and all incidental work. Open cut construction work shall not include any structural modifications, alterations, additions and repairs to buildings, or highway work, including roads, streets, bridge construction and parking lots or steel erection work and excavation for the building itself and back filling inside of and within 5 ft. of the building and foundations, footings and piers for the building. Open cut construction work shall not include any work covered under Tunnel, Shaft and Caisson work.

OPEN CUT LABORER CLASSIFICATIONS

GROUP 1: Construction laborer

GROUP 2: Mortar and material mixer, concrete form person, signal person, well point person, manhole, headwall and catch basin builder, headwall, seawall, breakwall and dock builder

GROUP 3: Air, gasoline and electric tool operator, vibrator operator, driller, pump person, tar kettle operator, bracer, rodder, reinforced steel or mesh person (e.g., wire mesh, steel mats, dowel bars, etc.), welder, pipe jacking and boring person, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger person and directional boring person

GROUP 4: Trench or excavating grade person

GROUP 5: Pipe layer (including crock, metal pipe, multi-plate or other conduits)

GROUP 6: Grouting man, audio-visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and appurtenances

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABORER: Highway, Bridge and Airport Construction

AREA 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA AND VAN BUREN COUNTIES

AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON AND WEXFORD COUNTIES

AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES

	Rates	Fringes
LABORER (AREA 1)		
GROUP 1.....	\$ 27.07	12.90
GROUP 2.....	\$ 27.20	12.90
GROUP 3.....	\$ 27.38	12.90
GROUP 4.....	\$ 27.46	12.90
GROUP 5.....	\$ 27.67	12.90
GROUP 6.....	\$ 27.97	12.90
LABORER (AREA 2)		
GROUP 1.....	\$ 24.02	12.85
GROUP 2.....	\$ 24.22	12.85
GROUP 3.....	\$ 24.46	12.85
GROUP 4.....	\$ 24.81	12.85
GROUP 5.....	\$ 24.68	12.85
GROUP 6.....	\$ 25.02	12.85
LABORER (AREA 3)		
GROUP 1.....	\$ 23.27	12.85
GROUP 2.....	\$ 23.48	12.85
GROUP 3.....	\$ 23.77	12.85
GROUP 4.....	\$ 24.21	12.85
GROUP 5.....	\$ 23.83	12.85
GROUP 6.....	\$ 24.26	12.85
LABORER (AREA 4)		
GROUP 1.....	\$ 23.32	12.85
GROUP 2.....	\$ 23.53	12.85
GROUP 3.....	\$ 23.82	12.85
GROUP 4.....	\$ 24.26	12.85
GROUP 5.....	\$ 23.88	12.85
GROUP 6.....	\$ 24.31	12.85

LABORER CLASSIFICATIONS

GROUP 1: Asphalt shoveler or loader; asphalt plant misc.; burlap person; yard person; dumper (wagon, truck, etc.); joint filling laborer; miscellaneous laborer; unskilled laborer; sprinkler laborer; form setting laborer; form stripper; pavement reinforcing; handling and placing (e.g., wire mesh, steel mats, dowel bars); mason's tender or bricklayer's tender on manholes; manhole builder; headwalls, etc.; waterproofing, (other than buildings) seal coating and slurry mix, shoring, underpinning; pressure grouting; bridge pin and hanger removal; material recycling laborer; horizontal paver laborer (brick, concrete, clay, stone and asphalt); ground stabilization and modification laborer; grouting; waterblasting; top person; railroad track and trestle laborer; carpenters' tender; guard rail builders' tender; earth retention barrier and wall and M.S.E. wall installer's tender; highway and median installer's tender (including sound, retaining, and crash barriers); fence erector's tender; asphalt raker tender; sign installer; remote control operated equipment.

GROUP 2: Mixer operator (less than 5 sacks); air or electric tool operator (jackhammer, etc.); spreader; boxperson (asphalt, stone, gravel); concrete paddler; power chain saw operator; paving batch truck dumper; tunnel mucker (highway work only); concrete saw (under 40 h.p.) and dry pack machine; roto-mill grounds person.

GROUP 3: Tunnel miner (highway work only); finishers tenders; guard rail builders; highway and median barrier installer; earth retention barrier and wall and M.S.E. wall installer's (including sound, retaining and crash barriers); fence erector; bottom person; powder person; wagon drill and air track operator; diamond and core drills; grade checker; certified welders; curb and side rail setter's tender.

GROUP 4: Asphalt raker

GROUP 5: Pipe layers, oxy-gun

GROUP 6: Line-form setter for curb or pavement; asphalt screed checker/screw man on asphalt paving machines.

LAB01076-005 04/01/2019

MICHIGAN STATEWIDE

	Rates	Fringes
LABORER (DISTRIBUTION WORK)		
Zone 1.....	\$ 21.47	12.90
Zone 2.....	\$ 19.77	12.90
Zone 3.....	\$ 17.95	12.90
Zone 4.....	\$ 17.32	12.90
Zone 5.....	\$ 17.30	12.90

DISTRIBUTION WORK - The construction, installation, treating

and reconditioning of distribution pipelines transporting coal, oil, gas or other similar materials, vapors or liquids, including pipelines within private property boundaries, up to and including the meter settings on residential, commercial, industrial, institutional, private and public structures. All work covering pumping stations and tank farms not covered by the Building Trades Agreement. Other distribution lines with the exception of sewer, water and cable television are included.

Underground Duct Layer Pay: \$.40 per hour above the base pay rate.

Zone 1 - Macomb, Oakland and Wayne

Zone 2 - Monroe and Washtenaw

Zone 3 - Bay, Genesee, Lapeer, Midland, Saginaw, Sanilac, Shiawassee and St. Clair

Zone 4 - Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft

Zone 5 - Remaining Counties in Michigan

 PAIN0022-002 07/01/2008

HILLSDALE, JACKSON AND LENAWEE COUNTIES; LIVINGSTON COUNTY (east of the eastern city limits of Howell, not including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
PAINTER.....	\$ 25.06	14.75

FOOTNOTES: For all spray work and journeyman rigging for spray work, also blowing off, \$0.80 per hour additional (applies only to workers doing rigging for spray work on off the floor work. Does not include setting up or moving rigging on floor surfaces, nor does it apply to workers engaged in covering up or tending spray equipment. For all sandblasting and spray work performed on highway bridges, overpasses, tanks or steel, \$0.80 per hour additional. For all brushing, cleaning and other preparatory work (other than spraying or steeplejack work) at scaffold heights of fifty (50) feet from the ground or higher, \$0.50 per hour additional. For all preparatorial work and painting performed on open steel under forty (40) feet when no scaffolding is involved, \$0.50 per hour additional. For all swing stage work-window jacks and window belts-exterior and interior, \$0.50 per hour additional. For all spray work and sandblaster work to a scaffold height of forty (40) feet above the floor level, \$0.80 per hour additional. For all preparatorial work and painting on all highway bridges or overpasses up to forty (40) feet in height, \$0.50 per hour additional. For all steeplejack work performed where the elevation is forty (40) feet or more, \$1.25 per hour

additional.

PAIN0312-001 06/01/2018

EXCLUDES: ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); INCLUDES: Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, St. Joseph, Van Buren

	Rates	Fringes
PAINTER		
Brush and roller.....	\$ 23.74	13.35
Spray, Sandblast, Sign		
Painting.....	\$ 24.94	13.35

PAIN0845-003 05/10/2018

CLINTON COUNTY; EATON COUNTY (does not include the townships of Bellevue and Olivet); INGHAM COUNTY; IONIA COUNTY (east of Hwy. M 66); LIVINGSTON COUNTY (west of the eastern city limits of Howell, including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); AND SHIAWASSEE COUNTY (Townships of Bennington, Laingsbury and Perry):

	Rates	Fringes
PAINTER.....	\$ 25.49	13.74

PAIN0845-015 05/10/2018

MUSKEGON COUNTY; NEWAYGO COUNTY (except the Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OCEANA COUNTY; OTTAWA COUNTY (except the townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER.....	\$ 25.49	13.74

PAIN0845-018 05/10/2018

ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); IONIA COUNTY (west of Hwy. M-66); KENT, MECOSTA AND MONTCALM COUNTIES; NEWAYGO COUNTY (Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OSCEOLA COUNTY (south of Hwy. #10); OTTAWA COUNTY (Townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton,

Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER.....	\$ 25.49	13.74

FOOTNOTES: Lead abatement work: \$1.00 per hour additional.

PAIN1011-003 06/02/2019

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON,
IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON
AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
PAINTER.....	\$ 25.76	13.33

FOOTNOTES: High pay (bridges, overpasses, watertower): 30 to
80 ft.: \$.65 per hour additional. 80 ft. and over: \$1.30
per hour additional.

PAIN1474-002 06/01/2010

HURON COUNTY; LAPEER COUNTY (east of Hwy. M-53); ST. CLAIR,
SANILAC AND TUSCOLA COUNTIES:

	Rates	Fringes
PAINTER.....	\$ 23.79	12.02

FOOTNOTES: Lead abatement work: \$1.00 per hour additional.
Work with any hazardous material: \$1.00 per hour
additional. Sandblasting, steam cleaning and acid cleaning:
\$1.00 per hour additional. Ladder work at or above 40 ft.,
scaffold work at or above 40 ft., swing stage, boatswain
chair, window jacks and all work performed over a falling
height of 40 ft.: \$1.00 per hour additional. Spray gun
work, pick pullers and those handling needles, blowing off
by air pressure, and any person rigging (setting up and
moving off the ground): \$1.00 per hour additional.
Steeplejack, tanks, gas holders, stacks, flag poles, radio
towers and beacons, power line towers, bridges, etc.: \$1.00
per hour additional, paid from the ground up.

PAIN1803-003 06/01/2019

ALCONA, ALPENA, ANTRIM, ARENAC, BAY, BENZIE, CHARLEVOIX,
CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE,
GRATIOT, IOSCO, ISABELLA, KALKASKA, LAKE, LEELANAU, MANISTEE,
MASON, MIDLAND, MISSAUKEE, MONTMORENCY AND OGEMAW COUNTIES;
OSCEOLA COUNTY (north of Hwy. #10); OSCODA, OTSEGO, PRESQUE
ISLE, ROSCOMMON, SAGINAW AND WEXFORD COUNTIES:

Rates Fringes

PAINTER

Work performed on water, bridges over water or moving traffic, radio and powerline towers, elevated tanks, steeples, smoke stacks over 40 ft. of falling heights, recovery of lead-based paints and any work associated with industrial plants, except maintenance of industrial

plants.....	\$ 25.39	14.68
All other work, including maintenance of industrial plant.....	\$ 25.39	14.68

FOOTNOTES: Spray painting, sandblasting, blowdown associated with spraying and blasting, water blasting and work involving a swing stage, boatswain chair or spider: \$1.00 per hour additional. All work performed inside tanks, vessels, tank trailers, railroad cars, sewers, smoke stacks, boilers or other spaces having limited egress not including buildings, opentop tanks, pits, etc.: \$1.25 per hour additional.

PLAS0514-001 06/01/2018

ZONE 1: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, SAGINAW, WASHTENAW AND WAYNE COUNTIES

ZONE 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

Rates Fringes

CEMENT MASON/CONCRETE FINISHER

ZONE 1.....	\$ 31.47	13.81
ZONE 2.....	\$ 29.97	13.81

PLUM0190-003 05/01/2015

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY,
 BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,
 CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA,
 DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND
 TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA,
 IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT,
 KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE,
 MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA,
 MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE,
 MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA,
 OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST.
 CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA,
 VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

Rates Fringes

Plumber/Pipefitter - gas
 distribution pipeline:

Welding in conjunction with gas distribution pipeline work.....	\$ 33.03	20.19
All other work:.....	\$ 24.19	12.28

 TEAM0007-004 06/01/2019

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA,
 BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,
 CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA,
 DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE,
 GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO,
 IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW,
 LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE,
 MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE,
 MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW,
 ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE,
 ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST.
 CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW
 AND WAYNE COUNTIES

Rates Fringes

TRUCK DRIVER

AREA 1

Euclids, double bottoms and lowboys.....	\$ 27.30	.50 + a+b
Trucks under 8 cu. yds.....	\$ 27.05	.50 + a+b
Trucks, 8 cu. yds. and over.....	\$ 27.15	.50 + a+b

AREA 2

Euclids, double bottomms and lowboys.....	\$ 24.895	.50 + a+b
Euclids, double bottoms and lowboys.....	\$ 27.40	.50 + a+b

Trucks under 8 cu. yds.....	\$ 27.15	.50 + a+b
Trucks, 8 cu. yds. and over.....	\$ 27.25	.50 + a+b

Footnote:

- a. \$455.10 per week
- b. \$68.70 daily

TEAM0247-004 04/01/2013

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, SAGINAW, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
Sign Installer		
AREA 1		
GROUP 1.....	\$ 21.78	11.83
GROUP 2.....	\$ 25.27	11.8375
AREA 2		
GROUP 1.....	\$ 22.03	11.83
GROUP 2.....	\$ 25.02	11.8375

FOOTNOTE:

- a. \$132.70 per week, plus \$17.80 per day.

SIGN INSTALLER CLASSIFICATIONS:

GROUP 1: performs all necessary labor and uses all tools required to construct and set concrete forms required in the installation of highway and street signs

GROUP 2: performs all miscellaneous labor, uses all hand and power tools, and operates all other equipment, mobile or otherwise, required for the installation of highway and street signs

TEAM0247-010 04/01/2018

AREA 1: LAPEER AND SHIAWASSEE COUNTIES

AREA 2: GENESEE, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER (Underground construction)		
AREA 1		
GROUP 1.....	\$ 23.82	19.04
GROUP 2.....	\$ 23.91	19.04
GROUP 3.....	\$ 24.12	19.04
AREA 2		
GROUP 1.....	\$ 24.12	19.04
GROUP 2.....	\$ 24.26	19.04
GROUP 3.....	\$ 24.45	19.04

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

SCOPE OF WORK: Excavation, site preparation, land balancing, grading, sewers, utilities and improvements; also including but not limited to, tunnels, underground piping, retention, oxidation, flocculation facilities, conduits, general excavation and steel sheeting for underground construction. Underground construction work shall not include any structural modifications, alterations, additions and repairs to buildings or highway work, including roads, streets, bridge construction and parking lots or steel erection.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Truck driver on all trucks (EXCEPT dump trucks of 8 cubic yards capacity or over, pole trailers, semis, low boys, Euclid, double bottom and fuel trucks)

GROUP 2: Truck driver on dump trucks of 8 cubic yards capacity or over, pole trailers, semis and fuel trucks

GROUP 3: Truck driver on low boy, Euclid and double bottom

SUMI2002-001 05/01/2002

	Rates	Fringes
Flag Person.....	\$ 10.10	0.00
LINE PROTECTOR (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)....	\$ 18.98	12.85
LINE PROTECTOR (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE).....	\$ 17.14	12.85

Pavement Marking Machine
 (ZONE 1: GENESEE, MACOMB,
 MONROE, OAKLAND, WASHTENAW
 AND WAYNE COUNTIES)
 Group 1.....\$ 25.74 12.85

Pavement Marking Machine
 (ZONE 1: GENESEE, MACOMB,
 MONROE, OAKLAND, WASHTENAW
 AND WAYNE)
 Group 2.....\$ 23.17 12.85

Pavement Marking Machine
 (ZONE 2: STATEWIDE (EXCLUDING
 GENESEE, MACOMB, MONROE,
 OAKLAND, WASHTENAW AND WAYNE
 COUNTIES)
 Group 1.....\$ 23.67 12.85

Pavement Marking Machine
 (ZONE 2: STATEWIDE (EXCLUDING
 GENESEE, MACOMB, MONROE,
 OAKLAND, WASHTENAW AND WAYNE)
 Group 2.....\$ 21.30 12.85

WORK CLASSIFICATIONS:

PAVEMENT MARKER GROUP 1: Drives or operates a truck mounted striper, grinder, blaster, groover, or thermoplastic melter for the placement or removal of temporary or permanent pavement markings or markers.

PAVEMENT MARKER GROUP 2: Performs all functions involved for the placement or removal of temporary or permanent pavement markings or markers not covered by the classification of Pavement Marker Group 1 or Line Protector.

LINE PROTECTOR: Performs all operations for the protection or removal of temporary or permanent pavement markings or markers in a moving convoy operation not performed by the classification of Pavement Marker Group 1. A moving convoy operation is comprised of only Pavement Markers Group 1 and Line Protectors.

 WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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 Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year.

Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates

the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

**CITY OF ANN ARBOR
LIVING WAGE ORDINANCE DECLARATION OF COMPLIANCE**

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that an employer who is (a) a contractor providing services to or for the City for a value greater than \$10,000 for any twelve-month contract term, or (b) a recipient of federal, state, or local grant funding administered by the City for a value greater than \$10,000, or (c) a recipient of financial assistance awarded by the City for a value greater than \$10,000, shall pay its employees a prescribed minimum level of compensation (i.e., Living Wage) for the time those employees perform work on the contract or in connection with the grant or financial assistance. The Living Wage must be paid to these employees for the length of the contract/program.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from compliance with the Living Wage Ordinance. If this exemption applies to your company/non-profit agency please check here No. of employees__

The Contractor or Grantee agrees:

- (a) To pay each of its employees whose wage level is not required to comply with federal, state or local prevailing wage law, for work covered or funded by a contract with or grant from the City, no less than the Living Wage. The current Living Wage is defined as \$13.91/hour for those employers that provide employee health care (as defined in the Ordinance at Section 1:815 Sec. 1 (a)), or no less than \$15.51/hour for those employers that do not provide health care. The Contractor or Grantor understands that the Living Wage is adjusted and established annually on April 30 in accordance with the Ordinance and covered employers shall be required to pay the adjusted amount thereafter to be in compliance with Section 1:815(3).

Check the applicable box below which applies to your workforce

Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage without health benefits

Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage with health benefits

- (b) To post a notice approved by the City regarding the applicability of the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.
- (c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.
- (d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.
- (e) To take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee covered by the Living Wage Ordinance or any person contracted for employment and covered by the Living Wage Ordinance in order to pay the living wage required by the Living Wage Ordinance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services or agrees to accept financial assistance in accordance with the terms of the Living Wage Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Living Wage Ordinance, obligates the Employer/Grantee to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract or grant of financial assistance.

Company Name

Street Address

Signature of Authorized Representative

Date

City, State, Zip

Print Name and Title

Phone/Email address

**CITY OF ANN ARBOR
LIVING WAGE ORDINANCE**

RATE EFFECTIVE APRIL 30, 2020 - ENDING APRIL 29, 2021

\$13.91 per hour

If the employer provides health care benefits*

\$15.51 per hour

If the employer does **NOT** provide health care benefits*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

ENFORCEMENT

The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

* Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.

The Law Requires Employers to Display This Poster Where Employees Can Readily See It.

**For Additional Information or to File a Complaint contact
Colin Spencer at 734/794-6500 or cspencer@a2gov.org**

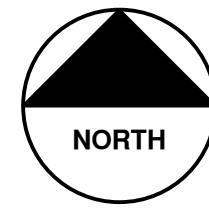
Revised 2/10/2020



CITY OF ANN ARBOR ENGINEERING

STREET RESURFACING PROJECT - 2020

ITB No. 4620 FILE No. 2020-004

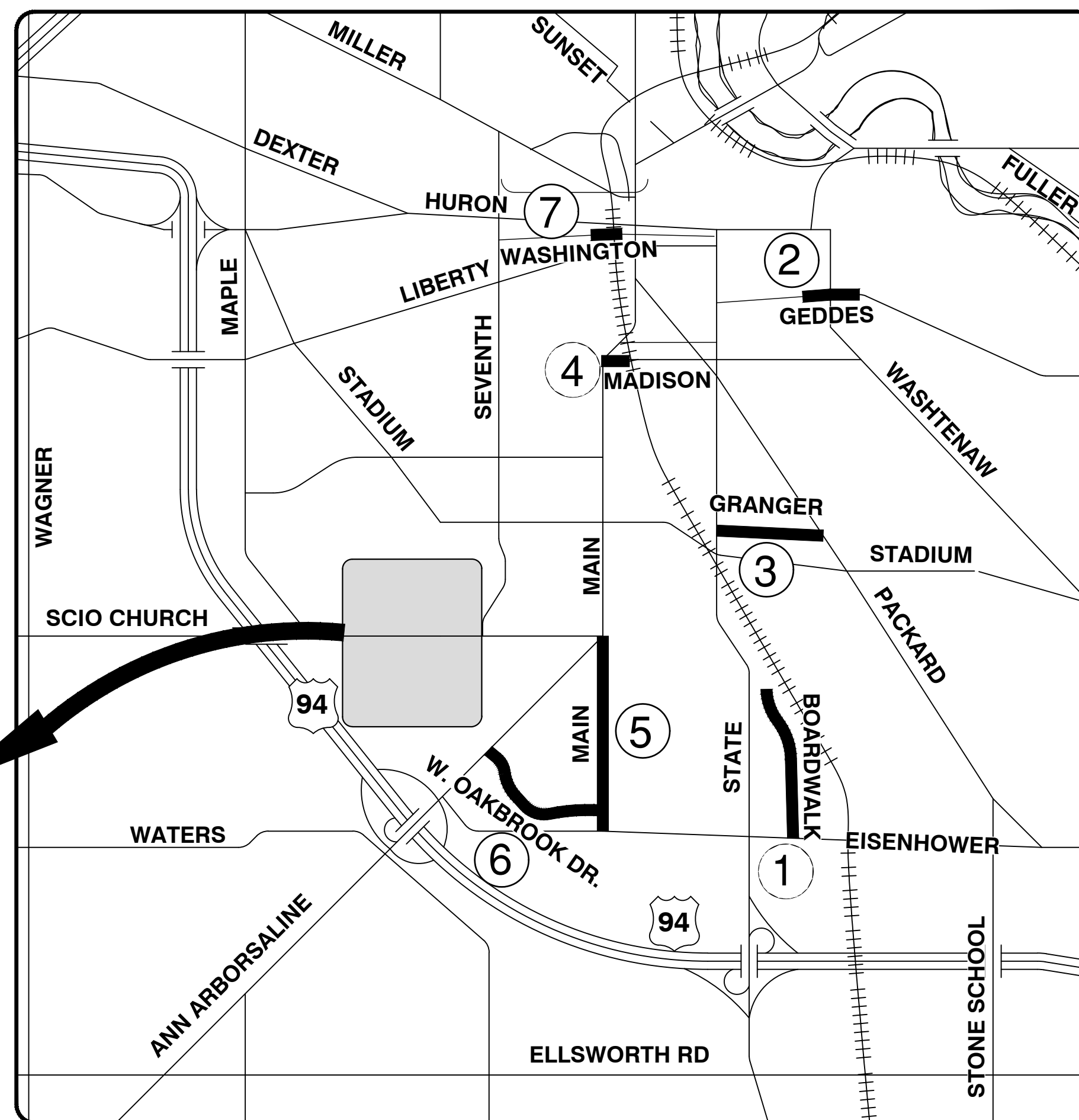
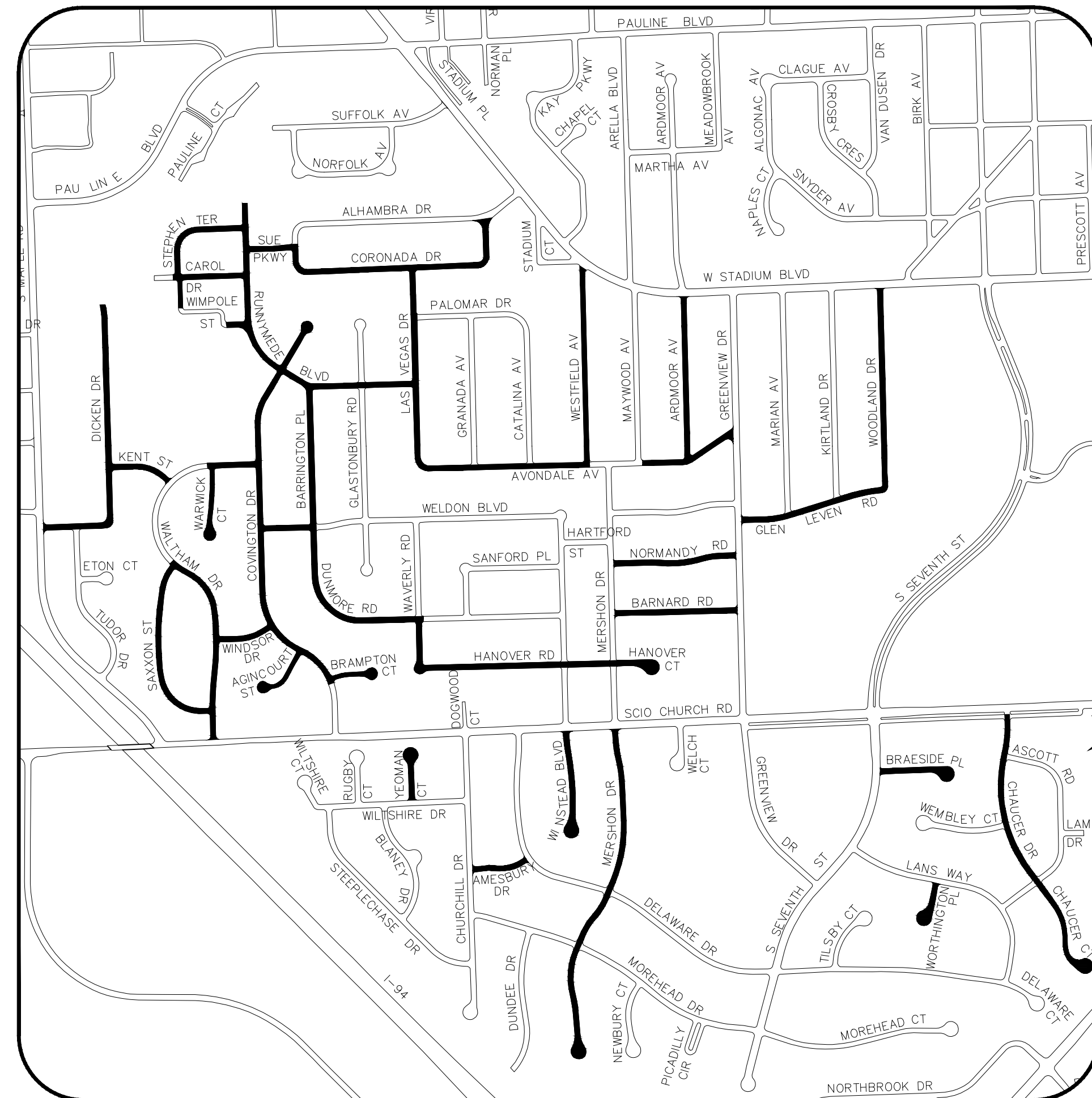


NOTES:

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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.



VICINITY MAP

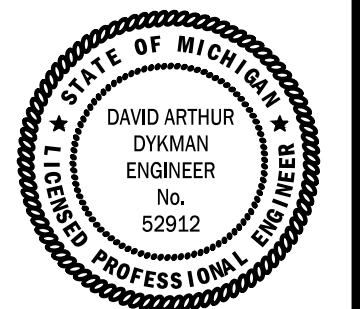
SHEET INDEX

SHEET NO.	TITLE	MAP INDEX NO. (THIS SHEET)
1	COVER SHEET	
2	NOTES AND MISCELLANEOUS QUANTITIES	
3	SOIL EROSION AND SEDIMENTATION CONTROL (SESC) NOTES AND DETAILS	
4	DETAILS	
5	TRAFFIC CALMING DETAIL	
6-7	LOCAL STREET TRAFFIC CONTROL	
8-16	BOARDWALK DRIVE	1
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23-30	GRANGER AVE	3
31-34	EAST MADISON STREET	4
35-41	SOUTH MAIN STREET SHARED USE HMA PATH	5
42-46	WEST OAKBROOK DRIVE SHARED USE HMA PATH	6
47-50	WEST WASHINGTON STREET	7
51-57	PHASE 1 - ARDMOOR AVE, AVONDALE AVE, BARNARD RD, GLEN LEVEN RD, NORMANDY RD AND WOODLAND DR	
58-68	PHASE 2 - AMESBURY DR, BRAESIDE PL, CHAUCER DR, MERSHON DR, SAXON ST, WALTHAM DR, WINSTED CT, WORTHINGTON PL AND YEOMAN CT	
69-77	PHASE 3 - BARRINGTON PL, CAROL DR, DUNMORE RD, KENT ST, STEPHEN TER, WALTHAM DR, WARWICK CT AND WIMPOLE ST	
78-84	PHASE 4 - AGINCOURT, BRAMTON CT, COVINGTON ST, DICKEN DR, RUNNYMEDE BLVD AND WIMPOLE ST	
85-93	PHASE 5 - AVONDALE AVE, CORONADA ST, HANOVER CT, LAS VEGAS DR, SUE PKWY, WAVERLY RD AND WESTFIELD AVE	

PREPARED UNDER THE SUPERVISION OF

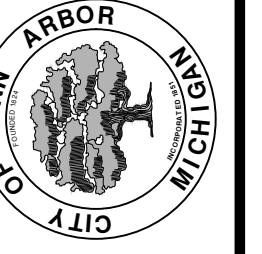
David Arthur Dykman
DAVID ARTHUR DYKMAN, P.E. - MI LICENSE No. 52912
PROJECT MANAGER

03 / 05 / 2020
DATE



REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET
		DRAWN
		CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
P.O. BOX 8647
ANN ARBOR MI 48107-8647
www.a2gov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
STREET RESURFACING PROJECT - 2020
COVER SHEET

SCALE: NTS
DRAWING No. 2020-004-1
SHEET No. 1 OF 93

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 to construct sidewalk and sidewalk ramps shall be included in the contract pay item "Grading, Sidewalk and Sidewalk Ramps".
7. Some storm sewer may unavoidably become damaged during construction, or it may be determined by the Engineer that existing storm sewer needs to be replaced. In either case the Engineer may direct the sewer to be removed and replaced. The removal of existing sewer and drainage structures, as required, shall be included in the respective contract pay items "Sewer, Rem, Less than 24 inch" and "Dr Structure, Rem". The replacement sewer shall be installed and paid for at the corresponding contract unit price, if contained within the contract, for the various types and sizes of sewer to be replaced.
8. Where existing drainage or utility structures, whether shown or not on the plans, are designated or directed by the Engineer to receive new castings (cover and frame) the existing castings shall be neatly stacked 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 contract pay item "Dr Structure Cover, Type __, Modified".
9. Payment for drainage structure sumps where specified shall be included in the payment for the various drainage structures sizes and/or types.
10. Where pipes of different sizes or materials are joined, Fernco 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.
11. Where storm sewer is to be removed and replaced or added, all pipe shall be installed using the utility trench details shown elsewhere in the plan sheets and/or detailed in the specifications. Trench Details I and V require the use of MDOT Class II Granular Material.
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 when existing edge drain(s) are encountered.
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 contract 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 Granular Material Class II compacted to 95% of its max. dry density under concrete sidewalk as shown on the details. This work shall be included in the contract item "Subbase, CIP."
17. Place 6" (minimum) Granular Material Class II compacted to 95% of its max. dry density under concrete driveway approaches, and 6" (minimum) Dense-Graded Aggregate 21AA compacted to 98% of its max. dry density under HMA driveway approaches. This work shall be included in the respective contract pay items "Subbase, CIP" and "Aggregate Base, 6 inch, Modified".
18. A uniform coat(s) of curing compound shall be applied according to the Standard Specifications and Special Provisions regardless of the difficulty involved. The Contractor shall take care to prevent overspray when applying curing compound. Several different methods may need to be developed to protect various situations, but all methods used to prevent overspray of the curing compound shall be completely effective. Methods used shall be approved by the Engineer prior to use, however approval of a method does not guarantee success or acceptability. No additional compensation shall be made for complying with these requirements.


QUANTITIES			
Item Code	Item Description	Unit	Quantity
1047051	_Certified Payroll Compliance and Reporting	LSUM	1.000
1047051	_General Conditions, Max \$400,000.00	LSUM	1.000
1047051	_Project Supervision, Max \$75,000.00	LSUM	1.000
2047001	_Exploratory Excavation, Vertical	Ft	5.000
2050023	Granular Material, CI II	Cyd	50.000
2057021	_Undercutting, Type IIB	Cyd	50.000
2090001	Project Cleanup	LSUM	1.000
3010002	Subbase, CIP	Cyd	50.000
3027011	_Aggregate Base, 6 inch, Modified	Syd	250.000
3027031	_Aggregate Base, Modified	Ton	1,250.000
3060020	Maintenance Gravel	Ton	250.000
3080010	Geotextile, Stabilization	Syd	100.000
3087011	_Structural Geogrid (Base)	Syd	250.000
4021260	Trench Undercut and Backfill	Cyd	10.000
4030280	Dr Structure, Adj, Add Depth	Ft	5.000
4030306	Dr Structure, Tap, 6 inch	Ea	5.000
4030312	Dr Structure, Tap, 12 inch	Ea	2.000
4037050	_Dr Structure Cover, Special	Ea	2.000
4037050	_Dr Structure, Adj, Case 2, Modified	Ea	2.000
4037050	_Dr Structure, Cleaning, Modified	Ea	25.000
4037050	_Dr Structure, Double Inlet	Ea	2.000
4037050	_Dr Structure, Point	Ea	15.000
5010001	Pavt, Cleaning	LSUM	1.000
5010015	Joint and Crack, Cleanout	Ft	1,500.000
5010025	Hand Patching	Ton	150.000
5017011	HMA, Bike Lane	Ton	235.000
5017011	_Cold Milling Conc Pavt	Syd	450.000
5017011	_Cold Milling HMA Surface, Modified	Syd	650.000
5017011	_HMA, Raised Crosswalk	Syd	60.000
5017011	_HMA, Raised Intersection	Syd	175.000
5017011	_HMA, Speed Hump	Syd	35.000
5017031	_Hand Patching, Modified	Ton	100.000
6030005	Cement	Ton	86.000
8027001	_Curb and Gutter, Conc, Mountable	Ft	150.000
8037010	_Sidewalk Ramp, Conc, 8 inch, Modified	Sft	50.000
8037010	_Sidewalk Retaining Wall, Integral, 6 inch to 18 inch Height	Sft	350.000
8037010	_Sidewalk Retaining Wall, Integral, 18 inch to 30 inch Height	Sft	150.000
8067031	_Shared use Path, HMA, Wedging	Ton	50.000
8087001	_Fence, Protective, Modified	Ft	1,500.000
8110332	Rem Raised Pavt Marker	Ea	50.000
8117050	_Pavt Mrkg, Thermopl, Only	Ea	5.000
8117050	_Pavt Mrkg, Thermopl, School	Ea	4.000
8117050	_Pavt Mrkg, Thermopl, Speed Hump Chevron, White	Ea	5.000
8120030	Channelizing Device, 42 inch, Furn	Ea	200.000
8120031	Channelizing Device, 42 inch, Oper	Ea	200.000
8120200	Pavt Mrkg Cover, Type R, Black	Ft	100.000
8120235	Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, White, Temp	Ft	2,500.000
8120236	Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, Yellow, Temp	Ft	7,500.000
8120245	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, White, Temp	Ft	250.000
8120246	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, Yellow, Temp	Ft	860.000
8120265	Pavt Mrkg, Wet Reflective, Type R, Tape, 24 inch, Stop Bar	Ea	50.000
8120310	Sign Cover	Ea	50.000
8120330	Sign, Portable, Changeable Message, Furn	Ea	2.000
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.000
8120370	Traf Regulator Control	LSUM	1.000
8127051	_Minor Traffic Control, Max \$185,000.00	LSUM	1.000
8157060	_Irrigation System, Protection and Maintenance	Dir	2,500.000
8190159	Conduit, Schedule 80 PVC, 3 inch	Ft	50.000
8190244	Hh, Adj	Ea	5.000
8197050	_Handhole Assembly, 24 inch x 36 inch	Ea	1.000
8230432	Gate Box, Adj, Case 2	Ea	5.000

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

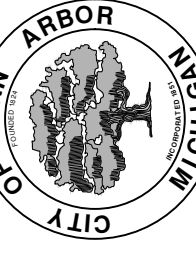
PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT	CITY OF ANN ARBOR ENGINEERING
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT	CITY OF ANN ARBOR CUSTOMER SERVICE
RIGHT-OF-WAY PERMIT	CITY OF ANN ARBOR CUSTOMER SERVICE
* NO COST TO CONTRACTOR	

CONTACT INFORMATION

PUBLIC UTILITIES	OWNER	CONTACT
WATER		DAN WOODEN (734) 794-6350 DWOODEN@A2GOV.ORG
SANITARY		TRAVIS CONLEY (734) 794-6350 TCONLEY@A2GOV.ORG
STORM	CITY OF ANN ARBOR PUBLIC WORKS	PAT MAINO (734) 794-6350 PMAINO@A2GOV.ORG
FORESTRY	W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	MATT WALDSMITH (734) 794-6350 MWALDSMITH@A2GOV.ORG
SIGNS SIGNALS STREET LIGHTS		CHUCK FOJTIK (734) 794-6361 CFOJTIK@A2GOV.ORG
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 SUTHERLAND (313) 999-8300
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	JEFF LEHMAN SR (734) 996-5334
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



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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
STREET RESURFACING PROJECT - 2020

NOTES & MISCELLANEOUS QUANTITIES

SCALE: NTS



DRAWING No.
2020-004-2

SHEET No.
2 OF 93

GENERAL

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

1. 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.
2. ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE CITY OF ANN ARBOR, CITY ORDINANCE CHAPTER 63, CITY OF ANN ARBOR STANDARDS DIVISION VII, THE LAWS OF THE STATE OF MICHIGAN, AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
3. 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.
4. 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.
5. 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, WITHIN FOUR (4) HOURS OF BEING SO ORDERED.
6. 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.
7. 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.

8. SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
9. PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF WATER TRUCKS AND/OR DUST PALLIATIVE AS REQUIRED.
10. 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.
11. 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.
12. TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.

SEQUENCE OF EROSION CONTROL MEASURES:

1. 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:

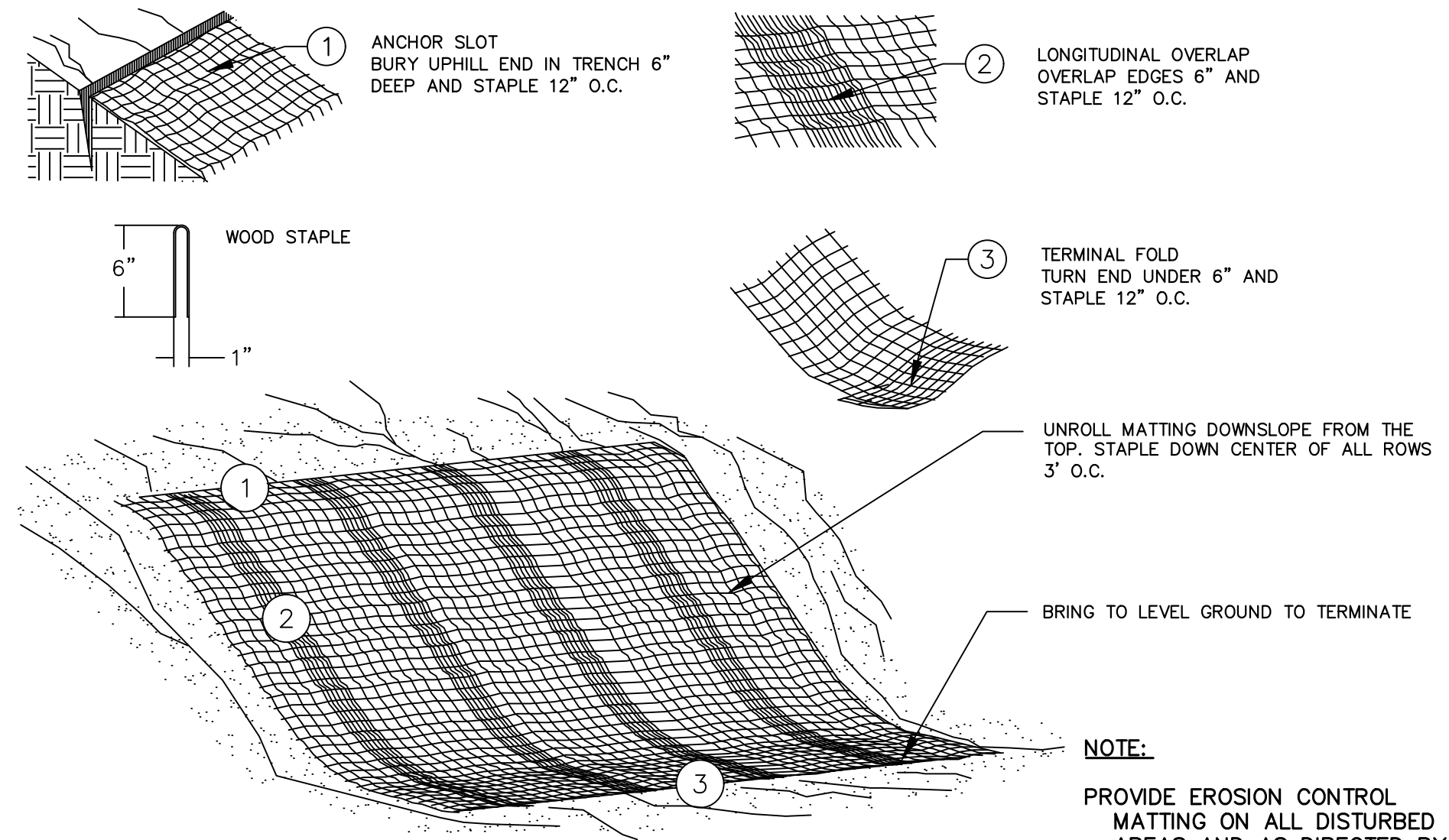
- 1.1. INSTALL SILT FENCE, TREE PROTECTION FENCING, MUD MATS, INLET FILTERS ON EXISTING DRAINAGE FEATURES, AND ALL OTHER TEMPORARY SOIL EROSION CONTROLS, PRIOR TO ANY CLEARING OR EARTH MOVING OPERATION.
- 1.2. STRIP AND STOCKPILE TOPSOIL. STABILIZE STOCKPILE AS REQUIRED.
- 1.3. INSTALL WATER MAINS, STORM AND SANITARY SEWERS, AND OTHER ENCLOSED DRAINAGE FEATURES. NEW INLET FILTERS SHALL BE INSTALLED IMMEDIATELY FOLLOWING INSTALLATION OF NEW DRAINAGE INLETS.

- 1.4. PERFORM MACHINE GRADING OPERATIONS AND CONSTRUCT PAVEMENTS (MAINLINE, SIDEWALKS, DRIVES, ETC.).
- 1.5. CONTINUALLY MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES, AS REQUIRED TO ALLOW DRAINAGE AND SEDIMENT REMOVAL. REMOVE ANY ACCUMULATED SEDIMENT IMMEDIATELY.
- 1.6. COMPLETE ALL BIORETENTION GRADING AND FINE GRADING.
- 1.7. TEMPORARY SEED AND INSTALL EROSION CONTROL BLANKET IN ALL DISTURBED AREAS.
- 1.8. REFER TO LANDSCAPE PLANTING PLANS FOR PERMANENT SITE STABILIZATION.
- 1.9. CLEAN OUT STORM SEWER SYSTEMS.
- 1.10. REMEDY ANY NOTED DEFECTS TO THE SATISFACTION OF THE CITY OF ANN ARBOR'S SOIL EROSION AND SEDIMENTATION CONTROL OFFICIAL.
- 1.11. ALL TEMP. SOIL EROSION CONTROL MEASURES MUST BE REMOVED, WITH ENGINEERS APPROVAL, PRIOR TO FINAL INSPECTION

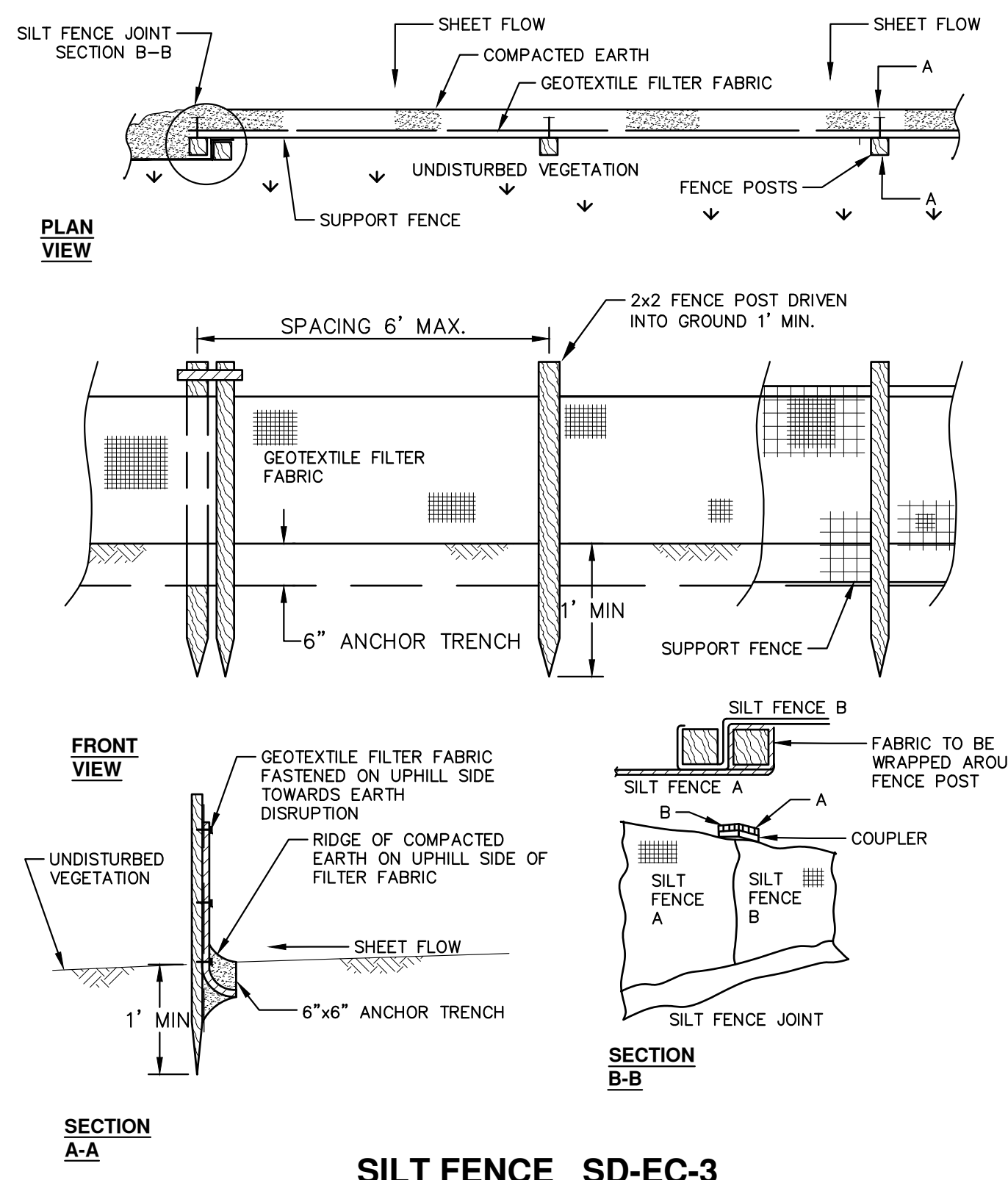
NOTE: THIS SEQUENCE IS FOR INFORMATION ONLY. IT IS INTENDED TO SHOW THE SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THEIR OWN DETAILED CONSTRUCTION SEQUENCE AND SCHEDULE TO THE ENGINEER FOR REVIEW, COMMENT,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

TEMPORARY SEEDING:

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



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



SILT FENCE SD-EC-3

T:\2020004\Plan Production\Cover Sheet.dwg Dwg Created: 25-Mar-20 - Plot Date: 25-Mar-20

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

			DAD	DAD	CHECKED				
			OS/CE	OS/CE	DRAWN				
		03/25/2020	03/05/2020	DATE					
		ADDENDUM 2	BID SET	DESCRIPTION					
01	00				REV.				

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

STREET RESURFACING PROJECT - 2020

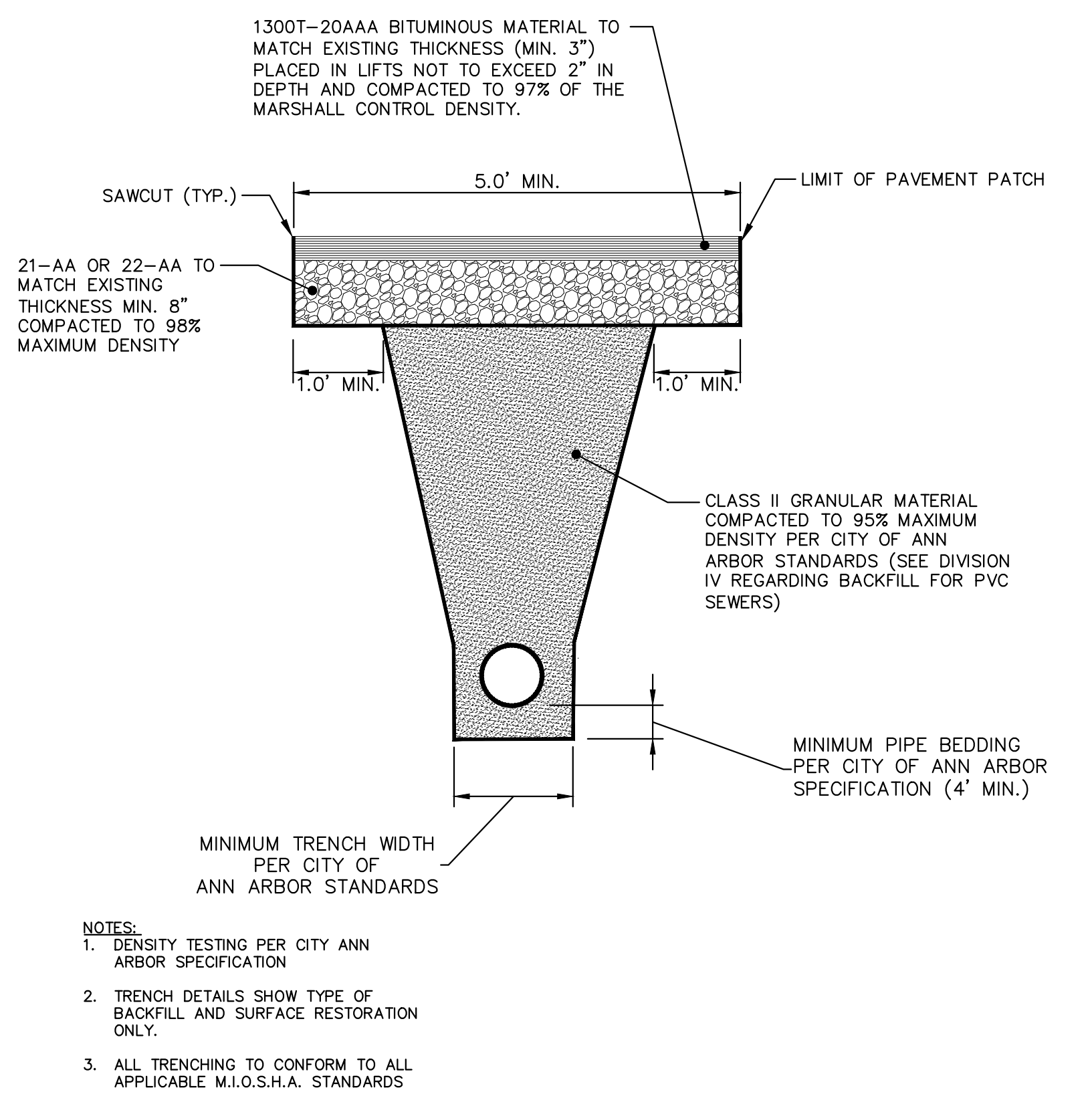
SESC NOTES & DETAILS

DRAWING No. 2020-004-3

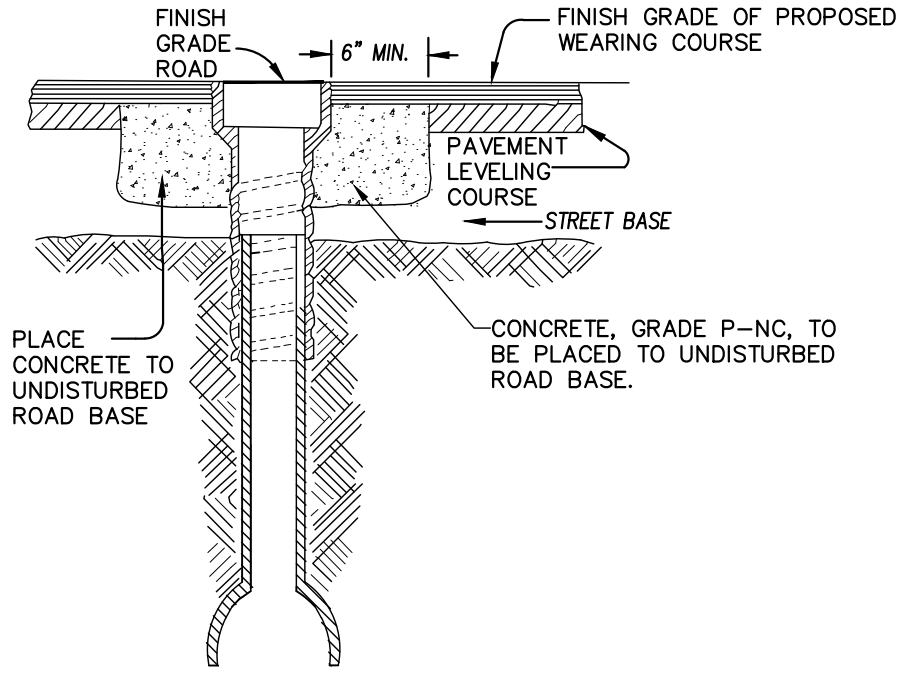
SHEET No. 3 OF 93

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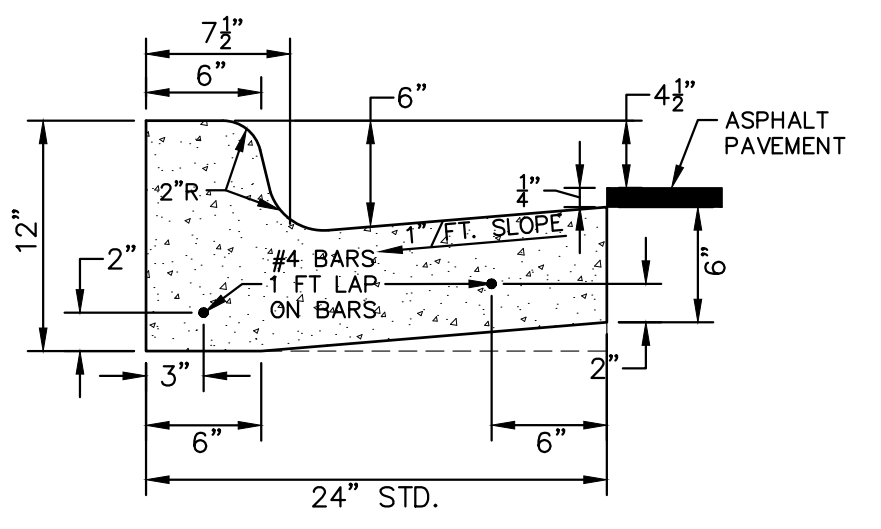
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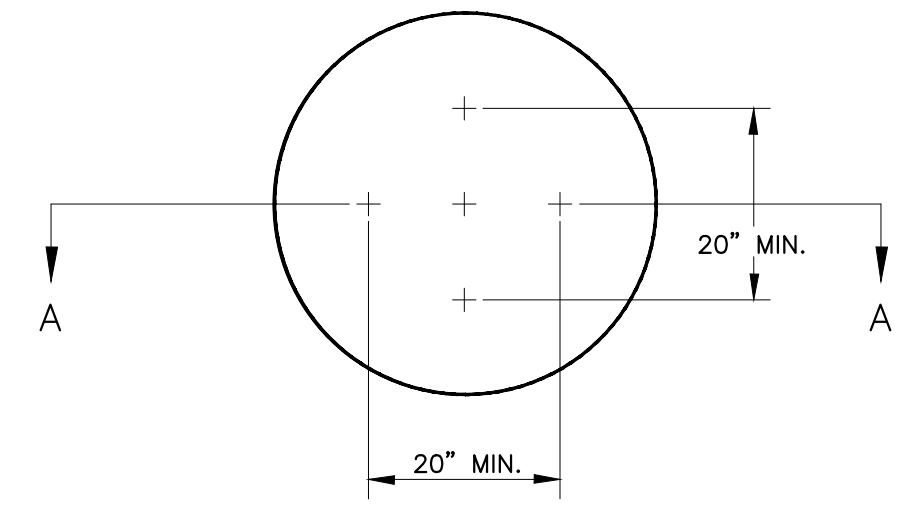
UTILITY TRENCH-TYPE I SD-TD-1
(UNDER BITUMINOUS SURFACE)



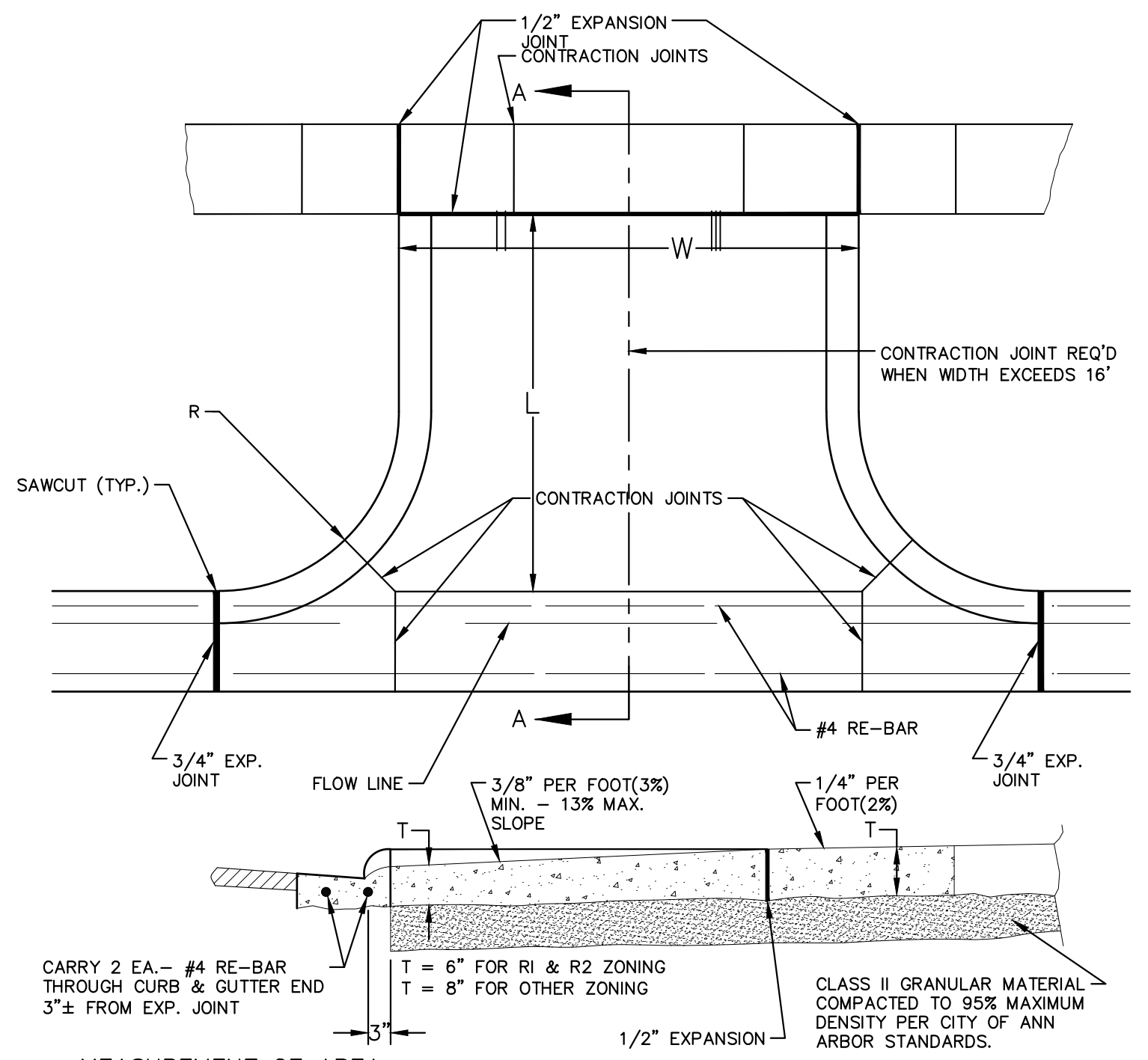
WATER VALVE BOX ADJUSTMENT



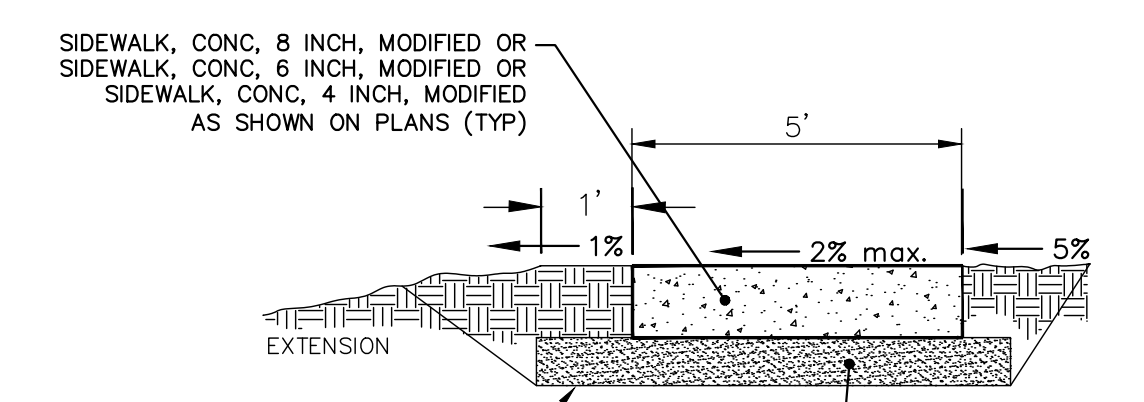
BARRIER CURB AND GUTTER SD-R-1



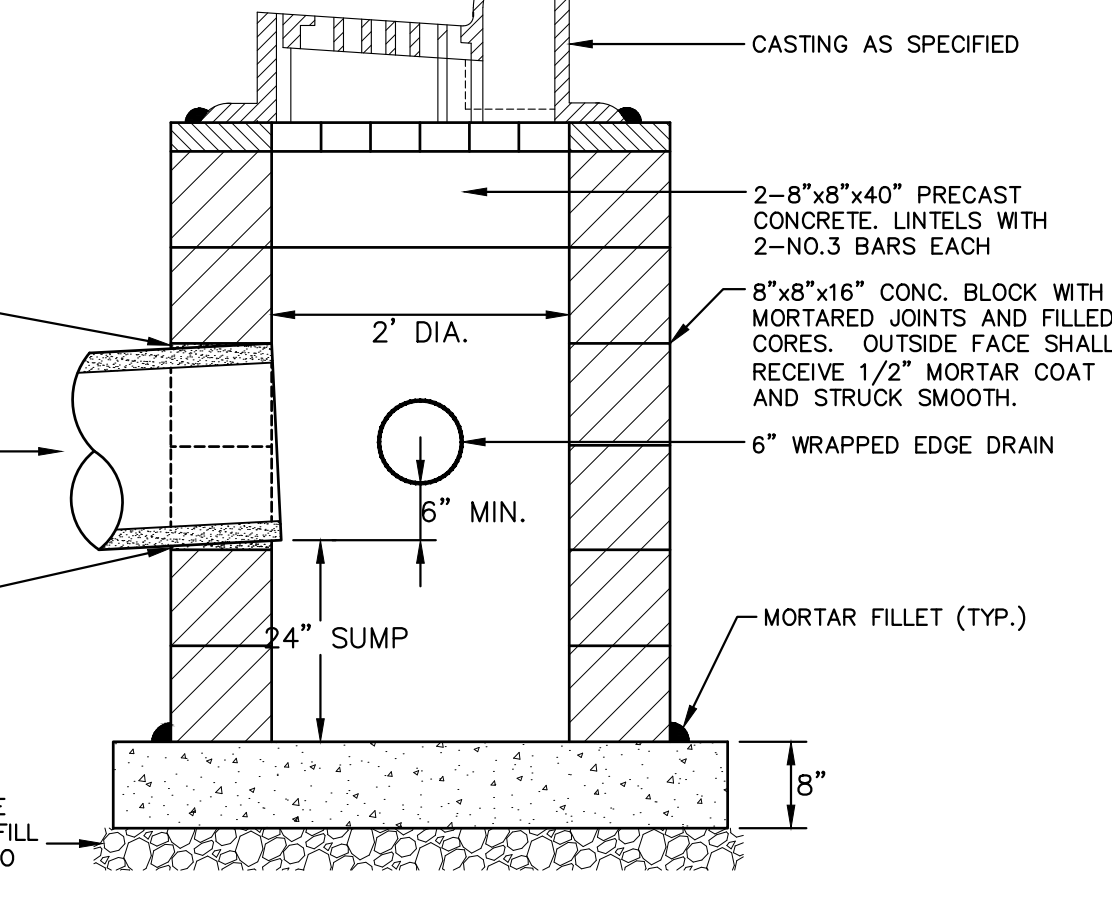
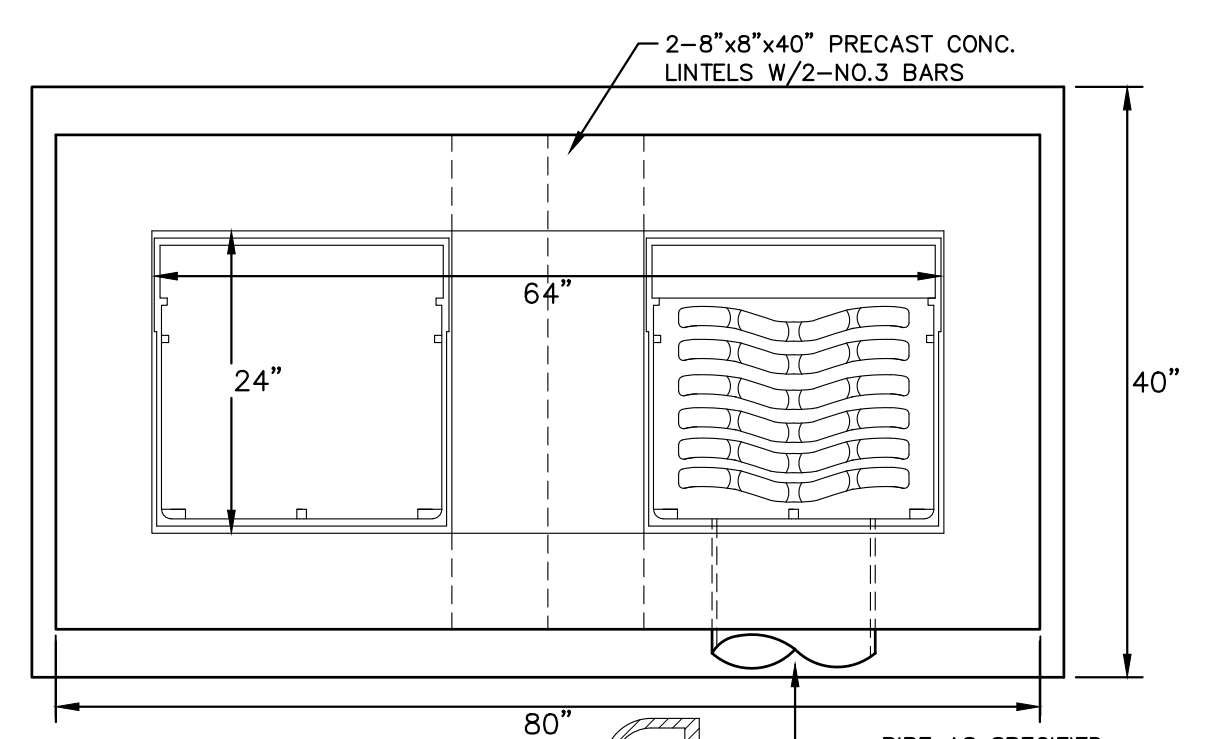
STRUCTURE PLATE



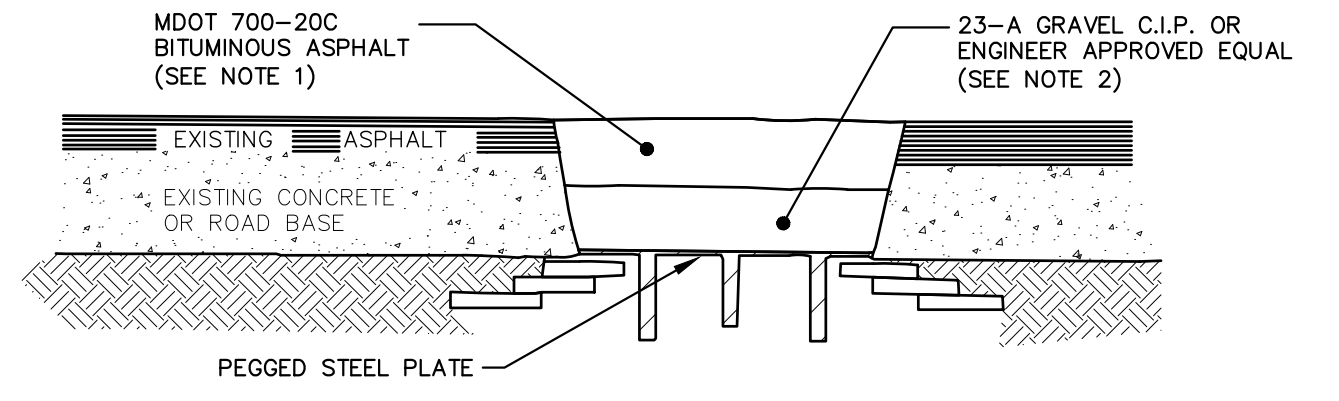
TYPE 'M' DRIVE APPROACH SD-R-6



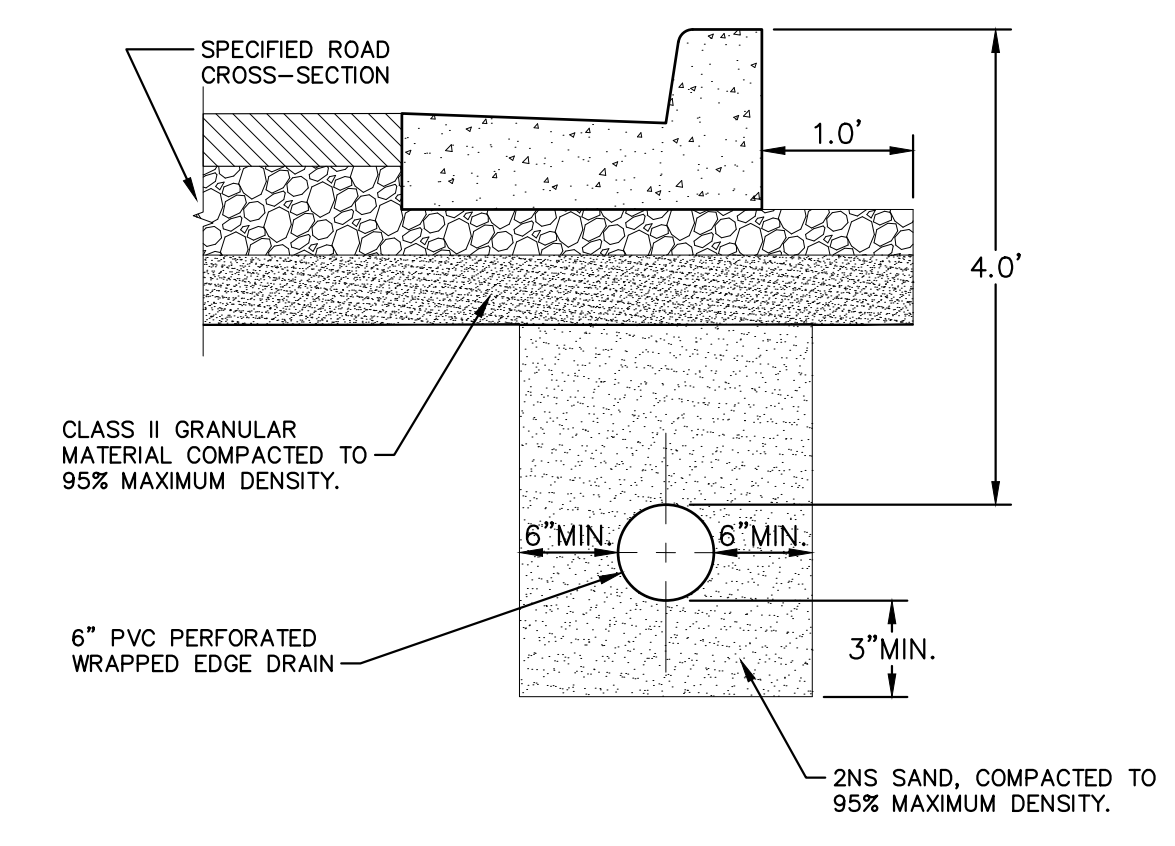
TYPICAL 5 FT SIDEWALK SECTION



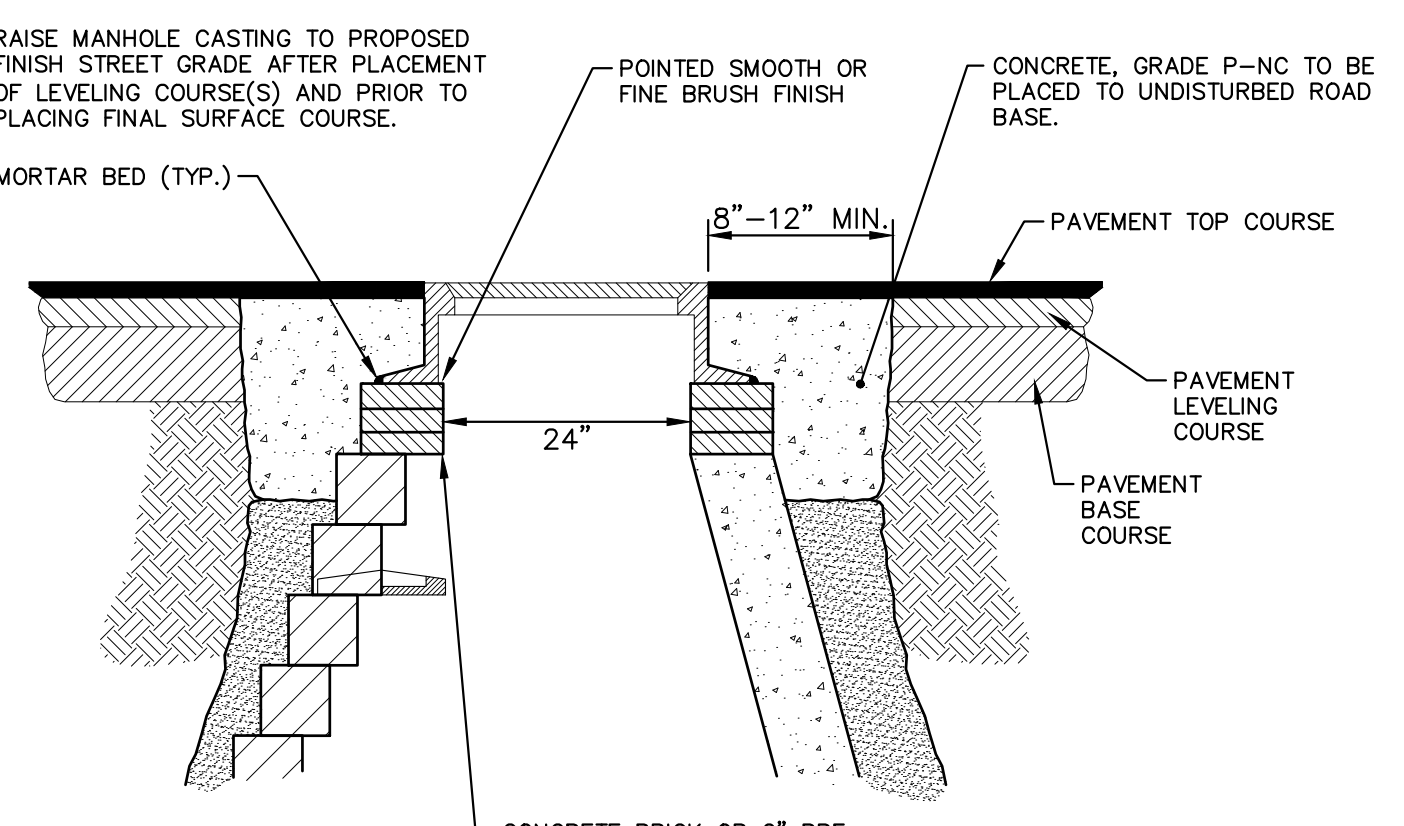
DOUBLE INLET STRUCTURE SD-S-11



MANHOLE & VALVE/MONUMENT BOX LOWERING



TYPICAL EDGE DRAIN TRENCH SD-TD-10



MANHOLE CASTING ADJUSTMENT SD-GU-6

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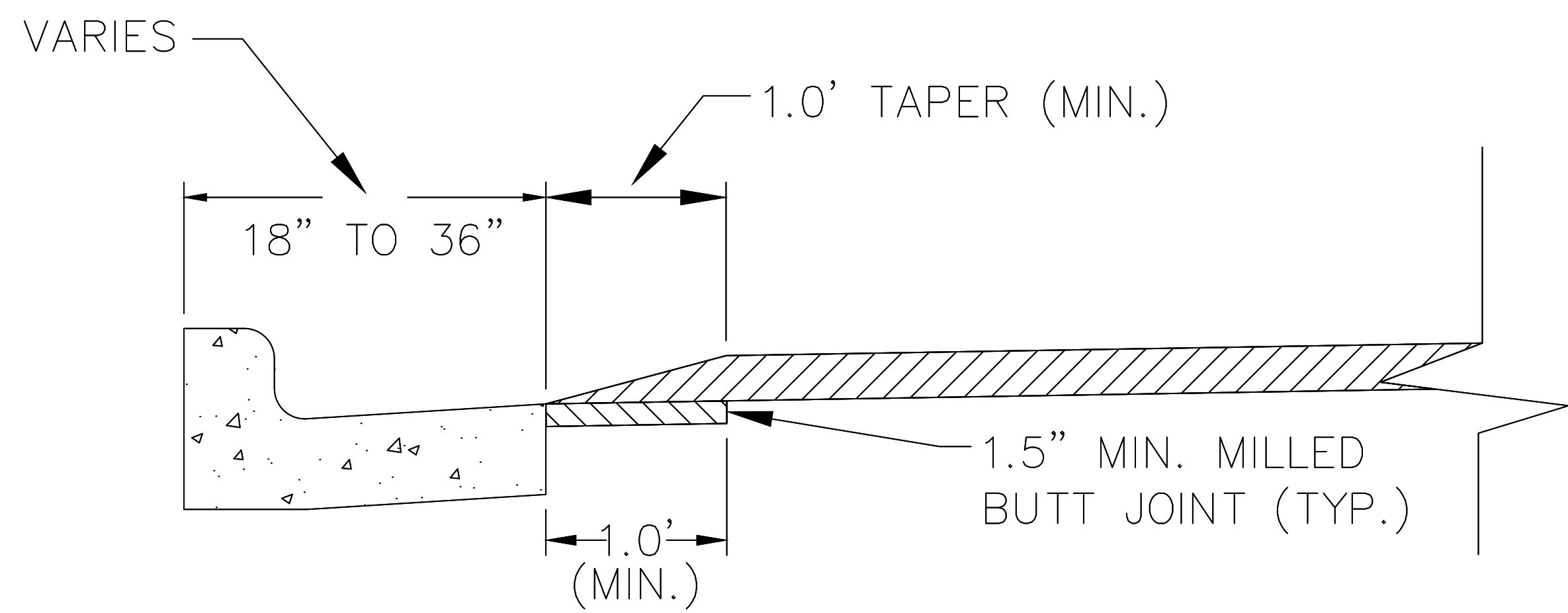
01	ADDENDUM 2	03/25/2020	03/05/2020	DATE	DRAWN	CHECKED
00	BID SET			REV.	DESCRIPTION	

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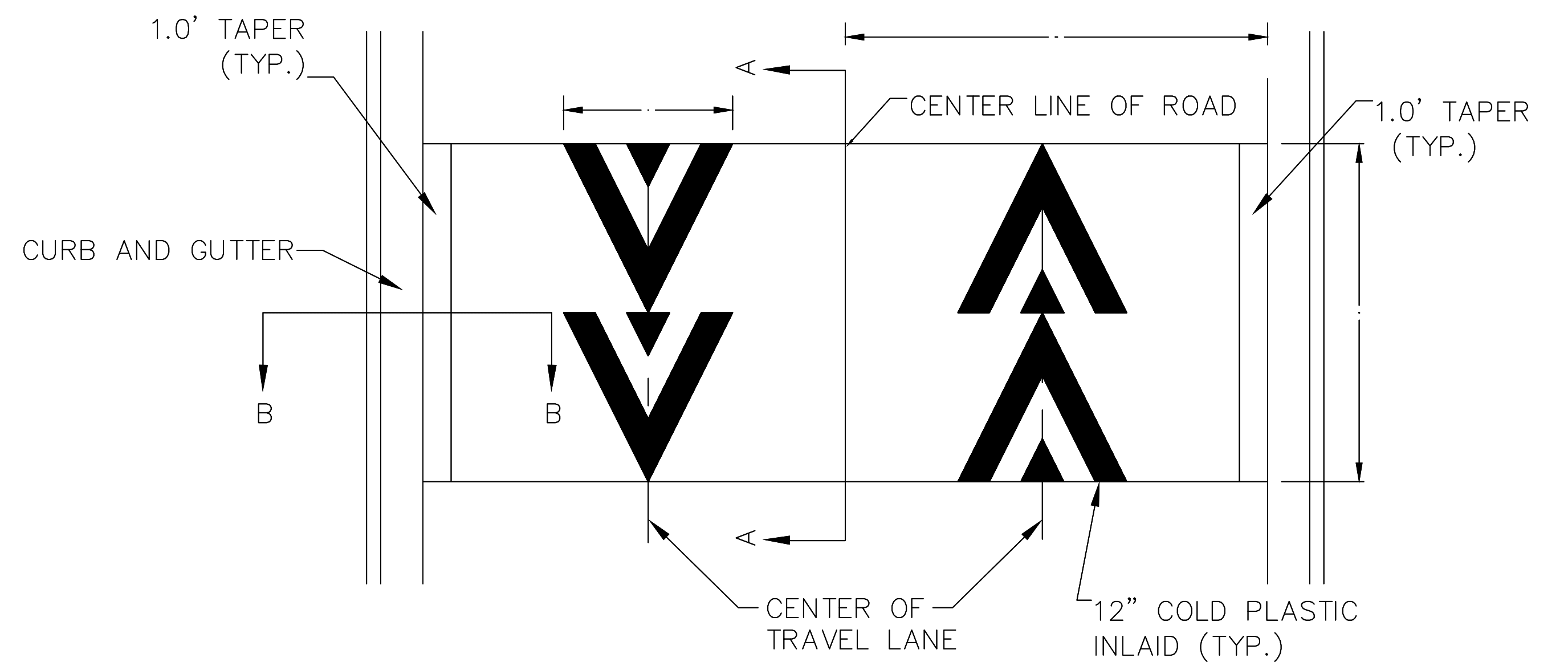
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

STREET RESURFACING PROJECT - 2020

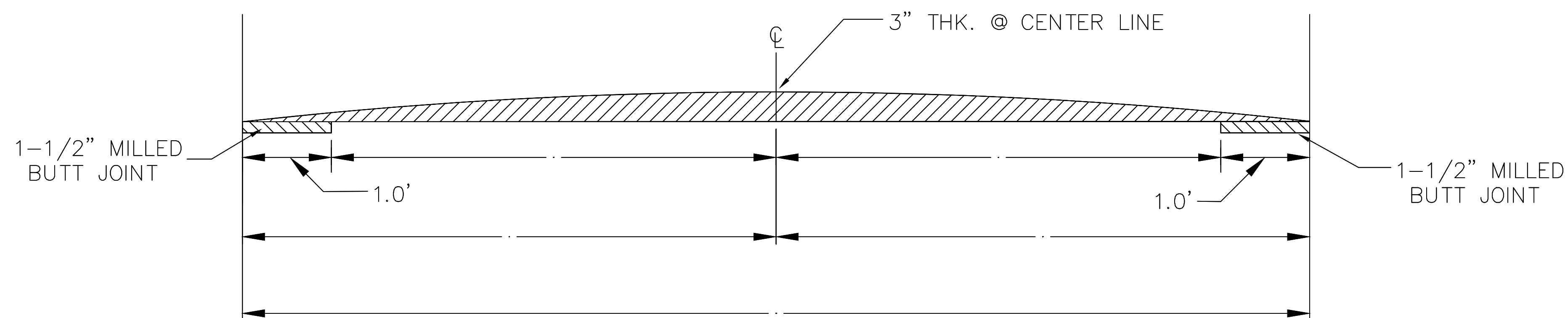
SCALE: DRAWING No. 2020-004 SHEET No. 4 OF 93



SPEED HUMP CROSS SECTION
SECTION B-B



PAVEMENT MARKING DETAIL



SPEED HUMP CROSS SECTION
SECTION A-A

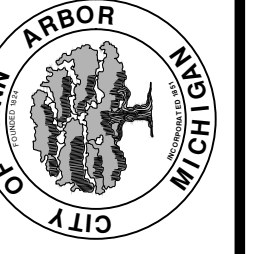
GENERAL NOTES

1. RAISED INTERSECTIONS SHALL FOLLOW THE SAME TAPER REQUIREMENT AS THE SPEED HUMPS DETAILED HEREIN.
2. PAYMENT FOR PAVEMENT MARKINGS FOR SPEED HUMPS AND RAISED INTERSECTIONS SHALL BE INCLUDED IN THE RESPECTIVE BID ITEMS AND SHALL NOT BE PAID FOR SEPARATELY.



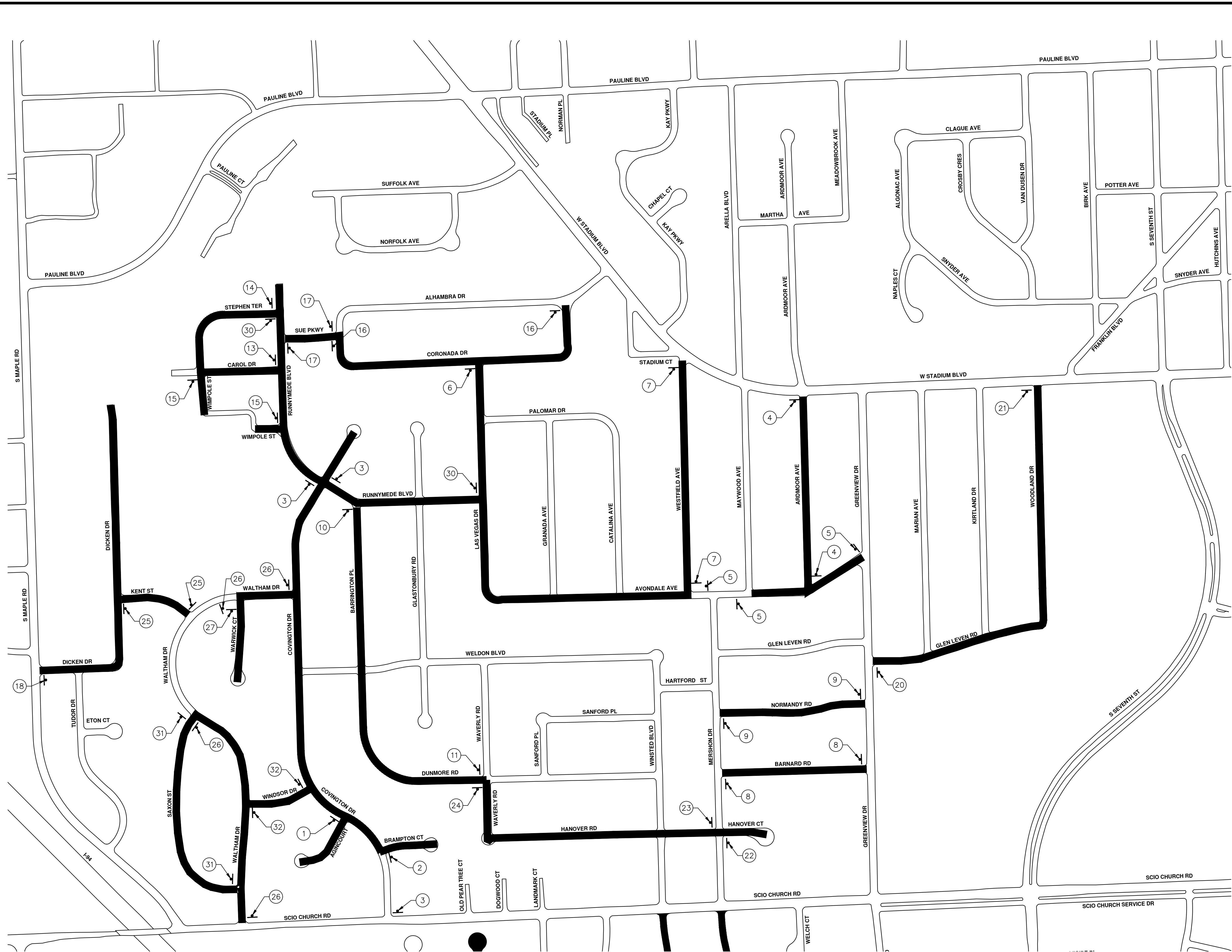
	DAD	CHECKED
	DAD	CHECKED
	GS/CE	DRAWN
	GS/CE	DATE
01	ADDENDUM 2	REV.
00	BID SET	REV.

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
STREET RESURFACING PROJECT - 2020
TRAFFIC CALMING DETAIL

SCALE PLAN: NTS
DRAWING No. 2020-004-5



TRAFFIC CONTROL SIGN			
SIGN	NUMBER	QUANTITY	
	W20-1 36x36	1	
1	D3-1	1	
2	D3-1	1	
3	D3-1	1	
4	D3-1	1	
5	D3-1	1	
6	D3-1	1	
7	D3-1	1	
8	D3-1	1	
9	D3-1	1	
10	D3-1	1	
11	D3-1	1	
13	D3-1	1	
14	D3-1	1	
15	D3-1	1	
16	D3-1	1	
17	D3-1	1	
18	D3-1	1	
20	D3-1	1	
21	D3-1	1	
22	D3-1	1	
23	D3-1	1	
24	D3-1	1	
25	D3-1	1	
26	D3-1	1	
27	D3-1	1	
30	D3-1	1	
31	D3-1	1	
32	D3-1	1	

CONSTRUCTION NOTES:
 PLACE APPLICABLE D3-1 SIGN IN ADVANCE OF WORK PERFORMED ON EACH STREET PRIOR TO WORK BEGINNING.

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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR

STREET RESURFACING PROJECT - 2020

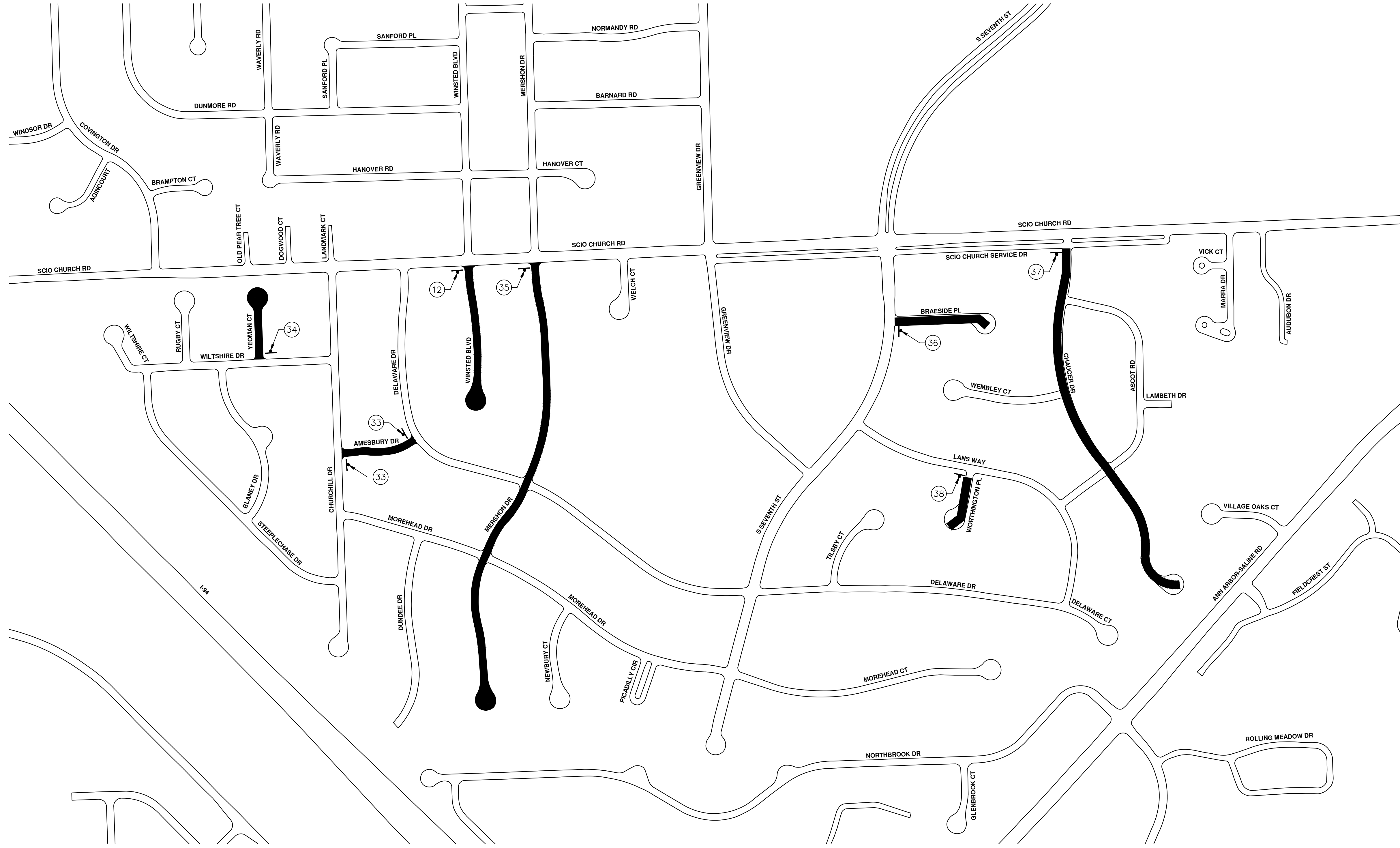
LOCAL STREET TRAFFIC CONTROL-1

SCALE

DRAWING No. 2020-004

SHEET No. 6 OF 93

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
01	03/25/2020	ADDENDUM 2	GS:CE	DAD
00	03/05/2020	BID SET	GS:CE	DAD



TRAFFIC CONTROL SIGN			
	SIGN	NUMBER	QUANTITY
		W20-1 36x36	1
12		D3-1	1
33		D3-1	1
34		D3-1	1
35		D3-1	1
36		D3-1	1
37		D3-1	1
38		D3-1	1

CONSTRUCTION NOTES:
 PLACE APPLICABLE D3-1 SIGN IN ADVANCE
 OF WORK PERFORMED ON EACH STREET
 PRIOR TO WORK BEGINNING.

ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020

SCALE PLAN: 1" = 250'

DRAWING No. 2020-004-7

SHEET No. 7 OF 93

LOCAL STREET TRAFFIC CONTROL-2

01 ADDENDUM 2
 00 BID SET
 REV. DESCRIPTION DATE DRAWN CHECKED

01 03/25/2020 GS:CE
 00 03/05/2020 GS:CE

01 03/25/2020 GS:CE
 00 03/05/2020 GS:CE

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CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: BOARDWALK DRIVE

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 THIS 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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AS DIRECTED BY THE ENGINEER, AND UTILIZING PART WIDTH TWO (2) PHASE CONSTRUCTION. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ACTIVITIES LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

PHASE I

- IMPLEMENT MAINTENANCE OF TRAFFIC (M.O.T.) PLAN, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL SESC MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLDMILLING.
- INSTALL PROPOSED DRAINAGE STRUCTURES, STORM SEWER, AND UNDERDRAIN AS REQUIRED.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION.
- TEMPORARY LOWER ALL UTILITY STRUCTURE COVERS LOCATED WITHIN THE EXISTING PAVEMENT AREA, INCLUDING GATE AND MONUMENT BOXES.
- REMOVE EXISTING HMA SURFACE BY COLDMILLING FULL PAVEMENT DEPTH (±4 INCHES). THIS MAY INCLUDE GRANULAR BASE MATERIAL. DEPTH TO BE DETERMINED BY THE ENGINEER. PROOF ROLL AS REQUIRED.
- PERFORM ANY APPLICABLE JOINT AND CRACK CLEANOUT, HMA/HAND PATCHING, UNDERCUTS AND/OR BASE REPAIRS AS REQUIRED.
- GRADE, SHAPE, AND COMPACT THE EXISTING BASE MATERIAL AS REQUIRED.
- UPON APPROVAL BY THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (4E1).
- PLACE HMA APPROACHES AS REQUIRED.
- ADJUST ALL STRUCTURE COVERS, INCLUDING GATE AND MONUMENT BOXES, TO THEIR FINISH ELEVATION.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (5E1).
- CLEAN PAVEMENT AND PLACE HMA APPROACHES AS REQUIRED.

PHASE II

- REPEAT ITEMS 1 THRU 13 IN THE ORDER SHOWN ABOVE.
- OPEN STREET TO TRAFFIC UPON APPROVAL BY THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING CLEANING OF STRUCTURES, FINAL RESTORATION AND ALL OTHER NECESSARY CLEANUP.
- REMOVE ALL SESC MEASURES, MISS DIG MARKERS, AND TEMPORARY TRAFFIC CONTROL DEVICES.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	1,783.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	399.570
2057011	_Grading, Driveway Approach	Syd	517.370
2057011	_Grading, Sidewalk	Syd	313.251
2057011	_Grading, Sidewalk Ramp	Syd	34.138
2057011	_Machine Grading, Special	Syd	10,955.110
2057021	_Undercutting, Type IIA	Cyd	577.023
2057021	_Undercutting, Type IIC	Cyd	721.408
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	19.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	3.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	5.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	24.000
4037050	_Dr Structure, Cleaning, Modified	Ea	5.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	11.000
4037050	_Structure, Reconstruct	Ea	1.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	20.000
5010002	Cold Milling HMA Surface	Syd	10,956.000
5010005	HMA Surface, Rem	Syd	517.351
5010025	Hand Patching	Ton	60.000
5010050	HMA, 4E1	Ton	1,270.000
5010056	HMA, 5E1	Ton	1,270.000
5010061	HMA Approach	Ton	50.000
6027021	_Flowable Fill	Cyd	49.528
8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	258.670
8027001	_Curb and Gutter, Conc, Barrier	Ft	1,020.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	738.000
8030030	Curb Ramp Opening, Conc	Ft	70.000
8037001	_Detectable Warning Surface, Modified	Ft	50.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	307.240
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	2,527.260
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	162.000
8037010	_Sidewalk, Conc, 8 inch, Modified	Sft	130.000
8110195	Pavt Mrkg, Thermopl, 4 inch, White	Ft	358.000
8110196	Pavt Mrkg, Thermopl, 4 inch, Yellow	Ft	2,556.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	481.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	48.000
8117050	_Pavt Mrkg, Thermopl, Lt Turn Arrow Sym	Ea	2.000
8117050	_Pavt Mrkg, Thermopl, Rt Turn Arrow Sym	Ea	2.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	6.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	6.000
8120250	Plastic Drum, High Intensity, Furn	Ea	70.000
8120251	Plastic Drum, High Intensity, Oper	Ea	70.000
8120310	Sign Cover	Ea	4.000
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	280.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	280.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	88.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	88.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	6.000
8127050	_Temporary No Parking Sign	Ea	24.000
8167011	_Slope Restoration	Syd	890.550
8217050	_Monument Box, Adj	Ea	2.000

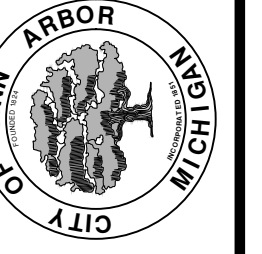
QUANTITIES					
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special					
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)	
22.0	*D3-1	Street Name Sign	4.000	88.000	
5.0	W20-1	Road Work Ahead Sign	9.000	45.000	
5.0	W20-2	Detour Ahead	9.000	45.000	
4.0	W20-3	Road Closed Ahead	9.000	36.000	
3.0	M4-9S	Arrow ↑ Detour	5.000	15.000	
2.0	M4-9R	Right Arrow → Detour	5.000	10.000	
2.0	M4-9L	Left Arrow ← Detour	6.000	12.000	
1.0	M4-10L	Detour / Left	6.000	6.000	
1.0	R3-1	No Right Turn	4.000	4.000	
1.0	R3-2	No Left Turn	4.000	4.000	
3.0	R6-1R	One Way / Right	3.000	9.000	
3.0	R6-1L	One Way / Left	3.000	9.000	
1.0	R11-2	Road Closed	10.000	10.000	
6.0	R11-3a	Road Closed Local Traffic Only	12.500	75.000	
			TOTAL	368.000	

CONSTRUCTION KEY	
KEY	ASSOCIATED PAY ITEM(S)
AA	• _Dr Structure, Adj, Case 1, Modified • _Dr Structure, Adj, Case 2, Modified • _Dr Structure, Temp Lowering, Modified
AB	• _Dr Structure, Temp Lowering, Modified • Gate Box, Adj, Case 1 • Gate Box, Adj, Case 2 • Monument Box Adjust
ADST	• _Dr Structure, Adj, Add Depth, Modified
AK	• _Dr Structure, Adj, Case 1, Modified
C4	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • _Sidewalk, Conc, 4 inch, Modified
C4HE	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • Cement • _Sidewalk, Conc, 4 inch, Modified
C6	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • _Grading, Sidewalk Ramp • _Detectable Warning Surface, Modified • _Sidewalk Ramp, Conc, 6 inch, Modified • _Sidewalk, Conc, 6 inch, Modified
C8	• _Grading, Driveway Approach • _Driveway, Nonreinf Conc, 8 inch, Modified
C HE	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Driveway Approach • _Grading, Sidewalk • _Grading, Sidewalk Ramp • Cement • _Driveway, Nonreinf Conc, 6 inch, Modified • _Driveway, Nonreinf Conc, 8 inch, Modified • _Detectable Warning Surface, Modified • _Sidewalk Ramp, Conc, 6 inch, Modified • _Sidewalk, Conc, 6 inch, Modified
C/G	• _Curb, Gutter, and Curb and Gutter, Any Type, Rem • _Curb and Gutter, Conc
C/GHE	• _Curb, Gutter, and Curb and Gutter, Any Type, Rem • Cement • _Driveway Opening, Conc, Det M, Modified
CP	• _Grading, Sidewalk • _Sidewalk, Conc, 4 inch, Modified
CR	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • Dr Structure, Rem
DS	• Sewer, Rem, Less than 24 inch • Dr Structure, 24 inch dia
DSDI	• Dr Structure, Rem • Sewer, Rem, Less than 24 inch • _Dr Structure, Double Inlet
PT	• _Dr Structure, Point
RRA	• Dr Structure Cover, Type B • _Dr Structure Cover, Type B, Special • _Dr Structure, Adj, Case 1, Modified • _Dr Structure, Temp Lowering, Modified
RRK	• Dr Structure Cover, Type K • _Dr Structure, Adj, Case 1, Modified
RS	• _Dr Structure, Reconstruct
TYPE II	• Plastic Drum, High Intensity, Lighted, Furn • Plastic Drum, High Intensity, Lighted, Oper
TYPE III	• Barricade, Type III, High Intensity, Double Sided, Lighted, Furn • Barricade, Type III, High Intensity, Double Sided, Lighted, Oper

T:\2020004\Plan Production\Major Streets\Traffic Control.dwg Dwg Created: 25-Mar-20 - _g2 standard bw.stb - Plot Date: 25-Mar-20



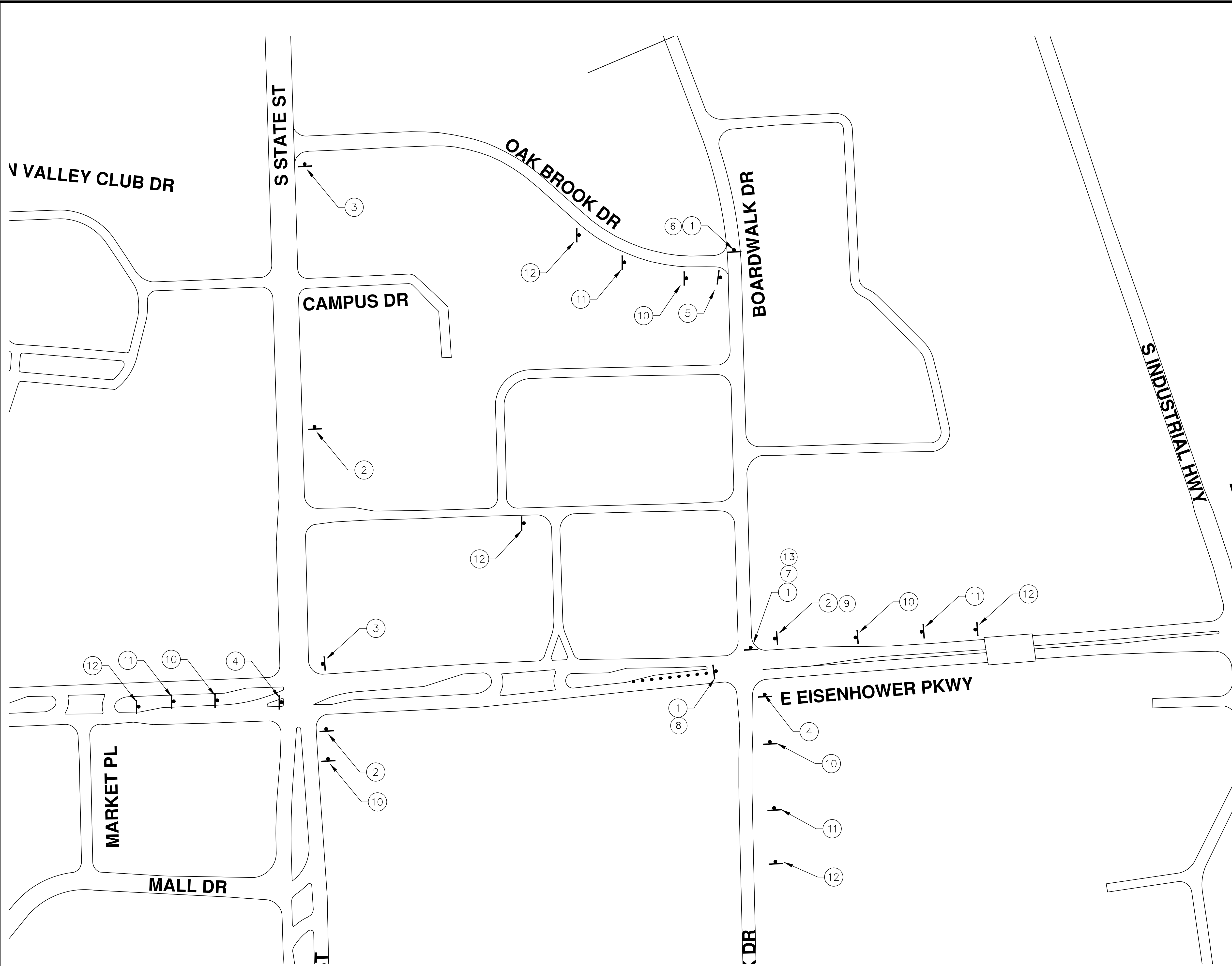
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STREET RESURFACING PROJECT - 2020
BOARDWALK DRIVE
SUBSET COVER SHEET

SCALE
DRAWING No.
2020-004-8

T:\2020004\Plan Production\Major Streets\Traffic Control.dwg Dwg Created: 25-Mar-20 - _g2 standard bw.stb - Plot Date: 25-Mar-20



TRAFFIC CONTROL SIGN		
TAG	SIGN	NUM.
1		D3-1 TYPE III BARRICADE
2		D3-1 M4-9S 30x24
3		D3-1 M4-9R 30x24
4		D3-1 M4-9L (MOD.) 30x24
5		D3-1 M4-8a 24x18
6		R11-4 60x30
7		R11-2 48x30
8		R3-2 24"x24"
9		R3-1 24"x24"
10	 	D3-1
11	 	D3-1
12	 	D3-1
13		M4-10L

ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
 STREET RESURFACING PROJECT - 2020
 BOARDWALK DRIVE
 DETOUR PLAN

SCALE PLAN: Custom
 DRAWING No. 2020-004-9

811
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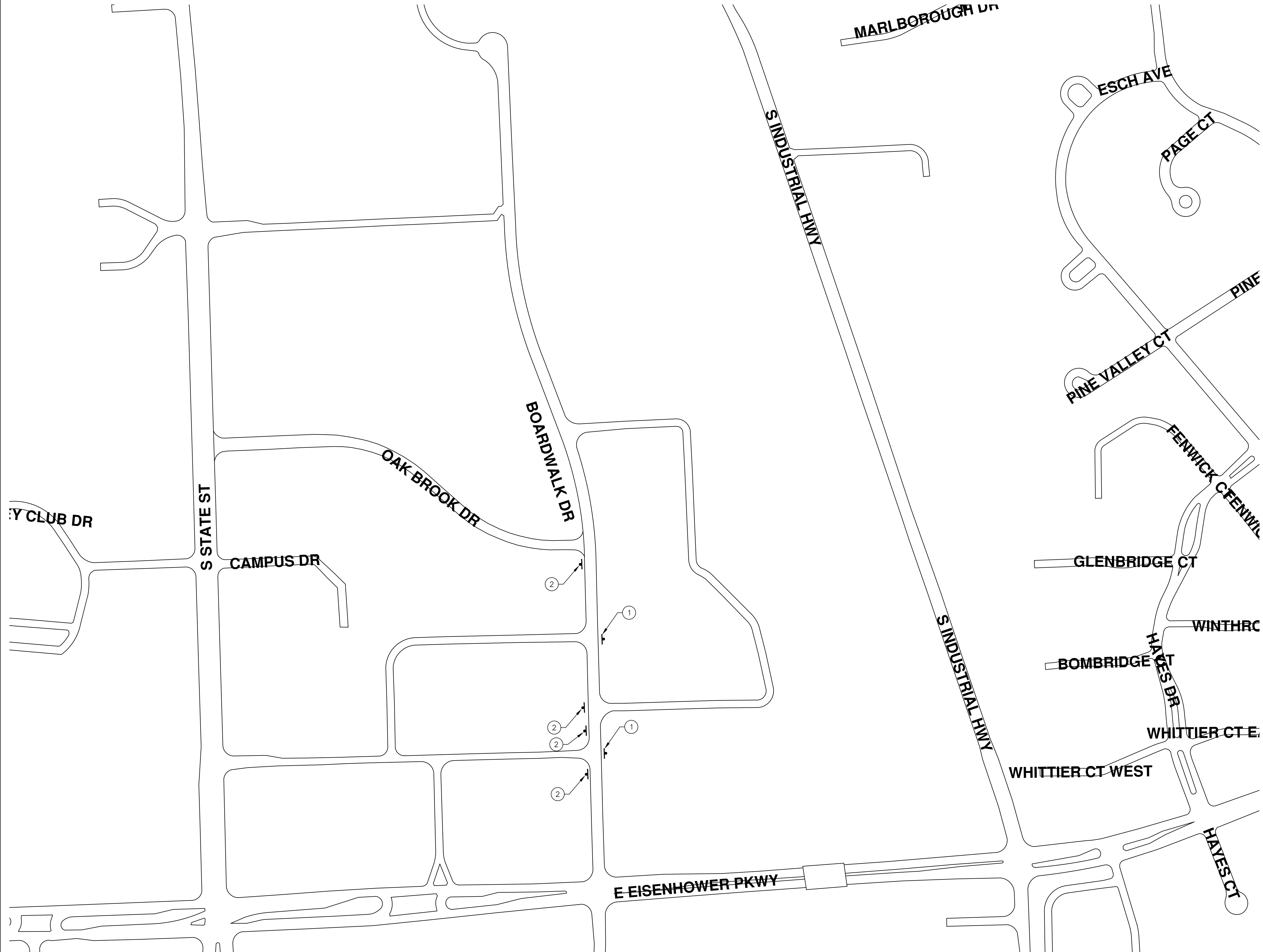
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01 ADDENDUM 2
 00 BID SET
 00 REV.

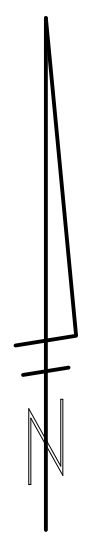
DATE: 03/25/2020
 DRAWN: GS/CE
 CHECKED: DAD

SHEET No. 9 OF 93

T:\2020004\Plan Production\Major Streets\Traffic Control.dwg Dwg Created: 25-Mar-20 - _g2 standard bw.stb - Plot Date: 25-Mar-20



TRAFFIC CONTROL SIGN			
	SIGN	NUMBER	QUANTITY
①		36"x12"	2
②		36"x12"	4



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
 SCALE PLAN: Custom
 DRAWING No. 2020-004-10

STREET RESURFACING PROJECT - 2020
 BOARDWALK DRIVE
 TRAFFIC CONTROL

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

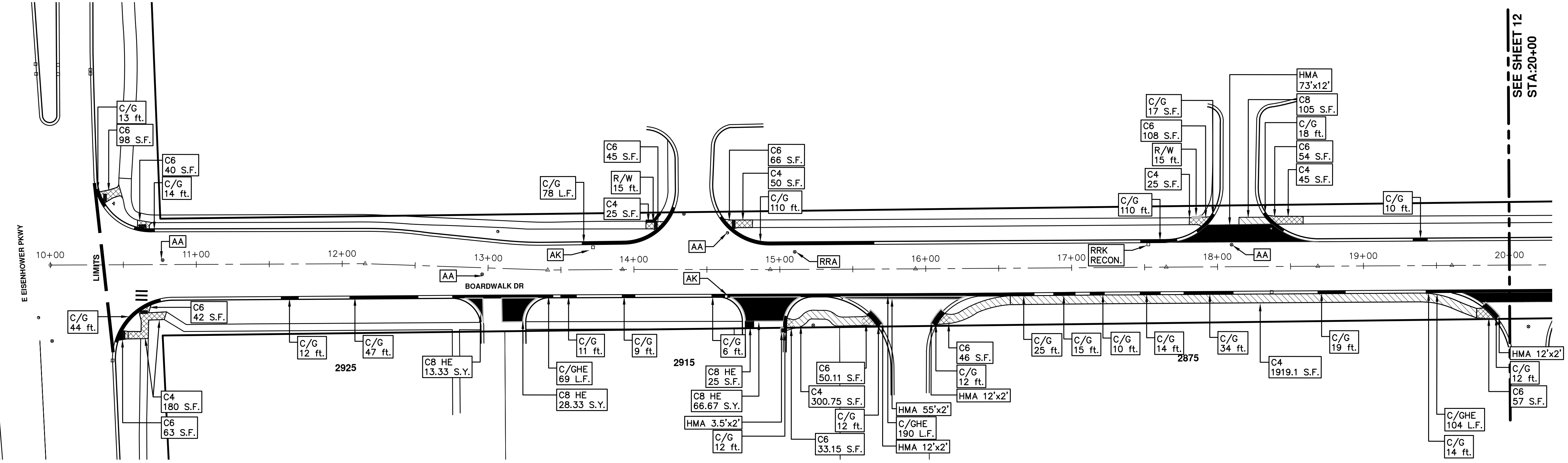
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00	BID SET								

REVISIONS

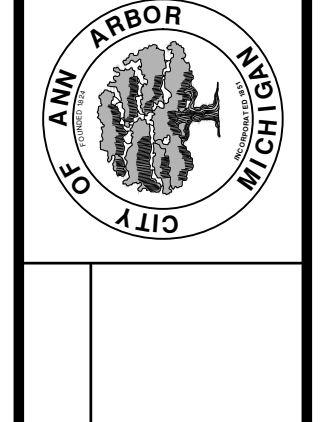
REV.	DESCRIPTION

10 OF 93

T:\2020004\Plan Production\Major Streets\Traffic Control.dwg Dwg Created: 25-Mar-20 - _g2 standard bw.stb - Plot Date: 25-Mar-20



SEE SHEET 12
STA: 20+00

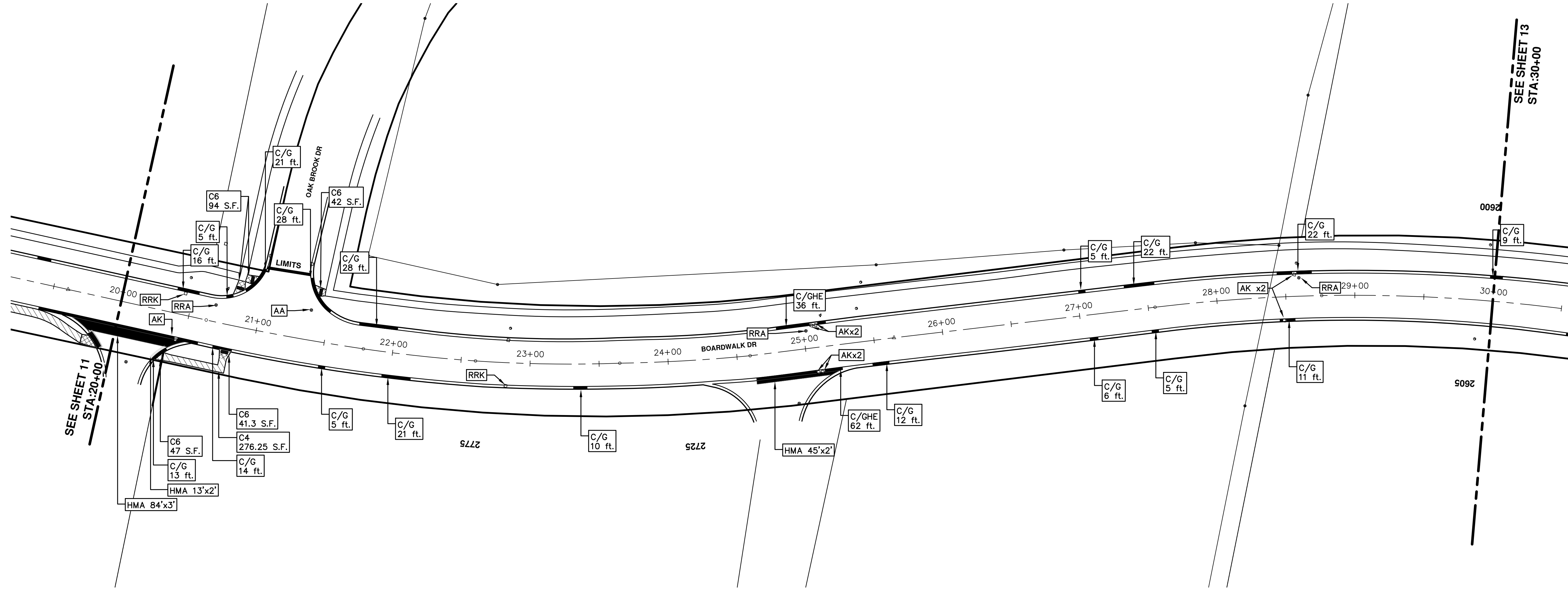


REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET

REV.	DATE	DESCRIPTION
DAD		DRAWN
DAD		CHECKED



T:\2020004\Plan Production\Major Streets\Traffic Control.dwg Dwg Created: 25-Mar-20 - _g2 standard bw.stb - Plot Date: 25-Mar-20



SEE SHEET 11
STA:20+00

SEE SHEET 13
STA:30+00

ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR

STREET RESURFACING PROJECT - 2020
BOARDWALK DRIVE

STA. 20+00 - STA. 30+00

SCALE PLAN: 1"=40'

DRAWING No. 2020-004-12

SHEET No.

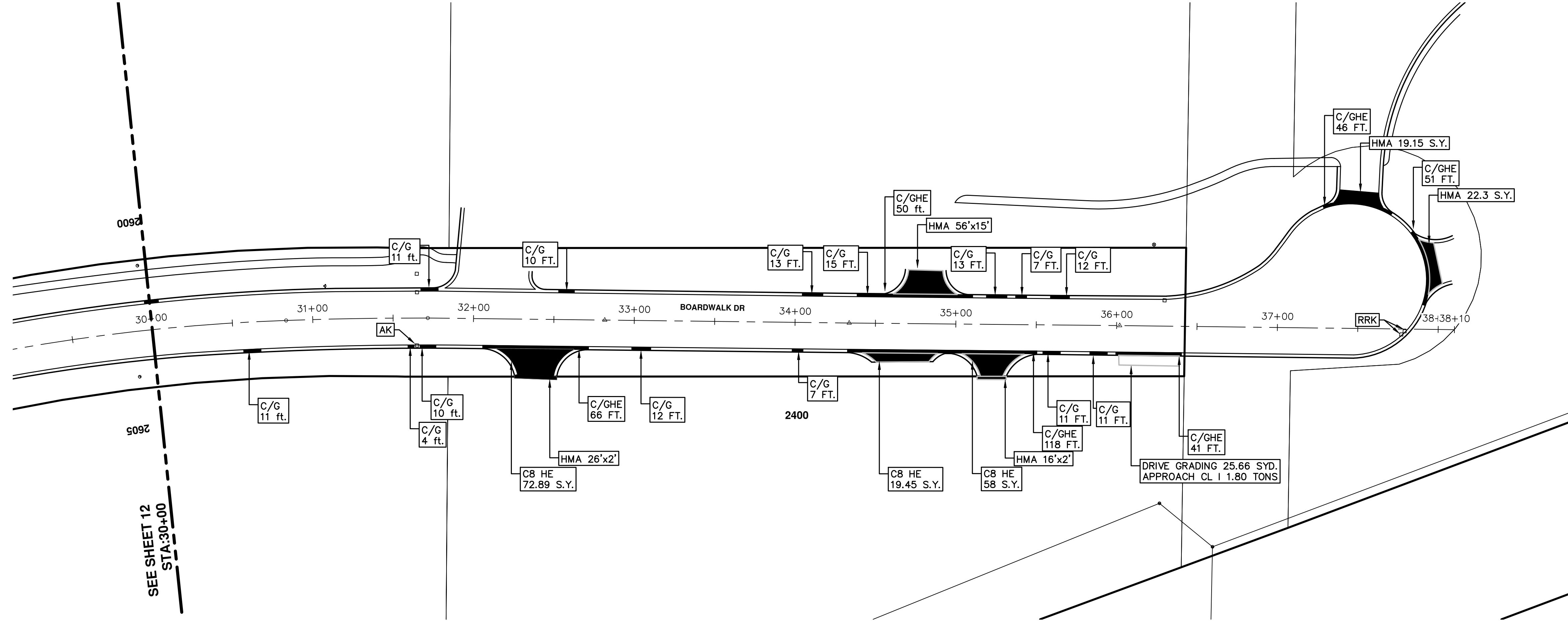
12 OF 93



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REV.	DATE	DESCRIPTION	DRAWN	CHECKED
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00	03/05/2020	BID SET	GS:CE	DAD

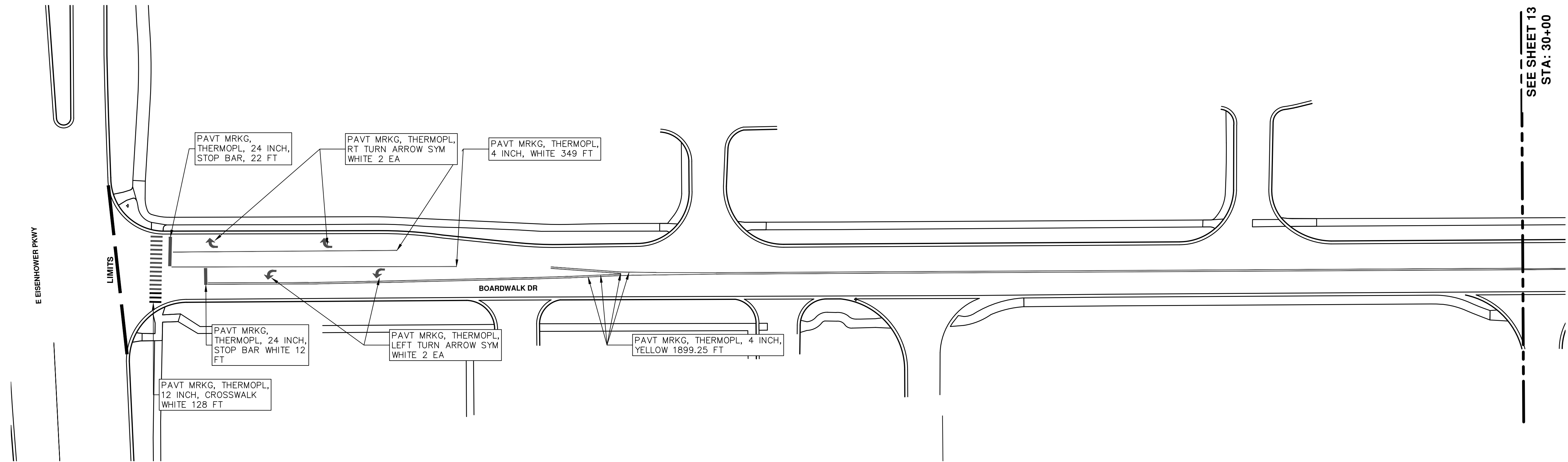




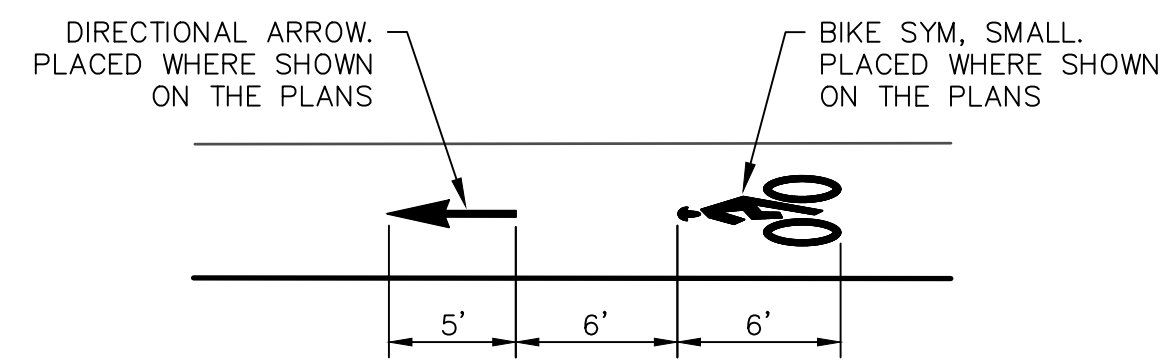
CITY OF ANN ARBOR
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00	BID SET	03/05/2020	GS:CE	DAD

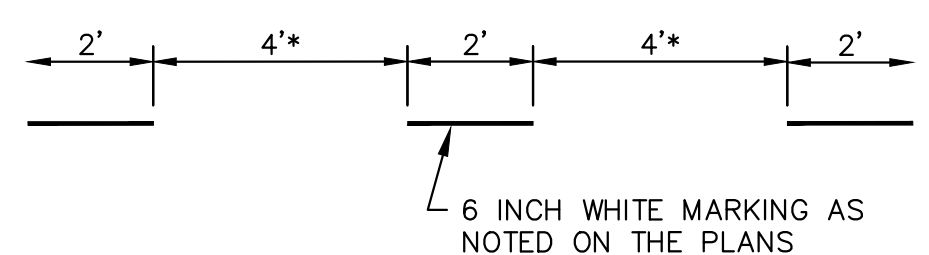
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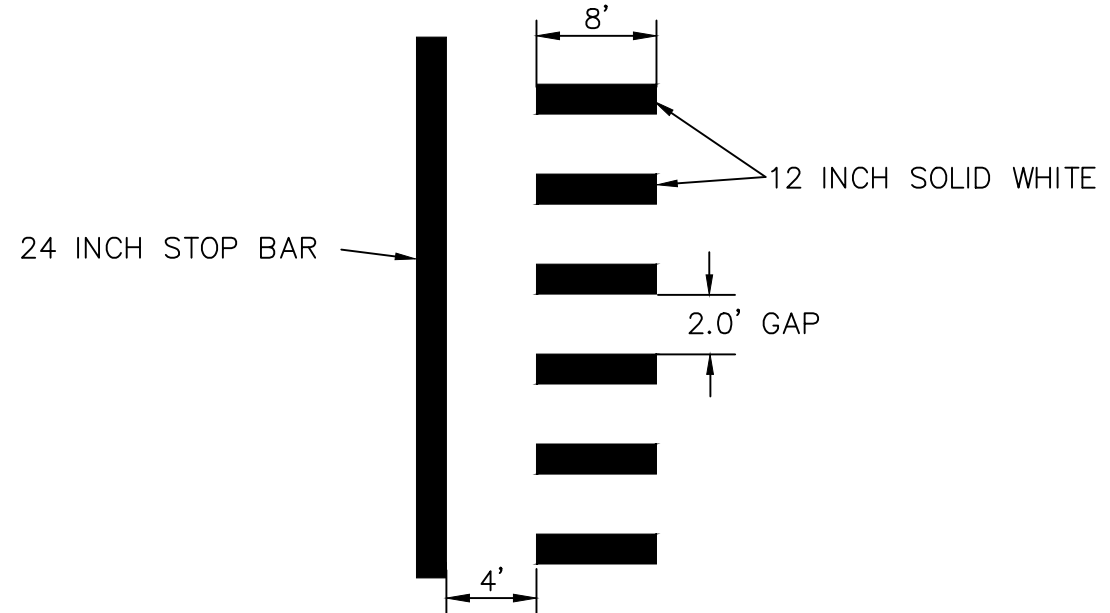
SEE SHEET 13
STA: 30+00



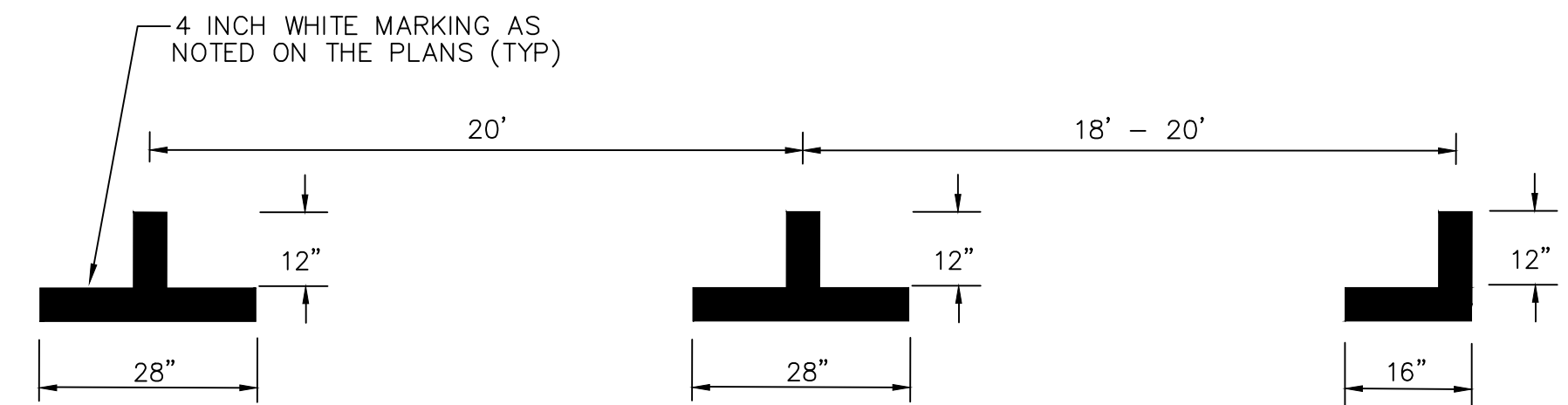
**BIKE SYMBOL
DETAIL**



DOTTED LINE DETAIL
* NOTE FOR BROKEN LINE, USE 6' GAPS.



STOP BAR AND CROSSWALK DETAIL



PARKING SYMBOL DETAIL

ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
BOARDWALK DRIVE
STA. 10+00 - STA. 20+00 PAVT MRKG

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

REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET
		DRAWN
		CHECKED

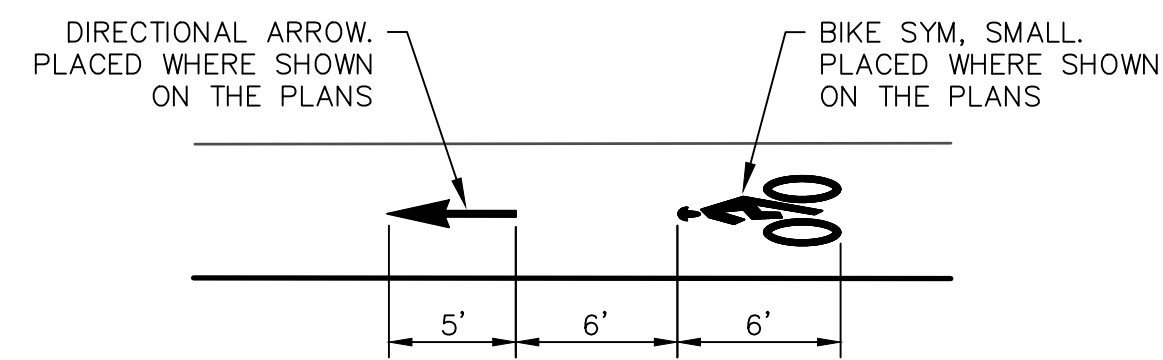
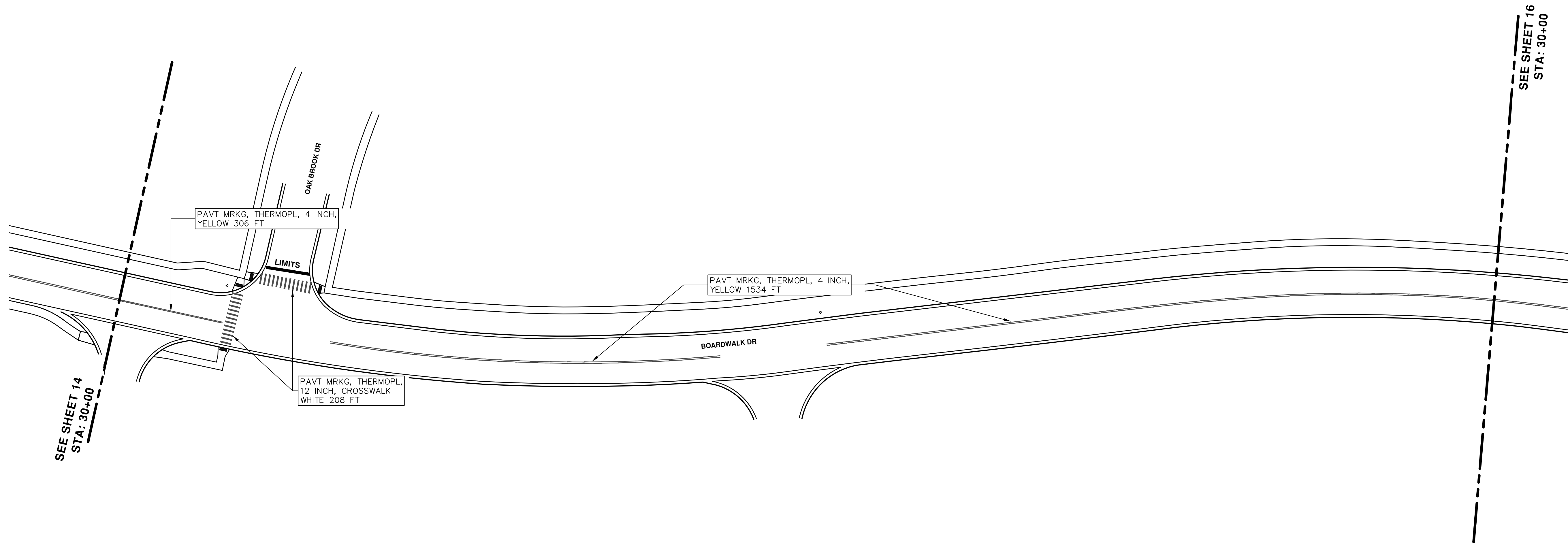
CITY OF ANN ARBOR
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ANN ARBOR, MI 48106-6647
ANN ARBOR 734.794.6410
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SCALE PLAN: 1/40

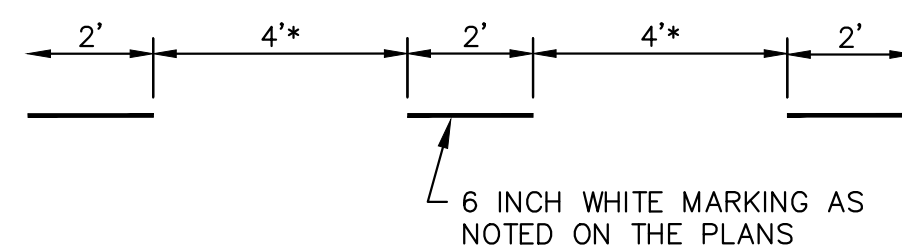
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SHEET No. 14 OF 93

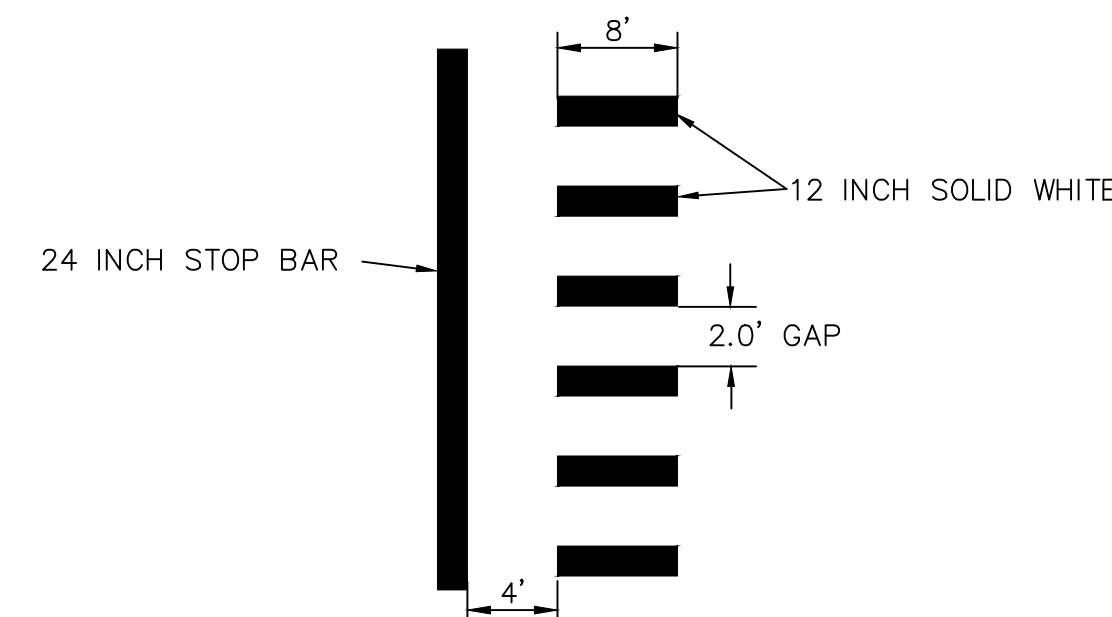
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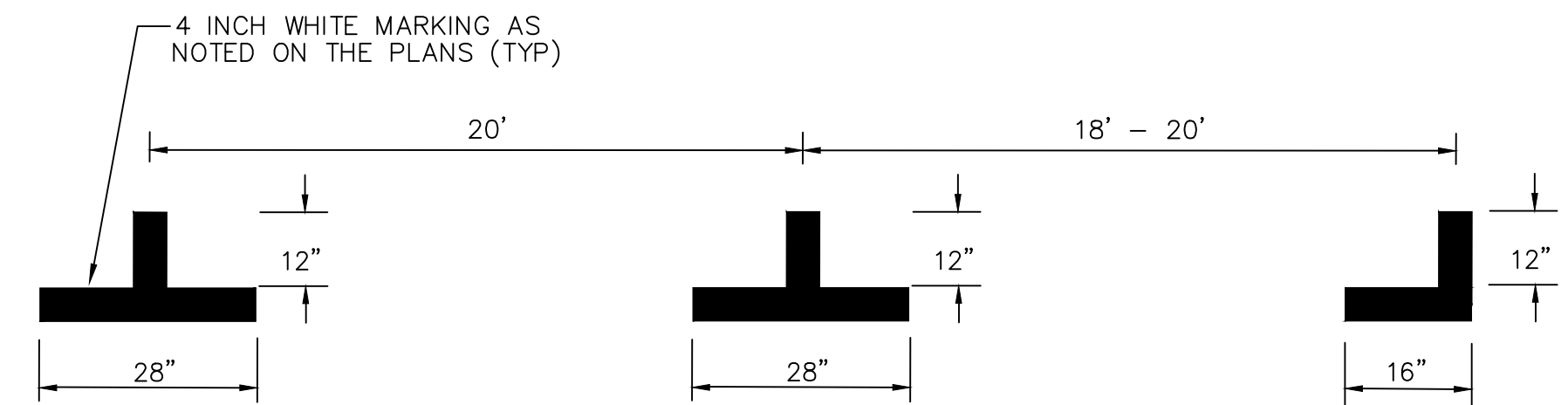
**BIKE SYMBOL
DETAIL**



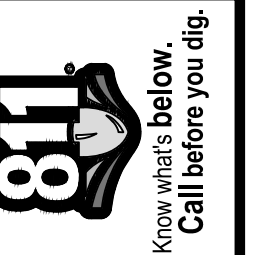
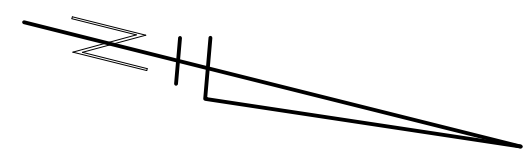
DOTTED LINE DETAIL
* NOTE FOR BROKEN LINE, USE 6' GAPS.



STOP BAR AND CROSSWALK DETAIL

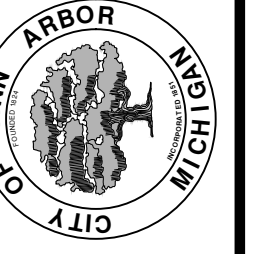


PARKING SYMBOL DETAIL



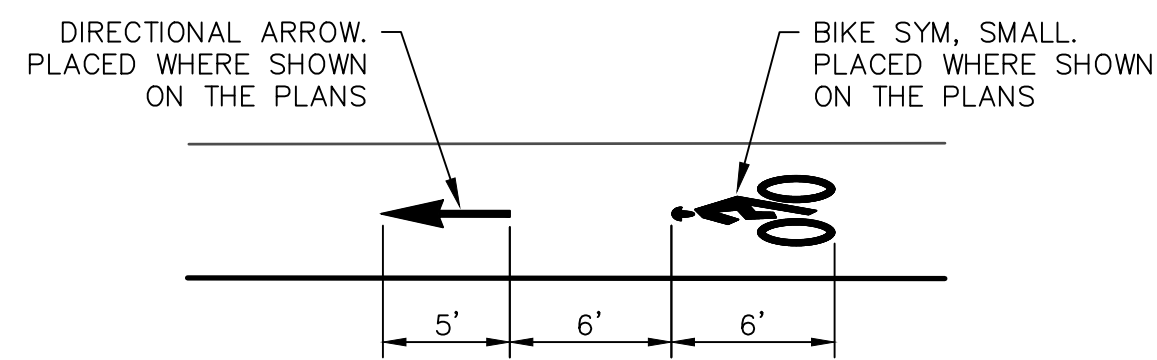
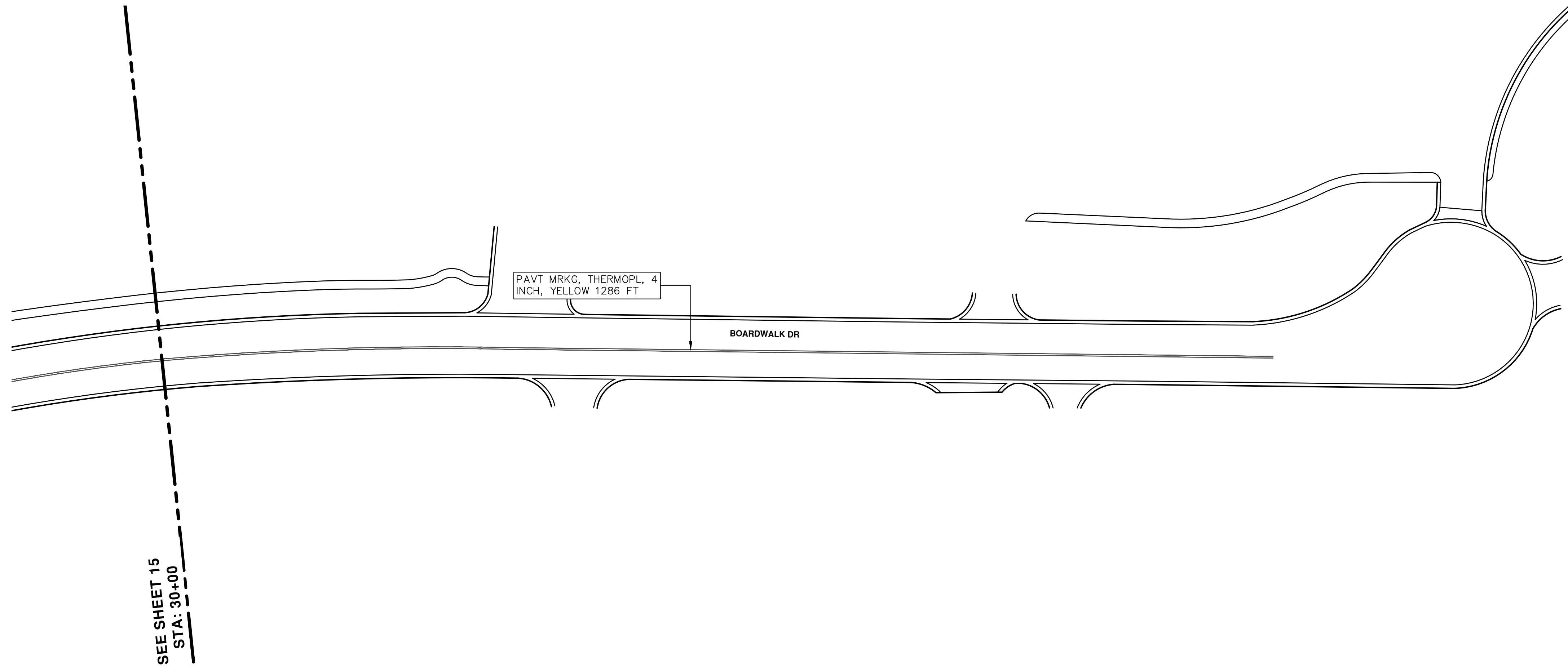
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM 2	03/25/2020	GS:CE	DAD
00	BID SET	03/05/2020	GS:CE	DAD

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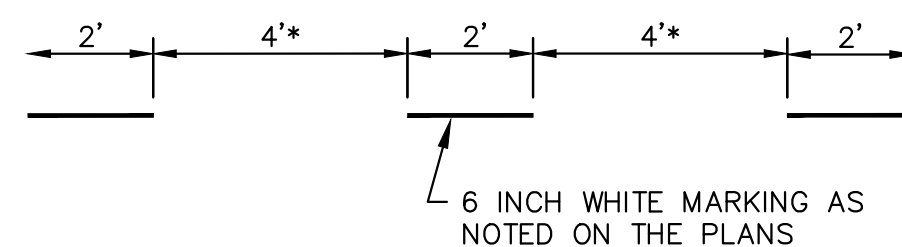


ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
BOARDWALK DRIVE
STA. 20+00 - STA. 30+00 PAVT MRKG

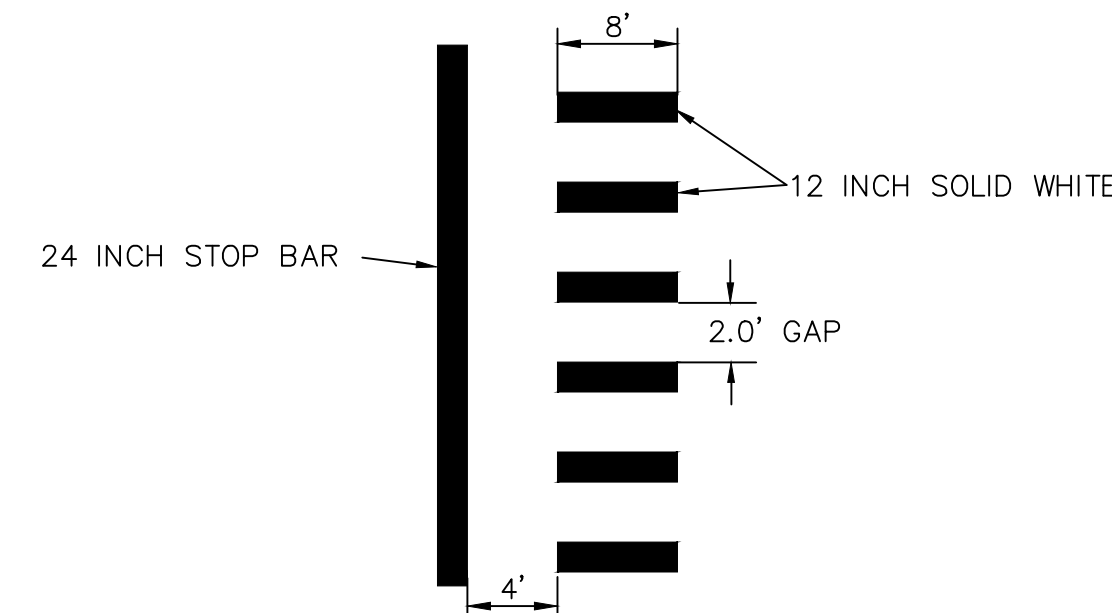
SCALE PLAN: 1/40
DRAWING No. 2020-004-15



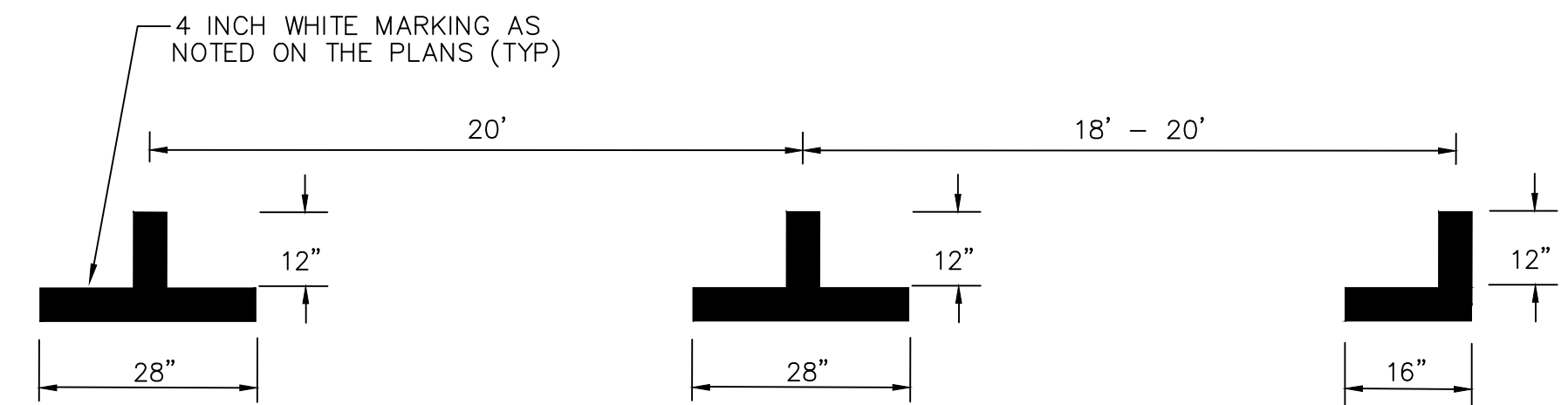
**BIKE SYMBOL
DETAIL**



DOTTED LINE DETAIL
* NOTE FOR BROKEN LINE, USE 6' GAPS.



STOP BAR AND CROSSWALK DETAIL

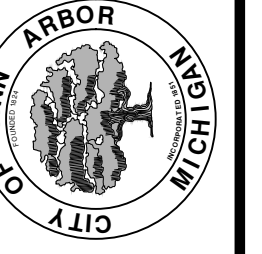


PARKING SYMBOL DETAIL



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM 2	03/25/2020	GS:CE	DAD
00	BID SET	03/05/2020	GS:CE	DAD

CITY OF ANN ARBOR
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
BOARDWALK DRIVE
STA. 30+00 - STA. 38+10 PAVT MRKG

SCALE PLAN: 1/4" = 1'-0"
DRAWING No. 2020-004-16



CITY OF ANN ARBOR ENGINEERING PROJECT LOCATION: GEDDES AVENUE

ITB No. 4620 FILE No. 2020-004

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 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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	424.500
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	156.330
2057011	_Grading, Driveway Approach	Syd	15.000
2057011	_Grading, Sidewalk	Syd	6.670
2057011	_Grading, Sidewalk Ramp	Syd	4.450
2057011	_Machine Grading, Special	Syd	1,627.090
2057021	_Undercutting, Type IIA	Cyd	90.385
2057021	_Undercutting, Type IIC	Cyd	113.001
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	10.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	2.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	5.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	6.000
5010002	Cold Milling HMA Surface	Syd	2,373.000
5010005	HMA Surface, Rem	Syd	53.000
5010025	Hand Patching	Ton	13.000
5010051	HMA, 4E3	Ton	178.980
5010057	HMA, 5E3	Ton	260.920
6027021	_Flowable Fill	Cyd	12.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	15.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	116.500
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	122.000
8030030	Curb Ramp Opening, Conc	Ft	77.000
8037001	_Detectable Warning Surface, Modified	Ft	55.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	527.960
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	60.000
8110049	Pavt Mrkg, Ovy Cold Plastic, Direction Arrow Sym, Bike	Ea	2.000
8110058	Pavt Mrkg, Ovy Cold Plastic, Bike, Small Sym	Ea	2.000
8110079	Pavt Mrkg, Ovy Cold Plastic, Sharrow Symbol	Ea	2.000
8110195	Pavt Mrkg, Thermopl, 4 inch, White	Ft	168.000
8110196	Pavt Mrkg, Thermopl, 4 inch, Yellow	Ft	1,471.000
8110198	Pavt Mrkg, Thermopl, 6 inch, White	Ft	1,466.000
8110212	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, White	Ft	32.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	752.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	74.000
8110343	Rem Spec Mrkg	Sft	168.000
8117001	_Pavt Mrkg, Thermopl, 4 inch, Parking Sym, White	Ft	29.000
8117050	_Pavt Mrkg, Thermopl, Lt Turn Arrow Sym	Ea	2.000
8117050	_Pavt Mrkg, Thermopl, Thru and Rt Turn Arrow Sym	Ea	1.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	8.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	89.000
8120140	Lighted Arrow, Type C, Furn	Ea	1.000
8120141	Lighted Arrow, Type C, Oper	Ea	1.000
8120250	Plastic Drum, High Intensity, Furn	Ea	35.000
8120251	Plastic Drum, High Intensity, Oper	Ea	35.000
8120310	Sign Cover	Ea	8.000
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	451.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	451.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	144.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	144.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	4.000
8167011	_Slope Restoration	Syd	170.000
8217050	_Monument Box, Adj	Ea	1.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	7.000

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AS DIRECTED BY THE ENGINEER, AND UTILIZING PART WIDTH TWO (2) PHASE CONSTRUCTION. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ACTIVITIES LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

PHASE I (FULL CLOSURE BETWEEN WASHTEAW AVE & OBSERVATORY ST AND PART WIDTH CLOSURE BETWEEN CHURCH ST AND WASHTEAW AVE)

- IMPLEMENT MAINTENANCE OF TRAFFIC (M.O.T.) PLAN, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- INSTALL PROPOSED DRAINAGE STRUCTURES, STORM SEWER, AND UNDERDRAIN AS REQUIRED.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION.
- TEMPORARY LOWER ALL UTILITY STRUCTURE COVERS LOCATED WITHIN THE EXISTING PAVEMENT AREA, INCLUDING GATE AND MONUMENT BOXES.
- REMOVE EXISTING HMA SURFACE BY COLD MILLING (FULL DEPTH; ±4 INCHES) TO TOP OF EXISTING CONCRETE BASE AS DIRECTED BY THE ENGINEER. PROOF ROLL AS REQUIRED AND DIRECTED BY THE ENGINEER.
- PERFORM ANY APPLICABLE JOINT AND CRACK CLEANOUT, HMA/HAND PATCHING, UNDERCUTS AND/OR BASE REPAIRS AS REQUIRED.
- GRADE, SHAPE, AND COMPACT EXISTING BASE MATERIAL AS REQUIRED.
- UPON APPROVAL BY THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (4E3).
- PLACE HMA APPROACHES AS REQUIRED.
- ADJUST ALL STRUCTURE COVERS, INCLUDING GATE AND MONUMENT BOXES, TO THEIR FINISH ELEVATION.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (5E3).
- CLEAN PAVEMENT AND PLACE HMA APPROACHES AS REQUIRED.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING CLEANING OF STRUCTURES, FINAL RESTORATION AND ALL OTHER NECESSARY CLEANUP.
- OPEN STREET TO TRAFFIC UPON APPROVAL BY THE ENGINEER.

PHASE II (PART WIDTH CLOSURE BETWEEN CHURCH ST AND WASHTEAW AVE)

- REPEAT ITEMS 1 THRU 15 IN THE ORDER SHOWN SHOWN ABOVE.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS.
- REMOVE ALL SESC MEASURES, MISS DIG MARKERS, AND TEMPORARY TRAFFIC CONTROL DEVICES.

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
36.0	*D3-1	Street Name Sign	4.000	144.000
6.0	G20-2	End Road Work	4.500	27.000
1.0	W4-2R	Lane Ends / Right	9.000	9.000
6.0	W20-1	Road Work Ahead Sign	9.000	54.000
6.0	W20-2	Detour Ahead	9.000	54.000
6.0	W20-3	Road Closed Ahead	9.000	54.000
1.0	W20-5L	Lane Ends / Left	9.000	9.000
2.0	M4-8a	Detour Ends	3.000	6.000
7.0	M4-9S	Arrow ↑ Detour	5.000	35.000
2.0	M4-9R	Right Arrow → Detour	5.000	10.000
2.0	M4-9L	Left Arrow ← Detour	6.000	12.000
1.0	M4-10R	Detour / Right	6.000	6.000
1.0	M4-10L	Detour / Left	6.000	6.000
2.0	R3-1	No Right Turn	4.000	8.000
2.0	R3-2	No Left Turn	4.000	8.000
3.0	R5-1	Do Not Enter	9.000	27.000
6.0	R5-18C	Work Zone Begins	16.000	96.000
3.0	R11-2	Road Closed	10.000	30.000

CONSTRUCTION KEY	
KEY	ASSOCIATED PAY ITEM(S)
AA	• _Dr Structure, Adj, Case 1, Modified • _Dr Structure, Adj, Case 2, Modified • _Dr Structure, Temp Lowering, Modified
AB	• _Dr Structure, Temp Lowering, Modified • _Gate Box, Adj, Case 1 • _Gate Box, Adj, Case 2 • _Monument Box Adjust
ADST	• _Dr Structure, Adj, Add Depth, Modified
AK	• _Dr Structure, Adj, Case 1, Modified
C4	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • _Sidewalk, Conc, 4 inch, Modified
C4HE	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • Cement • _Sidewalk, Conc, 4 inch, Modified
C6	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • _Grading, Sidewalk Ramp • _Detectable Warning Surface, Modified • _Sidewalk Ramp, Conc, 6 inch, Modified • _Sidewalk, Conc, 6 inch, Modified
C8	• _Grading, Driveway Approach • _Driveway, Nonreinf Conc, 8 inch, Modified
C HE	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Driveway Approach • _Grading, Sidewalk • _Grading, Sidewalk Ramp • Cement • _Driveway, Nonreinf Conc, 6 inch, Modified • _Driveway, Nonreinf Conc, 8 inch, Modified • _Detectable Warning Surface, Modified • _Sidewalk Ramp, Conc, 6 inch, Modified • _Sidewalk, Conc, 6 inch, Modified
C/G	• _Curb, Gutter, and Curb and Gutter, Any Type, Rem • _Curb and Gutter, Conc
C/GHE	• _Curb, Gutter, and Curb and Gutter, Any Type, Rem • Cement • _Driveway Opening, Conc, Det M, Modified
CP	• _Grading, Sidewalk • _Sidewalk, Conc, 4 inch, Modified
CR	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem
DS	• Dr Structure, Rem • Sewer, Rem, Less than 24 inch • Dr Structure, 24 inch dia
DSDI	• Dr Structure, Rem • Sewer, Rem, Less than 24 inch • _Dr Structure, Double Inlet
PT	• _Dr Structure, Point
RRA	• Dr Structure Cover, Type B • _Dr Structure Cover, Type B, Special • _Dr Structure, Adj, Case 1, Modified • _Dr Structure, Temp Lowering, Modified
RRK	• Dr Structure Cover, Type K • _Dr Structure, Adj, Case 1, Modified
RS	• _Dr Structure, Reconstruct
TYPE II	• Plastic Drum, High Intensity, Lighted, Furn • Plastic Drum, High Intensity, Lighted, Oper
TYPE III	• Barricade, Type III, High Intensity, Double Sided, Lighted, Furn • Barricade, Type III, High Intensity, Double Sided, Lighted, Oper

T:\2020004\Plan Production\Major Streets\2020004 - Geddes Ave.dwg Dwg Created: 25-Mar-20 - _a2 standard bw.stb - Plot Date: 25-Mar-20

		DAD	DAD	DAD	DAD				
		OS/CE	OS/CE	OS/CE	OS/CE				
		03/05/2020	03/05/2020	03/05/2020	03/05/2020				
		01	BID SET	00	DATE				
									DESCRIPTION
									REV.

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

STREET RESURFACING PROJECT - 2020

GEDDES AVENUE

SUBSET COVER SHEET

SCALE: NTS

SHEET No.

DRAWING No.

2020-004-17

17 OF 93

T:\2020004\Plan Production\Major Streets\2020004 - Geddes Ave.dwg Dwg Created: 25-Mar-20 - _a2 standard bw.stb - Plot Date: 25-Mar-20

TRAFFIC CONTROL SIGN			
SIGN	NUMBER	QUANTITY	
	BARRICADE TYPE III HIGH INTENSITY LIGHTED	6	
	D3-1	1	
	M4-8a 24x18	1	
	D3-1	6	
	M4-9S 30x24	6	
	D3-1	2	
	M4-9R 30x24	2	
	D3-1	1	
	M4-9L (MOD.) 30x24	1	
	D3-1	0	
	M4-9R (MOD.) 30x24	0	
	D3-1	1	
	M4-9L (MOD.) 30x24	1	
	M4-10R 48x18	1	
	M4-10L 48x18	1	
	36"x12" R6-1R	0	
	36"x12" R6-1L	0	
	R3-2 24"x24"	1	
	R3-1 24"x24"	2	
	R11-2 48x30	2	
	R11-4 60x30	0	
	G20-2 48"x24"	6	
	W20-1 36x36	6	
	W20-2 36x36	6	
	W20-3 36x36	6	
	W20-5R 36"x36"	0	
	W4-2R 36"x36"	1	

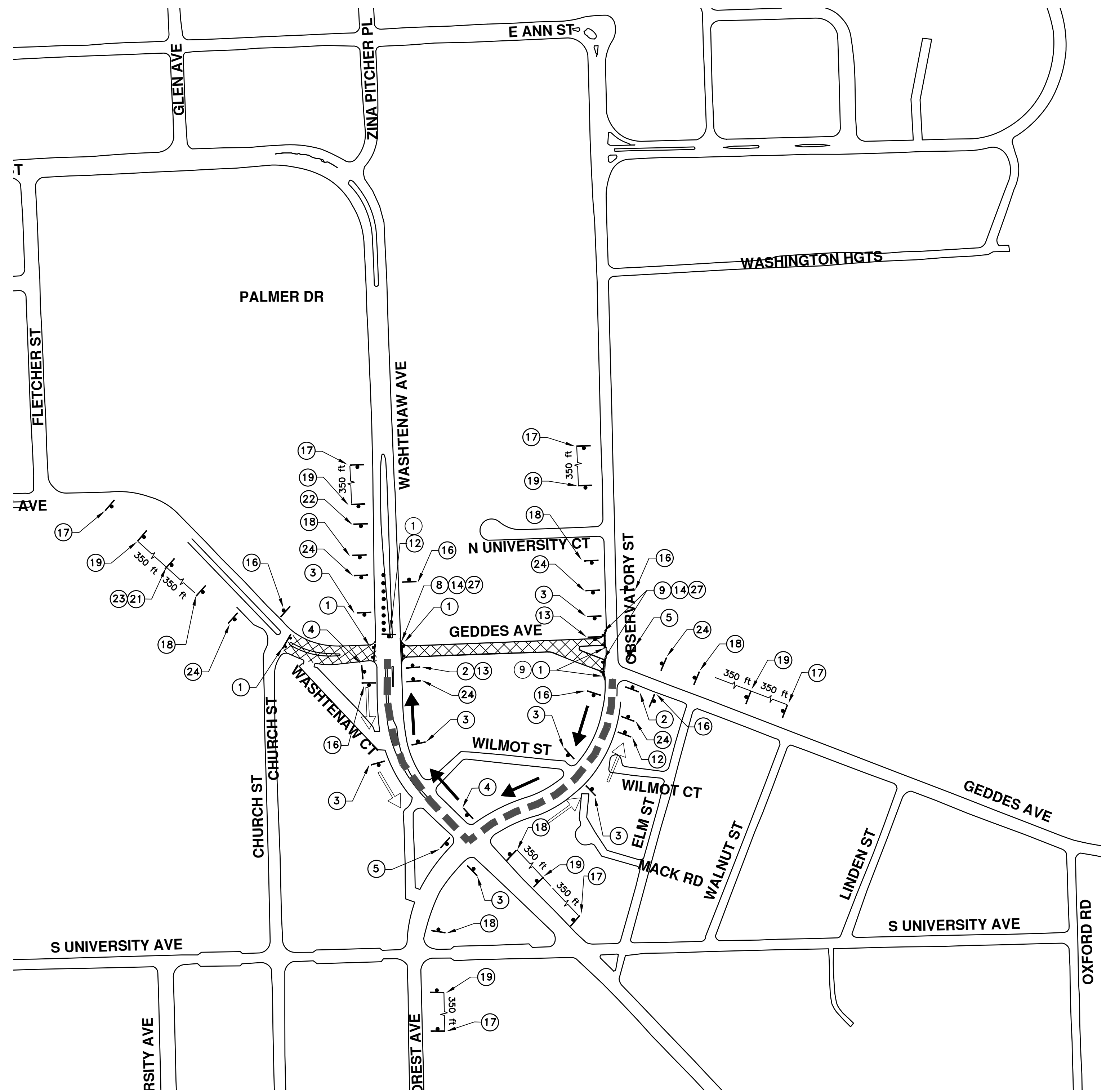
DETOUR CONSTRUCTION NOTES:

1. DEPENDING ON THE DETOUR ROUTES THAT ARE 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. THIS DETOUR IS TO BE IN PLACE DURING GEDDES AVE. CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL CLOSE AND DETOUR EAST AND WEST BOUND GEDDES AVE. 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 "DETAILED SPECIFICATION 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 THE SEVERAL DETOUR ROUTE MODIFICATIONS AND THE 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 "SIGN, TYPE B, TEMP, PRISMATIC, FURN" OR "SIGN, TYPE B, TEMP, PRISMATIC, FURN, SPECIAL".

TRAFFIC CONTROL SIGN			
SIGN	NUMBER	QUANTITY	
	W20-5L 36"x36"	1	
	R5-18C 48"x48"	6	
	SPECIAL 48x66	3	
	SPECIAL 48x66	3	
	R5-1 36x36	3	
SIGN, PORTABLE, CHANGEABLE MESSAGE		VERIFY EXACT QUANTITY AND LOCATION WITH ENGINEER PRIOR TO ORDERING	

LEGEND:

- EAST BOUND GEDDES AVE DETOUR ROUTE
- WEST BOUND GEDDES AVE DETOUR ROUTE
- GEDDES AVE WORK ZONE



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01 ADDENDUM 2
03/25/2020
03/05/2020
DATE

00 BID SET
00 REV.

DESCRIPTION
DRAWN
CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org

CITY OF ANN ARBOR
MICHIGAN

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

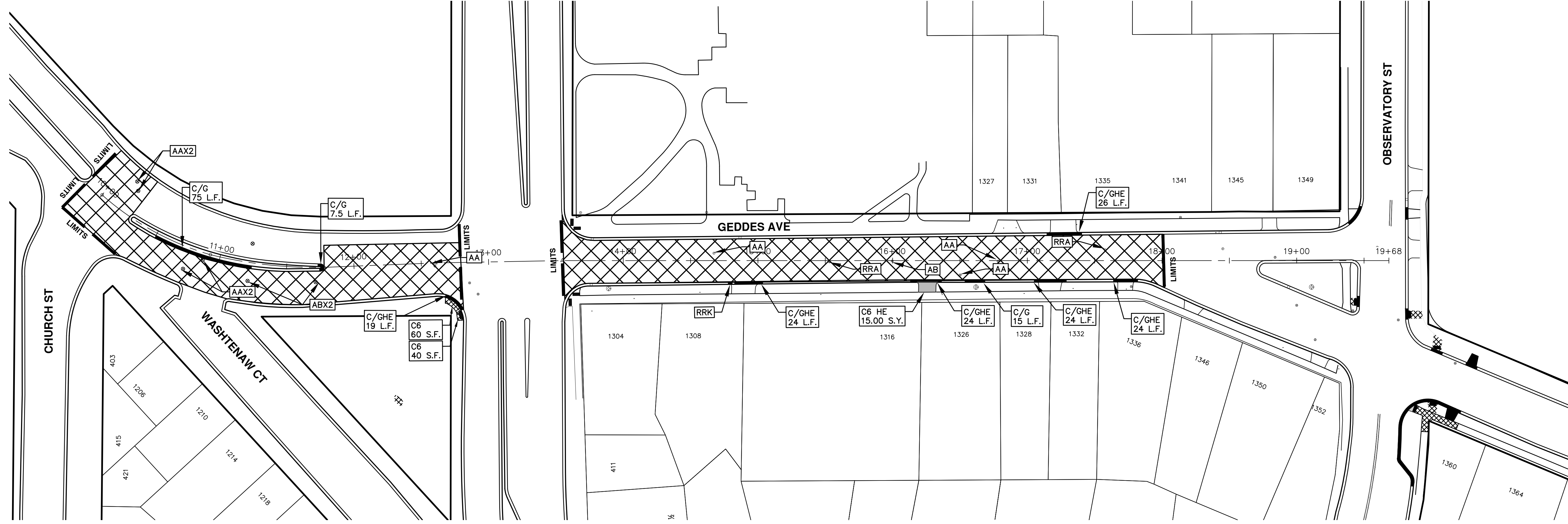
STREET RESURFACING PROJECT - 2020
GEDDES AVENUE
DETOUR PLAN

SCALE

DRAWING No.
2020-004-18

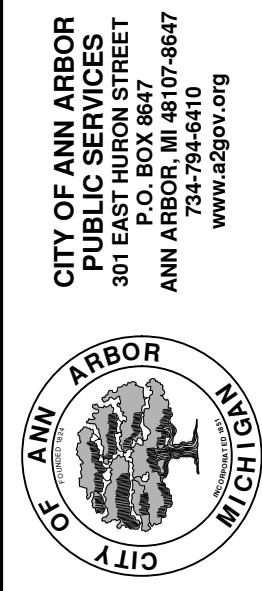
SHEET No.
18 OF 93

I:\2020004\Plan Production\Major Streets\2020004 - Geddes Ave.dwg Dwg Created: 25-Mar-20 - _a2 standard bw.stb - Plot Date: 25-Mar-20



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
 SCALE PLAN: 1"=40'
 DRAWING No. 2020-004-19

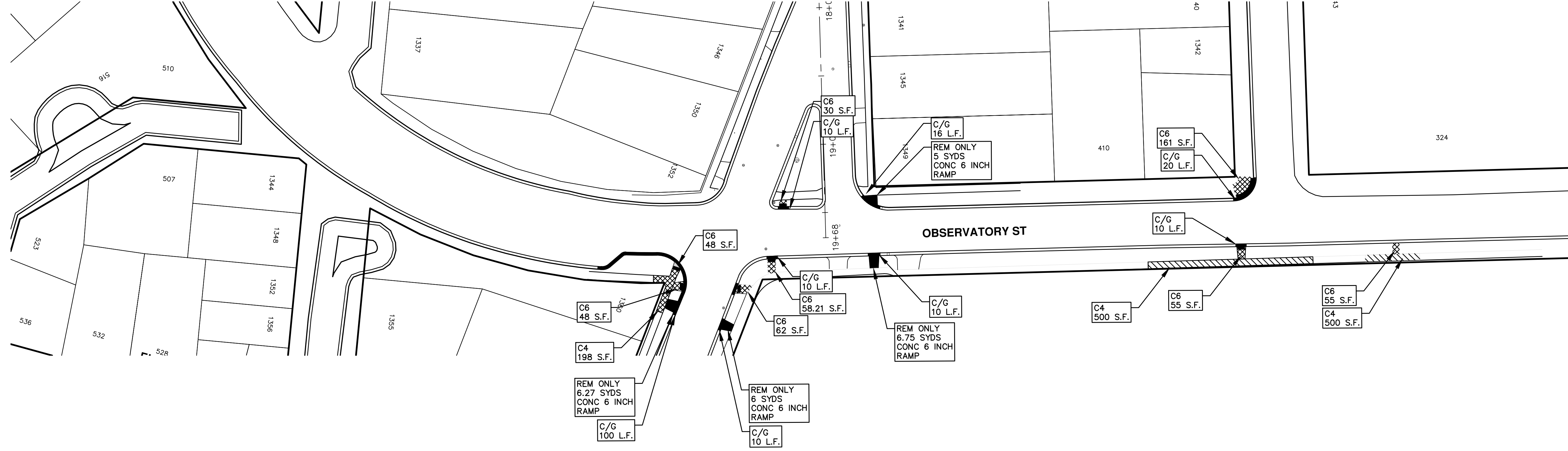
STREET RESURFACING PROJECT - 2020
 GEDDES AVENUE
 STA. 10+00 - STA. 19+68



CITY OF ANN ARBOR
 PUBLIC SERVICES
 301 EAST HURON STREET
 ANN ARBOR, MI 48106-6647
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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00	BID SET	03/05/2020	GS:CE	DAD

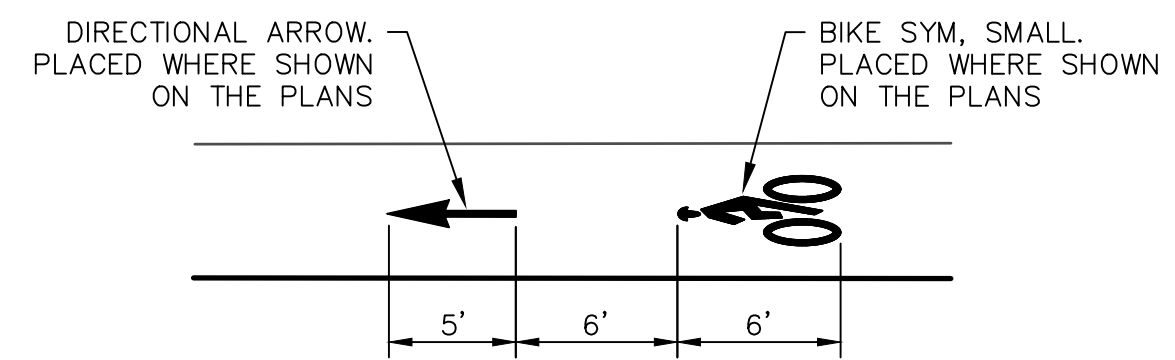
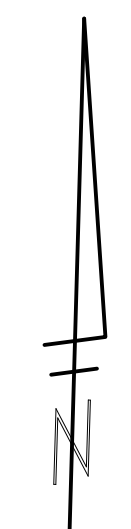
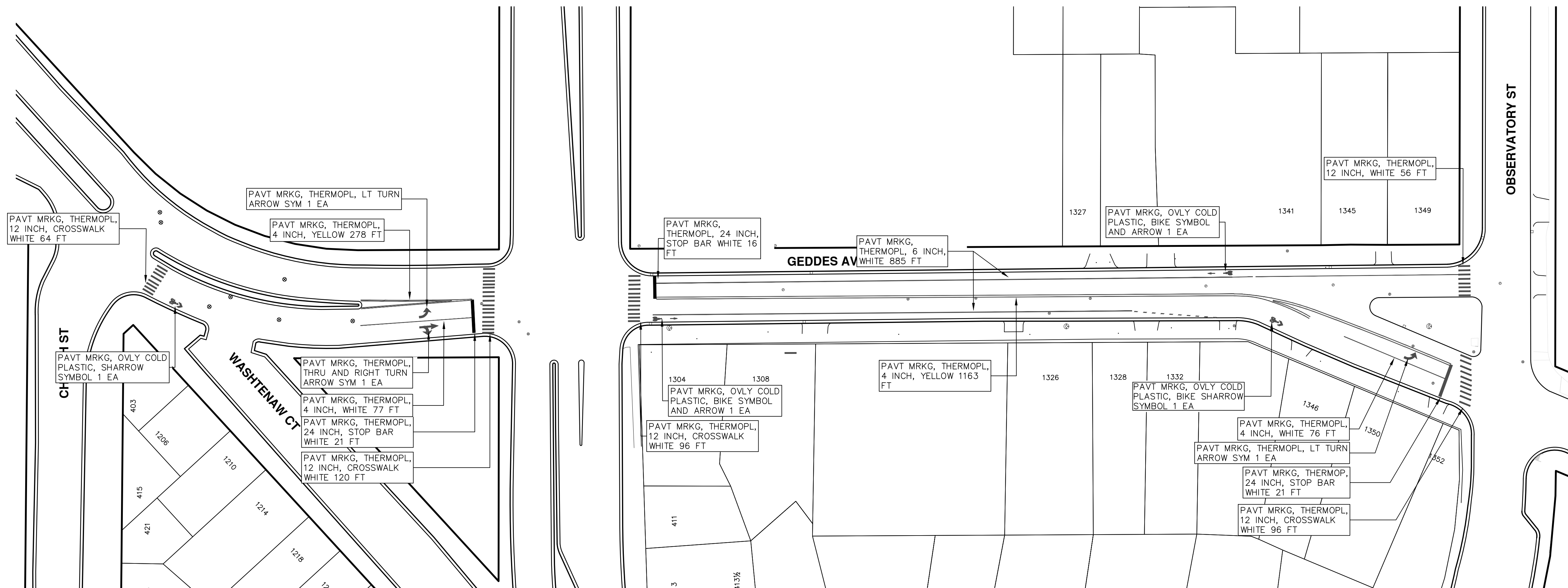




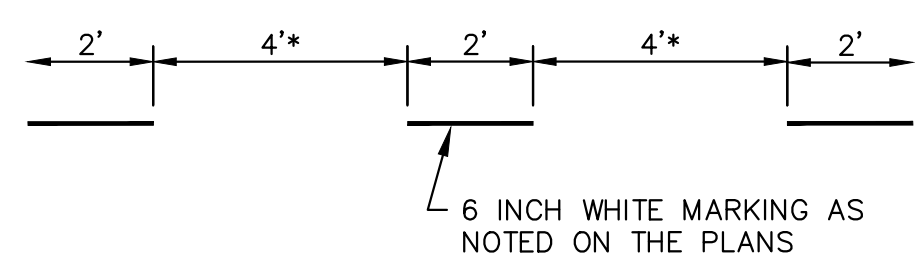
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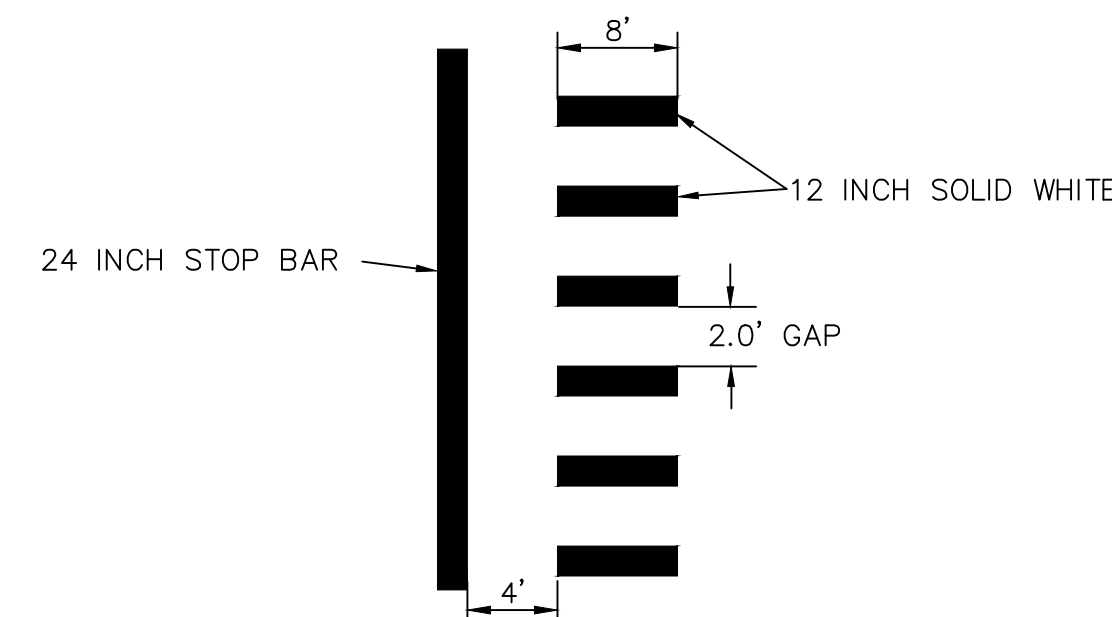
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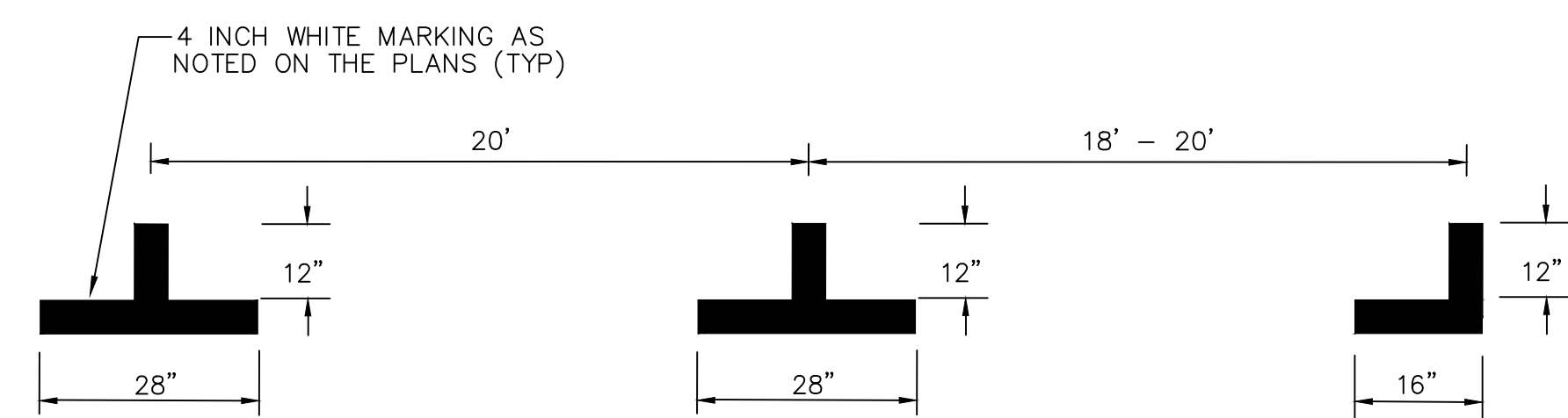
**BIKE SYMBOL
DETAIL**



DOTTED LINE DETAIL
* NOTE FOR BROKEN LINE, USE 6' GAPS.



STOP BAR AND CROSSWALK DETAIL

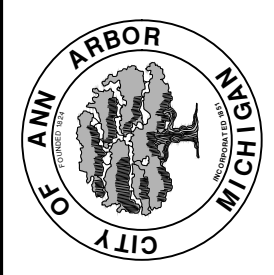


PARKING SYMBOL DETAIL



REV.	DATE	DESCRIPTION	DRAWN	CHECKED
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00	03/05/2020	BID SET	GS:CE	DAD

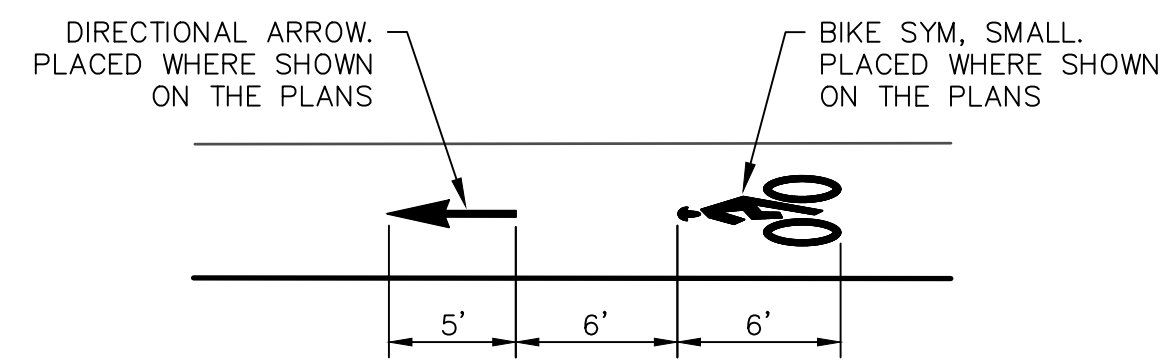
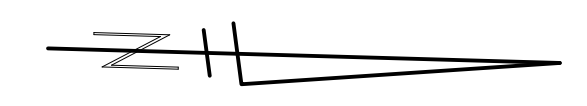
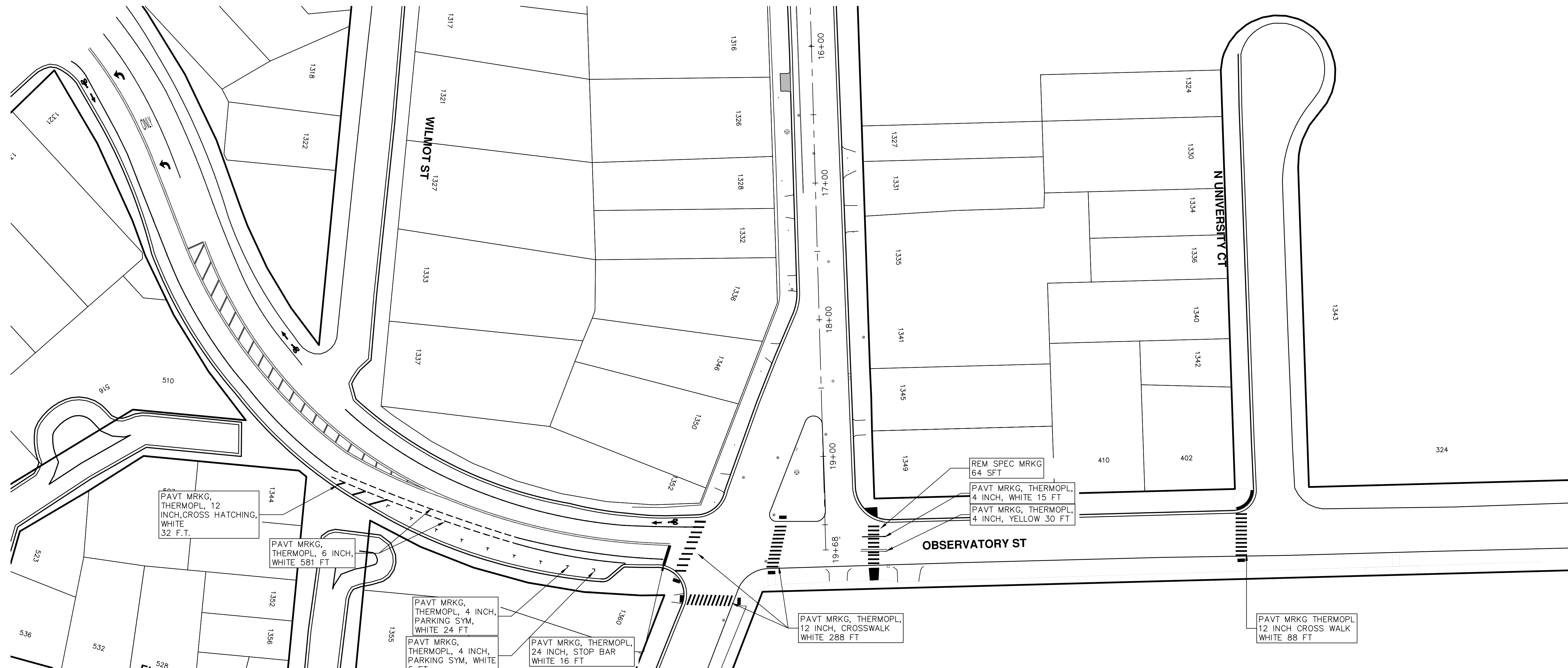
CITY OF ANN ARBOR
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ANN ARBOR, MI 48107-8647
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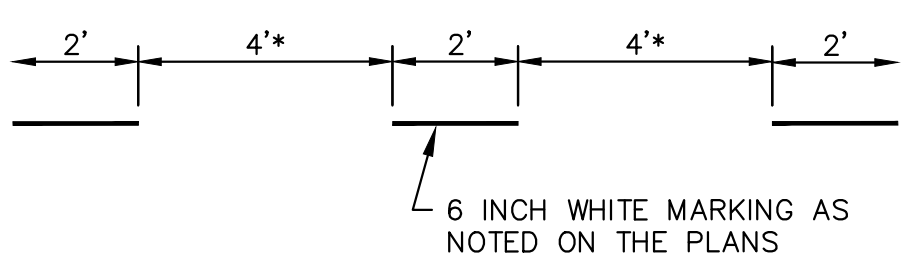
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
STREET RESURFACING PROJECT - 2020
GEDDES AVENUE
STA. 10+00 - STA. 19+68 PAVT MRKG

SCALE PLAN: 1"=40'
DRAWING No. 2020-004-21

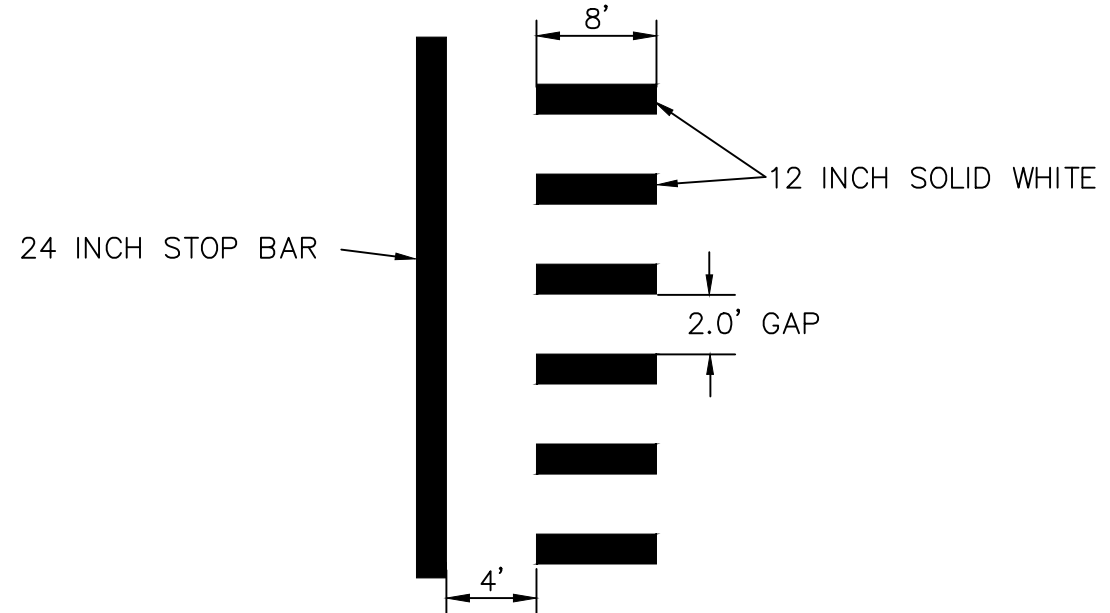
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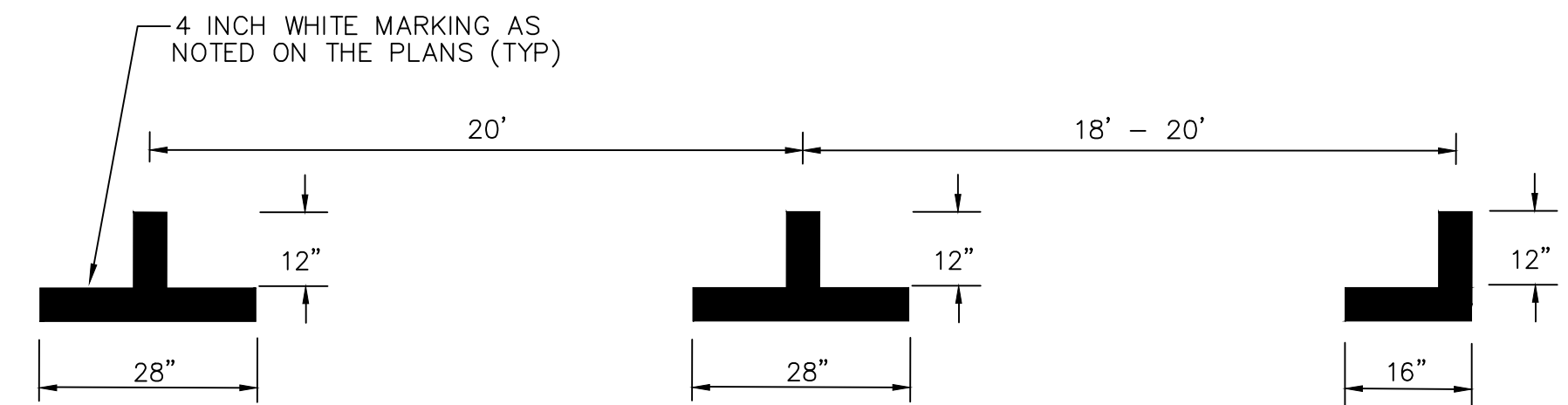
**BIKE SYMBOL
DETAIL**



DOTTED LINE DETAIL
* NOTE FOR BROKEN LINE, USE 6' GAPS.



STOP BAR AND CROSSWALK DETAIL



PARKING SYMBOL DETAIL

811
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REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET
		DRAWN
		CHECKED

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

STREET RESURFACING PROJECT - 2020

GEDDES AVENUE
STA. 15+50 - STA. 20+50 PAVT MRKG

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

SCALE PLAN: Custom

DRAWING No. 2020-004-22

SHEET No.

22 OF 93



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: GRANGER AVENUE

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AS DIRECTED BY THE ENGINEER, AND UTILIZING PART WIDTH TWO (2) PHASE CONSTRUCTION. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ACTIVITIES LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- WITHIN THE ENTIRETY OF THE PROJECT CONSTRUCTION AREA AND AS DIRECTED BY THE ENGINEER INSTALL NO PARKING SIGNS. ONCE THESE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.

PHASE I (NORTH SIDE)

- TEMPORARY LOWER ALL STRUCTURE COVERS LOCATED WITHIN THE EXISTING PAVEMENT, INCLUDING GATE AND MONUMENT BOXES AS REQUIRED.
- REMOVE EXISTING HMA SURFACE AND TEMPORARY CONCRETE PAVEMENT (FULL DEPTH) BY COLD MILLING OR OTHER MEANS.
- REMOVE EXISTING CONCRETE BASE (FULL DEPTH) AND OTHER BASE/SUBGRADE MATERIAL TO THE DEPTH SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- CONDUCT OTHER REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS.
- INSTALL PROPOSED DRAINAGE STRUCTURES, STORM SEWER, AND UNDERDRAIN AS REQUIRED AND DIRECTED BY THE ENGINEER.
- PROOF ROLL THE SUBGRADE, PERFORM UNDERCUTS AS DIRECTED BY THE ENGINEER, AND PREPARE SUBGRADE FOR PLACEMENT OF BASE COARSE MATERIAL.
- PLACE, GRADE AND COMPACT AGGREGATE BASE MATERIAL AS SHOWN ON THE PLANS AND DIRECTED BY THE ENGINEER.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION AS REQUIRED.
- PREPARE AGGREGATE BASE GRADE AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.

PHASE II (SOUTH SIDE)

- REPEAT ITEMS 2 AND 3 IN THE ORDER SHOWN ABOVE.
- REMOVE ANY EXISTING CONCRETE BASE (FULL DEPTH) AND OTHER BASE MATERIAL ENCOUNTERED OUTSIDE THE DTE ENERGY ELECTRICAL DUCT BANK LIMITS TO THE DEPTH SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- REPEAT ITEMS 5 THRU 9 IN THE ORDER SHOWN ABOVE, AND PERFORM THE FOLLOWING ITEM WITHIN THE ENTIRETY OF THE CONSTRUCTION AREA.
- ADJUST ALL STRUCTURE COVERS, INCLUDING GATE AND MONUMENT BOXES, TO THEIR FINISH ELEVATIONS AS REQUIRED.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (TOP COURSE) AS REQUIRED.
- CLEAN PAVEMENT AND PLACE OTHER HMA APPROACHES (DRIVEWAYS) AS REQUIRED.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING CLEANING OF STRUCTURES, FINAL RESTORATION AND ALL OTHER NECESSARY CLEAN UP.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE ALL SESC MEASURES, NO PARKING SIGNS, MISS DIG MARKERS, AND TEMPORARY TRAFFIC CONTROL DEVICES.

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
45.0	*D3-1	Street Name Sign	4.000	180.000
10.0	W20-1	Road Work Ahead Sign	9.000	90.000
6.0	W20-2	Detour Ahead	9.000	54.000
1.0	W20-3	Road Closed Ahead	9.000	9.000
2.0	M4-8a	Detour Ends	3.000	6.000
10.0	M4-9S	Arrow Detour	5.000	50.000
5.0	M4-9R	Right Arrow Detour	5.000	25.000
6.0	M4-9L	Left Arrow Detour	5.000	30.000
1.0	M4-10R	Detour / Right	6.000	6.000
1.0	M4-10L	Detour / Left	6.000	6.000
7.0	R11-3a	Road Closed Local Traffic Only	12.500	88.000
			TOTAL	544.000

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	16.000
2030015	Sewer, Rem, Less than 24 inch	Ft	160.000
2040050	Pavt, Rem	Syd	4,539.910
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	3,861.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	1,371.930
2057011	_Grading, Driveway Approach	Syd	619.390
2057011	_Grading, Sidewalk	Syd	554.060
2057011	_Grading, Sidewalk Ramp	Syd	138.480
2057011	_Machine Grading, Special	Syd	6,767.000
2057021	_Undercutting, Type IIA	Cyd	380.147
2057021	_Undercutting, Type IIC	Cyd	475.270
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	25.000
3027011	_Aggregate Base, 12 inch, Modified	Syd	3,697.930
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	265.000
4030200	Dr Structure, 24 inch dia	Ea	16.000
4030210	Dr Structure, 48 inch dia	Ea	3.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	29.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	16.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	28.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	41.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	380.000
5010002	Cold Milling HMA Surface	Syd	5,067.340
5010005	HMA Surface, Rem	Syd	858.320
5010703	HMA, LVSP	Ton	1,436.770
5017031	_HMA, Wedging, 36A	Ton	#REF!
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	619.390
8027001	_Curb and Gutter, Conc, Barrier or Mountable, Slip Form	Ft	2,781.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	960.000
8030030	Curb Ramp Opening, Conc	Ft	120.000
8037001	_Detectable Warning Surface, Modified	Ft	95.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	1,246.330
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	2,808.180
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	2,178.350
8110049	Pavt Mrkg, Ovlly Cold Plastic, Direction Arrow Sym, Bike	Ea	10.000
8110058	Pavt Mrkg, Ovlly Cold Plastic, Bike, Small Sym	Ea	10.000
8110196	Pavt Mrkg, Thermopl, 4 inch, Yellow	Ft	200.000
8110198	Pavt Mrkg, Thermopl, 6 inch, White	Ft	2,797.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	984.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	98.000
8117001	_Pavt Mrkg, Thermopl, 4 inch, Parking Sym, White	Ft	172.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	7.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	7.000
8120250	Plastic Drum, High Intensity, Furn	Ea	232.000
8120251	Plastic Drum, High Intensity, Oper	Ea	232.000
8120330	Sign, Portable, Changeable Message, Furn	Ea	2.000
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	364.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	364.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	180.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	180.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	10.000
8127050	_Temporary No Parking Sign	Ea	65.000
8167011	_Slope Restoration	Syd	1,544.400
8217050	_Monument Box, Adj	Ea	9.000
8230431	Gate Box, Adj, Case 1	Ea	5.000

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 THIS 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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

CONSTRUCTION KEY	
KEY	ASSOCIATED PAY ITEM(S)
AA	• _Dr Structure, Adj, Case 1, Modified • _Dr Structure, Adj, Case 2, Modified • _Dr Structure, Temp Lowering, Modified
AB	• _Dr Structure, Temp Lowering, Modified • _Gate Box, Adj, Case 1 • _Gate Box, Adj, Case 2 • _Monument Box Adjust
ADST	• _Dr Structure, Adj, Add Depth, Modified
AK	• _Dr Structure, Adj, Case 1, Modified
C4	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • _Sidewalk, Conc, 4 inch, Modified
C4HE	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • Cement • _Sidewalk, Conc, 4 inch, Modified
C6	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • _Grading, Sidewalk Ramp • _Detectable Warning Surface, Modified • _Sidewalk Ramp, Conc, 6 inch, Modified • _Sidewalk, Conc, 6 inch, Modified
C8	• _Grading, Driveway Approach • _Driveway, Nonreinf Conc, 8 inch, Modified
C HE	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Driveway Approach • _Grading, Sidewalk • _Grading, Sidewalk Ramp • Cement • _Driveway, Nonreinf Conc, 6 inch, Modified • _Driveway, Nonreinf Conc, 8 inch, Modified • _Detectable Warning Surface, Modified • _Sidewalk Ramp, Conc, 6 inch, Modified • _Sidewalk, Conc, 6 inch, Modified
C/G	• _Curb, Gutter, and Curb and Gutter, Any Type, Rem • _Curb and Gutter, Conc
C/GHE	• _Curb, Gutter, and Curb and Gutter, Any Type, Rem • Cement • _Driveway Opening, Conc, Det M, Modified
CP	• _Grading, Sidewalk • _Sidewalk, Conc, 4 inch, Modified
CR	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem
DS	• Dr Structure, Rem • Sewer, Rem, Less than 24 inch • Dr Structure, 24 inch dia
DSDI	• Dr Structure, Rem • Sewer, Rem, Less than 24 inch • _Dr Structure, Double Inlet
PT	• _Dr Structure, Point
RRA	• Dr Structure Cover, Type B • _Dr Structure Cover, Type B, Special • _Dr Structure, Adj, Case 1, Modified • _Dr Structure, Temp Lowering, Modified
RRK	• Dr Structure Cover, Type K • _Dr Structure, Adj, Case 1, Modified
RS	• _Dr Structure, Reconstruct
TYPE II	• Plastic Drum, High Intensity, Lighted, Furn • Plastic Drum, High Intensity, Lighted, Oper
TYPE III	• Barricade, Type III, High Intensity, Double Sided, Lighted, Furn • Barricade, Type III, High Intensity, Double Sided, Lighted, Oper

Know what's below.
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DAD	DAD	CHECKED
OS/CE	OS/CE	DRAWN
03/05/2020	03/05/2020	DATE
01	00	REV.
DESCRIPTION		

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
P.O. BOX 8647
ANN ARBOR MI 48107-8647
www.a3gov.org

ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
GRANGER AVE
SUBSET COVER SHEET

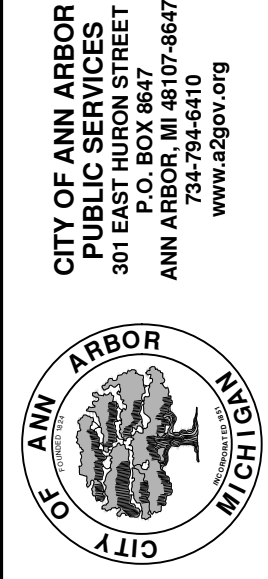
SCALE PLAN: ###

DRAWING No. 2020-004-23

SHEET No. 23 OF 93



TRAFFIC CONTROL SIGN		
TAG	SIGN	NUM.
1		D3-1 M4-9S 30x24
2		D3-1 M4-9R 30x24
3		D3-1 M4-9L 30x24
4		D3-1 M4-8a 24x18
5		W20-2 36"x36" D3-1
6		W20-3 36"x36" D3-1
7		W20-1 36"x36" D3-1



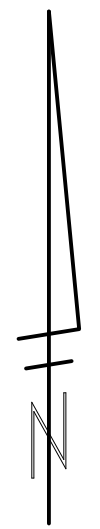
ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
GRANGER AVE
DETOUR PLAN

SCALE PLAN: Custom
 DRAWING No. 2020-004-24

REV.	DATE	DESCRIPTION
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00	03/05/2020	BID SET

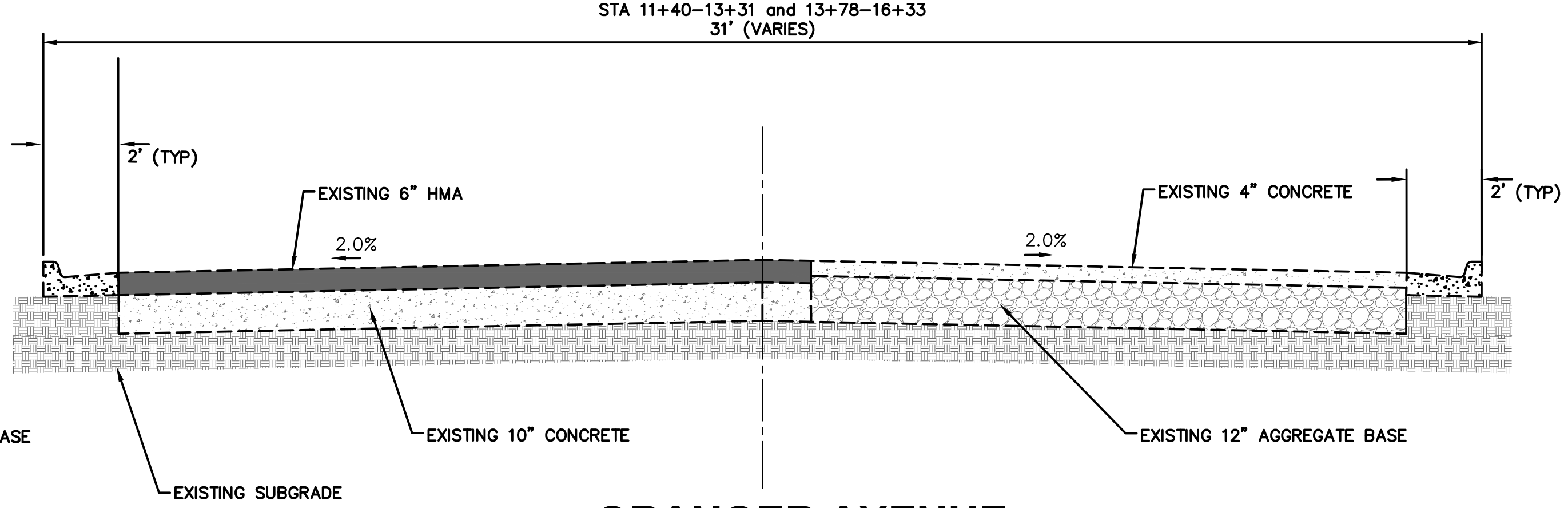
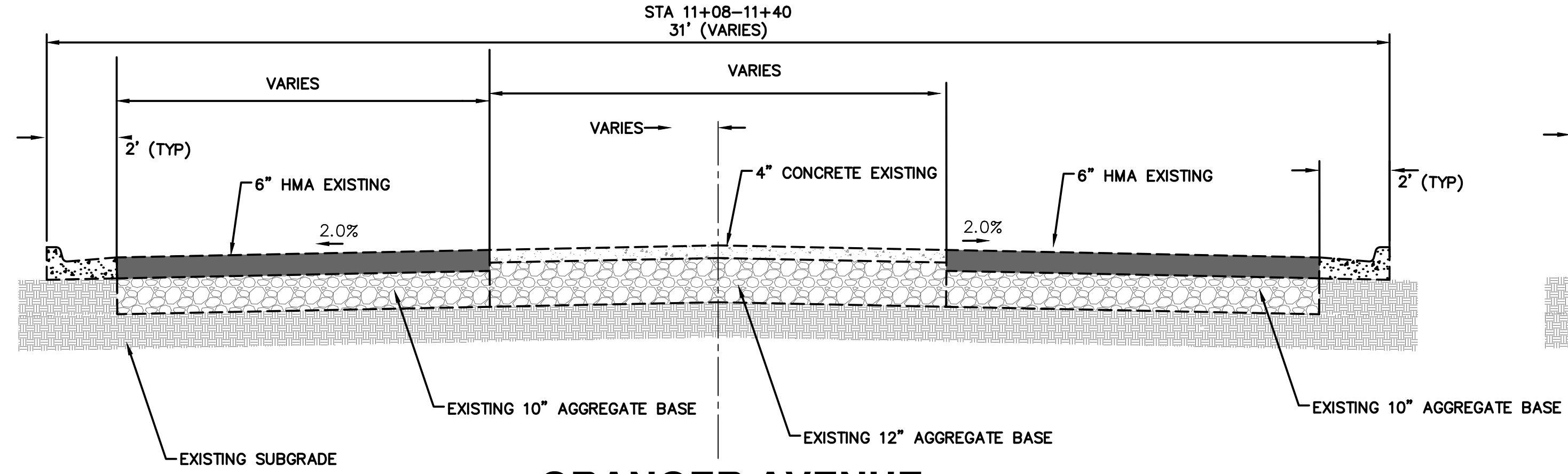
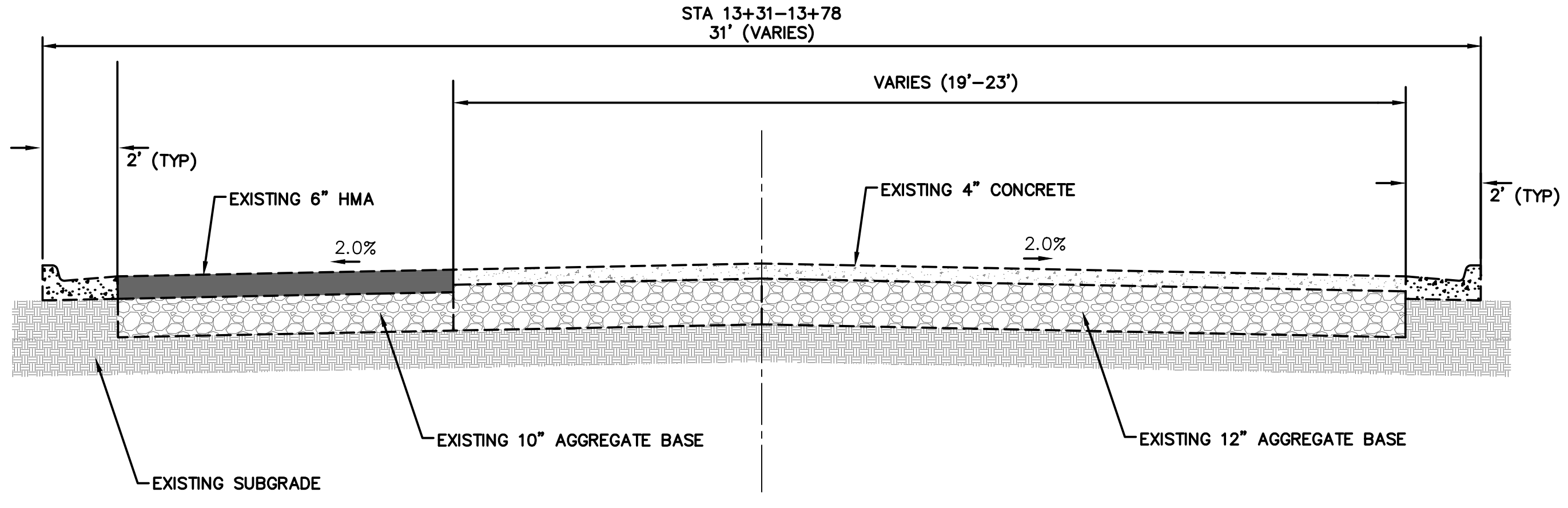
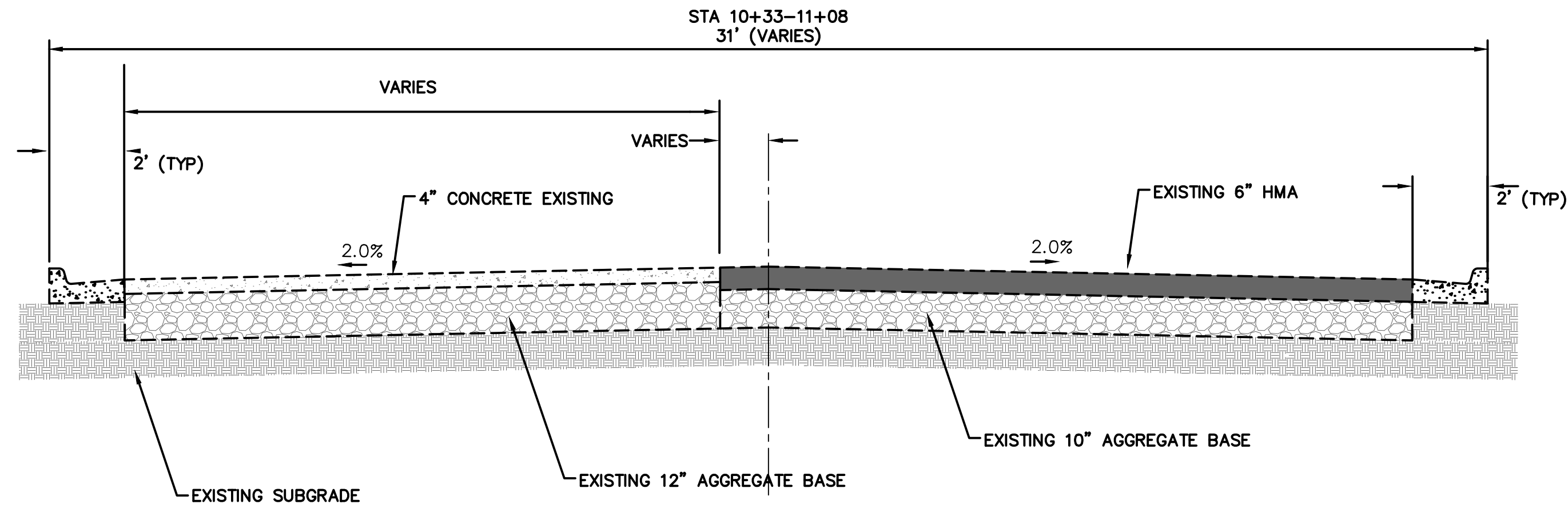
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 PUBLIC SERVICES
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 ANN ARBOR, MI 48106-6647
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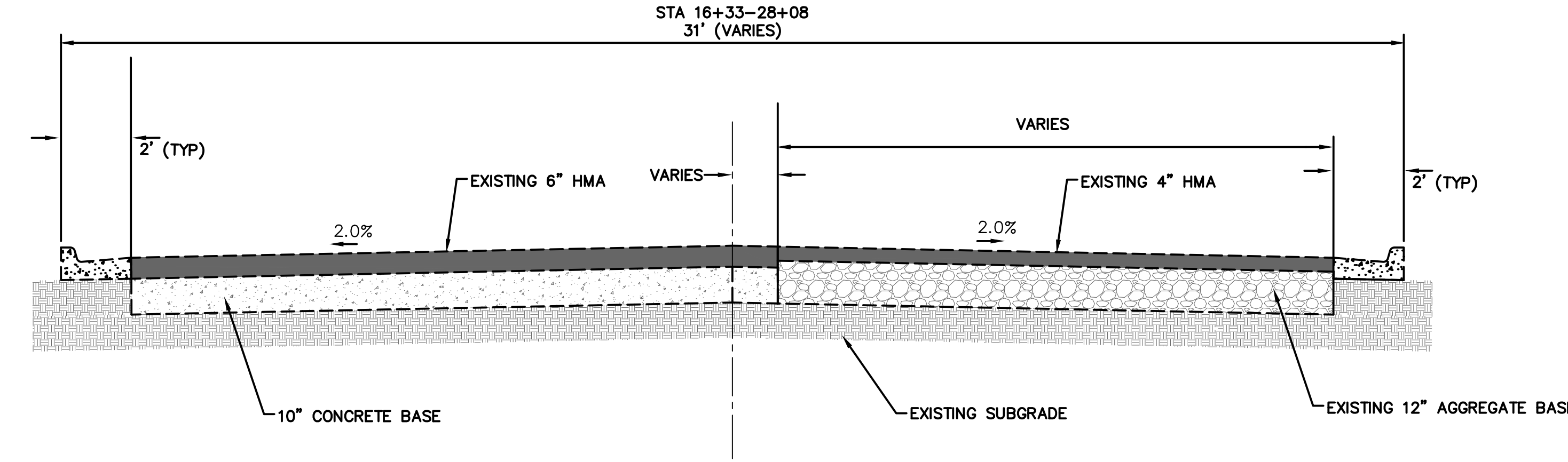


TRAFFIC CONTROL SIGN		
TAG	SIGN	NUM.
①		D3-1 TYPE III BARRICADE
②		R11-4 60x30
③		W20-1 36"x36" GRANGER AVE D3-1
④		M4-10R 48"x18"
⑤		M4-10L 48"x18"

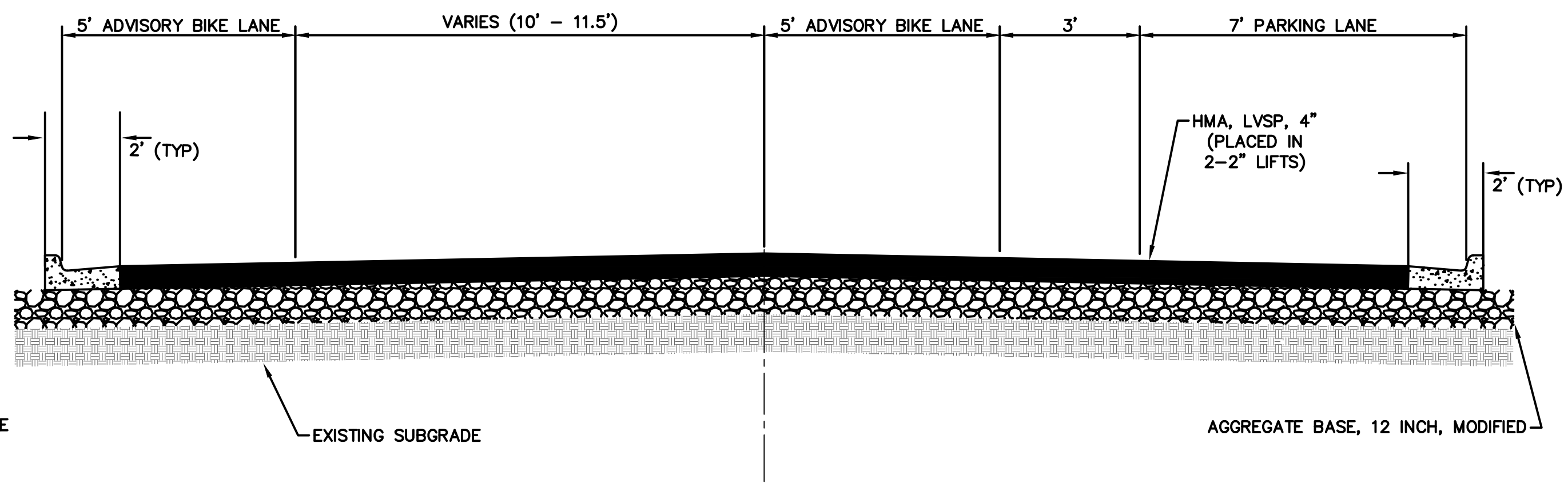
GRANGER AVENUE EXISTING TYPICAL SECTION 10+33-16+33



GRANGER AVENUE EXISTING TYPICAL SECTION 16+33-31+91



GRANGER AVENUE PROPOSED TYPICAL SECTION 10+33-28+08



T:\2020004\Plan Production\Major Streets\2020004 - Granger Avenue.dwg Dwg Created: 25-Mar-20 - 02 standard bw.stb - Plot Date: 25-Mar-20



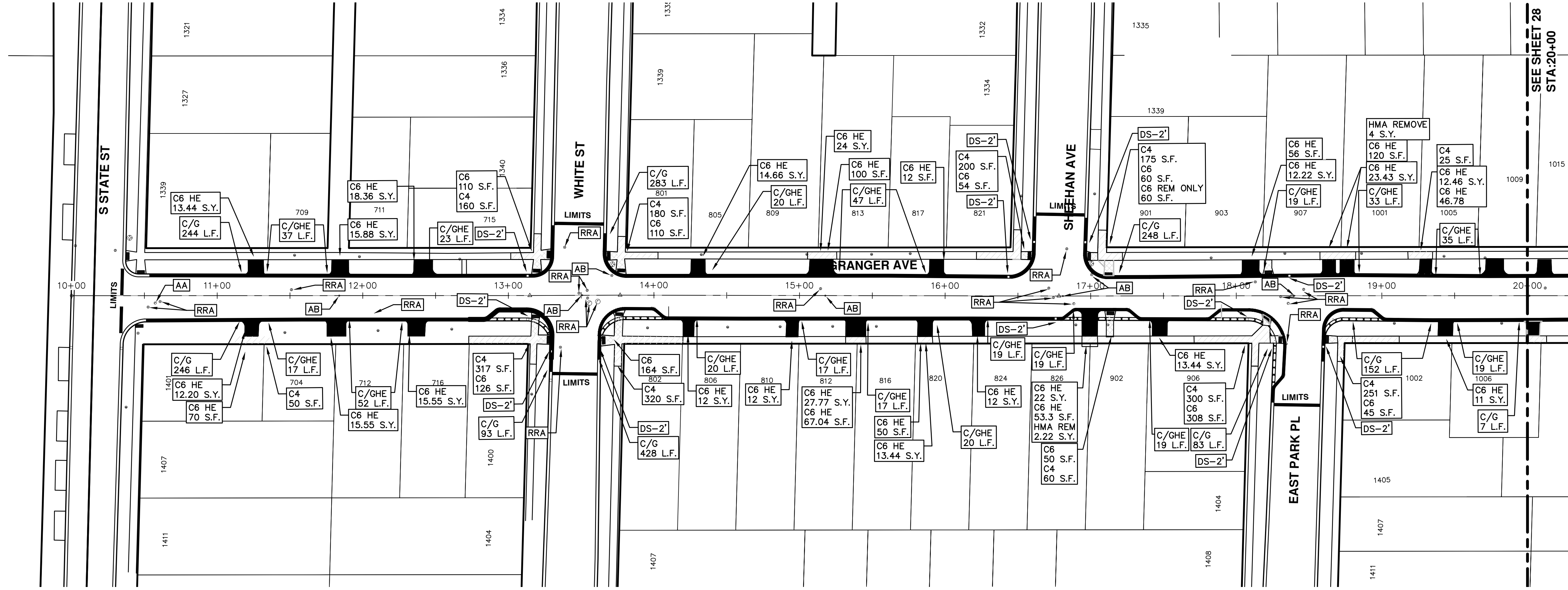
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					REV.

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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
GRANGER AVE
TYPICAL CROSS SECTION

SCALE PLAN: ###
DRAWING No. 2020-004-26



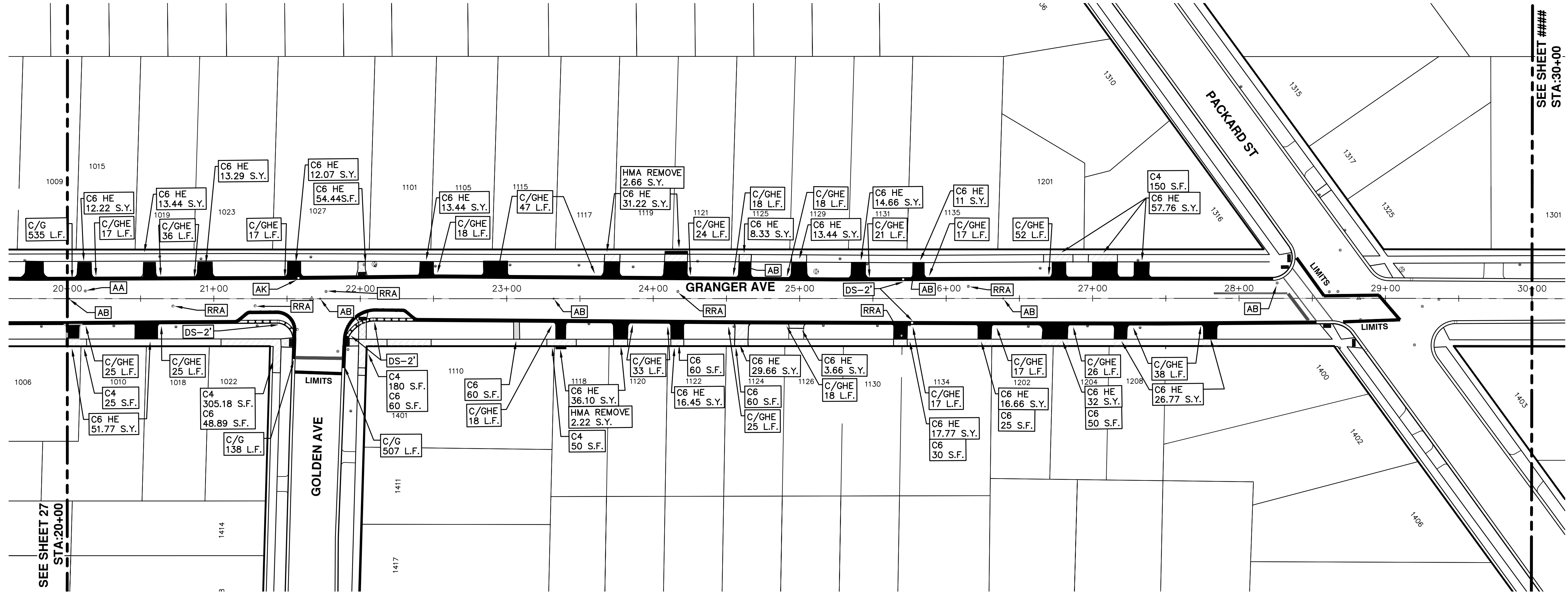
SEE SHEET 28
STA:20+00



REV.	DATE	DESCRIPTION
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01	03/25/2020	ADDENDUM 2

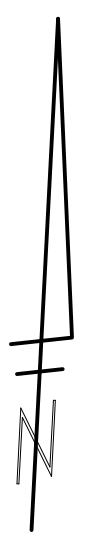
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DAD	DAD

T:\2020004\Plan Production\Major Streets\2020004 - Granger Avenue.dwg Dwg Created: 25-Mar-20 - _a2 standard bw.stb - Plot Date: 25-Mar-20



SEE SHEET ###
STA:30+00

SEE SHEET 27
STA:20+00

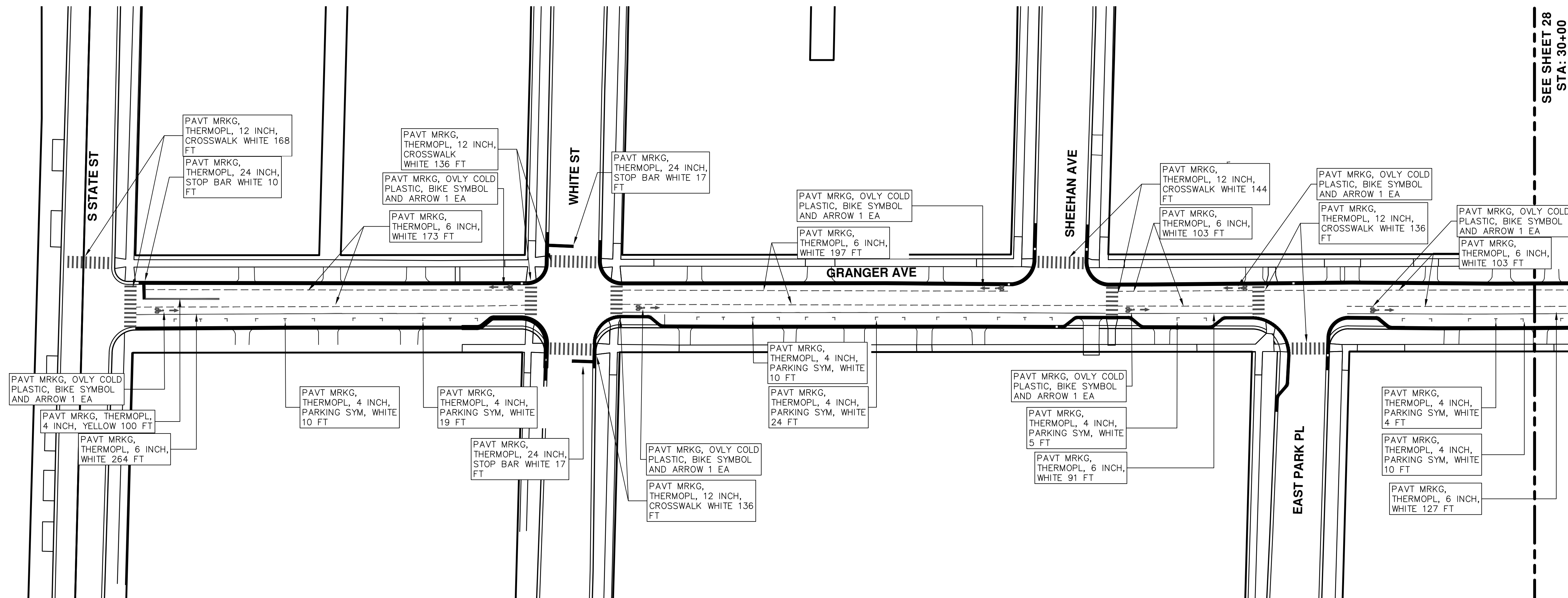


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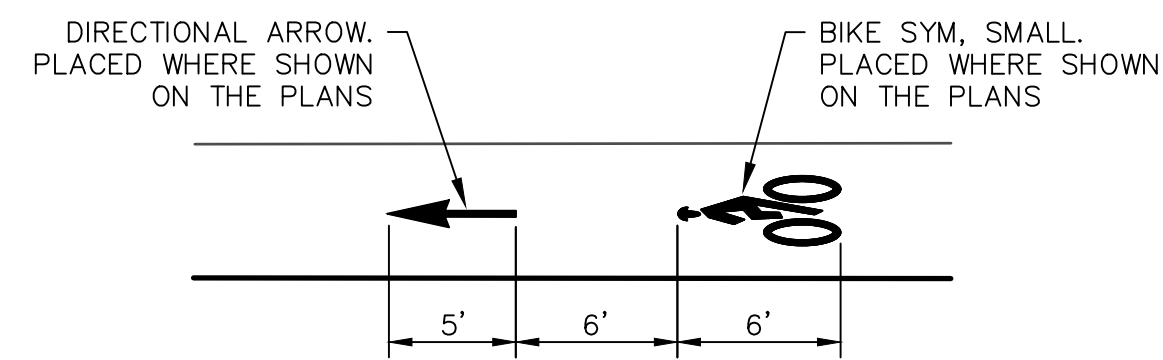
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00	03/05/2020	BID SET
		DRAWN
		CHECKED



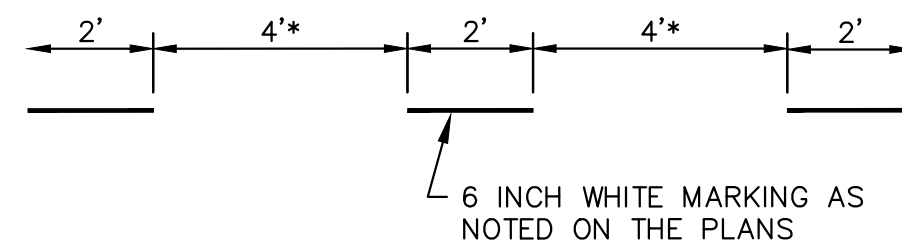
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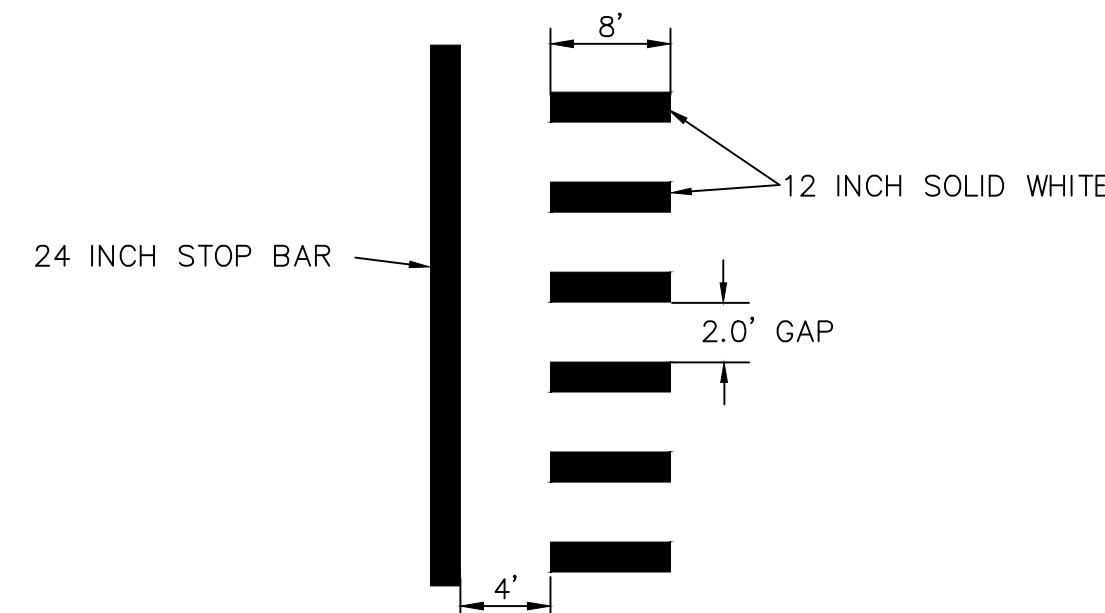
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STA: 30+00



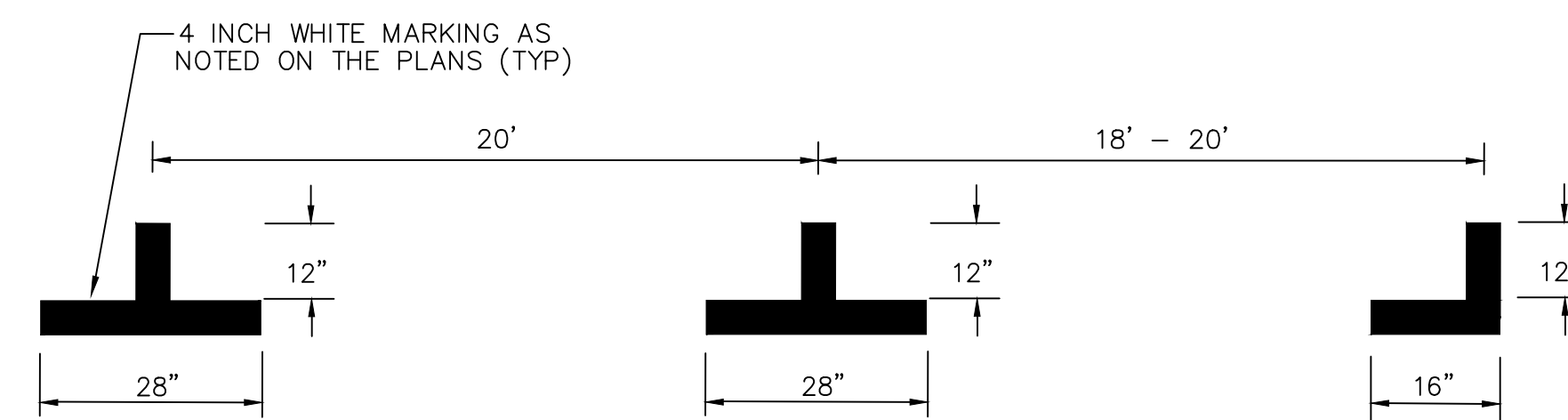
**BIKE SYMBOL
DETAIL**



DOTTED LINE DETAIL
* NOTE FOR BROKEN LINE, USE 6' GAPS.



STOP BAR AND CROSSWALK DETAIL

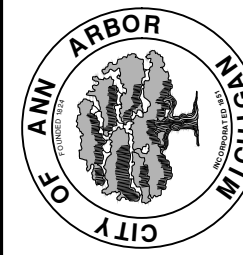


PARKING SYMBOL DETAIL



REV.	DESCRIPTION	DATE	BY	CHECKED
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00	BID SET	03/05/2020	GS:CE	DAD

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STREET RESURFACING PROJECT - 2020
GRANGER AVE
STA. 10+00 - STA. 20+00 PAVT MRKKG

SCALE PLAN: 1"=40'
DRAWING No. 2020-004-29

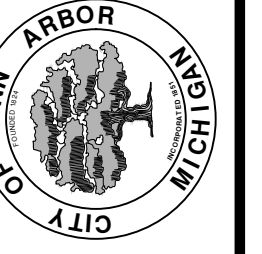
T:\2020004\Plan Production\Major Streets\2020004 - Granger Avenue.dwg Dwg Created: 25-Mar-20 - a2 standard bw.stb - Plot Date: 25-Mar-20



Know what's below.
Call Before you dig.

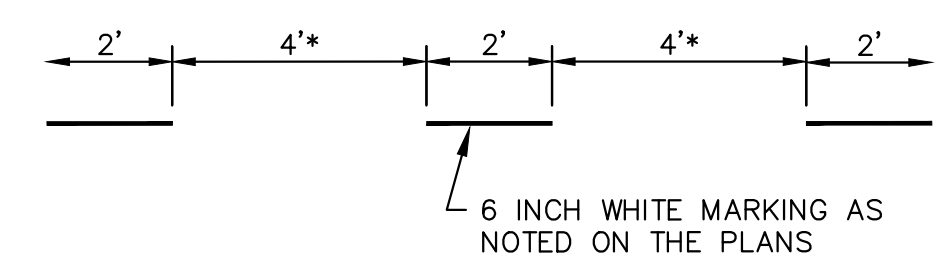
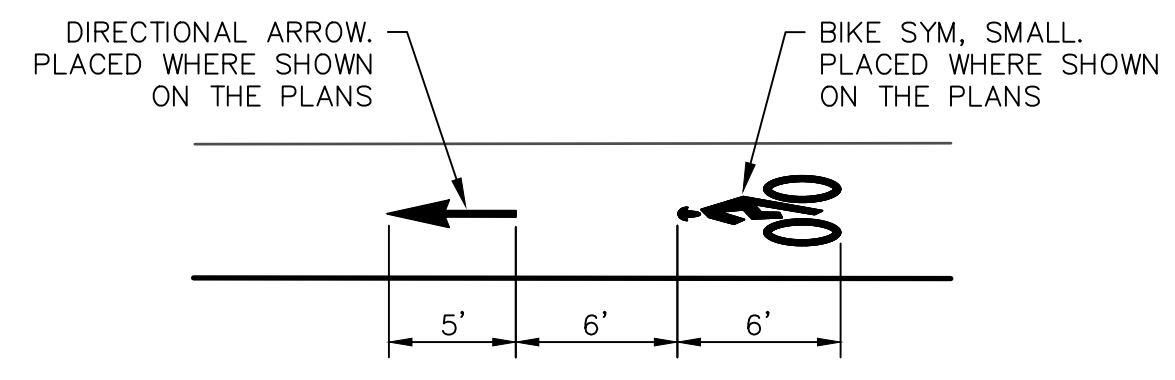
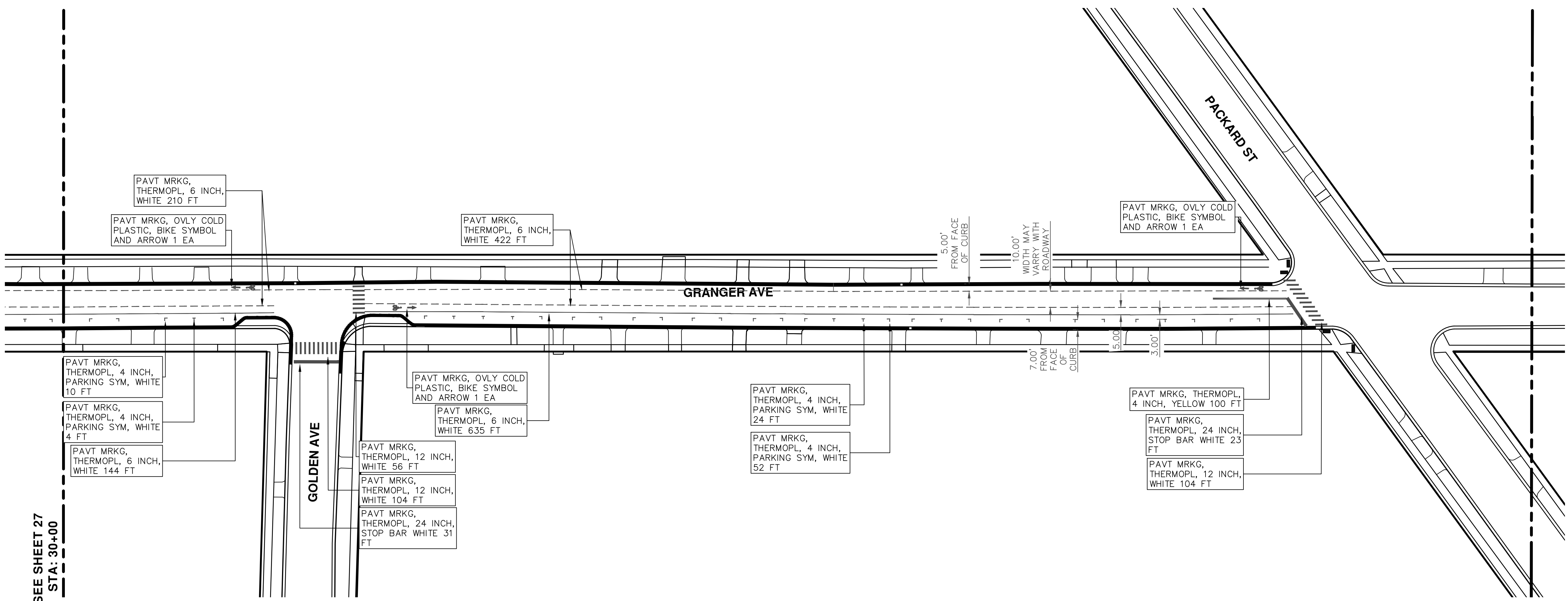
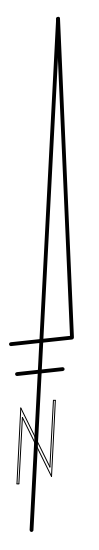
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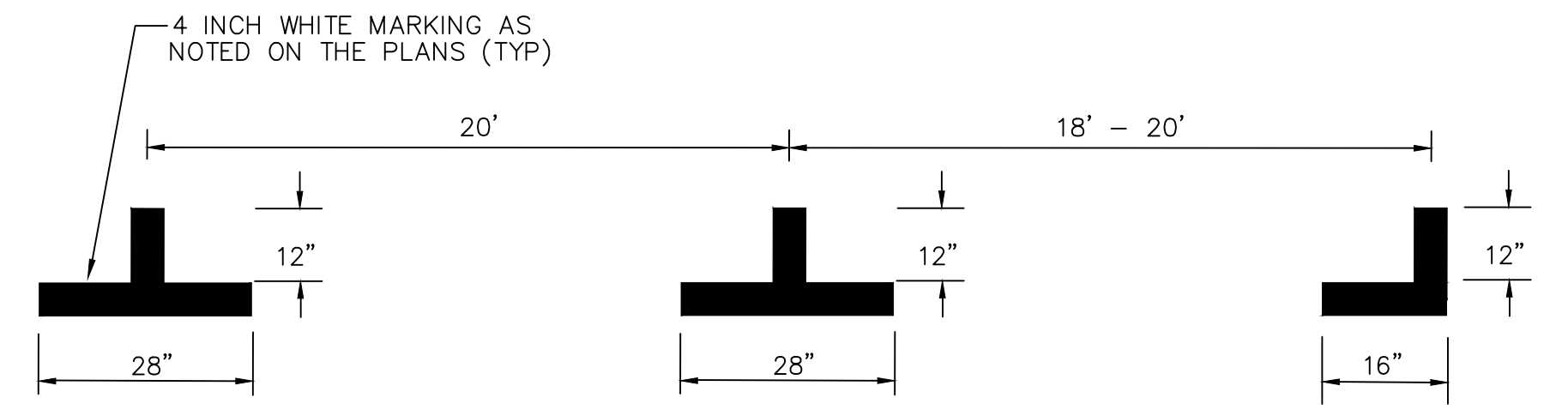
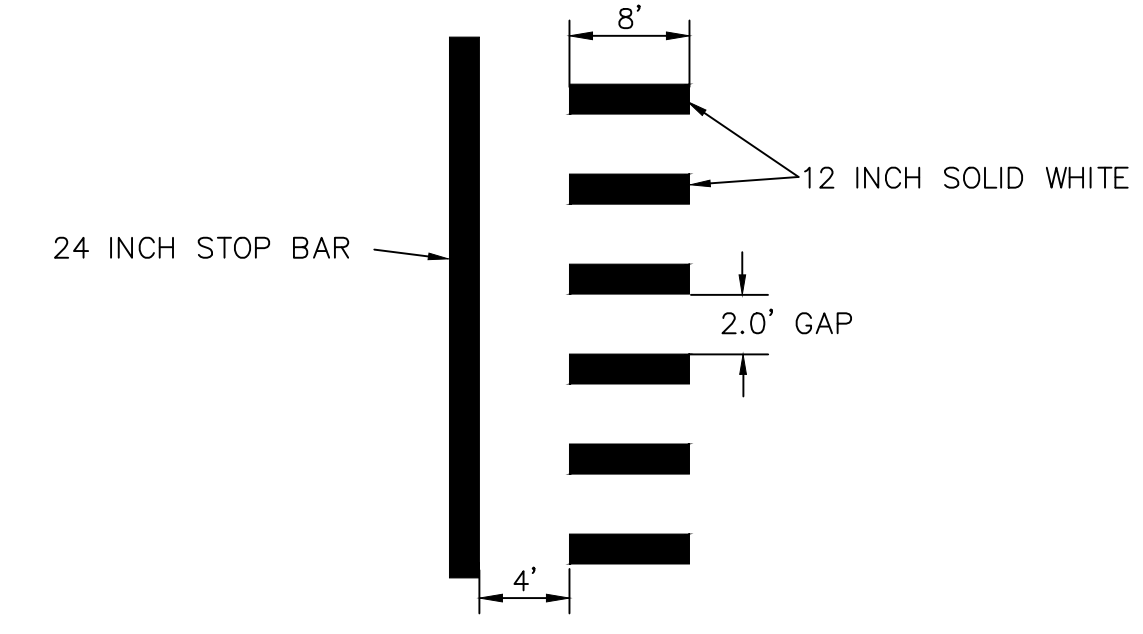


ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
GRANGER AVE
STA. 20+00 - STA. 30+00 PAVT MRKG

ENGINEERING - PUBLIC SERVICES
SCALE PLAN: 1"=40'
DRAWING No. 2020-004-30



* NOTE FOR BROKEN LINE, USE 6' GAPS.





CITY OF ANN ARBOR ENGINEERING PROJECT LOCATION: EAST MADISON STREET

ITB No. 4620 FILE No. 2020-004

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 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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

CONSTRUCTION KEY	
KEY	ASSOCIATED PAY ITEM(S)
AA	• _Dr Structure, Adj, Case 1, Modified • _Dr Structure, Adj, Case 2, Modified • _Dr Structure, Temp Lowering, Modified
AB	• _Dr Structure, Temp Lowering, Modified • _Gate Box, Adj, Case 1 • _Gate Box, Adj, Case 2 • _Monument Box Adjust
ADST	• _Dr Structure, Adj, Add Depth, Modified
AK	• _Dr Structure, Adj, Case 1, Modified
C4	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • _Sidewalk, Conc, 4 inch, Modified
C4HE	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • Cement • _Sidewalk, Conc, 4 inch, Modified
C6	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • _Grading, Sidewalk Ramp • _Detectable Warning Surface, Modified • _Sidewalk Ramp, Conc, 6 inch, Modified • _Sidewalk, Conc, 6 inch, Modified
C8	• _Grading, Driveway Approach • _Driveway, Nonreinf Conc, 8 inch, Modified
C HE	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Driveway Approach • _Grading, Sidewalk • _Grading, Sidewalk Ramp • Cement • _Driveway, Nonreinf Conc, 6 inch, Modified • _Driveway, Nonreinf Conc, 8 inch, Modified • _Detectable Warning Surface, Modified • _Sidewalk Ramp, Conc, 6 inch, Modified • _Sidewalk, Conc, 6 inch, Modified
C/G	• _Curb, Gutter, and Curb and Gutter, Any Type, Rem • _Curb and Gutter, Conc
C/GHE	• _Curb, Gutter, and Curb and Gutter, Any Type, Rem • Cement • _Driveway Opening, Conc, Det M, Modified
CP	• _Grading, Sidewalk • _Sidewalk, Conc, 4 inch, Modified
CR	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem
DS	• Dr Structure, Rem • Sewer, Rem, Less than 24 inch • Dr Structure, 24 inch dia
DSDI	• Dr Structure, Rem • Sewer, Rem, Less than 24 inch • _Dr Structure, Double Inlet
PT	• _Dr Structure, Point
RRA	• Dr Structure Cover, Type B • _Dr Structure Cover, Type B, Special • _Dr Structure, Adj, Case 1, Modified • _Dr Structure, Temp Lowering, Modified
RRK	• Dr Structure Cover, Type K • _Dr Structure, Adj, Case 1, Modified
RS	• _Dr Structure, Reconstruct
TYPE II	• Plastic Drum, High Intensity, Lighted, Furn • Plastic Drum, High Intensity, Lighted, Oper
TYPE III	• Barricade, Type III, High Intensity, Double Sided, Lighted, Furn • Barricade, Type III, High Intensity, Double Sided, Lighted, Oper

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ACTIVITIES LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- IMPLEMENT MAINTENANCE OF TRAFFIC (M.O.T.) PLAN, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO RAILROAD TRACKS, PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PREPARE GRADE AND PLACE AGGREGATE BASE IN RAILROAD TRACK REMOVAL AREA AS DIRECTED BY THE ENGINEER.
- PLACE BASE AND/OR LEVELING COURSE HMA MIX (4E3) TO PATCH IN RAILROAD TRACK REMOVAL AREA AS DIRECTED BY THE ENGINEER.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (±2 INCHES) BY COLD MILLING IN DESIGNATED AREAS SHOWN ON THE PLANS. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (5E3).
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING CLEANING OF STRUCTURES, FINAL RESTORATION AND ALL OTHER NECESSARY CLEAN UP.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE ALL SESC MEASURES, MISS DIG MARKERS, AND TEMPORARY TRAFFIC CONTROL DEVICES.

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
29.0	*D3-1	Street Name Sign	4.000	116.000
6.0	W20-1	Road Work Ahead Sign	9.000	54.000
6.0	W20-2	Detour Ahead	9.000	54.000
6.0	W20-3	Road Closed Ahead	9.000	54.000
1.0	W20-5L	Lane Ends / Left	9.000	9.000
1.0	M4-8a	Detour Ends	3.000	3.000
6.0	M4-9S	Arrow ↑ Detour	5.000	30.000
2.0	M4-9R	Right Arrow → Detour	5.000	10.000
1.0	M4-9L	Left Arrow ← Detour	6.000	6.000
1.0	M4-9L	Left Arrow ← Detour (MOD)	5.000	5.000
1.0	M4-10R	Detour / Right	6.000	6.000
1.0	M4-10L	Detour / Left	6.000	6.000
1.0	R3-2	No Left Turn	4.000	4.000
2.0	R5-1	Do Not Enter	9.000	18.000
2.0	R11-2	Road Closed	10.000	20.000
2.0	R11-4	Road Closed To Thru Traffic	12.500	25.000
			TOTAL	420.000

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2040065	Track, Rem	Ft	71.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	75.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	62.950
2057011	_Grading, Driveway Approach	Syd	25.170
2057011	_Grading, Sidewalk	Syd	23.333
2057011	_Grading, Sidewalk Ramp	Syd	31.111
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	5.000
3027031	_Aggregate Base, Modified	Ton	21.000
5010002	Cold Milling HMA Surface	Syd	338.000
5010005	HMA Surface, Rem	Syd	66.450
5010025	Hand Patching	Ton	4.000
5010051	HMA, 4E3	Ton	25.220
5010057	HMA, 5E3	Ton	42.650
6027021	_Flowable Fill	Cyd	2.083
8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	8.500
8027001	_Curb and Gutter, Conc, Barrier	Ft	25.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	50.000
8030030	Curb Ramp Opening, Conc	Ft	28.000
8037001	_Detectable Warning Surface, Modified	Ft	20.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	280.000
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	210.000
8110195	Pavt Mrkg, Thermopl, 4 inch, White	Ft	200.000
8110196	Pavt Mrkg, Thermopl, 4 inch, Yellow	Ft	1,101.000
8110213	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, Yellow	Ft	274.500
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	144.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	51.000
8110343	Rem Spec Mrkg	Sft	223.000
8117050	_Pavt Mrkg, Thermopl, Lt Turn Arrow Sym	Ea	2.000
8117050	_Pavt Mrkg, Thermopl, Railroad Sym	Ea	2.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120210	Pavt Mrkg, Longit, 6 inch or Less Wwidth, Rem	Ft	1,164.000
8120250	Plastic Drum, High Intensity, Furn	Ea	25.000
8120251	Plastic Drum, High Intensity, Oper	Ea	25.000
8120310	Sign Cover	Ea	6.000
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	304.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	304.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	116.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	116.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	4.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	1.000

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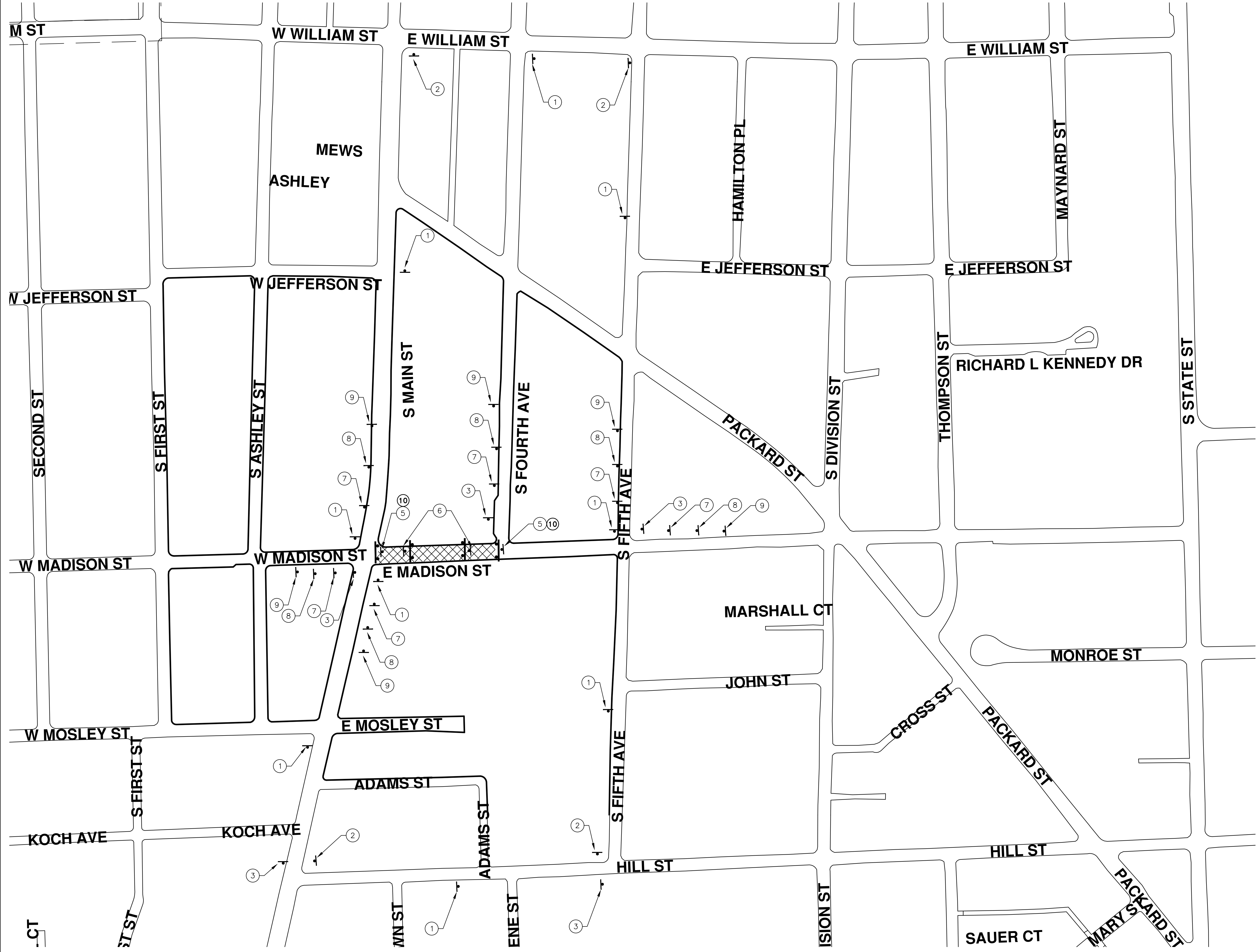
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				DATE	
				REV.	

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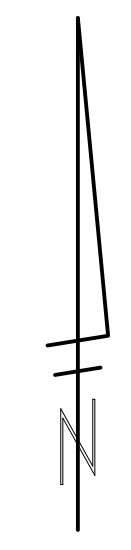
ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
EAST MADISON STREET
SUBSET COVER SHEET

SHEET No. **2020-004-31**
31 OF 93

T:\2020004\Plan Production\Major Streets\STA_10+00 - STA_13+74 PAVT MRKG.dwg Dwg Created: 25-Mar-20 - _a2 standard bw.stb - Plot Date: 25-Mar-20



TRAFFIC CONTROL SIGN		
TAG	SIGN	NUM.
①		D3-1 M4-9S 30x24
②		D3-1 M4-9R 30x24
③		D3-1 M4-9L 30x24
④		D3-1 M4-8a 24x18
⑤		R11-4 60x30
⑥		R11-2 48x30
⑦		
⑧		
⑨		
⑩		R5-1 36x36



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
 SCALE PLAN: Custom
 DRAWING No. 2020-004-32

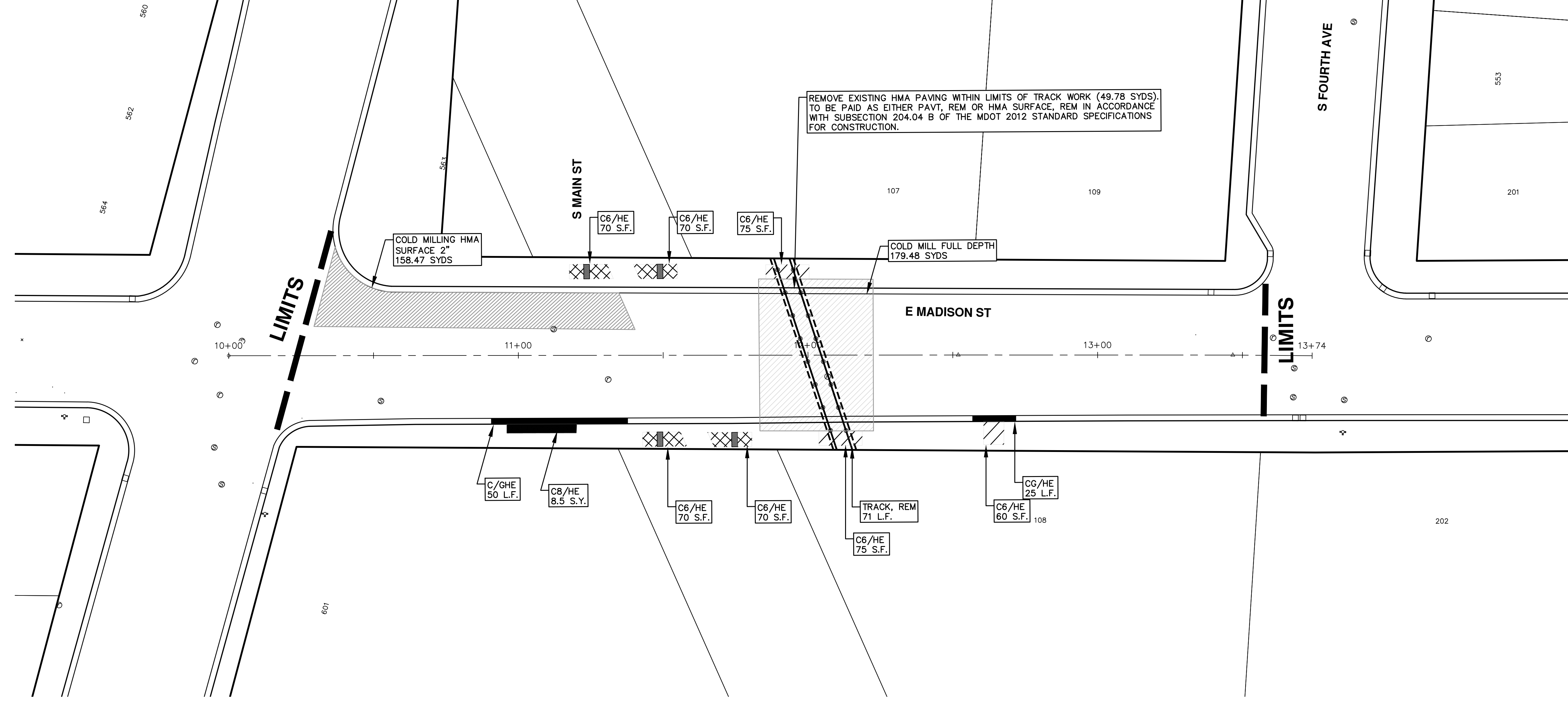
STREET RESURFACING PROJECT - 2020
 EAST MADISON STREET
 DETOUR PLAN

REV.	DATE	DRAWN	CHECKED	DESCRIPTION
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00	03/05/2020	OS:CE	DAD	BID SET

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

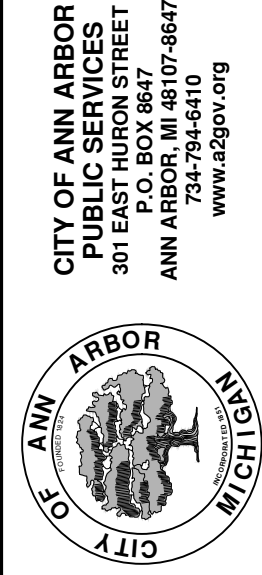
CITY OF ANN ARBOR
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 ANN ARBOR, MI 734-794-6410
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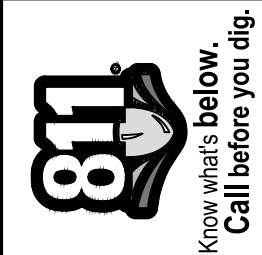
ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
 STREET RESURFACING PROJECT - 2020
 EAST MADISON STREET
 STA. 10+00 - STA. 13+74

SCALE PLAN: 1" = 20'
 DRAWING No. 2020-004-33

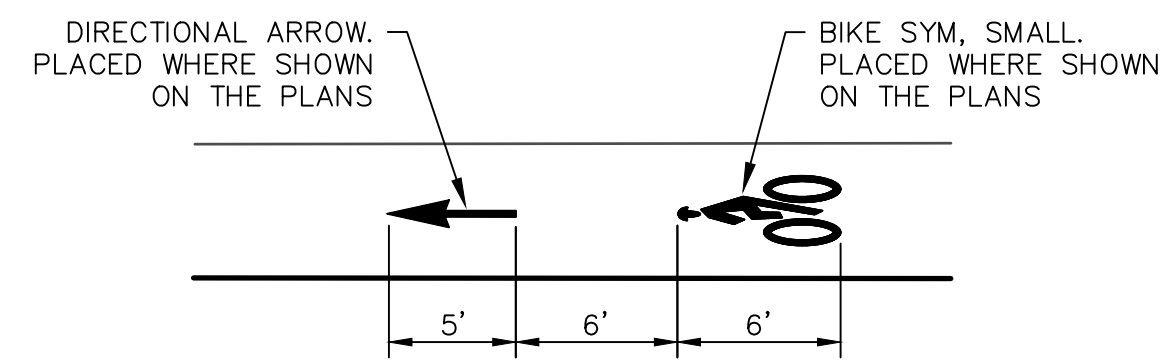
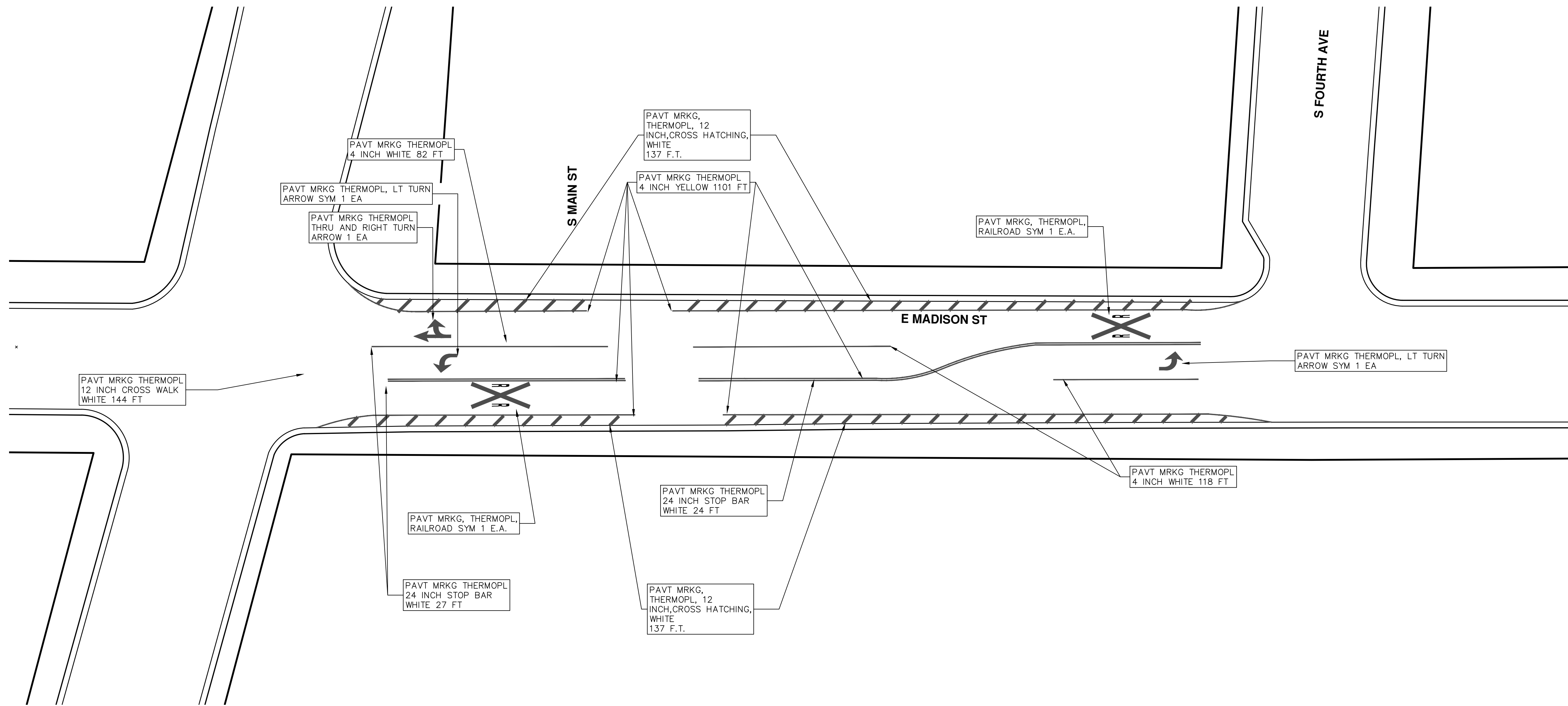


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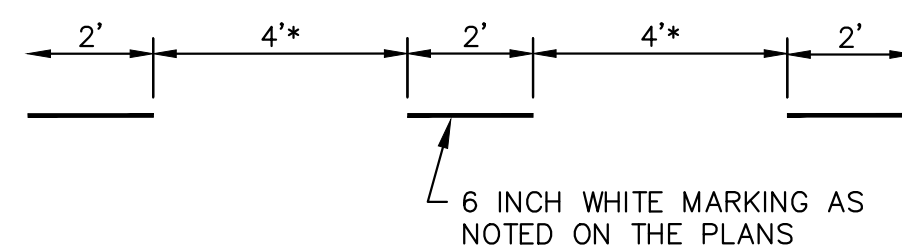
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00	BID SET	03/05/2020	GS:CE	DAD



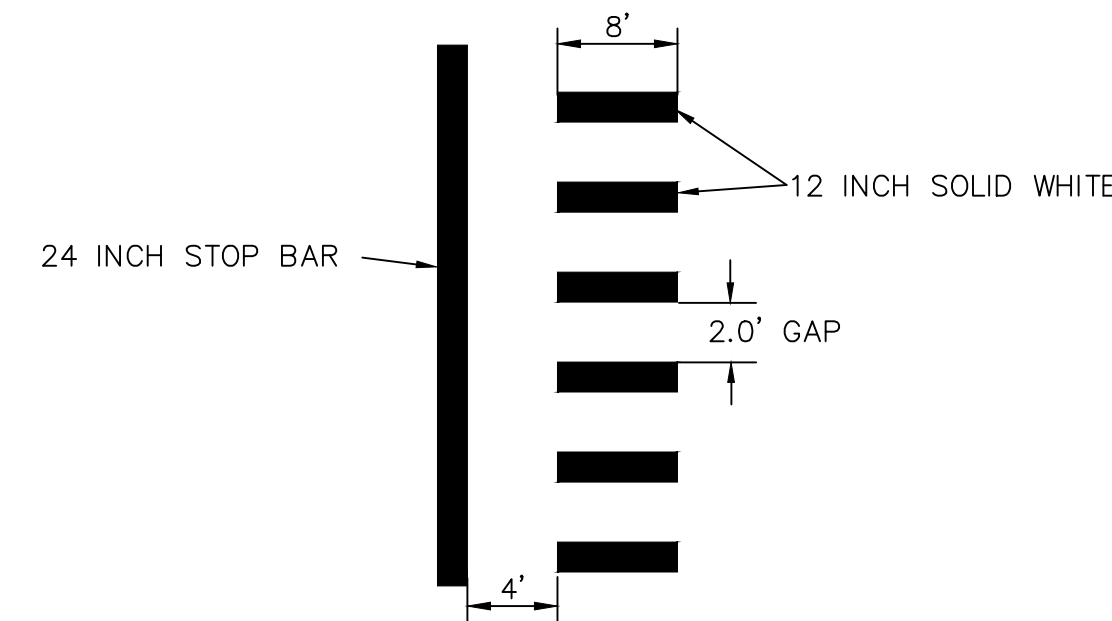
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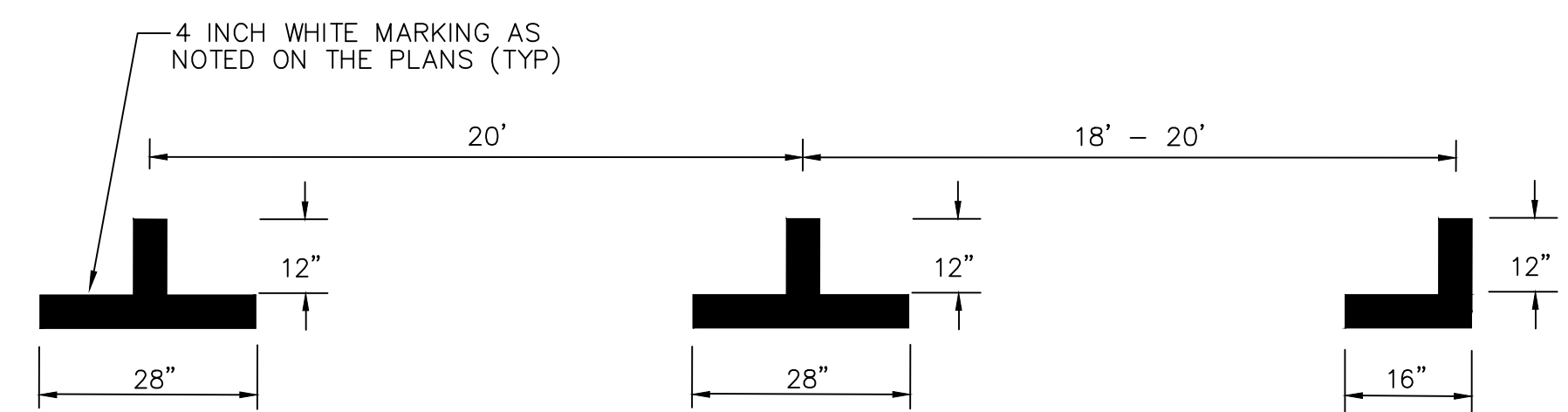
**BIKE SYMBOL
DETAIL**



DOTTED LINE DETAIL
* NOTE FOR BROKEN LINE, USE 6' GAPS.



STOP BAR AND CROSSWALK DETAIL

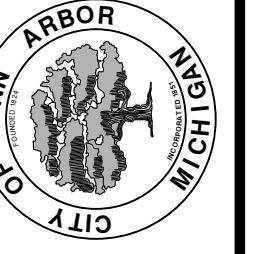


PARKING SYMBOL DETAIL



REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET
		DRAWN
		CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR MI 48106-8647
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
EAST MADISON STREET
STA. 10+00 - STA. 13+74 PAVT MRKG

SCALE PLAN: 1" = 20'
DRAWING No. 2020-004-34



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: SOUTH MAIN STREET SHARED USE HMA PATH

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION METHOD AND SEQUENCING

PERFORM WORK ON THIS SHARED USE PATH IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ACTIVITIES LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

PHASE I (EAST SIDE)

- IMPLEMENT MAINTENANCE OF TRAFFIC (M.O.T.) PLAN TO CLOSE NORTHBOUND TRAFFIC LANE AND SHIFT TRAFFIC INTO THE CENTER TURN LANE. INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
- REMOVE OVERBURDEN OF VEGETATION AND SOILS ALONG EACH SIDE OF THE PATH, AND TEMPORARY LOWER ANY/ALL UTILITY STRUCTURES WITHIN THE EXISTING PATH SURFACE.
- PERFORM CRUSHING AND SHAPING OF THE EXISTING PATH. COMPACT AND PROOF ROLL CRUSHED MATERIAL TO IDENTIFY AREAS REQUIRING BASE REPAIRS AND/OR UNDERCUTS AS DIRECTED BY THE ENGINEER.
- COMPLETE NECESSARY EARTHWORK AND GRADING TO WIDEN THE PATH AS REQUIRED TO ACHIEVE A CONSISTENT ±8 FOOT WIDTH FOR ITS ENTIRE LENGTH AND TO MATCH GRADES OF EXISTING FACILITIES ADJACENT TO THE PATH (E.I., SIDEWALKS, RAMPS, CURB CUTS, DRIVEWAYS, ETC.) ALL AS DIRECTED BY THE ENGINEER.
- UPON APPROVAL FROM THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (LVSP).
- PERFORM ALL CONCRETE REMOVAL AND REPLACEMENT WORK AS DIRECTED BY THE ENGINEER.
- ADJUST ANY/ALL UTILITY STRUCTURES WITHIN THE EXISTING PATH SURFACE TO THEIR FINISHED ELEVATIONS AS REQUIRED.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (5E1).
- COMPLETE ALL SLOPE RESTORATION WORK.
- REMOVE ALL PEDESTRIAN RELATED TEMPORARY TRAFFIC CONTROL DEVICES AND OPEN PATH FOR USE UPON APPROVAL OF THE ENGINEER.
- REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES FROM ROADWAY AND OPEN IT TO NORMAL TRAFFIC OPERATIONS.

PHASE II (WEST SIDE)

- IMPLEMENT MAINTENANCE OF TRAFFIC (M.O.T.) PLAN TO CLOSE SOUTHBOUND TRAFFIC LANE AND SHIFT TRAFFIC INTO THE CENTER TURN LANE. INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
- REPEAT ITEMS 2 THRU 10 IN THE ORDER SHOWN SHOWN ABOVE.
- CLEAN PAVEMENT AND PLACE PERMANENT PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION FOR BOTH PHASES INCLUDING ALL CLEAN UP, FINAL RESTORATION, REMOVAL OF SESC MEASURES, MISS DIG MARKERS, ETC.
- REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES FROM ROADWAY AND OPEN IT TO NORMAL TRAFFIC OPERATIONS.

NOTES

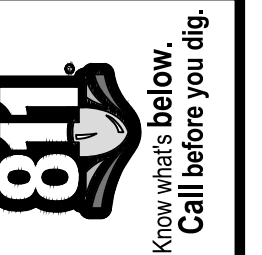
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY 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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

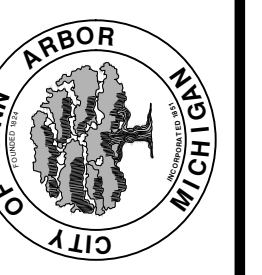
QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	98.330
2057011	_Grading, Sidewalk	Syd	16.556
2057011	_Grading, Sidewalk Ramp	Syd	98.222
2057021	_Undercutting, Type IIA	Cyd	504.750
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	27.000
2080036	Erosion Control, Silt Fence	Ft	885.000
3050010	Material, Surplus and Unsuitable, Rem, LM	Cyd	10.000
3050015	Salv Crushed Material, LM	Cyd	15.000
3057011	_Shared use Path, HMA Base Crushing and Shaping	Syd	5,766.220
5010056	HMA, 5E1	Ton	555.280
5010703	HMA, LVSP	Ton	555.280
8030030	Curb Ramp Opening, Conc	Ft	77.000
8037001	_Detectable Warning Surface, Modified	Ft	55.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	884.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	149.000
8060040	Shared use Path, HMA	Ton	1,110.560
8067011	_Shared use Path, Grading, Modified	Syd	946.500
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	6.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	6.000
8120250	Plastic Drum, High Intensity, Furn	Ea	65.000
8120251	Plastic Drum, High Intensity, Oper	Ea	65.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	99.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	99.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	24.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	24.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	10.000
8127050	_Pedestrian Type II Channelizer, Temp	Ea	10.000
8167011	_Slope Restoration	Syd	3,786.000

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
6.0	*D3-1	Street Name Sign	4.000	24.000
11.0	W20-1	Road Work Ahead Sign	9.000	99.000
TOTAL			123.000	123.000



01	ADDENDUM 2	03/25/2020	GS/CE	DAD	CHECKED
00	BID SET	03/05/2020	GS/CE	DAD	DRAWN
		DATE			
					DESCRIPTION
					REV.

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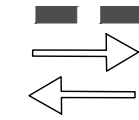
ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
SOUTH MAIN STREET SHARED USE HMA PATH
SUBSET COVER SHEET

SCALE
DRAWING No. 2020-004-35
SHEET No.

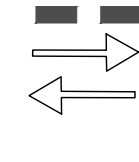
T:\2020004\Plan Production\Major Streets\STA. 47+50 - STA. 52+97.dwg Dwg Created: 24-Mar-20 - _g2 standard bw.stb - Plot Date: 25-Mar-20



LEGEND:
PEDESTRIAN
DETOUR ROUTE



SIDEWALK CLOSURE



TRAFFIC CONTROL SIGN			
	SIGN	NUMBER	QUANTITY
①		R9-11L 24"x12"	1
②		M4-9BT 30"x24"	1
③		M4-9BR 30"x24"	3
④		M4-9BL 30"x24"	3
⑤		TYPE II PEDESTRIAN BARRICADE	2
⑥		M4-8A 24"x18"	1
SIGN, PORTABLE, CHANGEABLE MESSAGE		VERIFY EXACT QUANTITY AND LOCATION WITH ENGINEER PRIOR TO ORDERING	



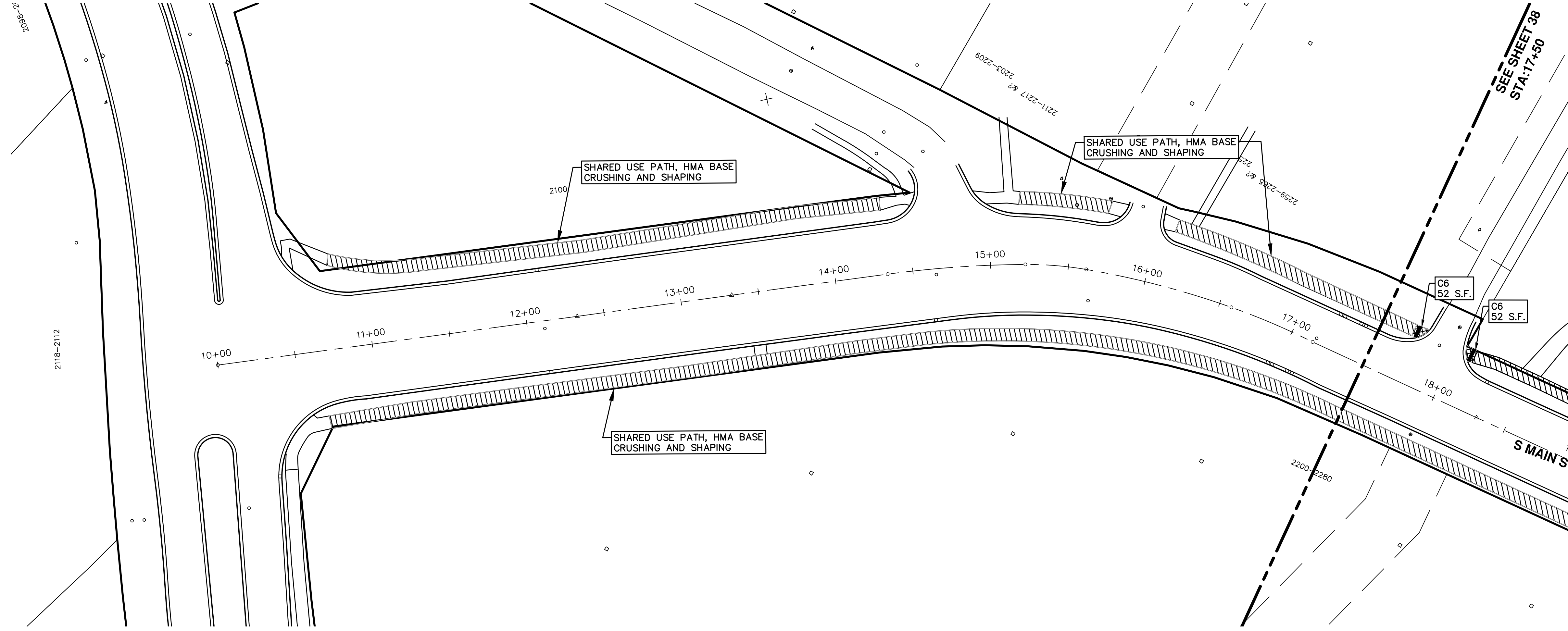
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
SOUTH MAIN STREET SHARED USE HMA PATH
PEDESTRIAN DETOUR

SCALE PLAN: Custom
DRAWING No. 2020-004-36

REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET
		DRAWN
		CHECKED



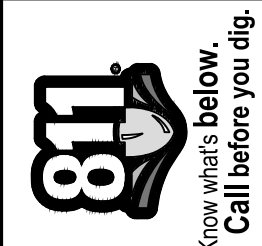
ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
 SCALE PLAN: 1"=40'
 DRAWING No. 2020-004-37

STREET RESURFACING PROJECT - 2020
 SOUTH MAIN STREET SHARED USE HMA PATH
 STA. 10+00 - STA. 17+50

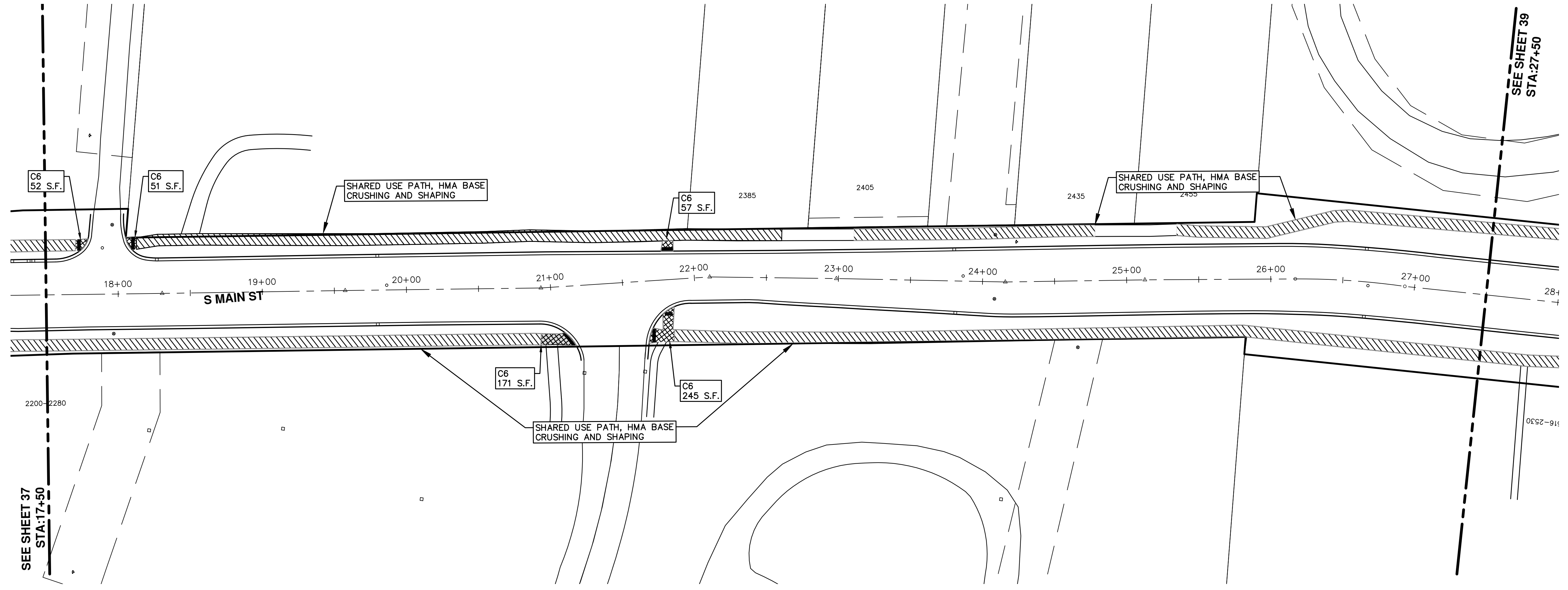


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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM 2	03/25/2020	GS:CE	DAD
00	BID SET	03/05/2020	GS:CE	DAD



T:\2020004\Plan Production\Major Streets\STA. 47+50 - STA. 52+97.dwg Dwg. Created: 24-Mar-20 - _g2 standard bw.stb - Plot Date: 25-Mar-20



SEE SHEET 37
STA:17+50

SEE SHEET 39
STA:27+50

STREET RESURFACING PROJECT - 2020
 SOUTH MAIN STREET SHARED USE HMA PATH
 STA. 17+50 - STA. 27+50

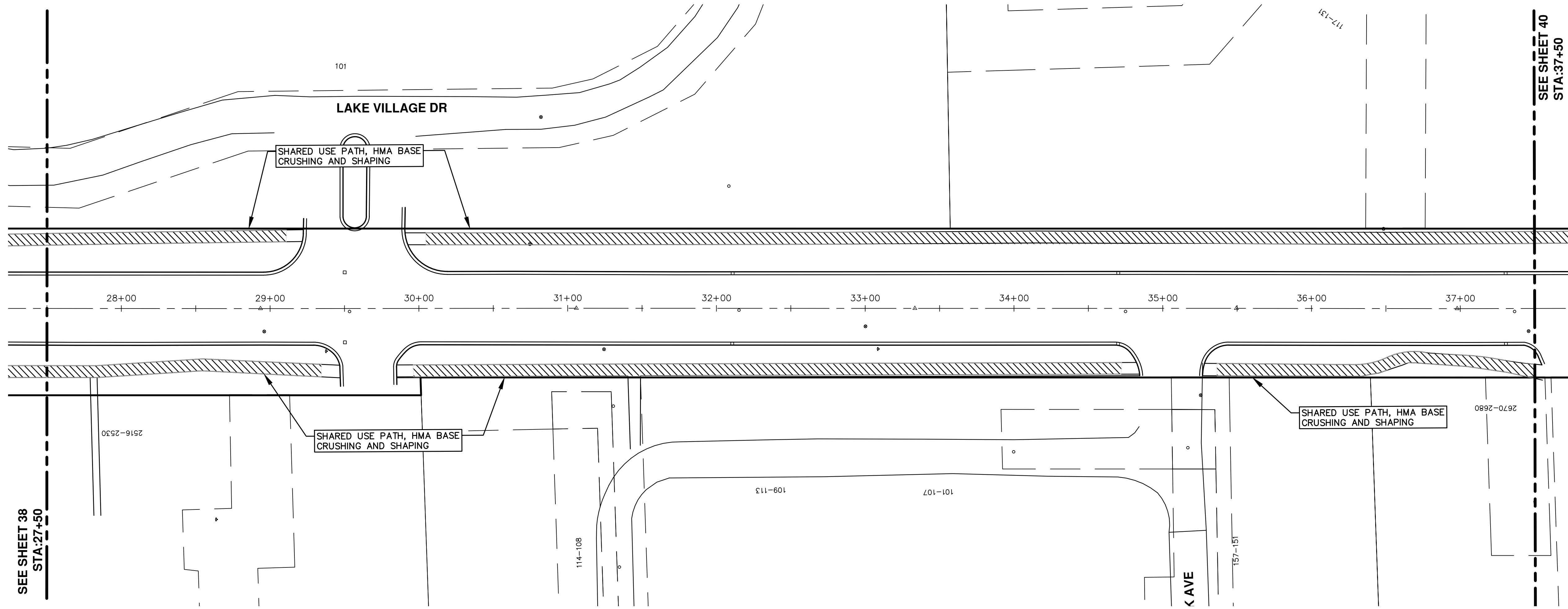


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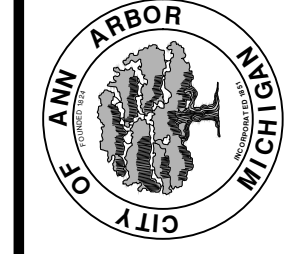


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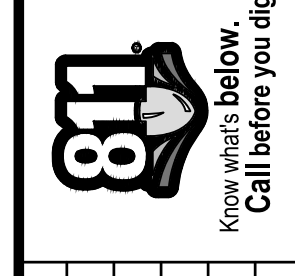
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STA:27+50

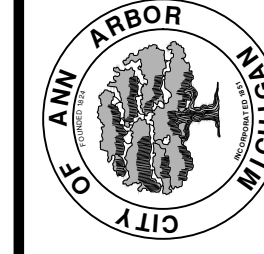
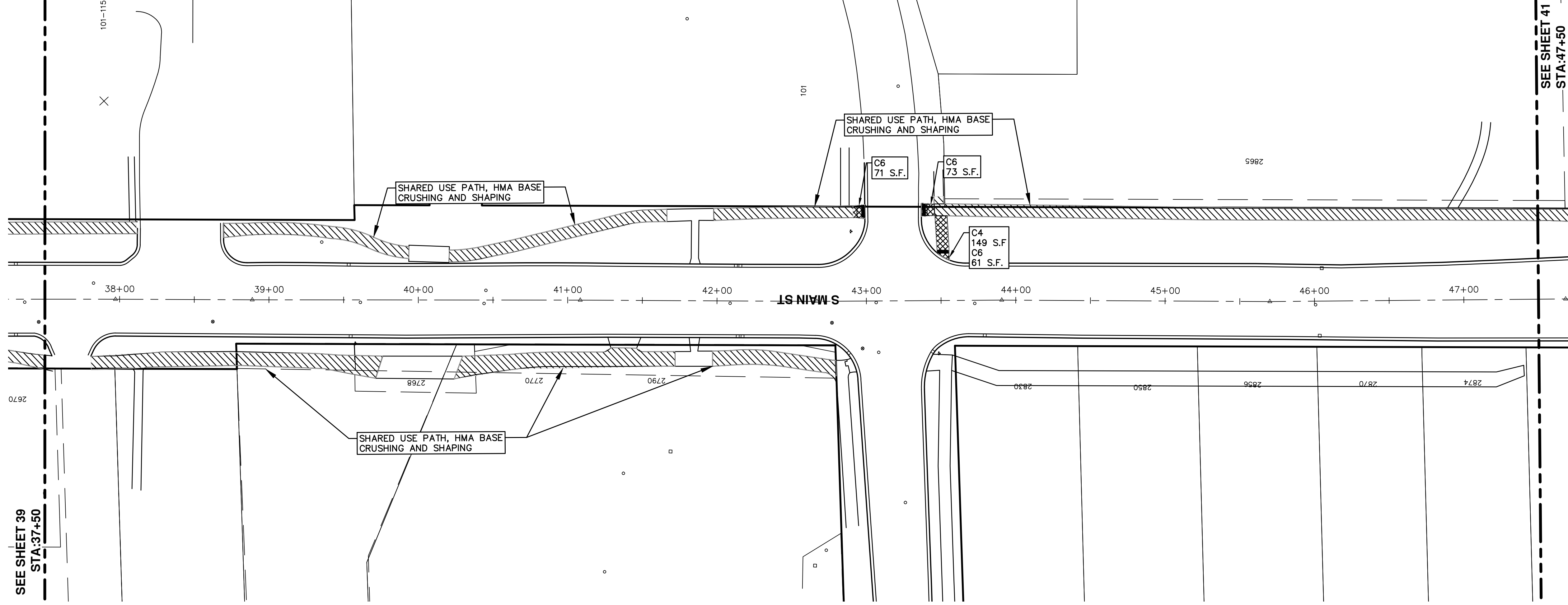
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STA:37+50



ADDENDUM 2
01 BID SET
00 REV.

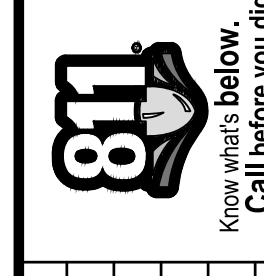
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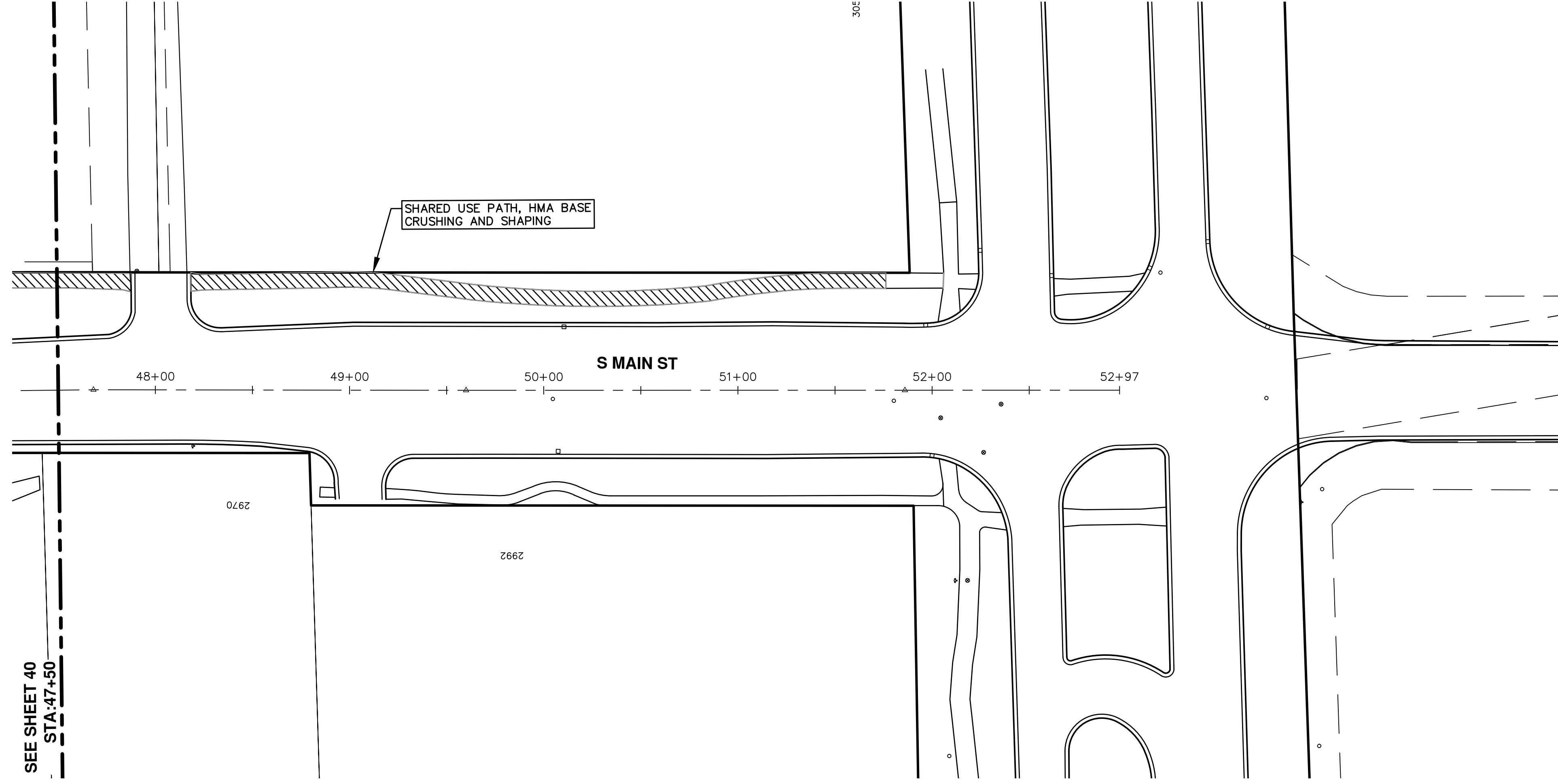




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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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00	BID SET	03/05/2020	GS:CE	DAD



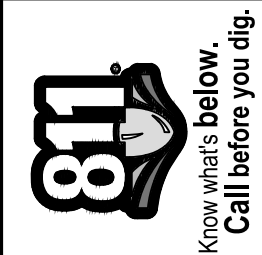


SEE SHEET 40
 STA. 47+50



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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM 2	03/25/2020	GS:CE	DAD
00	BID SET	03/05/2020	GS:CE	DAD





CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: WEST OAKBROOK DRIVE SHARED USE HMA PATH

ITB No. 4620 FILE No. 2020-004

T:\2020004\Plan Production\Major Streets\2020004 - West Oakbrook Drive HMA Path.dwg Dwg Created: 24-Mar-20 - _a2_standard bw.stb - Plot Date: 25-Mar-20

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem		282.500
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	164.770
2057011	_Grading, Sidewalk	Syd	294.608
2057011	_Grading, Sidewalk Ramp	Syd	61.058
2057021	_Undercutting, Type IIA	Cyd	525.638
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	30.000
2080036	Erosion Control, Silt Fence	Ft	470.000
3050010	Material, Surplus and Unsuitable, Rem, LM	Cyd	8.000
3050015	Salv Crushed Material, LM	Cyd	14.000
3057011	_Shared use Path, HMA Base Crushing and Shaping	Syd	5,257.000
6027021	_Flowable Fill	Cyd	7.847
8027001	_Curb and Gutter, Conc, Barrier	Ft	77.000
8030030	Curb Ramp Opening, Conc	Ft	205.500
8037001	_Detectable Warning Surface, Modified	Ft	80.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	549.520
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	2,651.470
8060010	Shared use Path, Aggregate	Ton	610.000
8060040	Shared use Path, HMA	Ton	1,156.520
8067011	_Shared use Path, Grading, Modified	Syd	985.670
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	440.000
8110343	Rem Spec Mrkg	Sft	200.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	8.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	8.000
8120140	Lighted Arrow, Type C, Furn	Ea	1.000
8120141	Lighted Arrow, Type C, Oper	Ea	1.000
8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	96.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	10.000
8167011	_Slope Restoration	Syd	4,533.330
8197050	_Handhole Assembly, 12 Inch x 18 Inch	Ea	1.000
8197050	_Handhole Assembly, 17 Inch x 30 Inch	Ea	1.000

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
5.0	*D3-1	Street Name Sign	4.000	20.000
5.0	W20-1	Road Work Ahead Sign	9.000	45.000
TOTAL				65.000

CONSTRUCTION METHOD AND SEQUENCING

PERFORM WORK ON THIS SHARED USE PATH IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ACTIVITIES LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

PHASE I (SOUTH SIDE)

- IMPLEMENT MAINTENANCE OF TRAFFIC (M.O.T.) PLAN TO CLOSE EASTBOUND TRAFFIC LANE AND SHIFT TRAFFIC INTO THE CENTER TURN LANE. INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
- REMOVE OVERBURDEN OF VEGETATION AND SOILS ALONG EACH SIDE OF THE PATH, AND TEMPORARY LOWER ANY/ALL UTILITY STRUCTURES WITHIN THE EXISTING PATH SURFACE.
- PERFORM CRUSHING AND SHAPING OF THE EXISTING PATH. COMPACT AND PROOF ROLL CRUSHED MATERIAL TO IDENTIFY AREAS REQUIRING BASE REPAIRS AND/OR UNDERCUTS AS DIRECTED BY THE ENGINEER.
- COMPLETE NECESSARY EARTHWORK AND GRADING TO WIDEN THE PATH AS REQUIRED TO ACHIEVE A CONSISTENT ±8 FOOT WIDTH FOR ITS ENTIRE LENGTH AND TO MATCH GRADES OF EXISTING FACILITIES ADJACENT TO THE PATH (E.I., SIDEWALKS, RAMPS, CURB CUTS, DRIVEWAYS, ETC.) ALL AS DIRECTED BY THE ENGINEER.
- UPON APPROVAL FROM THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (LVSP).
- PERFORM ALL CONCRETE REMOVAL AND REPLACEMENT WORK AS DIRECTED BY THE ENGINEER.
- ADJUST ANY/ALL UTILITY STRUCTURES WITHIN THE EXISTING PATH SURFACE TO THEIR FINISHED ELEVATIONS AS REQUIRED.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (5E1).
- COMPLETE ALL SLOPE RESTORATION WORK.
- REMOVE ALL PEDESTRIAN RELATED TEMPORARY TRAFFIC CONTROL DEVICES AND OPEN PATH FOR USE UPON APPROVAL OF THE ENGINEER.
- REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES FROM ROADWAY AND OPEN IT TO NORMAL TRAFFIC OPERATIONS.

PHASE II (NORTH SIDE)

- IMPLEMENT MAINTENANCE OF TRAFFIC (M.O.T.) PLAN TO CLOSE WESTBOUND TRAFFIC LANE AND SHIFT TRAFFIC INTO THE CENTER TURN LANE. INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
- REPEAT ITEMS 2 THRU 10 IN THE ORDER SHOWN SHOWN ABOVE.
- CLEAN PAVEMENT AND PLACE PERMANENT PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION FOR BOTH PHASES INCLUDING ALL CLEAN UP, FINAL RESTORATION, REMOVAL OF SESC MEASURES, MISS DIG MARKERS, ETC.
- REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES FROM ROADWAY AND OPEN IT TO NORMAL TRAFFIC OPERATIONS.

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 THIS 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.

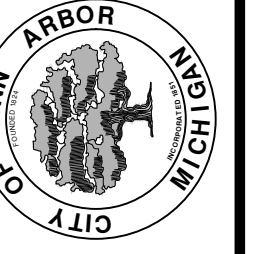
THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.



			DAD	CHECKED
			DAD	
		OS/CE	OS/CE	DRAWN
		03/25/2020	03/25/2020	DATE
01	ADDENDUM 2			
00	BID SET			REV.

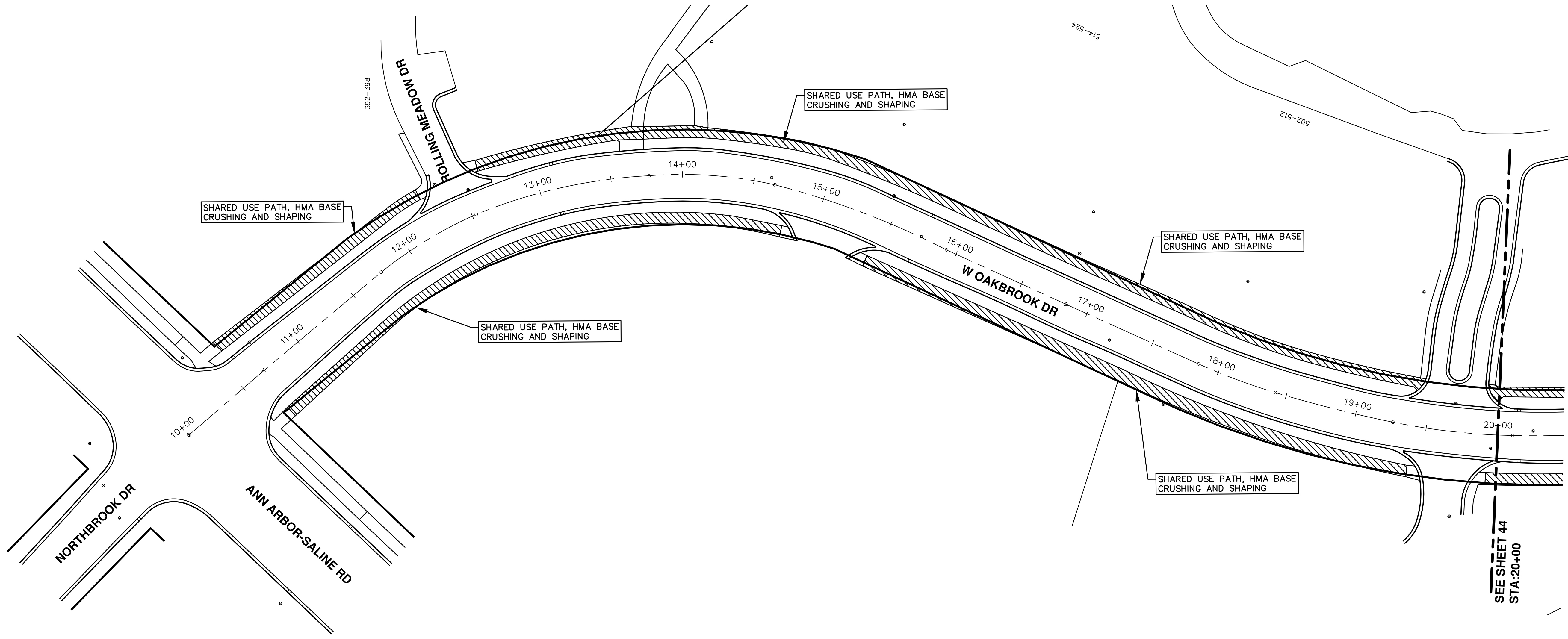
CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR MI 48106-6647
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
WEST OAKBROOK DRIVE SHARED USE HMA PATH
SUBSET COVER SHEET

SCALE
DRAWING No. 2020-004-42
SHEET No.

T:\2020004\Plan Production\Major Streets\2020004 - West Oakbrook Drive HMA Path.dwg Dwg Created: 24-Mar-20 - _a2_standard bw.stb - Plot Date: 25-Mar-20



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM 2	03/25/2020	GS/CE	DAD
00	BID SET	03/05/2020	GS/CE	DAD

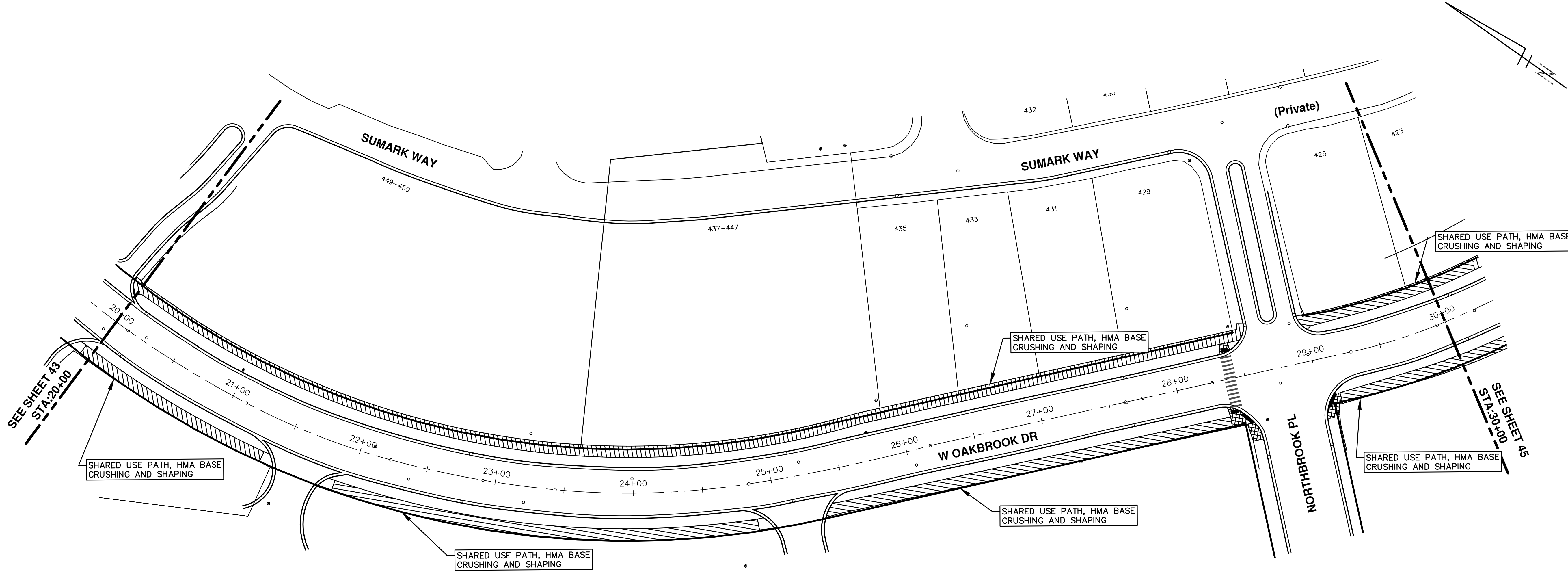
CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-6647
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
WEST OAKBROOK DRIVE SHARED USE HMA PATH

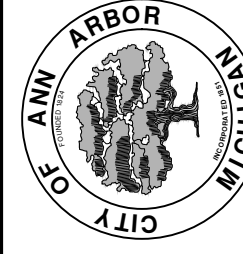
SCALE PLAN: 1"=40'
DRAWING No. 2020-004-43

T:\2020004\Plan Production\Major Streets\2020004 - West Oakbrook Drive HMA Path.dwg Dwg Created: 24-Mar-20 - _a2 standard bw.stb - Plot Date: 25-Mar-20



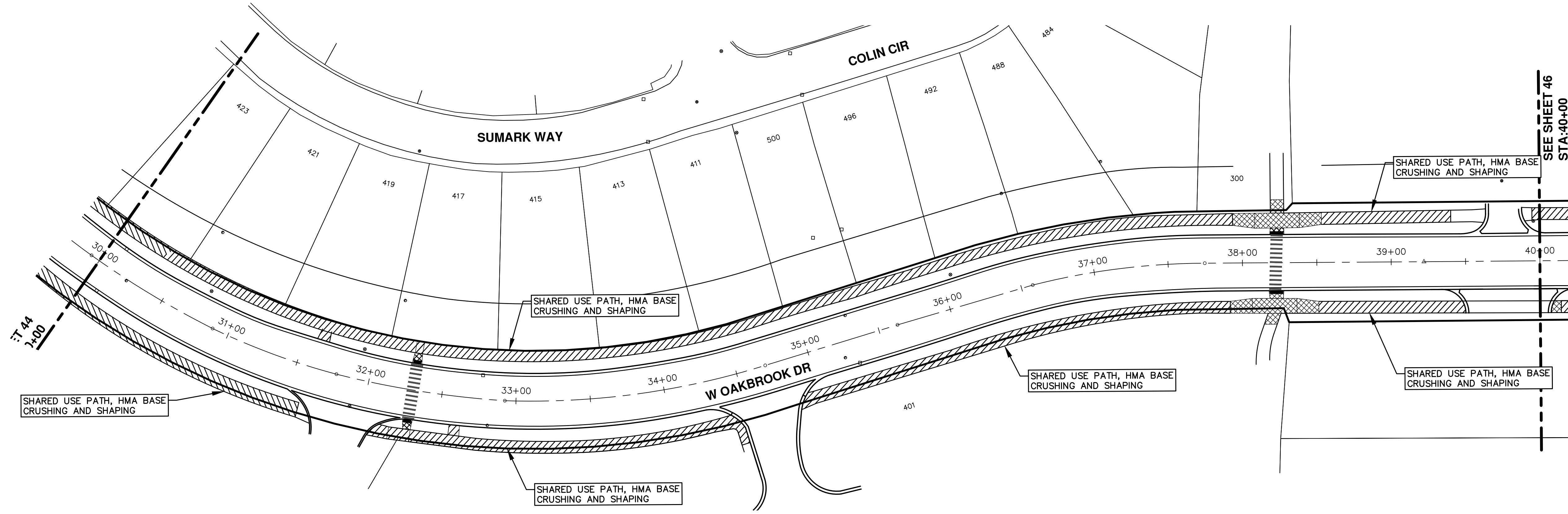
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
01	03/25/2020	ADDENDUM 2	GS:CE	DAD
00	03/05/2020	BID SET	GS:CE	DAD

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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
WEST OAKBROOK DRIVE SHARED USE HMA PATH

SCALE PLAN: 1"=40'
DRAWING No. 2020-004-44



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
 SCALE PLAN: 1"=40'
 DRAWING No. 2020-004-45

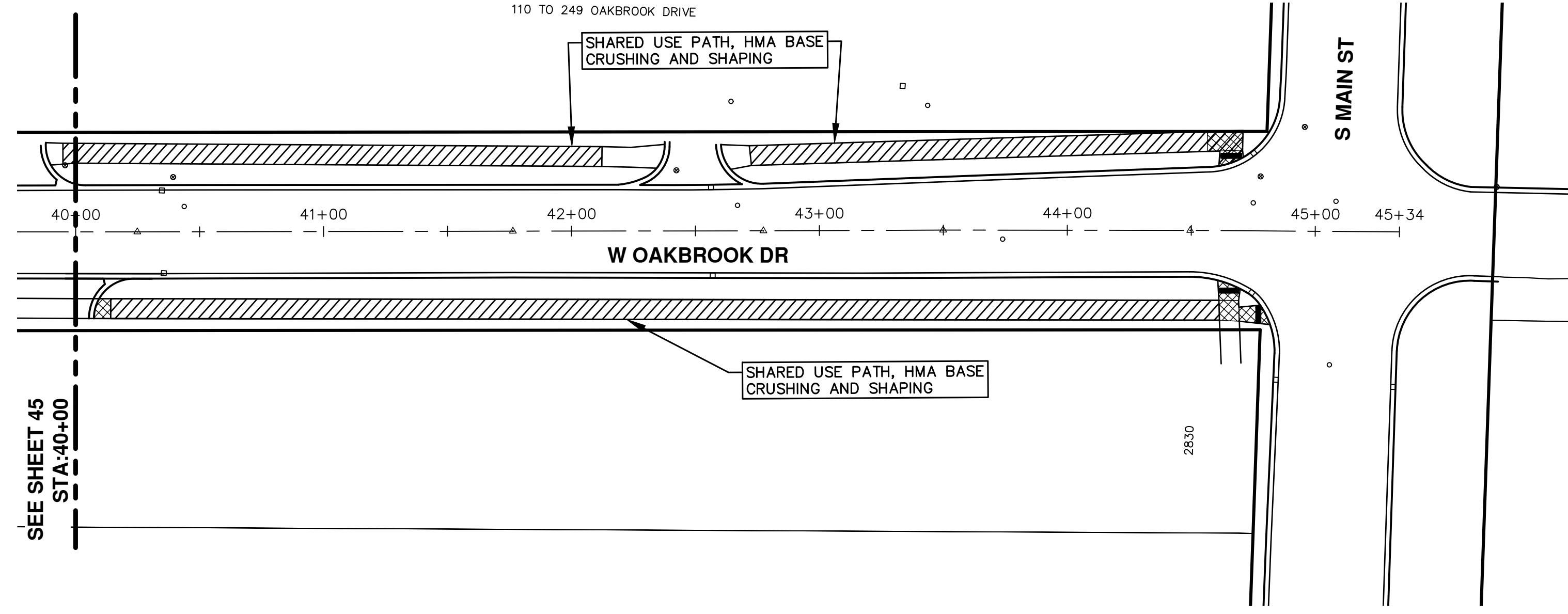
STREET RESURFACING PROJECT - 2020
 WEST OAKBROOK DRIVE SHARED USE HMA PATH
 STA. 30+00 - STA. 40+00



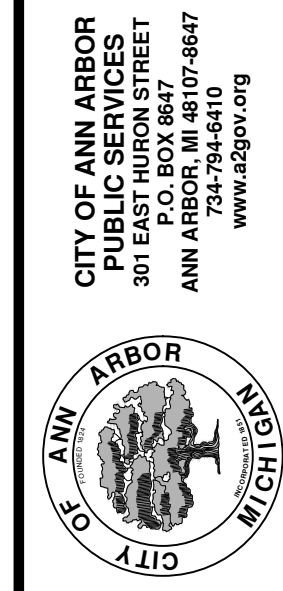
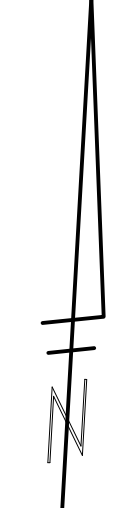
CITY OF ANN ARBOR
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM 2	03/25/2020	GS:CE	DAD
00	BID SET	03/05/2020	GS:CE	DAD

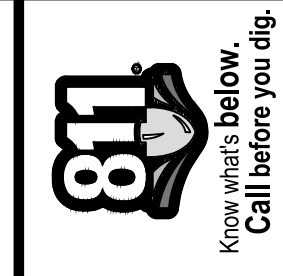




SEE SHEET 45
STA: 40+00



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM 2	03/25/2020	GS:CE	DAD
00	BID SET	03/05/2020	GS:CE	DAD





CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: WEST WASHINGTON STREET

ITB No. 4620 FILE No. 2020-004

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Exploratory Excavation, Vertical	Ft	4.000
2057011	_Grading, Sidewalk Ramp	Syd	35.560
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	10.000
5010002	Cold Milling HMA Surface	Syd	2,866.000
5010056	HMA, 5E1	Ton	299.010
5010061	HMA Approach	Ton	16.180
8030030	Curb Ramp Opening, Conc	Ft	56.000
8037001	_Detectable Warning Surface, Modified	Ft	40.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	320.000
8037010	_Sidewalk, Conc or Clay Brick Pavers, Rem and Reinstall	Sft	30.000
8110079	Pav Mrkg, Ovlv Cold Plastic, Sharrow Symbol	Ea	1.000
8110196	Pav Mrkg, Thermopl, 4 inch, Yellow	Ft	1,126.000
8110214	Pav Mrkg, Thermopl, 12 inch, Crosswalk	Ft	272.000
8110218	Pav Mrkg, Thermopl, 24 inch, Stop Bar	Ft	45.000
8117001	_Pav Mrkg, Thermopl, 4 inch, Parking Sym, White	Ft	92.000
8120250	Plastic Drum, High Intensity, Furn	Ea	20.000
8120251	Plastic Drum, High Intensity, Oper	Ea	20.000
8120310	Sign Cover	Ea	4.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	210.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	210.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	108.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	108.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	2.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	2.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	4.000
8167011	_Slope Restoration	Syd	17.890
8230431	Gate Box, Adj, Case 1	Ea	1.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	17.000

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ACTIVITIES LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (±2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (5E1).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES, FINAL RESTORATION AND ALL OTHER NECESSARY CLEAN UP.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE ALL SESC MEASURES, ALL NO PARKING SIGNS, MISS DIG MARKERS, AND TEMPORARY TRAFFIC CONTROL DEVICES, .

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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
27.0	*D3-1	Street Name Sign	4.000	108.000
4.0	W20-1	Road Work Ahead Sign	9.000	36.000
4.0	W20-2	Detour Ahead	9.000	36.000
2.0	W20-3	Road Closed Ahead	9.000	18.000
2.0	M4-8a	Detour Ends	3.000	6.000
10.0	M4-9S	Arrow ↑ Detour	5.000	50.000
3.0	M4-9R	Right Arrow → Detour	5.000	15.000
4.0	M4-9L	Left Arrow ← Detour	6.000	24.000
2.0	R11-4	Road Closed To Thru Traffic	12.500	25.000
TOTAL				318.000

CONSTRUCTION KEY	
KEY	ASSOCIATED PAY ITEM(S)
AA	• _Dr Structure, Adj, Case 1, Modified • _Dr Structure, Adj, Case 2, Modified • _Dr Structure, Temp Lowering, Modified
AB	• _Dr Structure, Temp Lowering, Modified • _Gate Box, Adj, Case 1 • _Gate Box, Adj, Case 2 • _Monument Box Adjust
ADST	• _Dr Structure, Adj, Add Depth, Modified
AK	• _Dr Structure, Adj, Case 1, Modified
C4	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • _Sidewalk, Conc, 4 inch, Modified
C4HE	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • Cement • _Sidewalk, Conc, 4 inch, Modified
C6	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Sidewalk • _Grading, Sidewalk Ramp • _Detectable Warning Surface, Modified • _Sidewalk Ramp, Conc, 6 inch, Modified • _Sidewalk, Conc, 6 inch, Modified
C8	• _Grading, Driveway Approach • _Driveway, Nonreinf Conc, 8 inch, Modified
CHE	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem • _Grading, Driveway Approach • _Grading, Sidewalk • _Grading, Sidewalk Ramp • Cement • _Driveway, Nonreinf Conc, 6 inch, Modified • _Driveway, Nonreinf Conc, 8 inch, Modified • _Detectable Warning Surface, Modified • _Sidewalk Ramp, Conc, 6 inch, Modified • _Sidewalk, Conc, 6 inch, Modified
C/G	• _Curb, Gutter, and Curb and Gutter, Any Type, Rem • _Curb and Gutter, Conc
C/GHE	• _Curb, Gutter, and Curb and Gutter, Any Type, Rem • Cement • _Driveway Opening, Conc, Det M, Modified
CP	• _Grading, Sidewalk • _Sidewalk, Conc, 4 inch, Modified
CR	• _Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem
DS	• Dr Structure, Rem • Sewer, Rem, Less than 24 inch • Dr Structure, 24 inch dia
DSDI	• Dr Structure, Rem • Sewer, Rem, Less than 24 inch • _Dr Structure, Double Inlet
PT	• _Dr Structure, Point
RRA	• Dr Structure Cover, Type B • _Dr Structure Cover, Type B, Special • _Dr Structure, Adj, Case 1, Modified • _Dr Structure, Temp Lowering, Modified
RRK	• Dr Structure Cover, Type K • _Dr Structure, Adj, Case 1, Modified
RS	• _Dr Structure, Reconstruct
TYPE II	• Plastic Drum, High Intensity, Lighted, Furn • Plastic Drum, High Intensity, Lighted, Oper
TYPE III	• Barricade, Type III, High Intensity, Double Sided, Lighted, Furn • Barricade, Type III, High Intensity, Double Sided, Lighted, Oper



01	ADDENDUM 2	03/25/2020	OS/CE	DAD	CHECKED
00	BID SET	03/05/2020	OS/CE	DAD	DRAWN
					REV.

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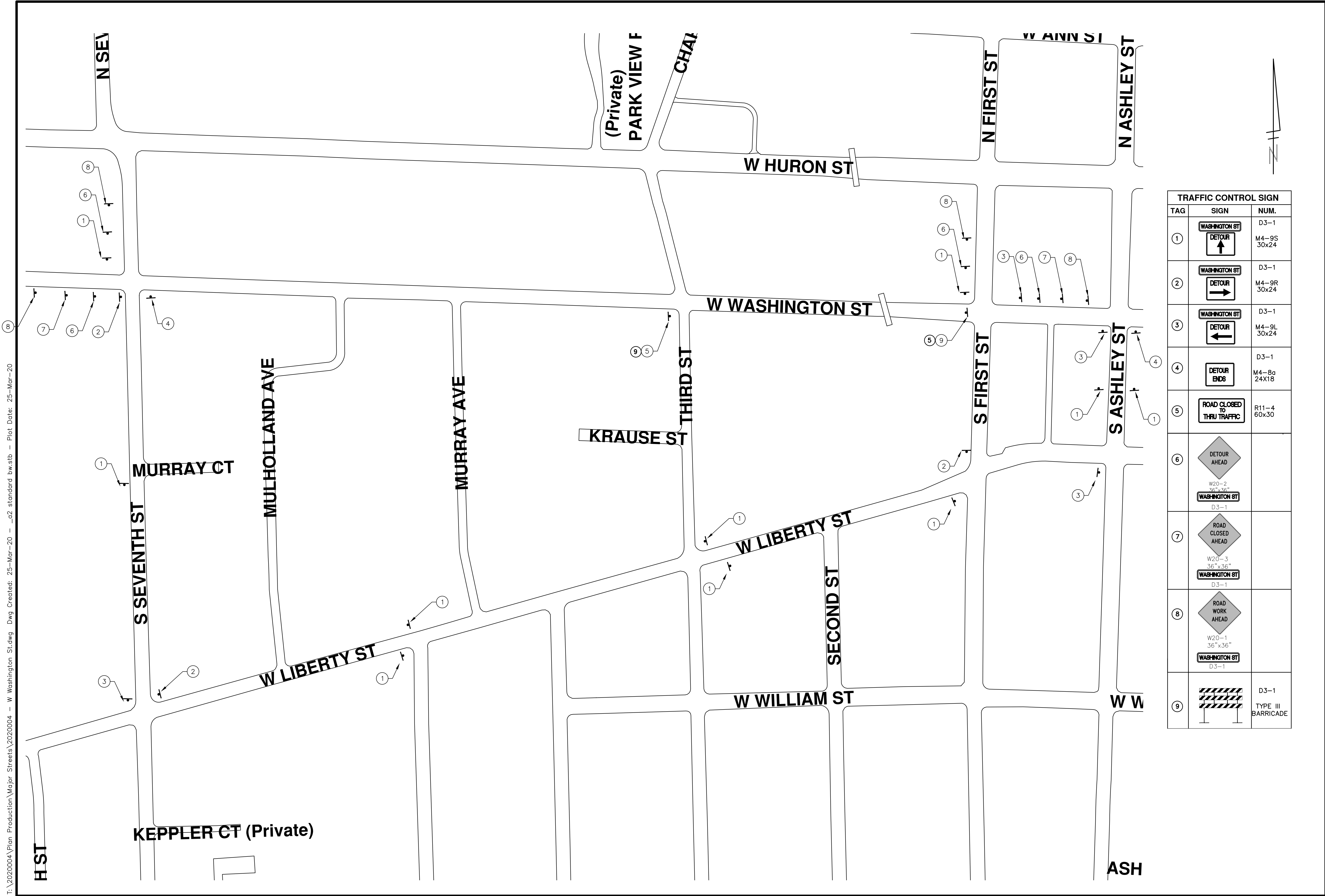


ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
WEST WASHINGTON STREET
SUBSET COVER SHEET

DRAWING No. 2020-004-47
SHEET No. 47 OF 93

I:\2020004\Plan Production\Major Streets\2020004 - W Washington St.dwg Dwg Created: 25-Mar-20 - 9:2 standard bw.sib - Plot Date: 25-Mar-20

T:\2020004\Plan Production\Major Streets\2020004 - W Washington St.dwg Dwg Created: 25-Mar-20 - _a2_standard bw.stb - Plot Date: 25-Mar-20



TRAFFIC CONTROL SIGN		
TAG	SIGN	NUM.
1		D3-1 M4-9S 30x24
2		D3-1 M4-9R 30x24
3		D3-1 M4-9L 30x24
4		D3-1 M4-8a 24x18
5		R11-4 60x30
6	 W20-2 36"x36" 	D3-1
7	 W20-3 36"x36" 	D3-1
8	 W20-1 36"x36" 	D3-1
9		D3-1 TYPE III BARRICADE



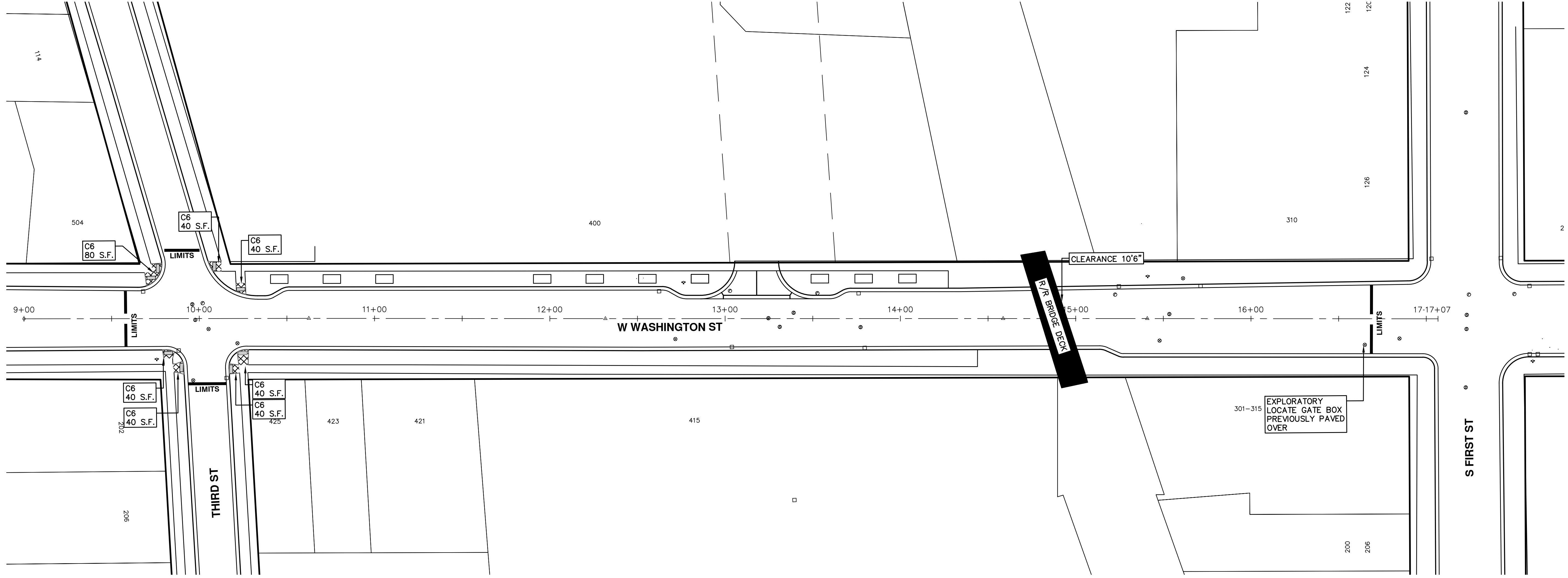
ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
 SCALE PLAN: Custom
 DRAWING No. 2020-004-48

STREET RESURFACING PROJECT - 2020
 WEST WASHINGTON STREET
 DETOUR PLAN

01	ADDENDUM 2	03/25/2020	GS/CE	DAD	CHECKED
00	BID SET	03/05/2020	GS/CE	DAD	DRAWN
	REV.	DATE			DESCRIPTION

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

T:\2020004\Plan Production\Major Streets\2020004 - W Washington St.dwg Dwg Created: 25-Mar-20 - _a2_standard bw.stb - Plot Date: 25-Mar-20



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
 SCALE PLAN: 1" = 30'
 DRAWING No. 2020-004-49

STREET RESURFACING PROJECT - 2020
 WEST WASHINGTON STREET
 STA. 9+00 - STA. 17+07

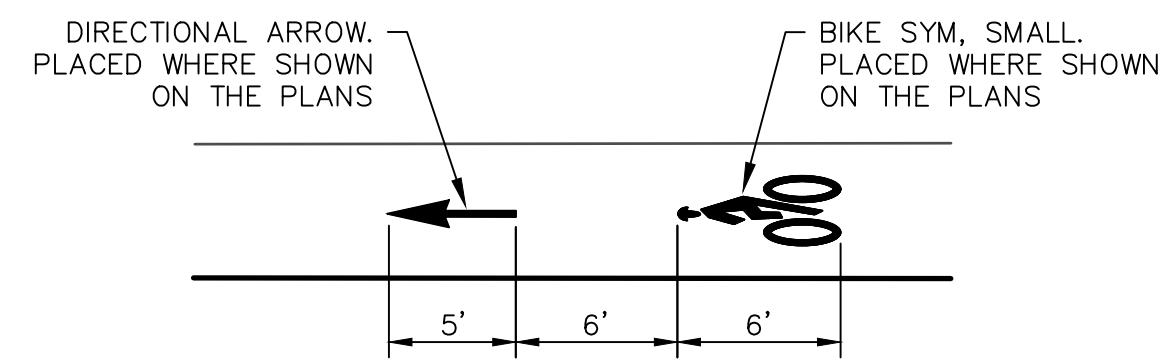
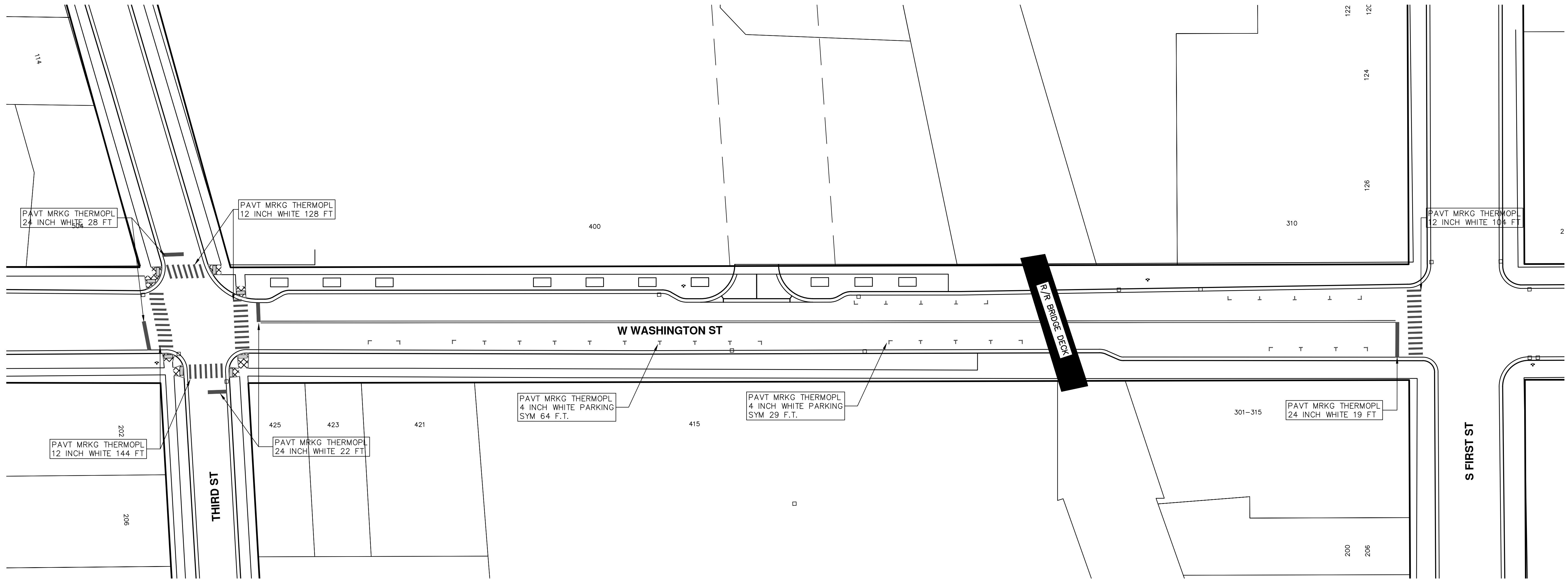


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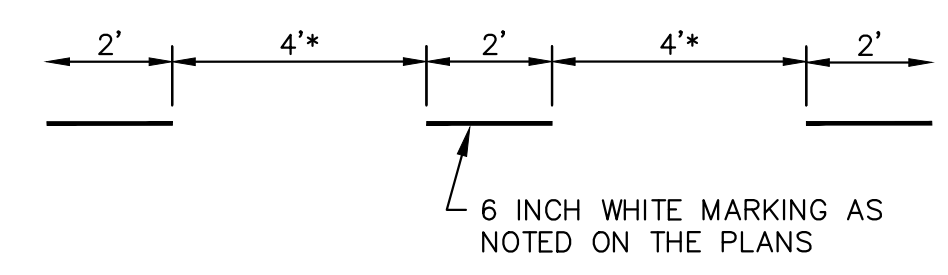
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00	BID SET	03/05/2020	GS:CE	DAD



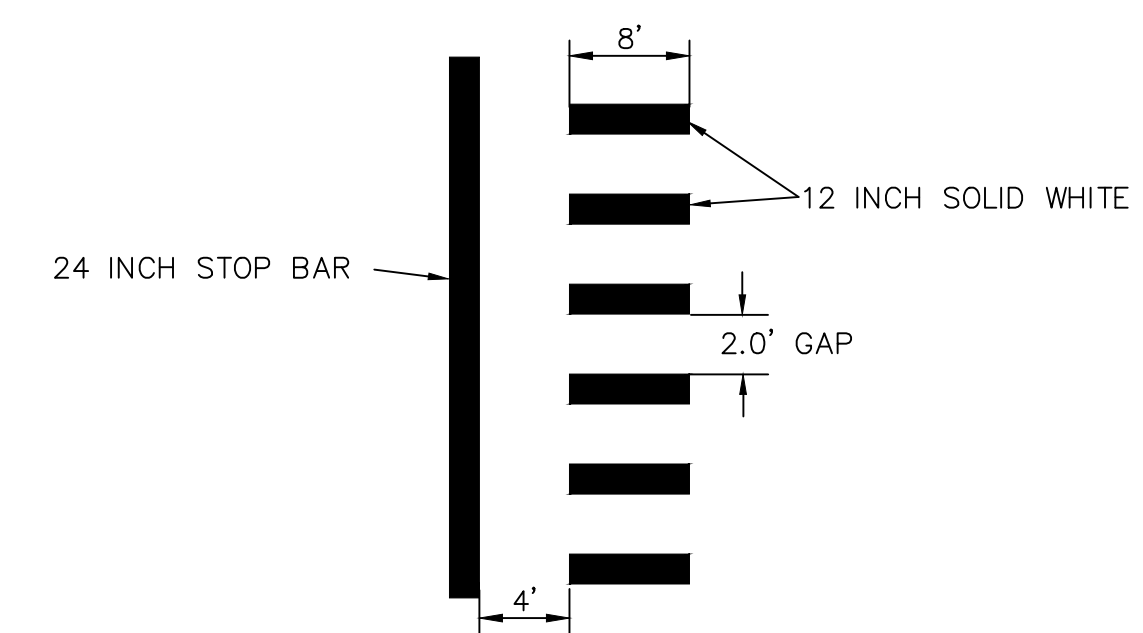
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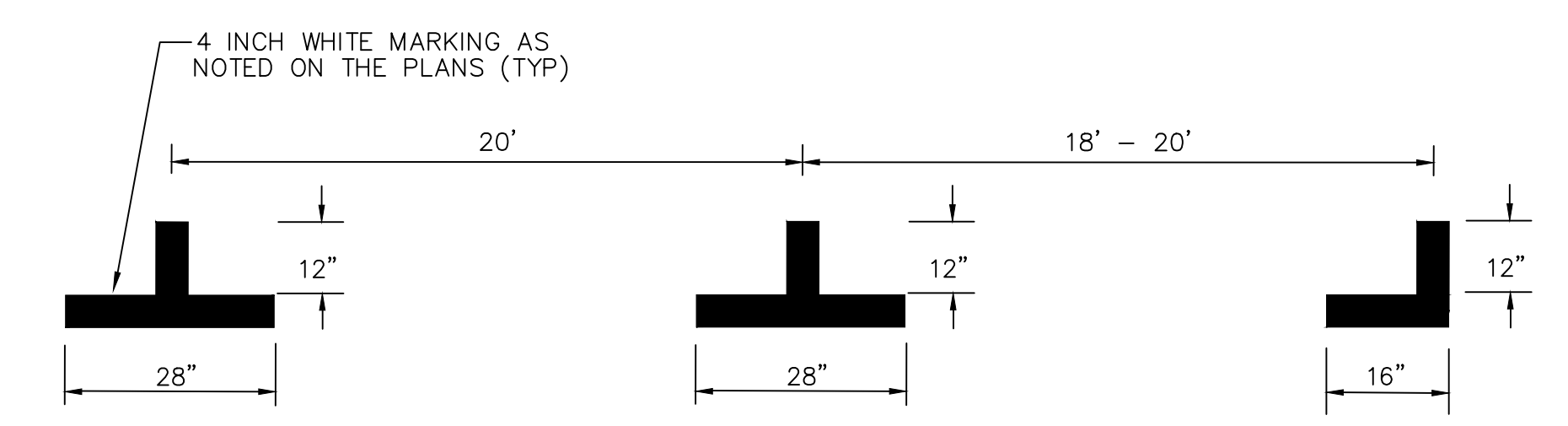
**BIKE SYMBOL
DETAIL**



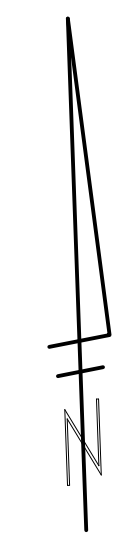
DOTTED LINE DETAIL
* NOTE FOR BROKEN LINE, USE 6' GAPS.



STOP BAR AND CROSSWALK DETAIL



PARKING SYMBOL DETAIL



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
WEST WASHINGTON STREET
STA. 9+00 - STA. 17+07 PAVT MRKG

SCALE PLAN: 1" = 30'
DRAWING No. 2020-004-50

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

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
01	03/25/2020	ADDENDUM 2	GS:CE	DAD
00	03/05/2020	BID SET	GS:CE	DAD

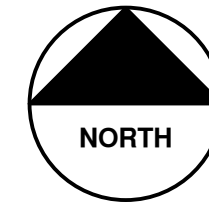
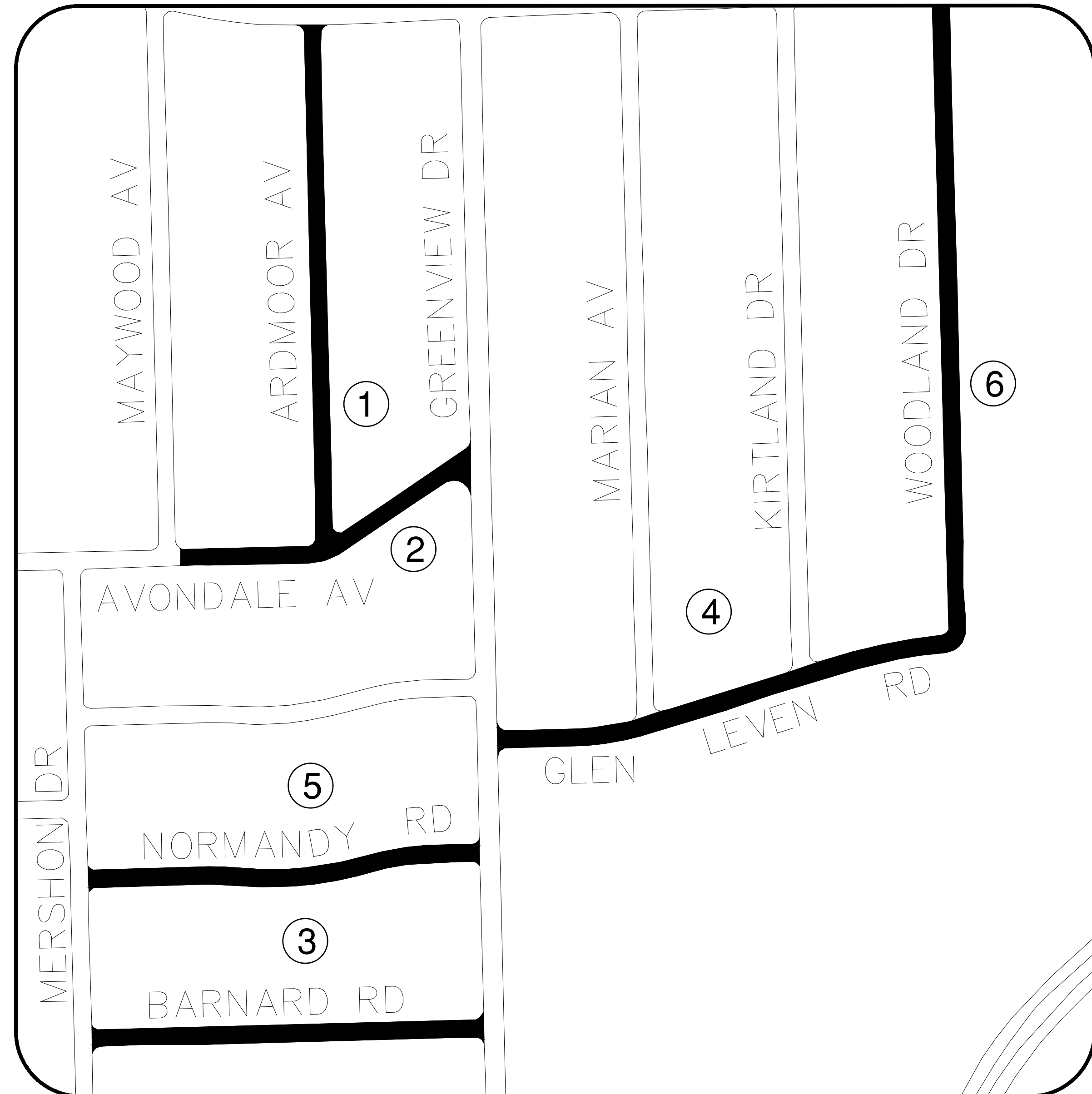
CITY OF ANN ARBOR
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301 EAST HURON STREET
ANN ARBOR, MI 48106-6647
ANN ARBOR 734.794.4410
www.a2gov.org



CITY OF ANN ARBOR ENGINEERING

STREET RESURFACING PROJECT - 2020 LOCAL STREETS - PHASE 1

ITB No. 4620 FILE No. 2020-004



SHEET INDEX

SHEET NO.	TITLE	MAP INDEX NO. (THIS SHEET)
52	ARDMOOR AVENUE	1
53	AVONDALE AVENUE	2
54	BARNARD ROAD	3
55	GLEN LEVEN ROAD	4
56	NORMANDY ROAD	5
57	WOODLAND DRIVE	6

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 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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	ADDENDUM 2	03/25/2020	GS/CE	DAD
00	BID SET	03/05/2020	GS/CE	DAD

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1667
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 1

SCALE: NTS
DRAWING No.
2020-004-51



CITY OF ANN ARBOR ENGINEERING

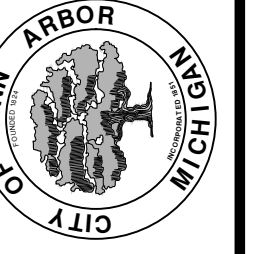
PROJECT LOCATION: BARNARD RD

ITB No. 4620 FILE No. 2020-004



01	ADDENDUM 2	03/25/2020	OS/CE	DAD
00	BID SET	03/05/2020	OS/CE	DAD
				CHECKED
				DRAWN
				DATE
				DESCRIPTION
				REV.

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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 1
BARNARD RD - PHASE 1

SCALE
DRAWING No.
2020-004-54

T:\2020004\Plan Production\Normandy Rd - Phase 1.dwg Dwg Created: 24-Mar-20 - _a2_standard.bw.stb - Plot Date: 25-Mar-20

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	3.000
2030015	Sewer, Rem, Less than 24 inch	Ft	30.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	252.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	144.190
2057011	_Grading, Sidewalk	Syd	36.100
2057011	_Grading, Sidewalk Ramp	Syd	16.222
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	5.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	30.000
4030200	Dr Structure, 24 inch dia	Ea	3.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	3.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	3.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	60.000
5010002	Cold Milling HMA Surface	Syd	2,710.000
5010005	HMA Surface, Rem	Syd	28.000
5010703	HMA, LVSP	Ton	320.000
6027021	_Flowable Fill	Cyd	7.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	56.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	172.000
8030030	Curb Ramp Opening, Conc	Ft	21.000
8037001	_Detectable Warning Surface, Modified	Ft	15.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	146.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	324.900
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	70.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	16.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	61.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	61.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	16.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	16.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	2.000
8127050	_Temporary No Parking Sign	Ea	21.429
8167011	_Slope Restoration	Syd	549.800
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	5.000

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

1. INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
2. CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
3. PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
4. REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
5. CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
6. CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
7. CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
8. OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
9. CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
10. REMOVE SESC MEASURES.
11. COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
12. REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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 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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

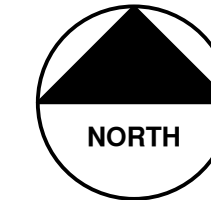
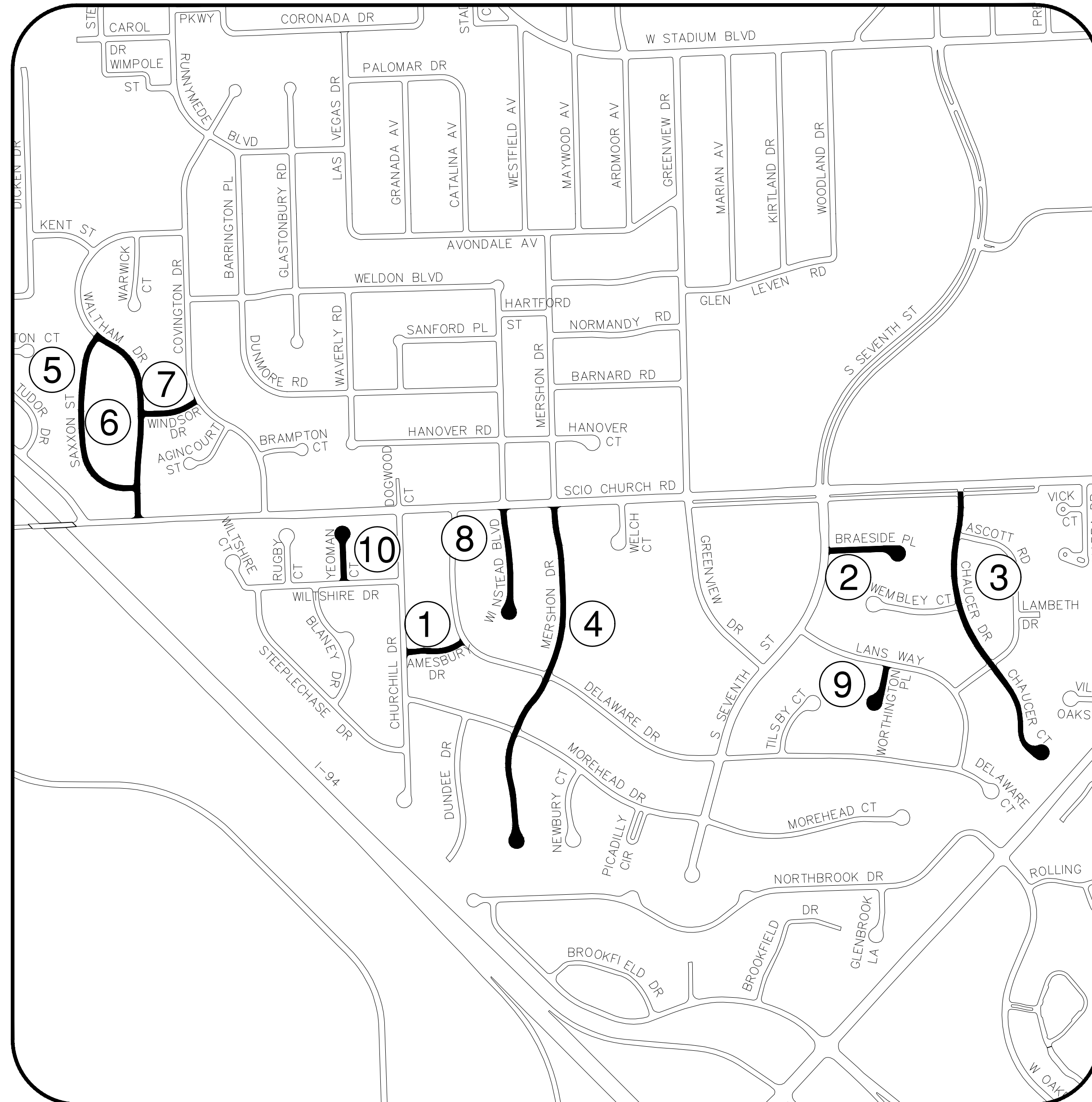
QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
4.0	*D3-1	Street Name Sign	4.000	16.000
4.0	W20-1	Road Work Ahead Sign	9.000	36.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
			TOTAL	77.000



CITY OF ANN ARBOR ENGINEERING

STREET RESURFACING PROJECT - 2020 LOCAL STREETS - PHASE 2

ITB No. 4620 FILE No. 2020-004



SHEET INDEX

SHEET NO.	TITLE	MAP INDEX NO. (THIS SHEET)
59	AMESBURY DR	1
60	BRASIDE PL	2
61	CHAUCE DR	3
62	MERESHON DR	4
63	SAXON ST	5
64	WALTHAM DR	6
65	WNSOR DR	7
66	WINSTED CT	8
67	WORTHINGTON PL	9
68	YEOMAN CT	10

NOTES

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T:\2020004\Plan Production\Local Streets - Phase 2.dwg - _o2 standard bw.stb - Plot Date: 3/25/2020 9:41:43 AM



REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET
		DRAWN
		CHECKED
		DAD
		DAD

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1667
www.a2gov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 2

SCALE: NTS
DRAWING No.
2020-004-58



CITY OF ANN ARBOR ENGINEERING

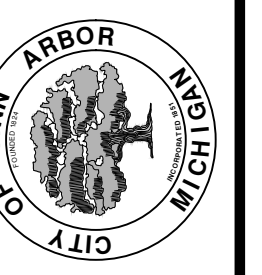
PROJECT LOCATION: AMESBURY DR

ITB No. 4620 FILE No. 2020-004



01	ADDENDUM 2	03/25/2020	OS/CE	DAD	CHECKED
00	BID SET	03/05/2020	OS/CE	DAD	CHECKED
					REVISION
					DATE
					DESCRIPTION

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-6647
ANN ARBOR 734-794-4410
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 2
AMESBURY DR - PHASE 2

SCALE
DRAWING No.
2020-004-59
SHEET No.

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

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- REMOVE SESC MEASURES.
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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.

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QUANTITIES

Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	26.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	14.660
2057011	_Grading, Driveway Approach	Syd	14.660
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	3.000
5010002	Cold Milling HMA Surface	Syd	1,088.000
5010005	HMA Surface, Rem	Syd	2.889
5010703	HMA, LVSP	Ton	130.000
6027021	_Flowable Fill	Cyd	0.722
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	14.660
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	26.000
8110198	Pavt Mrkg, Thermopl, 6 inch, White	Ft	130.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	61.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	61.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	16.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	16.000
8127050	_Temporary No Parking Sign	Ea	9.257
8167011	_Slope Restoration	Syd	3.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	3.000

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
4.0	*D3-1	Street Name Sign	4.000	16.000
4.0	W20-1	Road Work Ahead Sign	9.000	36.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		TOTAL		77.000



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: BRAESIDE PL

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

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- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
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- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
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QUANTITIES

Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	53.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	7.330
2057011	_Grading, Driveway Approach	Syd	7.330
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	6.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	4.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	4.000
5010002	Cold Milling HMA Surface	Syd	2,028.000
5010005	HMA Surface, Rem	Syd	5.889
5010057	HMA, 5E3	Ton	240.000
5010703	HMA, LVSP	Ton	240.000
6027021	_Flowable Fill	Cyd	1.472
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	7.330
8027001	_Curb and Gutter, Conc, Barrier	Ft	20.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	33.000
8110049	Pavt Mrkg, Ovy Cold Plastic, Direction Arrow Sym, Bike	Ea	2.000
8110058	Pavt Mrkg, Ovy Cold Plastic, Bike, Small Sym	Ea	2.000
8110079	Pavt Mrkg, Ovy Cold Plastic, Sharrow Symbol	Ea	1.000
8110196	Pavt Mrkg, Thermopl, 4 inch, Yellow	Ft	820.000
8110198	Pavt Mrkg, Thermopl, 6 inch, White	Ft	760.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	96.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	16.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	2.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	2.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	31.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	31.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Temporary No Parking Sign	Ea	12.857
8167011	_Slope Restoration	Syd	21.200

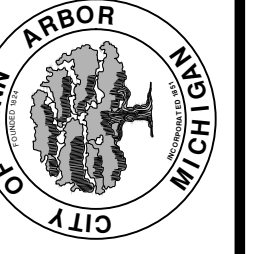
QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special					
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)	
2.0	*D3-1	Street Name Sign	4.000	8.000	
2.0	W20-1	Road Work Ahead Sign	9.000	18.000	
1.0	R11-3a	Road Closed Local Traffic Only	12.500	13.000	
			TOTAL	39.000	



		DAD	DAD	CHECKED
		OS/CE	OS/CE	DRAWN
		03/05/2020	03/05/2020	DATE
01	ADDENDUM 2			REV.
00	BID SET			REV.
				DESCRIPTION

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR MI 48106-1667
734.794.4410
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 2
BRAESIDE PL - PHASE 2

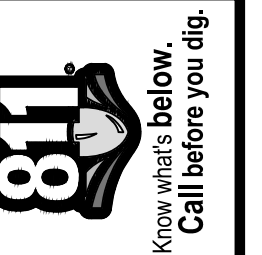
SCALE
DRAWING No.
2020-004-60
SHEET No.



CITY OF ANN ARBOR ENGINEERING

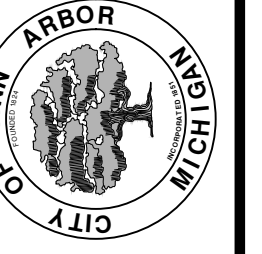
PROJECT LOCATION: CHAUCER DR

ITB No. 4620 FILE No. 2020-004



		DAD	DAD	CHECKED
		OS/CE	OS/CE	DRAWN
	03/25/2020			DATE
01	ADDENDUM 2			REV.
00	BID SET			REV.

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



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 2
CHAUCER DR - PHASE 2

DRAWING No. 2020-004-61
SHEET No. 61 OF 93

PROJECT LOCATION: CHAUCER DR

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

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QUANTITIES

Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	1.000
2030015	Sewer, Rem, Less than 24 inch	Ft	10.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	466.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	52.210
2057011	_Grading, Driveway Approach	Syd	44.000
2057011	_Grading, Sidewalk	Syd	8.333
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	18.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	10.000
4030200	Dr Structure, 24 inch dia	Ea	1.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	1.000
4037050	_Dr Structure Cover, Type C, Modified	Ea	1.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	3.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	5.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	20.000
5010002	Cold Milling HMA Surface	Syd	6,030.000
5010005	HMA Surface, Rem	Syd	51.778
5010703	HMA, LVSP	Ton	700.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	3.988
5017031	_HMA, Wedging, 36A	Ton	8.000
6027021	_Flowable Fill	Cyd	12.944
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	44.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	35.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	431.000
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	75.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	10.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	10.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	95.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	95.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	20.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	20.000
8127050	_Temporary No Parking Sign	Ea	49.714
8167011	_Slope Restoration	Syd	186.400
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	17.000

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
5.0	*D3-1	Street Name Sign	4.000	20.000
5.0	W20-1	Road Work Ahead Sign	9.000	45.000
4.0	R11-3a	Road Closed Local Traffic Only	12.500	50.000
			TOTAL	115.000



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: MERSHON DR

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- INSTALL PROPOSED DRAINAGE STRUCTURES, STORM SEWER, AND UNDERDRAIN AS REQUIRED.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- TEMPORARY LOWER ALL STRUCTURE COVERS LOCATED WITHIN THE EXISTING PAVEMENT, INCLUDING GATE AND MONUMENT BOXES AS REQUIRED.
- REMOVE ALL OF THE EXISTING HMA SURFACE (APPROXIMATELY 4 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE REMOVAL OF THE ROAD BASE MATERIAL TO A DEPTH DETERMINED BY THE ENGINEER.
- PROOF ROLL AND PERFORM UNDERCUTS AND/OR BASE REPAIRS AS DETERMINED BY THE ENGINEER.
- PLACE AGGREGATE BASE MATERIAL AS REQUIRED AND DIRECTED BY THE ENGINEER.
- GRADE, SHAPE, AND COMPACT THE EXISTING/PLACED BASE MATERIAL AS DIRECTED BY THE ENGINEER.
- UPON APPROVAL FROM THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (LEVELING COURSE) AS REQUIRED.
- ADJUST ALL STRUCTURE COVERS, INCLUDING GATE AND MONUMENT BOXES, TO THEIR FINISHED ELEVATIONS AS REQUIRED.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (TOP COURSE) AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE ALL SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES, ALL OTHER NECESSARY CLEAN UP, AND FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

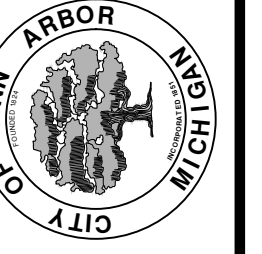
QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	13.000
2030015	Sewer, Rem, Less than 24 inch	Ft	130.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	361.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	54.770
2057011	_Grading, Driveway Approach	Syd	54.770
2057011	_Machine Grading, Special	Syd	7,421.000
2057021	_Undercutting, Type IIA	Cyd	377.925
2057021	_Undercutting, Type IIC	Cyd	472.492
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	16.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	130.000
4030200	Dr Structure, 24 inch dia	Ea	13.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	3.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	12.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	31.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	20.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	260.000
5010002	Cold Milling HMA Surface	Syd	7,421.000
5010005	HMA Surface, Rem	Syd	40.111
5010703	HMA, LVSP	Ton	1,720.000
6027021	_Flowable Fill	Cyd	10.028
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	54.770
8027001	_Curb and Gutter, Conc, Barrier	Ft	240.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	121.000
8110049	Pavt Mrkg, Ovy Cold Plastic, Direction Arrow Sym, Bike	Ea	2.000
8110058	Pavt Mrkg, Ovy Cold Plastic, Bike, Small Sym	Ea	2.000
8110079	Pavt Mrkg, Ovy Cold Plastic, Sharrow Symbol	Ea	1.000
8110196	Pavt Mrkg, Thermopl, 4 inch, Yellow	Ft	820.000
8110198	Pavt Mrkg, Thermopl, 6 inch, White	Ft	760.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	96.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	16.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	10.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	10.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	126.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	126.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	28.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	28.000
8127050	_Temporary No Parking Sign	Ea	58.314
8167011	_Slope Restoration	Syd	144.400
8230431	Gate Box, Adj, Case 1	Ea	2.000

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
7.0	*D3-1	Street Name Sign	4.000	28.000
7.0	W20-1	Road Work Ahead Sign	9.000	63.000
5.0	R11-3a	Road Closed Local Traffic Only	12.500	63.000
			TOTAL	154.000



		DAD	DAD	CHECKED
		OS/CE	OS/CE	DRAWN
		03/25/2020	03/05/2020	DATE
		01	00	REV.
	ADDENDUM 2	BID SET		
				DESCRIPTION

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



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 2
MERSHON DR - PHASE 2

DRAWING No. 2020-004-62
SHEET No. 62 OF 93

I:\2020004\Plan_Production\Yeoman Ct - Phase 2.dwg Dwg Created: 24-Mar-20 - _o2 standard bw.stb - Plot Date: 25-Mar-20



CITY OF ANN ARBOR ENGINEERING

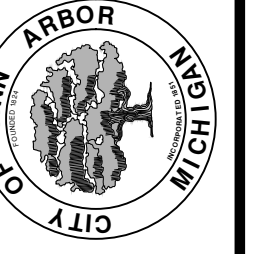
PROJECT LOCATION: SAXON ST

ITB No. 4620 FILE No. 2020-004



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1667
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 2
SAXON ST - PHASE 2

SCALE
DRAWING No. 2020-004-63
SHEET No.

T:\2020004\Plan Production\Windsor Dr - Phase 2.dwg Dwg Created: 24-Mar-20 - a2 standard bw.stb - Plot Date: 25-Mar-20

QUANTITIES

Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	4.000
2030015	Sewer, Rem, Less than 24 inch	Ft	40.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	295.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	63.330
2057011	_Grading, Driveway Approach	Syd	42.000
2057011	_Grading, Sidewalk	Syd	11.111
2057011	_Grading, Sidewalk Ramp	Syd	10.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	8.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	40.000
4030200	Dr Structure, 24 inch dia	Ea	4.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	4.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	4.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	80.000
5010703	HMA, LVSP	Ton	430.000
6027021	_Flowable Fill	Cyd	8.194
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	42.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	64.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	213.000
8030030	Curb Ramp Opening, Conc	Ft	14.000
8037001	_Detectable Warning Surface, Modified	Ft	10.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	90.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	100.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	25.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	25.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	6.000
8127050	_Temporary No Parking Sign	Ea	31.629
8167011	_Slope Restoration	Syd	118.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	11.000

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
TOTAL			12.500	25.000



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: WALTHAM DR

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	3.000
2030015	Sewer, Rem, Less than 24 inch	Ft	30.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	309.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	73.330
2057011	_Grading, Driveway Approach	Syd	73.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	8.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	30.000
4030200	Dr Structure, 24 inch dia	Ea	3.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	3.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	3.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	60.000
5010002	Cold Milling HMA Surface	Syd	4,037.000
5010005	HMA Surface, Rem	Syd	34.333
5010703	HMA, LVSP	Ton	470.000
6027021	_Flowable Fill	Cyd	8.583
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	73.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	101.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	208.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	60.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	15.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	52.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	52.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	36.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	36.000
8127050	_Temporary No Parking Sign	Ea	34.600
8167011	_Slope Restoration	Syd	123.600
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	15.000

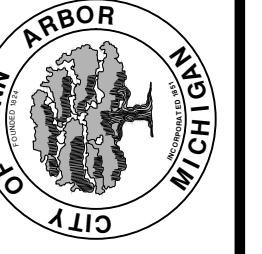
QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
9.0	*D3-1	Street Name Sign	4.000	36.000
3.0	W20-1	Road Work Ahead Sign	9.000	27.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
			TOTAL	88.000

T:\2020004\Plan Production\Windsor Dr - Phase 2.dwg Dwg Created: 24-Mar-20 - a2 standard bw.stb - Plot Date: 25-Mar-20



			DAD	DAD	CHECKED
		OS:CE	OS:CE	DRAWN	
	03/25/2020	03/05/2020			
01	ADDENDUM 2				
00	BID SET				
		DATE			DESCRIPTION
					REV.

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1667
734.794.4410
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 2
WALTHAM DR - PHASE 2

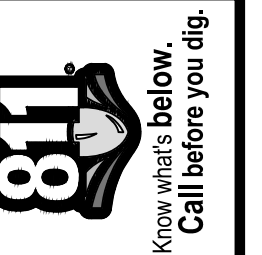
SCALE
DRAWING No.
2020-004-64



CITY OF ANN ARBOR ENGINEERING

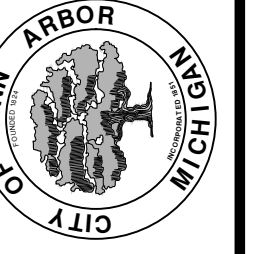
PROJECT LOCATION: WINDSOR DR

ITB No. 4620 FILE No. 2020-004



	DAD	DAD	CHECKED
	OS/CE	OS/CE	DRAWN
	03/25/2020	03/05/2020	DATE
01	ADDENDUM 2		DESCRIPTION
00	BID SET		REV.

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-0647
www.a2gov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 2
WINDSOR DR - PHASE 2

SCALE
DRAWING No.
2020-004-65
SHEET No.
65 OF 93

QUANTITIES

Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	1.000
2030015	Sewer, Rem, Less than 24 inch	Ft	10.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	82.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	28.880
2057011	_Grading, Driveway Approach	Syd	22.000
2057011	_Grading, Sidewalk Ramp	Syd	6.667
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	3.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	10.000
4030200	Dr Structure, 24 inch dia	Ea	1.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	1.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	1.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	20.000
5010002	Cold Milling HMA Surface	Syd	1,137.000
5010005	HMA Surface, Rem	Syd	9.111
5010703	HMA, LVSP	Ton	140.000
6027021	_Flowable Fill	Cyd	2.278
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	22.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	10.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	66.000
8030030	Curb Ramp Opening, Conc	Ft	7.000
8037001	_Detectable Warning Surface, Modified	Ft	5.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	60.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	43.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	43.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	24.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	24.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	2.000
8127050	_Temporary No Parking Sign	Ea	9.429
8167011	_Slope Restoration	Syd	32.800
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	2.000

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
6.0	*D3-1	Street Name Sign	4.000	24.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
			TOTAL	67.000

T:\2020004\Plan Production\Windsor Dr - Phase 2.dwg Dwg Created: 24-Mar-20 - _a2_standard bw.stb - Plot Date: 25-Mar-20



CITY OF ANN ARBOR ENGINEERING

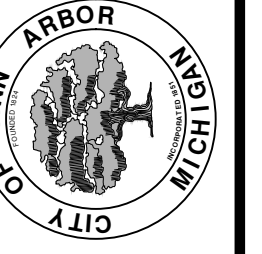
PROJECT LOCATION: WORTHINGTON PL

ITB No. 4620 FILE No. 2020-004



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CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-0647
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 2
WORTHINGTON PL - PHASE 2

SCALE
DRAWING No.
2020-004-67

PROJECT LOCATION: WORTHINGTON PL

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

NOTES

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QUANTITIES

Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	2.000
2030015	Sewer, Rem, Less than 24 inch	Ft	20.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	60.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	6.660
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	3.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	20.000
4030200	Dr Structure, 24 inch dia	Ea	2.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	2.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	2.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	40.000
5010002	Cold Milling HMA Surface	Syd	1,449.000
5010005	HMA Surface, Rem	Syd	6.667
5010703	HMA, LVSP	Ton	170.000
6027021	_Flowable Fill	Cyd	1.667
8027001	_Curb and Gutter, Conc, Barrier	Ft	60.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	66.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	2.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	2.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	31.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	31.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Temporary No Parking Sign	Ea	7.714
8167011	_Slope Restoration	Syd	24.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	2.000

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special					
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)	
2.0	*D3-1	Street Name Sign	4.000	8.000	
2.0	W20-1	Road Work Ahead Sign	9.000	18.000	
1.0	R11-3a	Road Closed Local Traffic Only	12.500	13.000	
			TOTAL	39.000	



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: YEOMAN CT

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- INSTALL PROPOSED DRAINAGE STRUCTURES, STORM SEWER, AND UNDERDRAIN AS REQUIRED.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- TEMPORARY LOWER ALL STRUCTURE COVERS LOCATED WITHIN THE EXISTING PAVEMENT, INCLUDING GATE AND MONUMENT BOXES AS REQUIRED.
- REMOVE ALL OF THE EXISTING HMA SURFACE (APPROXIMATELY 4 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE REMOVAL OF THE ROAD BASE MATERIAL TO A DEPTH DETERMINED BY THE ENGINEER.
- PROOF ROLL AND PERFORM UNDERCUTS AND/OR BASE REPAIRS AS DETERMINED BY THE ENGINEER.
- PLACE AGGREGATE BASE MATERIAL AS REQUIRED AND DIRECTED BY THE ENGINEER.
- GRADE, SHAPE, AND COMPACT THE EXISTING/PLACED BASE MATERIAL AS DIRECTED BY THE ENGINEER.
- UPON APPROVAL FROM THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (LEVELING COURSE) AS REQUIRED.
- ADJUST ALL STRUCTURE COVERS, INCLUDING GATE AND MONUMENT BOXES, TO THEIR FINISHED ELEVATIONS AS REQUIRED.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (TOP COURSE) AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE ALL SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES, ALL OTHER NECESSARY CLEAN UP, AND FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

NOTES:

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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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

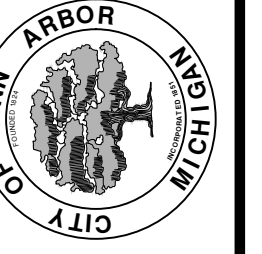
QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	2.000
2030015	Sewer, Rem, Less than 24 inch	Ft	20.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	126.000
2057011	_Grading, Sidewalk Ramp	Syd	8.000
2057011	_Machine Grading, Special	Syd	1,557.550
2057021	_Undercutting, Type IIA	Cyd	64.389
2057021	_Undercutting, Type IIC	Cyd	80.500
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	3.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	20.000
4030200	Dr Structure, 24 inch dia	Ea	2.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	1.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	2.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	5.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	3.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	40.000
5010002	Cold Milling HMA Surface	Syd	1,519.670
5010005	HMA Surface, Rem	Syd	18.660
5010703	HMA, LVSP	Ton	360.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	38.330
6027021	_Flowable Fill	Cyd	3.500
8027001	_Curb and Gutter, Conc, Barrier	Ft	40.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	86.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	31.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	31.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Temporary No Parking Sign	Ea	9.314
8167011	_Slope Restoration	Syd	50.400

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
2.0	*D3-1	Street Name Sign	4.000	8.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
1.0	R11-3a	Road Closed Local Traffic Only	12.500	13.000
			TOTAL	39.000



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		OS/CE	DAD	CHECKED
		OS/CE	DAD	CHECKED
		DATE	DRAWN	CHECKED
01	ADDENDUM 2	03/25/2020	OS/CE	DAD
00	BID SET	03/05/2020	OS/CE	DAD
	REV.			

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1647
ANN ARBOR 734.794.4410
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 2
YEOMAN CT - PHASE 2

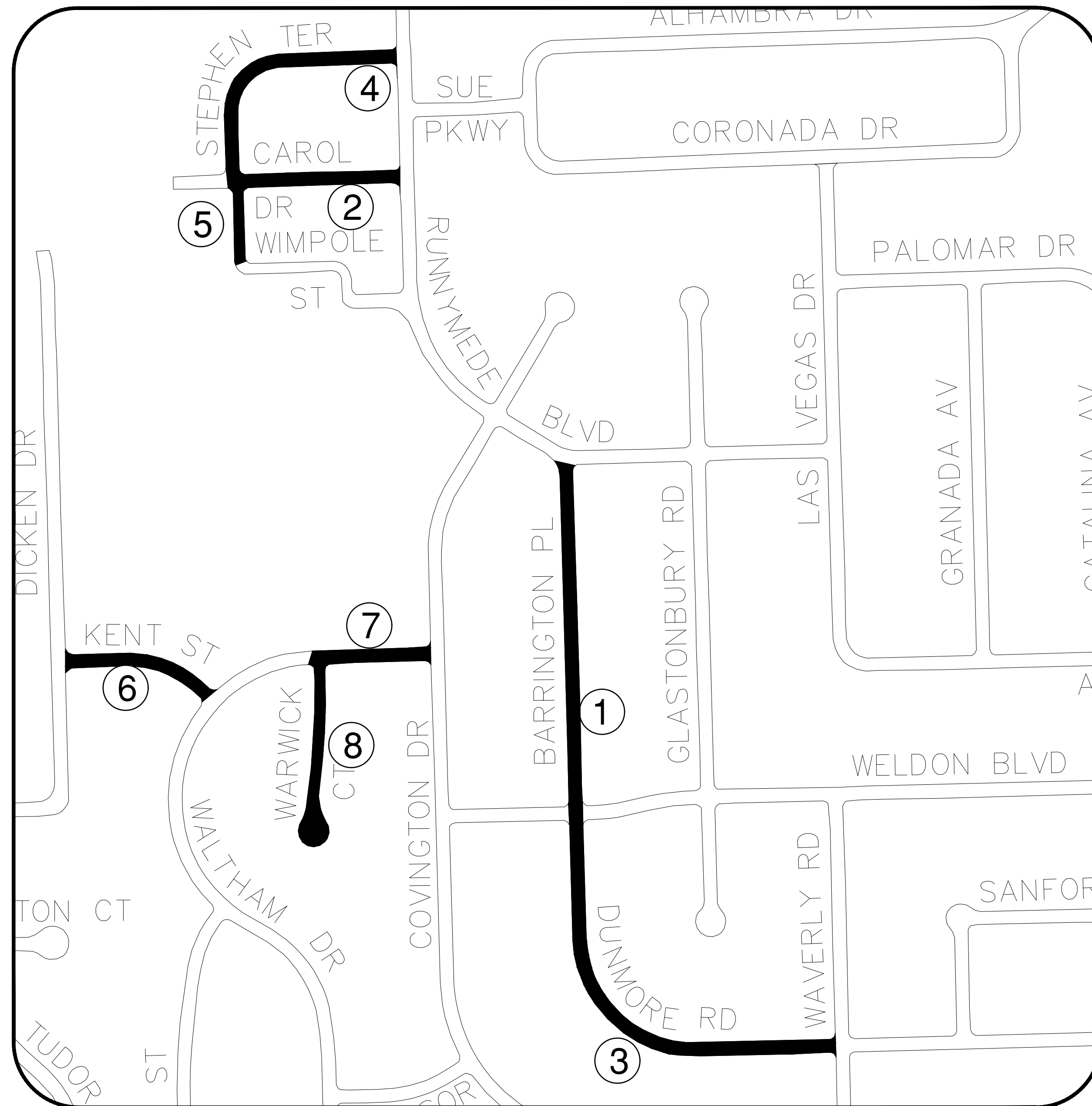
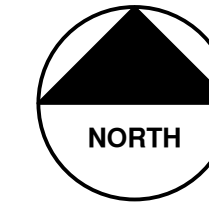
DRAWING No. 2020-004-68
SHEET No. 68 OF 93



CITY OF ANN ARBOR ENGINEERING

STREET RESURFACING PROJECT - 2020 LOCAL STREETS - PHASE 3

ITB No. 4620 FILE No. 2020-004



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.

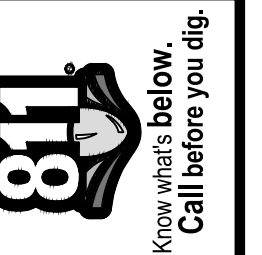
THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL, POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

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SHEET INDEX

SHEET NO.	TITLE	MAP INDEX NO. (THIS SHEET)
70	BARRINGTON PLACE	1
71	CAROL DRIVE	2
72	DUNMORE ROAD	3
73	STEPHEN TERRACE	4
74	WIMPOLE STREET	5
75	KENT STREET	6
76	WALTHAM DRIVE	7
77	WARWICK COURT	8

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REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET
		DRAWN
		CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1667
www.aagov.org



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: BARRINGTON PL

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

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- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- INSTALL PROPOSED DRAINAGE STRUCTURES, STORM SEWER, AND UNDERDRAIN AS REQUIRED.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- TEMPORARY LOWER ALL STRUCTURE COVERS LOCATED WITHIN THE EXISTING PAVEMENT, INCLUDING GATE AND MONUMENT BOXES AS REQUIRED.
- REMOVE ALL OF THE EXISTING HMA SURFACE (APPROXIMATELY 4 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE REMOVAL OF THE ROAD BASE MATERIAL TO A DEPTH DETERMINED BY THE ENGINEER.
- PROOF ROLL AND PERFORM UNDERCUTS AND/OR BASE REPAIRS AS DETERMINED BY THE ENGINEER.
- PLACE AGGREGATE BASE MATERIAL AS REQUIRED AND DIRECTED BY THE ENGINEER.
- GRADE, SHAPE, AND COMPACT THE EXISTING/PLACED BASE MATERIAL AS DIRECTED BY THE ENGINEER.
- UPON APPROVAL FROM THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (LEVELING COURSE) AS REQUIRED.
- ADJUST ALL STRUCTURE COVERS, INCLUDING GATE AND MONUMENT BOXES, TO THEIR FINISHED ELEVATIONS AS REQUIRED.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (TOP COURSE) AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE ALL SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES, ALL OTHER NECESSARY CLEAN UP, AND FINAL RESTORATION.
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THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	7.000
2030015	Sewer, Rem, Less than 24 inch	Ft	70.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	776.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	63.550
2057011	_Grading, Driveway Approach	Syd	51.330
2057011	_Grading, Sidewalk Ramp	Syd	12.222
2057011	_Machine Grading, Special	Syd	2,943.340
2057021	_Undercutting, Type IIA	Cyd	153.688
2057021	_Undercutting, Type IIC	Cyd	192.145
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	7.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	70.000
4030200	Dr Structure, 24 inch dia	Ea	7.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	3.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	7.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	11.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	140.000
5010002	Cold Milling HMA Surface	Syd	2,944.000
5010005	HMA Surface, Rem	Syd	86.222
5010703	HMA, LVSP	Ton	680.000
6027021	_Flowable Fill	Cyd	21.556
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	51.330
8027001	_Curb and Gutter, Conc, Barrier	Ft	354.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	398.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	110.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	67.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	70.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	70.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	20.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	20.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	2.000
8127050	_Temporary No Parking Sign	Ea	23.714
8167011	_Slope Restoration	Syd	310.400

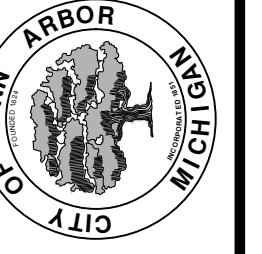
QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
5.0	*D3-1	Street Name Sign	4.000	20.000
5.0	W20-1	Road Work Ahead Sign	9.000	45.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
			TOTAL	90.000

T:\2020004\Plan_Production\Dunmore Rd - Phase 3.dwg Dwg Created: 24-Mar-20 - _a2_standard_bw.stb - Plot Date: 25-Mar-20



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1647
www.a2gov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 3
BARRINGTON PL - PHASE 3

DRAWING No. 2020-004-70
SHEET No.



CITY OF ANN ARBOR ENGINEERING

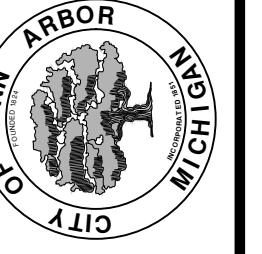
PROJECT LOCATION: DUNMORE RD

ITB No. 4620 FILE No. 2020-004



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1667
www.a2gov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 3
DUNMORE RD - PHASE 3

SCALE
DRAWING No.
2020-004-72
SHEET No.

T:\2020004\Plan Production\Dunmore Rd - Phase 3.dwg Dwg Created: 24-Mar-20 - _a2 standard bw.stb - Plot Date: 25-Mar-20

QUANTITIES

Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	8.000
2030015	Sewer, Rem, Less than 24 inch	Ft	80.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	717.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	95.920
2057011	_Grading, Driveway Approach	Syd	84.000
2057011	_Grading, Sidewalk	Syd	5.556
2057011	_Grading, Sidewalk Ramp	Syd	6.667
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	12.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	80.000
4030200	Dr Structure, 24 inch dia	Ea	8.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	8.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	8.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	160.000
5010002	Cold Milling HMA Surface	Syd	3,569.000
5010005	HMA Surface, Rem	Syd	79.667
5010703	HMA, LVSP	Ton	400.000
6027021	_Flowable Fill	Cyd	19.917
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	84.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	205.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	500.000
8030030	Curb Ramp Opening, Conc	Ft	14.000
8037001	_Detectable Warning Surface, Modified	Ft	10.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	60.000
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	50.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	65.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	15.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	2.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	2.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	79.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	79.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	24.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	24.000
8127050	_Temporary No Parking Sign	Ea	30.429
8167011	_Slope Restoration	Syd	286.800
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	11.000

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
6.0	*D3-1	Street Name Sign	4.000	24.000
6.0	W20-1	Road Work Ahead Sign	9.000	54.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
TOTAL			103.000	103.000

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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.

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CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: KENT ST

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- INSTALL PROPOSED DRAINAGE STRUCTURES, STORM SEWER, AND UNDERDRAIN AS REQUIRED.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- TEMPORARY LOWER ALL STRUCTURE COVERS LOCATED WITHIN THE EXISTING PAVEMENT, INCLUDING GATE AND MONUMENT BOXES AS REQUIRED.
- REMOVE ALL OF THE EXISTING HMA SURFACE (APPROXIMATELY 4 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE REMOVAL OF THE ROAD BASE MATERIAL TO A DEPTH DETERMINED BY THE ENGINEER.
- PROOF ROLL AND PERFORM UNDERCUTS AND/OR BASE REPAIRS AS DETERMINED BY THE ENGINEER.
- PLACE AGGREGATE BASE MATERIAL AS REQUIRED AND DIRECTED BY THE ENGINEER.
- GRADE, SHAPE, AND COMPACT THE EXISTING/PLACED BASE MATERIAL AS DIRECTED BY THE ENGINEER.
- UPON APPROVAL FROM THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (LEVELING COURSE) AS REQUIRED.
- ADJUST ALL STRUCTURE COVERS, INCLUDING GATE AND MONUMENT BOXES, TO THEIR FINISHED ELEVATIONS AS REQUIRED.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (TOP COURSE) AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE ALL SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES, ALL OTHER NECESSARY CLEAN UP, AND FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

NOTES:

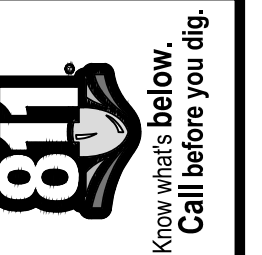
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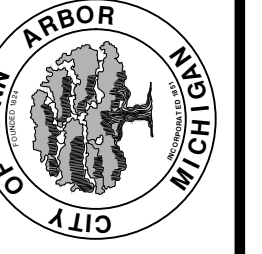
QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	1.000
2030015	Sewer, Rem, Less than 24 inch	Ft	10.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	169.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	78.870
2057011	_Grading, Driveway Approach	Syd	13.000
2057011	_Grading, Sidewalk	Syd	38.889
2057011	_Grading, Sidewalk Ramp	Syd	26.667
2057011	_Machine Grading, Special	Syd	1,289.890
2057021	_Undercutting, Type IIA	Cyd	69.438
2057021	_Undercutting, Type IIC	Cyd	86.813
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	3.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	10.000
4030200	Dr Structure, 24 inch dia	Ea	1.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	4.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	3.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	5.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	4.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	20.000
5010002	Cold Milling HMA Surface	Syd	1,290.000
5010005	HMA Surface, Rem	Syd	18.778
5010703	HMA, LVSP	Ton	300.000
6027021	_Flowable Fill	Cyd	4.694
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	13.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	94.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	45.000
8030030	Curb Ramp Opening, Conc	Ft	28.000
8037001	_Detectable Warning Surface, Modified	Ft	20.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	240.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	350.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	61.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	61.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	16.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	16.000
8127050	_Pedestrian Type II Channelizer, Temp	Ea	8.000
8127050	_Temporary No Parking Sign	Ea	10.714
8167011	_Slope Restoration	Syd	67.600

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
4.0	*D3-1	Street Name Sign	4.000	16.000
4.0	W20-1	Road Work Ahead Sign	9.000	36.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
			TOTAL	77.000



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1647
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 3
KENT ST - PHASE 3

DRAWING No. 2020-004-73
SHEET No. 73 OF 93



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: WARWICK CT

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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.

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QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	3.000
2030015	Sewer, Rem, Less than 24 inch	Ft	30.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	221.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	73.330
2057011	_Grading, Driveway Approach	Syd	73.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	30.000
4030200	Dr Structure, 24 inch dia	Ea	3.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	2.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	3.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	60.000
5010002	Cold Milling HMA Surface	Syd	1,533.000
5010005	HMA Surface, Rem	Syd	24.556
5010703	HMA, LVSP	Ton	180.000
6027021	_Flowable Fill	Cyd	6.139
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	73.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	30.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	191.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	80.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	2.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	2.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	31.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	31.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Temporary No Parking Sign	Ea	12.657
8167011	_Slope Restoration	Syd	88.400
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	6.000

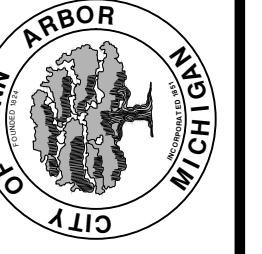
QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
2.0	*D3-1	Street Name Sign	4.000	8.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
1.0	R11-3a	Road Closed Local Traffic Only	12.500	13.000
TOTAL			39.000	39.000

T:\2020004\Plan Production\Warwick CT - Phase 3.dwg Dwg Created: 24-Mar-20 - _a2_standard bw.stb - Plot Date: 25-Mar-20



	DAD	CHECKED
	DAD	CHECKED
	OS/CE	DRAWN
	OS/CE	DRAWN
01	ADDENDUM 2	DATE
00	BID SET	REV.
		DESCRIPTION

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-8647
ANN ARBOR 734.794.4410
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 3
WARWICK CT - PHASE 3

SCALE
DRAWING No.
2020-004-76



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: WIMPOLE ST

ITB No. 4620 FILE No.2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

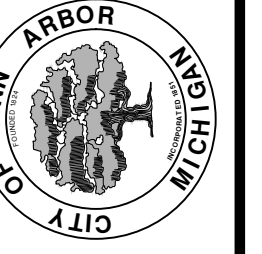
QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	23.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	9.330
2057011	_Grading, Driveway Approach	Syd	9.330
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	1.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	1.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	1.000
5010002	Cold Milling HMA Surface	Syd	484.000
5010005	HMA Surface, Rem	Syd	2.556
5010703	HMA, LVSP	Ton	50.000
6027021	_Flowable Fill	Cyd	0.639
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	9.330
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	23.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	50.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	112.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	15.000
8120250	Plastic Drum, High Intensity, Fum	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Fum	Sft	52.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	52.000
8120352	Sign, Type B, Temp, Prismatic, Special, Fum	Sft	12.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	12.000
8127050	_Temporary No Parking Sign	Ea	3.429
8167011	_Slope Restoration	Syd	9.200

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
3.0	*D3-1	Street Name Sign	4.000	12.000
3.0	W20-1	Road Work Ahead Sign	9.000	27.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
			TOTAL	64.000



REV	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET
		DRAWN
		CHECKED

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



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 3
WIMPOLE ST - PHASE 3

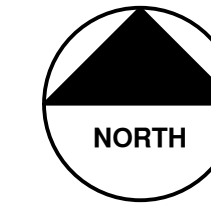
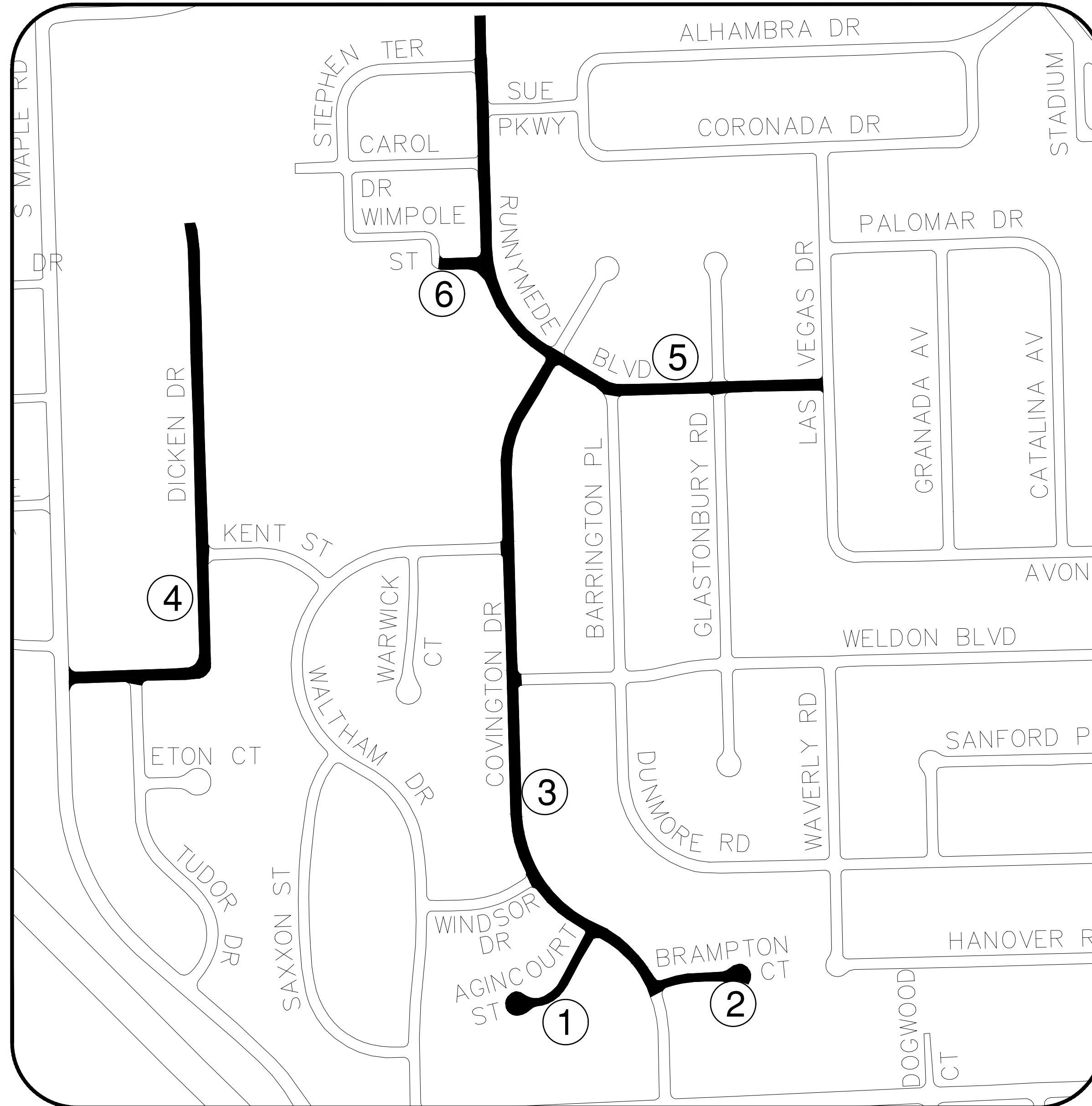
SCALE
DRAWING No.
2020-004-77



CITY OF ANN ARBOR ENGINEERING

STREET RESURFACING PROJECT - 2020 LOCAL STREETS - PHASE 4

ITB No. 4620 FILE No. 2020-004



SHEET INDEX

SHEET NO.	TITLE	MAP INDEX NO. (THIS SHEET)
79	AGINCOURT	1
80	BRAMPTON COURT	2
81	COVINGTON DRIVE	3
82	DICKEN DRIVE	4
83	RUNNYMEDE BLVD	5
84	WIMPOLE STREET	6

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.

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REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET
		DRAWN
		CHECKED
		DAD
		DAD

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1667
734.764.4410
www.a2gov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 4



CITY OF ANN ARBOR ENGINEERING

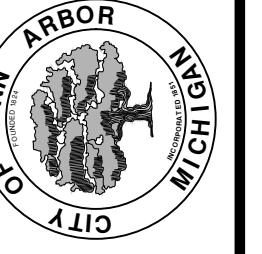
PROJECT LOCATION: AGINCOURT

ITB No. 4620 FILE No. 2020-004



		DAD	DAD	CHECKED
		OS/CE	OS/CE	DRAWN
		03/25/2020	03/05/2020	DATE
01	ADDENDUM 2			REV.
00	BID SET			REV.

CITY OF ANN ARBOR
PUBLIC SERVICES
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ANN ARBOR, MI 48106-6647
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 4
AGINCOURT - PHASE 4

SCALE
DRAWING No.
2020-004-79

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

NOTES

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QUANTITIES

Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	4.000
2030015	Sewer, Rem, Less than 24 inch	Ft	40.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	293.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	207.110
2057011	_Grading, Driveway Approach	Syd	100.220
2057011	_Grading, Sidewalk Ramp	Syd	6.667
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	6.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	40.000
4030200	Dr Structure, 24 inch dia	Ea	4.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	4.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	4.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	80.000
5010002	Cold Milling HMA Surface	Syd	1,325.000
5010005	HMA Surface, Rem	Syd	33.000
5010703	HMA, LVSP	Ton	160.000
5017031	_HMA, Wedging, 36A	Ton	8.000
6027021	_Flowable Fill	Cyd	8.139
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	100.220
8027001	_Curb and Gutter, Conc, Barrier	Ft	73.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	213.000
8030030	Curb Ramp Opening, Conc	Ft	14.000
8037001	_Detectable Warning Surface, Modified	Ft	10.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	60.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	2.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	2.000
8120250	Plastic Drum, High Intensity, Furn	Ea	17.580
8120251	Plastic Drum, High Intensity, Oper	Ea	17.580
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	31.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	31.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	2.000
8127050	_Temporary No Parking Sign	Ea	10.400
8167011	_Slope Restoration	Syd	54.440

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
2.0	*D3-1	Street Name Sign	4.000	8.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
1.0	R11-3a	Road Closed Local Traffic Only	12.500	13.000
			TOTAL	39.000



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: BRAMPTON CT

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- INSTALL PROPOSED DRAINAGE STRUCTURES, STORM SEWER, AND UNDERDRAIN AS REQUIRED.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- TEMPORARY LOWER ALL STRUCTURE COVERS LOCATED WITHIN THE EXISTING PAVEMENT, INCLUDING GATE AND MONUMENT BOXES AS REQUIRED.
- REMOVE ALL OF THE EXISTING HMA SURFACE (APPROXIMATELY 4 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE REMOVAL OF THE ROAD BASE MATERIAL TO A DEPTH DETERMINED BY THE ENGINEER.
- PROOF ROLL AND PERFORM UNDERCUTS AND/OR BASE REPAIRS AS DETERMINED BY THE ENGINEER.
- PLACE AGGREGATE BASE MATERIAL AS REQUIRED AND DIRECTED BY THE ENGINEER.
- GRADE, SHAPE, AND COMPACT THE EXISTING/PLACED BASE MATERIAL AS DIRECTED BY THE ENGINEER.
- UPON APPROVAL FROM THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (LEVELING COURSE) AS REQUIRED.
- ADJUST ALL STRUCTURE COVERS, INCLUDING GATE AND MONUMENT BOXES, TO THEIR FINISHED ELEVATIONS AS REQUIRED.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (TOP COURSE) AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE ALL SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES, ALL OTHER NECESSARY CLEAN UP, AND FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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.

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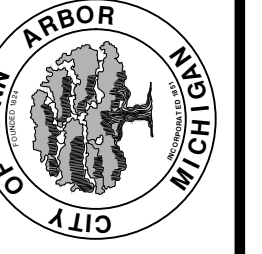
QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	243.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	75.330
2057011	_Grading, Driveway Approach	Syd	80.890
2057011	_Grading, Sidewalk	Syd	5.556
2057011	_Grading, Sidewalk Ramp	Syd	4.444
2057011	_Machine Grading, Special	Syd	1,034.220
2057021	_Undercutting, Type IIA	Cyd	44.934
2057021	_Undercutting, Type IIC	Cyd	56.177
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	2.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	2.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	2.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	5.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	4.000
5010002	Cold Milling HMA Surface	Syd	1,035.000
5010005	HMA Surface, Rem	Syd	27.000
5010703	HMA, LVSP	Ton	240.000
6027021	_Flowable Fill	Cyd	6.750
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	80.890
8027001	_Curb and Gutter, Conc, Barrier	Ft	44.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	198.000
8030030	Curb Ramp Opening, Conc	Ft	7.000
8037001	_Detectable Warning Surface, Modified	Ft	5.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	40.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	50.000
8110049	Pavt Mrkg, Ovy Cold Plastic, Direction Arrow Sym, Bike	Ea	2.000
8110058	Pavt Mrkg, Ovy Cold Plastic, Bike, Small Sym	Ea	2.000
8110079	Pavt Mrkg, Ovy Cold Plastic, Sharrow Symbol	Ea	1.000
8110196	Pavt Mrkg, Thermopl, 4 inch, Yellow	Ft	820.000
8110198	Pavt Mrkg, Thermopl, 6 inch, White	Ft	760.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	96.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	16.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	2.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	2.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	31.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	31.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	2.000
8127050	_Temporary No Parking Sign	Ea	8.000
8167011	_Slope Restoration	Syd	97.200
8230431	Gate Box, Adj, Case 1	Ea	1.000

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
2.0	*D3-1	Street Name Sign	4.000	8.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
1.0	R11-3a	Road Closed Local Traffic Only	12.500	13.000
TOTAL			39.000	39.000



			DAD	DAD	CHECKED
			OS/CE	OS/CE	DRAWN
			DATE		
01	ADDENDUM 2	03/25/2020			
00	BID SET	03/05/2020			
	REV.				

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR MI 48107-8647
www.a2gov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 4
BRAMPTON CT - PHASE 4

DRAWING No. 2020-004-80
SHEET No. 80 OF 93

T:\2020004\Plan_Production\Covington Dr - Phase 4.dwg Dwg Created: 24-Mar-20 - Plot Date: 25-Mar-20



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: COVINGTON ST

ITB No. 4620 FILE No. 2020-004



		DAD	DAD	CHECKED
		OS/CE	OS/CE	DRAWN
		03/25/2020	03/05/2020	DATE
01	ADDENDUM 2			REV.
00	BID SET			REV.

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-6647
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 4
COVINGTON DR. - PHASE 4

SCALE
DRAWING No.
2020-004-81
SHEET No.

QUANTITIES

Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	13.000
2030015	Sewer, Rem, Less than 24 inch	Ft	130.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	278.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	36.330
2057011	_Grading, Sidewalk	Syd	8.333
2057011	_Grading, Sidewalk Ramp	Syd	28.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	20.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	130.000
4030200	Dr Structure, 24 inch dia	Ea	13.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	13.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	13.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	260.000
5010002	Cold Milling HMA Surface	Syd	8,300.000
5010005	HMA Surface, Rem	Syd	30.889
5010061	HMA Approach	Ton	20.000
5010703	HMA, LVSP	Ton	960.000
6027021	_Flowable Fill	Cyd	7.722
8027001	_Curb and Gutter, Conc, Barrier	Ft	222.000
8030030	Curb Ramp Opening, Conc	Ft	49.000
8037001	_Detectable Warning Surface, Modified	Ft	35.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	252.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	75.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	267.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	62.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	14.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	14.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	126.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	126.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	28.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	28.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	8.000
8127050	_Temporary No Parking Sign	Ea	69.543
8167011	_Slope Restoration	Syd	47.550

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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 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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
7.0	*D3-1	Street Name Sign	4.000	28.000
7.0	W20-1	Road Work Ahead Sign	9.000	63.000
5.0	R11-3a	Road Closed Local Traffic Only	12.500	63.000
			TOTAL	154.000



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: DICKEN DR

ITB No. 4620 FILE No. 2020-004

QUANTITIES

Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	11.000
2030015	Sewer, Rem, Less than 24 inch	Ft	110.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	1,134.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	231.760
2057011	_Grading, Driveway Approach	Syd	157.330
2057011	_Grading, Sidewalk	Syd	55.556
2057011	_Grading, Sidewalk Ramp	Syd	18.889
2057011	_Machine Grading, Special	Syd	5,741.280
2057021	_Undercutting, Type IIA	Cyd	343.472
2057021	_Undercutting, Type IIC	Cyd	429.417
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	17.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	110.000
4030200	Dr Structure, 24 inch dia	Ea	11.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	14.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	10.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	26.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	15.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	220.000
5010002	Cold Milling HMA Surface	Syd	5,742.000
5010005	HMA Surface, Rem	Syd	128.218
5010703	HMA, LVSP	Ton	1,330.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	572.160
6020054	Conc Pavt, Misc, Nonreinf, 8 inch	Syd	130.000
6027021	_Flowable Fill	Cyd	31.500
6030030	Lane Tie, Epoxy Anchored	Ea	107.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	157.330
8027001	_Curb and Gutter, Conc, Barrier	Ft	296.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	788.000
8030030	Curb Ramp Opening, Conc	Ft	35.000
8037001	_Detectable Warning Surface, Modified	Ft	25.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	170.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	500.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	86.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	19.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	6.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	6.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	74.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	74.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	16.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	16.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	8.000
8127050	_Temporary No Parking Sign	Ea	49.686
8167011	_Slope Restoration	Syd	453.600

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
4.0	*D3-1	Street Name Sign	4.000	16.000
4.0	W20-1	Road Work Ahead Sign	9.000	36.000
3.0	R11-3a	Road Closed Local Traffic Only	12.500	38.000
			TOTAL	90.000

CONSTRUCTION METHOD AND SEQUENCING

1. THE WORK TO BE COMPLETED ON THIS STREET SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING ITEMS. THE ORDER OF CONSTRUCTION SHALL BE AS GIVEN UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER.
2. IMPLEMENT TRAFFIC MAINTENANCE, AND SOIL EROSION CONTROLS IN ACCORDANCE WITH THE PLANS, AND AS DIRECTED BY THE ENGINEER.
3. INSTALL ANY PROPOSED STORM SEWER, AND UNDERDRAIN AS SHOWN ON THE PLANS, AND AS DIRECTED BY THE ENGINEER.
4. LOWER ALL STRUCTURE COVERS, INCLUDING VALVE AND MONUMENT BOXES.
5. PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, IN ACCORDANCE WITH THE PLANS, AND AS DIRECTED BY THE ENGINEER.
6. MILL 3 INCHES OF BITUMINOUS MATERIAL FROM EXISTING ROADWAY. THIS MAY INCLUDE GRANULAR ROAD BASE MATERIAL. DEPTH TO BE DETERMINED BY THE ENGINEER. PROOF ROLL WITH FULL TRUCK.
7. PERFORM UNDERCUTS AND/OR BASE REPAIRS AS DIRECTED BY THE ENGINEER.
8. GRADE, SHAPE, AND RE-COMPACT THE EXISTING ROAD BASE AS REQUIRED, AND AS DIRECTED BY THE ENGINEER.
9. PAVE 2 INCHES OF THE BITUMINOUS MIX AS SPECIFIED OR DIRECTED, AS THE LEVELING COURSE, IN ONE LIFT.
10. ADJUST ALL STRUCTURE COVERS, MONUMENT BOXES, AND VALVE BOXES TO THEIR FINISHED ELEVATIONS.
11. PAVE 1 INCH OF THE BITUMINOUS MIX AS SPECIFIED OR DIRECTED, AS THE WEARING COURSE, IN ONE LIFT.
12. COMPLETE ALL PAVEMENT MARKINGS IN ACCORDANCE WITH THE PLANS, AND AS DIRECTED BY THE ENGINEER.
13. COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING ALL CLEAN-UP AND FINAL RESTORATION.
14. REMOVE ALL TRAFFIC CONTROL DEVICES. REMOVE MISS DIG FLAGS.

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 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.

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01	ADDENDUM 2	03/25/2020	OS:CE	DAD
00	BID SET	03/05/2020	OS:CE	DAD
				CHECKED
				DRAWN
				DATE
				DESCRIPTION
				REV.

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-0647
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 4
DICKEN DR - PHASE 4

SCALE
DRAWING No.
2020-004-82



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: RUNNYMEDE BLVD

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- INSTALL PROPOSED DRAINAGE STRUCTURES, STORM SEWER, AND UNDERDRAIN AS REQUIRED.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- TEMPORARY LOWER ALL STRUCTURE COVERS LOCATED WITHIN THE EXISTING PAVEMENT, INCLUDING GATE AND MONUMENT BOXES AS REQUIRED.
- REMOVE ALL OF THE EXISTING HMA SURFACE (APPROXIMATELY 4 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE REMOVAL OF THE ROAD BASE MATERIAL TO A DEPTH DETERMINED BY THE ENGINEER.
- PROOF ROLL AND PERFORM UNDERCUTS AND/OR BASE REPAIRS AS DETERMINED BY THE ENGINEER.
- PLACE AGGREGATE BASE MATERIAL AS REQUIRED AND DIRECTED BY THE ENGINEER.
- GRADE, SHAPE, AND COMPACT THE EXISTING/PLACED BASE MATERIAL AS DIRECTED BY THE ENGINEER.
- UPON APPROVAL FROM THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (LEVELING COURSE) AS REQUIRED.
- ADJUST ALL STRUCTURE COVERS, INCLUDING GATE AND MONUMENT BOXES, TO THEIR FINISHED ELEVATIONS AS REQUIRED.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (TOP COURSE) AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE ALL SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES, ALL OTHER NECESSARY CLEAN UP, AND FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

NOTES:

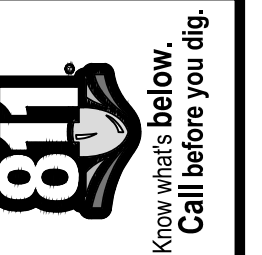
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY 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.

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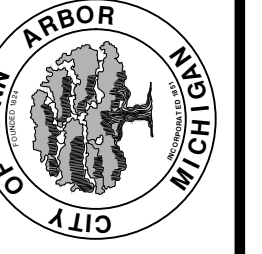
QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	13.000
2030015	Sewer, Rem, Less than 24 inch	Ft	130.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	718.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	92.660
2057011	_Grading, Driveway Approach	Syd	83.000
2057011	_Grading, Sidewalk Ramp	Syd	10.000
2057011	_Machine Grading, Special	Syd	6,645.670
2057021	_Undercutting, Type IIA	Cyd	357.001
2057021	_Undercutting, Type IIC	Cyd	446.332
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	29.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	130.000
4030200	Dr Structure, 24 inch dia	Ea	13.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	8.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	13.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	42.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	30.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	260.000
5010002	Cold Milling HMA Surface	Syd	6,646.000
5010005	HMA Surface, Rem	Syd	79.778
5010703	HMA, LVSP	Ton	1,540.000
6027021	_Flowable Fill	Cyd	19.944
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	83.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	254.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	434.000
8030030	Curb Ramp Opening, Conc	Ft	28.000
8037001	_Detectable Warning Surface, Modified	Ft	20.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	90.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	395.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	90.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	15.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	20.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	20.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	194.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	194.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	36.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	36.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	8.000
8127050	_Temporary No Parking Sign	Ea	55.086
8167011	_Slope Restoration	Syd	287.200
8230431	Gate Box, Adj, Case 1	Ea	1.000

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
9.0	*D3-1	Street Name Sign	4.000	36.000
9.0	W20-1	Road Work Ahead Sign	9.000	81.000
9.0	R11-3a	Road Closed Local Traffic Only	12.500	113.000
			TOTAL	230.000



			DAD	DAD	CHECKED
		OS/CE	OS/CE	OS/CE	DRAWN
		03/25/2020	03/05/2020		DATE
	01	ADDENDUM 2			REV.
	00	BID SET			REV.
					DESCRIPTION

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR MI 48106-1647
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 4
RUNNYMEDE BLVD - PHASE 4

DRAWING No. 2020-004-83
SHEET No.

T:\2020004\Plan_Production\Wimpole St - Phase 4.dwg Dwg Created: 24-Mar-20 - _o2 standard bw.stb - Plot Date: 25-Mar-20



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: WIMPOLE ST

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

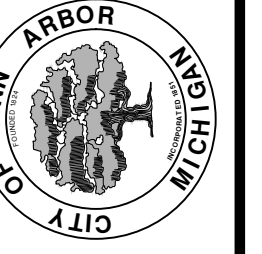
QUANTITIES			
Item Code	Item Description	Unit	Quantity
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	3.000
5010002	Cold Milling HMA Surface	Syd	443.000
5010703	HMA, LVSP	Ton	60.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	112.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	15.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	31.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	31.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Temporary No Parking Sign	Ea	3.229
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	1.000

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
2.0	*D3-1	Street Name Sign	4.000	8.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
1.0	R11-3a	Road Closed Local Traffic Only	12.500	13.000
			TOTAL	39.000



REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET
		DRAWN
		CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-0647
734.794.4410
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 4
WIMPOLE ST - PHASE 4

SCALE
DRAWING No.
2020-004-84



CITY OF ANN ARBOR ENGINEERING

STREET RESURFACING PROJECT - 2020 LOCAL STREETS - PHASE 5

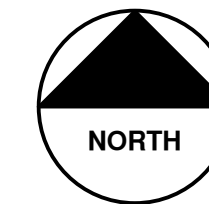
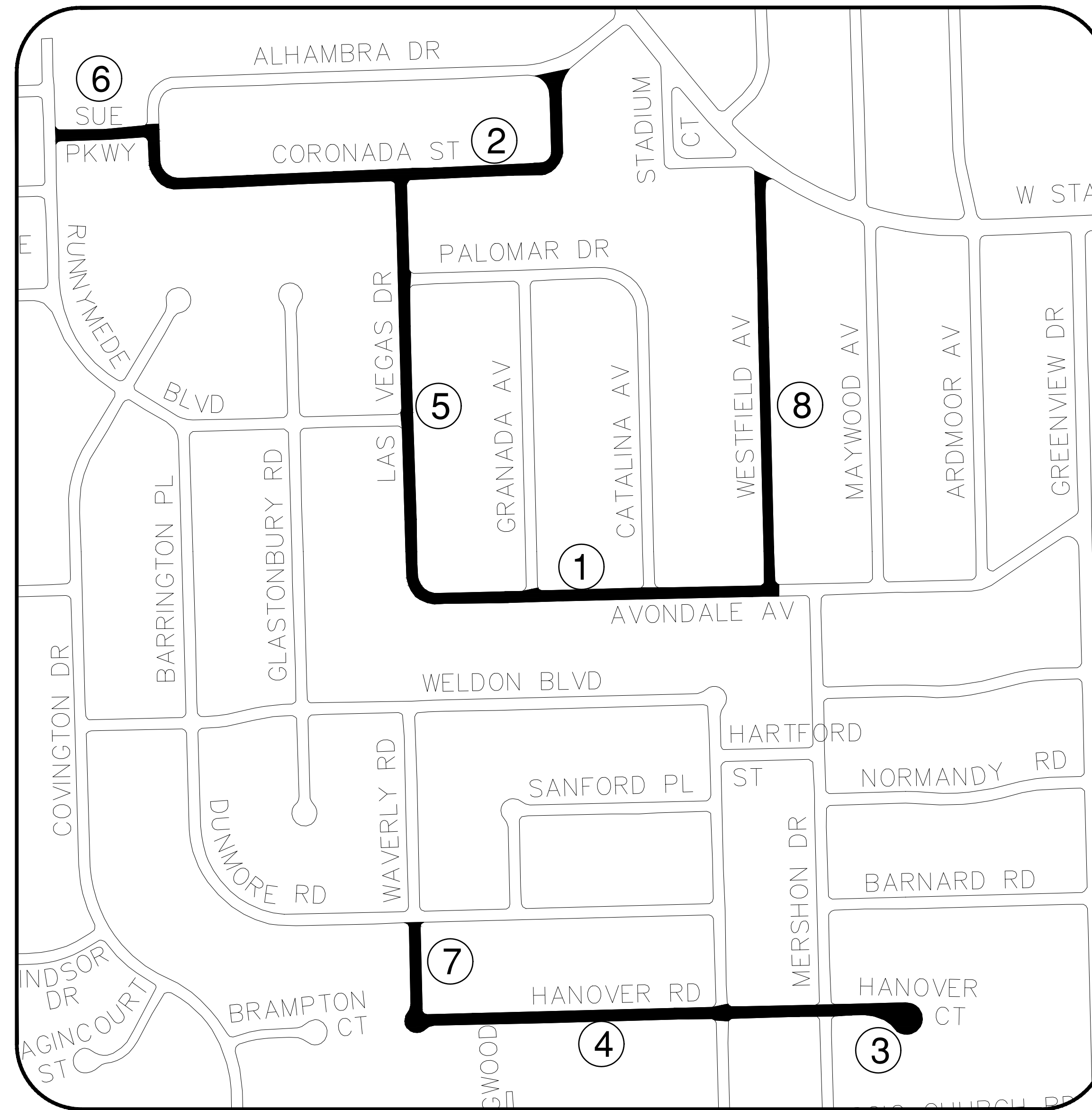
ITB No. 4620 FILE No. 2020-004

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 IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.



SHEET INDEX

SHEET NO.	TITLE	MAP INDEX NO. (THIS SHEET)
86	AVONDALE AVE	1
87	CORONADA ST	2
88	HANOVER CT	3
89	HANOVER RD	4
90	LASVEGAS DR	5
91	SUE PKWY	6
92	WAVERLY RD	7
93	WESTFIELD AVE	8

T:\2020004\Plan Production\Local Streets - Phase 5.dwg - _o2 standard bw.stb - Plot Date: 3/25/2020 9:52:20 AM



REV.	DATE	DESCRIPTION
01	03/25/2020	ADDENDUM 2
00	03/05/2020	BID SET

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1667
www.a2gov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 5

SCALE: NTS
DRAWING No. 2020-004-85



CITY OF ANN ARBOR ENGINEERING

PROJECT LOCATION: HANOVER CT

ITB No. 4620 FILE No. 2020-004

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- INSTALL PROPOSED DRAINAGE STRUCTURES, STORM SEWER, AND UNDERDRAIN AS REQUIRED.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- TEMPORARY LOWER ALL STRUCTURE COVERS LOCATED WITHIN THE EXISTING PAVEMENT, INCLUDING GATE AND MONUMENT BOXES AS REQUIRED.
- REMOVE ALL OF THE EXISTING HMA SURFACE (APPROXIMATELY 4 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE REMOVAL OF THE ROAD BASE MATERIAL TO A DEPTH DETERMINED BY THE ENGINEER.
- PROOF ROLL AND PERFORM UNDERCUTS AND/OR BASE REPAIRS AS DETERMINED BY THE ENGINEER.
- PLACE AGGREGATE BASE MATERIAL AS REQUIRED AND DIRECTED BY THE ENGINEER.
- GRADE, SHAPE, AND COMPACT THE EXISTING/PLACED BASE MATERIAL AS DIRECTED BY THE ENGINEER.
- UPON APPROVAL FROM THE ENGINEER PLACE 2.0 INCH LEVELING COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (LEVELING COURSE) AS REQUIRED.
- ADJUST ALL STRUCTURE COVERS, INCLUDING GATE AND MONUMENT BOXES, TO THEIR FINISHED ELEVATIONS AS REQUIRED.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES (TOP COURSE) AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE ALL SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES, ALL OTHER NECESSARY CLEAN UP, AND FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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.

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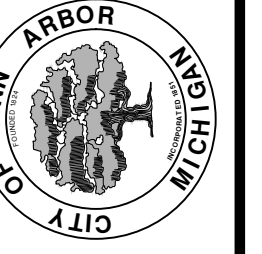
QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	1.000
2030015	Sewer, Rem, Less than 24 inch	Ft	10.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	107.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	22.220
2057011	_Grading, Driveway Approach	Syd	22.000
2057011	_Machine Grading, Special	Syd	1,437.000
2057021	_Undercutting, Type IIA	Cyd	50.921
2057021	_Undercutting, Type IIC	Cyd	63.663
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	3.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	10.000
4030200	Dr Structure, 24 inch dia	Ea	1.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	1.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	1.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	20.000
5010002	Cold Milling HMA Surface	Syd	1,437.000
5010005	HMA Surface, Rem	Syd	11.889
5010703	HMA, LVSP	Ton	340.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	77.330
6027021	_Flowable Fill	Cyd	2.972
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	22.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	20.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	87.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	2.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	2.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	31.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	31.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	16.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	16.000
8127050	_Temporary No Parking Sign	Ea	7.857
8167011	_Slope Restoration	Syd	42.800
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	2.000

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
4.0	*D3-1	Street Name Sign	4.000	16.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
1.0	R11-3a	Road Closed Local Traffic Only	12.500	13.000
			TOTAL	47.000



		DAD	DAD	CHECKED
		OS/CE	OS/CE	DRAWN
		03/25/2020	03/05/2020	DATE
		01	00	REV.
		ADDENDUM 2	BID SET	DESCRIPTION

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1647
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 5
HANOVER CT - PHASE 5

SCALE
DRAWING No. 2020-004-88
SHEET No.

T:\2020004\Plan_Production\Waverly Rd - Phase 5.dwg Dwg Created: 24-Mar-20 - _a2_standard bw.stb - Plot Date: 25-Mar-20



CITY OF ANN ARBOR ENGINEERING

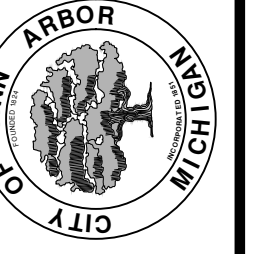
PROJECT LOCATION: WAVERLY RD

ITB No. 4620 FILE No. 2020-004



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		OS/CE	OS/CE	DRAWN
		03/25/2020	03/05/2020	DATE
01	ADDENDUM 2			REV.
00	BID SET			REV.

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



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 5
WAVERLY RD - PHASE 5

SCALE
DRAWING No.
2020-004-92

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

- INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
- CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
- PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
- REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
- CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
- CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
- CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
- OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
- CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
- REMOVE SESC MEASURES.
- COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
- REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

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.

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QUANTITIES

Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	2.000
2030015	Sewer, Rem, Less than 24 inch	Ft	20.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	104.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	21.110
2057011	_Grading, Driveway Approach	Syd	21.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	3.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	20.000
4030200	Dr Structure, 24 inch dia	Ea	2.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	1.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	2.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	40.000
5010002	Cold Milling HMA Surface	Syd	1,336.000
5010005	HMA Surface, Rem	Syd	11.556
5010703	HMA, LVSP	Ton	160.000
6027021	_Flowable Fill	Cyd	2.889
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	21.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	20.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	84.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	2.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	2.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	40.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	40.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	24.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	24.000
8127050	_Temporary No Parking Sign	Ea	9.214
8167011	_Slope Restoration	Syd	41.600
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	5.000

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special					
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)	
6.0	*D3-1	Street Name Sign	4.000	24.000	
3.0	W20-1	Road Work Ahead Sign	9.000	27.000	
1.0	R11-3a	Road Closed Local Traffic Only	12.500	13.000	
			TOTAL	64.000	



CITY OF ANN ARBOR ENGINEERING

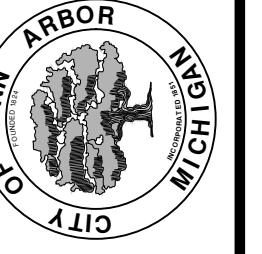
PROJECT LOCATION: WESTFIELD AVE

ITB No. 4620 FILE No. 2020-004



		DAD	DAD	CHECKED
		OS/CE	OS/CE	DRAWN
		03/25/2020	03/05/2020	DATE
01	ADDENDUM 2			REV.
00	BID SET			REV.

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1667
734.794.4410
www.aagov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
STREET RESURFACING PROJECT - 2020
LOCAL STREETS - PHASE 5
WESTFIELD AVE - PHASE 5

SCALE
DRAWING No.
2020-004-93

CONSTRUCTION SCOPE AND SEQUENCING

CONSTRUCTION SCOPE AND SEQUENCING

PERFORM WORK ON THIS STREET IN ACCORDANCE WITH THE "SCHEDULE OF STREETS". COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CONSTRUCTION ON THIS STREET INCLUDES, BUT IS NOT LIMITED TO, THE WORK ITEMS LISTED BELOW. PERFORM THE WORK IN THE ORDER INDICATED UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER AND NOT UNTIL LOCATING ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS NOTED ON THE PLANS AND IN THE CONTRACT SPECIFICATIONS.

1. INSTALL NO PARKING SIGNS (AS REQUIRED), AND ONCE THE SIGNS ARE ENFORCEABLE IMPLEMENT THE MAINTENANCE OF TRAFFIC (M.O.T.) PLAN AND PERMISSIBLE TRAFFIC RESTRICTIONS, AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES.
2. CONDUCT REMOVAL WORK RELATED TO PAVEMENT, DRAINAGE, AND CONCRETE ITEMS WITH EXCEPTION TO COLD MILLING.
3. PERFORM ALL CONCRETE WORK, INCLUDING RESTORATION, AS REQUIRED.
4. REMOVE EXISTING HMA SURFACE (APPROXIMATELY 2 INCHES) BY COLD MILLING. THIS MAY ALSO INCLUDE ADDITIONAL HMA REMOVAL AND/OR BASE REPAIRS TO A DEPTH DETERMINED BY THE ENGINEER.
5. CLEAN PAVEMENT AND WITH APPROVAL FROM THE ENGINEER PLACE 2.0 INCH TOP COURSE HMA MIX (LVSP).
6. CLEAN PAVEMENT AND PLACE SIDE STREET HMA APPROACHES AS REQUIRED.
7. CLEAN PAVEMENT AND PLACE HMA APPROACHES OR WEDGING (DRIVEWAYS) AS REQUIRED.
8. OPEN STREET TO ALL TRAFFIC UPON APPROVAL OF THE ENGINEER.
9. CLEAN PAVEMENT AND COMPLETE ALL PAVEMENT MARKINGS AS REQUIRED.
10. REMOVE SESC MEASURES.
11. COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING TEMPORARY CLEANING OF STRUCTURES AND ALL OTHER NECESSARY CLEAN UP, FINAL RESTORATION.
12. REMOVE ALL TRAFFIC CONTROL DEVICES, NO PARKING SIGNS, AND MISS DIG FLAGS.

NOTES

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QUANTITIES

Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	3.000
2030015	Sewer, Rem, Less than 24 inch	Ft	30.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	607.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	135.410
2057011	_Grading, Driveway Approach	Syd	135.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	10.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	30.000
4030200	Dr Structure, 24 inch dia	Ea	3.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	3.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	3.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	60.000
5010002	Cold Milling HMA Surface	Syd	3,322.000
5010005	HMA Surface, Rem	Syd	67.444
5010703	HMA, LVSP	Ton	390.000
6027021	_Flowable Fill	Cyd	16.861
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	135.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	66.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	541.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4.000
8120250	Plastic Drum, High Intensity, Furn	Ea	15.000
8120251	Plastic Drum, High Intensity, Oper	Ea	15.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	61.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	61.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	16.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	16.000
8127050	_Temporary No Parking Sign	Ea	30.200
8167011	_Slope Restoration	Syd	242.800
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	5.000

QUANTITIES

Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (Sft)	Total Area (Sft)
4.0	*D3-1	Street Name Sign	4.000	16.000
4.0	W20-1	Road Work Ahead Sign	9.000	36.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
TOTAL			25.500	77.000