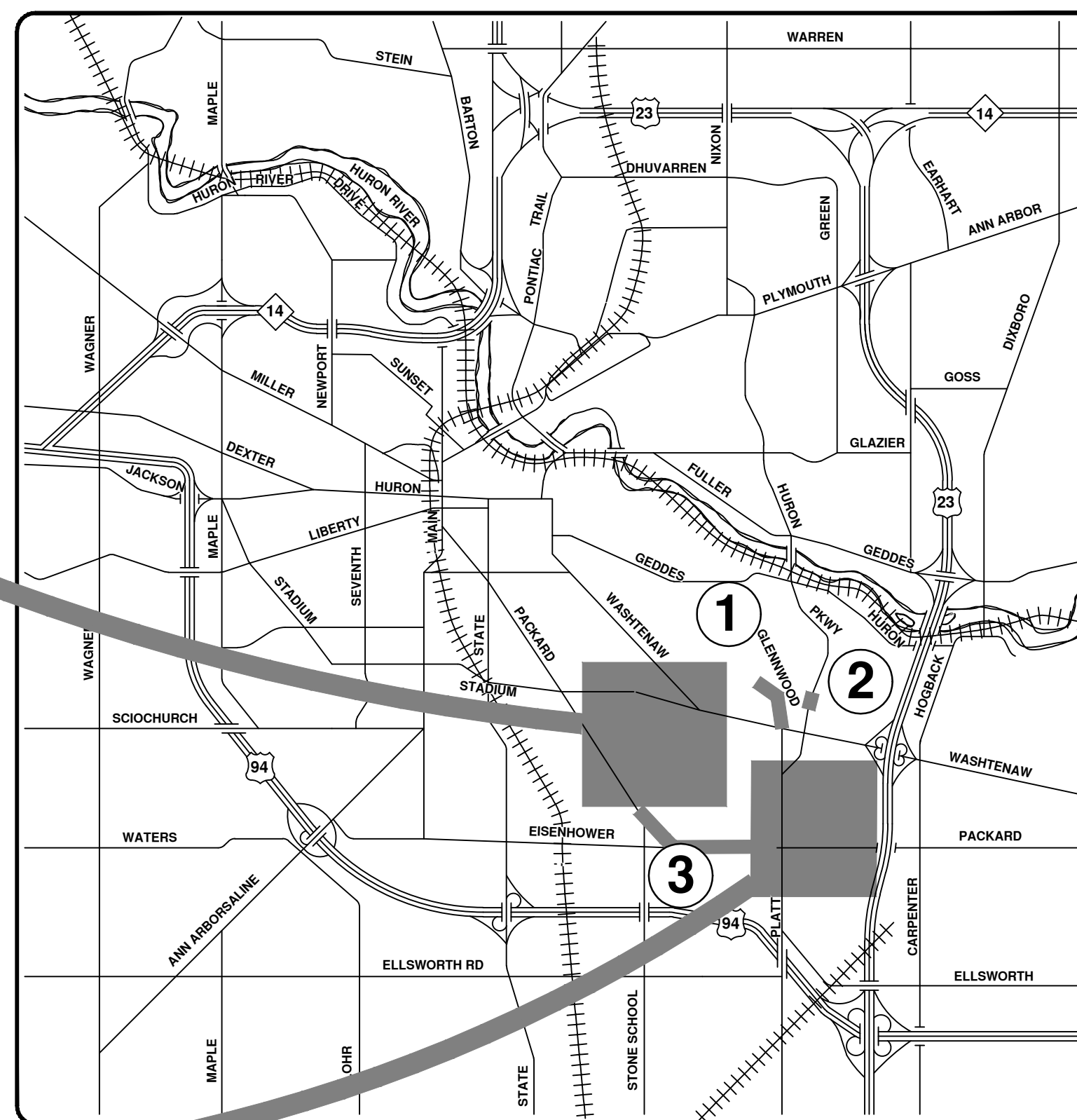
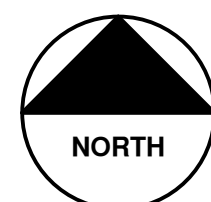




# CITY OF ANN ARBOR ENGINEERING

## STREET RESURFACING PROJECT - 2021

BID No. 4667, FILE No. 2021-004



VICINITY MAP

**NOTES**

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

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

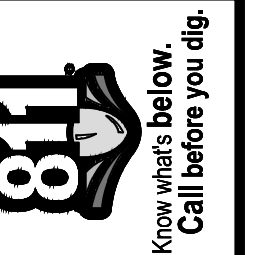
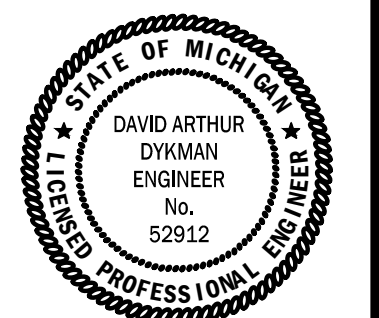
THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, ITS DETAILS, WHICH ARE INCLUDED BY REFERENCE, AND THIS PROJECT'S CONTRACT DOCUMENTS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE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

SHEET 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	
5-12	TRAFFIC CALMING DETAIL	
13-14	LOCAL STREET TRAFFIC CONTROL	
15-22	PACKARD STREET HMA PATH	1
23-25	HURON PKWY APPROACH TO LINDSAY LANE	2
26-30	GLENWOOD ROAD	3
31-38	PHASE 1 - BALDWIN AVE, BROCKMAN BLVD, CARHART AVE, CHESTLAND ST, EASTOVER PLACE, FERDON RD, SAINT FRANCIS DR	4
39-44	PHASE 2A - CANTERBURY RD, DORCHESTER RD, INDEPENDENCE BLVD 2, MANCHESTER RD, TOWNER BLVD	5
4-51	PHASE 2B - CHESTERFIELD ST, CRANBROOK RD, GLADSTONE AVE, INDEPENDENCE BLVD 1, VICTORIA AVE, YORKSHIRE RD	6
52-58	PHASE 3 - BRANDYWINE ST, EDDY ST, MARSHALL ST, SAINT AUBIN AVE, VERLE AVE, YOST BLVD	7

PREPARED UNDER THE SUPERVISION OF

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

02/20/2021  
DATE



REV.	DATE	DESCRIPTION
00	02/16/21	BID ST
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		DRAWN
		CHECKED

CITY OF ANN ARBOR  
PUBLIC SERVICES  
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ANN ARBOR, MI 48107-8647  
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STREET RESURFACING PROJECT - 2021  
COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-1  
SHEET No. 1 OF 58

**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.

**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
*RIGHT-OF-WAY CONSTRUCTION PERMIT	MICHIGAN DEPARTMENT OF TRANSPORTATION
* 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	KEVIN SCHNEIDER (734) 794-6350 KSCHNEIDER@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  
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STREET RESURFACING PROJECT - 2021

SCALE: NTS

DRAWING No. 2021-004-2

NOTES & MISCELLANEOUS QUANTITIES

**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:**

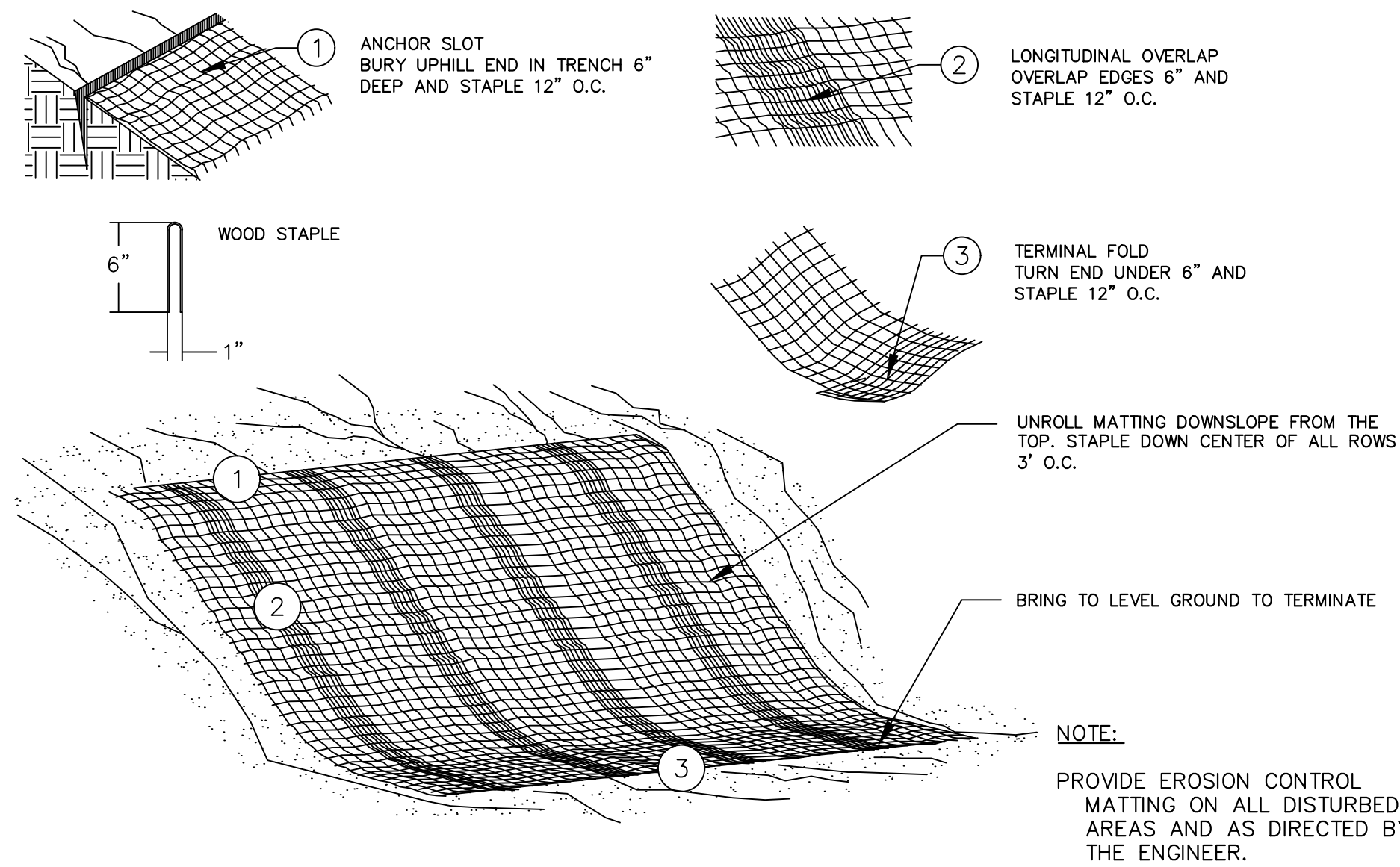
- 1.1. INSTALL SILT FENCE, TREE PROTECTION FENCING, MUD MATS, INLET FILTERS ON EXISTING DRAINAGE FEATURES, AND ALL OTHER TEMPORARY SOIL EROSION CONTROLS, PRIOR TO ANY CLEARING OR EARTH MOVING OPERATION.
- 1.2. STRIP AND STOCKPILE TOPSOIL. STABILIZE STOCKPILE AS REQUIRED.
- 1.3. INSTALL WATER MAINS, STORM 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

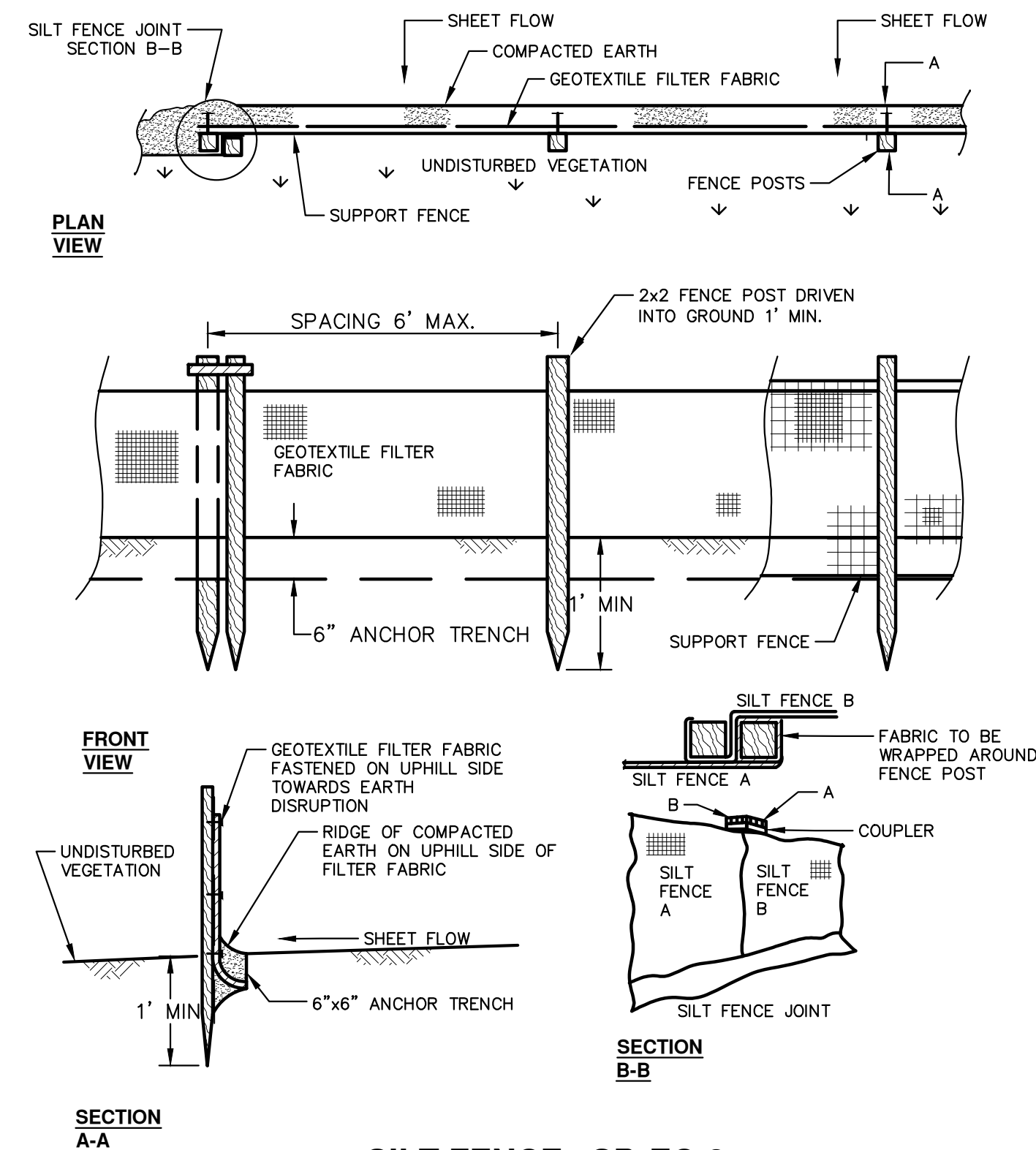
NOTE: THIS SEQUENCE IS FOR INFORMATION ONLY. IT IS INTENDED TO SHOW THE SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THEIR OWN DETAILED CONSTRUCTION SEQUENCE AND SCHEDULE TO THE ENGINEER FOR REVIEW, COMMENT,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

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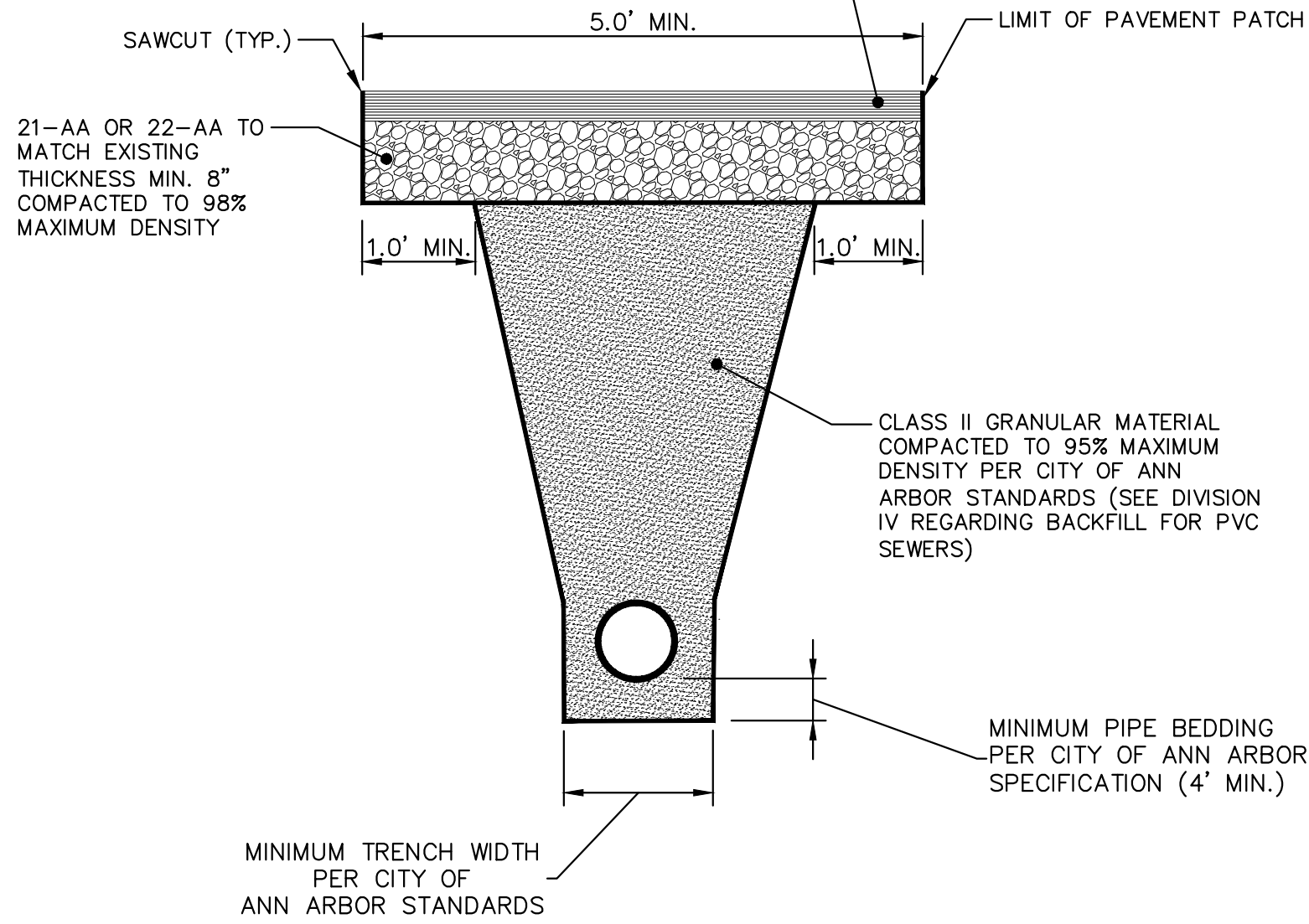
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301 EAST HURON STREET  
ANN ARBOR, MI 48106-8647  
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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**STREET RESURFACING PROJECT - 2021**  
SESC NOTES AND DETAILS

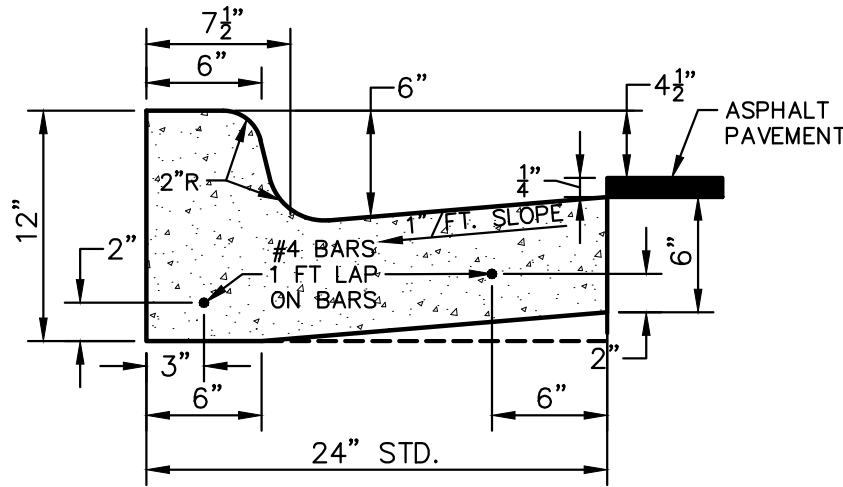
SCALE: NTS  
DRAWING No. 2021-004-3  
SHEET No.

1300T-20AAA BITUMINOUS MATERIAL TO MATCH EXISTING THICKNESS (MIN. 3") PLACED IN LIFTS NOT TO EXCEED 2" IN DEPTH AND COMPACTED TO 97% OF THE MARSHALL CONTROL DENSITY.

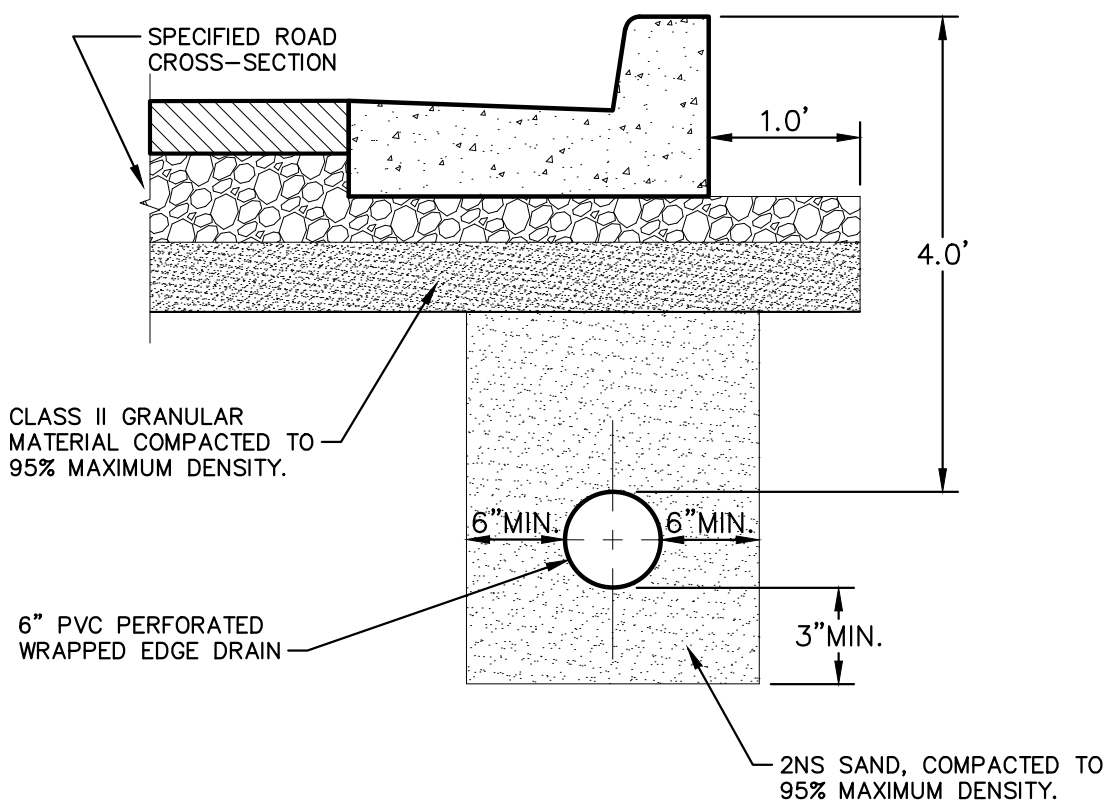


- NOTES:
- DENSITY TESTING PER CITY ANN ARBOR SPECIFICATION
  - TRENCH DETAILS SHOW TYPE OF BACKFILL AND SURFACE RESTORATION ONLY.
  - ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. STANDARDS

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

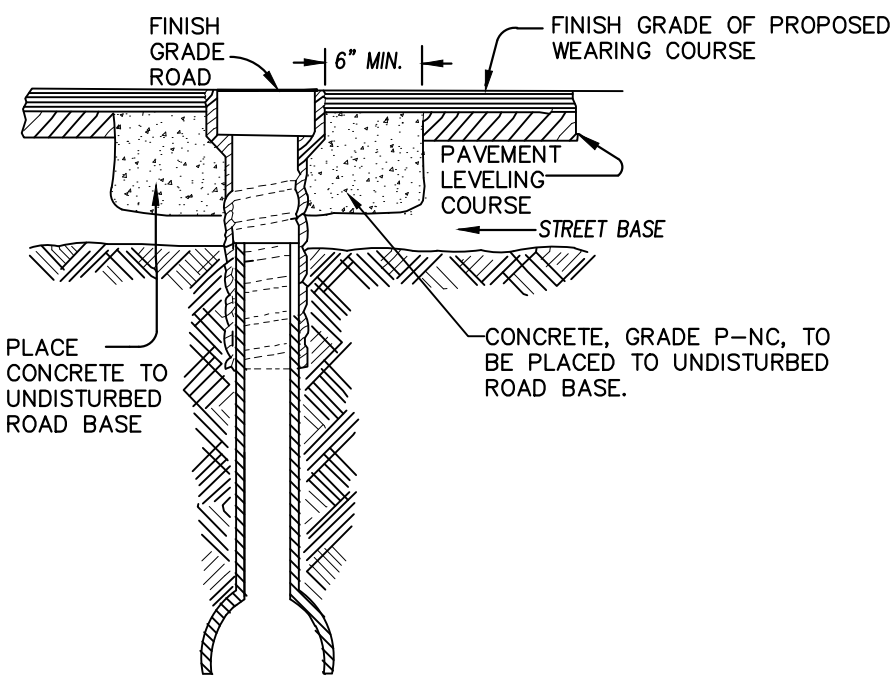


**BARRIER CURB AND GUTTER SD-R-1**



- NOTES:
- FOR PAVEMENT BASE AND SUBBASE THICKNESS, SEE TYPICAL PAVEMENT CROSS-SECTION.
  - DENSITY TESTING PER CITY OF ANN ARBOR SPECIFICATIONS.
  - TRENCH DETAILS SHOW TYPE OF BACKFILL AND SURFACE RESTORATION ONLY.
  - ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. STANDARDS.

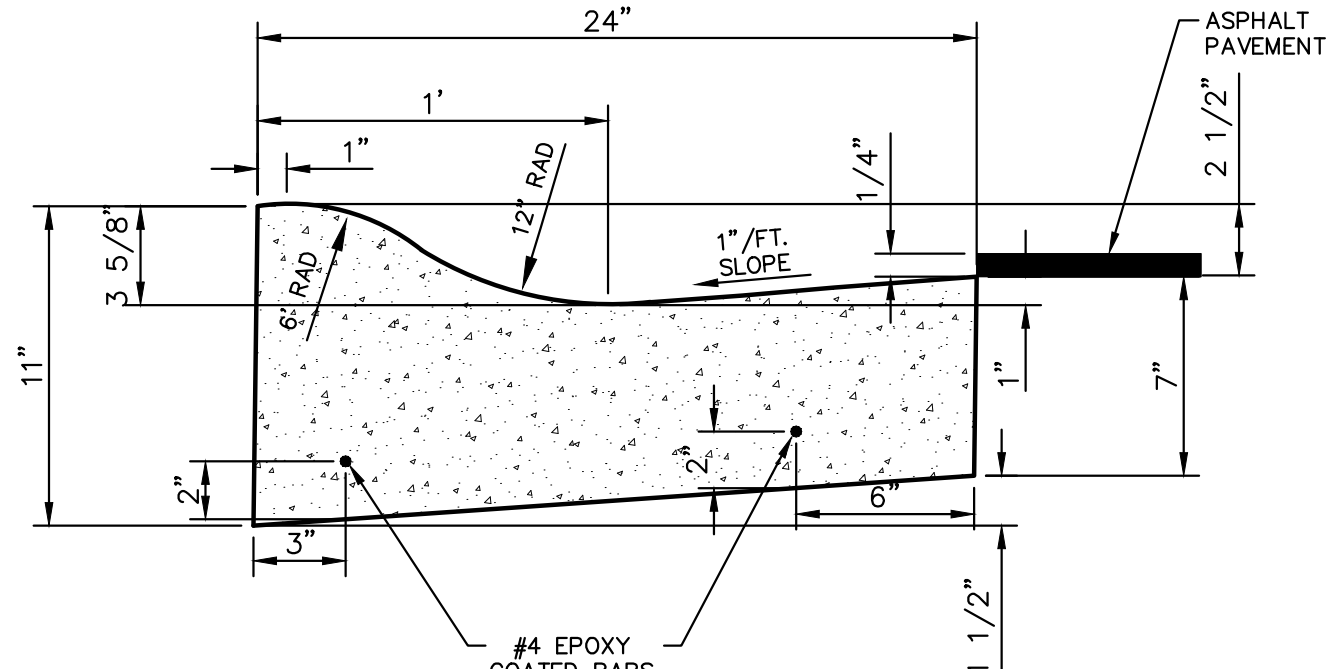
**TYPICAL EDGE DRAIN TRENCH SD-TD-10**



NOTE: RAISE CASTING TO PROPOSED FINISH STREET GRADE AFTER PLACEMENT OF LEVELING COURSE(S) AND PRIOR TO PLACING FINAL SURFACE COURSE

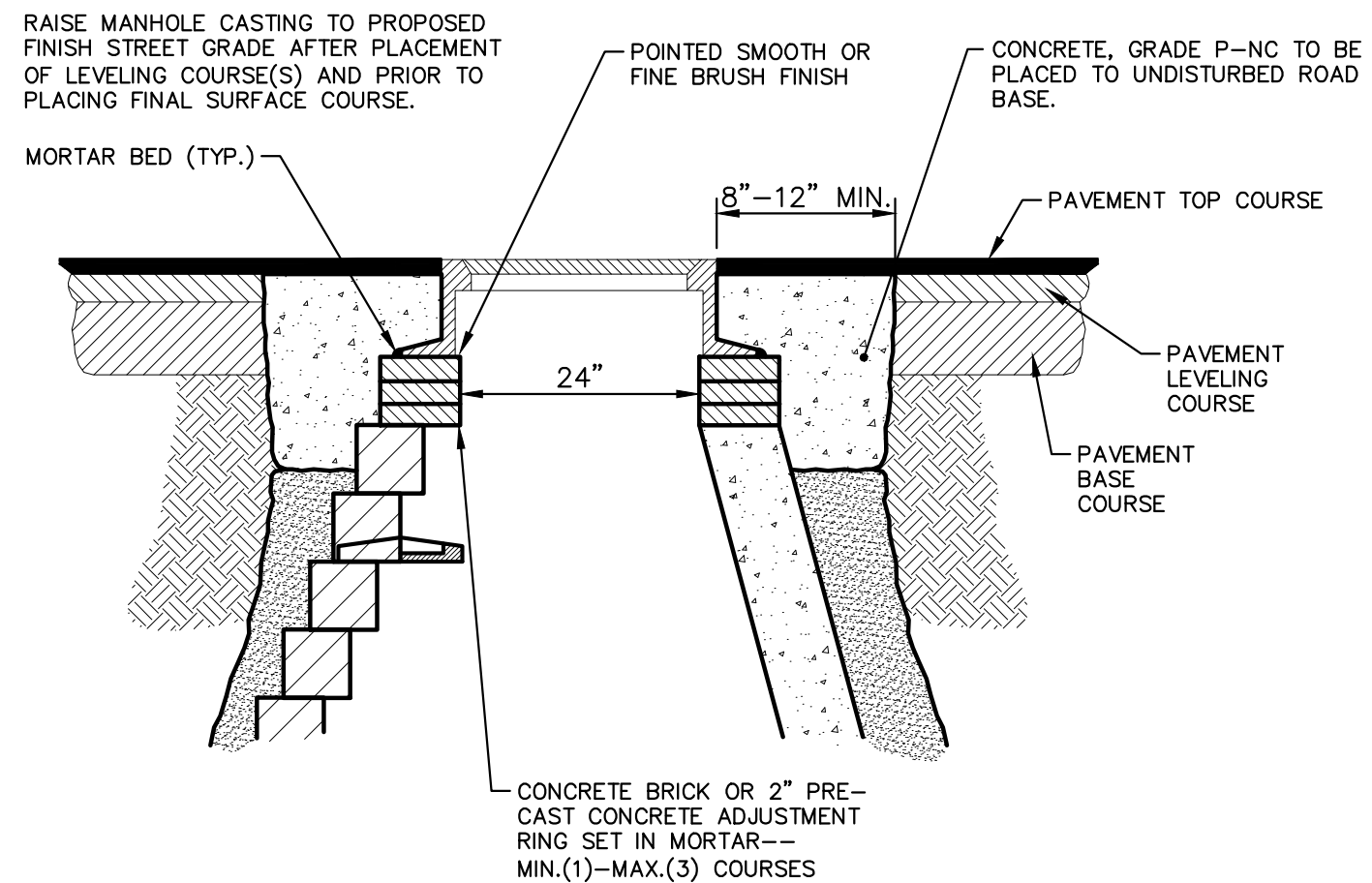
CITY OF ANN ARBOR STANDARD SD-GU-7 APPLIES TO: SEE PLANS FOR LOCATIONS

**WATER VALVE BOX ADJUSTMENT**



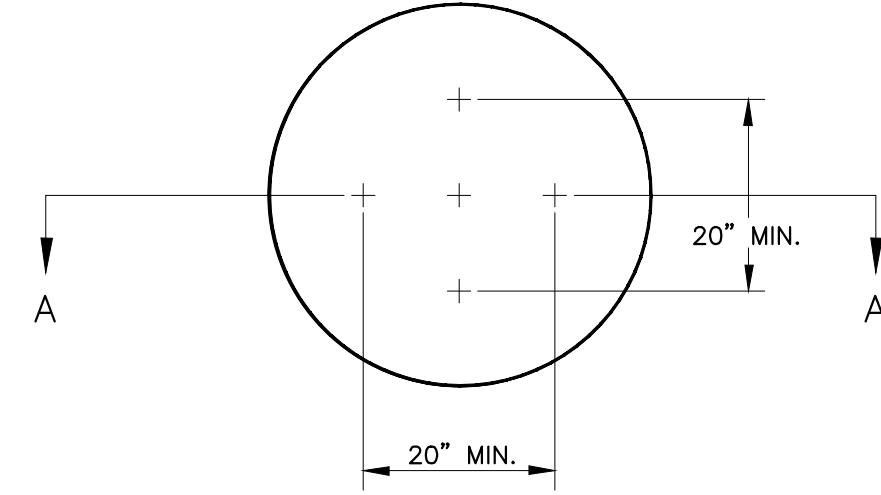
- NOTES:
- FRONT EDGE OF INLET CASTINGS SHALL BE FLUSH WITH FRONT EDGE OF GUTTER (EDGE-OF-METAL).
  - THIS DETAIL SHALL BE USED FOR MOUNTABLE CURB AND GUTTER ON ASPHALT STREETS. SEE SD-R-3 FOR MOUNTABLE CURB AND GUTTER ON CONCRETE STREETS.

**MOUNTABLE CURB & GUTTER FOR ASPHALT STREETS SD-R-2**

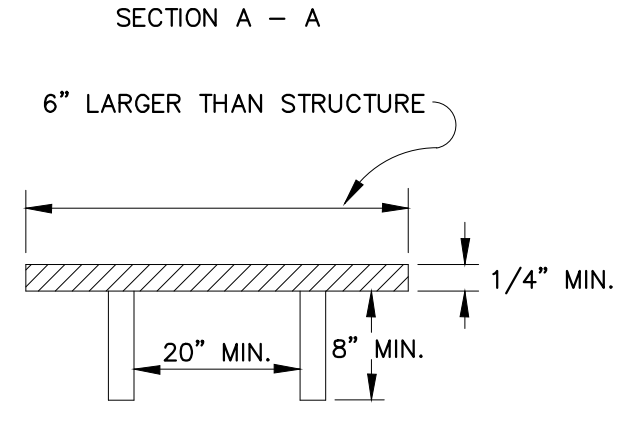


NOTE: IF MANHOLE WILL BE PLACED IN GRAVEL ROAD, CASTING TO BE SET 6" TO 8" BELOW ROADWAY GRADE. ALL CONSTRUCTION METHODS SHALL REMAIN AS SHOWN ABOVE.

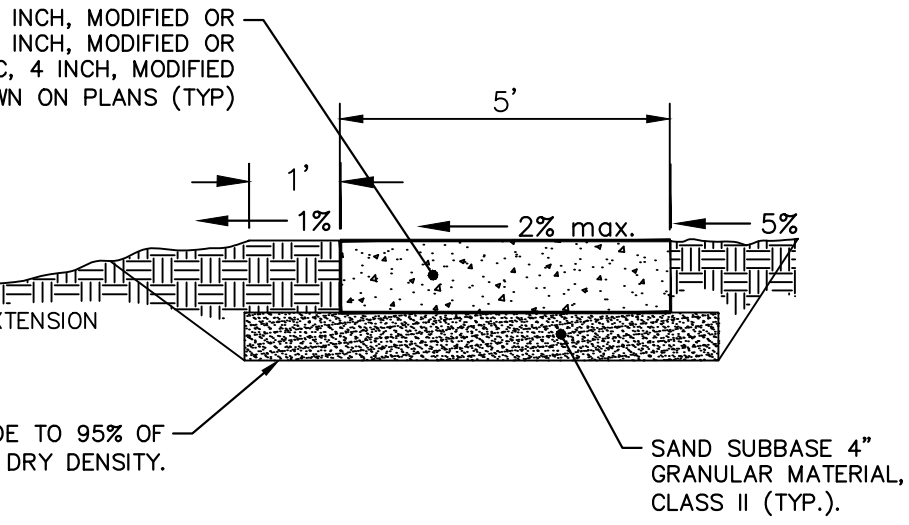
**MANHOLE CASTING ADJUSTMENT SD-GU-6**



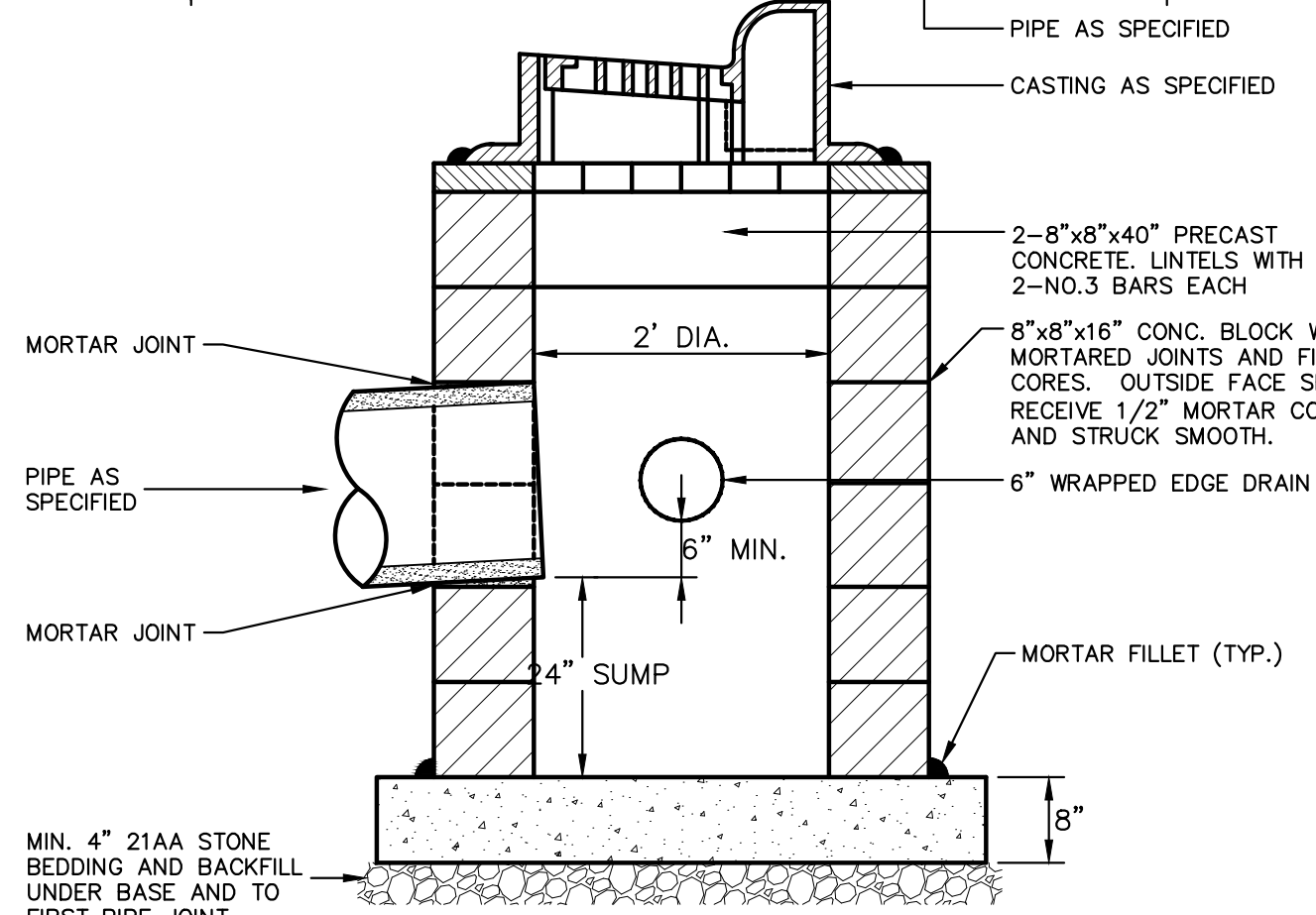
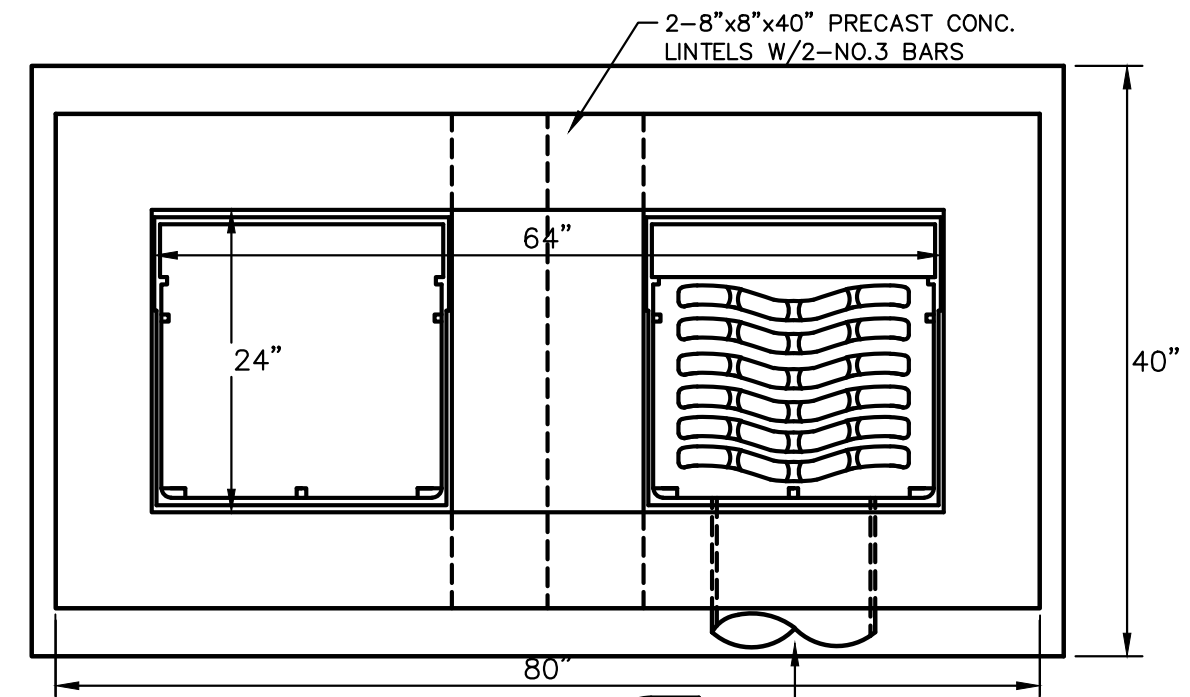
NOTE: PLATE MAY BE CIRCULAR, SQUARE OR RECTANGULAR



**STRUCTURE PLATE**

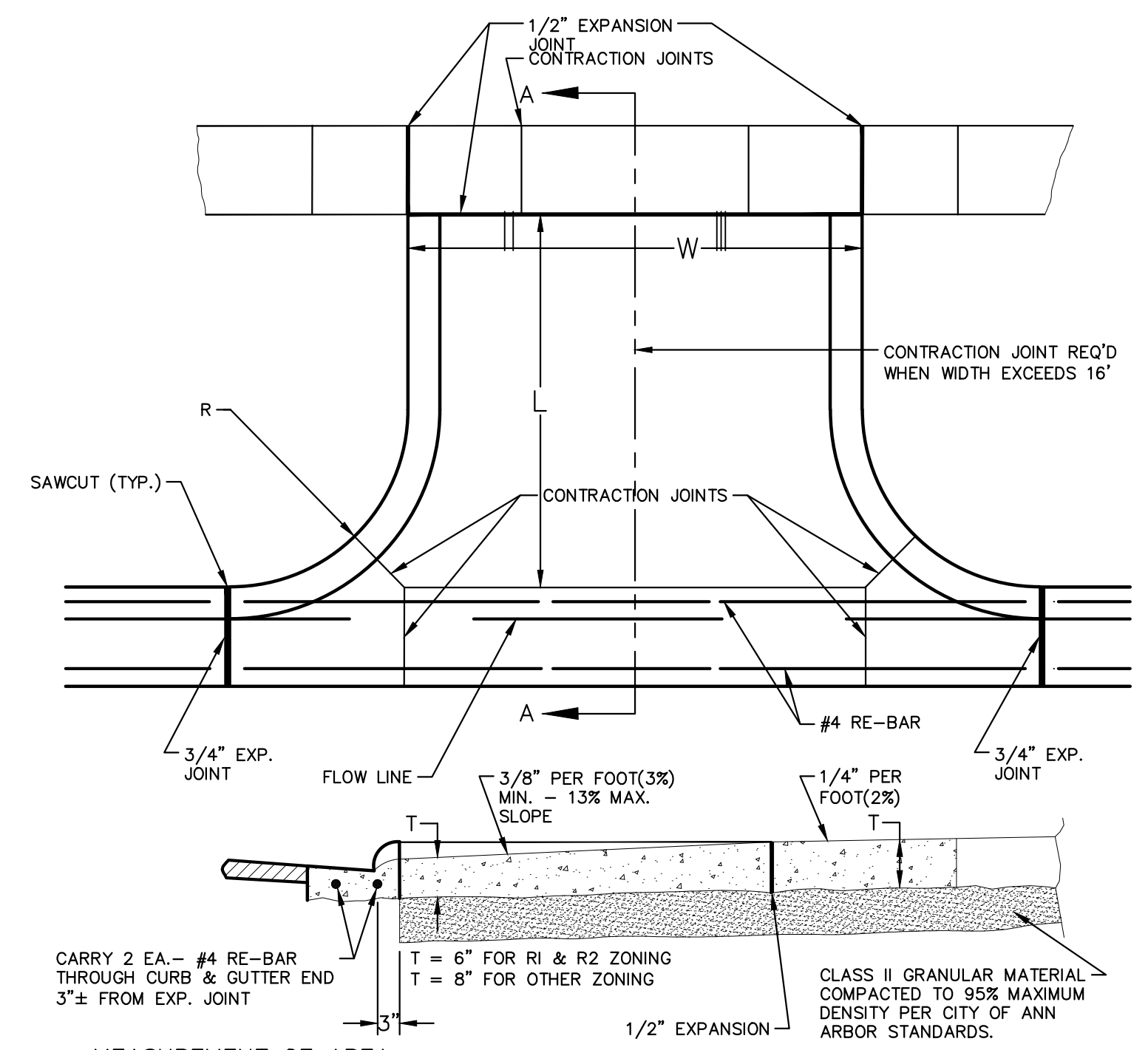


**TYPICAL 5 FT SIDEWALK SECTION**



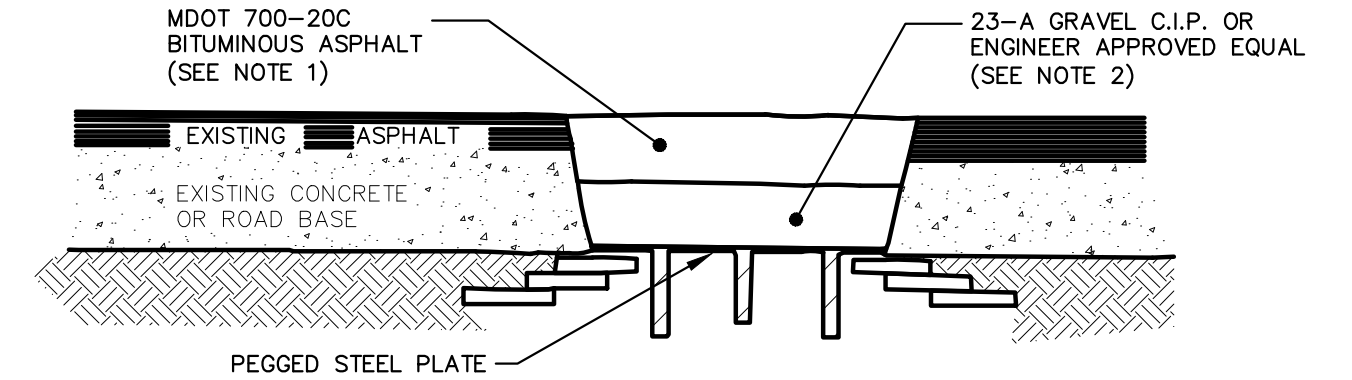
- NOTES:
- FRONT EDGE OF INLET CASTINGS SHALL BE FLUSH WITH THE FRONT EDGE OF GUTTER (EDGE-OF-METAL)
  - 2' SUMP REQUIRED ON ALL DRAINAGE STRUCTURES

**DOUBLE INLET STRUCTURE SD-S-11**

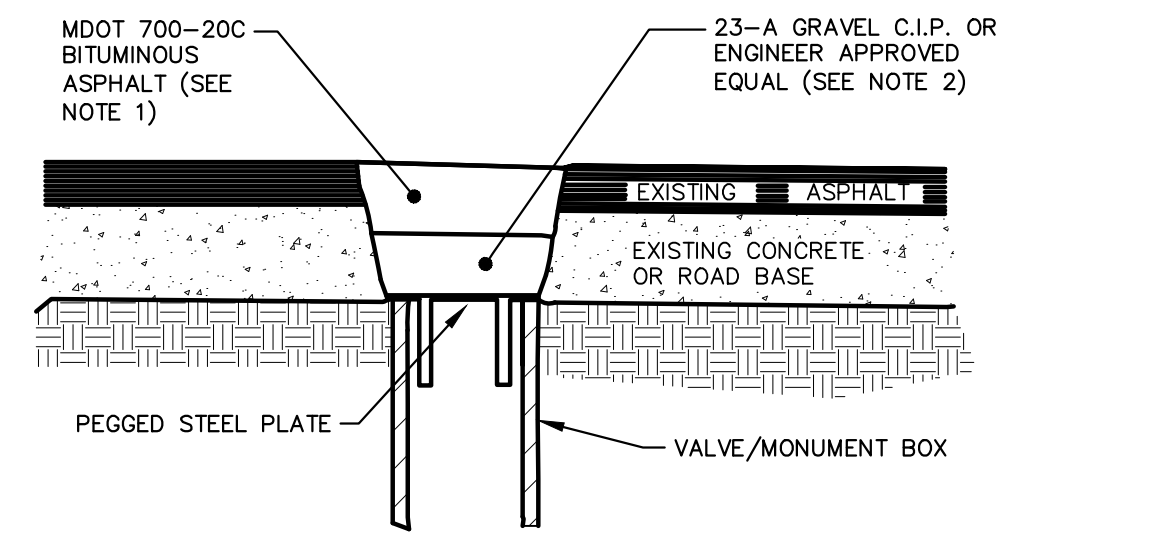


- MEASUREMENT OF AREA  
W x L = AREA
- NOTE:
- DRIVE APPROACH TO BE CLASS 'A' CONCRETE.
  - R(RADIUS) AND W(DRIVE WIDTH) AS REQUIRED FOR ZONING BY CITY CODE
  - IF GUTTER IS OVERLAYED, GUTTER OF THE APPROACH SHALL BE AT SAME ELEVATION AS EXISTING GUTTER AND ASPHALT WEDGE SHALL BE PLACED IN THE APPROACH.

**TYPE 'M' DRIVE APPROACH SD-R-6**



**MANHOLE LOWERING DETAIL**

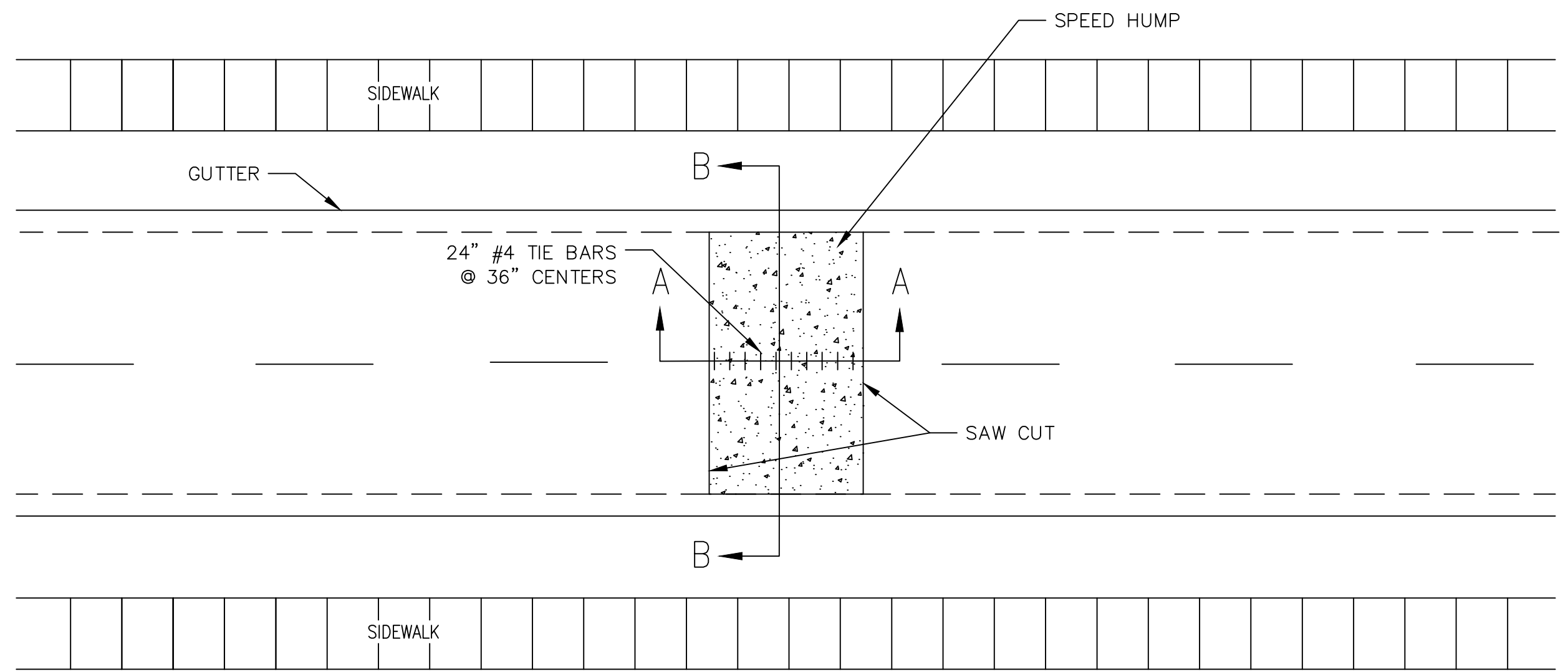


**VALVE BOX/MONUMENT BOX LOWERING DETAIL (SEE NOTE 3)**

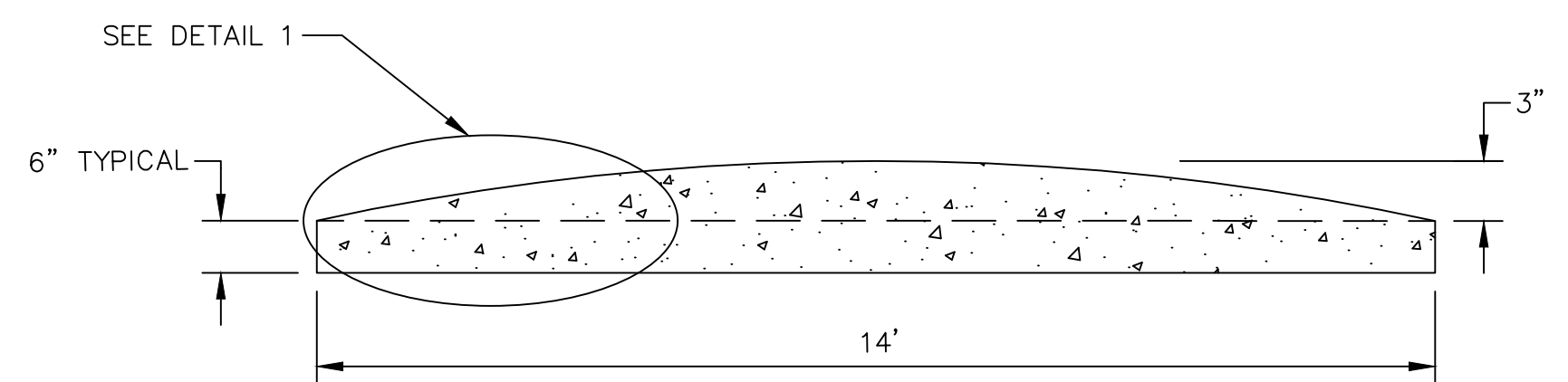
- NOTES:
- IF TRAFFIC IS TO BE MAINTAINED ON THE ROADWAY BEFORE OR AFTER THE COLD MILLING OPERATION, THE STRUCTURE SHALL BE LOWERED TO THE EXTENT THAT A MINIMUM OF THREE(3) INCHES ASPHALT MATERIAL MDOT 700-20C. OR ENGINEER APPROVED EQUAL, REMAINS -TO SUPPORT TRAFFIC.
  - IF THE ROADWAY BEING MILLED IS CLOSED TO TRAFFIC, THE STRUCTURE SHALL BE LOWERED SUCH THAT THE STEEL PLATE IS A MINIMUM OF FOUR(4) INCHES BELOW THE PROPOSED ROAD GRADE AND THE RESULTING VOID SHALL BE FILLED WITH COMPACTED 23-A GRAVEL OR ENGINEER APPROVED EQUAL.
  - WHERE A MONUMENT IS TO BE LOWERED, THE CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF 48 HOURS WRITTEN NOTICE SO THAT THE MONUMENT CAN BE PROPERLY WITNESSED OR PROTECTED. FAILURE TO DO SO SHALL RESULT IN THE ENGINEER REPLACING SAID MONUMENT AT THE CONTRACTORS EXPENSE.

**MANHOLE & VALVE/MONUMENT BOX LOWERING**

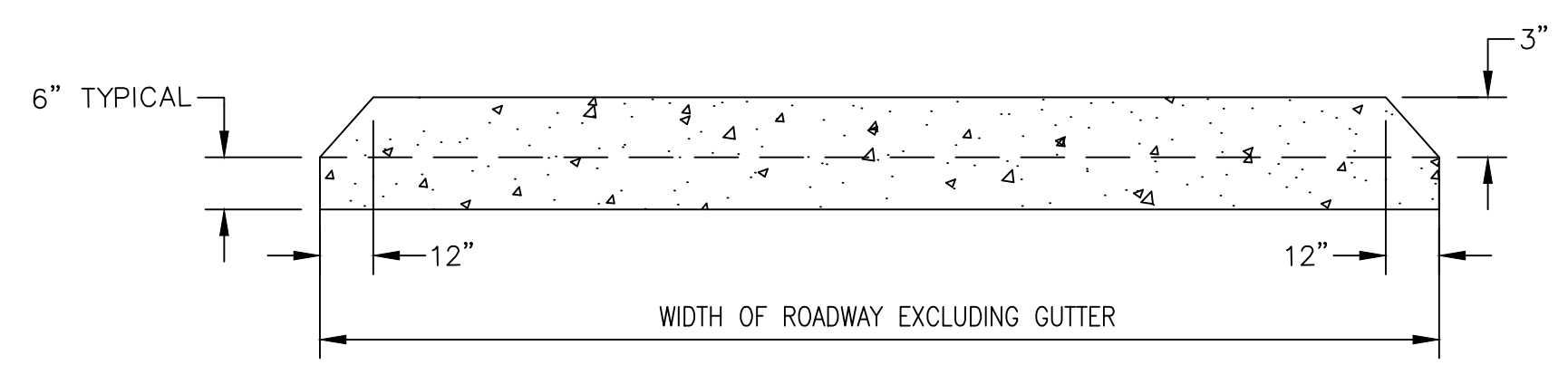
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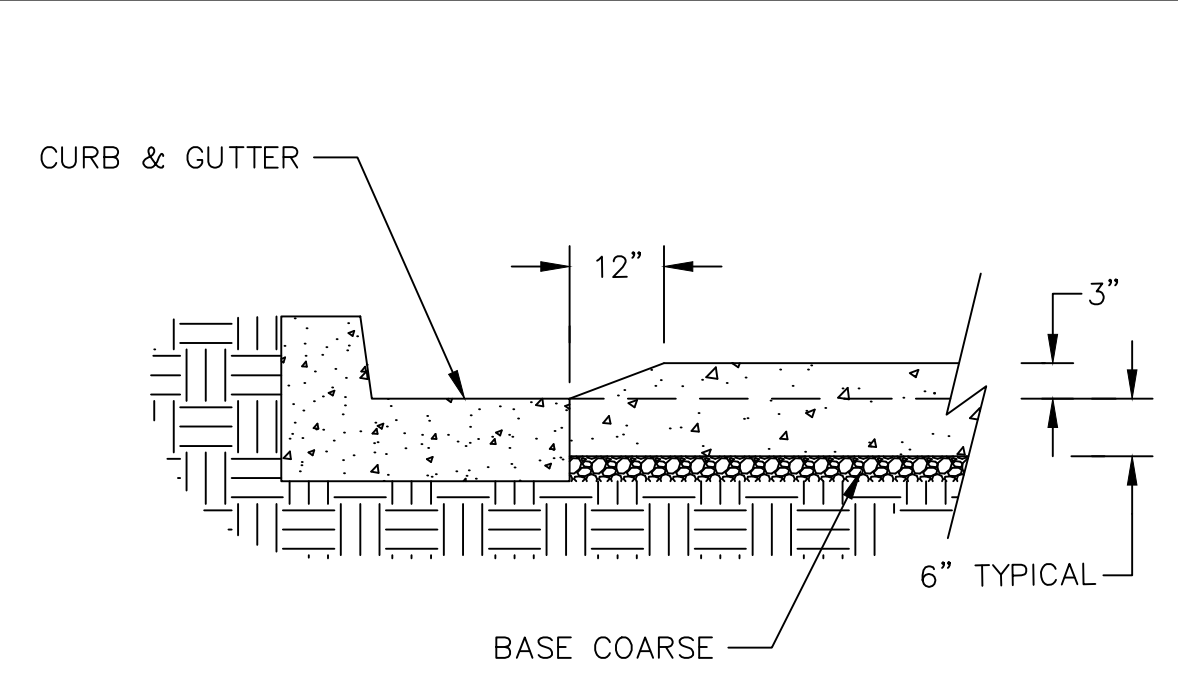
**PLAN VIEW**



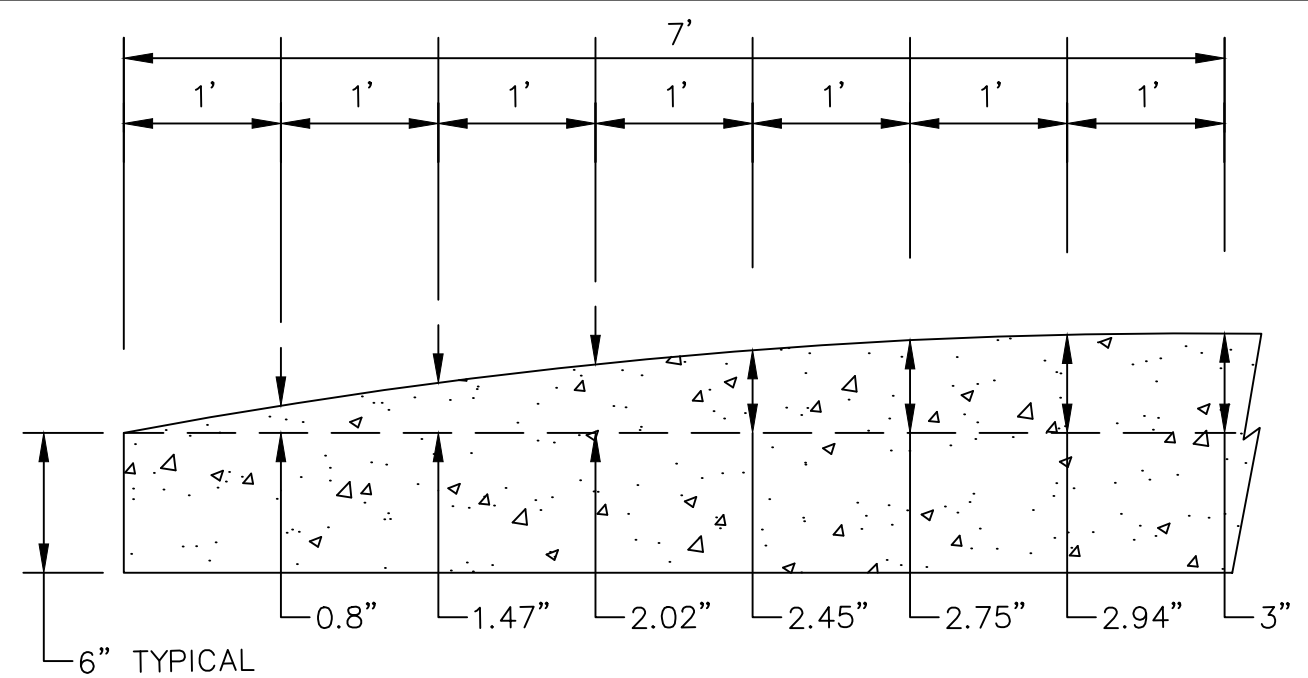
**SECTION AA**



**SECTION BB**



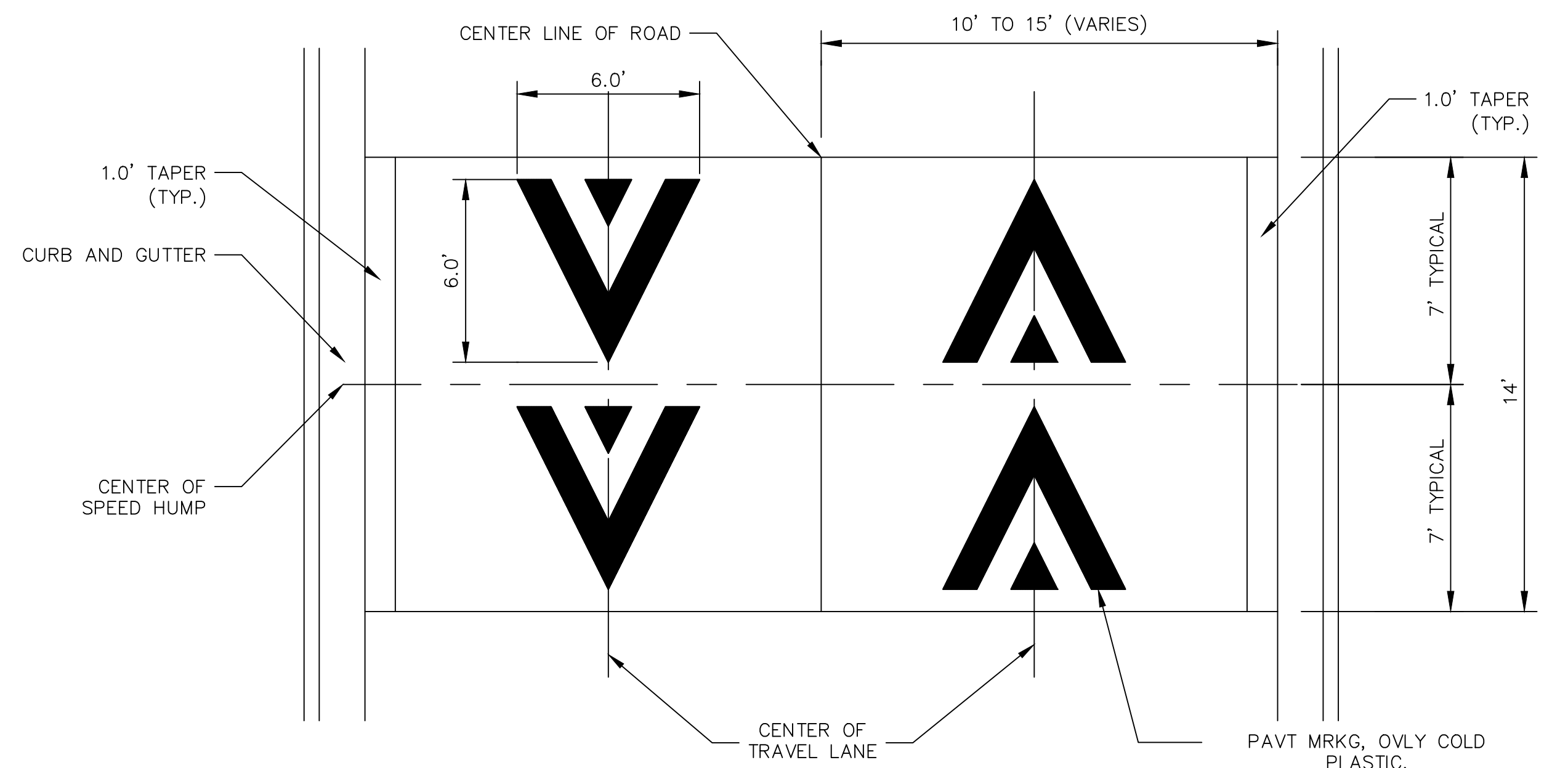
**CURB DETAIL**



**DETAIL 1**

**CONCRETE SPEED HUMP DETAIL**

SCALE: NOT TO SCALE



**PAVEMENT MARKING DETAIL**

SCALE: NOT TO SCALE

**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.



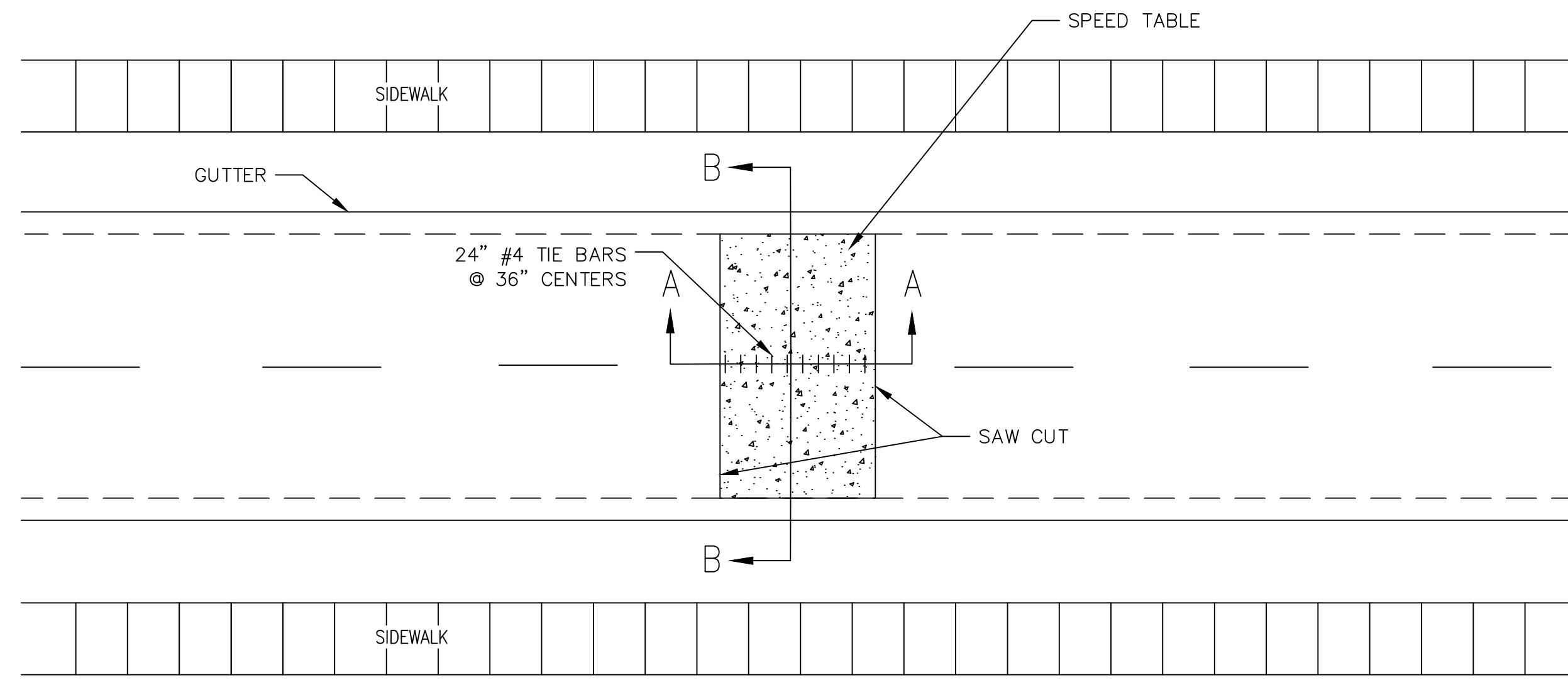
CITY OF ANN ARBOR  
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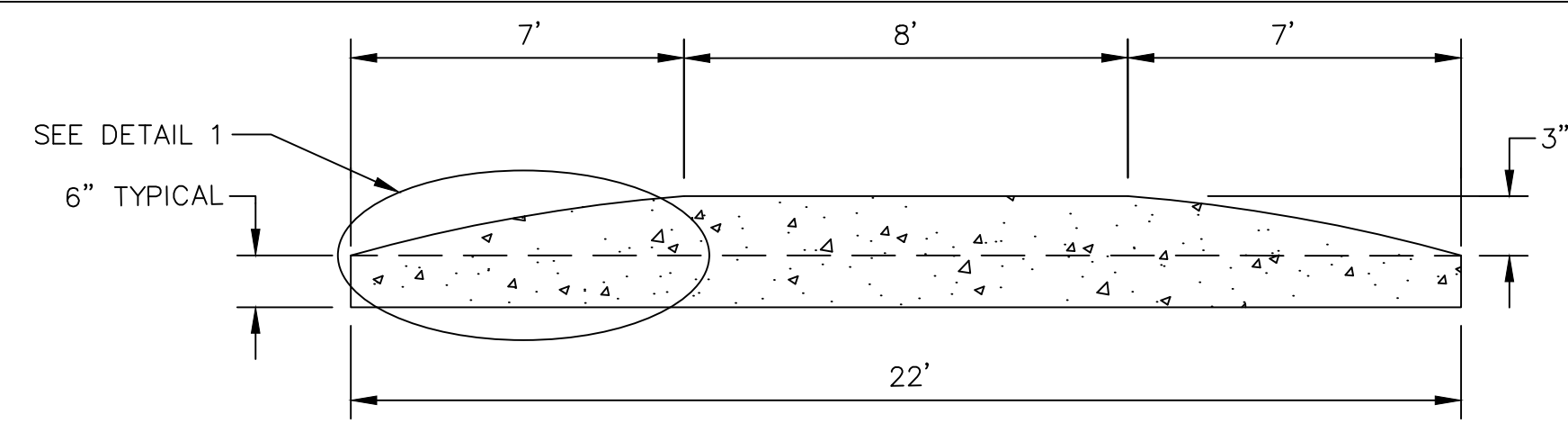
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STREET RESURFACING PROJECT - 2021  
TRAFFIC CALMING DETAIL - CONCRETE SPEED HUMP DETAIL

SCALE PLAN: NTS  
DRAWING No. 2021-004-5

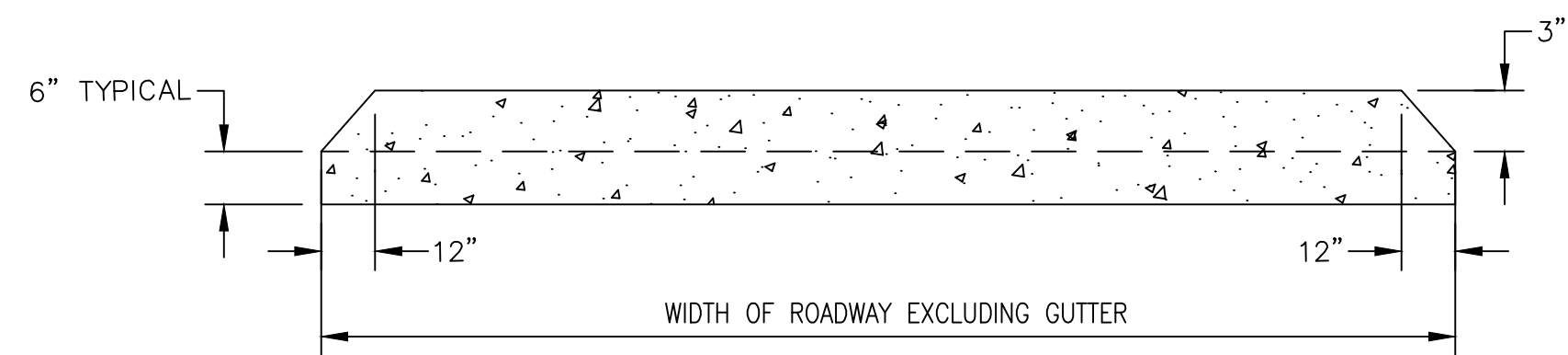
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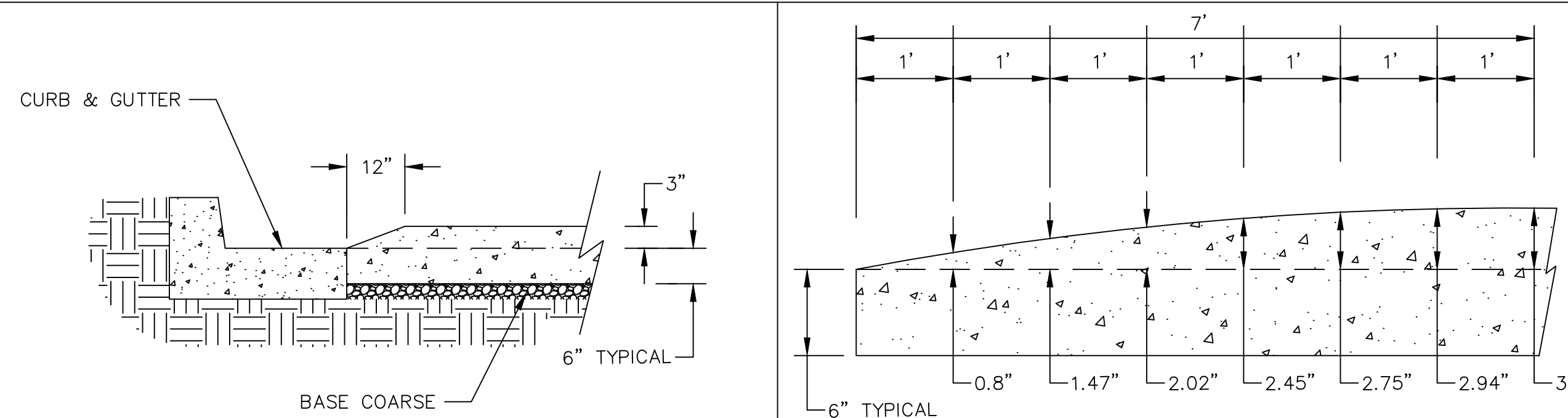
**PLAN VIEW**



**SECTION AA**



**SECTION BB**

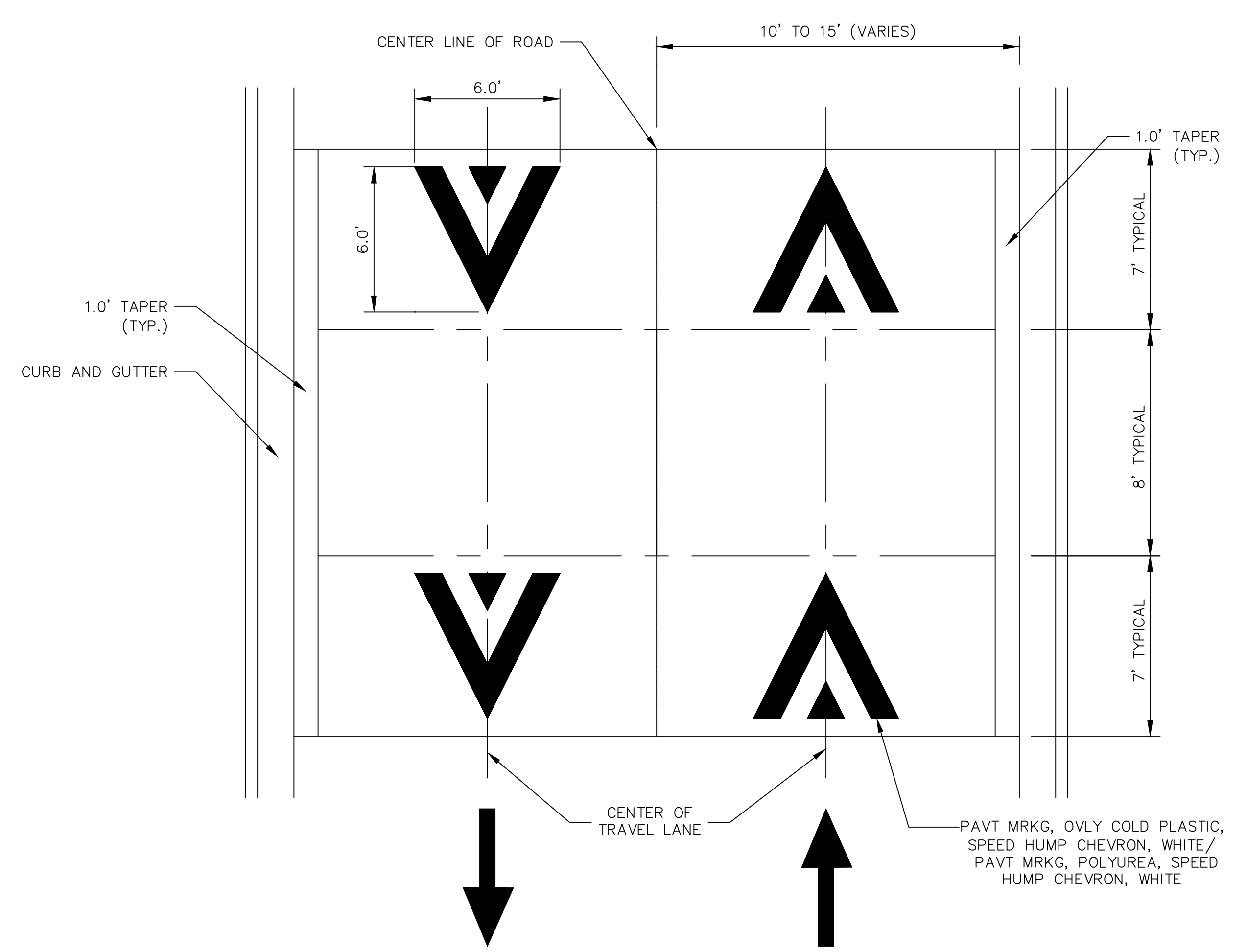


**CURB DETAIL**

**DETAIL 1**

**CONCRETE SPEED TABLE DETAIL**

SCALE: NOT TO SCALE



**PAVEMENT MARKING DETAIL**

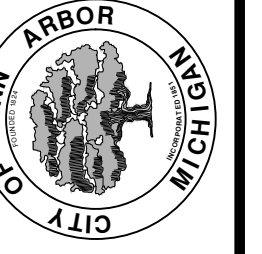
SCALE: NOT TO SCALE

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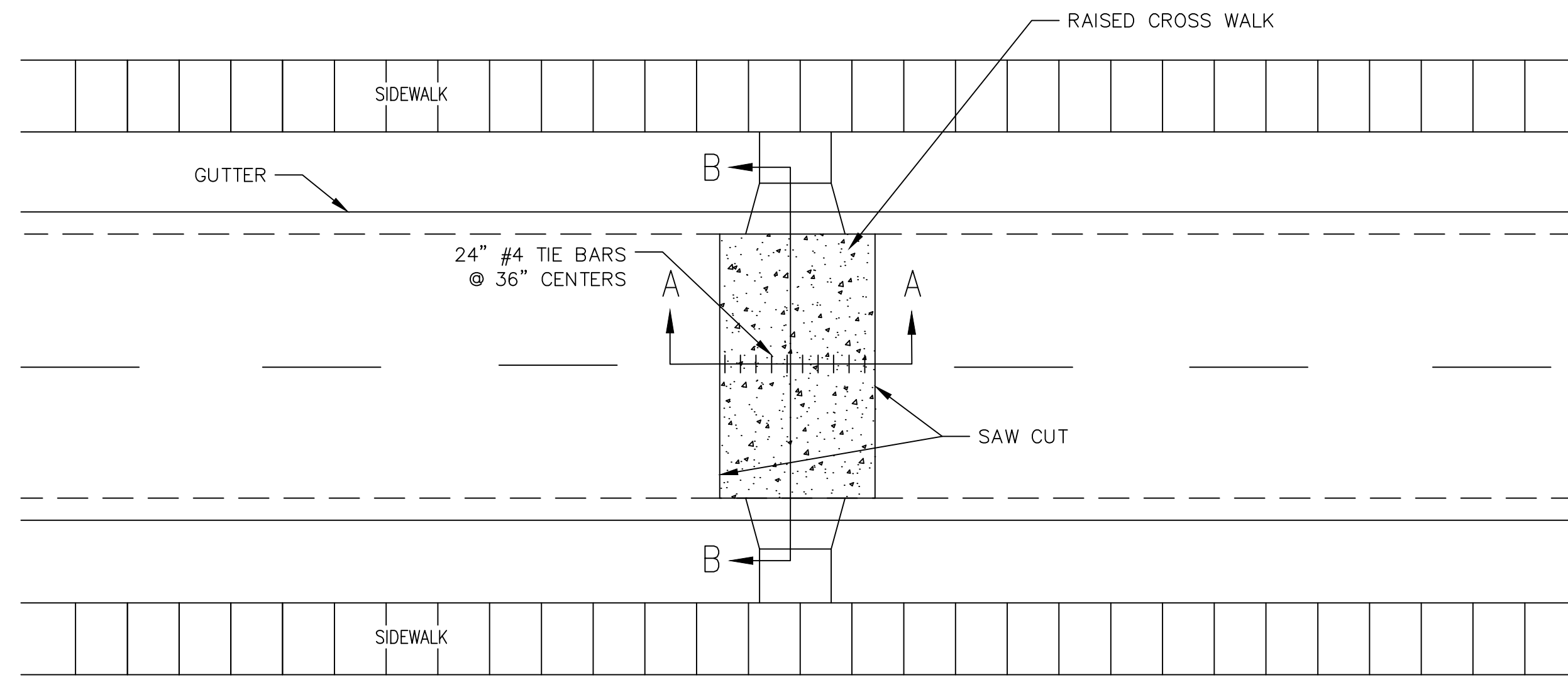
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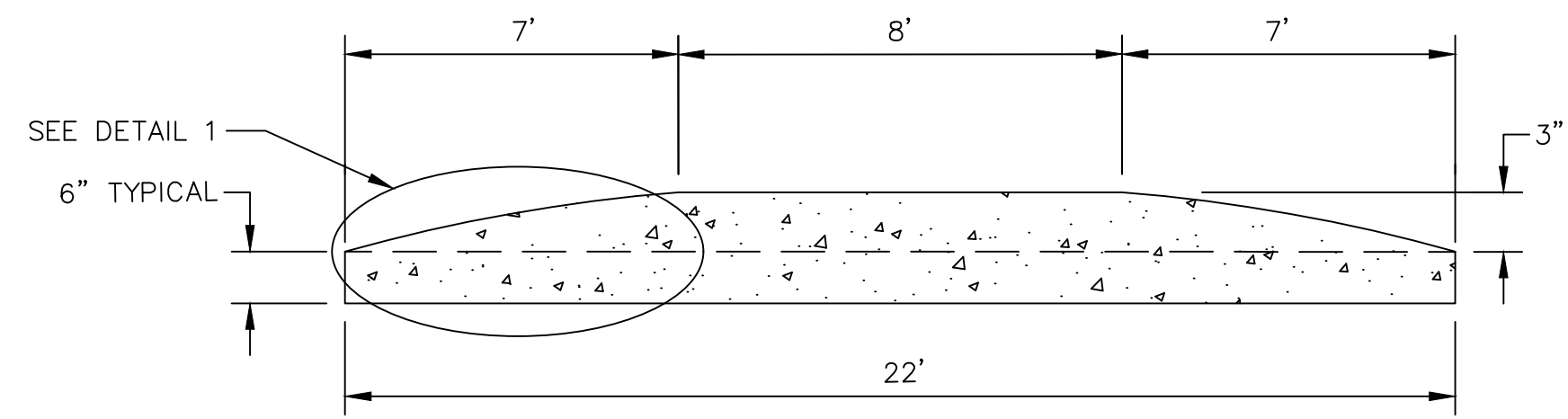
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STREET RESURFACING PROJECT - 2021  
TRAFFIC CALMING DETAIL - CONCRETE SPEED TABLE DETAIL

SCALE PLAN: NTS  
DRAWING No. 2021-004-6

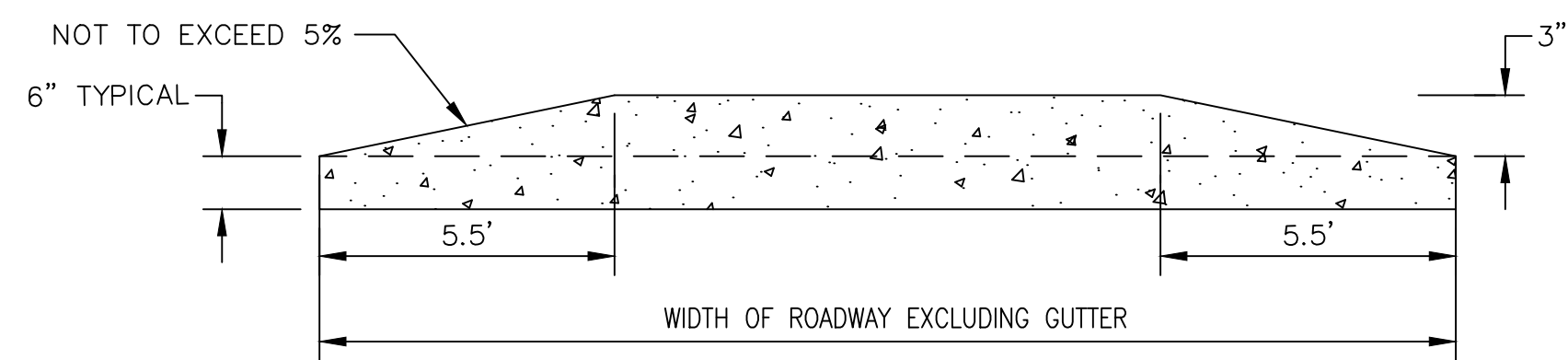
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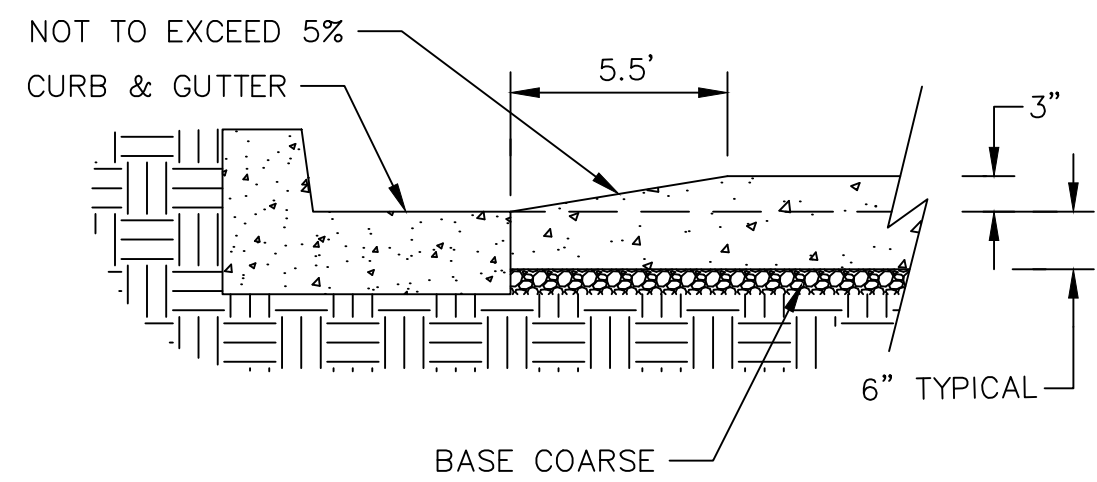
**PLAN VIEW**



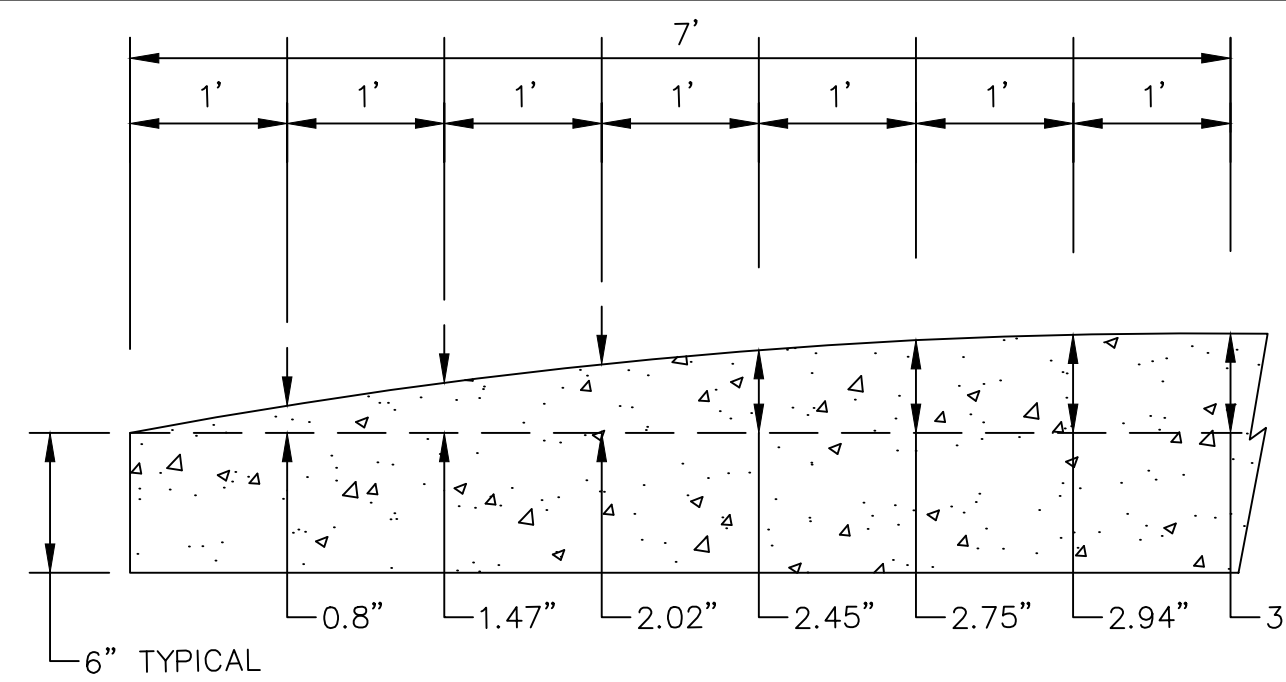
**SECTION AA**



**SECTION BB**



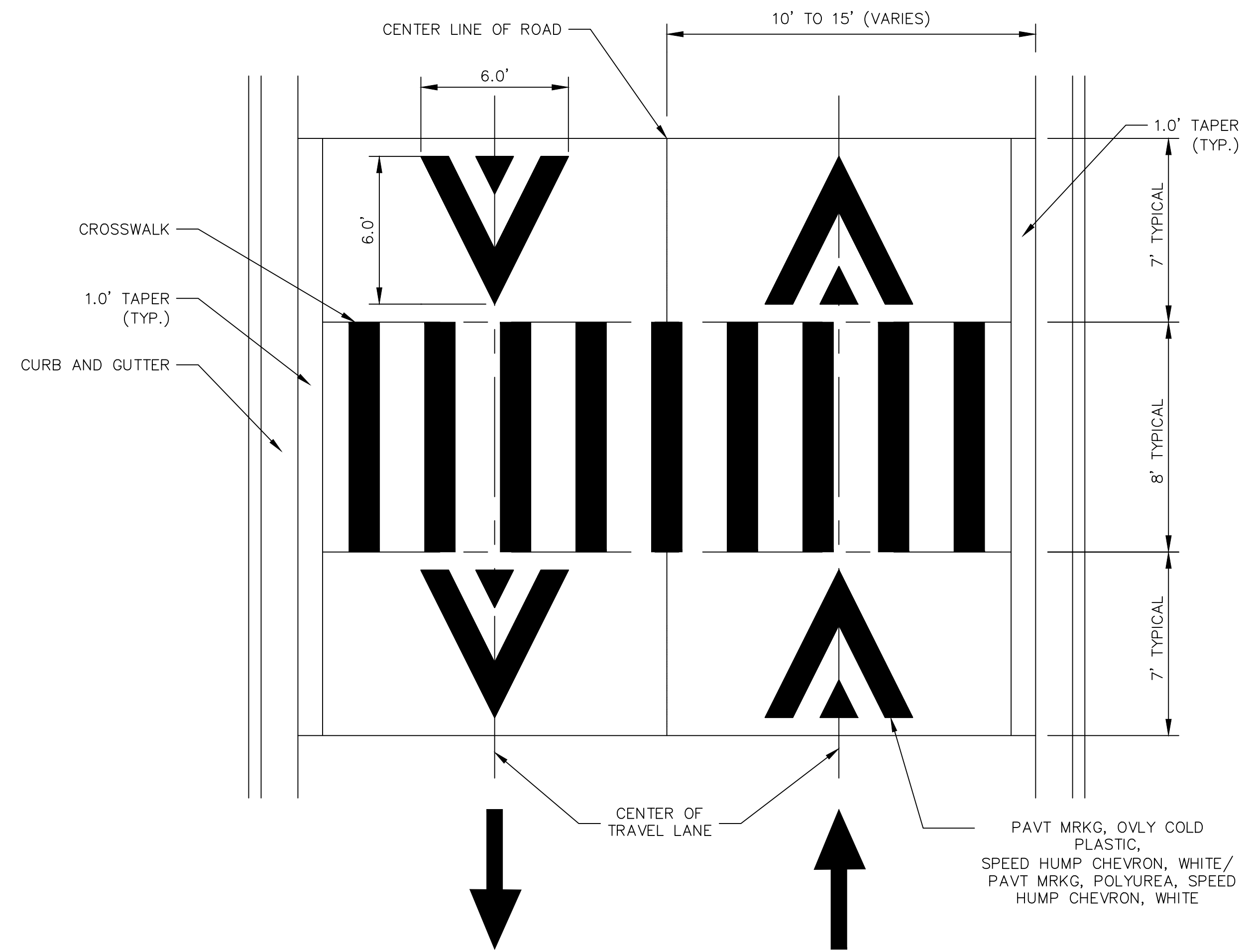
**CURB DETAIL**



**DETAIL 1**

**CONCRETE RAISE CROSS WALK DETAIL**

SCALE: NOT TO SCALE



**PAVEMENT MARKING DETAIL**

SCALE: NOT TO SCALE

**GENERAL NOTES**

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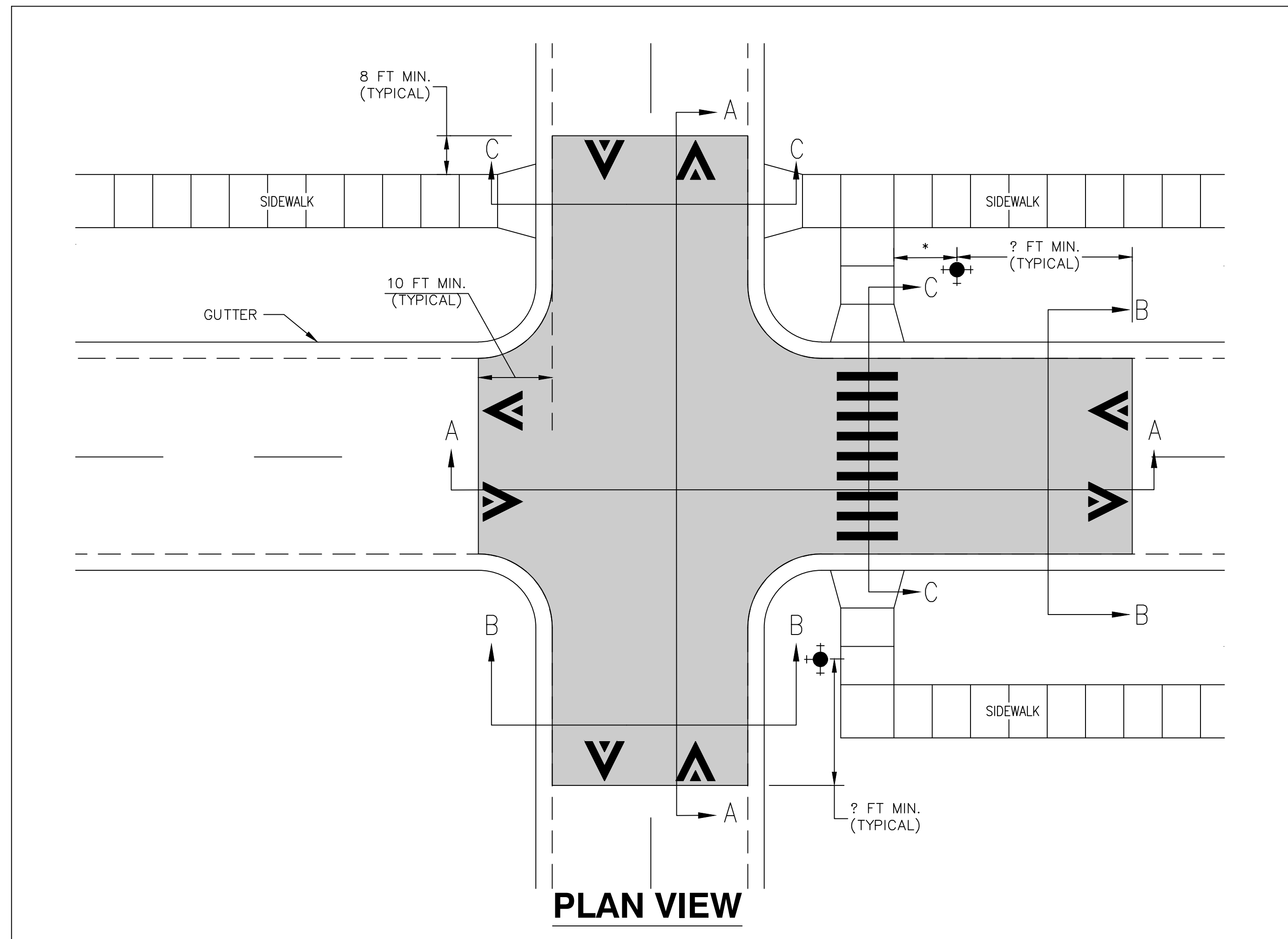


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STREET RESURFACING PROJECT - 2021  
TRAFFIC CALMING DETAIL - CONCRETE RAISE CROSS WALK DETAIL

SCALE PLAN: NTS  
DRAWING No. 2021-004-7

SHEET No.

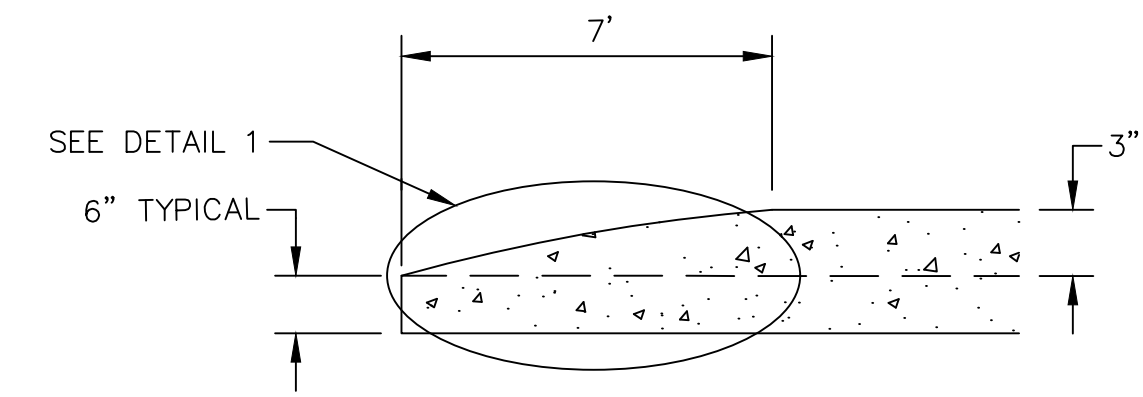
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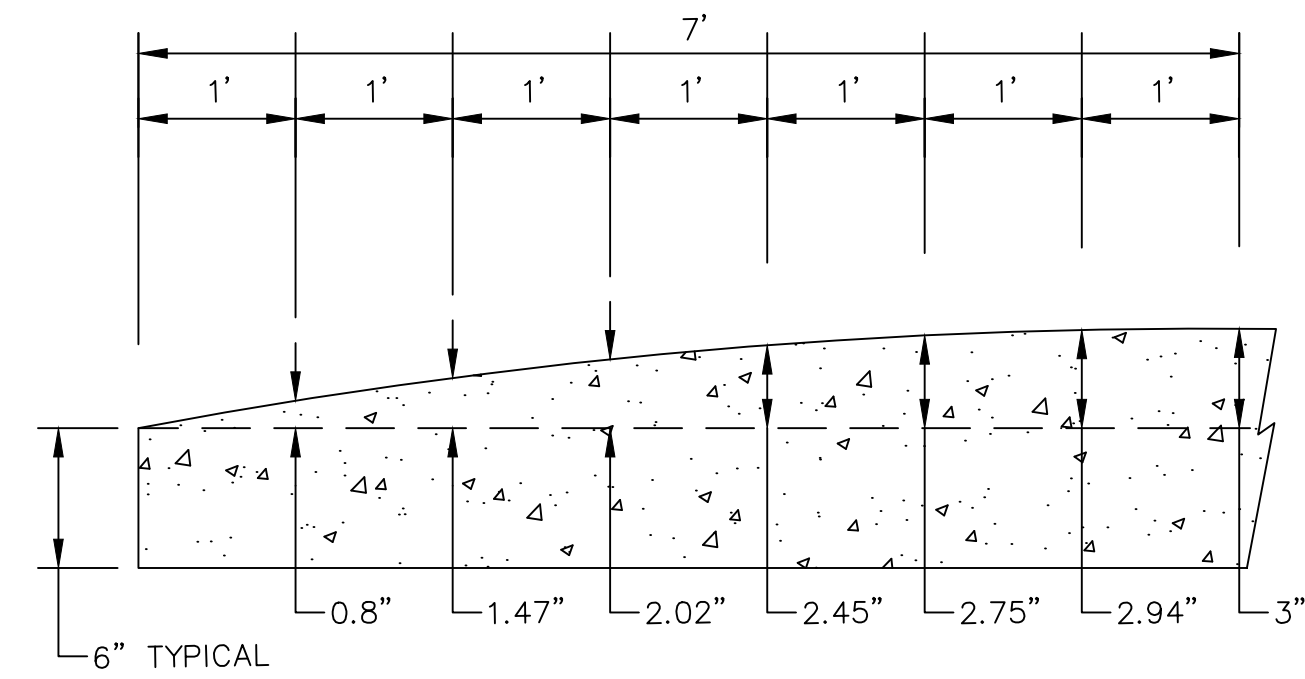
**PLAN VIEW**

**GENERAL NOTES**

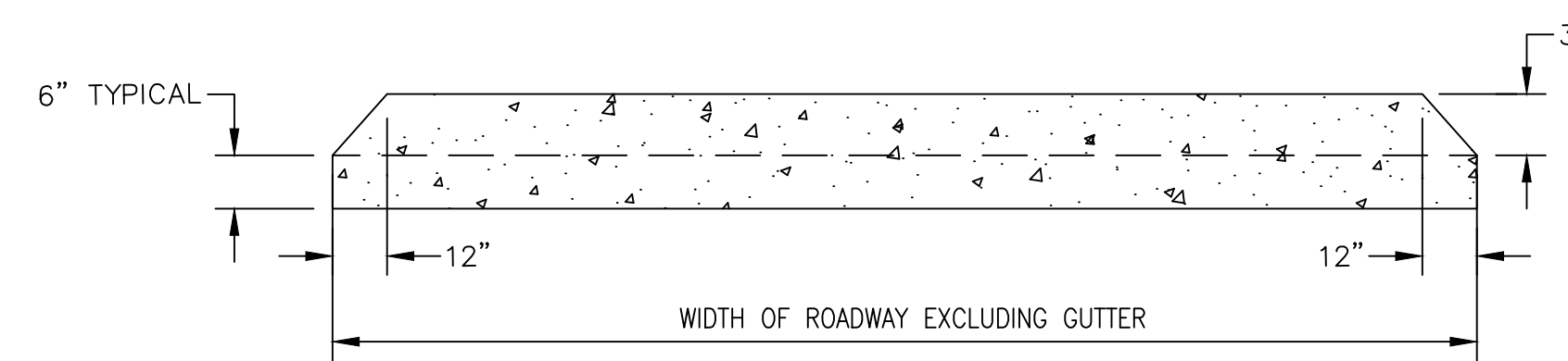
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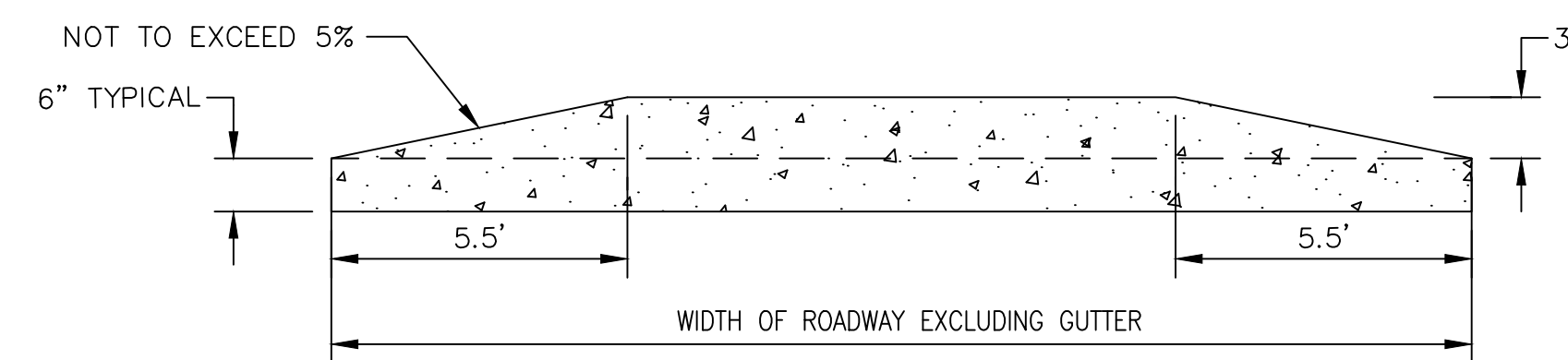
**SECTION AA**



**DETAIL 1**



**SECTION BB**



**SECTION CC**

**CONCRETE RAISE INTERSECTION DETAIL**

SCALE: NOT TO SCALE



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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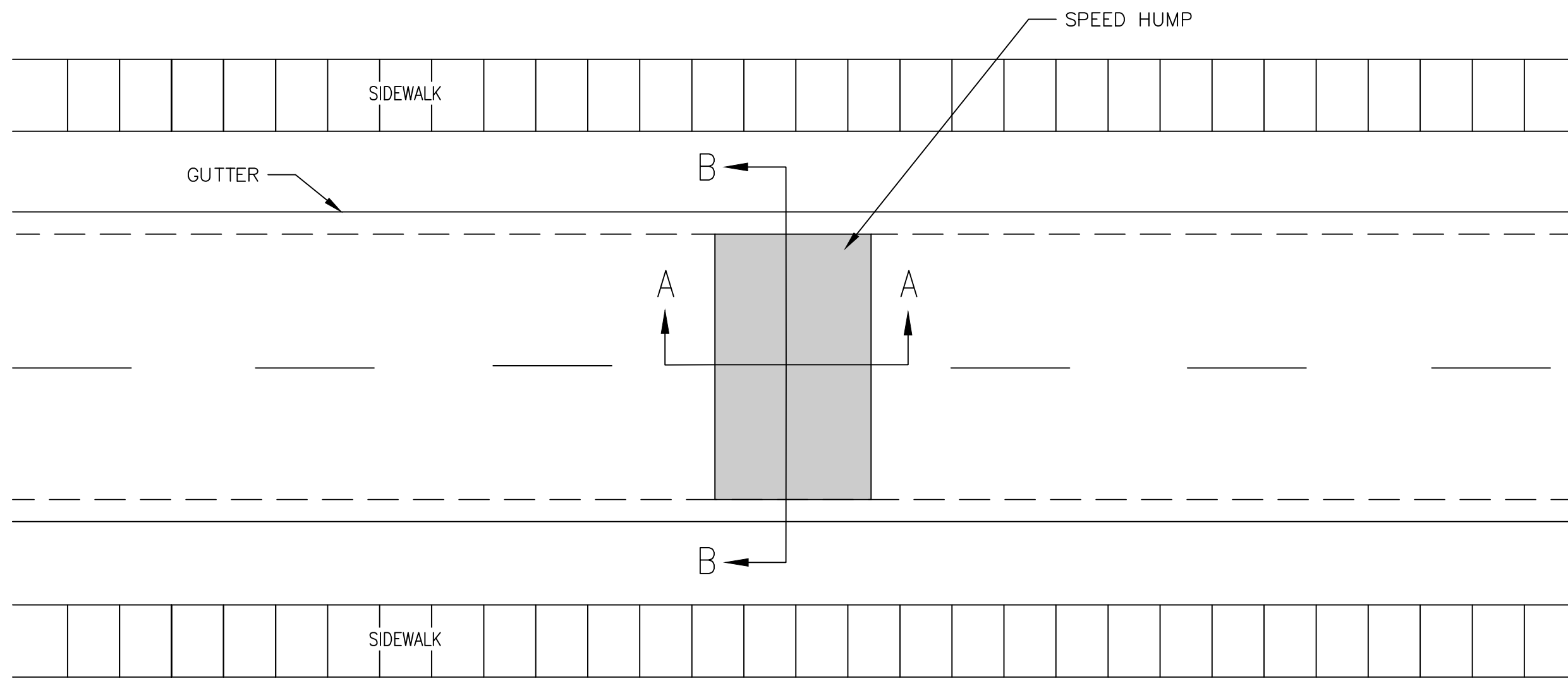


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STREET RESURFACING PROJECT - 2021  
TRAFFIC CALMING DETAIL - CONCRETE RAISE INTERSECTION DETAIL

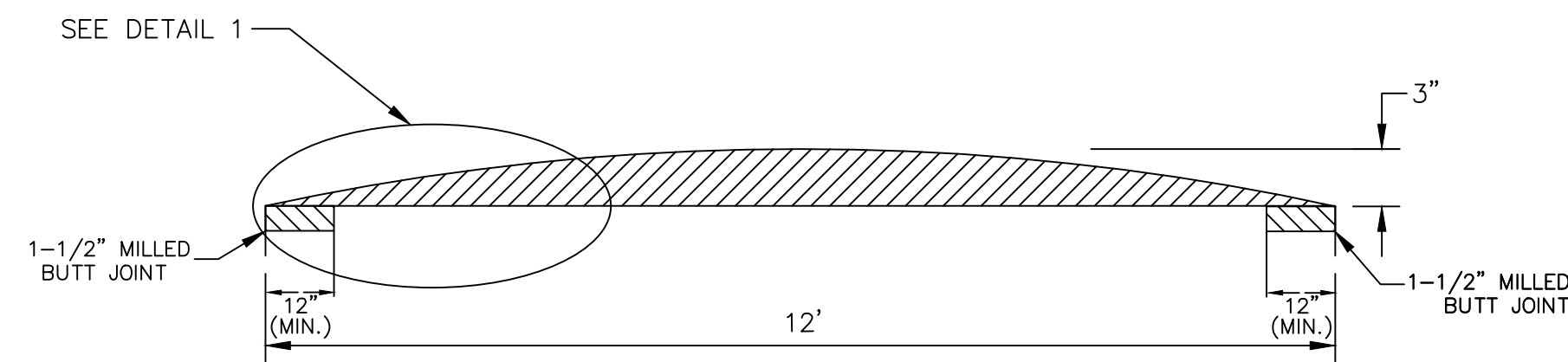
SCALE PLAN: NTS  
DRAWING No. 2021-004-B



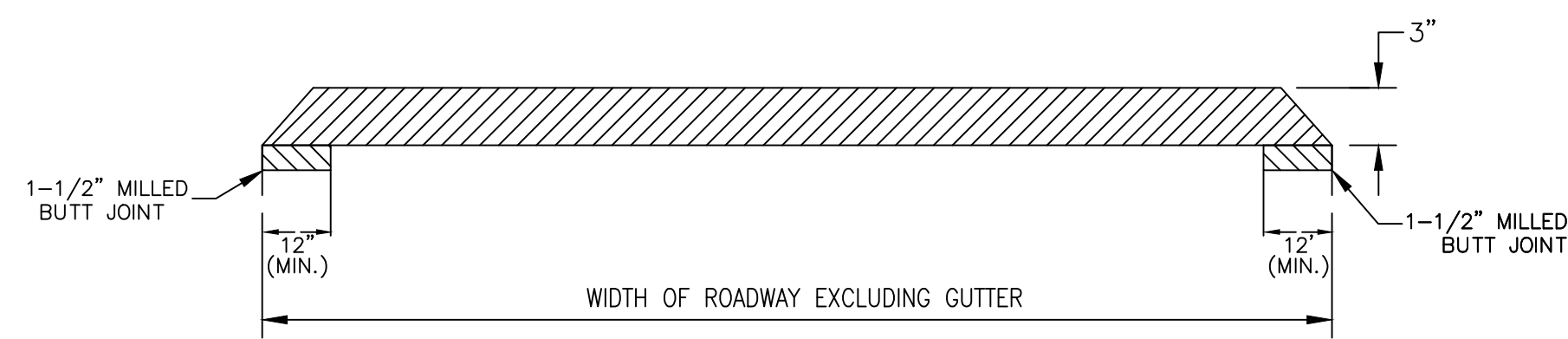
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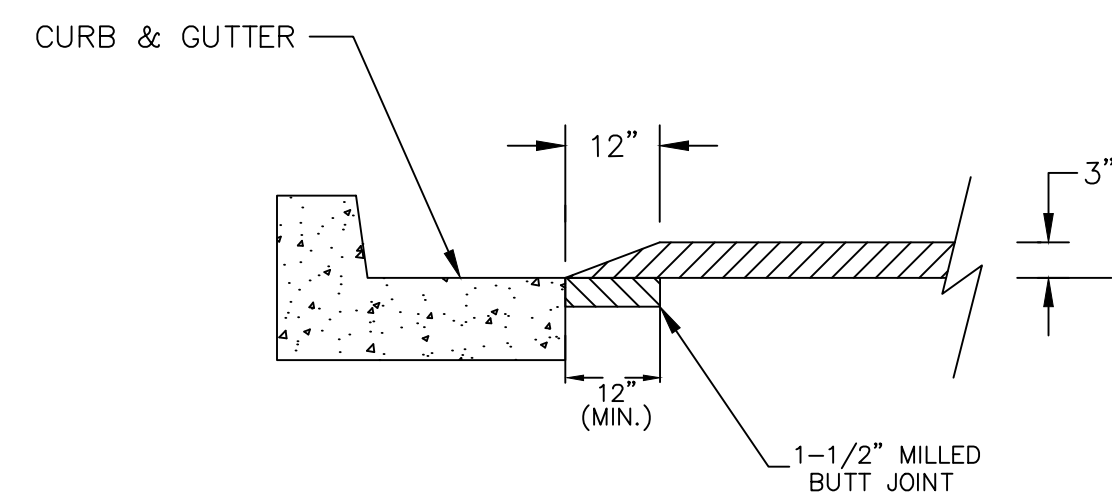
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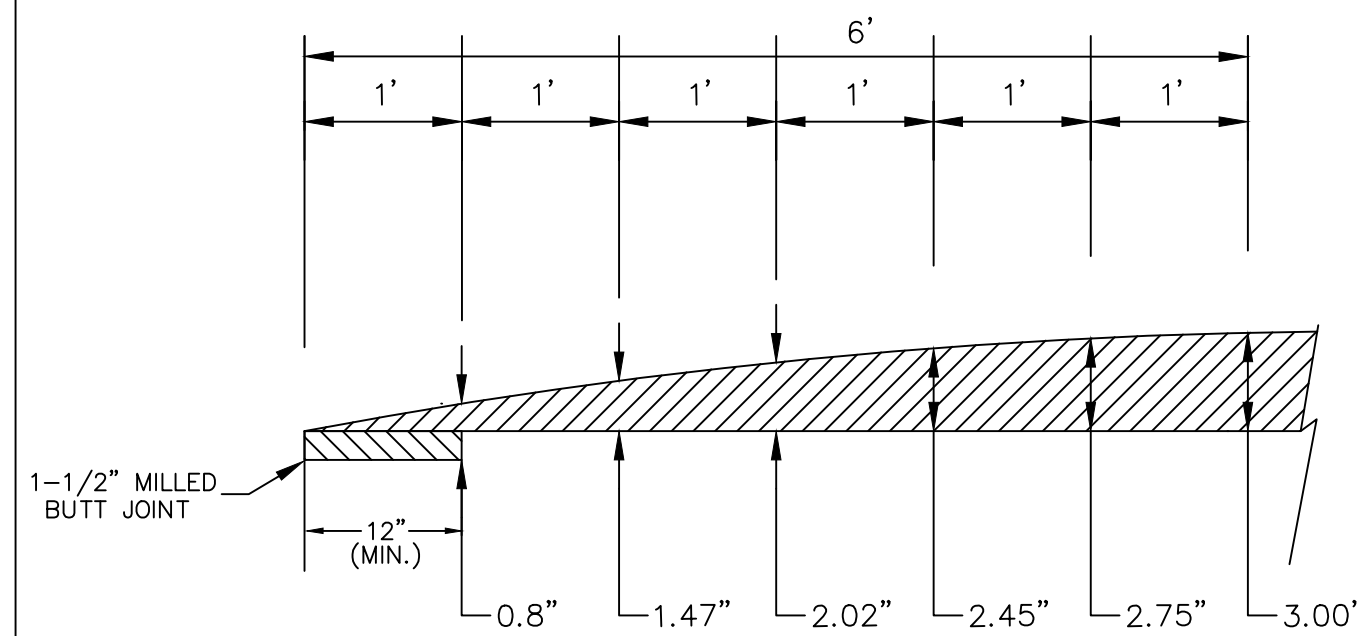
**SECTION AA**



**SECTION BB**



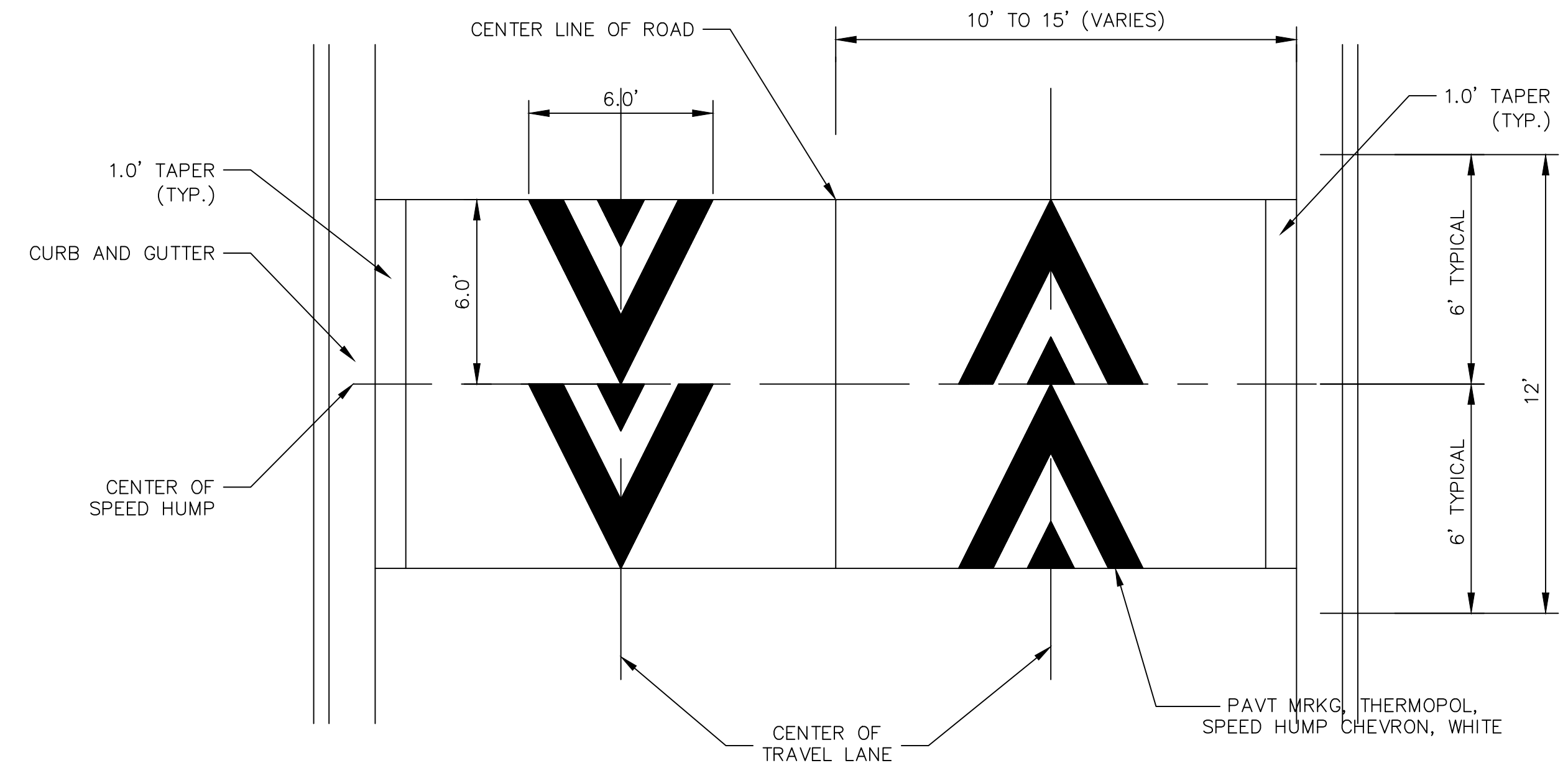
**CURB DETAIL**



**DETAIL 1**

**HMA SPEED HUMP DETAIL**

SCALE: NOT TO SCALE



**PAVEMENT MARKING DETAIL**

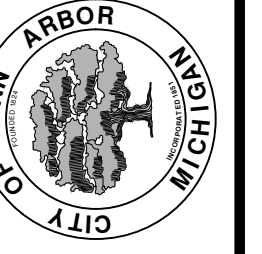
SCALE: NOT TO SCALE

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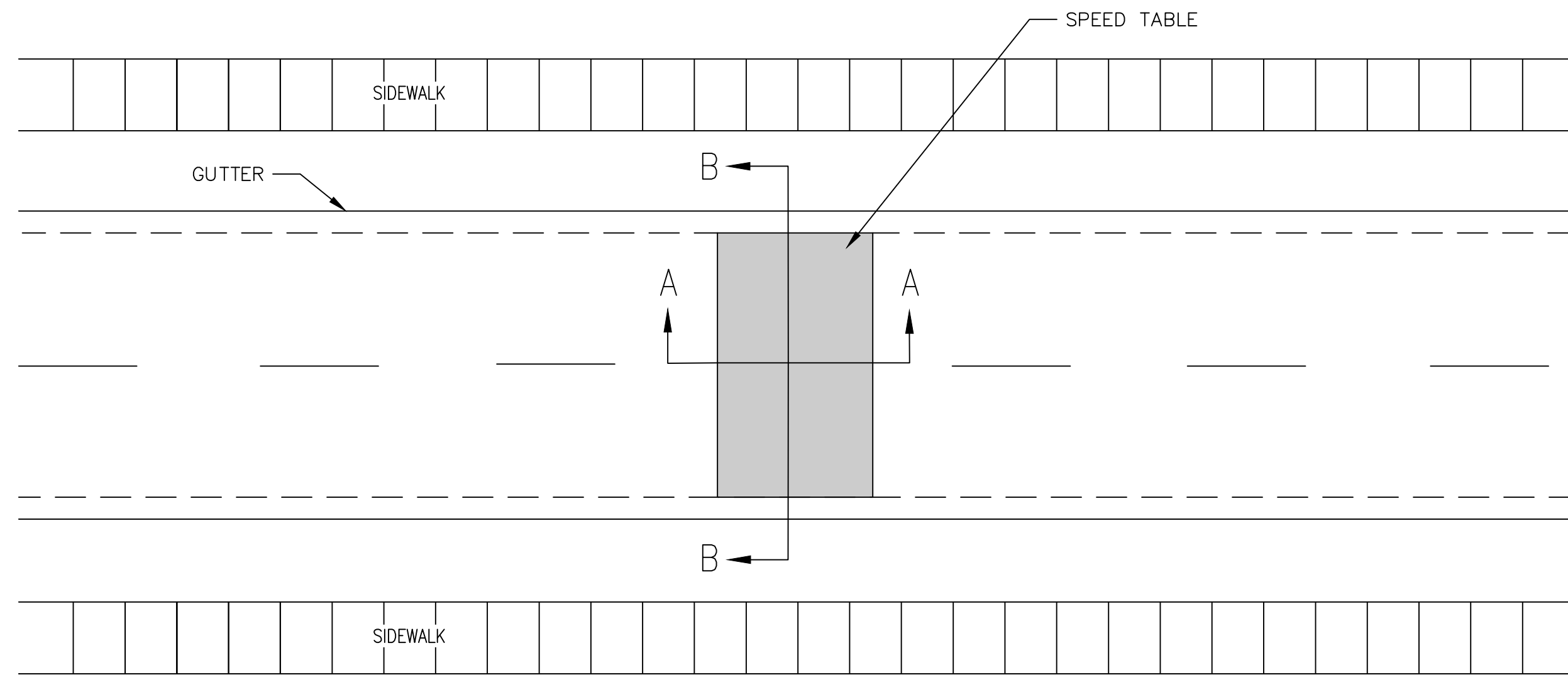


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STREET RESURFACING PROJECT - 2021  
TRAFFIC CALMING DETAIL - HMA SPEED HUMP DETAIL

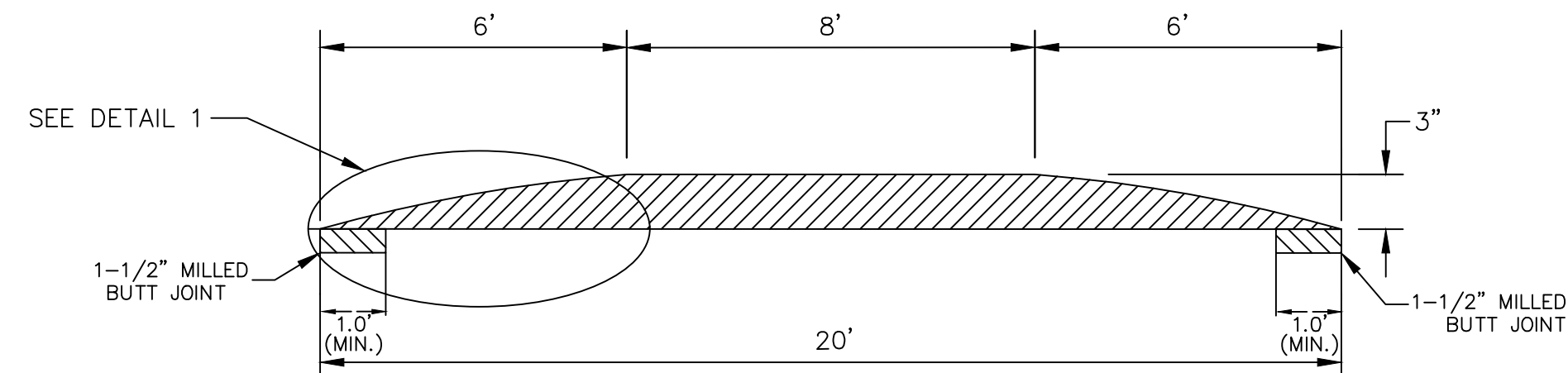
SCALE PLAN: NTS  
DRAWING No. 2021-004-9

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

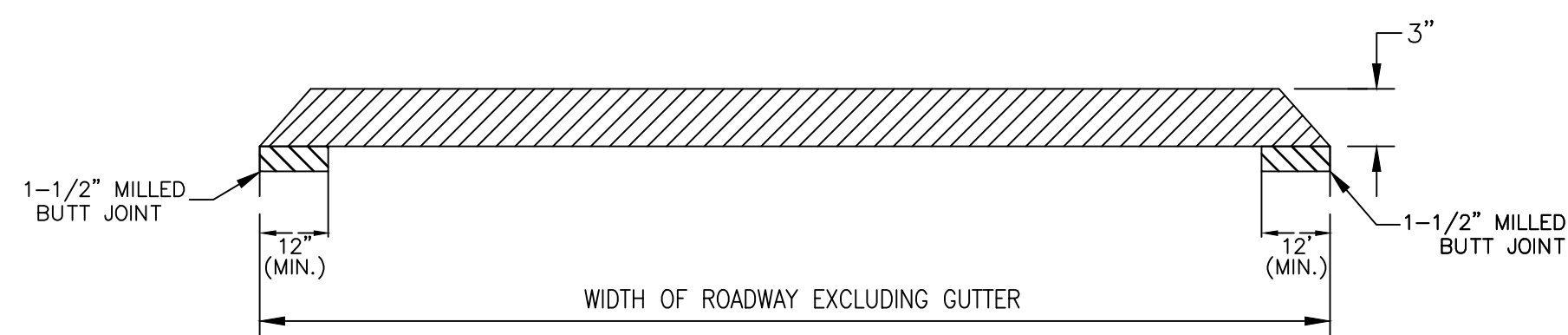
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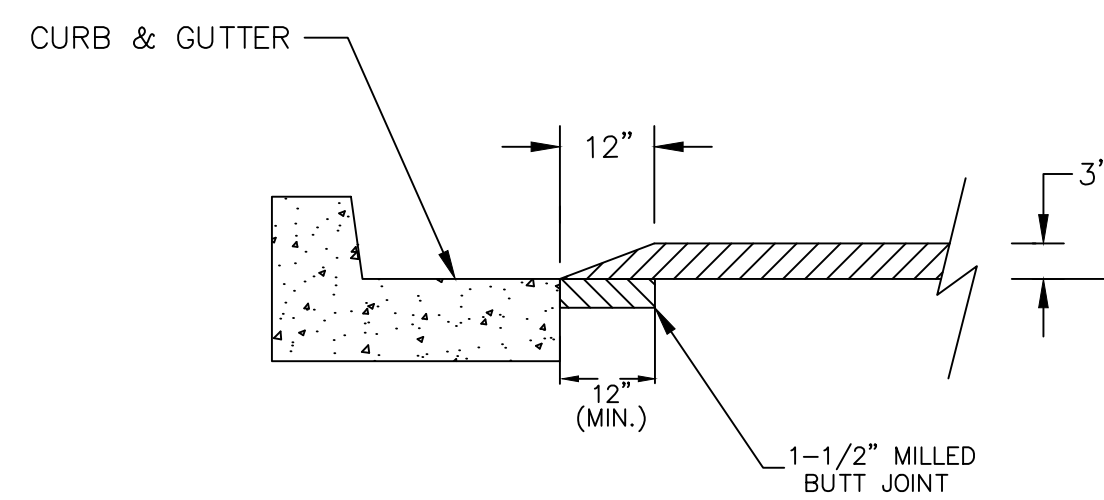
**PLAN VIEW**



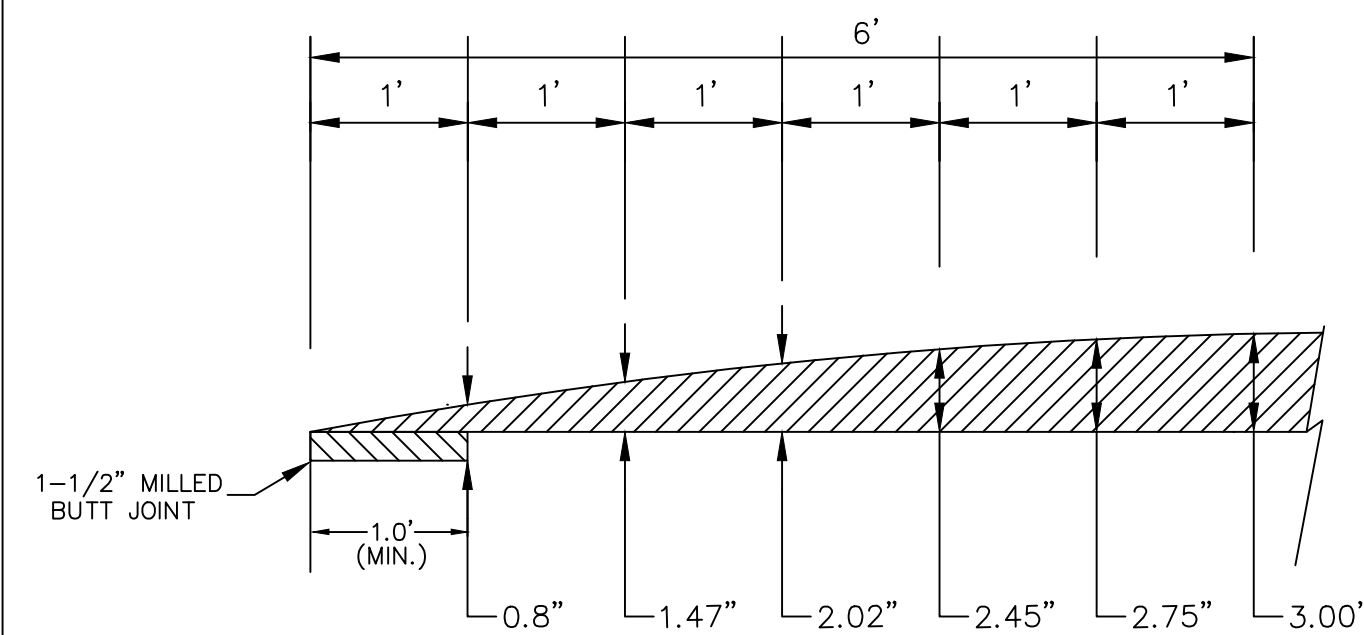
**SECTION AA**



**SECTION BB**



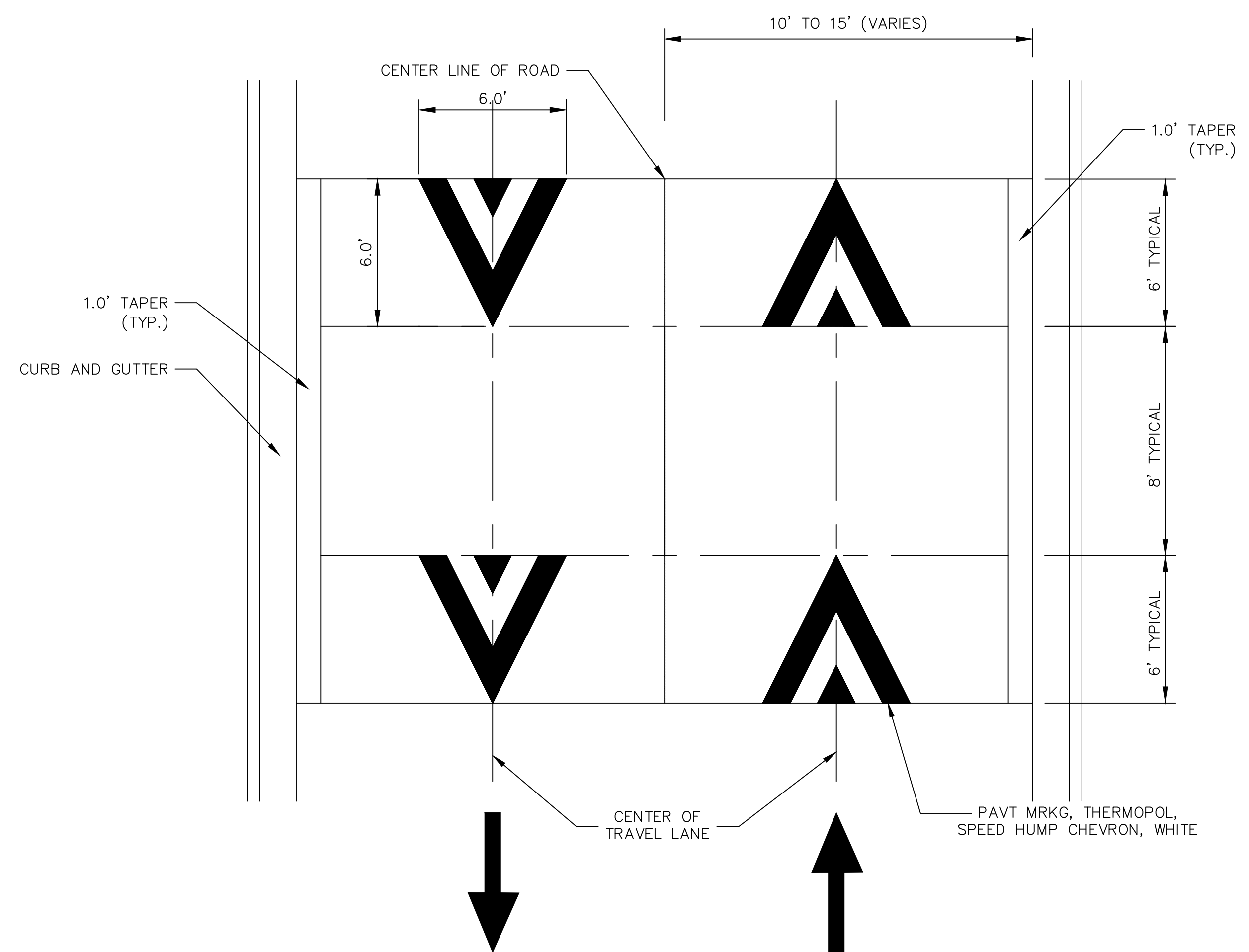
**CURB DETAIL**



**DETAIL 1**

**HMA SPEED TABLE DETAIL**

SCALE: NOT TO SCALE



**PAVEMENT MARKING DETAIL**

SCALE: NOT TO SCALE

**GENERAL NOTES**

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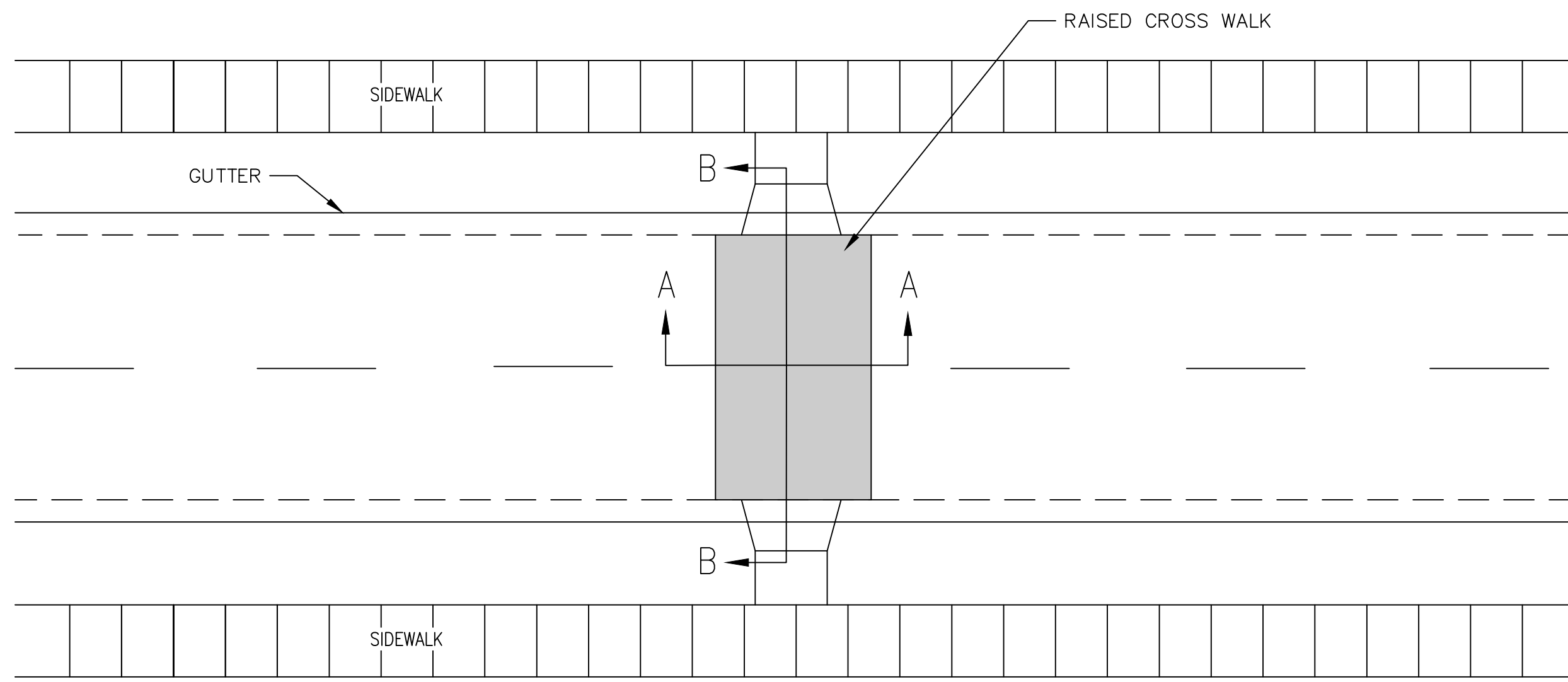
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STREET RESURFACING PROJECT - 2021  
TRAFFIC CALMING DETAIL - HMA SPEED TABLE DETAIL

SCALE PLAN: NTS  
DRAWING No. 2021-004-10

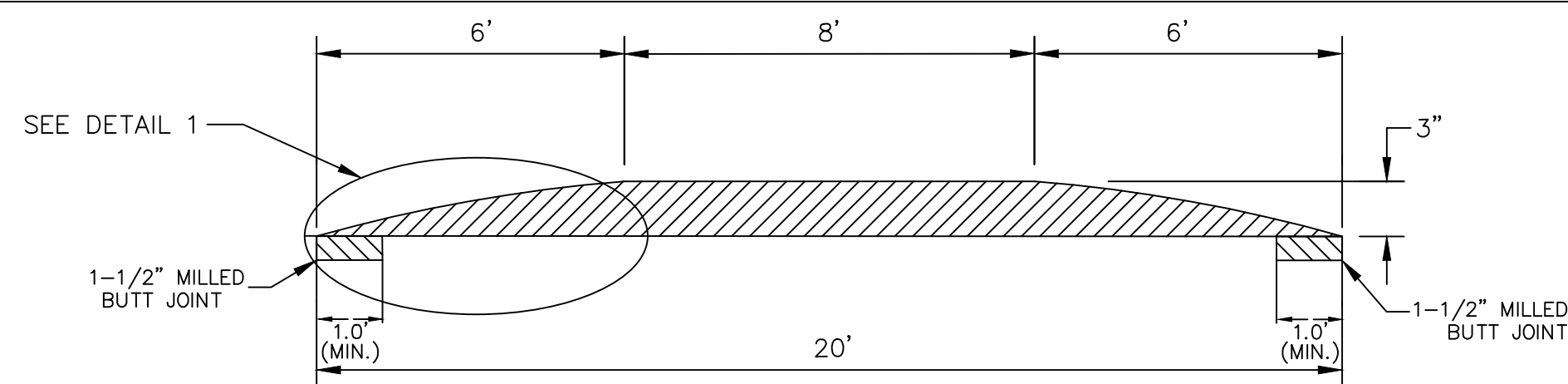
SHEET No.

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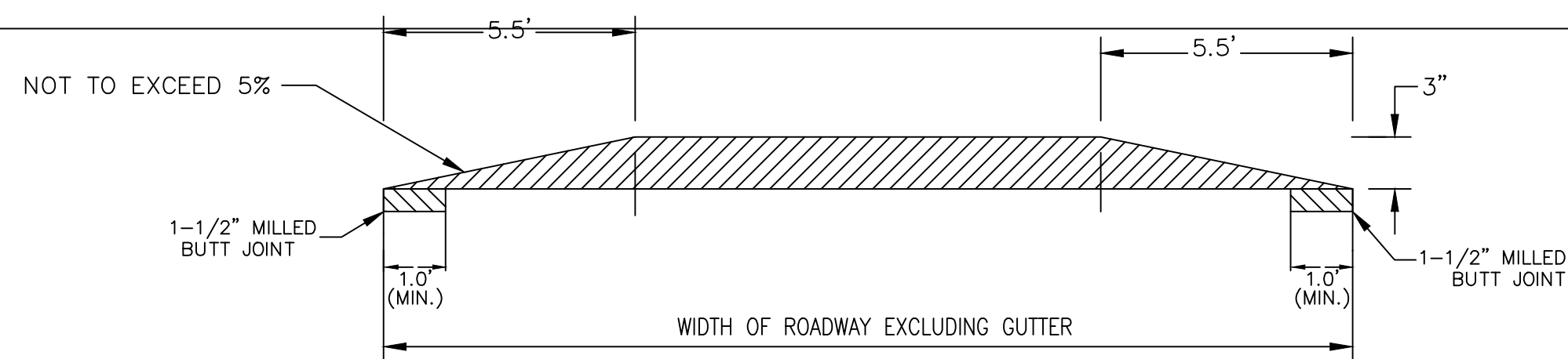
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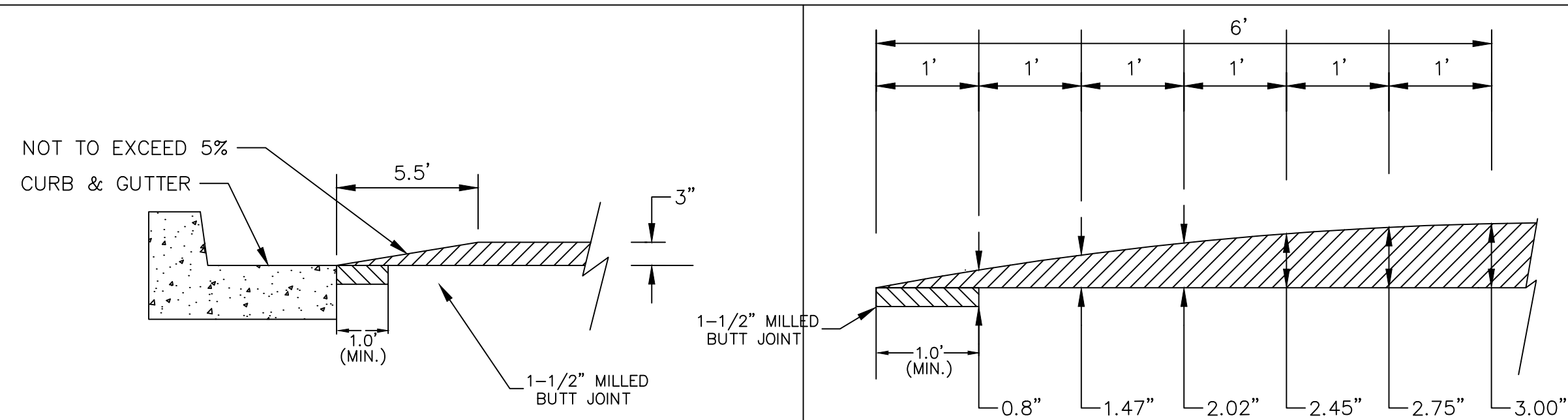
**PLAN VIEW**



**SECTION AA**



**SECTION BB**

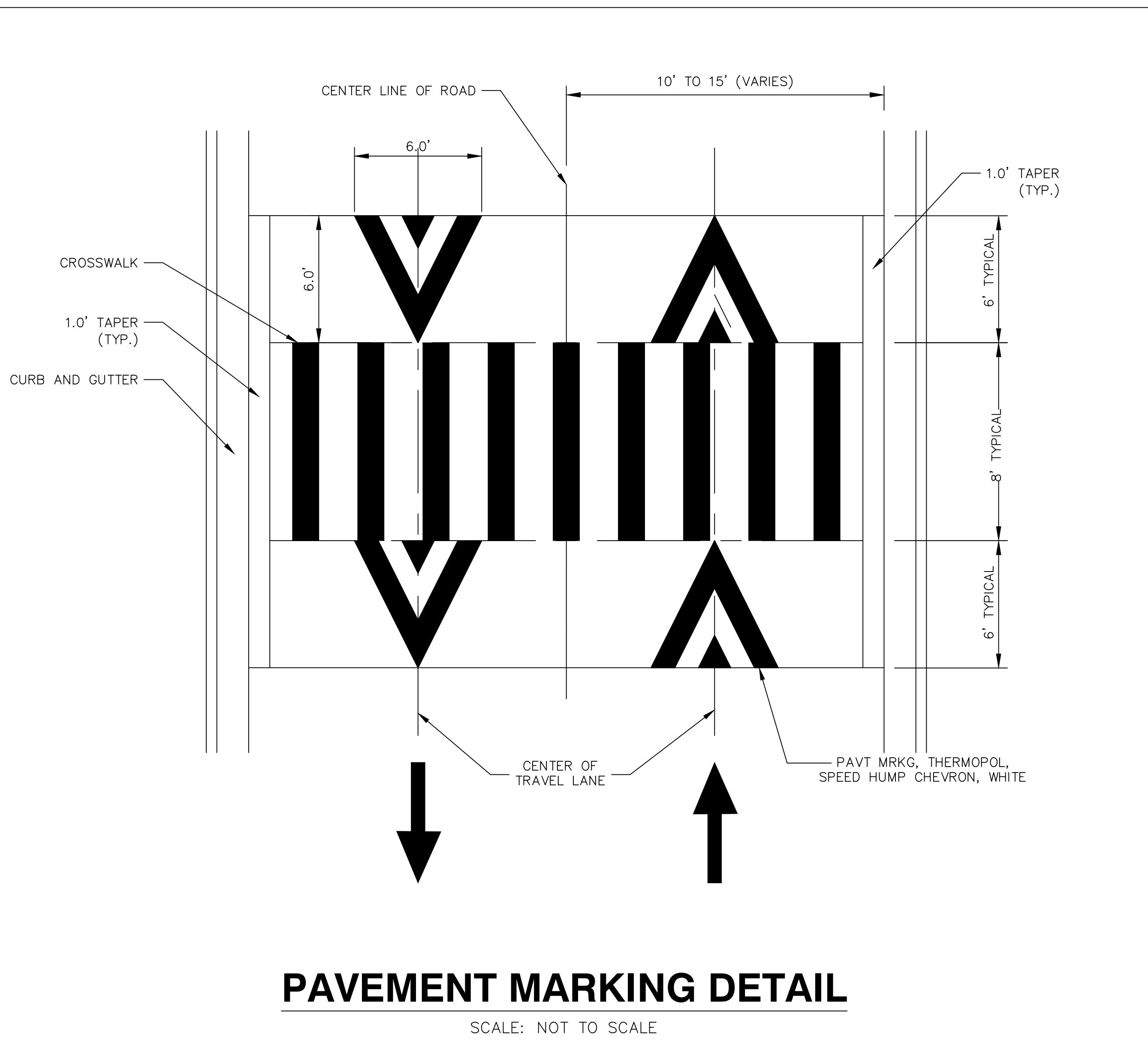


**CURB DETAIL**

**DETAIL 1**

**HMA RAISE CROSS WALK DETAIL**

SCALE: NOT TO SCALE



**PAVEMENT MARKING DETAIL**

SCALE: NOT TO SCALE

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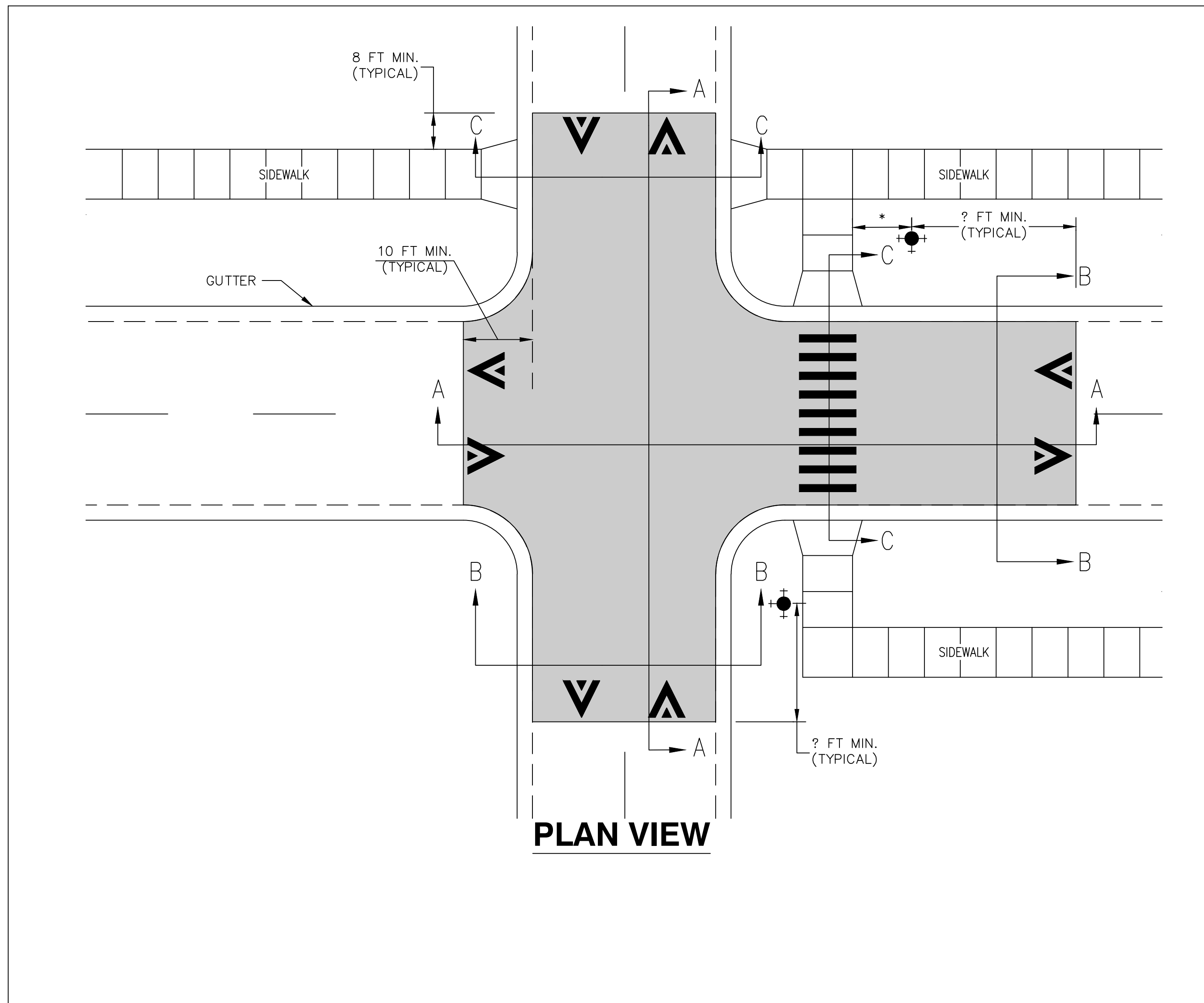
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
STREET RESURFACING PROJECT - 2021  
TRAFFIC CALMING DETAIL - HMA RAISE CROSS WALK DETAIL

SCALE PLAN: NTS  
DRAWING No. 2021-004-11

SHEET No.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

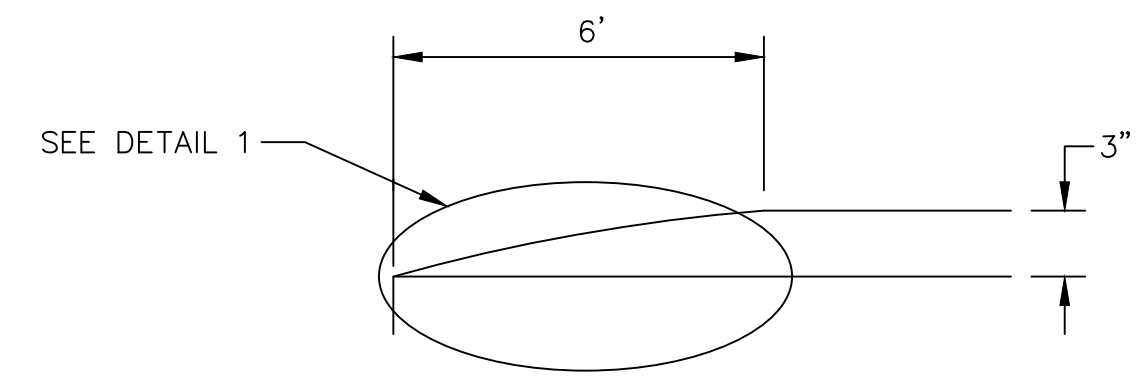
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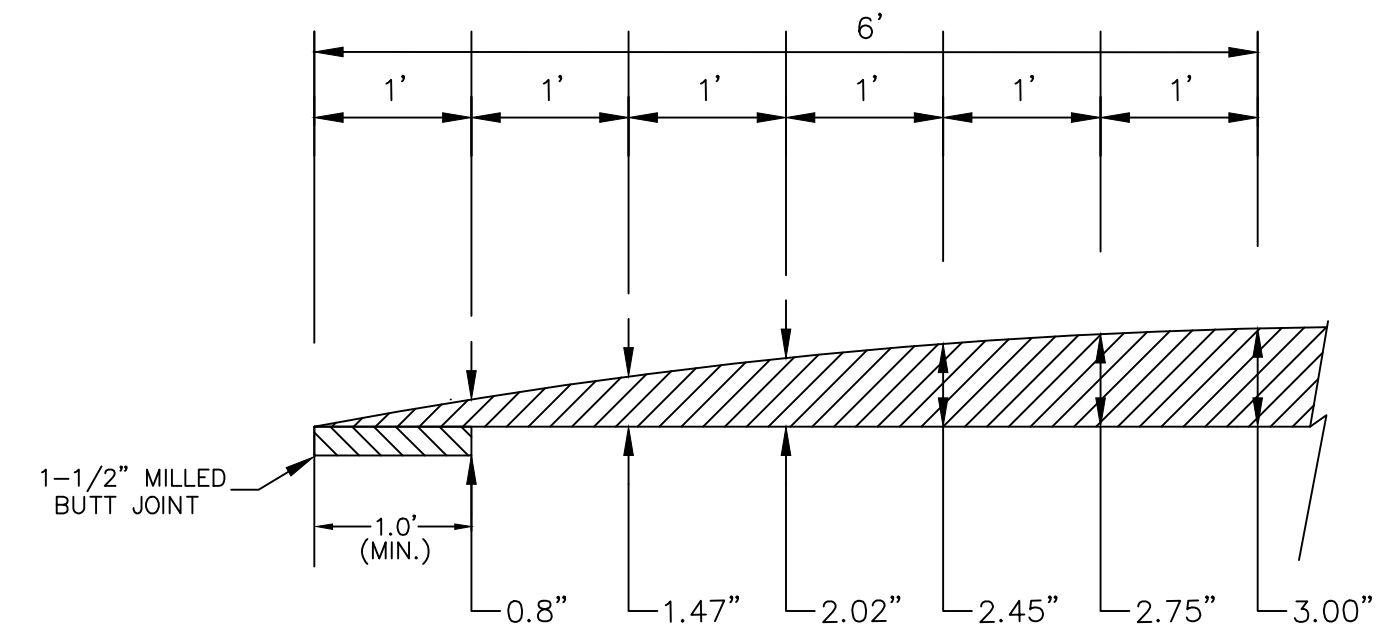
**PLAN VIEW**

**GENERAL NOTES**

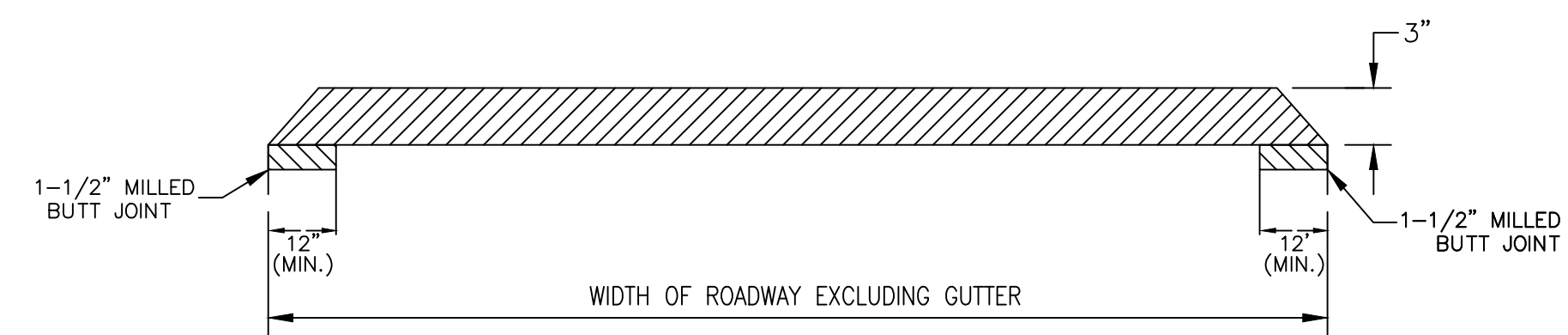
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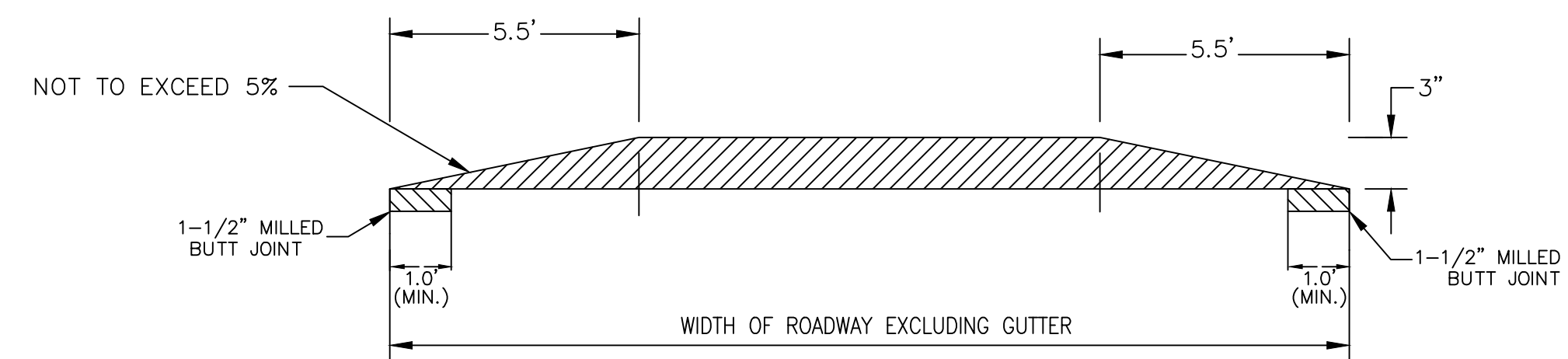
**SECTION AA**



**DETAIL 1**



**SECTION BB**



**SECTION CC**

**HMA RAISE INTERSECTION DETAIL**

SCALE: NOT TO SCALE



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

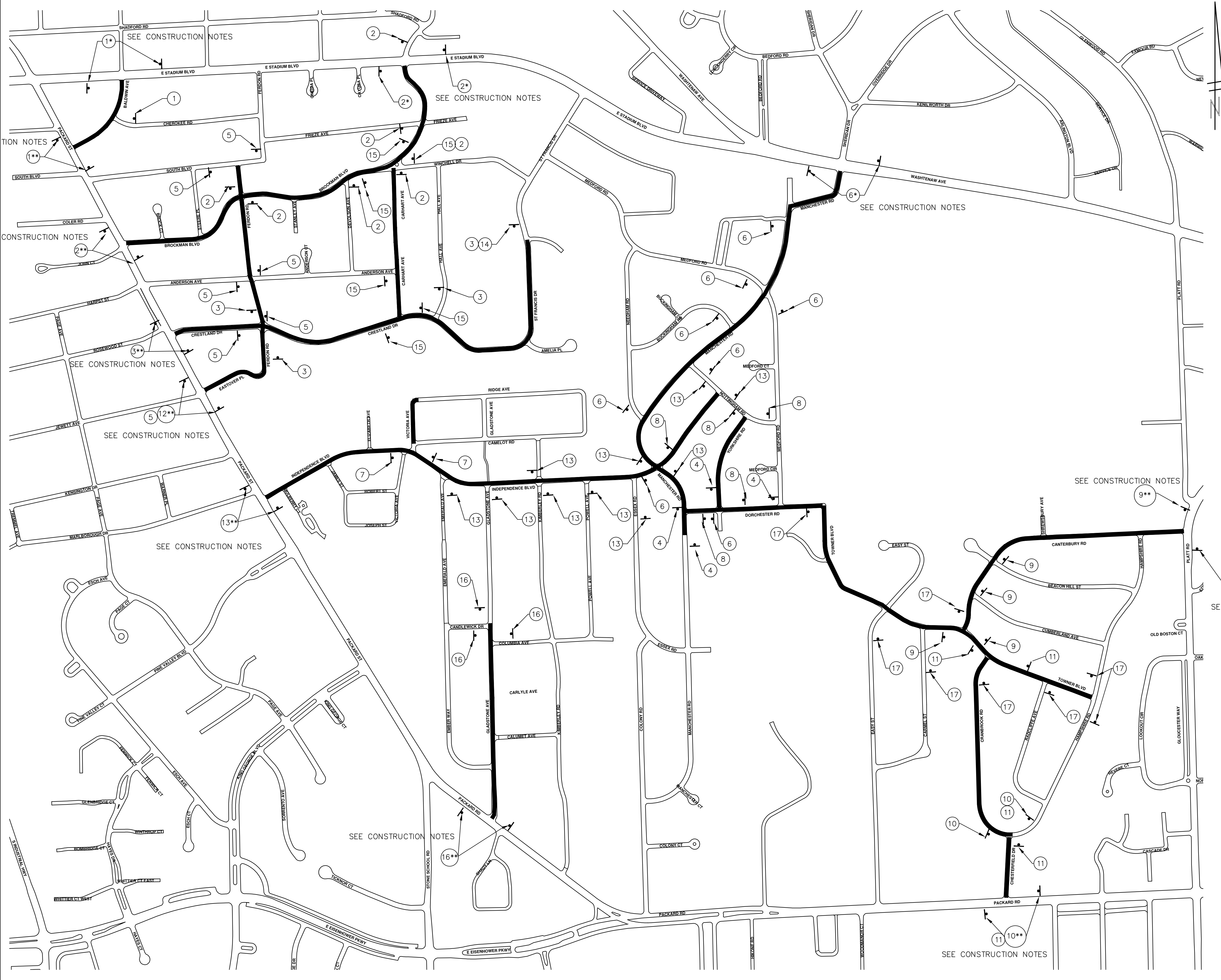
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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**STREET RESURFACING PROJECT - 2021**  
TRAFFIC CALMING DETAIL - HMA RAISE INTERSECTION DETAIL

SCALE PLAN: NTS  
DRAWING No. 2021-004-12

T:\2021004\Plan Production\2021004 - Local Traffic.dwg Created: 19-Feb-21 - \_a2\_standard bw.stb - Plot Date: 20-Feb-21



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	
12	D3-1	1	
13	D3-1	1	
14	D3-1	1	
15	D3-1	1	
16	D3-1	1	
17	D3-1	1	

CONSTRUCTION NOTES:  
 PLACE APPLICABLE D3-1 SIGN IN ADVANCE OF WORK PERFORMED ON EACH STREET PRIOR TO WORK BEGINNING.  
 #\* FOLLOW MDOT MAINTAINING TRAFFIC TYPICAL M0250a  
 #\*\* FOLLOW MDOT MAINTAINING TRAFFIC TYPICAL M0232a

Know what's below. Call Before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
00	BID. ST.	02/16/21	AG/CE/OS	DAD

CITY OF ANN ARBOR  
 PUBLIC SERVICES  
 301 EAST HURON STREET  
 ANN ARBOR, MI 48106-8647  
 ANN ARBOR: 734-794-6410  
 WWW.A2GOV.ORG

**ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**STREET RESURFACING PROJECT - 2021**

SCALE: NTS

DRAWING No. 2021-004-13

LOCAL STREET TRAFFIC CONTROL-1

SHEET No. 13 OF 58

T:\2021004\Plan Production\2021004 - Local Traffic.dwg Dwg Created: 19-Feb-21 - \_a2 standard bw.stb - Plot Date: 20-Feb-21



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

CONSTRUCTION NOTES:  
 PLACE APPLICABLE D3-1 SIGN IN ADVANCE OF WORK PERFORMED ON EACH STREET PRIOR TO WORK BEGINNING.  
 CONTRACTOR SHALL COORDINATE SIGNAL TIMING AND WORK WITH CHUCK FOJTIK FROM SIGNALS AND SIGNALS.  
 #\* FOLLOW MDOT MAINTAINING TRAFFIC TYPICAL M0250a  
 #\*\* FOLLOW MDOT MAINTAINING TRAFFIC TYPICAL M0232a

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
00	BID ST	02/16/21	JAC/CE/OS	DAD

**CITY OF ANN ARBOR - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**STREET RESURFACING PROJECT - 2021**  
 LOCAL STREET TRAFFIC CONTROL-2

ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR

SCALE: NTS

DRAWING No. 2021-004-14

SHEET No. 14 OF 58

301 EAST HURON STREET  
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 ANN ARBOR: 734-794-6410  
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# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: PACKARD ST HMA PATH

ITB No. 4667 FILE No. 2021-004

### 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 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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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	118.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	82.000
2057011	_Grading, Driveway Approach	Syd	15.000
2057011	_Grading, Sidewalk	Syd	62.000
2057011	_Grading, Sidewalk Ramp	Syd	6.000
2057021	_Undercutting, Type IIA	Cyd	188.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	21.000
2080036	Erosion Control, Silt Fence	Ft	324.000
3027011	_Aggregate Base, 6 inch, Modified	Syd	5,628.000
3057011	_Shared use Path, HMA Base Crushing and Shaping	Syd	2,630.000
5010005	HMA Surface, Rem	Syd	26.000
5010025	Hand Patching	Ton	5.000
8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	15.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	67.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	22.000
8030030	Curb Ramp Opening, Conc	Ft	51.000
8037001	_Detectable Warning Surface, Modified	Ft	5.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	53.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	54.000
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	500.000
8060040	Shared use Path, HMA	Ton	1,138.000
8067011	_Shared use Path, Grading, Modified	Syd	26.000
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	68.000
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	68.000
8120140	Lighted Arrow, Type C, Furn	Ea	2.000
8120141	Lighted Arrow, Type C, Oper	Ea	2.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	2.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	2.000
8120330	Sign, Portable, Changeable Message, Furn	Ea	4.000
8120331	Sign, Portable, Changeable Message, Oper	Ea	4.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	316.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	316.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	40.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	40.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	8.000
8167011	_Slope Restoration	Syd	2,501.000
8190244	Hh, Adj	Ea	1.000
8230431	Gate Box, Adj, Case 1	Ea	2.000

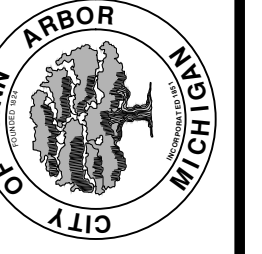
QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (sft)	Total Area (Sft)
10.0	*D3-1	Street Name Sign	4.000	40.000
4.0	G20-2	End Road Work	4.500	18.000
2.0	W1-4L	Reverse Curve (Left)	9.000	18.000
2.0	W1-4R	Reverse Curve (Right)	9.000	18.000
2.0	W1-6L	Shift arrow Left	9.000	18.000
2.0	W1-6R	Shift arrow Right	9.000	18.000
5.0	W3-5B	Reduce Speed Zone	9.000	45.000
5.0	W20-1	Road Work Ahead Sign	9.000	45.000
1.0	W20-5A	Center Lane Closed Ahead	9.000	9.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
5.0	R2-1	Speed Limit	7.500	38.000
5.0	R5-18C	Work Zone Begins	16.000	80.000
		<b>TOTAL</b>		<b>356.000</b>

T:\2021004\Plan Production\Major Streets\2021004 - Packard St HMA Path.dwg Dwg Created: 19-Feb-21 - \_a2 standard bw.stb - Plot Date: 20-Feb-21



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410  
www.a2gov.org

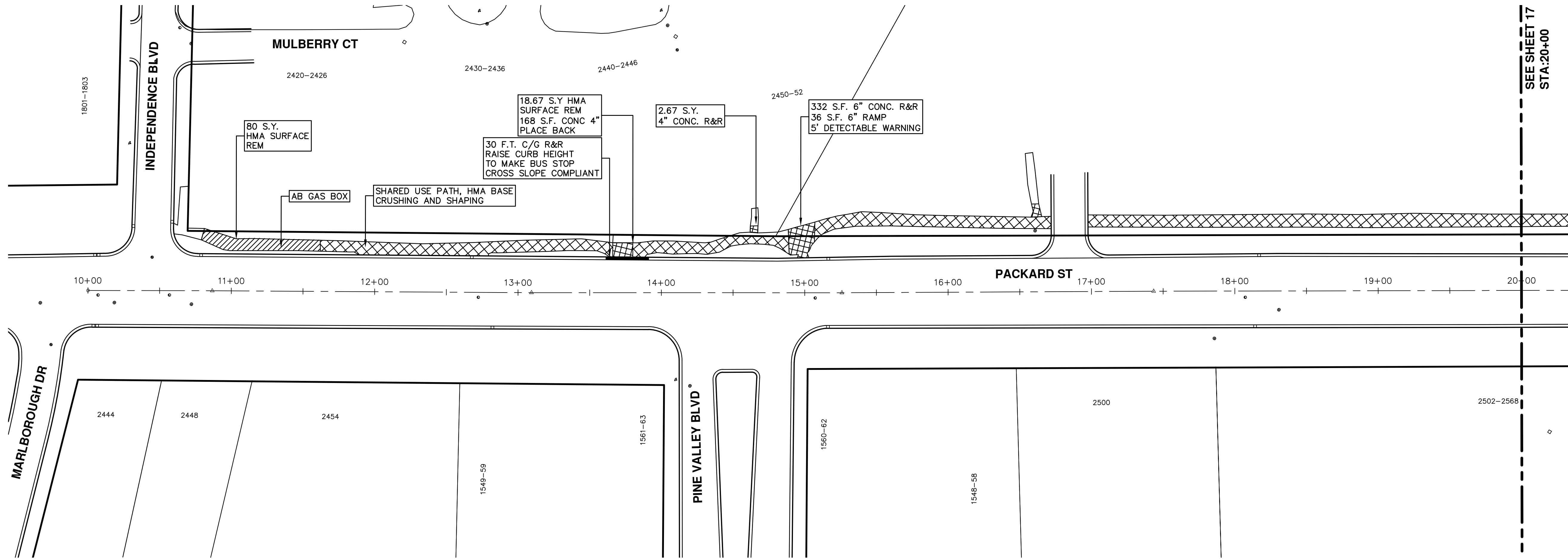


ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
PACKARD ST HMA PATH  
SUBSET COVER SHEET



**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
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ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410 www.a2gov.org

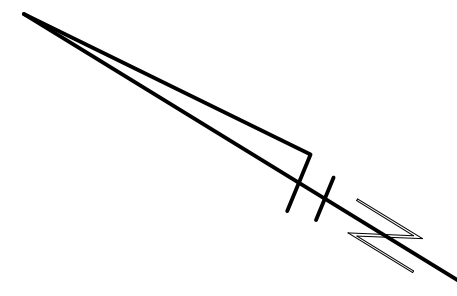
T:\2021004\Plan Production\Major Streets\2021004 - Packard St HMA Path.dwg Dwg Created: 19-Feb-21 - Plot Date: 20-Feb-21



IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE A SAFE AND ENGINEER APPROVED LOCATION TO STORE EQUIPMENT AND MATERIALS. EQUIPMENT IS NOT TO BE STORED IN PRIVATE PROPERTY WITH OUT WRITTEN APPROVAL FROM THE OWNER. IF EQUIPMENT IS PERMITTED TO BE STORED WITHIN THE WORK AREA IT MAY NOT RESTRICT LINE OF SIGHT FOR MOTORIST OR PEDESTRIANS.

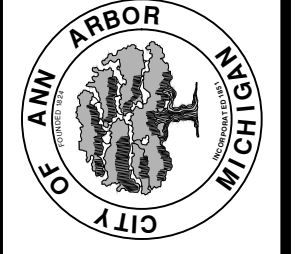
WHERE THE PATH MEETS CONCRETE A MINIMUM OF 15' FROM THE CONC OUT WILL NEED TO BE GRADED DOWN 3" FROM TOP OF CONCRETE, OUT 15' TO THE CRUSHED AND SHAPED BASE. THIS IS TO ALLOW THE NEW HMA PATH TO MEET THE EXISTING CONCRETE GRADES IN THE FIELD. WHERE THIS IS NOT FEASIBLE THE CONCRETE WALK WILL BE REMOVED AND REPLACED TO MATCH THE NEW HMA PATH.

TRAFFIC CONTROL DEVICES ARE TO BE REMOVED FROM THE ROAD WAY AT THE END OF EACH DAY. FOLLOW MDOT MAINTAINING TRAFFIC TYPICAL M0232a FOR REQUIRED TRAFFIC SET UP FROM STONE SCHOOL ROAD TO INDEPENDENCE BLVD.



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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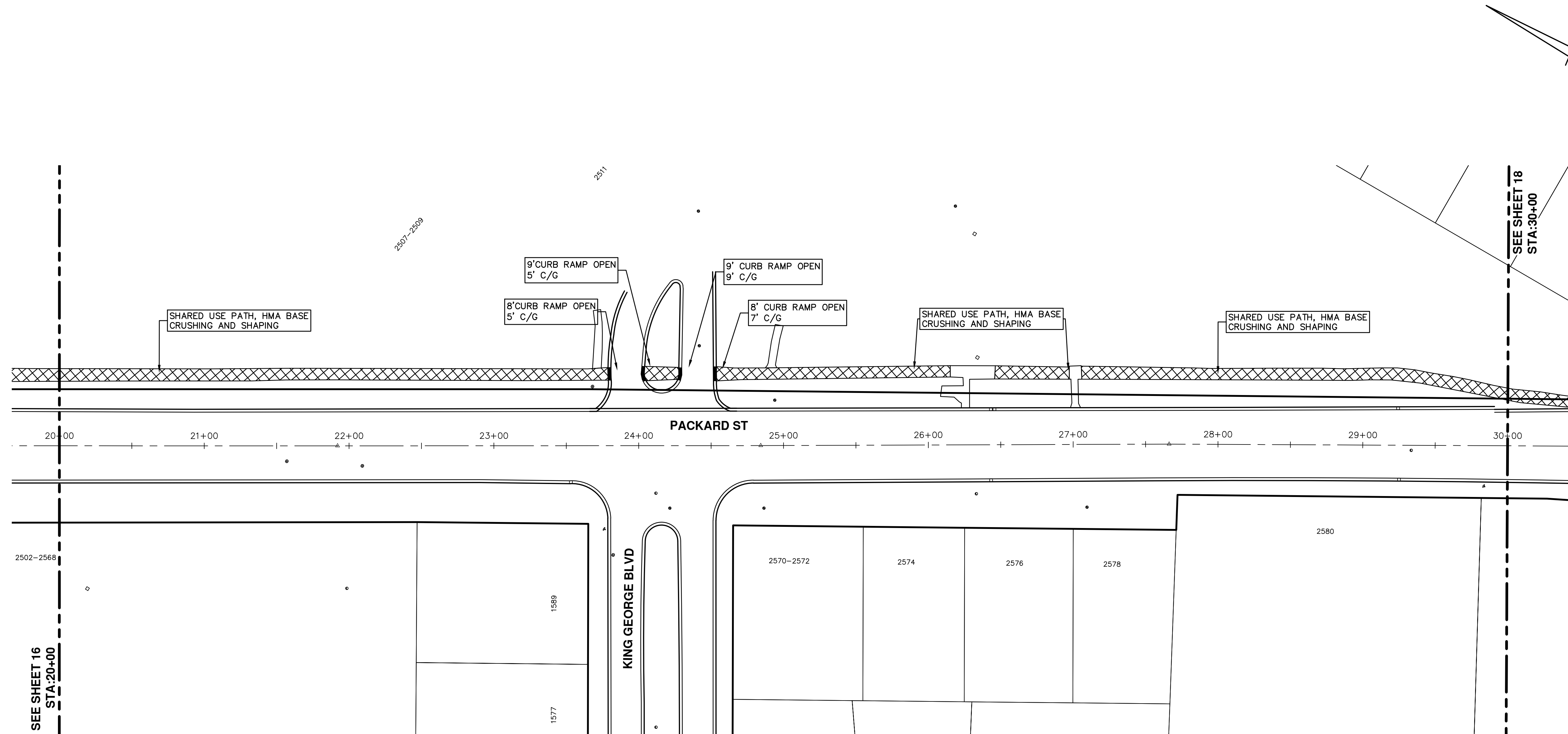


**ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**STREET RESURFACING PROJECT - 2021**  
PACKARD ST HMA PATH  
STA. 10+00 - STA. 20+00

SCALE PLAN: 1"=40'  
DRAWING No. 2021-004-16



T:\2021004\Plan Production\Major Streets\2021004 - Packard St HMA Path.dwg Dwg Created: 19-Feb-21 - \_a2 standard bw.stb - Plot Date: 20-Feb-21



SEE SHEET 16  
STA: 20+00

SEE SHEET 18  
STA: 30+00

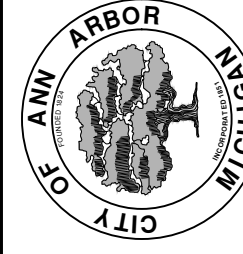
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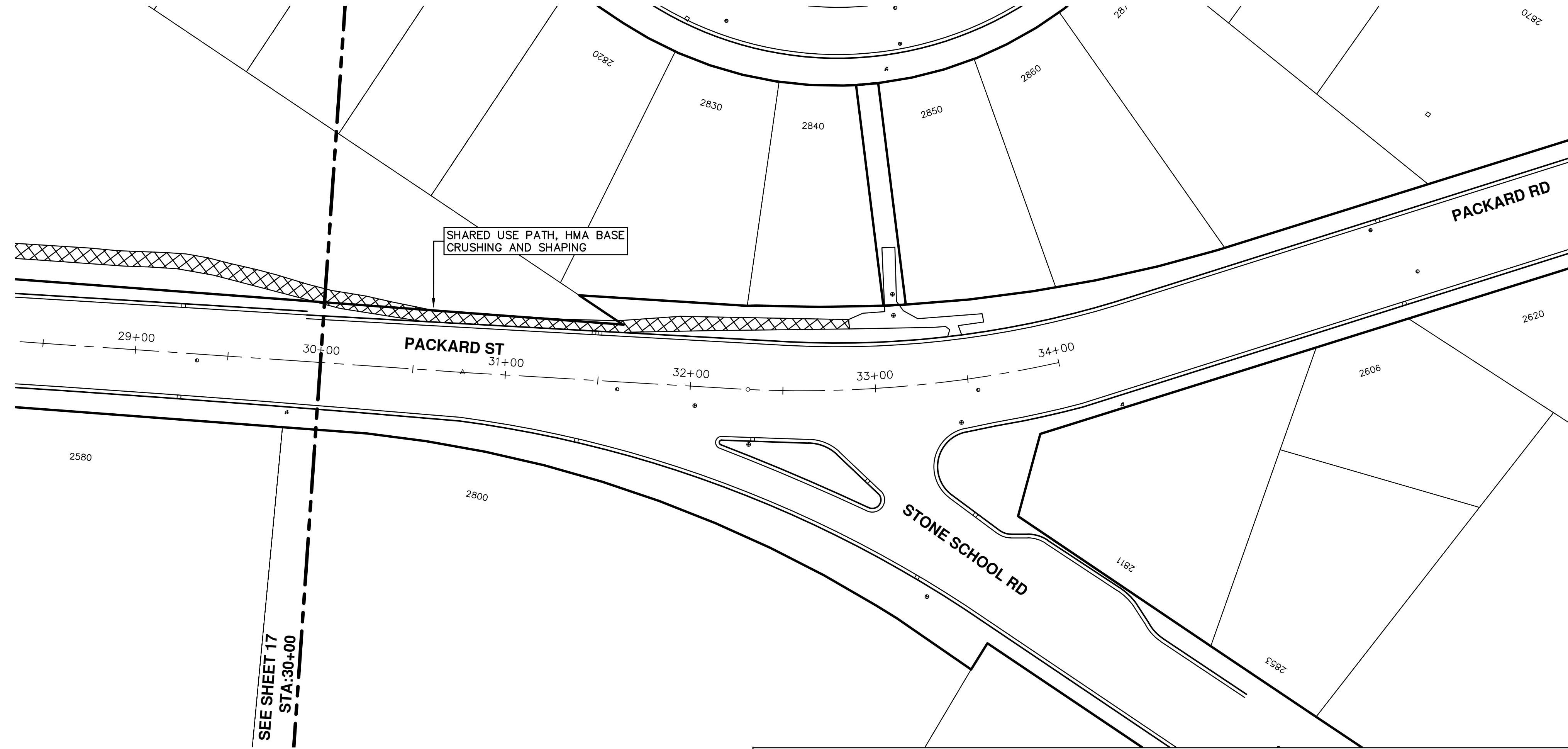
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STREET RESURFACING PROJECT - 2021  
PACKARD ST HMA PATH  
STA. 20+00 - STA. 30+00

SCALE PLAN: 1"=40'  
DRAWING No. 2021-004-17

REV.	DESCRIPTION	DATE	DRAWN	CHECKED



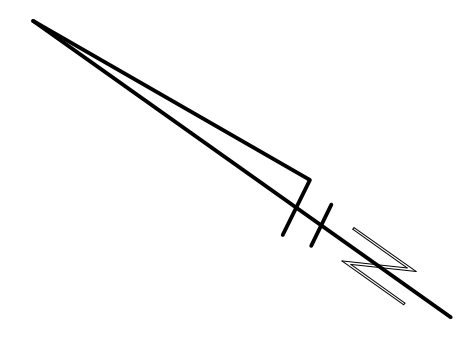
SEE SHEET 17  
 - - - STA: 30+00

SHARED USE PATH, HMA BASE  
 CRUSHING AND SHAPING

IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE A SAFE AND ENGINEER APPROVED LOCATION TO STORE EQUIPMENT AND MATERIALS. EQUIPMENT IS NOT TO BE STORED IN PRIVATE PROPERTY WITH OUT WRITTEN APPROVAL FROM THE OWNER. IF EQUIPMENT IS PERMITTED TO BE STORED WITHIN THE WORK AREA IT MAY NOT RESTRICT LINE OF SIGHT FOR MOTORIST OR PEDESTRIANS.

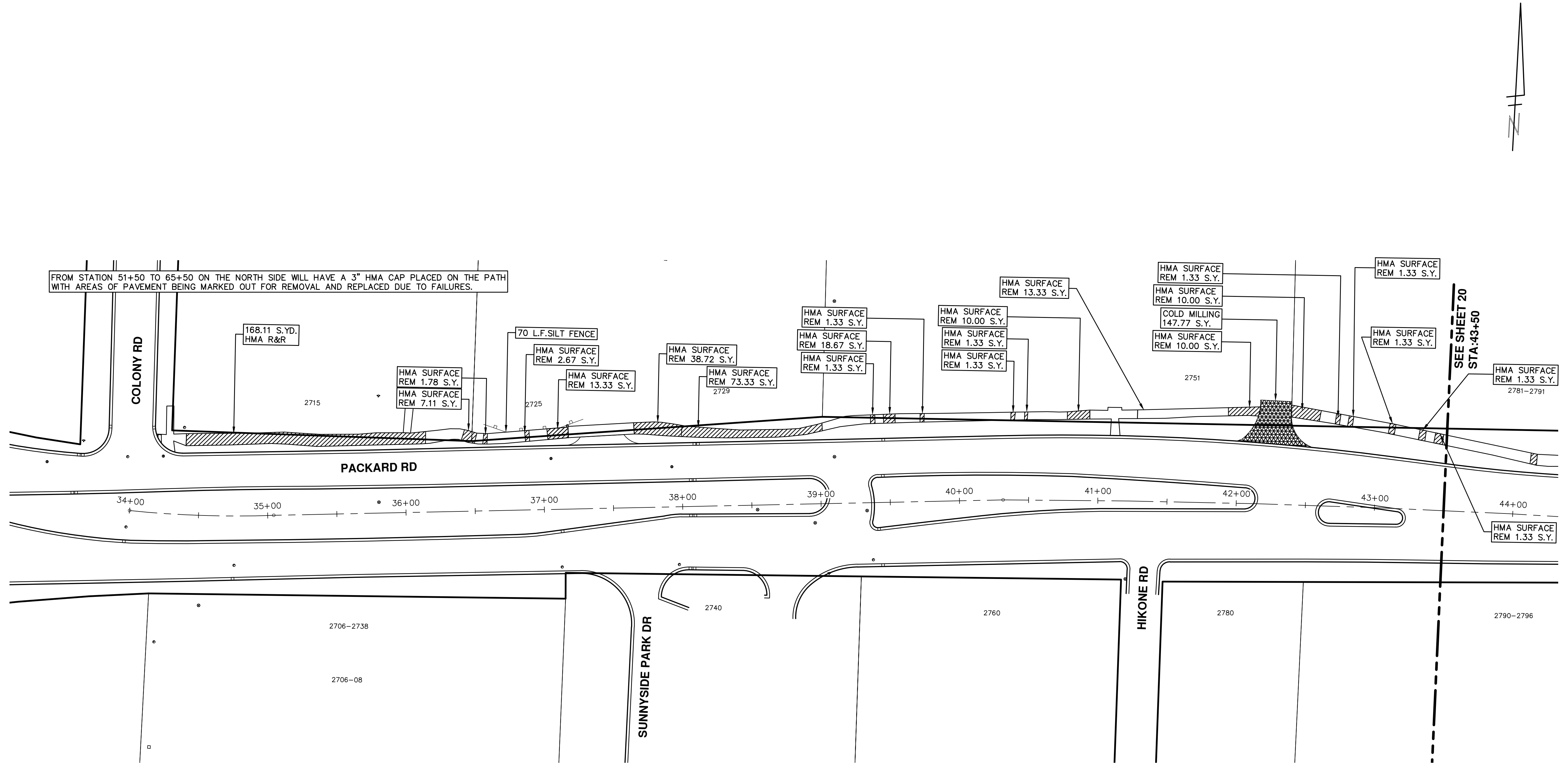
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CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET ANN ARBOR, MI 48106-8647 ANN ARBOR: 734.794.4110 WWW.A2GOV.ORG	CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET ANN ARBOR, MI 48106-8647 ANN ARBOR: 734.794.4110 WWW.A2GOV.ORG
<b>ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR</b> <b>STREET RESURFACING PROJECT - 2021</b> PACKARD ST HMA PATH STA. 30+00 - STA. 34+00	SCALE PLAN: 1"=40' DRAWING No. <b>2021-004-18</b>
SHEET No. <b>18 OF 58</b>	DESCRIPTION REV. DATE DRAWN CHECKED

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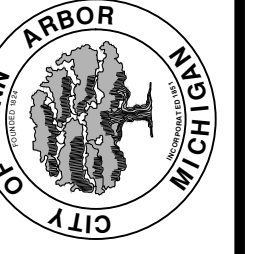
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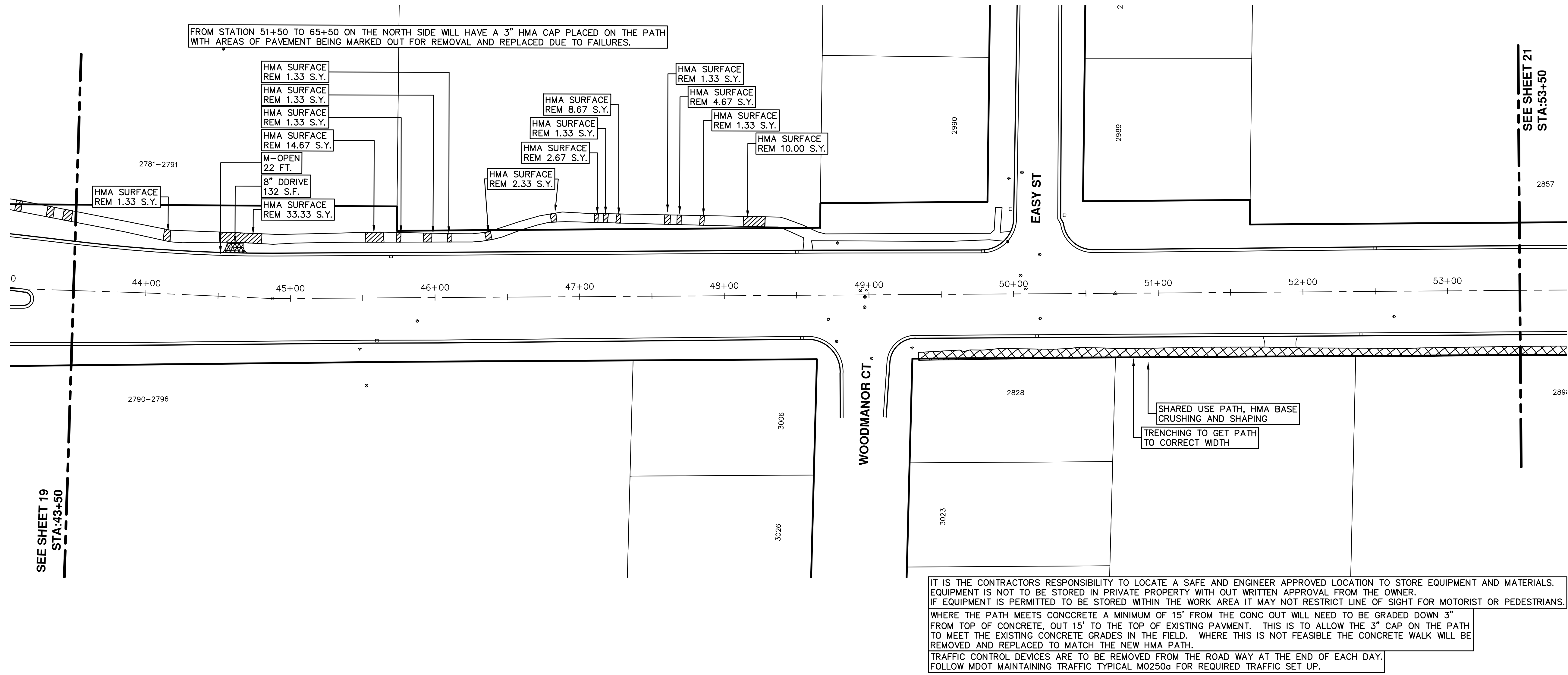


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STREET RESURFACING PROJECT - 2021  
PACKARD ST HMA PATH  
STA. 34+00 - STA. 43+50

SCALE PLAN: 1"=40'  
DRAWING No. 2021-004-19

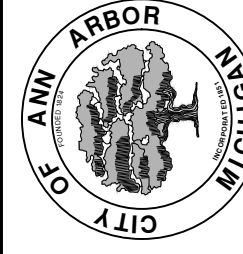
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

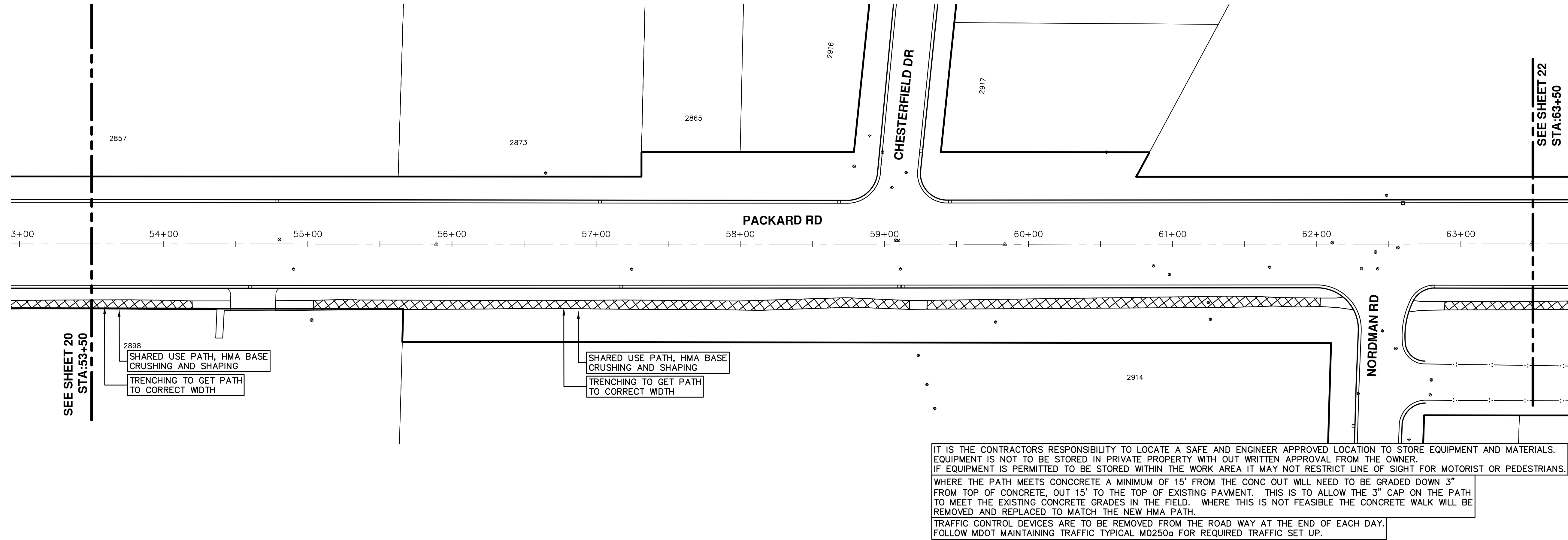
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
PACKARD ST HMA PATH  
STA. 43+50 - STA. 53+50

SCALE PLAN: 1"=40'  
DRAWING No. 2021-004-20

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TRAFFIC CONTROL DEVICES ARE TO BE REMOVED FROM THE ROAD WAY AT THE END OF EACH DAY. FOLLOW MDT MAINTAINING TRAFFIC TYPICAL M0250a FOR REQUIRED TRAFFIC SET UP.

SEE SHEET 20  
STA:53+50

SEE SHEET 22  
STA:63+50

ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
SCALE PLAN: 1"=40'  
DRAWING No. 2021-004-21

STREET RESURFACING PROJECT - 2021  
PACKARD ST HMA PATH  
STA. 53+50 - STA. 63+50

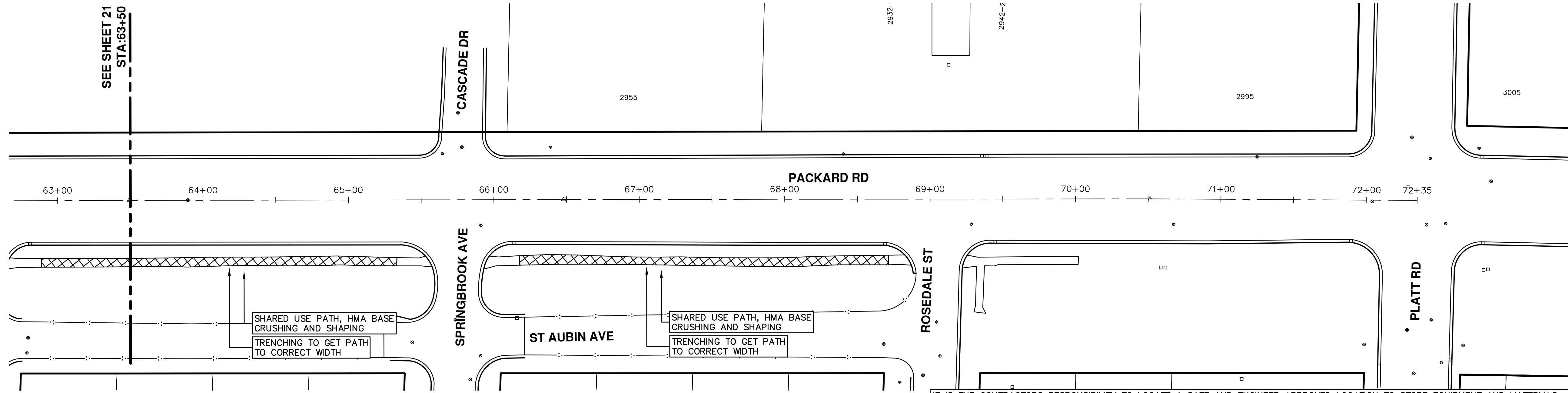


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ANN ARBOR MI 48106-8647  
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED



T:\2021004\Plan Production\Major Streets\2021004 - Packard St HMA Path.dwg Dwg Created: 19-Feb-21 - \_a2 standard bw.stb - Plot Date: 20-Feb-21



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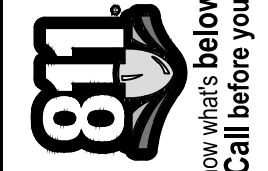
ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
 SCALE PLAN: 1"=40'  
 DRAWING No. 2021-004-22

STREET RESURFACING PROJECT - 2021  
 PACKARD ST HMA PATH  
 STA. 63+50 - STA. 72+35



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REV.	DESCRIPTION	DATE	DRAWN	CHECKED





# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: HURON PKWY APPROACH TO LINDSAY LANE

ITB No. 4667 FILE No. 2021-004

### 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.
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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:

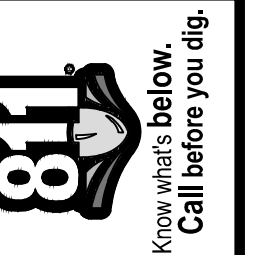
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL 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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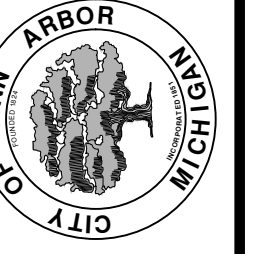
QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	60.000
2057011	_Machine Grading, Special	Syd	237.000
2057021	_Undercutting, Type IIA	Cyd	8.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	2.000
5010002	Cold Milling HMA Surface	Syd	237.000
5010005	HMA Surface, Rem	Syd	7.000
5010025	Hand Patching	Ton	1.000
5010703	HMA, LVSP	Ton	55.000
6027021	_Flowable Fill	Cyd	1.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	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
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	28.000
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	28.000
8120140	Lighted Arrow, Type C, Furn	Ea	1.000
8120141	Lighted Arrow, Type C, Oper	Ea	1.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	3.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	3.000
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	110.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	110.000
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	5.000
8167011	_Slope Restoration	Syd	3.000
8190244	Hh, Adj	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	G20-2	End Road Work	4.500	9.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
1.0	W4-2R	Lane Ends / Right	9.000	9.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
2.0	R2-1	Speed Limit	7.500	15.000
2.0	R5-18C	Work Zone Begins	16.000	32.000
		<b>TOTAL</b>		<b>118.000</b>



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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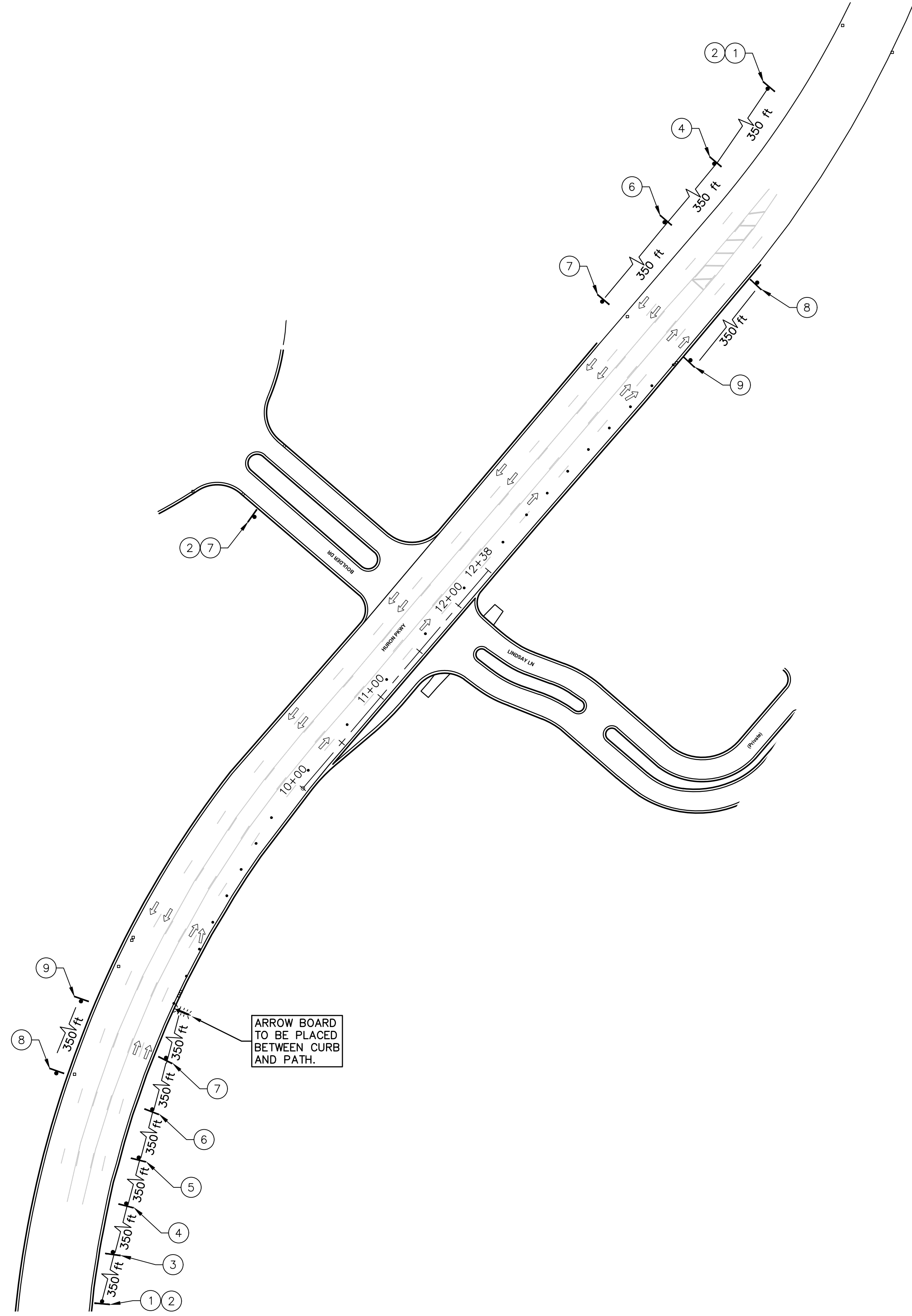
ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
HURON PKWY APPROACH TO LINDSAY LANE  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-23

T:\2021004\Plan Production\Major Streets\2021004 - Huron Pkwy approach.dwg Dwg Created: 19-Feb-21 - Plot Date: 20-Feb-21



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TRAFFIC CONTROL SIGN		
TAG	SIGN	NUM.
①		W20-1 36"x36"
②		D3-1 48"x12"
③		W20-5 36"x36"
④		W3-5B 36"x36"
⑤		W4-2 36"x36"
⑥		R5-18C 48"x48"
⑦		R2-1 30"x36"
⑧		G20-2 48"x24"
⑨		R2-1 30"x36"

KEY	
CHANNELIZING DEVICES	.....
LIGHTED ARROW PANEL (CAUTION MODE)	
TRAFFIC FLOW	



**ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR**  
 STREET RESURFACING PROJECT - 2021  
 HURON PKWY APPROACH TO LINDSAY LANE

SCALE PLAN: Custom  
 DRAWING No. 2021-004-24

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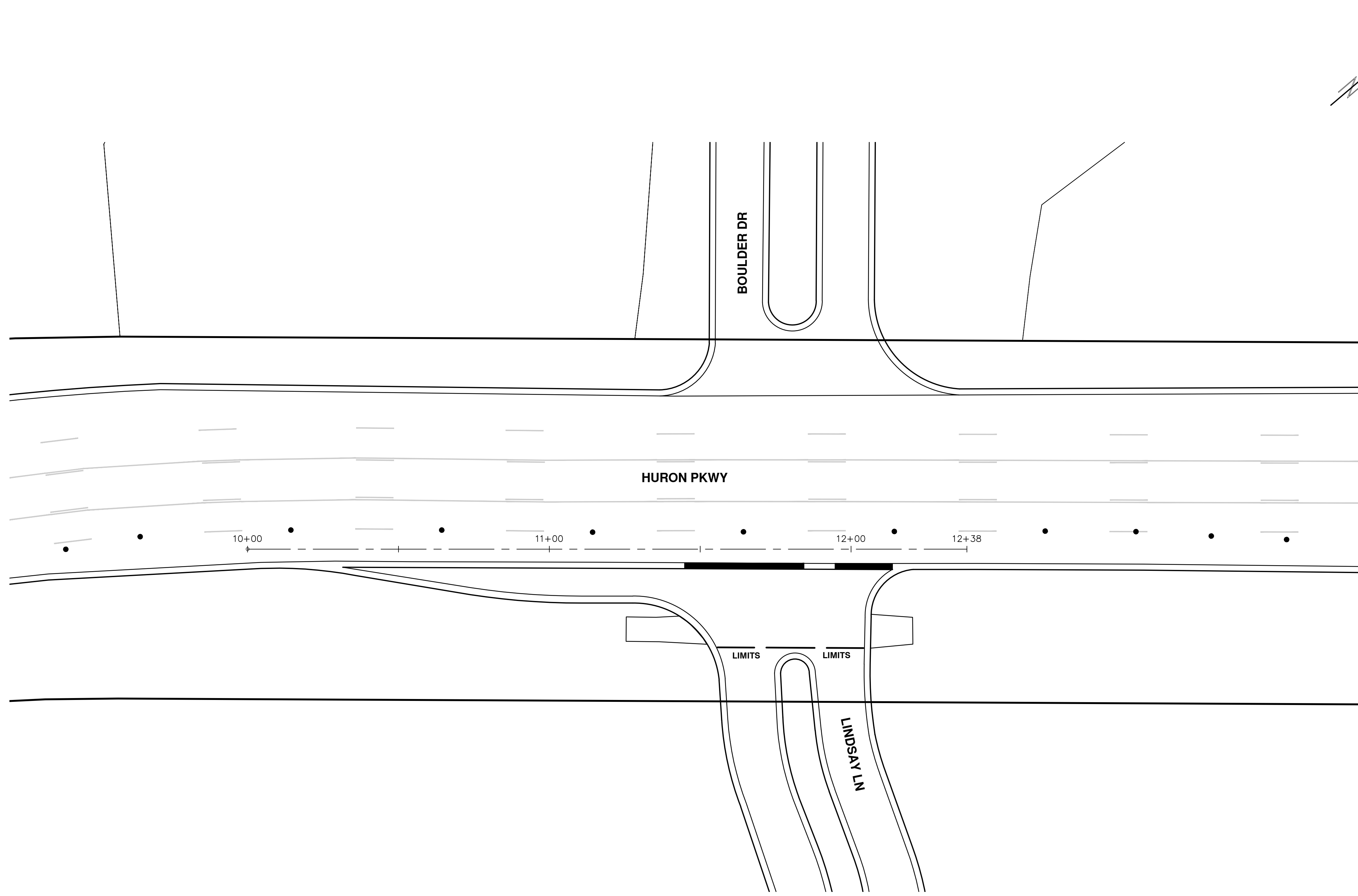
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TRAFFIC CONTROL

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

SHEET No. **24 OF 58**





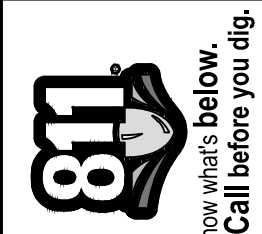
ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
 SCALE PLAN: 1" = 20'  
 DRAWING No.  
 2021-004-25

STREET RESURFACING PROJECT - 2021  
 HURON PKWY APPROACH TO LINDSAY LANE  
 STA. 10+00 - STA. 12+38



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# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: GLENWOOD ROAD

ITB No. 4667 FILE No. 2021-004

### 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.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	4.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	5.000
5017011	_Raised Intersection, HMA	Syd	448.000
5017011	_Speed Hump, HMA	Syd	210.000
6027011	_Raised Intersection, Conc	Syd	448.000
6027011	_Speed Hump, Conc	Syd	210.000
8117050	_Pavt Mrkg, Ovtly Cold Plastic, Speed Hump Chevron, White	Ea	24.000
8117050	_Pavt Mrkg, Polyurea, Speed Hump Chevron, White	Ea	24.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	100.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	100.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	302.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	302.000
8167011	_Slope Restoration	Syd	200.000
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	G20-2	End Road Work	4.500	9.000
5.0	W3-2	Yield Ahead	9.000	45.000
5.0	W1-4L	Reverse Curve (Right)	9.000	45.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
10.0	W20-4	One Lane Road Ahead	9.000	90.000
5.0	R1-2	Yield	16.000	80.000
5.0	R1-2A	To Oncoming Traffic	3.000	15.000
		<b>TOTAL</b>		<b>302.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA

### 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.

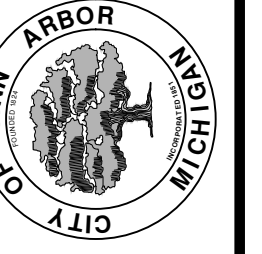


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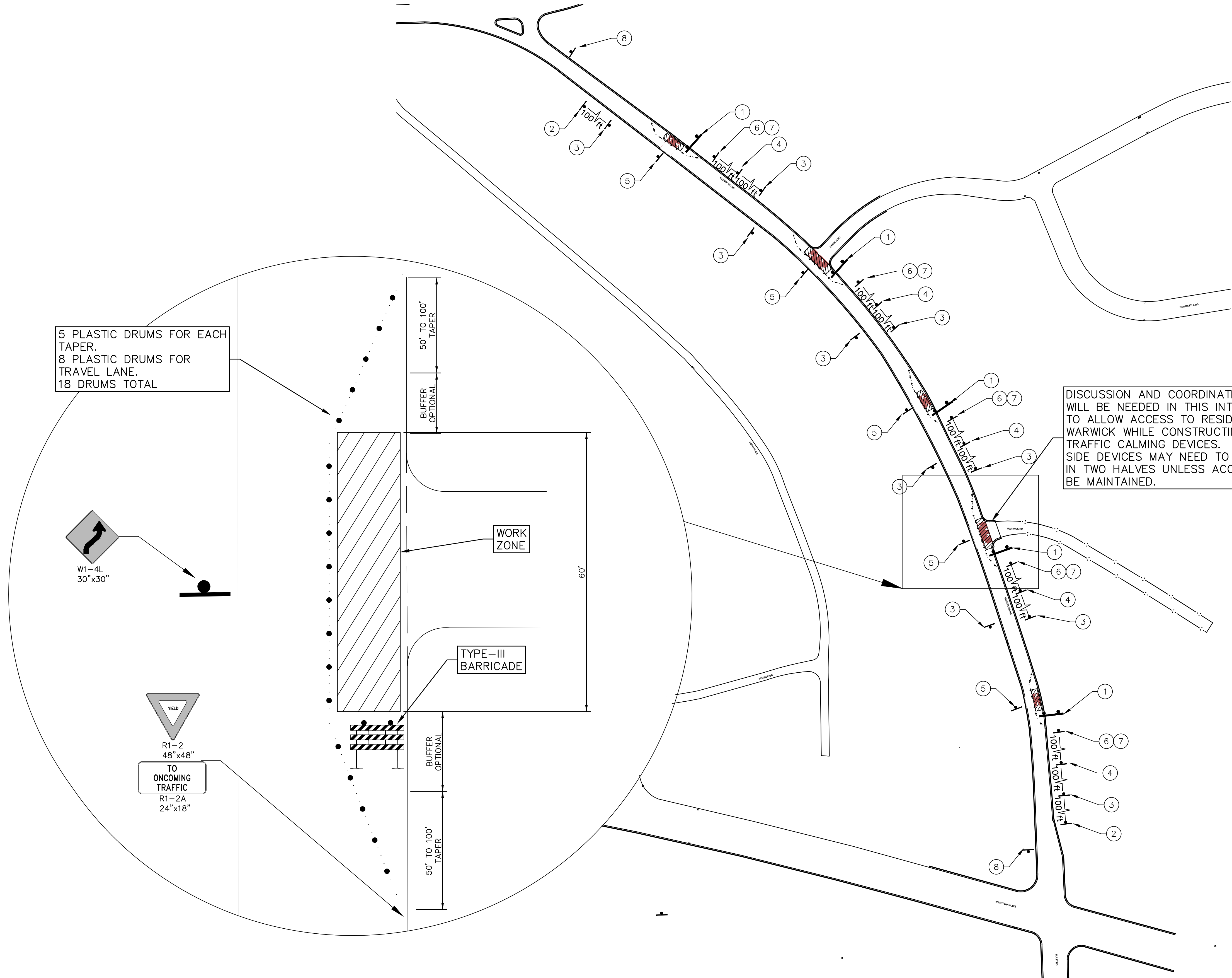
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STREET RESURFACING PROJECT - 2021  
GLENWOOD ROAD  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No.  
2021-004-26

I:\2021004\Plan Production\Major Streets\2021004 - Glenwood Road.dwg Dwg Created: 20-Feb-21 - \_o2\_standard bw.stb - Plot Date: 20-Feb-21



5 PLASTIC DRUMS FOR EACH TAPER.  
8 PLASTIC DRUMS FOR TRAVEL LANE.  
18 DRUMS TOTAL

DISCUSSION AND COORDINATION WILL BE NEEDED IN THIS INTERSECTION TO ALLOW ACCESS TO RESIDENTS DOWN WARWICK WHILE CONSTRUCTING THE TRAFFIC CALMING DEVICES. THE EAST SIDE DEVICES MAY NEED TO BE DONE IN TWO HALVES UNLESS ACCESS CAN BE MAINTAINED.

TRAFFIC CONTROL SIGN		
TAG	SIGN	NUM.
①	TYPE III BARRICADE W LIGHT	5
②	ROAD WORK AHEAD W20-1 36"x36"	2
③	ONE LANE ROAD AHEAD W20-4 36"x36"	10
④	W3-2 36"x36"	5
⑤	W1-4L 36"x36"	5
⑥	YIELD R1-2 48"x48"	5
⑦	TO ONCOMING TRAFFIC R1-2A 24"x18"	5
⑧	END ROAD WORK G20-2	2

**ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR**  
STREET RESURFACING PROJECT - 2021  
GLENWOOD ROAD  
TRAFFIC CONTROL PHASE I

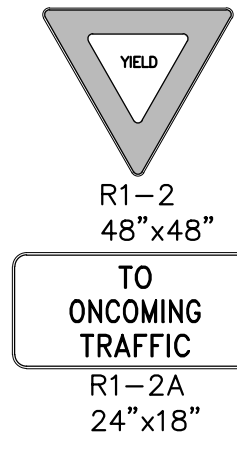
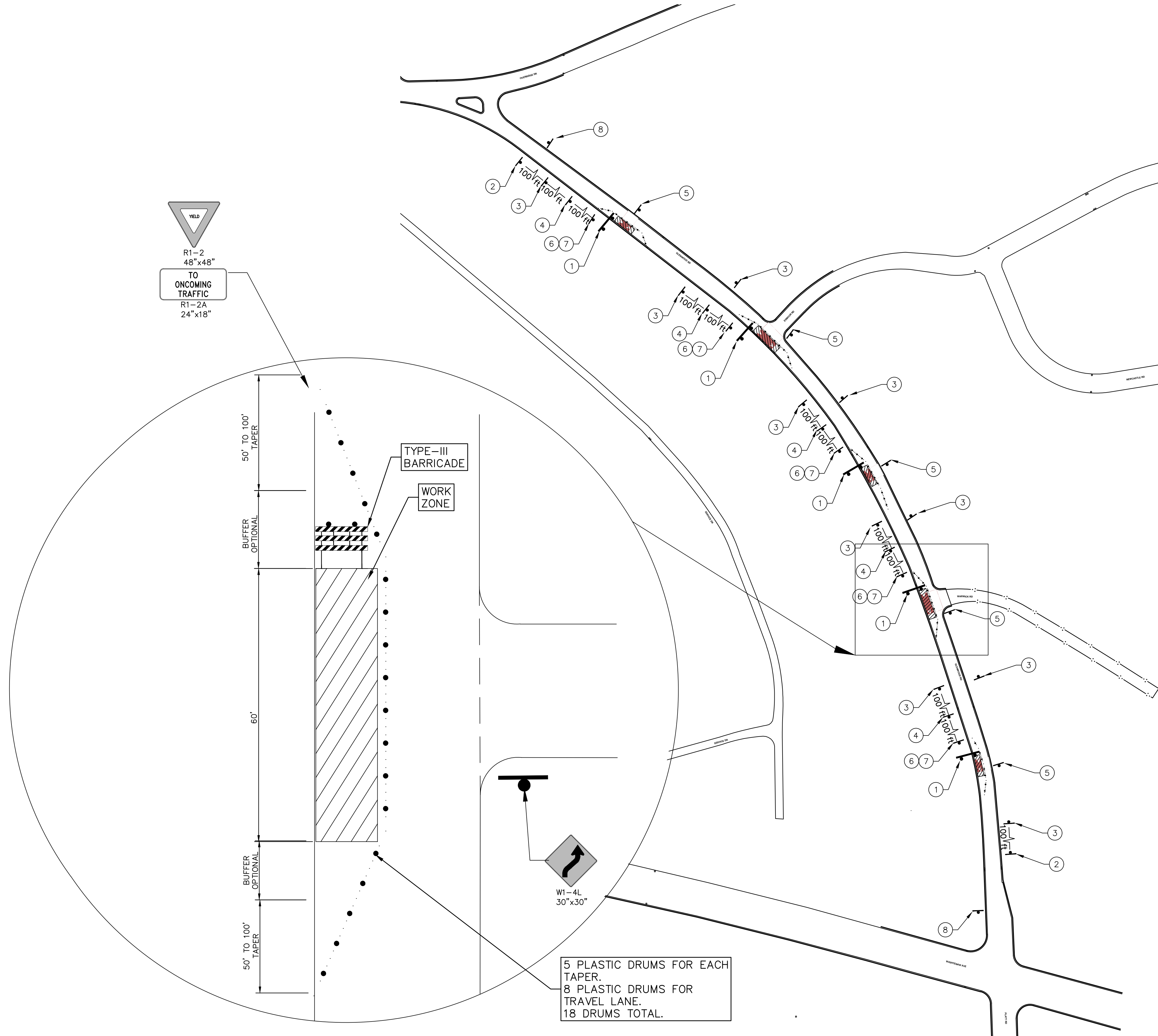
SCALE PLAN: Custom  
DRAWING No. 2021-004-27

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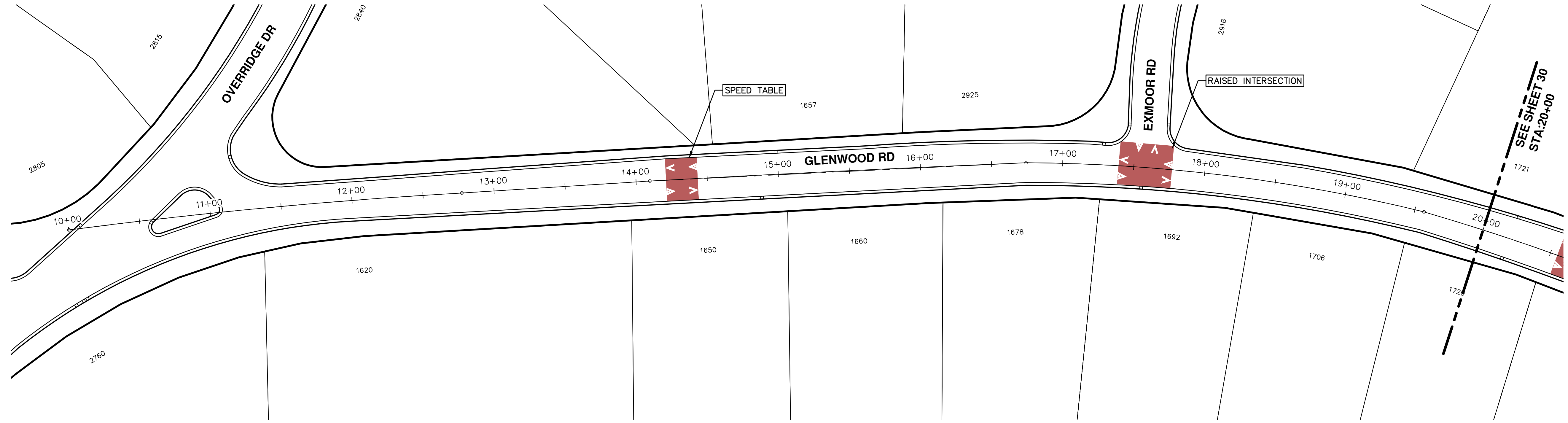
REV.	DATE	DRAWN	CHECKED	DESCRIPTION

SHEET No. 27 OF 58



TRAFFIC CONTROL SIGN		
TAG	SIGN	NUM.
①	TYPE III BARRICADE W LIGHT	5
②	ROAD WORK AHEAD W20-1 36"x36"	2
③	ONE LANE ROAD AHEAD W20-4 36"x36"	10
④	W3-2 36"x36"	5
⑤	W1-4L 30"x30"	5
⑥	R1-2 48"x48"	5
⑦	TO ONCOMING TRAFFIC R1-2A 24"x18"	5
⑧	END ROAD WORK G20-2	2

T:\2021004\Plan Production\Major Streets\2021004 - Glenwood Road.dwg Dwg Created: 20-Feb-21 - \_a2 standard bw.stb - Plot Date: 20-Feb-21



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 SCALE PLAN: 1"=40'  
 DRAWING No. 2021-004-29

STREET RESURFACING PROJECT - 2021  
 GLENWOOD ROAD  
 STA. 10+00 - STA. 20+00

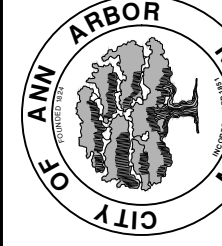
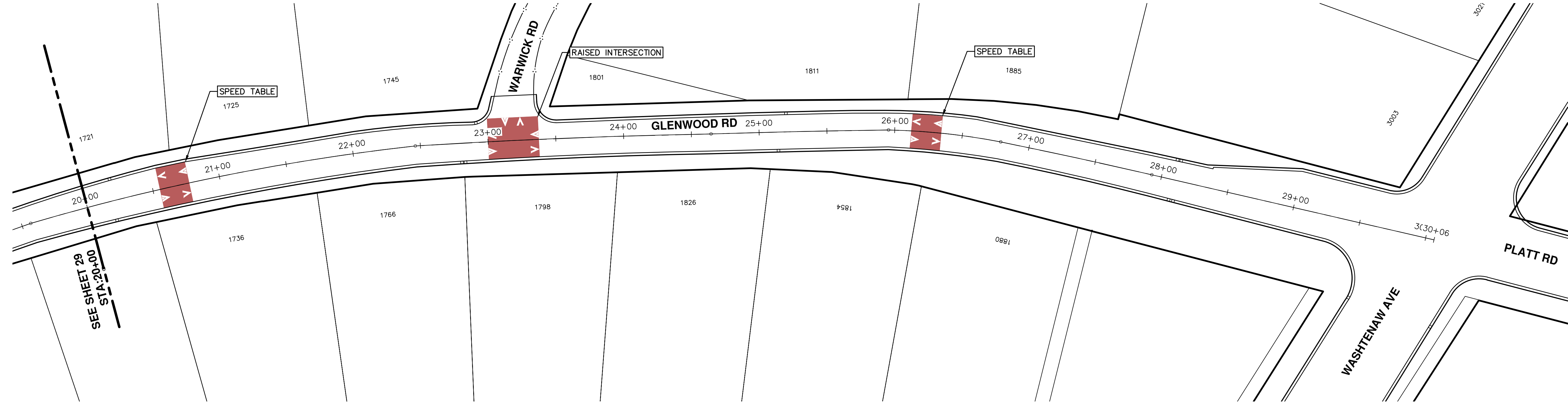


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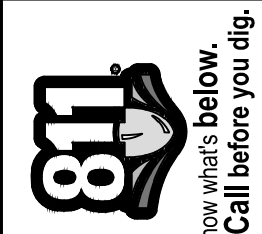


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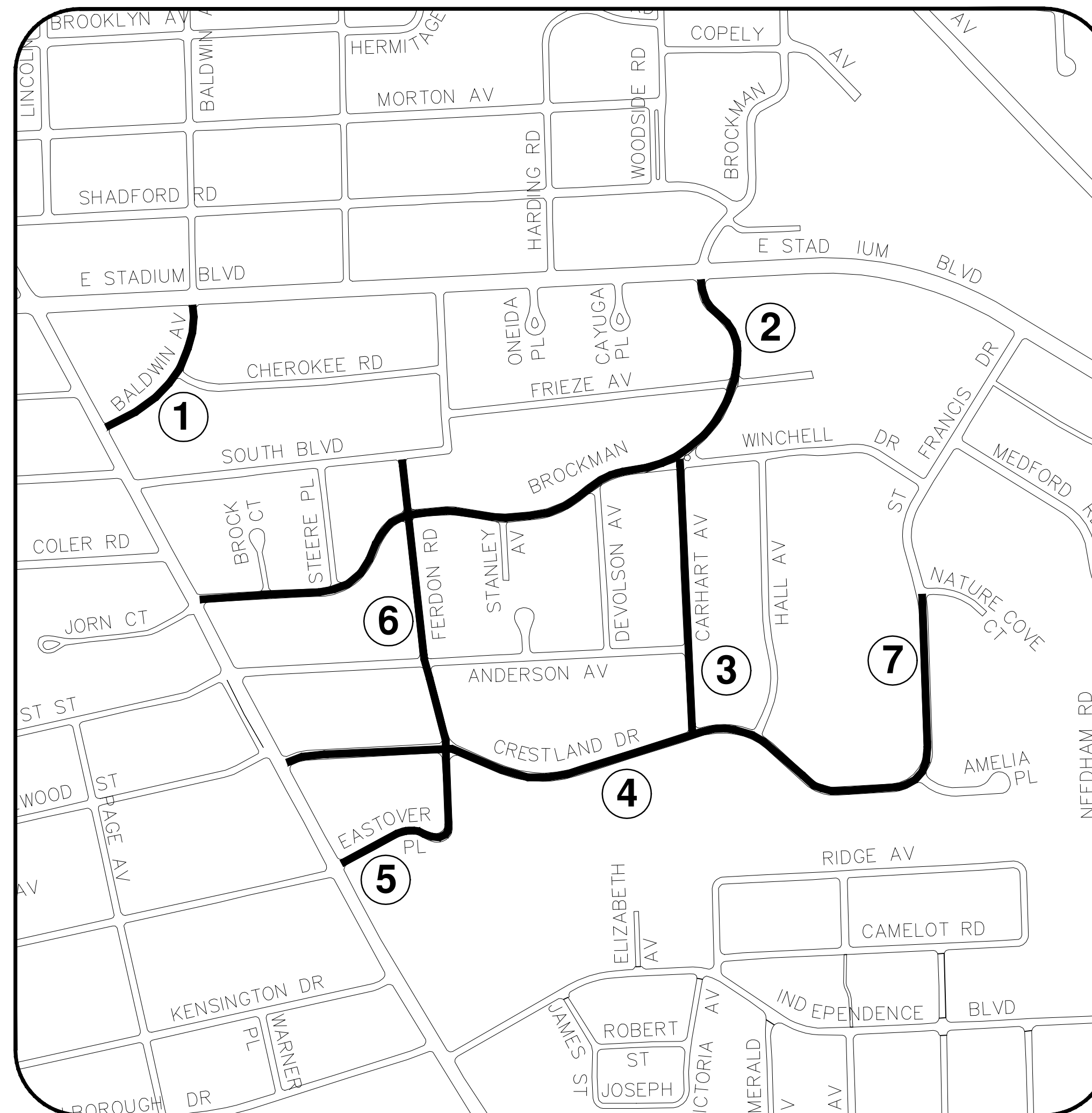
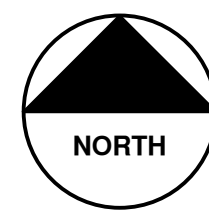




# CITY OF ANN ARBOR ENGINEERING

## STREET RESURFACING PROJECT - 2021 PHASE 1

ITB No. 4667 FILE No. 2021-004



### SHEET INDEX

SHEET NO.	TITLE	MAP INDEX NO. (THIS SHEET)
32	BALDWIN AVENUE	1
33	BROCKMAN BOULEVARD	2
34	CARHART AVENUE	3
35	CRESTLAND STREET	4
36	EASTOVER PLACE	5
37	FERDON ROAD	6
38	SAINT FRANCIS DRIVE	7

### NOTES:

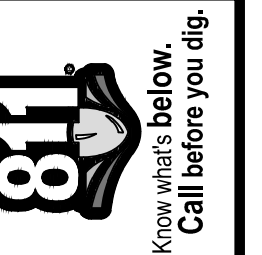
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY 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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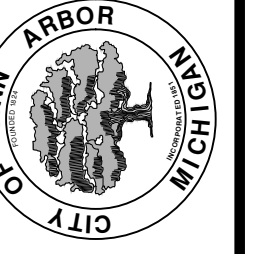


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STREET RESURFACING PROJECT - 2021  
PHASE 1  
PHASE 1 COVER SHEET

SCALE: NTS  
DRAWING No.  
2021-004-31



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: BALDWIN AVENUE

ITB No. 4667 FILE No. 2021-004

### 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 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
2040005	Pavt. Rem	Syd	26.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	236.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	85.000
2057011	_Grading, Driveway Approach	Syd	95.000
2057011	_Machine Grading, Special	Syd	1,552.000
2057021	_Undercutting, Type IIA	Cyd	52.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	6.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	7.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	9.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	10.000
5010002	Cold Milling HMA Surface	Syd	1,552.000
5010005	HMA Surface, Rem	Syd	26.000
5010025	Hand Patching	Ton	3.000
5010061	HMA Approach	Ton	5.000
5010703	HMA, LVSP	Ton	359.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	163.000
6027021	_Flowable Fill	Cyd	4.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	68.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	91.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	145.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	110.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	12.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	3.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	3.000
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	56.000
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	56.000
8120141	Lighted Arrow, Type C, Oper	Ea	2.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	9.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	9.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	312.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	312.000
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	18.000
8167011	_Slope Restoration	Syd	25.000
8230431	Gate Box, Adj, Case 1	Ea	1.000
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)
5.0	*D3-1	Street Name Sign	4.000	20.000
4.0	G20-2	End Road Work	4.500	18.000
1.0	W1-4L	Reverse Curve (Left)	9.000	9.000
1.0	W1-4R	Reverse Curve (Right)	9.000	9.000
2.0	W1-6L	Shift arrow Left	9.000	18.000
2.0	W1-6R	Shift arrow Right	9.000	18.000
4.0	W3-5B	Reduce Speed Zone	9.000	36.000
1.0	W4-2R	Lane Ends / Right	9.000	9.000
5.0	W20-1	Road Work Ahead Sign	9.000	45.000
1.0	W20-5A	Center Lane Closed Ahead	9.000	9.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
4.0	R2-1	Speed Limit	7.500	30.000
4.0	R5-18C	Work Zone Begins	16.000	64.000
3.0	R11-3a	Road Closed Local Traffic Only	12.500	38.000
		<b>TOTAL</b>		<b>332.000</b>

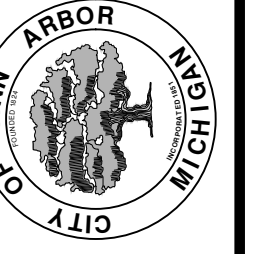
CASTING TABLE		
		FACILITY ID'S
WATER	1	01-03716
SANITARY	2	71-69175/ 71-69176
STORM	4	92-58367/ 92-58366/ 92-58365/ 92-58364
WATER BOX	NA	NA

T:\2021004\Plan Production\2021004 - Baldwin Avenue.dwg Dwg Created: 18-Feb-21 - \_a2 standard bw.stb - Plot Date: 20-Feb-21



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MICHIGAN 48107-8647  
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
BALDWIN AVENUE  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-32  
SHEET No.



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

## PROJECT LOCATION: BROCKMAN BOULEVARD

ITB No. 4667 FILE No. 2021-004

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	10.000
2030015	Sewer, Rem, Less than 24 inch	Ft	100.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	1,400.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	1,021.000
2057011	_Grading, Driveway Approach	Syd	514.000
2057011	_Grading, Sidewalk	Syd	28.000
2057011	_Grading, Sidewalk Ramp	Syd	32.000
2057011	_Machine Grading, Special	Syd	10,233.000
2057021	_Undercutting, Type IIA	Cyd	319.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	25.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	100.000
4021260	Trench Undercut and Backfill	Cyd	30.000
4030200	Dr Structure, 24 inch dia	Ea	10.000
4030280	Dr Structure, Adj, Add Depth	Ft	1.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	20.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	12.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	27.000
4037050	_Dr Structure, Adj, Case 2, Modified	Ea	1.000
4037050	_Dr Structure, Cleaning, Modified	Ea	1.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	35.000
4037050	_Structure, Reconstruct	Ea	1.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	110.000
4047001	_Yard Drain, Outlet Ending, Plastic Pipe	Ft	1.000
4047050	_Yard Drain, Outlet Ending, Pop-up Apparatus	Ea	1.000
5010002	Cold Milling HMA Surface	Syd	10,233.000
5010005	HMA Surface, Rem	Syd	310.000
5010025	Hand Patching	Ton	18.000
5010061	HMA Approach	Ton	76.000
5010703	HMA, LVSP	Ton	2,213.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	725.000
5017031	_HMA, Wedging, 36A	Ton	9.000
6027021	_Flowable Fill	Cyd	26.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	514.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	825.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	575.000
8030030	Curb Ramp Opening, Conc	Ft	48.000
8037001	_Detectable Warning Surface, Modified	Ft	40.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	287.000
8037010	_Sidewalk, Conc or Clay Brick Pavers, Rem and Reinstall	Sft	30.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	250.000
8110092	Pavt Mrkg, Polyurea, 4 inch, Yellow	Ft	360.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	310.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	45.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	11.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	11.000
8120141	Lighted Arrow, Type C, Oper	Ea	2.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	75.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	75.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	78.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	78.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	60.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	60.000
8127050	_Temporary No Parking Sign	Ea	83.000
8167011	_Slope Restoration	Syd	25.000
8230431	Gate Box, Adj, Case 1	Ea	10.000
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)
15.0	*D3-1	Street Name Sign	4.000	60.000
2.0	G20-2	End Road Work	4.500	9.000
1.0	W1-4L	Reverse Curve (Left)	9.000	9.000
1.0	W1-4L	Reverse Curve (Right)	9.000	9.000
2.0	W1-6L	Shift arrow Left	9.000	18.000
2.0	W1-6R	Shift arrow Right	9.000	18.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
1.0	W4-2R	Lane Ends / Right	9.000	9.000
15.0	W20-1	Road Work Ahead Sign	9.000	135.000
1.0	W20-5A	Center Lane Closed Ahead	9.000	9.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
4.0	R2-1	Speed Limit	7.500	30.000
4.0	R5-18C	Work Zone Begins	16.000	64.000
11.0	R11-3a	Road Closed Local Traffic Only	12.500	138.000
		<b>TOTAL</b>		<b>535.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	3	HV-00002/01-07549/01-00732
SANITARY	11	71-69166/ 71-69167/ 71-69884/ 71-69786/ 71-69787/ 71-69788/ 71-69750/71-69507/ 71-69502/ 71-69501/ 71-62379
STORM	4	92-58386/ 92-59060/ 92-59002/ 92-50727
WATER BOX	11	01-07589/ 01-07587/ 01-07588/ 01-01946/ 01-07582/01-06989/ 01-01907/ 01-07581/ 01-07583/ 01-08447/ 01-01875

### 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

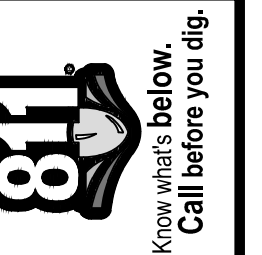
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL 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.



**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
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ANN ARBOR, MICHIGAN 48107-8647  
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REV.	DATE	DESCRIPTION
00	02/16/21	AG/CE/GS
		DRAWN
		CHECKED

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PUBLIC SERVICES  
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
BROCKMAN BOULEVARD  
SUBSET COVER SHEET

SCALE PLAN: #####  
DRAWING No. 2021-004-33

SHEET No. 33 OF 58

T:\2021004\Plan Production\2021004 - Brockman Boulevard.dwg Dwg Created: 19-Feb-21 - \_a2 standard bw.stb - Plot Date: 20-Feb-21



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: CARHART AVENUE

ITB No. 4667 FILE No. 2021-004

### 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.

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	339.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	39.000
2057011	_Grading, Driveway Approach	Syd	12.000
2057011	_Grading, Sidewalk	Syd	12.000
2057011	_Grading, Sidewalk Ramp	Syd	15.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	6.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	40.000
4021260	Trench Undercut and Backfill	Cyd	12.000
4030200	Dr Structure, 24 inch dia	Ea	4.000
4037050	_Dr Structure Cover, Type B, Modified	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	40.000
4047001	_Yard Drain, Outlet Ending, Plastic Pipe	Ft	4.000
4047050	_Yard Drain, Outlet Ending, Pop-up Apparatus	Ea	4.000
5010002	Cold Milling HMA Surface	Syd	3,015.000
5010005	HMA Surface, Rem	Syd	165.000
5010025	Hand Patching	Ton	9.000
5010703	HMA, LVSP	Ton	349.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	320.000
5017011	_Cold Milling HMA Surface, Modified	Syd	127.000
5017031	_HMA, Wedging, 36A	Ton	5.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	12.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	236.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	88.000
8030030	Curb Ramp Opening, Conc	Ft	12.000
8037001	_Detectable Warning Surface, Modified	Ft	10.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	133.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	110.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	108.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	35.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	3.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	3.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	21.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	21.000
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	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	4.000
8127050	_Temporary No Parking Sign	Ea	33.000
8167011	_Slope Restoration	Syd	85.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	12.000

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
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>51.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA

### NOTES:

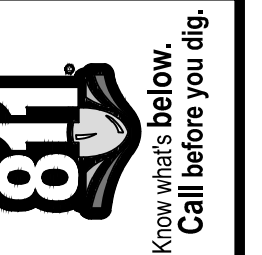
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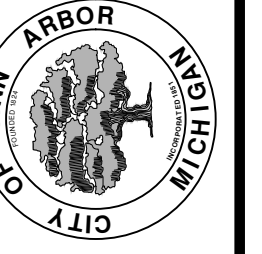


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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
CARHART AVENUE  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-34



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: CRESTLAND STREET

ITB No. 4667 FILE No. 2021-004

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	12.000
2030015	Sewer, Rem, Less than 24 inch	Ft	120.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	1,266.000
2047001	_Exploratory Excavation, Vertical	Ft	3.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	484.000
2057011	_Grading, Driveway Approach	Syd	73.000
2057011	_Grading, Sidewalk	Syd	42.000
2057011	_Grading, Sidewalk Ramp	Syd	29.000
2057011	_Machine Grading, Special	Syd	9,356.000
2057021	_Undercutting, Type IIA	Cyd	278.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	20.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	120.000
4021260	Trench Undercut and Backfill	Cyd	36.000
4030200	Dr Structure, 24 inch dia	Ea	12.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	29.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	13.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	32.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	34.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	120.000
4047001	_Yard Drain, Outlet Ending, Plastic Pipe	Ft	2.000
5010002	Cold Milling HMA Surface	Syd	9,356.000
5010005	HMA Surface, Rem	Syd	141.000
5010025	Hand Patching	Ton	16.000
5010061	HMA Approach	Ton	117.000
5010703	HMA, LVSP	Ton	1,929.000
6027021	_Flowable Fill	Cyd	23.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	72.000
8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	2.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	601.000
8027001	_Curb and Gutter, Conc, Mountable	Ft	122.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	519.000
8030030	Curb Ramp Opening, Conc	Ft	24.000
8037001	_Detectable Warning Surface, Modified	Ft	20.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	264.000
8037010	_Sidewalk, Conc or Clay Brick Pavers, Rem and Reinstall	Sft	6.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	381.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	282.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	208.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	104.000
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
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	25.000
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	25.000
8120141	Lighted Arrow, Type C, Oper	Ea	1.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	74.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	74.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	67.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	67.000
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	75.000
8167011	_Slope Restoration	Syd	25.000
8230431	Gate Box, Adj, Case 1	Ea	3.000

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	G20-2	End Road Work	4.500	9.000
1.0	W1-4L	Reverse Curve (Left)	9.000	9.000
1.0	W1-4L	Reverse Curve (Right)	9.000	9.000
2.0	W1-6L	Shift arrow Left	9.000	18.000
2.0	W1-6R	Shift arrow Right	9.000	18.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
6.0	W20-1	Road Work Ahead Sign	9.000	54.000
0.0	W20-2	Detour Ahead	9.000	0.000
1.0	W20-5A	Center Lane Closed Ahead	9.000	9.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
2.0	R2-1	Speed Limit	7.500	15.000
2.0	R5-18C	Work Zone Begins	16.000	32.000
6.0	R11-3a	Road Closed Local Traffic Only	12.500	75.000
		<b>TOTAL</b>		<b>283.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	1	01-00449
SANITARY	16	71-69096/ 71-69862/ 71-69864/ 71-69760/ 71-69749/ 71-69748/ 71-69747/ 71-69746/ 71-69456/ 71-69457/ 71-62246/ 71-62324/ 71-62323/ 71-62321/ 71-62322/ 71-62320
		92-58978/ 92-58979/ 92-58968/ 92-58980/ 92-58969/ 92-58960/ 92-50617/ 92-50629/ 92-50618/ 92-50633/ 92-50635/
		01-07575/ 01-07572/ 01-07573
WATER BOX	3	

### 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

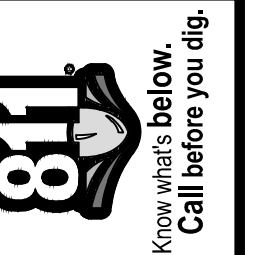
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL 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.

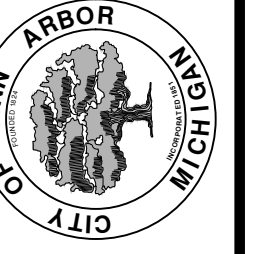


**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET, P.O. BOX 8647  
ANN ARBOR, MICHIGAN 48107-8647  
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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PUBLIC SERVICES  
301 EAST HURON STREET  
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
CRESTLAND STREET  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-35  
SHEET No.

T:\2021004\Plan Production\2021004 - Crestland Street.dwg Dwg Created: 19-Feb-21 - \_o2 standard bw.stb - Plot Date: 20-Feb-21



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: EASTOVER PLACE

ITB No. 4667 FILE No. 2021-004

### 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.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	104.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	18.000
2057011	_Grading, Driveway Approach	Syd	18.000
2057011	_Machine Grading, Special	Syd	1,040.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	5.000
5010002	Cold Milling HMA Surface	Syd	1,040.000
5010005	HMA Surface, Rem	Syd	12.000
5010025	Hand Patching	Ton	1.000
5010703	HMA, LVSP	Ton	91.000
6027021	_Flowable Fill	Cyd	2.000
8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	18.000
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
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	28.000
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	28.000
8120141	Lighted Arrow, Type C, Oper	Ea	1.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	5.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	5.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	148.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	148.000
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	12.000
8167011	_Slope Restoration	Syd	42.000
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	G20-2	End Road Work	4.500	9.000
1.0	W1-4L	Reverse Curve (Left)	9.000	9.000
1.0	W1-4R	Reverse Curve (Right)	9.000	9.000
2.0	W1-6L	Shift arrow Left	9.000	18.000
2.0	W1-6R	Shift arrow Right	9.000	18.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
1.0	W20-5A	Center Lane Closed Ahead	9.000	9.000
2.0	R2-1	Speed Limit	7.500	15.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>156.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA

### 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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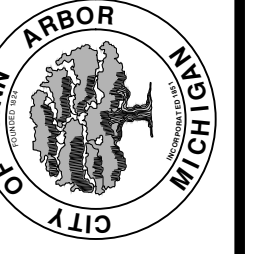


**ENGINEERING**  
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
EASTOVER PLACE  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-36



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: FERDON ROAD

ITB No. 4667 FILE No. 2021-004

### 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.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	5.000
2030015	Sewer, Rem, Less than 24 inch	Ft	50.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	806.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	25.000
2057011	_Grading, Driveway Approach	Syd	32.000
2057011	_Grading, Sidewalk	Syd	18.000
2057011	_Grading, Sidewalk Ramp	Syd	7.000
2057011	_Machine Grading, Special	Syd	3,766.000
2057021	_Undercutting, Type IIA	Cyd	126.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	16.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	50.000
4021260	Trench Undercut and Backfill	Cyd	15.000
4030200	Dr Structure, 24 inch dia	Ea	5.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	4.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	5.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	6.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	7.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	50.000
4047001	_Yard Drain, Outlet Ending, Plastic Pipe	Ft	2.000
5010002	Cold Milling HMA Surface	Syd	3,766.000
5010005	HMA Surface, Rem	Syd	90.000
5010025	Hand Patching	Ton	10.000
5010703	HMA, LVSP	Ton	870.000
6027021	_Flowable Fill	Cyd	15.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	14.000
8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	18.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	283.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	511.000
8030030	Curb Ramp Opening, Conc	Ft	12.000
8037001	_Detectable Warning Surface, Modified	Ft	10.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	60.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	165.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	70.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	43.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	46.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	46.000
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	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	4.000
8127050	_Temporary No Parking Sign	Ea	42.000
8167011	_Slope Restoration	Syd	25.000
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
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>51.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	3	71-69887/ 71-69888/ 71-69762/
STORM	1	92-58977
WATER BOX	1	01-07534

### NOTES:

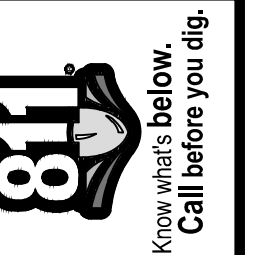
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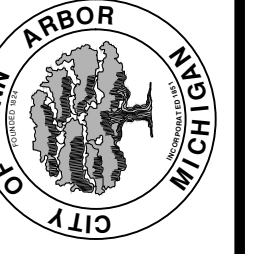


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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
FERDON ROAD  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-37  
SHEET No. 37 OF 58



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: SAINT FRANCIS DRIVE

ITB No. 4667 FILE No. 2021-004

### 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.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	92.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	5.000
2057011	_Grading, Driveway Approach	Syd	5.000
2057011	_Machine Grading, Special	Syd	1,611.000
2057021	_Undercutting, Type IIIA	Cyd	54.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	2.000
4037050	_Dr Structure Cover, Type C, Modified	Ea	2.000
4037050	_Dr Structure Cover, Type D, Modified	Ea	2.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	4.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	2.000
5010002	Cold Milling HMA Surface	Syd	1,611.000
5010005	HMA Surface, Rem	Syd	10.000
5010025	Hand Patching	Ton	1.000
5010703	HMA, LVSP	Ton	373.000
6027021	_Flowable Fill	Cyd	2.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	5.000
8027001	_Curb and Gutter, Conc, Mountable	Ft	92.000
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
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	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Temporary No Parking Sign	Ea	15.000
8167011	_Slope Restoration	Syd	30.000

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
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>51.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA

### 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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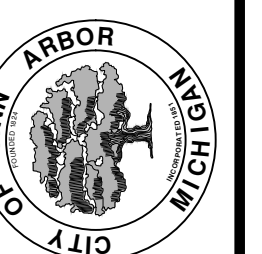


**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET, P.O. BOX 8647  
ANN ARBOR, MICHIGAN 48107-8647  
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
SAINT FRANCIS DRIVE  
SUBSET COVER SHEET

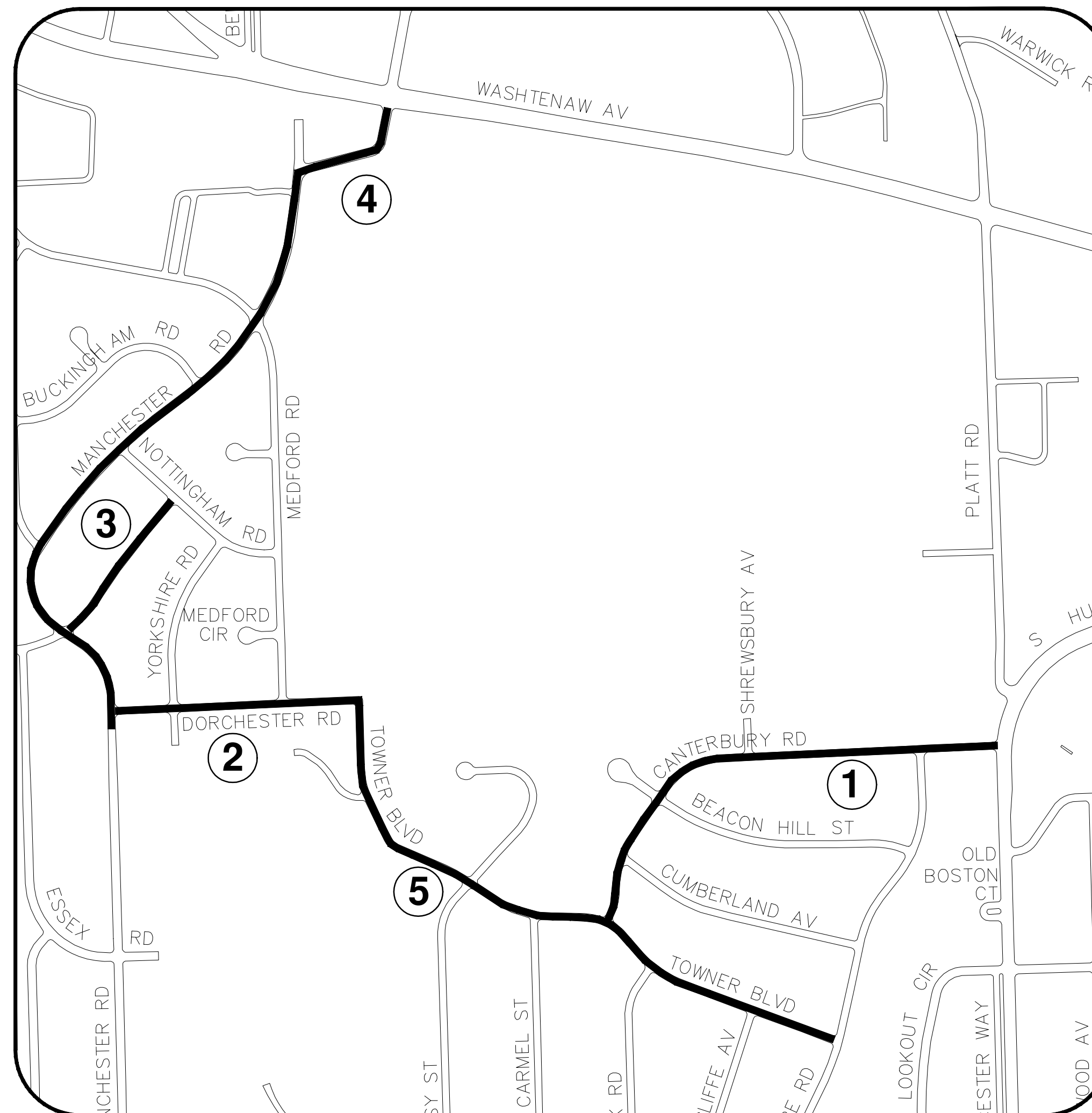
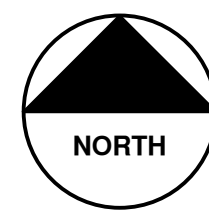
SCALE: NTS  
DRAWING No. 2021-004-38



# CITY OF ANN ARBOR ENGINEERING

## STREET RESURFACING PROJECT - 2021 PHASE 2A

ITB No. 4667 FILE No. 2021-004



### SHEET INDEX

SHEET NO.	TITLE	MAP INDEX NO. (THIS SHEET)
40	CANTERBURY ROAD	1
41	DORCHESTER ROAD	2
42	INDEPENDENCE BLVD. 2	3
43	MANCHESTER ROAD	4
44	TOWNER BLVD	5

### NOTES:

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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
PHASE 2A  
PHASE 2A COVER SHEET

SCALE: NTS  
DRAWING No.  
2021-004-39



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: CANTERBURY ROAD

ITB No. 4667 FILE No. 2021-004

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	10.000
2030015	Sewer, Rem, Less than 24 inch	Ft	100.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	1,317.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	385.000
2057011	_Grading, Driveway Approach	Syd	299.000
2057011	_Grading, Sidewalk	Syd	11.000
2057011	_Grading, Sidewalk Ramp	Syd	51.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	21.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	100.000
4021260	Trench Undercut and Backfill	Cyd	30.000
4030200	Dr Structure, 24 inch dia	Ea	10.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	11.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	10.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	100.000
4047001	_Yard Drain, Outlet Ending, Plastic Pipe	Ft	1.000
4047050	_Yard Drain, Outlet Ending, Pop-up Apparatus	Ea	1.000
5010002	Cold Milling HMA Surface	Syd	5,870.000
5010005	HMA Surface, Rem	Syd	293.000
5010025	Hand Patching	Ton	34.000
5010061	HMA Approach	Ton	21.000
5010703	HMA, LVSP	Ton	658.000
5017011	_Raised Crosswalk, HMA	Syd	61.000
5017011	_Raised Intersection, HMA	Syd	654.000
5017011	_Speed Hump, HMA	Syd	40.000
6027011	_Raised Crosswalk, Conc	Syd	61.000
6027011	_Raised Intersection, Conc	Syd	654.000
6027011	_Speed Hump, Conc	Syd	40.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	299.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	561.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	727.000
8030030	Curb Ramp Opening, Conc	Ft	60.000
8037001	_Detectable Warning Surface, Modified	Ft	50.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	455.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	50.000
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	50.000
8117050	_Pavt Mrkg, Ovtly Cold Plastic, Speed Hump Chevron, White	Ea	18.000
8117050	_Pavt Mrkg, Polyurea, Speed Hump Chevron, White	Ea	18.000
8117050	_Pavt Mrkg, Thermopl, Speed Hump Chevron, White	Ea	18.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	5.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	5.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	78.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	78.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	227.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	227.000
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	4.000
8127050	_Temporary No Parking Sign	Ea	59.000
8167011	_Slope Restoration	Syd	360.000
8230431	Gate Box, Adj, Case 1	Ea	3.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	29.000

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
2.0	G20-2	End Road Work	4.500	9.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
1.0	W4-2R	Lane Ends / Right	9.000	9.000
1.0	W1-6L	Shift arrow Left	9.000	9.000
1.0	W1-6R	Shift arrow Right	9.000	9.000
6.0	W20-1	Road Work Ahead Sign	9.000	54.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
2.0	R2-1	Speed Limit	7.500	15.000
2.0	R5-18C	Work Zone Begins	16.000	32.000
5.0	R11-3a	Road Closed Local Traffic Only	12.500	63.000
		<b>TOTAL</b>		<b>251.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA

### 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:

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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
CANTERBURY ROAD  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-40





# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: DORCHESTER ROAD

ITB No. 4667 FILE No. 2021-004

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	1,504.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	90.000
2057011	_Grading, Driveway Approach	Syd	55.000
2057011	_Grading, Sidewalk Ramp	Syd	4.000
2057011	_Machine Grading, Special	Syd	2,569.000
2057021	_Undercutting, Type IIA	Cyd	86.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	8.000
3027011	_Aggregate Base, 8 inch, Modified	Syd	462.000
3077001	_Trenching, Modified	Ft	1,040.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	30.000
4021260	Trench Undercut and Backfill	Cyd	9.000
4030200	Dr Structure, 24 inch dia	Ea	3.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	1.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	1.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	5.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	5.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	30.000
4047001	_Yard Drain, Outlet Ending, Plastic Pipe	Ft	1.000
4047050	_Yard Drain, Outlet Ending, Pop-up Apparatus	Ea	1.000
5010002	Cold Milling HMA Surface	Syd	2,569.000
5010005	HMA Surface, Rem	Syd	167.000
5010025	Hand Patching	Ton	19.000
5010703	HMA, LVSP	Ton	594.000
6027021	_Flowable Fill	Cyd	28.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	55.000
8027001	_Curb and Gutter, Conc, Barrier or Mountable, Slip Form	Ft	1,127.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	371.000
8030030	Curb Ramp Opening, Conc	Ft	6.000
8037001	_Detectable Warning Surface, Modified	Ft	5.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	35.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	107.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	264.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	24.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	50.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	50.000
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	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	3.000
8127050	_Temporary No Parking Sign	Ea	27.000
8167011	_Slope Restoration	Syd	433.000
8230431	Gate Box, Adj, Case 1	Ea	1.000
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
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>51.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	1	01-03034
SANITARY	1	71-62693
STORM	NA	NA
WATER BOX	NA	NA

### CONSTRUCTION METHOD AND SEQUENCING

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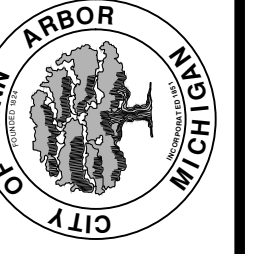


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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
DORCHESTER ROAD  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-41



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: INDEPENDENCE BOULEVARD 2

ITB No. 4667 FILE No. 2021-004

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	1,280.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	181.000
2057011	_Grading, Driveway Approach	Syd	168.000
2057011	_Grading, Sidewalk Ramp	Syd	1.000
2057011	_Machine Grading, Special	Syd	2,513.000
2057021	_Undercutting, Type IIA	Cyd	64.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	8.000
3027011	_Aggregate Base, 8 inch, Modified	Syd	425.000
3077001	_Trenching, Modified	Ft	956.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	30.000
4021260	Trench Undercut and Backfill	Cyd	9.000
4030200	Dr Structure, 24 inch dia	Ea	3.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	4.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	3.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	3.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	30.000
4047050	_Yard Drain, Outlet Ending, Pop-up Apparatus	Ea	1.000
5010002	Cold Milling HMA Surface	Syd	2,513.000
5010005	HMA Surface, Rem	Syd	142.000
5010025	Hand Patching	Ton	16.000
5010061	HMA Approach	Ton	67.000
5010703	HMA, LVSP	Ton	447.000
6027021	_Flowable Fill	Cyd	24.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	168.000
8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	0.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	32.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	280.000
8030030	Curb Ramp Opening, Conc	Ft	12.000
8037001	_Detectable Warning Surface, Modified	Ft	10.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	11.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	111.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Slop Bar	Ft	24.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	24.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	24.000
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	6.000
8127050	_Temporary No Parking Sign	Ea	21.000
8167011	_Slope Restoration	Syd	340.000
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)
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
		<b>TOTAL</b>		<b>77.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA

### 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:

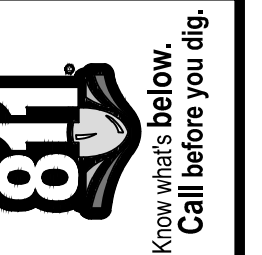
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THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED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

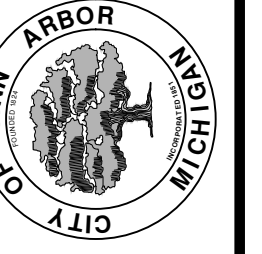


**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET, P.O. BOX 8647  
ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410 www.a2gov.org



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
INDEPENDENCE BOULEVARD 2  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-42



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: MANCHESTER ROAD

ITB No. 4667 FILE No. 2021-004

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	5,942.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	862.000
2057011	_Grading, Driveway Approach	Syd	570.000
2057011	_Grading, Sidewalk	Syd	289.000
2057011	_Grading, Sidewalk Ramp	Syd	125.000
2057011	_Machine Grading, Special	Syd	11,194.000
2057021	_Undercutting, Type IIA	Cyd	349.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	32.000
2080036	Erosion Control, Silt Fence	Ft	470.000
3027011	_Aggregate Base, 8 inch, Modified	Syd	1,885.000
3077001	_Trenching, Modified	Ft	4,241.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	110.000
4021260	Trench Undercut and Backfill	Cyd	33.000
4030200	Dr Structure, 24 inch dia	Ea	11.000
4030280	Dr Structure, Adj, Add Depth	Ft	1.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	9.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	28.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	31.000
4037050	_Dr Structure, Adj, Case 2, Modified	Ea	1.000
4037050	_Dr Structure, Cleaning, Modified	Ea	1.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	14.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	110.000
4047001	_Yard Drain, Outlet Ending, Plastic Pipe	Ft	2.000
5010002	Cold Milling HMA Surface	Syd	11,194.000
5010005	HMA Surface, Rem	Syd	667.000
5010025	Hand Patching	Ton	76.000
5010061	HMA Approach	Ton	83.000
5010703	HMA, LVSP	Ton	2,422.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	142.000
6027021	_Flowable Fill	Cyd	110.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	459.000
8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	111.000
8027001	_Curb and Gutter, Conc, Barrier or Mountable, Slip Form	Ft	4,640.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	1,302.000
8030030	Curb Ramp Opening, Conc	Ft	102.000
8037001	_Detectable Warning Surface, Modified	Ft	85.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	1,127.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	2,410.000
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	195.000
8110092	Pavt Mrkg, Polyurea, 4 inch, Yellow	Ft	826.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	702.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	80.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	116.000
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
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	28.000
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	28.000

QUANTITIES			
Item Code	Item Description	Unit	Quantity
8120141	Lighted Arrow, Type C, Oper	Ea	1.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	191.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	191.000
8120310	Sign Cover	Ea	2.000
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	185.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	185.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	48.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	48.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	13.000
8127050	_Temporary No Parking Sign	Ea	99.000
8167011	_Slope Restoration	Syd	939.000
8230431	Gate Box, Adj, Case 1	Ea	1.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	4.000

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (sft)	Total Area (Sft)
12.0	*D3-1	Street Name Sign	4.000	48.000
2.0	G20-2	End Road Work	4.500	9.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
1.0	W4-2R	Lane Ends / Right	9.000	9.000
12.0	W20-1	Road Work Ahead Sign	9.000	108.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
2.0	R5-18C	Work Zone Begins	16.000	32.000
		<b>TOTAL</b>	<b>233.000</b>	

CASTING TABLE		
		FACILITY ID'S
WATER	5	01-01225/ 01-01229/ 01-01230/ 01-01234/ 01-01233
SANITARY	4	71-61083/ 71-61696/ 71-61704/ 71-61671
STORM	1	92-50696
WATER BOX	NA	NA

### CONSTRUCTION METHOD AND SEQUENCING

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7. PERFORM UNDERCUTS AND/OR BASE REPAIRS AS DIRECTED BY THE ENGINEER.
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13. COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING ALL CLEAN-UP AND FINAL RESTORATION.
14. REMOVE ALL TRAFFIC CONTROL DEVICES. REMOVE MISS DIG FLAGS.

### NOTES

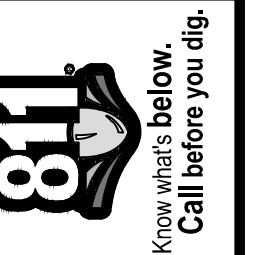
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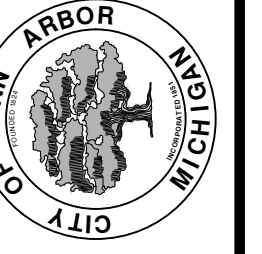


**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET, P.O. BOX 8647  
ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410 www.a2gov.org



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
MANCHESTER ROAD  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-43

SHEET No. 43 OF 58



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: TOWNER BLVD

ITB No. 4667 FILE No. 2021-004

### 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.
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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:

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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	590.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	77.000
2057011	_Grading, Driveway Approach	Syd	22.000
2057011	_Grading, Sidewalk Ramp	Syd	47.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	33.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	110.000
4021260	Trench Undercut and Backfill	Cyd	33.000
4030200	Dr Structure, 24 inch dia	Ea	11.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	15.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	4.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	110.000
5010002	Cold Milling HMA Surface	Syd	3,160.000
5010005	HMA Surface, Rem	Syd	131.000
5010025	Hand Patching	Ton	15.000
5010061	HMA Approach	Ton	38.000
5010703	HMA, LVSP	Ton	328.000
5017011	_Raised Intersection, HMA	Syd	215.000
6027011	_Raised Intersection, Conc	Syd	215.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	22.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	414.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	152.000
8030030	Curb Ramp Opening, Conc	Ft	42.000
8037001	_Detectable Warning Surface, Modified	Ft	35.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	426.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	260.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	50.000
8117050	_Pavt Mrkg, Ovly Cold Plastic, Speed Hump Chevron, White	Ea	24.000
8117050	_Pavt Mrkg, Polyurea, Speed Hump Chevron, White	Ea	24.000
8117050	_Pavt Mrkg, Thermopl, Speed Hump Chevron, White	Ea	24.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	49.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	49.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	181.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	181.000
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	6.000
8127050	_Temporary No Parking Sign	Ea	30.000
8167011	_Slope Restoration	Syd	180.000
8230431	Gate Box, Adj, Case 1	Ea	2.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	35.000

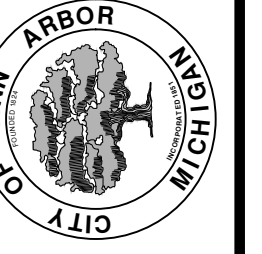
QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (sft)	Total Area (Sft)
9.0	*D3-1	Street Name Sign	4.000	36.000
9.0	W20-1	Road Work Ahead Sign	9.000	81.000
8.0	R11-3a	Road Closed Local Traffic Only	12.500	100.000
		<b>TOTAL</b>		<b>217.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
TOWNER BLVD  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-44



**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
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ANN ARBOR, MICHIGAN 48107-8647  
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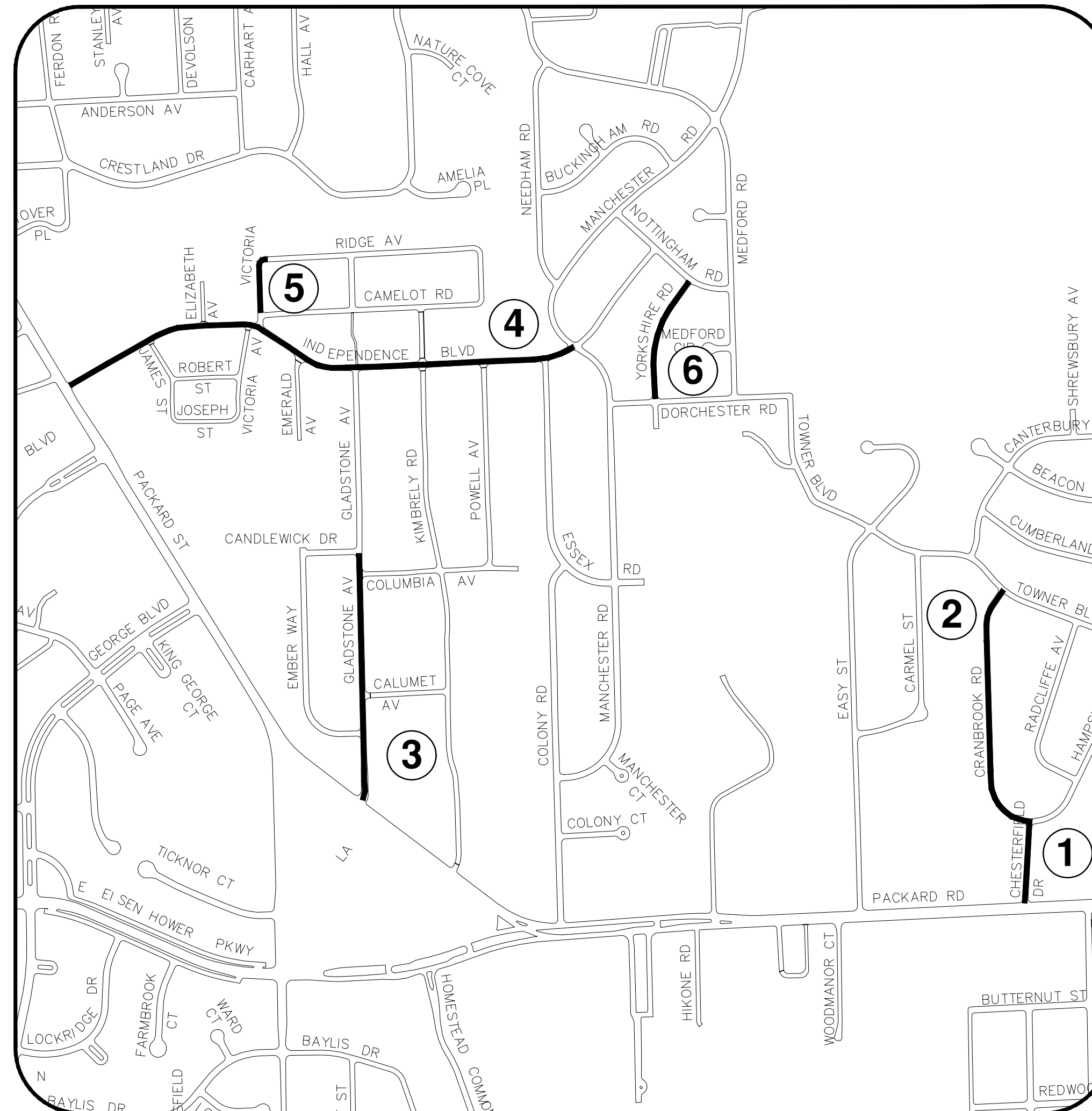
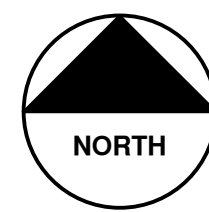
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# CITY OF ANN ARBOR ENGINEERING

## STREET RESURFACING PROJECT - 2021 PHASE 2B

ITB No. 4667 FILE No. 2021-004



### SHEET INDEX

SHEET NO.	TITLE	MAP INDEX NO. (THIS SHEET)
46	CHESTERFIELD STREET	1
47	CRANBROOK ROAD	2
48	GLADSTONE AVE.	3
49	INDEPENDENCE BLVD 1	4
50	VICTORIA AVE	5
51	YORKSHIRE ROAD	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.

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.



**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET, P.O. BOX 8647  
ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410 www.a2gov.org



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410  
www.a2gov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
PHASE 2B  
PHASE 2B COVER SHEET

SCALE: NTS  
DRAWING No.  
2021-004-45



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: CHESTERFIELD STREET

ITB No. 4667 FILE No. 2021-004

### 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 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	1.000
2030015	Sewer, Rem, Less than 24 inch	Ft	10.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	140.000
2047001	_Exploratory Excavation, Vertical	Ft	2.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	31.000
2057011	_Grading, Sidewalk	Syd	19.000
2057011	_Grading, Sidewalk Ramp	Syd	12.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	3.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	10.000
4021260	Trench Undercut and Backfill	Cyd	3.000
4030200	Dr Structure, 24 inch dia	Ea	1.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	1.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	10.000
5010002	Cold Milling HMA Surface	Syd	1,228.000
5010005	HMA Surface, Rem	Syd	31.000
5010025	Hand Patching	Ton	4.000
5010703	HMA, LVSP	Ton	107.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	123.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	5.000
8030030	Curb Ramp Opening, Conc	Ft	12.000
8037001	_Detectable Warning Surface, Modified	Ft	10.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	107.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	175.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	105.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	13.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	6.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	6.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	153.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	153.000
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	13.000
8167011	_Slope Restoration	Syd	25.000
8230431	Gate Box, Adj, Case 1	Ea	1.000

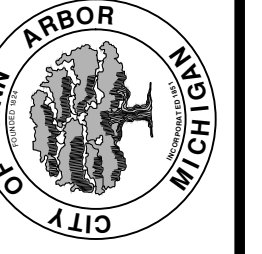
QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (sft)	Total Area (Sft)
4.0	*D3-1	Street Name Sign	4.000	16.000
2.0	G20-2	End Road Work	4.500	9.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
1.0	W4-2R	Lane Ends / Right	9.000	9.000
4.0	W20-1	Road Work Ahead Sign	9.000	36.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
2.0	R2-1	Speed Limit	7.500	15.000
2.0	R5-18C	Work Zone Begins	16.000	32.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>169.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
CHESTERFIELD STREET  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-46



**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET, P.O. BOX 8647  
ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410 www.a2gov.org



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: CRANBROOK ROAD

ITB No. 4667 FILE No. 2021-004

### 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 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	6.000
2030015	Sewer, Rem, Less than 24 inch	Ft	60.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	1,719.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	474.000
2057011	_Grading, Driveway Approach	Syd	432.000
2057011	_Grading, Sidewalk	Syd	28.000
2057011	_Grading, Sidewalk Ramp	Syd	12.000
2057011	_Machine Grading, Special	Syd	3,755.000
2057021	_Undercutting, Type IIA	Cyd	125.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	11.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	60.000
4021260	Trench Undercut and Backfill	Cyd	18.000
4030200	Dr Structure, 24 inch dia	Ea	6.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	12.000
4037050	_Dr Structure Cover, Type D, Modified (ADA Cover/Grate)	Ea	1.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	6.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	14.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	14.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	60.000
5010002	Cold Milling HMA Surface	Syd	3,755.000
5010005	HMA Surface, Rem	Syd	191.000
5010025	Hand Patching	Ton	22.000
5010703	HMA, LVSP	Ton	434.000
6027021	_Flowable Fill	Cyd	32.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	432.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	954.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	759.000
8030030	Curb Ramp Opening, Conc	Ft	12.000
8037001	_Detectable Warning Surface, Modified	Ft	10.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	110.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	131.000
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	125.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	58.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	3.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	3.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	75.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	75.000
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	4.000
8127050	_Temporary No Parking Sign	Ea	39.000
8167011	_Slope Restoration	Syd	696.000
8230431	Gate Box, Adj, Case 1	Ea	1.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	1.000

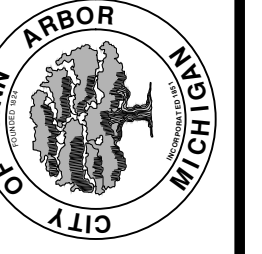
QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (sft)	Total Area (Sft)
4.0	*D3-1	Street Name Sign	4.000	16.000
4.0	W20-1	Road Work Ahead Sign	9.000	36.000
3.0	R11-3a	Road Closed Local Traffic Only	12.500	38.000
<b>TOTAL</b>			<b>90.000</b>	<b>90.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	8	71-62512/71-62511/ 71-62510/ 71-62509/ 71-62508/ 71-62507/ 71-62538/ 71-62506
STORM	4	92-50882/ 92-50881/ 92-50880/ 92-50879/
WATER BOX	1	01-08873



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
CRANBROOK ROAD  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-47



**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET, P.O. BOX 8647  
ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410 www.a2gov.org

T:\2021004\Plan Production\2021004 - Cranbrook Road.dwg Dwg Created: 19-Jan-21 - a2 standard bw.stb - Plot Date: 20-Feb-21



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: GLADSTONE AVENUE

ITB No. 4667 FILE No. 2021-004

### 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 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.

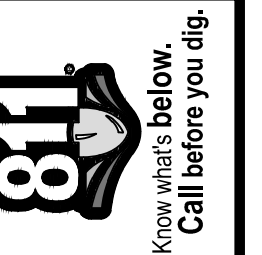
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THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, INCLUDING REFERENCED MDOT PUBLICATIONS, AND THE PROJECT CONTRACT DOCUMENTS.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	548.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	41.000
2057011	_Grading, Driveway Approach	Syd	3.000
2057011	_Grading, Sidewalk	Syd	28.000
2057011	_Grading, Sidewalk Ramp	Syd	12.000
2057011	_Machine Grading, Special	Syd	4,155.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	14.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	2.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	2.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	2.000
5010002	Cold Milling HMA Surface	Syd	4,155.000
5010005	HMA Surface, Rem	Syd	61.000
5010025	Hand Patching	Ton	7.000
5010061	HMA Approach	Ton	32.000
5010703	HMA, LVSP	Ton	337.000
5017011	_Cold Milling HMA Surface, Modified	Syd	77.777
6027021	_Flowable Fill	Cyd	10.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	3.000
8027001	_Curb and Gutter, Conc, Mountable	Ft	540.000
8030030	Curb Ramp Opening, Conc	Ft	18.000
8037001	_Detectable Warning Surface, Modified	Ft	15.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	108.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	250.000
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
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	28.000
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	28.000
8120141	Lighted Arrow, Type C, Oper	Ea	1.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	224.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	224.000
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	40.000
8167011	_Slope Restoration	Syd	150.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	7.000

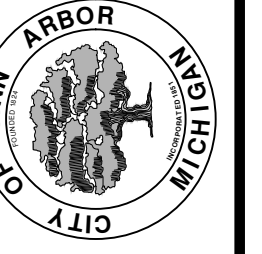
QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (sft)	Total Area (Sft)
7.0	*D3-1	Street Name Sign	4.000	28.000
2.0	G20-2	End Road Work	4.500	9.000
1.0	W1-4R	Reverse Curve (Right)	9.000	9.000
1.0	W1-6L	Shift arrow Left	9.000	9.000
1.0	W1-6R	Shift arrow Right	9.000	9.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
7.0	W20-1	Road Work Ahead Sign	9.000	63.000
2.0	R5-18C	Work Zone Begins	16.000	32.000
6.0	R11-3a	Road Closed Local Traffic Only	12.500	75.000
		<b>TOTAL</b>		<b>252.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
GLADSTONE AVENUE  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-48



**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
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ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410 www.a2gov.org





# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: INDEPENDENCE BOULEVARD 1

ITB No. 4667 FILE No. 2021-004

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	12.000
2030015	Sewer, Rem, Less than 24 inch	Ft	120.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	627.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	24.000
2057011	_Grading, Driveway Approach	Syd	17.000
2057011	_Grading, Sidewalk Ramp	Syd	7.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	35.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	120.000
4021260	Trench Undercut and Backfill	Cyd	36.000
4030200	Dr Structure, 24 inch dia	Ea	12.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	3.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	14.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	5.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	120.000
4047001	_Yard Drain, Outlet Ending, Plastic Pipe	Ft	1.000
4047050	_Yard Drain, Outlet Ending, Pop-up Apparatus	Ea	1.000
5010002	Cold Milling HMA Surface	Syd	9,203.000
5010005	HMA Surface, Rem	Syd	139.000
5010025	Hand Patching	Ton	16.000
5010061	HMA Approach	Ton	67.000
5010703	HMA, LVSP	Ton	748.000
5017011	_Raised Intersection, HMA	Syd	343.000
5017011	_Speed Hump, HMA	Syd	194.000
6027011	_Raised Intersection, Conc	Syd	343.000
6027011	_Speed Hump, Conc	Syd	194.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	17.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	435.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	186.000
8030030	Curb Ramp Opening, Conc	Ft	6.000
8037001	_Detectable Warning Surface, Modified	Ft	5.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	63.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	162.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	74.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	12.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	12.000
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	28.000
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	28.000
8120141	Lighted Arrow, Type C, Oper	Ea	1.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	54.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	54.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	349.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	69.000
8120352	Sign, Type B, Temp, Prismatic, Special, Furn	Sft	44.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	44.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	2.000
8127050	_Temporary No Parking Sign	Ea	91.000
8167011	_Slope Restoration	Syd	135.000
8217050	_Monument Box, Adj	Ea	1.000
8230431	Gate Box, Adj, Case 1	Ea	2.000
8507050	_HMA Surface, Around Structure Cover, Rem	Ea	33.000

QUANTITIES				
Sign, Type B, Temp, Prismatic & *Sign, Type B, Temp, Prismatic, Special				
Quantity	Sign Code	Description	Area (sft)	Total Area (Sft)
11.0	*D3-1	Street Name Sign	4.000	44.000
2.0	G20-2	End Road Work	4.500	9.000
1.0	W1-4L	Reverse Curve (Left)	9.000	9.000
1.0	W1-4R	Reverse Curve (Right)	9.000	9.000
2.0	W1-6L	Shift arrow Left	9.000	18.000
2.0	W1-6R	Shift arrow Right	9.000	18.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
11.0	W20-1	Road Work Ahead Sign	9.000	99.000
1.0	W20-5A	Center Lane Closed Ahead	9.000	9.000
2.0	R2-1	Speed Limit	7.500	15.000
2.0	R5-18C	Work Zone Begins	16.000	32.000
9.0	R11-3a	Road Closed Local Traffic Only	12.500	113.000
		<b>TOTAL</b>		<b>393.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	1	92-50667
WATER BOX	NA	NA

### 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:

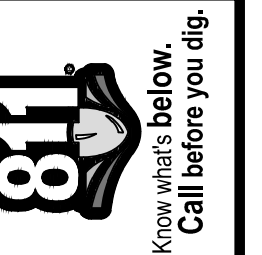
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL 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.

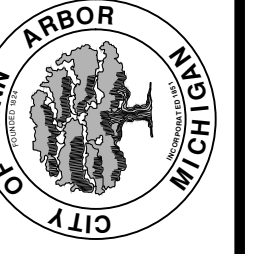


**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET, P.O. BOX 8647  
ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410 www.a2gov.org



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
INDEPENDENCE BOULEVARD 1  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-49  
SHEET No.

T:\2021004\Plan Production\2021004 - Independence Boulevard 1.dwg Dwg Created: 20-Feb-21 - \_o2\_standard bw.stb - Plot Date: 20-Feb-21



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: VICTORIA AVENUE

ITB No. 4667 FILE No. 2021-004

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	178.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	26.000
2057011	_Grading, Driveway Approach	Syd	26.000
2057011	_Machine Grading, Special	Syd	820.000
2057021	_Undercutting, Type IIA	Cyd	27.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	8.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	20.000
4021260	Trench Undercut and Backfill	Cyd	6.000
4030200	Dr Structure, 24 inch dia	Ea	2.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	1.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	5.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	5.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	20.000
5010002	Cold Milling HMA Surface	Syd	820.000
5010005	HMA Surface, Rem	Syd	20.000
5010025	Hand Patching	Ton	2.000
5010703	HMA, LVSP	Ton	190.000
6027021	_Flowable Fill	Cyd	3.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	26.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	47.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	131.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	13.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	13.000
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	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Temporary No Parking Sign	Ea	10.000
8167011	_Slope Restoration	Syd	25.000

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
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>51.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	1	01-02095
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA

### 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.
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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.
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14. REMOVE ALL TRAFFIC CONTROL DEVICES. REMOVE MISS DIG FLAGS.

### NOTES:

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ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410 www.a2gov.org



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
VICTORIA AVENUE  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-50



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: YORKSHIRE ROAD

ITB No. 4667 FILE No. 2021-004

### 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.
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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.

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	1,324.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	173.000
2057011	_Grading, Driveway Approach	Syd	191.000
2057011	_Grading, Sidewalk Ramp	Syd	14.000
2057011	_Machine Grading, Special	Syd	2,040.000
2057021	_Undercutting, Type IIA	Cyd	68.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	6.000
3027011	_Aggregate Base, 8 inch, Modified	Syd	437.000
3077001	_Trenching, Modified	Ft	983.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	30.000
4021260	Trench Undercut and Backfill	Cyd	9.000
4030200	Dr Structure, 24 inch dia	Ea	3.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	1.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	4.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	3.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	2.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	30.000
4047001	_Yard Drain, Outlet Ending, Plastic Pipe	Ft	1.000
5010002	Cold Milling HMA Surface	Syd	2,040.000
5010005	HMA Surface, Rem	Syd	147.000
5010025	Hand Patching	Ton	17.000
5010703	HMA, LVSP	Ton	472.000
6027021	_Flowable Fill	Cyd	25.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	191.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	1,040.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	285.000
8030030	Curb Ramp Opening, Conc	Ft	24.000
8037001	_Detectable Warning Surface, Modified	Ft	20.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	123.000
8037010	_Sidewalk, Conc or Clay Brick Pavers, Rem and Reinstall	Sft	5.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	44.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	44.000
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	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	4.000
8127050	_Temporary No Parking Sign	Ea	21.000
8167011	_Slope Restoration	Syd	335.000
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
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>51.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	NA	NA

### NOTES:

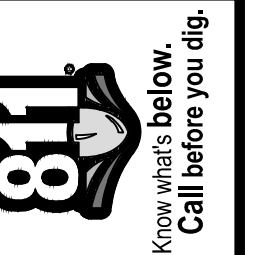
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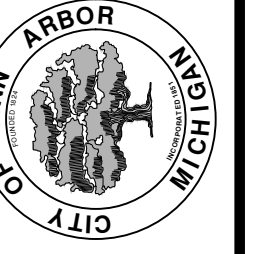


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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
YORKSHIRE ROAD  
SUBSET COVER SHEET

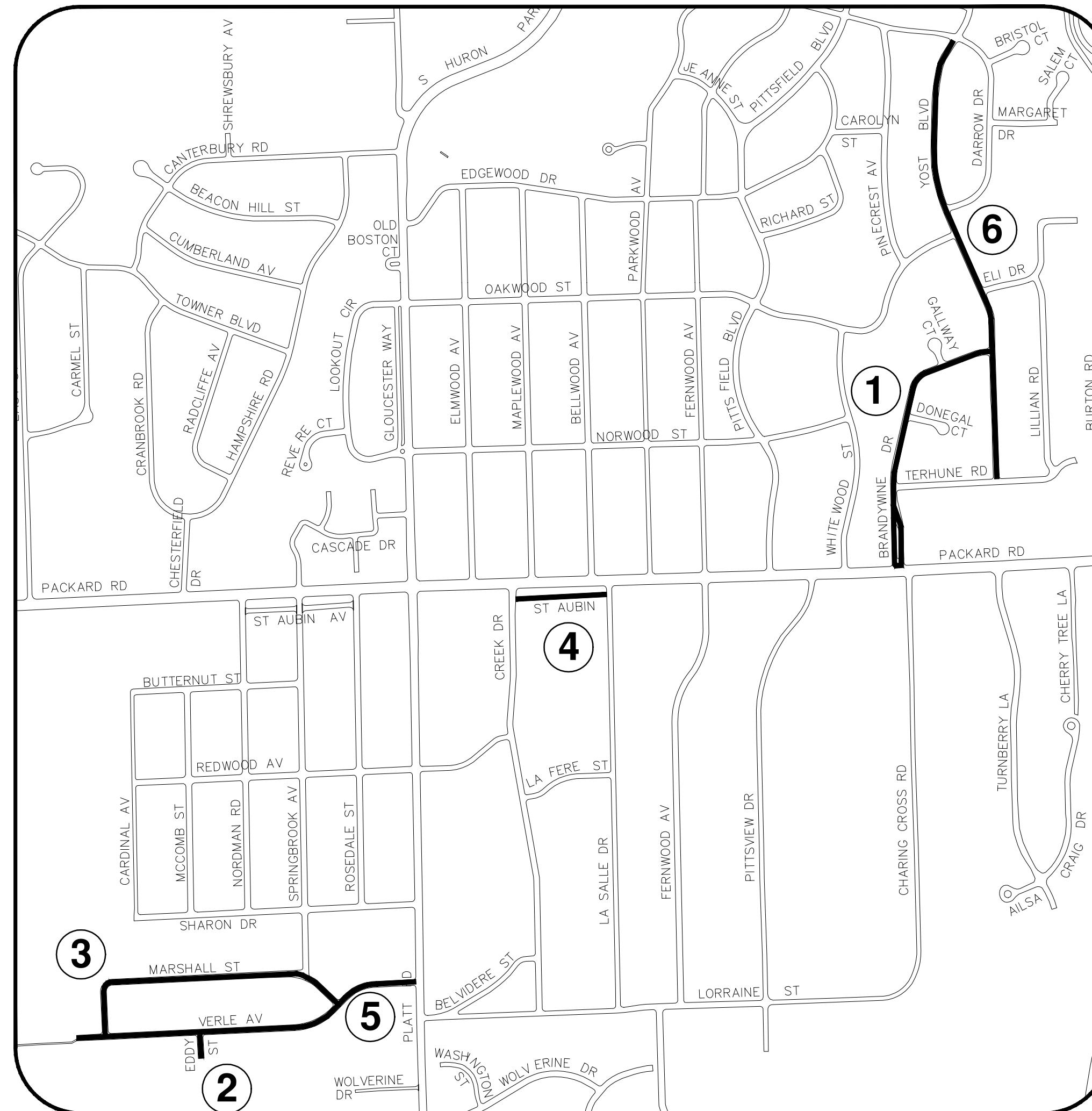
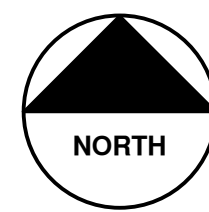
SCALE: NTS  
DRAWING No. 2021-004-51  
SHEET No. 51 OF 58



# CITY OF ANN ARBOR ENGINEERING

## STREET RESURFACING PROJECT - 2021 PHASE 3

ITB No. 4667 FILE No. 2021-004



### SHEET INDEX

SHEET NO.	TITLE	MAP INDEX NO. (THIS SHEET)
53	BRANDYWINE STREET	1
54	EDDY STREET	2
55	MARSHALL STREET	3
56	SAINT AUBIN AVE	4
57	VERLE AVE	5
58	YOST BLVD	6

### NOTES:

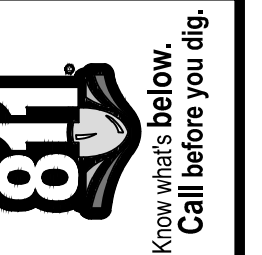
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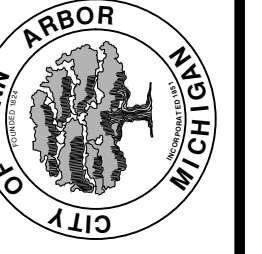


**ENGINEERING**  
CITY OF ANN ARBOR PUBLIC SERVICES  
301 EAST HURON STREET, P.O. BOX 8647  
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
PHASE 3  
PHASE 3 COVER SHEET

SCALE: NTS  
DRAWING No.  
2021-004-52



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: BRANDYWINE STREET

ITB No. 4667 FILE No. 2021-004

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	3.000
2030015	Sewer, Rem, Less than 24 inch	Ft	30.000
2040005	Pavt, Rem	Syd	17.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	424.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	173.000
2057011	_Grading, Driveway Approach	Syd	50.000
2057011	_Grading, Sidewalk	Syd	89.000
2057011	_Grading, Sidewalk Ramp	Syd	48.000
2057011	_Machine Grading, Special	Syd	6,587.000
2057021	_Undercutting, Type IIA	Cyd	214.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	15.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	30.000
4021260	Trench Undercut and Backfill	Cyd	9.000
4030200	Dr Structure, 24 inch dia	Ea	3.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	7.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	7.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	21.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	19.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	30.000
5010002	Cold Milling HMA Surface	Syd	6,587.000
5010005	HMA Surface, Rem	Syd	239.000
5010025	Hand Patching	Ton	5.000
5010061	HMA Approach	Ton	22.000
5010703	HMA, LVSP	Ton	1,485.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	514.000
5017031	_HMA, Wedging, 36A	Ton	11.000
6027021	_Flowable Fill	Cyd	8.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	33.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	227.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	118.000
8030030	Curb Ramp Opening, Conc	Ft	60.000
8037001	_Detectable Warning Surface, Modified	Ft	50.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	430.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	805.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	279.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	15.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	3.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	3.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	19.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	19.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	198.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	198.000
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	51.000
8167011	_Slope Restoration	Syd	25.000
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)
2.0	*D3-1	Street Name Sign	4.000	8.000
2.0	G20-2	End Road Work	4.500	9.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
1.0	W4-2R	Lane Ends / Right	9.000	9.000
5.0	W20-1	Road Work Ahead Sign	9.000	45.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
4.0	R5-18C	Work Zone Begins	16.000	64.000
2.0	R6-1L	One Way / Left	3.000	6.000
3.0	R11-3a	Road Closed Local Traffic Only	12.500	38.000
		<b>TOTAL</b>		<b>206.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	1	01-00754
SANITARY	3	71-62586/ 71-62595/ 71-62595
STORM	2	92-50961/ 92-50962
WATER BOX	3	01-08301/ 01-00524/ 01-08303

### 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:

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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
BRANDYWINE STREET  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-53



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: EDDY STREET

ITB No. 4667 FILE No. 2021-004

### 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.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	191.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	22.000
2057011	_Grading, Driveway Approach	Syd	22.000
2057011	_Machine Grading, Special	Syd	475.000
2057021	_Undercutting, Type IIIA	Cyd	16.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	2.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	1.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	1.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	1.000
5010002	Cold Milling HMA Surface	Syd	475.000
5010005	HMA Surface, Rem	Syd	21.000
5010025	Hand Patching	Ton	2.000
5010703	HMA, LVSP	Ton	110.000
6027021	_Flowable Fill	Cyd	4.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	22.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	144.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	50.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	63.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	1.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	1.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	5.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	5.000
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	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Temporary No Parking Sign	Ea	5.000
8167011	_Slope Restoration	Syd	25.000

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
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>51.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	NA	NA
STORM	NA	NA
WATER BOX	1	01-00552

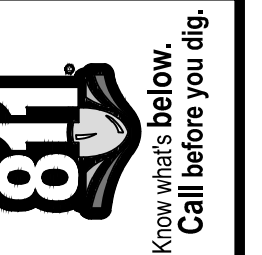
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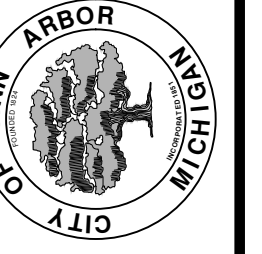
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T:\2021004\Plan Production\2021004 - Eddy Street.dwg Dwg Created: 20-Feb-21 - Plot Date: 20-Feb-21



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MICHIGAN 48107-8647  
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
EDDY STREET  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-54



**ENGINEERING**  
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# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: MARSHALL STREET

ITB No. 4667 FILE No. 2021-004

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	6.000
2030015	Sewer, Rem, Less than 24 inch	Ft	60.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	1,487.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	379.000
2057011	_Grading, Driveway Approach	Syd	303.000
2057011	_Grading, Sidewalk	Syd	36.000
2057011	_Grading, Sidewalk Ramp	Syd	40.000
2057011	_Machine Grading, Special	Syd	6,371.000
2057021	_Undercutting, Type IIA	Cyd	206.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	10.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	60.000
4021260	Trench Undercut and Backfill	Cyd	18.000
4030200	Dr Structure, 24 inch dia	Ea	6.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	17.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	4.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	19.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	19.000
4037050	_Structure, Reconstruct	Ea	1.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	70.000
5010002	Cold Milling HMA Surface	Syd	6,371.000
5010005	HMA Surface, Rem	Syd	216.000
5010025	Hand Patching	Ton	19.000
5010061	HMA Approach	Ton	23.000
5010703	HMA, LVSP	Ton	1,427.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	343.000
5017031	_HMA, Wedging, 36A	Ton	3.000
6027021	_Flowable Fill	Cyd	28.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	303.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	790.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	671.000
8030030	Curb Ramp Opening, Conc	Ft	36.000
8037001	_Detectable Warning Surface, Modified	Ft	30.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	364.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	325.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	128.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	50.000
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	3.000
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	3.000
8120252	Plastic Drum, Fluorescent, Furn	Ea	67.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	67.000
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	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	4.000
8127050	_Temporary No Parking Sign	Ea	51.000
8167011	_Slope Restoration	Syd	430.000
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
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>51.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	4	01-01269/ 01-01267/ 01-01265 01-01268/
SANITARY	7	71-69757/ 71-69758/ 71-69759/ 71-69727/ 71-69728/ 71-69729/ 71-69730
STORM	5	92-58974/ 92-58909/ 92-58908/ 92-58907/ 92-58906/ 92-58905
WATER BOX	NA	NA

### CONSTRUCTION METHOD AND SEQUENCING

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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

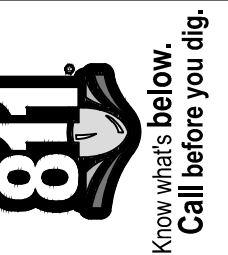
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PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MICHIGAN 48107-8647  
www.a2gov.org



ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
MARSHALL STREET  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-55  
SHEET No. 55 OF 58



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: SAINT AUBIN AVENUE

ITB No. 4667 FILE No. 2021-004

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	274.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	80.000
2057011	_Grading, Driveway Approach	Syd	17.000
2057011	_Grading, Sidewalk	Syd	56.000
2057011	_Grading, Sidewalk Ramp	Syd	12.000
2057011	_Machine Grading, Special	Syd	3,614.000
2057021	_Undercutting, Type IIA	Cyd	120.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	4.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	30.000
4021260	Trench Undercut and Backfill	Cyd	9.000
4030200	Dr Structure, 24 inch dia	Ea	3.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	1.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	3.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	2.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	4.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	30.000
5010002	Cold Milling HMA Surface	Syd	3,614.000
5010005	HMA Surface, Rem	Syd	30.000
5010025	Hand Patching	Ton	4.000
5010703	HMA, LVSP	Ton	835.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	35.000
6027021	_Flowable Fill	Cyd	5.000
8017011	_Driveway, Nonreinf Conc, 8 inch, Modified	Syd	17.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	236.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	38.000
8030030	Curb Ramp Opening, Conc	Ft	12.000
8037001	_Detectable Warning Surface, Modified	Ft	10.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	108.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	190.000
8037010	_Sidewalk, Conc, 8 inch, Modified	Sft	310.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	84.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	24.000
8110293	Pavt Mrkg, Waterborne, for Rest Areas, Parks, & Lots, 4 inch, Blue	Ft	140.000
8110293	Pavt Mrkg, Waterborne, for Rest Areas, Parks, & Lots, 4 inch, White	Ft	1,764.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	16.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	16.000
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	159.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	159.000
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	4.000
8127050	_Pedestrian Type II Channelizer, Temp	Ea	8.000
8127050	_Temporary No Parking Sign	Ea	15.000
8167011	_Slope Restoration	Syd	79.000
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)
4.0	*D3-1	Street Name Sign	4.000	16.000
2.0	G20-2	End Road Work	4.500	9.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
1.0	W4-2R	Lane Ends / Right	9.000	9.000
4.0	W20-1	Road Work Ahead Sign	9.000	36.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
2.0	R2-1	Speed Limit	7.500	15.000
2.0	R5-18C	Work Zone Begins	16.000	32.000
2.0	R6-1L	One Way / Left	3.000	6.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>175.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	NA	NA
SANITARY	1	71-62417
STORM	NA	NA
WATER BOX	NA	NA

### 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 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.



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ANN ARBOR, MICHIGAN 48107-8647  
734-794-6410 www.a2gov.org



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR  
PUBLIC SERVICES  
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
SAINT AUBIN AVENUE  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-56





# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: VERLE AVENUE

ITB No. 4667 FILE No. 2021-004

### 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.

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	12.000
2030015	Sewer, Rem, Less than 24 inch	Ft	120.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	2,448.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	218.000
2057011	_Grading, Driveway Approach	Syd	210.000
2057011	_Grading, Sidewalk	Syd	1.000
2057011	_Grading, Sidewalk Ramp	Syd	2.000
2057011	_Machine Grading, Special	Syd	6,925.000
2057021	_Undercutting, Type IIA	Cyd	231.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	16.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	120.000
4021260	Trench Undercut and Backfill	Cyd	36.000
4030200	Dr Structure, 24 inch dia	Ea	12.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	13.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	10.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	22.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	22.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	120.000
5010002	Cold Milling HMA Surface	Syd	6,925.000
5010005	HMA Surface, Rem	Syd	272.000
5010025	Hand Patching	Ton	31.000
5010703	HMA, LVSP	Ton	1,600.000
6027021	_Flowable Fill	Cyd	45.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	210.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	1,438.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	1,004.000
8030030	Curb Ramp Opening, Conc	Ft	6.000
8037001	_Detectable Warning Surface, Modified	Ft	5.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	21.000
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	7.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	246.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	115.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	115.000
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	198.000
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	198.000
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	62.000
8167011	_Slope Restoration	Syd	500.000

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	G20-2	End Road Work	4.500	9.000
1.0	W1-4L	Reverse Curve (Left)	9.000	9.000
1.0	W1-4L	Reverse Curve (Right)	9.000	9.000
2.0	W1-6L	Shift arrow Left	9.000	18.000
2.0	W1-6R	Shift arrow Right	9.000	18.000
2.0	W3-5B	Reduce Speed Zone	9.000	18.000
2.0	W20-1	Road Work Ahead Sign	9.000	18.000
2.0	W20-5A	Center Lane Closed Ahead	9.000	18.000
1.0	W20-5R	Right Lane Closed Ahead	9.000	9.000
2.0	R2-1	Speed Limit	7.500	15.000
2.0	R5-18C	Work Zone Begins	16.000	32.000
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>	<b>125.000</b>	<b>206.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	2	01-02087/ 01-02088/ 71-69721/ 71-69722/ 71-69723/ 71-69724/ 71-69725/ 71-69726/ 71-69731/ 71-69735/ 71-69736/
SANITARY	9	92-58898/ 92-58899/ 92-58900/ 92-58901/ 92-58902/ 92-58904/ 92-58896/
STORM	7	
WATER BOX	NA	NA

### NOTES:

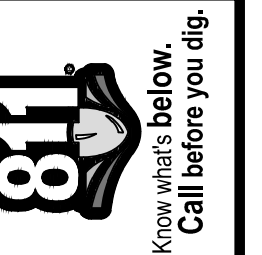
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY 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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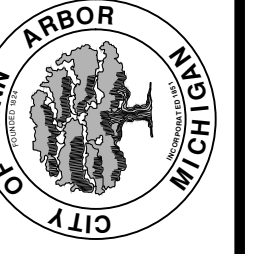


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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
VERLE AVENUE  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-57



# CITY OF ANN ARBOR ENGINEERING

## PROJECT LOCATION: YOST BOULEVARD

ITB No. 4667 FILE No. 2021-004

QUANTITIES			
Item Code	Item Description	Unit	Quantity
2030011	Dr Structure, Rem	Ea	10.000
2030015	Sewer, Rem, Less than 24 inch	Ft	100.000
2047001	_Curb, Gutter, and Curb and Gutter, Any Type, Rem	Ft	1,539.000
2047011	_Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	Syd	561.000
2057011	_Grading, Driveway Approach	Syd	441.000
2057011	_Grading, Sidewalk	Syd	191.000
2057011	_Grading, Sidewalk Ramp	Syd	45.000
2057011	_Machine Grading, Special	Syd	9,000.000
2057021	_Undercutting, Type IIA	Cyd	300.000
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	17.000
4020987	Sewer, CI IV, 12 inch, Tr Det B	Ft	100.000
4021260	Trench Undercut and Backfill	Cyd	30.000
4030200	Dr Structure, 24 inch dia	Ea	10.000
4030280	Dr Structure, Adj, Add Depth	Ft	1.000
4037050	_Dr Structure Cover, Type B, Modified	Ea	18.000
4037050	_Dr Structure Cover, Type K, Modified	Ea	10.000
4037050	_Dr Structure, Adj, Case 1, Modified	Ea	31.000
4037050	_Dr Structure, Adj, Case 2, Modified	Ea	1.000
4037050	_Dr Structure, Cleaning, Modified	Ea	1.000
4037050	_Dr Structure, Temp Lowering, Modified	Ea	28.000
4047001	_Underdrain, Subgrade, 6 inch, Special	Ft	100.000
4047001	_Yard Drain, Outlet Ending, Plastic Pipe	Ft	1.000
4047050	_Yard Drain, Outlet Ending, Pop-up Apparatus	Ea	1.000
5010002	Cold Milling HMA Surface	Syd	9,000.000
5010005	HMA Surface, Rem	Syd	262.000
5010025	Hand Patching	Ton	20.000
5010703	HMA, LVSP	Ton	2,079.000
5017011	_Cold Milling for Concrete Curb and Gutter Reveal	Syd	614.000
5017011	_Raised Intersection, HMA	Syd	868.000
5017011	_Speed Hump, HMA	Syd	145.000
5017031	_HMA, Wedging, 36A	Ton	5.000
6027011	_Raised Intersection, Conc	Syd	868.000
6027011	_Speed Hump, Conc	Syd	145.000
6027021	_Flowable Fill	Cyd	29.000
8017011	_Driveway, Nonreinf Conc, 6 inch, Modified	Syd	441.000
8027001	_Curb and Gutter, Conc, Barrier	Ft	713.000
8027001	_Driveway Opening, Conc, Det M, Modified	Ft	790.000
8030030	Curb Ramp Opening, Conc	Ft	42.000
8037001	_Detectable Warning Surface, Modified	Ft	35.000
8037010	_Sidewalk Ramp, Conc, 6 inch, Modified	Sft	408.000
8037010	_Sidewalk, Conc, 4 inch, Modified	Sft	1,375.000
8037010	_Sidewalk, Conc, 6 inch, Modified	Sft	340.000
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	196.000
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	176.000
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	27.000
8117050	_Pavt Mrkg, Thermopl, Speed Hump Chevron, White	Ea	24.000
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
8120252	Plastic Drum, Fluorescent, Furn	Ea	84.000
8120253	Plastic Drum, Fluorescent, Oper	Ea	84.000

QUANTITIES			
Item Code	Item Description	Unit	Quantity
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	8.000
8120353	Sign, Type B, Temp, Prismatic, Special, Oper	Sft	8.000
8127050	_Pedestrian Type II Barricade, Temp	Ea	8.000
8127050	_Temporary No Parking Sign	Ea	75.000
8167011	_Slope Restoration	Syd	300.000
8230431	Gate Box, Adj, Case 1	Ea	4.000
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
2.0	R11-3a	Road Closed Local Traffic Only	12.500	25.000
		<b>TOTAL</b>		<b>51.000</b>

CASTING TABLE		
		FACILITY ID'S
WATER	2	01-00585/ 01-02303/ 71-62599/ 71-62598/ 71-62597/ 71-62602/ 71-62620/ 71-62630/ 71-62629/ 71-61852/ 71-61178/
SANITARY	9	92-50966/ 92-50965/ 92-50964/ 92-50963/ 92-50979/ 92-50980/ 92-50213/
WATER BOX	2	01-06663/ 01-06664/

### 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:

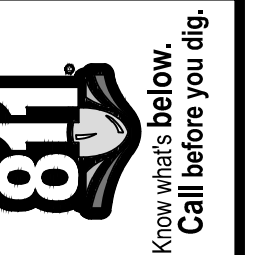
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL 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.

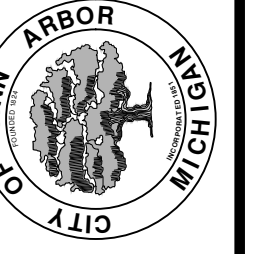


**ENGINEERING**  
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR  
STREET RESURFACING PROJECT - 2021  
YOST BOULEVARD  
SUBSET COVER SHEET

SCALE: NTS  
DRAWING No. 2021-004-58  
SHEET No. 58 OF 58