

OFFICE OF THE COUNCIL

COUNCIL MEMBERS

KAYLEIGH REID, President
PATRICK BROCKWAY, Vice President
CARRIE BUDZINSKI
BRANDON MCCULLOUGH
EILEEN MCDONNELL
ROBIN PERSICONI
MARTHA PTASHNIK



33000 CIVIC CENTER DRIVE
LIVONIA, MICHIGAN 48154-3097
(734) 466-2250
citycouncil@livonia.gov

OFFICE OF THE COUNCIL

**MEETING PACKET FOR
THE REGULAR MEETING OF
MONDAY, JANUARY 26, 2026
7:00 P.M.**

**The electronic agenda is compiled, produced and
distributed by the City Council Staff.
(734) 466-2250**

The official documents are on file in the City Clerk's office.

**2033rd Regular Meeting Agenda of the Council of the City of Livonia
Monday, January 26, 2026**

7:00 p.m. - City Hall Auditorium

33000 Civic Center Drive, Livonia, Michigan

View meeting packet here: <https://livoniamt.portal.civicclerk.com/>

CALL TO ORDER

INVOCATION/PLEDGE OF ALLEGIANCE

ROLL CALL

PRESENTATION OF MINUTES Regular Meeting Minutes of January 14, 2026

AUDIENCE COMMUNICATION

REPORTS FROM THE MAYOR AND OTHER CITY OFFICIALS

- a. [Communication from the Department of Finance dated January 6, 2026, re: forwarding the Departmental Purchases Report, for the month ending December 31, 2025.](#)

CONSENT AGENDA

1. [REQUEST TO RENEW MICROSOFT ENTERPRISE AGREEMENT USING MIDEAL CONTRACT PRICING: Department of Information Systems, re: for a period of three years, from budgeted funds. \(Approving\)](#)
2. [AWARD OF BID: Department of Parks and Recreation, re: a general contractor for Shelden Park improvements and renovation project. \(Approving\)](#)
3. [REQUEST FOR COUNCIL TO SET A DATE FOR THE PURPOSE OF ADOPTING A RESOLUTION PLACING SPECIAL ASSESSMENTS UPON REFERENCED PROPERTIES WHOSE OWNERS HAVE NOT PAID CHARGES CONNECTED WITH THE 2025 SIDEWALK PROGRAM, CONTRACT 25-G, SINGLE LOT ASSESSMENTS: Engineering Division, re: same. \(CR 95-25\) \(Approving\)](#)

UNFINISHED BUSINESS

4. [REQUEST TO WAIVE THE FORMAL BIDDING PROCESS AND AUTHORIZATION TO PURCHASE FURNITURE: Department of Parks and Recreation, re: for the Senior Wellness Center, from budgeted funds.](#)
5. [REQUEST TO WAIVE THE FORMAL BIDDING PROCESS AND APPROVE THE 2026 ASPHALT ROAD PROGRAM BY EXTENDING CONTRACT 25-A UNIT PRICES WITH NAGLE PAVING COMPANY: Engineering Division, re: for Contract 26-A in the amount of \\$3,806,939.15 from budgeted funds. \(CR 63-25\)](#)
6. [REQUEST TO APPROVE FINAL COST INFORMATION AND TO AUTHORIZE ADDITIONAL APPROPRIATIONS AND EXPENDITURES: Engineering Division, re: for the 2025 Sidewalk Program - Contract 25-G \(CR 95-25\)](#)
7. [REQUEST TO WAIVE THE FORMAL BIDDING PROCESS AND APPROVE THE 2026 SIDEWALK REPAIR PROGRAM BY EXTENDING CONTRACT 25-G UNIT PRICES WITH JOE ROTONDO CONSTRUCTION CORP. AND REQUEST TO AUTHORIZE AN APPROPRIATION AND EXPENDITURE TO PRECISION CONCRETE CUTTING, INC.; Engineering Division, re: for Contract 26-G. \(CR 95-25\)](#)

8. REQUEST TO REFER THE SUBJECT MATTER OF CONDUCTING COUNCIL MEETINGS VIA ZOOM TO COMMITTEE OF THE WHOLE: Council Vice President Patrick Brockway, re: to allow Council meetings to be conducted in person in conjunction with a virtual option.

NEW BUSINESS

9. ACCEPTANCE OF DONATIONS: Department of Parks and Recreation, re: cash and gifts from various contributors to be used for the purposes as designated by donors.

AUDIENCE COMMUNICATION

NOTICE(S)

In accordance with Title II of the American with Disabilities Act as it pertains to access to Public Meetings, the City Clerk's Office of the City of Livonia, upon adequate notice, will make reasonable accommodations for persons with disabilities. Please call (734) 466-2236 or email clerk@livonia.gov as soon as possible if you need assistance. Council agendas are available on the City's website www.livonia.gov - under Your Government, City Council, Agendas & Minutes.



LETTER TO THE LIVONIA CITY COUNCIL

Finance
January 6, 2026

MEETING DATE

R012626

PRESENTED BY

AGENDA ITEM

a. Communication from the Department of Finance dated January 6, 2026, re: forwarding the Departmental Purchases Report, for the month ending December 31, 2025.

BACKGROUND DETAILS

Finance Ordinance 3.04.130(A) requires that a report be provided to the governing body regarding departmental purchases that are between \$15,000 and \$19,999. Attached hereto are the departmental purchases that meet this criterion for the month ending December 31, 2025. Additional details on these purchases will be provided upon request.

PREFERRED COUNCIL RECOMMENDATION/RESOLUTION (Please complete this field. Attachments are not to be used in lieu of the recommendation)

We respectfully request that the City Council receive and file this report.

ATTACHMENTS

1. City Council - Receive and File Purchases - December 2025

APPROVED BY

Benjamin N. Grier, JD, CPA, Finance Director

Date: January 06, 2026

Maureen Miller Brosnan, Mayor

Date: January 09, 2026

City of Livonia
City Council - Receive and File Purchases

For Month of : **December 2025**

Pursuant to Ordinance Section 3.04.130, purchases between \$15,000 and \$19,999 need to be submitted to City Council as a receive and file item. Below are the purchases that meet this criteria.

<u>Item #</u>	<u>Date</u>	<u>Department</u>	<u>Vendor</u>	<u>Item</u>	<u>Cost</u>	<u>Description</u>
1	12/18/2025	DPW	ESRI	ArcGIS Velocity Subscription	\$19,975.00	ArcGIS Velocity Subscription to run mapping on GIS
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LETTER TO THE LIVONIA CITY COUNCIL

1.

Information Systems
December 12, 2025

MEETING DATE

01262026

PRESENTED BY

AGENDA ITEM

REQUEST TO RENEW MICROSOFT ENTERPRISE AGREEMENT USING MIDEAL CONTRACT PRICING: Department of Information Systems, re: for a period of three years, from budgeted funds.

BACKGROUND DETAILS

The City has held a Microsoft Enterprise Agreement since 2014 (CR #21-14, and has included Office 365 licensing in this licensing since 2016 (CR #83-16). This agreement allows us to maintain server access and Office licensing for 375 users in the City. This allows us to stay on the latest version of Office, maintain a City Intranet (InsideLivonia) using Sharepoint, use Microsoft Azure for cloud authentication, provide all users with e-mail, as well as providing cloud storage to all users via OneDrive, Sharepoint, and Teams.

PREFERRED COUNCIL RECOMMENDATION/RESOLUTION (Please complete this field. Attachments are not to be used in lieu of the recommendation)

It is the request of the Information Systems Department that Council waive the formal bidding process in accordance with Section 3.04.140.E.4 of the Livonia Code of Ordinances, as amended, as this pricing is using a MiDeal State of Michigan contract. Further, it is recommended Approve the renewal of our Microsoft Enterprise Agreement for the period of February 28, 2026 to February 27, 2029, for the annual renewal price of \$85,088.16 from LA Dell Marketing LP, One Dell Way, Round Rock, TX 78680 from budgeted funds in Account Number 101-228-851-020.

SPECIFIC NAME OF PRODUCT AND NUMBER TO BE PURCHASED (if more than one)

Our current agreement expires in February 2026, requiring us to renew for another 3 years. We will again be purchasing through Dell with the State of Michigan contract pricing. The annual cost is \$96,237.04, which is accounted for in budgeted funds.

CONTRACT: Amount and/or purchase price and length of contract (with dates if applicable)

\$96,237.04/year for 3 Years

DETAILED WORK BEING PERFORMED

Software licensing

FISCAL CONSIDERATIONS (Amount requested and Account(s) used. If applicable, Grant Funding information)

\$96,237.04 from budgeted funds in 101-228-851-020

ACCEPTANCE OF BID (Please detail the following: Why accepted, why not lowest bidder, company name, contact person, full address)

MiDEAL Contract Pricing

REASON TO WAIVE BID PROCESS (Emergency, Professional services, No advantage to City and why, Consortium package, etc): Pre-bid contract pricing

ATTACHMENTS

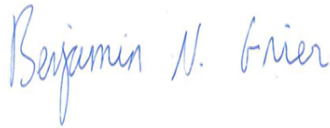
1. City of Livonia EA Renewal Quotation 12122025 - Updated

APPROVED BY



Casey O'Neil, Information Systems Director

Date: December 29, 2025



Benjamin N. Grier, JD, CPA, Finance Director

Date: December 29, 2025



Maureen Miller Brosnan, Mayor

Date: January 02, 2026

Dell Software - Customer Confidential



Final Quote

Michigan MIDeal contract

Scott Arnold
scott.arnold@dell.com

Customer: City of Livonia
Contact: Casey O'Neil
Customer #:
Agreement # TBD

Date of Issue: 12-Dec-2025

Remit To:	LA Dell Marketing LP One Dell Way Round Rock TX 78680
Federal ID:	74-2616805

Product Description	Notes	Mfr #	Quantity	Unit Price	Per Year
O365 G3 FSA Renewal GCC Sub Per User	Year 1	AAA-11924	350	\$214.45	\$75,057.50
CCAL Bridge O365 FSA Renewal Sub Per User	Year 1	AAA-12416	350	\$16.96	\$5,936.00
CCAL Bridge O365 Sub Per User	Year 1	AAA-12414	35	\$19.95	\$698.25
O365 G3 GCC Sub Per User	Year 1	AAA-11894	35	\$252.35	\$8,832.25
M365 Copilot GCC Sub Add-on	Year 1	EP2-24658	3	\$374.04	\$1,122.12
Visio P2 GCC Sub Per User	Year 1	P3U-00001	3	\$140.64	\$421.92
Entra ID P1 Gov Sub Per User	Year 1	MQM-00001	50	\$56.85	\$2,842.50
Exchange Online P1 GCC Sub Per User	Year 1	3MS-00001	35	\$37.90	\$1,326.50
Teams AC with Dial Out US/CA GCC Sub Add-on	Year 1	NYH-00001	385	\$0.00	\$0.00
			Year 1 Total		\$96,237.04
O365 G3 FSA Renewal GCC Sub Per User	Year 2	AAA-11924	350	\$214.45	\$75,057.50
CCAL Bridge O365 FSA Renewal Sub Per User	Year 2	AAA-12416	350	\$16.96	\$5,936.00
CCAL Bridge O365 Sub Per User	Year 2	AAA-12414	35	\$19.95	\$698.25
O365 G3 GCC Sub Per User	Year 2	AAA-11894	35	\$252.35	\$8,832.25
M365 Copilot GCC Sub Add-on	Year 2	EP2-24658	3	\$374.04	\$1,122.12
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Exchange Online P1 GCC Sub Per User	Year 2	3MS-00001	35	\$37.90	\$1,326.50
Teams AC with Dial Out US/CA GCC Sub Add-on	Year 2	NYH-00001	385	\$0.00	\$0.00
			Year 2 Total		\$96,237.04
O365 G3 FSA Renewal GCC Sub Per User	Year 3	AAA-11924	350	\$214.45	\$75,057.50
CCAL Bridge O365 FSA Renewal Sub Per User	Year 3	AAA-12416	350	\$16.96	\$5,936.00
CCAL Bridge O365 Sub Per User	Year 3	AAA-12414	35	\$19.95	\$698.25
O365 G3 GCC Sub Per User	Year 3	AAA-11894	35	\$252.35	\$8,832.25
M365 Copilot GCC Sub Add-on	Year 3	EP2-24658	3	\$374.04	\$1,122.12
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Exchange Online P1 GCC Sub Per User	Year 3	3MS-00001	35	\$37.90	\$1,326.50
Teams AC with Dial Out US/CA GCC Sub Add-on	Year 3	NYH-00001	385	\$0.00	\$0.00
			Year 3 Total		\$96,237.04
Notes: Quote for Enterprise Agreement. Requires EA paperwork to purchase			3 Year Total		\$288,711.12
			Tax	0.00%	
Quote reflects final pricing:			Grand Total		\$288,711.12

Quote Prepared By: Scott Arnold

- "1) Customer’s purchase is subject to Dell’s Terms and Conditions of Sale found at www.dell.com, unless Customer has a separate purchase agreement withDell.
2) Sales/use tax is based on the “ship to” address on your invoice. Please indicate your taxability status on your purchase order.If exempt, Customer must have an Exemption Certificate on file.
3) If you have a question re: your tax status, please contact your Dell Software sales representative listed above. Shipments to California: for certain products, a State Environmental Fee of up to \$10 per item may be applied to your invoice. Prices do not reflect this fee unless noted. For more information, refer to ww.dell.com/environmentalfee."
- 4) All product descriptions and prices are based on latest information available and are subject to change without notice or obligation.
5) All prices are based on Net 30 Terms. If not shown, shipping, handling, taxes, and other fees will be added at the time of order, where applicable.
6) Customer understands and acknowledges that all warranties, representations and returns are subject to the manufacturer, publisher or distributor guidelines.



LETTER TO THE LIVONIA CITY COUNCIL

2.

Parks and Recreation December 18, 2025

MEETING DATE

S011426/R012625

PRESENTED BY

Ted Davis, CPRP, Superintendent of Parks and Recreation

AGENDA ITEM

AWARD OF BID: Department of Parks and Recreation, re: a general contractor for Shelden Park improvements and renovation project.

BACKGROUND DETAILS

The Parks and Recreation Department and our design partners at DLZ, in coordination with the City's Purchasing Division, prepared specifications and advertised for bids for the Shelden Park Improvements and Renovation project. An advertisement for bids was posted on the Michigan Intergovernmental Trade Network (MITN), and bids were publicly opened on December 2, 2025.

A total of six (6) bids were received and reviewed for responsiveness and responsibility. Following a thorough review of the bid tabulation and submitted materials, **KEO and Associates, Inc., 18286 Wyoming Avenue, Detroit, Michigan 48221**, was determined to be the **lowest responsive and responsible bidder**, with a total lump sum bid for **\$3,160,822.00**, inclusive of the base scope of work, all specified add-ons and alternates, and the permit allowance.

The proposed improvements at Shelden Park include significant site, landscape, recreational, and infrastructure upgrades aimed at enhancing park usability, safety, and long-term sustainability for residents and visitors. Awarding the contract at this time will enable the City to maintain the planned construction schedule and proceed with implementing these much-needed park improvements.

We appreciate Council's continued support of park improvements and respectfully request your consideration and approval of this recommendation.

PREFERRED COUNCIL RECOMMENDATION/RESOLUTION (Please complete this field. Attachments are not to be used in lieu of the recommendation)

Therefore, it is respectfully recommended that the City Council authorize the Mayor and City Clerk to execute a contract with **KEO and Associates, Inc.** for the Shelden Park Improvements and Renovation project in an amount **not to exceed \$3,160,822.00**, subject to receipt of all required bonds, insurance, and contract documents. We further request that the City Council waive all associated inspection and permit fees for this project.

SPECIFIC NAME OF PRODUCT AND NUMBER TO BE PURCHASED (if more than one)

N/A

CONTRACT: Amount and/or purchase price and length of contract (with dates if applicable)

\$3,160,822

DETAILED WORK BEING PERFORMED

The proposed improvements at Shelden Park include significant site, landscape, recreational, and infrastructure upgrades aimed at enhancing park usability, safety, and long-term sustainability for residents and visitors. Awarding the contract at this time will enable the City to maintain the planned construction schedule and proceed with implementing these much-needed park improvements.

FISCAL CONSIDERATIONS (Amount requested and Account(s) used. If applicable, Grant Funding information)

\$3,160,822 from funds from the sale of approved bonding for this project available in account 418-000-683-000.

ACCEPTANCE OF BID (Please detail the following: Why accepted, why not lowest bidder, company name, contact person, full address)

This is the lowest bid received.

REASON TO WAIVE BID PROCESS (Emergency, Professional services, No advantage to City and why, Consortium package, etc): N/A

ATTACHMENTS

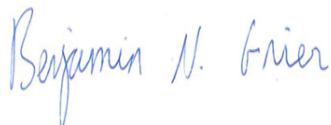
1. 2026 Shelden Park KEO ASSOC-12022025134756
2. DLZ _ Shelden Park Bid Recommendation

APPROVED BY



Ted Davis, CPRP, Superintendent of Parks and Recreation

Date: December 18, 2025



Benjamin N. Grier, JD, CPA, Finance Director

Date: December 18, 2025



Carter Fisher, City Attorney

Date: December 18, 2025

A handwritten signature in black ink, reading "Maureen Miller Brosnan". The signature is written in a cursive, flowing style.

Date: December 19, 2025

Maureen Miller Brosnan, Mayor

BID OPENING

SHELDON PARK RENNOVATION BID

BID DUE DATE 12/2/2025

VENDOR NAME	A.Z. SHMINA INC	USA CONSTRUCTION LLC
CITY/STATE	11711 GRAND RIVER ROAD, BRIGHTON, MI 48116	1595 PEACHTREE PARKWAY SUITE 204-344, CUMMING, GA 30041
TOTAL COST	\$4,423,000.00	\$4,860,5540

VENDOR NAME	WARREN CONTRACTORS & DEVELOPMENT INC.	WCI CONTRACTORS INC.
CITY/STATE	14979 TECHNOLOGY DR, SHELBY TWP., MI 48315	20222 CONNER, DETROIT, MI 48234
TOTAL COST	\$5,295,800.00	\$5,338,500.00

VENDOR NAME	Keo and associates inc.	Shaw construction and management
CITY/STATE	18286 wyoming, Detroit, mi 48221	13980, Farmington, Livonia, mi 48154

TOTAL COST	\$3,160,822.00	\$3,505,500.00
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VENDOR NAME		
CITY/STATE		
TOTAL COST		

CITY REPRESENTATIVES: AARON LINDENMUTH, OFFICE OF THE CITY CLERK; GUS KANDAH, PURCHASING MANAGER

FORM OF PROPOSAL

for

SHELDEN PARK IMPROVEMENTS AND RENOVATION

Bid of Keo and Associates Inc hereinafter called Bidder, organized and existing under the laws of or a resident of the State of Michigan, doing business as Corporation *.

* Insert as applicable: "a corporation", "a partnership" or "an individual"

TO THE CITY OF LIVONIA, MICHIGAN, hereinafter called OWNER:

The undersigned as Bidder hereby declares: that this Bid is made in good faith without fraud or collusion with any person or persons bidding on the same Contract; that the Bidder has read and examined the Notice to Bidders, Instructions to Bidders, Bid, General Conditions, Supplementary Conditions, Agreement, Forms of Proposal, Bond, Specifications and Drawings, as prepared by the ARCHITECT, and understands all of the same; that the Bidder or its representative has made personal investigation at the site and has become fully familiar with regard to the conditions to be met in the execution of this Contract, and the undersigned proposes to furnish all labor, materials, tools, power, transportation, and construction equipment necessary for the construction of the Project and performing related work in full accordance with the aforesaid Contract Documents, including any and all Addenda officially issued, their receipt of which is hereby acknowledged:

Addendum No.

Addendum Date

1 - 8/04/25
2 - 11/12/25

3 - 11/12/25 5 - 11/24/25
4 - 11/13/25 6 - 11/25/25

The Contract will be awarded to the lowest responsive, responsible Bidder based on the total lump sum amount for all work associated with the Scope of Work and inclusive of all specified allowances. Schedule of Values to be presented 24 hours after request.

The Bidder agrees to complete the Project for the following prices (LS: Lump Sum, LF/SF/Ea: Unit Pricing):

Item No.	Item Description	Qty	Unit	Unit Price (\$)	Total Price (\$)
0	Base Scope	1	LS		3,160,822
1	Add Alternate 1: Soccer Field Drainage	1	LS		Incl
2	Add Alternate 2: Southern Sidewalks	1	LS		Incl
3	Add Alternate 3: Fitness Area	1	LS		Incl
4	Add Alternate 4: Landscape Edge	1	LF		Incl
5	Add Alternate 5: Umbrellas	3	Ea		Incl
6	Add Alternate 6: Hose Connection	1	LS		Incl

Item No.	Item Description	Qty	Unit	Unit Price (\$)	Total Price (\$)
7	Add Alternate 7: Parking Lot	1	LS		incl
8	Allowance 1: Permit Allowance	1	Ea	\$10,000	incl
TOTAL BID				\$	3,160,822.00

Bidder: KEO AND ASSOCIATES INC

If the foregoing Bid shall be accepted by the OWNER, the undersigned agrees to enter into the attached form of Agreement within ten (10) days after receiving notice of such acceptance, will furnish the OWNER satisfactory bonds and certificates of insurance coverage, and will complete the Project, at the price and within the time stated in this Bid.

The undersigned further agrees that if the foregoing Bid shall be accepted, work will commence immediately after the Contract has been awarded, the Agreement executed, and a Notice to Proceed received. **The undersigned shall complete the Work to Substantial Completion within 180 CALENDAR DAYS of "Notice to Proceed", and to Final Completion within 210 CALENDAR DAYS of "Notice to Proceed".** Substantial completion shall be met when summary OF WORK ITEMS COMPETED TO CONSIDER SUBSTANTIAL COMPLETION. Final completion shall be met when all restoration items and punch-list work items have been completed.

The undersigned attaches hereto its Bid security, as required by the Notice to Bidders and Instructions to Bidders. The undersigned agrees that in case it shall fail to fulfill its obligations under the foregoing Bid, and/or shall fail to furnish bonds, as specified, the OWNER may, at its option determine that the undersigned has abandoned its rights and interests in such Contract and that its Bid security accompanying its Bid; has been forfeited to the said OWNER, but otherwise the Bid security shall be returned to the undersigned upon the execution of the Contract and the acceptance of the bonds.

The undersigned also agrees that for each and every calendar day that he may be in default of Substantial Completion of the Work, within the time specified in this Bid, the OWNER will suffer a damage of \$1,000.00 per day, and said OWNER shall be compensated therefore at the rate as liquidated damages in accordance with the Agreement.

In submitting this Bid, it is understood that the right is reserved by the OWNER to accept any bid, to reject any or all Bids, and to waive irregularities in bidding in the interest of the OWNER.

SUBMITTED on 12/2/2025
Date*

313.340.1688
Telephone Number*

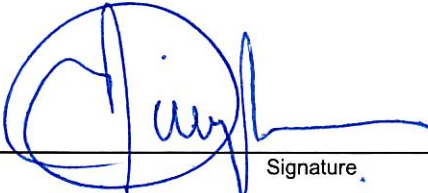
18286 Wyoming
Street*

313.340.1680
Facsimile Number*

Detroit, MI 48321
City, State, ZIP*

*Typed or printed in ink.

BY: Michelangelo Geregino
—
Name of Bidder*


Signature
Preconstruction
Name and Title of Signatory*

THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we

KEO & Associates, Inc.
18286 Wyoming, Detroit, MI 48221

as Principal, hereinafter called Principal, and

Harco National Insurance Company
4200 Six Forks Road, Suite 1400, Raleigh, NC 27609

a corporation duly organized under the laws of the State of **Illinois**
as Surety, hereinafter called Surety, are held and firmly bound unto

City of Livonia
33000 Civic Center Drive, Livonia, MI 48154

as Oblige, hereinafter called Oblige, in the sum of **Five Percent of Accompanying Bid**

Dollars **(5% of Bid**

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for (Here insert full name, address and description of project)

Sheldon Park Improvements and Renovations

NOW, THEREFORE, if the Oblige shall accept the bid of the Principal and the Principal shall enter into a Contract with the Oblige in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Oblige the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Oblige may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this 2nd day of December, 2025.

KEO & Associates, Inc.


(Witness)


(Principal) (Seal)
Chris Downum President
(Title)

Harco National Insurance Company


(Witness)

(Surety) (Seal)

(Title)
Nicholas Ashburn, Attorney in Fact

POWER OF ATTORNEY
HARCO NATIONAL INSURANCE COMPANY
INTERNATIONAL FIDELITY INSURANCE COMPANY

Bond # N/A

Member companies of IAT Insurance Group, Headquartered: 4200 Six Forks Rd, Suite 1400, Raleigh, NC 27609

KNOW ALL MEN BY THESE PRESENTS: That **HARCO NATIONAL INSURANCE COMPANY**, a corporation organized and existing under the laws of the State of Illinois, and **INTERNATIONAL FIDELITY INSURANCE COMPANY**, a corporation organized and existing under the laws of the State of New Jersey, and having their principal offices located respectively in the cities of Rolling Meadows, Illinois and Newark, New Jersey, do hereby constitute and appoint

Nicholas Ashburn, Jason Rogers, Holly Nichols, Richard McGregor, Michael Lechner, Mark Madden, Gabriel Pringle, Shaheen Farzam-Behboodi, Robert Heuer

Rochester Hills, MI

their true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise, and the execution of such instrument(s) in pursuance of these presents, shall be as binding upon the said **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY**, as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by their regularly elected officers at their principal offices.

This Power of Attorney is executed, and may be revoked, pursuant to and by authority of the By-Laws of **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY** and is granted under and by authority of the following resolution adopted by the Board of Directors of **INTERNATIONAL FIDELITY INSURANCE COMPANY** at a meeting duly held on the 13th day of December, 2018 and by the Board of Directors of **HARCO NATIONAL INSURANCE COMPANY** at a meeting held on the 13th day of December, 2018.

"**RESOLVED**, that (1) the Chief Executive Officer, President, Executive Vice President, Senior Vice President, Vice President, or Secretary of the Corporation shall have the power to appoint, and to revoke the appointments of, Attorneys-in-Fact or agents with power and authority as defined or limited in their respective powers of attorney, and to execute on behalf of the Corporation and affix the Corporation's seal thereto, bonds, undertakings, recognizances, contracts of indemnity and other written obligations in the nature thereof or related thereto; and (2) any such Officers of the Corporation may appoint and revoke the appointments of joint-control custodians, agents for acceptance of process, and Attorneys-in-fact with authority to execute waivers and consents on behalf of the Corporation; and (3) the signature of any such Officer of the Corporation and the Corporation's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seals when so used whether heretofore or hereafter, being hereby adopted by the Corporation as the original signature of such officer and the original seal of the Corporation, to be valid and binding upon the Corporation with the same force and effect as though manually affixed."

IN WITNESS WHEREOF, **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY** have each executed and attested these presents on this 31st day of December, 2024



STATE OF NEW JERSEY
County of Essex

Michael F. Zurcher

Executive Vice President, Harco National Insurance Company
and International Fidelity Insurance Company

STATE OF ILLINOIS
County of Cook



On this 31st day of December, 2024, before me came the individual who executed the preceding instrument, to me personally known, and, being by me duly sworn, said he is the therein described and authorized officer of **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY**; that the seals affixed to said instrument are the Corporate Seals of said Companies; that the said Corporate Seals and his signature were duly affixed by order of the Boards of Directors of said Companies.



IN TESTIMONY WHEREOF, I have hereunto set my hand affixed my Official Seal, at the City of Newark, New Jersey the day and year first above written.

Cathy Cruz a Notary Public of New Jersey
My Commission Expires April 16, 2029

CERTIFICATION

I, the undersigned officer of **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY** do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Sections of the By-Laws of said Companies as set forth in said Power of Attorney, with the originals on file in the home office of said companies, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

IN TESTIMONY WHEREOF, I have hereunto set my hand on this day, December 02, 2025

A02850

Irene Martins, Assistant Secretary



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

December 19, 2025

Mr. Ted Davis
Superintendent of Parks and Recreation
City of Livonia

RE: Shelden Park Redevelopment Bids

Dear Mr. Davis,

Following our bid interview on December 17th and careful review of the Shelden Park Redevelopment bids, DLZ recommends moving forward with the low bidder, KEO and Associates Inc, with a bid of three million one hundred sixty thousand eight hundred twenty-two dollars. (\$3,160,822.00).

The low bidder was interviewed and provided sufficient qualifications, bonding, insurance, and met schedule requirements. References contacted by both City of Livonia and DLZ were overwhelmingly positive for past projects of similar scope and size.

This bid does not include the purchase of approximately one million four hundred thirty-two thousand eight hundred seventy dollars (\$1,432,870.00) of owner provided splash pads, play equipment, and park furniture. These items were withheld for direct City purchase with utilization of MiDeal savings and will require separate council approval for purchase.

The project cost for the recommended KEO award and estimated owner purchases totals four million five hundred ninety-three thousand six hundred ninety-two dollars (\$4,593,692.00) out of an initial \$5million project budget. The remaining 8% of the budget will serve as a contingency for owner expenses including, but not limited to, environmental testing, potential tariffs, and unforeseen conditions that will be addressed on a per-item basis.

We look forward to completing this project with KEO and Associates Inc and the City of Livonia team.

Sincerely,

Joe Shadik
Project Manager

CC: Ted Davis - Gus Kandah



LETTER TO THE LIVONIA CITY COUNCIL

6.

Engineering
January 2, 2026

MEETING DATE

S 01/14/2026

PRESENTED BY

Todd Zilincik, P.E., City Engineer

AGENDA ITEM

REQUEST FOR COUNCIL TO SET A DATE FOR THE PURPOSE OF ADOPTING A RESOLUTION PLACING SPECIAL ASSESSMENTS UPON REFERENCED PROPERTIES WHOSE OWNERS HAVE NOT PAID CHARGES CONNECTED WITH THE 2025 SIDEWALK PROGRAM, CONTRACT 25-G, SINGLE LOT ASSESSMENTS: Engineering Division, re: same. (CR 95-25)

BACKGROUND DETAILS

Council Resolution No. 95-25, dated March 31, 2025 awarded a contract for the 2025 Sidewalk Program to Rotondo Construction Corporation.

The list of the 182 sidewalk repair locations completed in 2025 (Contract 25-G) which were the property owner's responsibility and the cost of each sidewalk repair are attached. This list does not include locations where it was solely the City's responsibility to pay for the sidewalk repairs because of walks lifted by City tree root(s).

All assessments are based upon unit prices bid by the contractor in which a 10% charge was added to cover the City's administrative, engineering, inspection, advertising, and collection expenses as provided for in Section 12.04.340 of the Livonia Code of Ordinances, as amended.

It is recommended that the Council set a date when the Council will meet for the purpose of adopting a resolution placing special assessments upon those properties shown on the aforementioned list where the owners have not paid the charges prior to the established meeting date. Such a meeting is required under Section 3.08.150 of the Livonia Code of Ordinances, as amended.

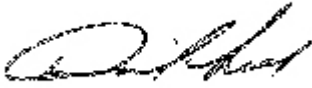
PREFERRED COUNCIL RECOMMENDATION/RESOLUTION (Please complete this field. Attachments are not to be used in lieu of the recommendation)

It is recommended that the Council set a date when the Council will meet for the purpose of adopting a resolution placing special assessments upon those properties shown on the aforementioned list where the owners have not paid the charges prior to the established meeting date. Such a meeting is required under Section 3.08.150 of the Livonia Code of Ordinances, as amended.

ATTACHMENTS

1. S011426 LTC Single lot assess dates
2. 1_2025 Sidewalk Repair Program 182 Locations
3. 2_CR 95-25

APPROVED BY



David Lear, Assistant City Engineer

Date: January 02, 2026



Don Rohraff, Director of Public Works

Date: January 02, 2026



Maureen Miller Brosnan, Mayor

Date: January 02, 2026

BILLING REGISTER FOR CITY OF LIVONIA

Invoice # Account # Parcel #	Srv Code	Owner Prop. Address	Mailing Address	Amt. Chg. Pmts/Crdts	Amt. Billed Amt. Due
25-1 004 02 0007 000 004 02 0007 000	25SIDEW	BERRY ALICE TRUST 19826 ANGLING LIVONIA, MI	19826 ANGLING LIVONIA, MI	1,526.25 0.00	1,526.25 1,526.25
25-2 004 01 0060 002 004 01 0060 002	25SIDEW	VOGEL R MITCHELL 19674 DEERING LIVONIA, MI	19674 DEERING LIVONIA, MI	773.30 0.00	773.30 773.30
25-3 008 99 0003 004 008 99 0003 004	25SIDEW	ST PRISCILLA PARISH LI 19120 PURLINGBROOK LIVONIA, MI	12 STATE STREET DETROIT, MI	237.60 0.00	237.60 237.60
25-4 009 99 0004 000 009 99 0004 000	25SIDEW	MAYUR HOLDINGS LLC 31401 EIGHT MILE LIVONIA, MI	904 CANTERBURY CANTON, MI	3,861.00 0.00	3,861.00 3,861.00
25-5 009 99 0003 000 009 99 0003 000	25SIDEW	NSC LIVONIA-WEST LC 31465 EIGHT MILE LIVONIA, MI	32300 NORTHWESTERN HWY FARMINGTON HILLS, MI	3,094.30 0.00	3,094.30 3,094.30
25-7 009 99 0034 000 009 99 0034 000	25SIDEW	STANECKI PROPERTY MGMT 31625 EIGHT MILE LIVONIA, MI	7550 WALNUT LAKE RD WEST BLOOMFIELD, MI	459.80 0.00	459.80 459.80
25-8 009 99 0035 001 009 99 0035 001	25SIDEW	MERRI-8 INDUSTRIAL 31655 EIGHT MILE LIVONIA, MI	47800 WEST RD WIXOM, MI	3,496.90 0.00	3,496.90 3,496.90
25-9 009 99 0035 002 009 99 0035 002	25SIDEW	31675 W EIGHT MILE HOL 31675 EIGHT MILE LIVONIA, MI	31675 EIGHT MILE LIVONIA, MI	1,161.60 0.00	1,161.60 1,161.60
25-10 009 99 0041 000 009 99 0041 000	25SIDEW	VMS HOLDINGS LLC 31693 EIGHT MILE LIVONIA, MI	31693 EIGHT MILE LIVONIA, MI	1,566.40 0.00	1,566.40 1,566.40
25-11 009 99 0006 000 009 99 0006 000	25SIDEW	POCOCK DAVID J 20515 MERRIMAN LIVONIA, MI	20515 MERRIMAN LIVONIA, MI	903.10 0.00	903.10 903.10
25-12 009 99 0005 002 009 99 0005 002	25SIDEW	PRETTL INTERNATIONAL, 20523 MERRIMAN LIVONIA, MI	1721 WHITE HORSE RD. GREENVILLE, SC	3,304.40 0.00	3,304.40 3,304.40
25-14 015 02 0116 000 015 02 0116 000	25SIDEW	ANDREE III JOHN W/JOAN 34776 FAIRFAX LIVONIA, MI	34776 FAIRFAX LIVONIA, MI	3,107.50 0.00	3,107.50 3,107.50
25-15 014 04 0026 000 014 04 0026 000	25SIDEW	OANH THI-HOANG LE 34744 FARGO LIVONIA, MI	34744 FARGO LIVONIA, MI	512.05 0.00	512.05 512.05
25-16 013 01 0382 000 013 01 0382 000	25SIDEW	ADAMS BRIAN 34232 PEMBROKE LIVONIA, MI	34232 PEMBROKE LIVONIA, MI	722.70 0.00	722.70 722.70
25-17 013 01 0399 000 013 01 0399 000	25SIDEW	SKUBIK JOHN / SUZANNE 34257 PEMBROKE LIVONIA, MI	34257 PEMBROKE LIVONIA, MI	501.60 0.00	501.60 501.60
25-18 013 01 0400 000 013 01 0400 000	25SIDEW	KASPAREK FRANK / CHERY 34283 PEMBROKE LIVONIA, MI	34283 PEMBROKE LIVONIA, MI	1,712.70 0.00	1,712.70 1,712.70
25-19 013 01 0326 000 013 01 0326 000	25SIDEW	ALGER-JAMROG LINDA/PAT 20058 POLLYANNA LIVONIA, MI	20058 POLLYANNA LIVONIA, MI	1,330.45 0.00	1,330.45 1,330.45
25-20 015 01 0079 000 015 01 0079 000	25SIDEW	WILLIAMS DAVID/KRISTYN 34530 ST MARTINS LIVONIA, MI	34530 ST MARTINS LIVONIA, MI	303.05 0.00	303.05 303.05
25-21	25SIDEW	HETHERINGTON ERICK / A	20219 WAYNE	470.25	470.25

BILLING REGISTER FOR CITY OF LIVONIA

Invoice # Account # Parcel #	Srv Code	Owner Prop. Address	Mailing Address	Amt. Chg. Pmts/Crdts	Amt. Billed Amt. Due
014 03 0557 000 014 03 0557 000		20219 WAYNE LIVONIA, MI	LIVONIA, MI	0.00	470.25
25-22 025 04 0097 000 025 04 0097 000	25SIDEW	KENNETH / VICKI OLIVER 18414 GLASTONBURY LIVONIA, MI	18414 GLASTONBURY LIVONIA, MI	2,348.50 0.00	2,348.50 2,348.50
25-23 025 05 0155 000 025 05 0155 000	25SIDEW	EL-CHARIF HUSSAM/RAYDA 18133 GLENGARRY LIVONIA, MI	18133 GLENGARRY LIVONIA, MI	637.45 0.00	637.45 637.45
25-24 032 01 0039 000 032 01 0039 000	25SIDEW	MESAROSCH BONNIE L LIF 36221 CURTIS LIVONIA, MI	36221 CURTIS LIVONIA, MI	376.20 0.00	376.20 376.20
25-25 031 01 0013 000 031 01 0013 000	25SIDEW	ELZEIN ABBAS 36986 VARGO LIVONIA, MI	36986 VARGO LIVONIA, MI	3,019.50 0.00	3,019.50 3,019.50
25-26 032 01 0018 000 032 01 0018 000	25SIDEW	NEARY WILLIAM / CHARLO 17491 WOODSIDE LIVONIA, MI	17491 WOODSIDE LIVONIA, MI	344.85 0.00	344.85 344.85
25-27 035 04 0024 000 035 04 0024 000	25SIDEW	JORANI SALLY 17134 ELLEN LIVONIA, MI	17134 ELLEN LIVONIA, MI	209.00 0.00	209.00 209.00
25-28 034 04 0011 000 034 04 0011 000	25SIDEW	SMITH DANIEL/KAREN OSE 18758 GARY LIVONIA, MI	18758 GARY LIVONIA, MI	250.80 0.00	250.80 250.80
25-29 036 01 0091 000 036 01 0091 000	25SIDEW	CERVENAN NEIL / DEANNA 17377 VACRI LIVONIA, MI	17377 VACRI LIVONIA, MI	287.10 0.00	287.10 287.10
25-30 044 07 0001 000 044 07 0001 000	25SIDEW	CARDAIS JASON 29854 BOBRICH LIVONIA, MI	29854 BOBRICH AVE LIVONIA, MI	2,180.20 0.00	2,180.20 2,180.20
25-31 044 05 0014 000 044 05 0014 000	25SIDEW	HACHEY FRANCIS/DEBORAH 17406 BROOKVIEW LIVONIA, MI	17406 BROOKVIEW LIVONIA, MI	229.90 0.00	229.90 229.90
25-32 042 01 0256 000 042 01 0256 000	25SIDEW	WEST DARYL J 18753 FLAMINGO LIVONIA, MI	18753 FLAMINGO LIVONIA, MI	2,478.30 0.00	2,478.30 2,478.30
25-33 042 01 0271 000 042 01 0271 000	25SIDEW	BIDDINGER MARK 19027 FLAMINGO LIVONIA, MI	19027 FLAMINGO LIVONIA, MI	237.60 0.00	237.60 237.60
25-34 041 02 0001 000 041 02 0001 000	25SIDEW	DUPREE TRAVIS 18139 MIDDLEBELT LIVONIA, MI	18139 MIDDLEBELT LIVONIA, MI	2,221.45 0.00	2,221.45 2,221.45
25-35 042 01 0022 002 042 01 0022 002	25SIDEW	DAVIS MICHAEL / SARAH 30645 SEVEN MILE LIVONIA, MI	30645 7 MILE RD LIVONIA, MI	766.70 0.00	766.70 766.70
25-36 044 99 0046 001 044 99 0046 001	25SIDEW	NATHAN BINING FAMILY L 29520 SIX MILE LIVONIA, MI	45765 TOURNAMENT DRIVE NORTHVILLE, MI	1,464.10 0.00	1,464.10 1,464.10
25-37 045 01 0002 001 045 01 0002 001	25SIDEW	O'KEEFE DANIEL 18180 DEERING LIVONIA, MI	18180 DEERING LIVONIA, MI	1,294.70 0.00	1,294.70 1,294.70
25-38 048 02 0119 000 048 02 0119 000	25SIDEW	KORBY JODI S 17666 DOLORES LIVONIA, MI	17666 DOLORES LIVONIA, MI	217.80 0.00	217.80 217.80
25-39 052 99 0137 000	25SIDEW	MARTINESCUL VASILE/SIM 15724 GREEN LANE	15724 GREEN LANE LIVONIA, MI	418.00 0.00	418.00 418.00

BILLING REGISTER FOR CITY OF LIVONIA

Invoice # Account # Parcel #	Srv Code	Owner Prop. Address	Mailing Address	Amt. Chg. Pmts/Crdts	Amt. Billed Amt. Due
052 99 0137 000		LIVONIA, MI			
25-40	25SIDEW	PASQUALE JEAN R	16041 HARRISON	1,270.50	1,270.50
051 03 0051 000		16041 HARRISON	LIVONIA, MI	0.00	1,270.50
051 03 0051 000		LIVONIA, MI			
25-41	25SIDEW	E & S PROPERTIES LLC	1612 MUER DR	1,989.90	1,989.90
059 01 0001 002		15704 FARMINGTON	TROY, MI	0.00	1,989.90
059 01 0001 002		LIVONIA, MI			
25-42	25SIDEW	GASSEN RICHARD M / CHE	34217 COVENTRY	3,671.80	3,671.80
064 01 0058 000		34217 COVENTRY	LIVONIA, MI	0.00	3,671.80
064 01 0058 000		LIVONIA, MI			
25-43	25SIDEW	BREHOB WAYNE S LIFE ES	15525 NORWICH	998.80	998.80
064 01 0504 001		15525 NORWICH	LIVONIA, MI	0.00	998.80
064 01 0504 001		LIVONIA, MI			
25-44	25SIDEW	HEMME JUSTEN / KARI	35398 OAKDALE	846.45	846.45
065 02 0181 000		35398 OAKDALE	LIVONIA, MI	0.00	846.45
065 02 0181 000		LIVONIA, MI			
25-45	25SIDEW	GROVE JAMES B	16615 WHITBY	188.10	188.10
061 03 0268 000		16615 WHITBY	LIVONIA, MI	0.00	188.10
061 03 0268 000		LIVONIA, MI			
25-46	25SIDEW	MEI GUANG ZE/JIANG LI	16919 FITZGERALD	282.15	282.15
066 03 0167 000		16919 FITZGERALD	LIVONIA, MI	0.00	282.15
066 03 0167 000		LIVONIA, MI			
25-47	25SIDEW	MACIAS SERGIO/ANN MARI	15676 PARKLANE	498.30	498.30
068 03 0124 000		15676 PARKLANE	LIVONIA, MI	0.00	498.30
068 03 0124 000		LIVONIA, MI			
25-48	25SIDEW	ESHKANIAN JAMES	16599 PARKLANE	323.95	323.95
065 05 0102 000		16599 PARKLANE	LIVONIA, MI	0.00	323.95
065 05 0102 000		LIVONIA, MI			
25-49	25SIDEW	MC GRAIL JAMES/LINDA L	36781 RAYBURN	247.50	247.50
067 04 0169 000		36781 RAYBURN	LIVONIA, MI	0.00	247.50
067 04 0169 000		LIVONIA, MI			
25-50	25SIDEW	DROLET RICHARD / ANGEL	36042 SHERWOOD	261.25	261.25
068 03 0128 000		36042 SHERWOOD	LIVONIA, MI	0.00	261.25
068 03 0128 000		LIVONIA, MI			
25-51	25SIDEW	TRAUB THOMAS / MEGHAN	36757 SHERWOOD	271.70	271.70
067 03 0123 000		36757 SHERWOOD	LIVONIA, MI	0.00	271.70
067 03 0123 000		LIVONIA, MI			
25-52	25SIDEW	AYOTTE DUANE/NANCY LIF	36768 SHERWOOD	267.30	267.30
067 03 0137 000		36768 SHERWOOD	LIVONIA, MI	0.00	267.30
067 03 0137 000		LIVONIA, MI			
25-53	25SIDEW	CAVES LEWIS/LESLEY	16411 WAYNE	1,373.35	1,373.35
065 02 0191 000		16411 WAYNE	LIVONIA, MI	0.00	1,373.35
065 02 0191 000		LIVONIA, MI			
25-54	25SIDEW	BUCHANAN ERIC/MICHELLE	16443 WAYNE	815.65	815.65
065 02 0192 000		16443 WAYNE	LIVONIA, MI	0.00	815.65
065 02 0192 000		LIVONIA, MI			
25-55	25SIDEW	NOGAS RICHARD W NOGAS	16471 WAYNE	1,288.65	1,288.65
065 02 0193 000		16471 WAYNE	LIVONIA, MI	0.00	1,288.65
065 02 0193 000		LIVONIA, MI			
25-57	25SIDEW	SMITH MARY J LIFE ESTA	36646 WHITCOMB	313.50	313.50
066 02 0046 000		36646 WHITCOMB	LIVONIA, MI	0.00	313.50
066 02 0046 000		LIVONIA, MI			
25-58	25SIDEW	SMITH TRAVIS	36678 WHITCOMB	558.25	558.25
066 02 0047 000		36678 WHITCOMB	LIVONIA, MI	0.00	558.25
066 02 0047 000		LIVONIA, MI			

BILLING REGISTER FOR CITY OF LIVONIA

Invoice # Account # Parcel #	Srv Code	Owner Prop. Address	Mailing Address	Amt. Chg. Pmts/Crdts	Amt. Billed Amt. Due
25-59 067 01 0017 000 067 01 0017 000	25SIDEW	BERRY JOSEPH / SHERRY 15384 WILLIAMS LIVONIA, MI	15384 WILLIAMS LIVONIA, MI	1,086.80 0.00	1,086.80 1,086.80
25-60 069 03 0273 000 069 03 0273 000	25SIDEW	WILLIAMS WILLIAM A / K 37465 BRISTOL LIVONIA, MI	37465 BRISTOL LIVONIA, MI	891.00 0.00	891.00 891.00
25-61 069 03 0211 000 069 03 0211 000	25SIDEW	MUSLEH ISA/MARLYNE 38061 BRISTOL LIVONIA, MI	38061 BRISTOL LIVONIA, MI	229.90 0.00	229.90 229.90
25-62 070 01 0076 000 070 01 0076 000	25SIDEW	BRUFF KENNETH / VANESS 38943 LAPHAM LIVONIA, MI	38943 LAPHAM LIVONIA, MI	209.00 0.00	209.00 209.00
25-63 070 01 0077 000 070 01 0077 000	25SIDEW	LEWIS CHARLES A TRUST 38975 LAPHAM LIVONIA, MI	38975 LAPHAM LIVONIA, MI	891.00 0.00	891.00 891.00
25-64 069 03 0217 000 069 03 0217 000	25SIDEW	WITALEC BARBARA/GERAL 16250 NOLA LIVONIA, MI	16250 NOLA LIVONIA, MI	1,233.65 0.00	1,233.65 1,233.65
25-65 070 02 0181 000 070 02 0181 000	25SIDEW	HUTCHISON SCOTT 15827 PENN LIVONIA, MI	15827 PENN LIVONIA, MI	498.85 0.00	498.85 498.85
25-66 070 02 0287 000 070 02 0287 000	25SIDEW	CAMPBELL JAMES / SHEIL 15886 PENN LIVONIA, MI	15886 PENN LIVONIA, MI	742.50 0.00	742.50 742.50
25-67 076 02 0913 000 076 02 0913 000	25SIDEW	MAVRIDIS GREG 14143 BLUE SKIES LIVONIA, MI	14143 BLUE SKIES LIVONIA, MI	177.65 0.00	177.65 177.65
25-68 073 01 0075 000 073 01 0075 000	25SIDEW	GEE FRANCES L TRUST 14510 BLUE SKIES LIVONIA, MI	14510 BLUE SKIES LIVONIA, MI	287.10 0.00	287.10 287.10
25-70 073 01 0069 000 073 01 0069 000	25SIDEW	MOROWIEC BARBARA 14582 BLUE SKIES LIVONIA, MI	14582 BLUE SKIES LIVONIA, MI	267.30 0.00	267.30 267.30
25-71 073 01 0068 000 073 01 0068 000	25SIDEW	BRUCE ANDREA F 14608 BLUE SKIES LIVONIA, MI	14608 BLUE SKIES LIVONIA, MI	217.80 0.00	217.80 217.80
25-72 073 01 0066 000 073 01 0066 000	25SIDEW	JACKSON KALYN 14632 BLUE SKIES LIVONIA, MI	14632 BLUE SKIES LIVONIA, MI	999.90 0.00	999.90 999.90
25-73 073 01 0064 000 073 01 0064 000	25SIDEW	PALAZZO,MARC 14656 BLUE SKIES LIVONIA, MI	14656 BLUE SKIES LIVONIA, MI	303.05 0.00	303.05 303.05
25-74 073 01 0062 000 073 01 0062 000	25SIDEW	WEISS GEORGE 14702 BLUE SKIES LIVONIA, MI	14702 BLUE SKIES LIVONIA, MI	257.40 0.00	257.40 257.40
25-75 073 01 0059 000 073 01 0059 000	25SIDEW	ESSHAKI FAIZ 14738 BLUE SKIES LIVONIA, MI	14738 BLUE SKIES LIVONIA, MI	227.70 0.00	227.70 227.70
25-76 073 03 0506 000 073 03 0506 000	25SIDEW	HICKSON JEFFREY/KRISTY 37920 DONALD LIVONIA, MI	37920 DONALD LIVONIA, MI	303.05 0.00	303.05 303.05
25-77 073 03 0505 000 073 03 0505 000	25SIDEW	MCINTYRE THOMAS / MARI 37932 DONALD LIVONIA, MI	37932 DONALD LIVONIA, MI	257.40 0.00	257.40 257.40
25-78	25SIDEW	SMITH CHRISTINE	38264 DONALD	227.70	227.70

BILLING REGISTER FOR CITY OF LIVONIA

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073 03 0488 000 073 03 0488 000		38264 DONALD LIVONIA, MI	LIVONIA, MI	0.00	227.70
25-79 074 02 1143 000 074 02 1143 000	25SIDEW	FULAR JAMES/LISA 38984 DONALD LIVONIA, MI	38984 DONALD LIVONIA, MI	158.40 0.00	158.40 158.40
25-80 074 02 1162 000 074 02 1162 000	25SIDEW	PERRY BRUCE/RACHEL 39143 DONALD LIVONIA, MI	39143 DONALD LIVONIA, MI	512.05 0.00	512.05 512.05
25-81 073 01 0114 000 073 01 0114 000	25SIDEW	KARANA KAIS 14507 HUFF LIVONIA, MI	15365 NEWBURGH LIVONIA, MI	772.20 0.00	772.20 772.20
25-82 073 01 0048 000 073 01 0048 000	25SIDEW	MARGARET LEONARD-SHUBS 37608 JAMISON LIVONIA, MI	3711 LOCH BEND COMMERCE TOWNSHIP, MI	277.20 0.00	277.20 277.20
25-83 073 01 0094 000 073 01 0094 000	25SIDEW	LINDBERG PATRICK 37717 JAMISON LIVONIA, MI	37717 JAMISON LIVONIA, MI	504.90 0.00	504.90 504.90
25-84 073 01 0093 000 073 01 0093 000	25SIDEW	THORSON PAUL O 37733 JAMISON LIVONIA, MI	37733 JAMISON LIVONIA, MI	495.00 0.00	495.00 495.00
25-85 073 01 0058 000 073 01 0058 000	25SIDEW	STUMPF BENJAMIN F 37749 JAMISON LIVONIA, MI	37749 JAMISON LIVONIA, MI	732.60 0.00	732.60 732.60
25-86 073 03 0439 000 073 03 0439 000	25SIDEW	ZIMMERMAN JASON/HAFNER 37937 JAMISON LIVONIA, MI	37937 JAMISON LIVONIA, MI	257.40 0.00	257.40 257.40
25-87 073 03 0445 000 073 03 0445 000	25SIDEW	RICKER NICOLE / WESLEY 38053 JAMISON LIVONIA, MI	38053 JAMISON LIVONIA, MI	267.30 0.00	267.30 267.30
25-88 074 01 0725 000 074 01 0725 000	25SIDEW	VIAU JAMEY RAE 15180 KNOLSON LIVONIA, MI	15180 KNOLSON LIVONIA, MI	297.00 0.00	297.00 297.00
25-89 073 01 0200 000 073 01 0200 000	25SIDEW	SHOEMAKER BARRY 14641 NEWBURGH LIVONIA, MI	14641 NEWBURGH LIVONIA, MI	344.85 0.00	344.85 344.85
25-90 073 01 0002 000 073 01 0002 000	25SIDEW	RUGG JENNIFER L 14969 NEWBURGH LIVONIA, MI	14969 NEWBURGH LIVONIA, MI	1,736.90 0.00	1,736.90 1,736.90
25-91 073 02 0361 000 073 02 0361 000	25SIDEW	SCHULZ DAVID S 38029 PARKHURST LIVONIA, MI	38029 PARKHURST LIVONIA, MI	267.30 0.00	267.30 267.30
25-92 073 02 0362 000 073 02 0362 000	25SIDEW	BERGIN BARBARA LIFE ES 38043 PARKHURST LIVONIA, MI	38043 PARKHURST LIVONIA, MI	247.50 0.00	247.50 247.50
25-93 074 03 0369 000 074 03 0369 000	25SIDEW	STEMKY TRAVIS / KILEY 39195 PARKHURST LIVONIA, MI	39195 PARKHURST LIVONIA, MI	504.90 0.00	504.90 504.90
25-94 073 01 0176 000 073 01 0176 000	25SIDEW	DAHLKA RAYMOND / DIANE 14674 RICHFIELD LIVONIA, MI	14674 RICHFIELD LIVONIA, MI	498.85 0.00	498.85 498.85
25-95 074 04 0609 000 074 04 0609 000	25SIDEW	CLARAMUNT KRISTINA S 39320 ROSS LIVONIA, MI	39320 ROSS LIVONIA, MI	261.25 0.00	261.25 261.25
25-96 076 02 0834 000	25SIDEW	ESPARZA MARCELLINE TR 14425 STONEHOUSE LIVONIA, MI	14425 STONEHOUSE LIVONIA, MI	1,334.30 0.00	1,334.30 1,334.30

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076 02 0834 000		LIVONIA, MI			
25-97	25SIDEW	SOKOL CAROLYN FAMILY T	38038 SUMMERS	316.80	316.80
076 02 0957 000		38038 SUMMERS	LIVONIA, MI	0.00	316.80
076 02 0957 000		LIVONIA, MI			
25-98	25SIDEW	KERRY GROUP LLC	16049 JOHNSON CREEK DR	647.90	647.90
075 03 0408 000		38449 SUMMERS	NORTHVILLE, MI	0.00	647.90
075 03 0408 000		LIVONIA, MI			
25-99	25SIDEW	PARK JESSE / KAITLIN	15060 SUSANNA	247.50	247.50
073 02 0296 000		15060 SUSANNA	LIVONIA, MI	0.00	247.50
073 02 0296 000		LIVONIA, MI			
25-100	25SIDEW	ARNOLD RENE / BRIAN	14489 FAIRWAY	1,528.45	1,528.45
080 08 0002 000		14489 FAIRWAY	LIVONIA, MI	0.00	1,528.45
080 08 0002 000		LIVONIA, MI			
25-101	25SIDEW	ALTERBERGER GEORGE LI	15098 GOLFOVIEW	970.20	970.20
077 09 0008 000		15098 GOLFOVIEW	LIVONIA, MI	0.00	970.20
077 09 0008 000		LIVONIA, MI			
25-102	25SIDEW	PATRUNO CORRADO	36071 HOWELL	1,658.80	1,658.80
077 09 0020 000		36071 HOWELL	LIVONIA, MI	0.00	1,658.80
077 09 0020 000		LIVONIA, MI			
25-103	25SIDEW	WLOSINSKI WALTER J LI	36094 LYNDON	815.10	815.10
077 07 0023 000		36094 LYNDON	LIVONIA, MI	0.00	815.10
077 07 0023 000		LIVONIA, MI			
25-104	25SIDEW	BAILEY THOMAS / JOHNIN	14807 PARK	306.90	306.90
077 03 0148 000		14807 PARK	LIVONIA, MI	0.00	306.90
077 03 0148 000		LIVONIA, MI			
25-105	25SIDEW	GARCIA BETTY / TINA /	14723 GARY	485.10	485.10
082 04 0123 000		14723 GARY	LIVONIA, MI	0.00	485.10
082 04 0123 000		LIVONIA, MI			
25-106	25SIDEW	BOURGEOIS CLAY/DESIREE	33950 SCHOOLCRAFT	1,640.65	1,640.65
084 02 0032 002		33950 SCHOOLCRAFT	LIVONIA, MI	0.00	1,640.65
084 02 0032 002		LIVONIA, MI			
25-107	25SIDEW	BYRD MARGARET A	33980 SCHOOLCRAFT	762.30	762.30
084 02 0033 002		33980 SCHOOLCRAFT	LIVONIA, MI	0.00	762.30
084 02 0033 002		LIVONIA, MI			
25-108	25SIDEW	BRUCE JOSEPH TRUST	15172 ARDEN	2,818.20	2,818.20
085 01 0128 002		15172 ARDEN	LIVONIA, MI	0.00	2,818.20
085 01 0128 002		LIVONIA, MI			
25-109	25SIDEW	KOURTIJIAN CHRISTOPHER	14999 AUBURNDALE	2,954.05	2,954.05
085 01 0372 000		14999 AUBURNDALE	LIVONIA, MI	0.00	2,954.05
085 01 0372 000		LIVONIA, MI			
25-110	25SIDEW	LAHOUD GEORGES	32415 BARKLEY	334.40	334.40
086 02 0173 000		32415 BARKLEY	LIVONIA, MI	0.00	334.40
086 02 0173 000		LIVONIA, MI			
25-111	25SIDEW	BRADY FRANCES M	32430 BARKLEY	261.25	261.25
086 02 0171 000		32430 BARKLEY	LIVONIA, MI	0.00	261.25
086 02 0171 000		LIVONIA, MI			
25-112	25SIDEW	EVANOFF VICTOR/STACY	32449 BARKLEY	524.70	524.70
086 02 0175 000		32449 BARKLEY	LIVONIA, MI	0.00	524.70
086 02 0175 000		LIVONIA, MI			
25-113	25SIDEW	PORTELLI CHARLES / JUD	32557 BARKLEY	485.10	485.10
086 02 0178 000		32557 BARKLEY	LIVONIA, MI	0.00	485.10
086 02 0178 000		LIVONIA, MI			
25-114	25SIDEW	RADGOWSKI MATTHEW B	32564 BARKLEY	574.75	574.75
086 02 0164 000		32564 BARKLEY	LIVONIA, MI	0.00	574.75
086 02 0164 000		LIVONIA, MI			

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25-115 086 02 0152 002 086 02 0152 002	25SIDEW	RIZZO RICHARD/JUDITH L 32860 BARKLEY LIVONIA, MI	32860 BARKLEY LIVONIA, MI	1,069.20 0.00	1,069.20 1,069.20
25-116 086 02 0146 000 086 02 0146 000	25SIDEW	GIELAROWSKI DAVID ARTH 33014 BARKLEY LIVONIA, MI	33014 BARKLEY LIVONIA, MI	257.40 0.00	257.40 257.40
25-117 086 02 0196 000 086 02 0196 000	25SIDEW	BRESLER WILLIAM/SUSAN 33025 BARKLEY LIVONIA, MI	33025 BARKLEY LIVONIA, MI	261.25 0.00	261.25 261.25
25-118 086 02 0145 000 086 02 0145 000	25SIDEW	COWEN SHELBY / KYLE 33028 BARKLEY LIVONIA, MI	33028 BARKLEY LIVONIA, MI	776.60 0.00	776.60 776.60
25-119 086 02 0142 000 086 02 0142 000	25SIDEW	HERZBERG RICHARD / TAR 33070 BARKLEY LIVONIA, MI	33070 BARKLEY LIVONIA, MI	543.40 0.00	543.40 543.40
25-120 086 03 0028 000 086 03 0028 000	25SIDEW	WILSON DIANE K 14858 FAIRFIELD LIVONIA, MI	14858 FAIRFIELD LIVONIA, MI	2,941.95 0.00	2,941.95 2,941.95
25-121 086 02 0115 002 086 02 0115 002	25SIDEW	PROCTOR PETER / MASSIE 33038 GRENNADA LIVONIA, MI	33038 GRENNADA LIVONIA, MI	785.95 0.00	785.95 785.95
25-122 086 02 0309 000 086 02 0309 000	25SIDEW	BLANK GLENN / DIANE 32406 LYNDON LIVONIA, MI	32406 LYNDON LIVONIA, MI	528.55 0.00	528.55 528.55
25-124 086 02 0323 000 086 02 0323 000	25SIDEW	WOLLAM BRADLEY/CHARLEN 32611 LYNDON LIVONIA, MI	32611 LYNDON LIVONIA, MI	271.70 0.00	271.70 271.70
25-125 087 02 0016 000 087 02 0016 000	25SIDEW	ST. RAFKA MARONITE CAT 14271 BROOKFIELD LIVONIA, MI	32765 LYNDON LIVONIA, MI	3,457.30 0.00	3,457.30 3,457.30
25-126 086 02 0047 000 086 02 0047 000	25SIDEW	LANG SUSAN J REV LIVIN 33147 LYNDON LIVONIA, MI	33147 LYNDON LIVONIA, MI	282.15 0.00	282.15 282.15
25-127 086 02 0274 000 086 02 0274 000	25SIDEW	WHEAT SCOTT / BETHANY 33160 LYNDON LIVONIA, MI	33160 LYNDON LIVONIA, MI	1,435.50 0.00	1,435.50 1,435.50
25-128 086 02 0045 000 086 02 0045 000	25SIDEW	DAHL DAVID M 33209 LYNDON LIVONIA, MI	33209 LYNDON ST LIVONIA, MI	1,637.35 0.00	1,637.35 1,637.35
25-129 087 04 0370 000 087 04 0370 000	25SIDEW	PASCHEN SCOTT/TRACY 14145 MAYFIELD LIVONIA, MI	14145 MAYFIELD LIVONIA, MI	3,537.60 0.00	3,537.60 3,537.60
25-130 086 03 0001 000 086 03 0001 000	25SIDEW	GILLAM STEVEN / RACHEL 32417 MEADOWBROOK LIVONIA, MI	32417 MEADOWBROOK LIVONIA, MI	904.20 0.00	904.20 904.20
25-131 086 03 0009 000 086 03 0009 000	25SIDEW	SAYENGA KIMBERLY 32657 MEADOWBROOK LIVONIA, MI	32657 MEADOWBROOK LIVONIA, MI	261.25 0.00	261.25 261.25
25-132 086 02 0233 000 086 02 0233 000	25SIDEW	FOLEY JAMES/MARY JO 32648 OAKLEY LIVONIA, MI	32648 OAKLEY LIVONIA, MI	250.80 0.00	250.80 250.80
25-133 086 02 0256 000 086 02 0256 000	25SIDEW	FOWLER JOHN / MARIE 32843 OAKLEY LIVONIA, MI	32843 OAKLEY LIVONIA, MI	590.15 0.00	590.15 590.15
25-134	25SIDEW	SUDOROWSKI JASON / KRI	33129 PERTH	271.70	271.70

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087 04 0388 000 087 04 0388 000		33129 PERTH LIVONIA, MI	LIVONIA, MI	0.00	271.70
25-135 087 05 0453 000 087 05 0453 000	25SIDEW	DAVIS RAAN/DEBORAH 32652 SCONE LIVONIA, MI	32652 SCONE LIVONIA, MI	257.40 0.00	257.40 257.40
25-136 087 05 0506 000 087 05 0506 000	25SIDEW	MARSHALL MICHAEL A/JU 32840 SCONE LIVONIA, MI	32840 SCONE LIVONIA, MI	237.60 0.00	237.60 237.60
25-137 087 05 0507 000 087 05 0507 000	25SIDEW	SUTHERLAND MARY ANN 32902 SCONE LIVONIA, MI	32902 SCONE LIVONIA, MI	495.00 0.00	495.00 495.00
25-138 087 04 0335 000 087 04 0335 000	25SIDEW	GALAN HERNALDO 14141 WESTMORE LIVONIA, MI	14141 WESTMORE LIVONIA, MI	229.90 0.00	229.90 229.90
25-139 087 04 0423 000 087 04 0423 000	25SIDEW	MAGEE JAMES A / TALIA 14180 WESTMORE LIVONIA, MI	14180 WESTMORE LIVONIA, MI	261.25 0.00	261.25 261.25
25-140 086 02 0205 000 086 02 0205 000	25SIDEW	LIZEAR RONNIE/CLARICE 14638 WESTMORE LIVONIA, MI	14638 WESTMORE LIVONIA, MI	800.80 0.00	800.80 800.80
25-141 089 02 0071 000 089 02 0071 000	25SIDEW	LAVON BELVIERD G LIFE 29458 BARKLEY LIVONIA, MI	29458 BARKLEY LIVONIA, MI	970.20 0.00	970.20 970.20
25-142 089 02 0207 000 089 02 0207 000	25SIDEW	BURNS DENNIS/HELEN 29849 BARKLEY LIVONIA, MI	29849 BARKLEY LIVONIA, MI	247.50 0.00	247.50 247.50
25-143 092 02 0069 000 092 02 0069 000	25SIDEW	FERGUSON MARCUS/AMANDA 30126 BENTLEY LIVONIA, MI	7560 BIRCKLAN DR CANTON, MI	553.85 0.00	553.85 553.85
25-144 091 09 0271 000 091 09 0271 000	25SIDEW	WOJCZYNSKI JENNIFER A 31207 KENDALL LIVONIA, MI	31207 KENDALL LIVONIA, MI	554.40 0.00	554.40 554.40
25-145 092 09 0024 000 092 09 0024 000	25SIDEW	OBIDZINSKI JOSEPH / MI 30277 LYNDON LIVONIA, MI	30277 LYNDON LIVONIA, MI	867.35 0.00	867.35 867.35
25-146 092 02 0100 000 092 02 0100 000	25SIDEW	JORDAN MOHAMMAD / NADI 29653 MASON LIVONIA, MI	29653 MASON LIVONIA, MI	229.90 0.00	229.90 229.90
25-147 092 02 0101 000 092 02 0101 000	25SIDEW	VIRZI CRAIG V/NANCY M 29709 MASON LIVONIA, MI	29709 MASON LIVONIA, MI	1,675.85 0.00	1,675.85 1,675.85
25-148 092 02 0119 002 092 02 0119 002	25SIDEW	WILSON SANDRA REVOCABL 29714 MASON LIVONIA, MI	29714 MASON LIVONIA, MI	2,189.55 0.00	2,189.55 2,189.55
25-149 092 02 0102 000 092 02 0102 000	25SIDEW	CLAUDETTE LANDRY 29723 MASON LIVONIA, MI	3541 GRANDVIEW HIGHLAND, MI	1,019.15 0.00	1,019.15 1,019.15
25-150 092 02 0118 000 092 02 0118 000	25SIDEW	HYLTON JACOB W 29726 MASON LIVONIA, MI	29726 MASON LIVONIA, MI	772.20 0.00	772.20 772.20
25-151 092 02 0117 000 092 02 0117 000	25SIDEW	BAKER NICHOLAS J 29738 MASON LIVONIA, MI	29738 MASON LIVONIA, MI	1,600.50 0.00	1,600.50 1,600.50
25-152 092 07 0298 000	25SIDEW	MICHALIK PATRICIA / RO 14425 MELVIN LIVONIA, MI	14425 MELVIN LIVONIA, MI	772.20 0.00	772.20 772.20

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092 07 0298 000		LIVONIA, MI			
25-153	25SIDEW	NAULT COLLEEN / JEFF	30262 OAKVIEW	282.15	282.15
092 07 0305 000		30262 OAKVIEW	LIVONIA, MI	0.00	282.15
092 07 0305 000		LIVONIA, MI			
25-154	25SIDEW	LEININGER SUSAN M	30370 OAKVIEW	1,841.40	1,841.40
092 07 0309 002		30370 OAKVIEW	LIVONIA, MI	0.00	1,841.40
092 07 0309 002		LIVONIA, MI			
25-155	25SIDEW	WEBER DUANE P / PENNY	15140 CAVOUR	247.50	247.50
094 01 0115 000		15140 CAVOUR	LIVONIA, MI	0.00	247.50
094 01 0115 000		LIVONIA, MI			
25-156	25SIDEW	KARPOWICZ BEVERLY	14245 GARDEN	188.10	188.10
095 08 0060 000		14245 GARDEN	LIVONIA, MI	0.00	188.10
095 08 0060 000		LIVONIA, MI			
25-157	25SIDEW	GARRETT DANIELLE M	29114 LORI	518.65	518.65
094 03 0021 000		29114 LORI	LIVONIA, MI	0.00	518.65
094 03 0021 000		LIVONIA, MI			
25-158	25SIDEW	ALMASRI AHMED	29116 PERTH	227.70	227.70
095 08 0056 000		29116 PERTH	LIVONIA, MI	0.00	227.70
095 08 0056 000		LIVONIA, MI			
25-159	25SIDEW	CAMDEN STREET HOLDINGS	2575 SOUTH HAGGERTY RD	495.00	495.00
099 99 0085 000		12430 CAMDEN	CANTON, MI	0.00	495.00
099 99 0085 000		LIVONIA, MI			
25-160	25SIDEW	ROTAJ LLC	506 N CHARLISWORTH	1,606.00	1,606.00
100 01 0001 000		27850 PLYMOUTH	DEARBORN HEIGHTS, MI	0.00	1,606.00
100 01 0001 000		LIVONIA, MI			
25-161	25SIDEW	RIVERSIDE CHURCH OF GO	11891 NEWBURGH RD	5,828.90	5,828.90
120 02 0511 001		11771 NEWBURGH	LIVONIA, MI	0.00	5,828.90
120 02 0511 001		LIVONIA, MI			
25-162	25SIDEW	DEC CAROLYN LIFE ESTAT	9363 PATTON	261.25	261.25
123 02 0046 000		9363 PATTON	LIVONIA, MI	0.00	261.25
123 02 0046 000		LIVONIA, MI			
25-163	25SIDEW	SPARROW SHANE	35642 ORANGELAWN	554.40	554.40
125 01 0290 000		35642 ORANGELAWN	LIVONIA, MI	0.00	554.40
125 01 0290 000		LIVONIA, MI			
25-164	25SIDEW	JOSEPH ERIC	35624 PARKDALE	532.95	532.95
125 01 0248 000		35624 PARKDALE	LIVONIA, MI	0.00	532.95
125 01 0248 000		LIVONIA, MI			
25-165	25SIDEW	SMUTEK LOUIS / ANNA LI	33777 ELMIRA	985.60	985.60
129 05 0018 000		33777 ELMIRA	LIVONIA, MI	0.00	985.60
129 05 0018 000		LIVONIA, MI			
25-166	25SIDEW	WEISS MARK/SHELIA	34145 PARKDALE	271.70	271.70
129 03 0054 000		34145 PARKDALE	LIVONIA, MI	0.00	271.70
129 03 0054 000		LIVONIA, MI			
25-167	25SIDEW	LAG PLYMOUTH LLC	4000 W HIGHLAND	6,179.80	6,179.80
130 01 0005 005		34715 PLYMOUTH	HIGHLAND, MI	0.00	6,179.80
130 01 0005 005		LIVONIA, MI			
25-168	25SIDEW	GOSNEY KATHRYN / KIRK	8911 RUSSELL	282.15	282.15
131 02 0018 000		8911 RUSSELL	LIVONIA, MI	0.00	282.15
131 02 0018 000		LIVONIA, MI			
25-171	25SIDEW	FETNER MICHAEL/DONNA	9765 DORIS	522.50	522.50
137 01 0146 000		9765 DORIS	LIVONIA, MI	0.00	522.50
137 01 0146 000		LIVONIA, MI			
25-172	25SIDEW	RUSSO ANGELA	PO BOX 14	759.55	759.55
138 02 0042 000		30690 ELMIRA	GROSSE ILE, MI	0.00	759.55
138 02 0042 000		LIVONIA, MI			

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25-173 140 02 0185 000 140 02 0185 000	25SIDEW	WOROBI DARREN / HANNA 29581 HATHAWAY LIVONIA, MI	29581 HATHAWAY LIVONIA, MI	1,531.75 0.00	1,531.75 1,531.75
25-174 137 01 0145 000 137 01 0145 000	25SIDEW	SWIATLOWSKI TED / PATR 30116 RICHLAND LIVONIA, MI	30116 RICHLAND LIVONIA, MI	292.60 0.00	292.60 292.60
25-176 138 02 0043 000 138 02 0043 000	25SIDEW	SILVA WILLIE N 11347 SUNSET LIVONIA, MI	11347 SUNSET LIVONIA, MI	773.30 0.00	773.30 773.30
25-178 144 99 0140 000 144 99 0140 000	25SIDEW	BIENIASZ DANIEL 9129 INKSTER LIVONIA, MI	9129 INKSTER LIVONIA, MI	1,522.95 0.00	1,522.95 1,522.95
25-179 144 99 0138 000 144 99 0138 000	25SIDEW	MCCALL JOHN 9159 INKSTER LIVONIA, MI	9159 INKSTER LIVONIA, MI	1,058.20 0.00	1,058.20 1,058.20
25-180 144 03 0083 000 144 03 0083 000	25SIDEW	CIERPIAL PAUL A 8934 LATHERS LIVONIA, MI	8934 LATHERS LIVONIA, MI	1,525.15 0.00	1,525.15 1,525.15
25-182 143 04 0151 000 143 04 0151 000	25SIDEW	MONTIE DENNIS/DIANE 28924 WESTFIELD LIVONIA, MI	28924 WESTFIELD LIVONIA, MI	261.25 0.00	261.25 261.25
25-183 143 08 0001 000 143 08 0001 000	25SIDEW	AZARCON HERNANDO M 8999 NEWPORT LIVONIA, MI	8993 NEWPORT LIVONIA, MI	11,269.50 0.00	11,269.50 11,269.50
25-184 142 03 0001 000 142 03 0001 000	25SIDEW	HOPKINS MARK D 29355 ELMIRA LIVONIA, MI	29355 ELMIRA LIVONIA, MI	3,069.00 0.00	3,069.00 3,069.00
25-185 085 04 0032 000 085 04 0032 000	25SIDEW	WELLER LOUISE LIFE EST 32352 OAKLEY LIVONIA, MI	32352 OAKLEY LIVONIA, MI	1,496.55 0.00	1,496.55 1,496.55
25-186 140 02 0280 000 140 02 0280 000	25SIDEW	HILL MARCIA / SHIFFERD 30389 MINTON LIVONIA, MI	30389 MINTON LIVONIA, MI	1,566.95 0.00	1,566.95 1,566.95
0000010727 083 04 0046 000 083 04 0046 000	25SIDEW	JOHNSON NICHOLAS D / K 13944 ASHURST LIVONIA, MI	13944 ASHURST LIVONIA, MI	788.70 0.00	788.70 788.70
0000010927 083 04 0127 000 083 04 0127 000	25SIDEW	MORSE MARK W 34755 MIDDLEBORO LIVONIA, MI	34755 MIDDLEBORO LIVONIA, MI	846.45 0.00	846.45 846.45
0000010928 092 09 0025 000 092 09 0025 000	25SIDEW	GLOVAK EDWARD & MARY 30299 LYNDON LIVONIA, MI	30299 LYNDON LIVONIA, MI	801.90 0.00	801.90 801.90
0000010929 134 04 1825 000 134 04 1825 000	25SIDEW	TUBARO EDWWIN / MARIE 9605 WOODRING LIVONIA, MI	9605 WOODRING LIVONIA, MI	574.75 0.00	574.75 574.75
0000010930 085 04 0061 000 085 04 0061 000	25SIDEW	JENKS NATHANIEL / ALEX 32353 BARKLEY LIVONIA, MI	32353 BARKLEY LIVONIA, MI	267.30 0.00	267.30 267.30
0000010931 086 02 0229 000 086 02 0229 000	25SIDEW	ZAREMBA WALTER / MARIA 32728 OAKLEY LIVONIA, MI	32728 OAKLEY LIVONIA, MI	514.80 0.00	514.80 514.80

Billing Items Summary

	Billing Item Count	Item Amt.	Item Bal.
25-4"Sw Totals	119 Billing Items	106,632.90	106,632.90
25-6"Sw Totals	105 Billing Items	47,944.60	47,944.60
25-8"Sw Totals	13 Billing Items	19,178.50	19,178.50

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25-CITY Totals		126 Billing Items		0.00	0.00
25-CONS Totals		1 Billing Items		0.00	0.00
25-H/04" Totals		7 Billing Items		6,197.40	6,197.40
25-H/06" Totals		4 Billing Items		3,114.10	3,114.10
25-R4-6"C Totals		2 Billing Items		82.50	82.50
Report Totals		182 Invoices		183,150.00	183,150.00
				0.00	183,150.00

November 18, 2024, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is approved for submission by the Mayor, the Council does hereby authorize the Mayor and City Clerk to execute a contract extension, for and on behalf of the City of Livonia, with Engineered Comfort Systems, Inc., 12480 Allen Road., Taylor, MI 48180, pursuant to Council resolution 304-24, adopted on September 9, 2024, to include the Livonia Police Department Headquarters HVAC chiller installation, in an amount not to exceed \$156,243.50, and waives the building inspection fees associated therewith; FURTHER, the Council does hereby authorize an appropriation and expenditure in an amount not to exceed \$156,243.50 from Account No: 401-000-976-000 (Capital Projects) for this purpose; FURTHER, the Council does hereby authorize such action without competitive bidding for the reasons indicated in the aforesaid communication, and such action is taken in accordance with Section 3.04.140.E.3 of the Livonia Code of Ordinances, as amended; and the City Engineer is hereby authorized to approve minor adjustments in the work as it becomes necessary but this authorization does not entitle the City Engineer to authorize any increase in the not to exceed amount or to contract with other parties; and the City Clerk is hereby requested to do all other things necessary or incidental to the full performance of this resolution.

#95-25 RESOLVED, that having considered a communication from the City Engineer, dated February 24, 2025, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is approved for submission by the Mayor, the Council does hereby authorize and accept the quote of Joe Rotondo Construction Corp., 38807 Ann Arbor Road, Suite 2, Livonia, Michigan 48150 ("Rotondo"), for performing all work required in connection with the 2025 Sidewalk Repair Program (Contract 25-G) by extending their Contract 24-G unit prices for contract 25-G, and determines as follows:

1. Livonia Code of Ordinances, as amended, since no advantage to the To waive the formal bidding process under Section 3.04.140.E.3 of the City would result from competitive bidding;
2. To extend Contract 24-G unit prices for Contract 25-G, 2025 Sidewalk Repair Program in an amount not to exceed \$1,054,347.50 to Joe Rotondo Construction Corp., 38807 Ann Arbor Road, Suite 2, Livonia, MI 48150, on the basis of the bid unit prices from 2024, Contract 24-G, with the exception of revised unit prices for bid items 1, 2, and 3 (concrete sidewalk of various thickness of 4, 6 or 8-inches and agreed upon inspector days of

110 based on quantities) said amount to be adjusted based upon the quantities of work actually completed;

3. To authorize a payment not-to-exceed \$30,000.00 to Precision Concrete Inc., 1896 Goldeneye Drive, Holland, MI 49424 for the saw-cutting portion of the contract;

4. To authorize an advance in an amount not to exceed \$272,782.25 (single lot assessments portion of the program) from the Road, Sidewalk and Tree Fund with the provision that this fund be reimbursed from that portion of the project, which is to be financed by special assessment at such time as funds are subsequently received for the payment of bills as assessments by affected property owners;

5. To authorize an expenditure from budgeted funds in an amount not to exceed \$10,000.00 from Account No. 202-451-977-010 (Major Road – Dist. Sidewalk Cost) and \$97,000.00 from Account No. 203-451-977-010 (Local Road - Dist. Sidewalk Cost) to cover the costs related to the construction or reconstruction of handicap ramps at major and local roads;

6. To authorize an expenditure in an amount not to exceed \$60,000.00 from the Unexpended Fund Balance of the Water and Sewer Fund for sidewalk work adjacent to and including water and sewer structure repairs;

7. To authorize an expenditure in an amount not to exceed \$750,000.00 to repair sidewalks heaved by tree roots from budgeted funds in the Road, Sidewalk and Tree Fund (Account No. 204-447-977-010 Distributed Sidewalk Cost) for the 2025 Sidewalk Repairs;

8. To authorize the City Engineer to approve minor adjustments in the work, as it becomes necessary but this authorization does not entitle the City Engineer to authorize any increase in the not to exceed amount or to contract with other parties; and

9. To authorize the Mayor and City Clerk to execute a contract for and on behalf of the City of Livonia with the aforesaid bidder and to do all other things necessary or incidental to the full performance of this resolution.

#96-25 RESOLVED, that having considered the report and recommendation of the Assistant City Engineer, dated February 28, 2025, submitted pursuant to Council Resolution 220-24, adopted on June 17, 2024, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is



LETTER TO THE LIVONIA CITY COUNCIL

3.

Parks and Recreation December 18, 2025

MEETING DATE

S011426/R012626

PRESENTED BY

Ted Davis, CPRP, Superintendent of Parks and Recreation

AGENDA ITEM

REQUEST TO WAIVE THE FORMAL BIDDING PROCESS AND AUTHORIZATION TO PURCHASE FURNITURE: Department of Parks and Recreation, re: for the Senior Wellness Center, in a not-to-exceed amount of \$51,894.87, from budgeted funds.

BACKGROUND DETAILS

The Department of Parks and Recreation requests your approval for the purchase of additional furniture pieces for the Senior Wellness Center. The request is based on an increased need in areas and user preferences.

The Parks and Recreation Department has collaborated with Interior Environments (IE) on additional pieces, including hallway seating, waste receptacles, smaller card tables, and seating options without wheels. This is outside the scope of construction services and not part of the GMP for the Senior Center addition/Rec Center renovation.

Product quantities, collective purchasing information, and the location where each product will be utilized are attached for the Council's review.

We request that the City Council waive the formal bidding process in accordance with the provisions set forth in Section 3.04.140.D.4 of the Livonia Code of Ordinances, as amended. Competitive bidding would not benefit the City.

PREFERRED COUNCIL RECOMMENDATION/RESOLUTION (Please complete this field. Attachments are not to be used in lieu of the recommendation)

We request that the City Council authorize the Mayor and City Clerk to execute a purchase order for a not-to-exceed price of \$51,894.87 with Interior Environments – Novi, 48700 Grand River Ave, Novi, MI 48374.

SPECIFIC NAME OF PRODUCT AND NUMBER TO BE PURCHASED (if more than one)

N/A

CONTRACT: Amount and/or purchase price and length of contract (with dates if applicable)

A not-to-exceed price of \$51,894.87

DETAILED WORK BEING PERFORMED

N/A

FISCAL CONSIDERATIONS (Amount requested and Account(s) used. If applicable, Grant Funding information)

\$51,894.87 from account 208-755-987-000.

ACCEPTANCE OF BID (Please detail the following: Why accepted, why not lowest bidder, company name, contact person, full address)

N/A

REASON TO WAIVE BID PROCESS (Emergency, Professional services, No advantage to City and why, Consortium package, etc): We request that the City Council waive the formal bidding process in accordance with the provisions set forth in Section 3.04.140.D.4 of the Livonia Code of Ordinances, as amended. Competitive bidding would not benefit the City.

ATTACHMENTS

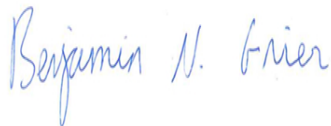
1. 2026 Furniture proposal
2. 2026 Furniture Collateral-Equalis-Group-Interior-Environments-One-Pager

APPROVED BY



Ted Davis, CPRP, Superintendent of Parks and Recreation

Date: December 18, 2025



Benjamin N. Grier, JD, CPA, Finance Director

Date: December 19, 2025



Carter Fisher, City Attorney

Date: January 05, 2026



Maureen Miller Brosnan, Mayor

Date: January 05, 2026



Proposal

Interior Environments - Novi
48700 Grand River Ave
Novi, MI 48374
Phone: (248) 213-3010

Order Number	24435
Date	12/18/2025
Customer PO No	
Customer Name	Jack E. Kirksey Recreation Center
Salesperson	Joe LaPointe
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T Jack E. Kirksey Recreation Center
O 15100 Hubbard St
Livonia, MI 48154

ATTN: Ann Cox
Phone: 734-466-2418
Email: acox@livonia.gov

I Livonia Sr. Center
N 15100 Hubbard St
S 15100 Hubbard St
T Livonia, MI 48154
A
L ATTN: Ted Davis
L Phone: 734-466-2298
A Email: edavis@livonia.gov
T

Prepared for : Joe LaPointe

Allsteel Equalis #495369 Contract COG-2152H
HON Equalis #495370 Contract COG-2152H
OFS Omnia #R240113 CDA-1026504
Anova: TIPS #210305 Quote #:SFQ-00075496
9to5 Seating: 132182 Omnia #07-73
National Public Seating Quote 18458-R2 Equalis COG-2152N
Magnuson Group: QT001143 Omnia #07-104

Line	Quantity	Description	Unit Price	Extended Amount
1	2.00 Each	MIX33T Mixx Waste Receptacle :Thermory :Textured Rust Tag: Tag TG: OUTDOOR ENTRANCE	3,075.88	6,151.76
2	2.00 Each	HNL1560LD--\$(L2STD)-.LPE1-\$(L2STD)-.LPE1 60x15x15 Wall Mount Storage lam doors \$(L2STD):Grd L2 Standard Laminates .LPE1:Phantom Ecru \$(L2STD):Grd L2 Standard Laminates .LPE1:Phantom Ecru Tag: Tag TG: CONFERENCE RM 1302	699.12	1,398.24
3	2.00 Each	207042-M-MT--BKO-X9-X9~ETC-ETC7-ETC-TOR~ETC-ETC10-ETC-TOR Coact Lite, 45x26x34.75, Loveseat Mid Back, Armless - Multiple Textiles BKO:Onyx X9:No Ganging X9:No Ganging ~ETC:Graded-in Fabric ETC7:Graded-in - Grade 7 ETC:Graded-in Fabric Color TOR:ULTRAFABRICS, PROMESSA, LAKE BLUE ~ETC:Graded-in Fabric ETC10:Graded-in - Grade 10 ETC:Graded-in Fabric Color TOR:DESIGNTEX, DAPPLE, MINERAL Tag: Tag TG: COMMONS HALLWAY Tag L1: 207042-M-MT	2,082.57	4,165.14
4	4.00 Each	1910-ST30-A00-AP--SF-G21GF-P01~ Cavo - Four Leg 30" Bar Stool, Armless, All Plastic	353.08	1,412.32



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		SF:Silver Frame G21GF:G21BF Swivel Felt Glide - Gray P01:P01 Black Swan ~:No Ganging Clips Tag: Tag TG: MAKER SPACE 1311		
5	2.00 Each	KROK-HJH-90--12373-9310 Krok HJH: Textured Painted Steel Hook Strip With Eight Plastic Coat Hooks 4 7/8"H x 35 7/16"W x 2 1/4"D 12373:Finish Color 9310:Textured White RAL 9016 Tag: Tag TG: FITNESS ROOM Tag L1: KROK-HJH-90	340.00	680.00
6	1.00 Each	KROK-HJH-90--12373-9310 Krok HJH: Textured Painted Steel Hook Strip With Eight Plastic Coat Hooks 4 7/8"H x 35 7/16"W x 2 1/4"D 12373:Finish Color 9310:Textured Black RAL 9005 Tag: Tag TG: MAKERS SPACE 2303 Tag L1: KROK-HJH-90	340.00	340.00
7	2.00 Each	AW4WC3620--X-\$(L1STD)-.PINC-PI-\$(L1STD)-.PINC-PI-\$(P1)-.PJW 40Hx36Wx20D Recycle Credenza .X:Standard Wood \$(L1STD):Grd L1 Standard Laminates .PINC:Pinnacle PI:Pinnacle \$(L1STD):Grd L1 Standard Laminates .PINC:Pinnacle PI:Pinnacle \$(P1):P1 Paint Opts .PJW:Designer White Tag: Tag TG: 2ND FLR WASTE	2,657.82	5,315.64
8	2.00 Each	AW4WCTIBC36W--\$(P1)-.PJW Top Insert -- Bottles/Cans - 36 Wide \$(P1):P1 Paint Opts .PJW:Designer White Tag: Tag TG: 2ND FLR WASTE	95.33	190.66
9	2.00 Each	1520-OB--X9-DST-X9--ETC-ETC8-ETC-TOR-X9 Voyage, 33x26.5x34 Bariatric Chair (supports up to 500 lbs) X9:No Selection of Option DST:Desert (DST) X9:No Selection of Option ~ETC:Graded-in Fabric ETC8:Graded-in - Grade 8 ETC:Graded-in Fabric Color TOR:CF STINSON, BOND, OAT X9:No Selection of Option Tag: Tag TG: 2ND FLR HALL Tag L1: 1520-OB	1,198.24	2,396.48
10	1.00 Each	KS-30RD15H--T-DSP-Q-H1F Kosa 30x30x15 Round Coffee Table T:Laminate	716.77	716.77



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		DSP-Q:Desert (Quarter Grain) H1F:Warm Grey Tag: Tag TG: 2ND FLR HALL Tag L1: KS-30RD15H		
11	4.00 Each	NSCH-1119462--DST-B Coact Seating 2.25"W X 2.25"D X 8.125"H ----- Special feature: legs only and paint. Set of 4)square tapered wood legs, 2" taller than standard legs(H4M). In standard finish. To be retrofit on existing seating. DST-B:Desert (On Beech) Tag: Tag TG: BENCH LEGS	429.98	1,719.92
12	8.00 Each	50093--BLKP-W47-MPM--ETC-ETC6-ETC-TOR Acen, Mesh Back Nesting Side Chair, with Arms - 3/Carlton BLKP:Black Frame/Black Plastic W47:Nylon Glides MPM:Platinum ~ETC:Graded-in Fabric ETC6:Graded-in - Grade 6 ETC:Graded-in Fabric Color TOR:CF STINSON, LATERAL, MIST Tag: Tag TG: MULTIPURPOSE RMS Tag L1: 50093	989.57	7,916.56
13	20.00 Each	ACT336PBEBPN--PN NPS Air-Lift Nesting Cafe Table, 36" Square HPL Edge Banding PN:Pinnacle Walnut :Black Tag: Tag TG: CARD TABLE	721.60	14,432.00
18	1.00 Each	Labor----- Furniture Installation: {LIVONIA SR CENTER ADD ONS } :STRAIGHT TIME OR OVERTIME :NON UNION :NO STAIR CARRY - ELEVATOR USE :NO PERMITS :NO HARDWIRE DATA OR ELECTRICAL CONNECTIONS :ALL DEBRIS REMOVAL INCLUDED	4,852.24	4,852.24
20	1.00 Each	TARIFF HON TARIFF 3% - COST	41.95	41.95
21	1.00 Each	TARIFF ALLSTEEL TARIFF 3% - COST	165.19	165.19

Order Sub-Total : \$51,894.87

TOTAL ORDER : \$51,894.87

Required Deposit 50.00% : \$25,947.44

PLEASE REVIEW THIS QUOTATION AND NOTIFY US PROMPTLY OF ANY CORRECTIONS REQUIRED THANK YOU FOR THE OPPORTUNITY TO BE OF SERVICE

A FINANCE CHARGE OF 1-1/2% PER MONTH WHICH IS AN ANNUAL PERCENTAGE RATE OF 18% WILL BE CHARGED ON ACCOUNTS PAST DUE.

Signature: _____ Name: _____ Title: _____ Date: _____



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Balco Interiors LLC / IE Connect LLC / Interior Environments Atlanta, LLC - d/b/a INTERIOR ENVIRONMENTS

1. PROPOSALS AND ORDERS

- A. **TERM:** All prices quoted by Interior Environments ("Seller") are valid for 30 days from date of proposal. The Agreement (as defined below) will remain in effect until the earlier of (i) the day the services set forth in the applicable proposal are complete, or (ii) one (1) year from the date hereof.
- B. **OFFER AND ACCEPTANCE:** All orders for the purchase of goods and services from Seller require a proposal prepared by Seller which has been approved and signed by an authorized signatory of Buyer. Seller's proposal shall constitute an offer and Buyer's approval of the proposal shall constitute acceptance of that offer. If Buyer submits a purchase order before Seller issues a proposal, Seller's proposal shall constitute a counteroffer and Buyer's written approval of the Seller's proposal shall constitute acceptance of that counter offer without any additional terms or conditions.
- C. **AGREEMENT:** Following the offer and acceptance described above and Seller's payment as provided in paragraph 2 below, an "Agreement" between the parties shall be deemed to have been formed upon mutual execution with such Agreement comprised solely of Seller's proposal together with these Terms and Conditions of Sale and any exhibits or addendums thereto. The Agreement shall be deemed to supersede any prior written or oral agreements and any different or conflicting terms in any quote, invoice, Buyer purchase order, shipper or any other document. For the avoidance of doubt, any different, additional or conflicting terms provided on any ancillary Buyer document(s) are expressly rejected by Seller.
- D. **MODIFICATIONS/CHANGES/CANCELLATIONS:** Any requested modification to an Agreement is subject to the written approval of Buyer, Seller and the manufacturer or supplier of the goods ordered. Buyer will pay any and all additional actual and reasonable charges resulting from order modifications, cancellations, and changes requested by Buyer in writing. Express Ship Orders cannot be changed or cancelled. All goods are custom manufactured to customer specifications and, therefore, cannot be returned for convenience. Restocking programs are not available. Any modifications of an Agreement must be made via a signed and dated revised proposal.

2. DEPOSITS

Unless otherwise specified and agreed to by both parties, a deposit of 50% is required on all orders. No interest shall accrue on such deposits. The Agreement is deemed entered upon such payment by Buyer.

3. OWNERSHIP AND RISK OF LOSS

Transfer of title to the goods as between Seller and Buyer shall be deemed to have occurred upon delivery to and acceptance of the goods by Buyer, and thereafter Buyer shall insure against risk of loss.

4. PAYMENT

- A. **TIMING:** Any remaining balance on goods purchased under this Agreement and any related installation or other services will be invoiced upon delivery of the goods to the job site or, if installed by Seller, following substantial completion and acceptance of such goods by Buyer.. Direct shipments from manufacturers, if applicable, will be invoiced upon shipment from the manufacturer. Any goods being held at Buyer's request, due to delays or otherwise, will be invoiced for product only upon Seller's receipt of same with separate invoicing for installation or other related services upon substantial completion.
- B. **PAYMENT TERMS:** Seller has the right to increase its prices at any time upon prior written notice to Buyer to reflect any and all unusual or unforeseen increases in Seller cost, provided that any such increase shall be limited to the increase actually incurred by Seller, provided that Seller shall not have the right to increase its prices following the offer and acceptance described in paragraph 1B. Buyer will not offset or recoup any claim against amounts due Seller. All invoices are due within thirty (30) days of Buyer's receipt of the related invoice. A monthly service charge of 1.5% (18% A.P.R.) will be assessed on all unpaid balances, including accrued but unpaid monthly service charges, after the invoice due date. A service charge of three percent (3%) of the invoice amount will be added to all invoices paid by credit card.
- C. **FREIGHT:** Buyer is solely responsible for any applicable freight and handling charges, including tariffs, for delivery from the manufacturer to Seller and is FOB origin. If not included in the proposal, such charges are not included in a price quotation and will be invoiced to Buyer separately after the Seller is invoiced by the carrier or manufacturer.



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- D. **TAXES:** Buyer is solely responsible for any applicable sales, use, excise, or other taxes incurred in connection with the proposal. If not included in the proposal, applicable taxes will be invoiced separately. If Buyer possesses tax-exempt status, a certificate of resale, or tax exemption is to be provided prior to order placement.
- E. **DELAYS:** If Buyer is unable or unwilling to receive goods at the prescribed shipping site on the mutually agreed delivery date any goods thereafter stored by Seller will be at Buyer's expense until such time as Buyer is able to accept delivery.
5. **DELIVERY AND INSTALLATION**
-
- A. **DELIVERY AND INSTALLATION:** Any contracted delivery and installation will be made during Seller's normal business hours of 7:00 a.m. to 3:30 p.m., Monday through Friday. Overtime delivery or installation performed at the Buyer's request will be subject to labor rates reflecting time-and-a-half for weekdays and double time for weekends and holidays, provided that such labor rates shall be mutually agreed upon by the parties hereto prior to any incurrence. If applicable trade regulations require employing union tradesmen to complete the installation or delivery, any additional incremental costs will be invoiced to and paid by the Buyer. Seller shall not be liable for failure or delay in installation due to the installation site not being ready for installation. Any shipping, delivery, and performance dates are estimates only, provided that time is of the essence. Seller may ship or direct shipments of all the goods at one time or in portions from time to time, provided that such shipments shall be made in accordance with the mutually agreed delivery date. Seller has the right, but not the obligation, to determine the method of shipment and routing of the goods, unless otherwise stated in Seller's delivery and installation proposal or acknowledgement.
- B. **SELLER'S RESPONSIBILITIES:** Unless received by Buyer or Buyer's agent directly, Seller will receive, inspect, stage, and if contracted, install Buyer's goods. All furnishings will be left clean and in working order. Carton and packing materials will be removed to the Buyer's waste disposal containers, and the premises will be left broom clean. At Seller's option, Seller may direct shipments directly to the job site, provided that such shipments shall be made in accordance with the mutually agreed delivery date.
- C. **BUYER'S ACCEPTANCE:** Buyer agrees to have an agent on the premises at the agreed upon time to accept goods, deliveries, installation, and completed work. All goods and services shall be considered accepted after Buyer or his agent has had reasonably opportunity to inspect the goods and signed an acknowledgement document(s) All claims or exceptions must be made in writing.
- D. **DROP SHIPMENTS:** In case of drop shipments where goods are delivered without installation, Buyer will receive, inspect, and install ordered goods. Buyer is also responsible for filing necessary freight claims in the event of damage.
- E. **CONDITION OF JOB SITE:** Buyer's job site shall be reasonably clean, clear of all obstructions, and free of debris upon Seller installation. Reasonable charges will be assessed to the Buyer for excessive handling, storage and transportation incurred because of site conditions, activity of other trades, or other reasons not specifically identified in the price quotation, at a standard hourly rate, or at actual charges plus fees, if labor is performed by a third party, provided that such labor rates or hourly rates shall be mutually agreed upon by the parties hereto prior to any incurrence.
- F. **JOB SITE SERVICES:** Buyer will furnish electrical current, heating, lighting, trash disposal containers, hoisting and/or elevator services, and suitable unobstructed staging areas at the job site without charge to Seller if Seller is to provide installation. If Seller is required to remove or handle existing furniture, the additional cost of moving and transporting shall be billed to the Buyer on an hourly basis, provided that such labor rates or hourly rates shall be mutually agreed upon by the parties hereto prior to any incurrence. Once installation has begun, Buyer agrees to assume any actual and reasonable expense incurred by Seller due to changes made at the Buyer's written request.
- G. **INTENTIONALLY OMITTED**
- H. **PROTECTION OF DELIVERED GOODS:** Buyer is responsible for security and safekeeping of goods after delivery to Buyer's site, or into storage negotiated by Buyer if the job site is not ready on a mutually agreed upon delivery date, and Buyer shall assume any risk of damage or loss thereof.
- I. **CONCEALED DAMAGED GOODS:** Buyer is required to report all concealed or damage packaged goods within seven (7) business days of receipt. In addition, Buyer is required to report all damaged goods revealed upon unpackaging within seven (7) days of the same. Likewise, Buyer is required to and must send pictures of damaged goods, packages and labels to initiate any available warranty claim(s). Failure to report damages within the required reporting period with the required information may negate any warranty claims and in the event of such failure, Buyer shall accept responsibility for any and all costs associated with replacement or repairs of damaged goods.



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- J. **DELIVERY AND INSTALL WARRANTY:** Notwithstanding anything to the contrary herein, Seller shall warrant all delivery and installation services against defects in performance for a period of one (1) year following delivery unless stated otherwise in the documents accompanying these Terms and Conditions of Sale. If this proposal includes the provision of delivery and installation services, Seller warrants that delivery and installation services performed by Seller or by a permitted subcontractor or agent of Seller shall be performed in a good and workmanlike manner consistent with the best practices in the industry. In the event of a delivery and installation service defect, the Seller shall, at Buyer's discretion, repair or re-perform the defective services at no cost to the Buyer. All delivery and installation services performed after the one (1) year delivery and install warranty period including but not limited to product warranties, service, repairs, replacement, etc. shall be paid for by Buyer at Buyer's expense. Note – Seller will cover delivery and install costs on warranty claims beyond one (1) year if Buyer's claim is made prior to one (1) year following project completion.
6. **ADDITIONAL TERMS**
-
- A. **DISCLAIMER OF WARRANTIES:** BUYER AGREES THAT THE GOODS ARE OF THE SIZE AND DESIGN SELECTED BY BUYER AND THAT BUYER IS SATISFIED THAT SAME IS SUITABLE FOR BUYER'S PURPOSES. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH HEREIN, SELLER HAS MADE NO REPRESENTATION OR WARRANTY AS TO ANY MATTER WHATSOEVER. SELLER DISCLAIMS AND BUYER EXPRESSLY WAIVES AS TO SELLER, ALL WARRANTIES WITH RESPECT TO THE GOODS, INCLUDING BUT NOT LIMITED TO ALL EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, QUALITY, CAPACITY, OR WORKMANSHIP. NOTHING CONTAINED HEREIN SHALL DIMINISH THE RIGHT OF BUYER TO EXERCISE ALL RIGHTS AND REMEDIES AGAINST THE MANUFACTURER OF THE GOODS FOR MANUFACTURER WARRANTIES. IN NO EVENT SHALL SELLER OR BUYER BE LIABLE UNDER ANY THEORY AT LAW OR EQUITY FOR ANY LOSS OF USE, REVENUE, ANTICIPATED PROFIT OR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR RELATED TO THE DESIGN AND USE OF THE GOODS OR THIS AGREEMENT. SELLER SHALL ADVISE BUYER OF ALL RELATED MANUFACTURERS' WARRANTIES UPON DELIVERY.
- B. **RESALE:** On any resale of the goods, Buyer shall contractually limit its buyer's warranty against both Buyer and Seller to the same extent that Paragraph 6(A) above limits the warranty offered by Seller.
- C. **ACTS BEYOND REASONABLE CONTROL:** Seller shall not be liable for any delay or failure to deliver any or all of the goods caused by installation site delays, labor disputes, strikes, acts of God, or other delays beyond the reasonable control of Seller, provided that within ten (10) days after such delay, Seller requests in writing a time extension for such delay.
- D. **ASSIGNMENT:** Seller shall not assign its rights or obligations under this Agreement without the prior written consent of Buyer. Buyer shall provide written notice to Seller promptly following assignment of its rights or obligations under this Agreement, provided that such assignment shall not release Buyer of any liabilities and obligations occurring prior to the effective date of such assignment.
- E. **INDEMNIFICATION:** Buyer shall indemnify, defend, and hold harmless Seller with respect to all damages, losses, claims, and expenses, including, without limitation, reasonable attorney fees arising from or related to Buyer's breach of any of Buyer's obligations under this Agreement, except to the extent caused by Seller's gross negligence or willful misconduct. Seller shall indemnify, defend, and hold harmless Buyer with respect to all damages, losses, claims, and expenses, including, without limitation, reasonable attorney fees arising from or related to Seller's breach of any of Seller's obligations under this Agreement, except to the extent caused by Buyer's gross negligence or willful misconduct.
- F. **DEFAULT:** If Buyer fails to pay any amount herein after the same is due and payable within ten (10) days following Seller's written notice of such default to Buyer, then Seller shall have the right to exercise any such remedies as may otherwise exist at law or in equity EXCEPT AS SPECIFICALLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES SUFFERED BY SUCH OTHER PARTY (INCLUDING WITHOUT LIMITATION DAMAGES FOR HARM TO BUSINESS, LOST REVENUES, LOST SAVINGS, OR LOST PROFITS SUFFERED BY SUCH OTHER PARTY), REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, WARRANTY, STRICT LIABILITY, OR TORT, INCLUDING WITHOUT LIMITATION NEGLIGENCE OF ANY KIND WHETHER ACTIVE OR PASSIVE, AND REGARDLESS OF WHETHER THE PARTIES KNEW OF THE POSSIBILITY THAT SUCH DAMAGES COULD RESULT..
- G. **NO WAIVER:** Buyer's or Seller's waiver of any right on one occasion shall not be a waiver of any future exercise of that right.



Proposal

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Terms	NET 10
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H. **INTENTIONALLY OMITTED**

I. **LAW:** The Agreement shall be deemed entered into, and performed in substantial part, in Oakland County, Michigan. The Agreement shall be governed by and construed in accordance with the laws of the State of Michigan, without regard to its conflict of law provisions. The parties hereto agree to submit to the exclusive personal jurisdiction of the state or federal courts serving Oakland County, Michigan for the resolution of any claim or cause of action that arises from or related to this Agreement or the goods or services provided by Seller.



CITY OF LIVONIA SENIOR CENTER

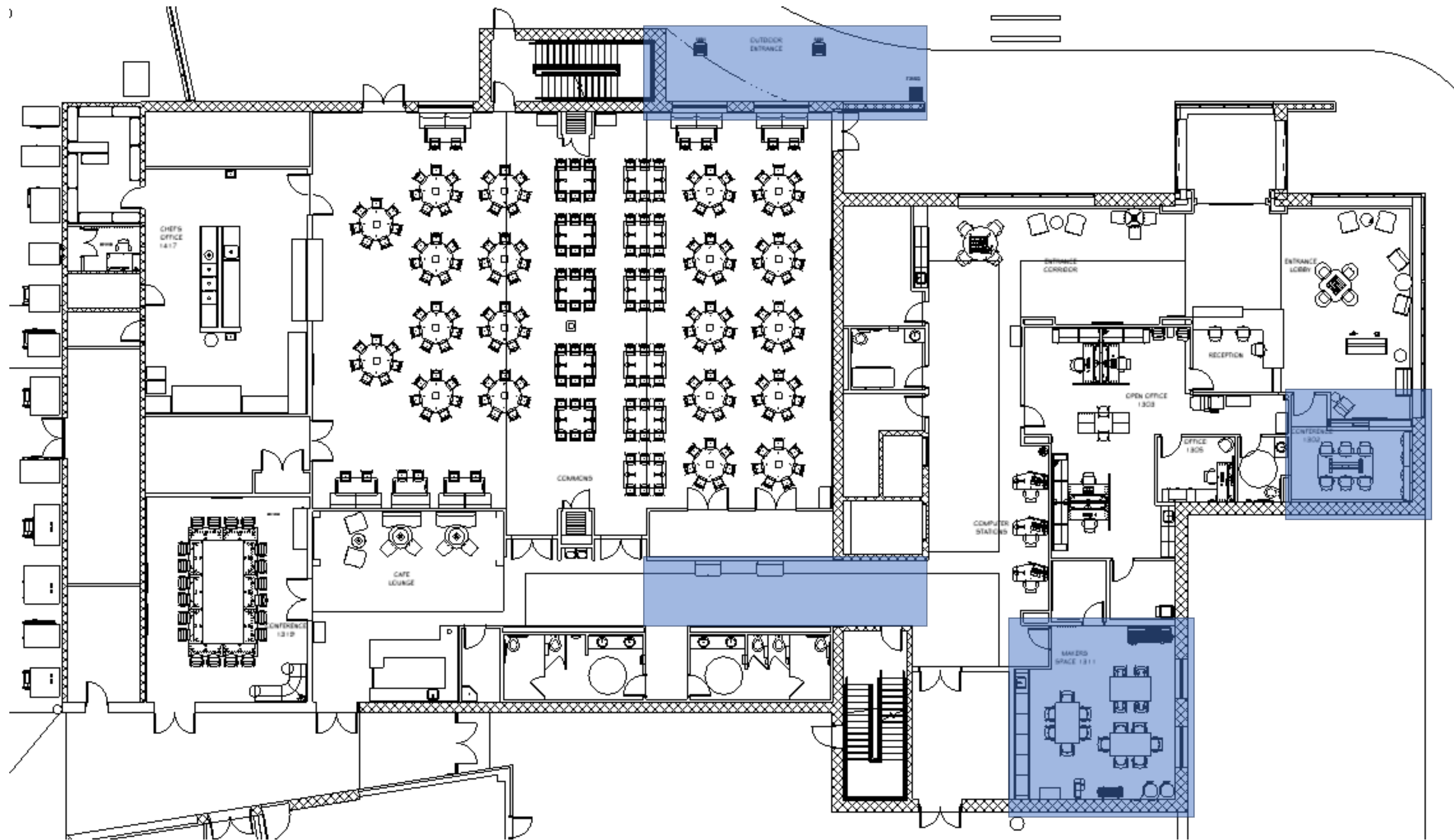
ADDITIONAL ITEMS

VALIDATION| 12.09.25

**interior
environments**

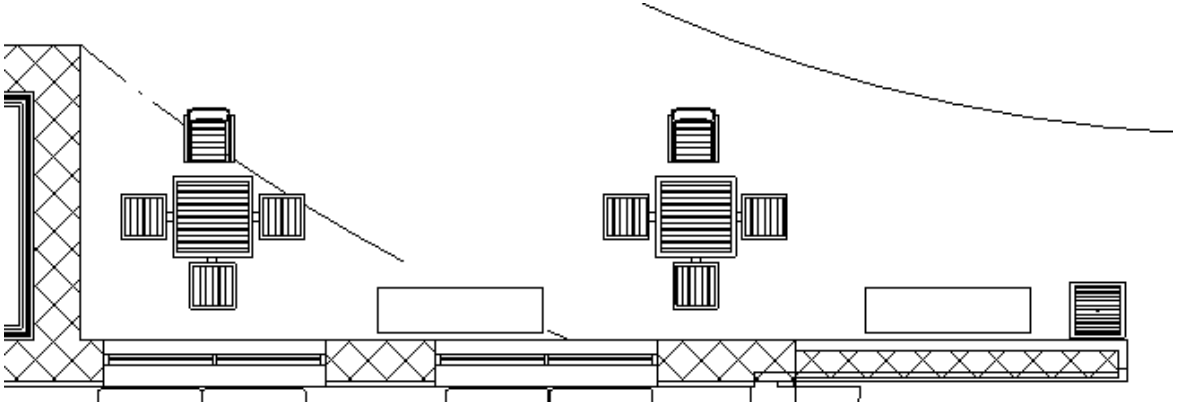


FIRST FLOOR – FLOOR PLAN



VALIDATION

SENIOR CENTER – OUTDOOR ENTRANCE



ANOVA MIXX WASTE RECEPTACLE
33 GALLONS
QTY: 2

THERMORY



THERMORY
HARDWOOD

METAL TRIM



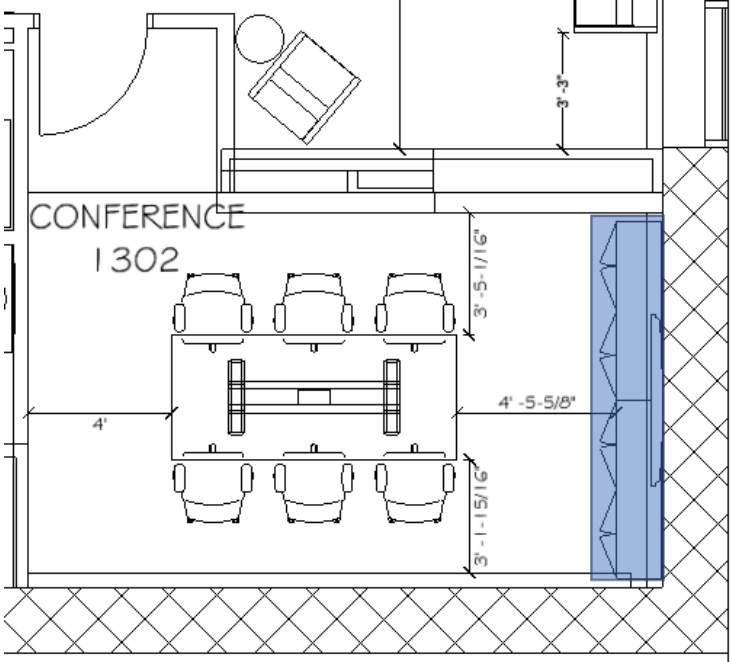
TEXTURED RUST

VALIDATION

SENIOR CENTER – CONFERENCE ROOM 1302
CREDENZA



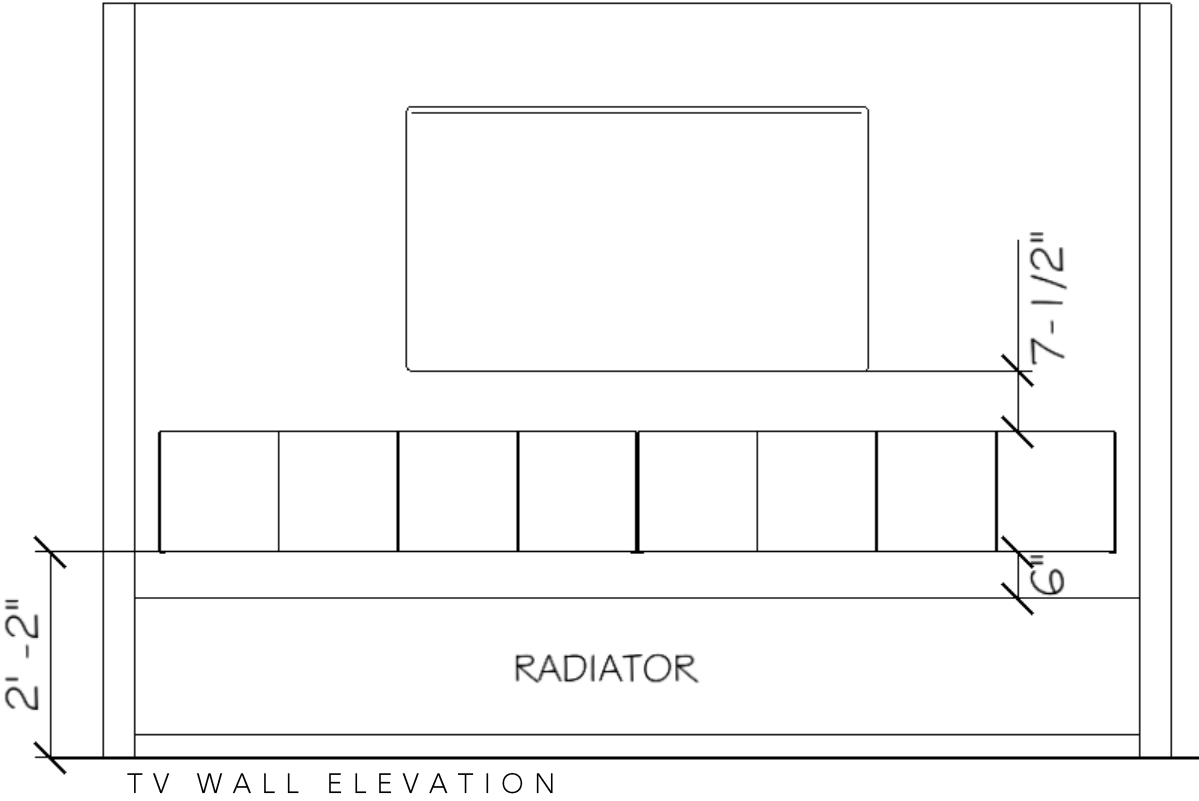
HON, CONCINITY
WALL MOUNT CREDENZA
LAMINATE DOORS
15"H x 60"W x 15"D
QTY: 2



LAMINATE



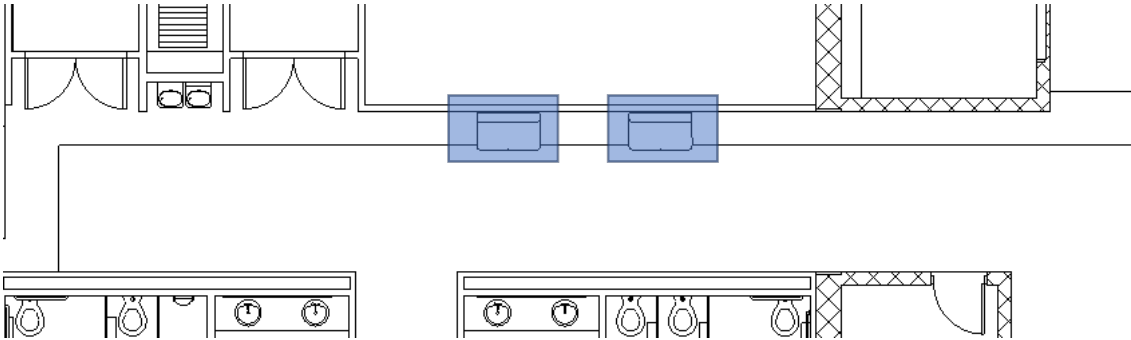
PHANTOM ECRU



VALIDATION

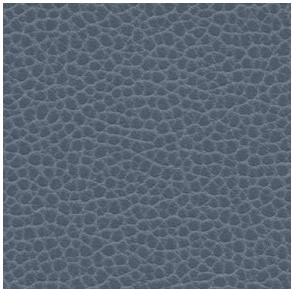
SENIOR CENTER – HALLWAY OUTSIDE COMMONS

SOFA



OFS COACT LITE
MID-BACK LOVESEAT
45"W x 34.75"D
METAL LEGS
QTY: 2

SOFA SEAT



ULTRAFABRICS,
PROMESSA, LAKE
BLUE

SOFA BACK



DESIGNTEX, DAPPLE,
MINERAL

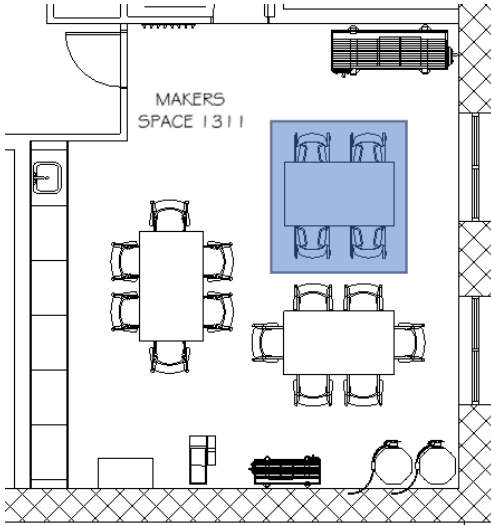
SOFA BASE



BLACK

VALIDATION

SENIOR CENTER – MAKER SPACE 1311
STOOLS

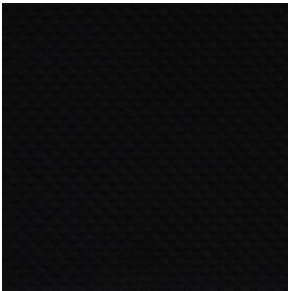


9 TO 5 CAVO STOOL
4-LEG
ARMLESS
GLIDES
QTY: 4



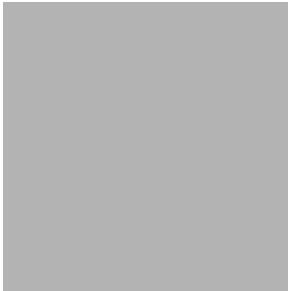
EXISTING CHAIRS & PROPOSED STOOLS

CHAIR PLASTIC



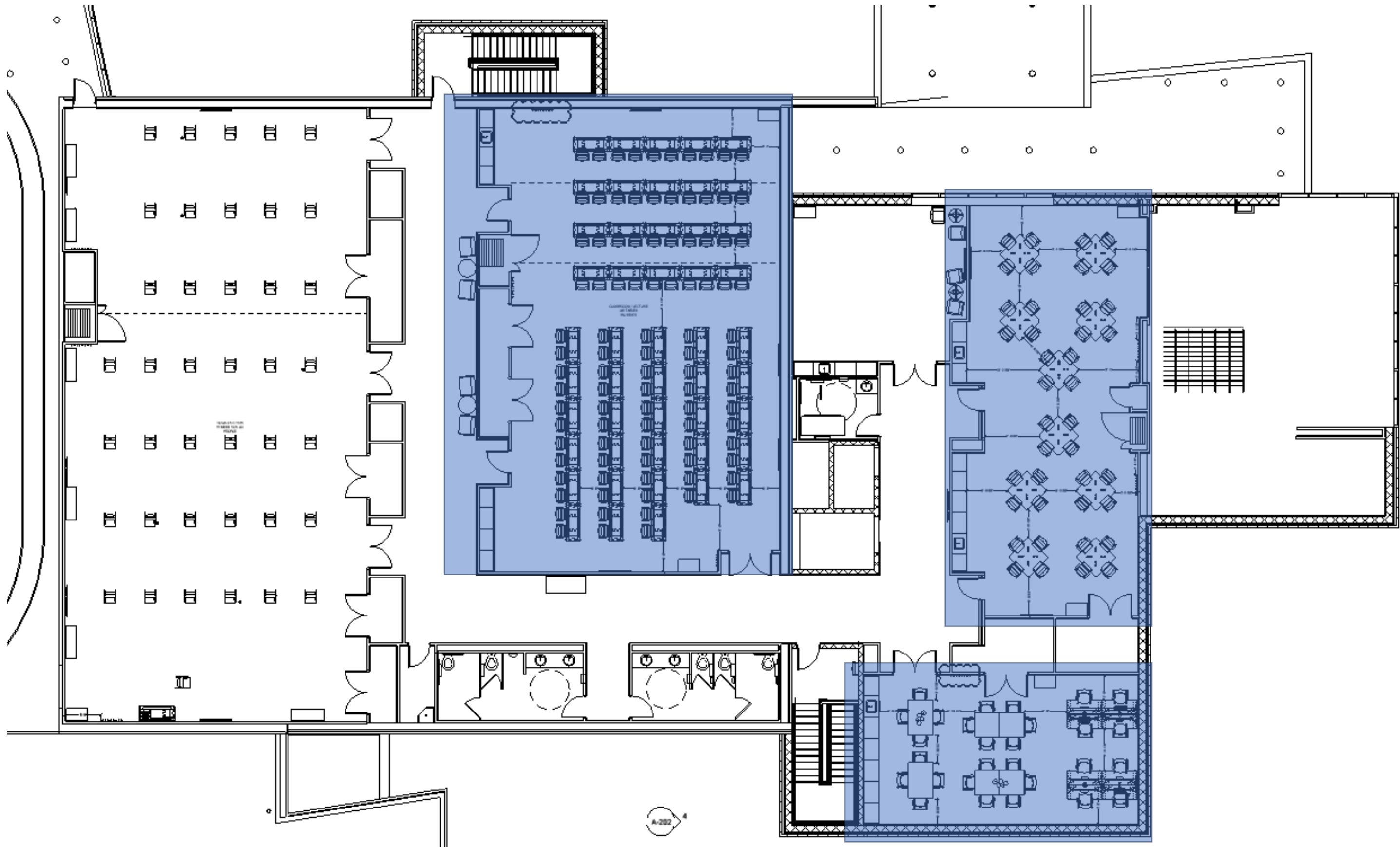
BLACK SWAN

CHAIR FRAME



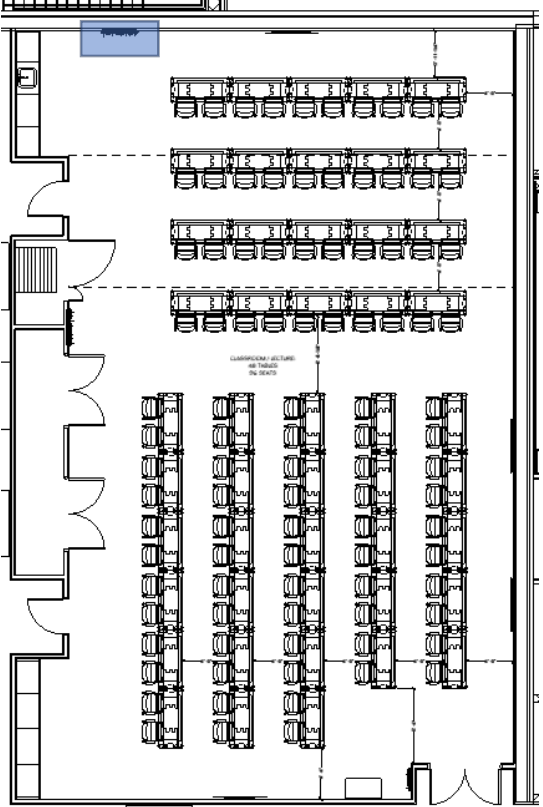
SILVER

SECOND FLOOR – FLOOR PLAN

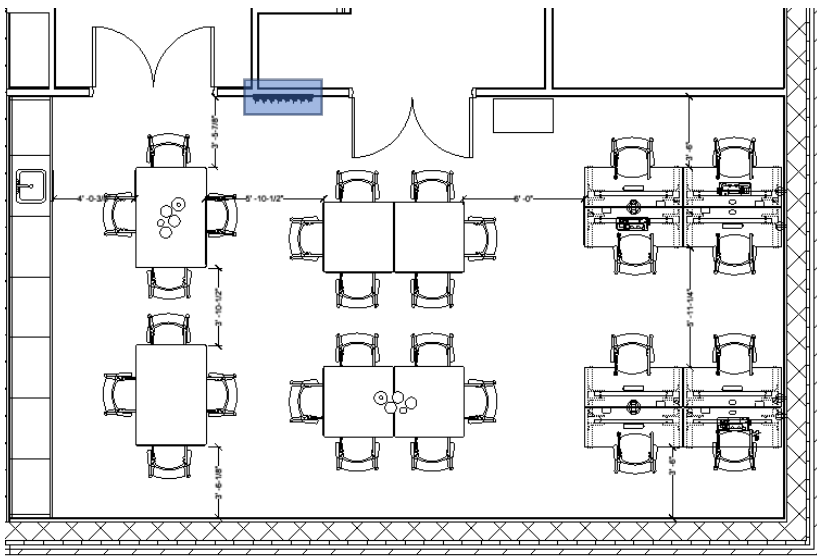


VALIDATION

COAT HOOKS



MULTIPURPOSE ROOM 2307



MAKERS SPACE 2303



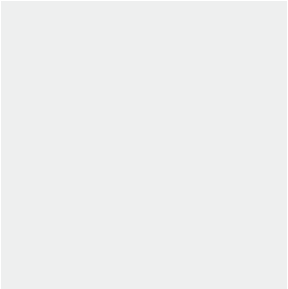
MAGNUSON, KROK HJH HOOK STRIP
8 HOOKS – QTY:1
MOVING FROM MAKERS SPACE TO MULTIPURPOSE 2307



MAGNUSON, KROK HJH HOOK STRIP
8 HOOKS – QTY:1
ORDERING NEW FOR MAKERS SPACE

WHITE COAT HOOKS WERE INSTALLED IN 2ND FLOOR MAKERS SPACE; THESE WERE MEANT TO BE BLACK TO MATCH THE CHAIRS AND TABLE TRIM - WE WILL MOVE THE WHITE STRIP INTO MULTIPURPOSE ROOM 2307 AND ORDER A BLACK 8-HOOK STRIP FOR THE MAKERS SPACE 2303

COAT HOOKS



TEXTURED WHITE

COAT HOOKS

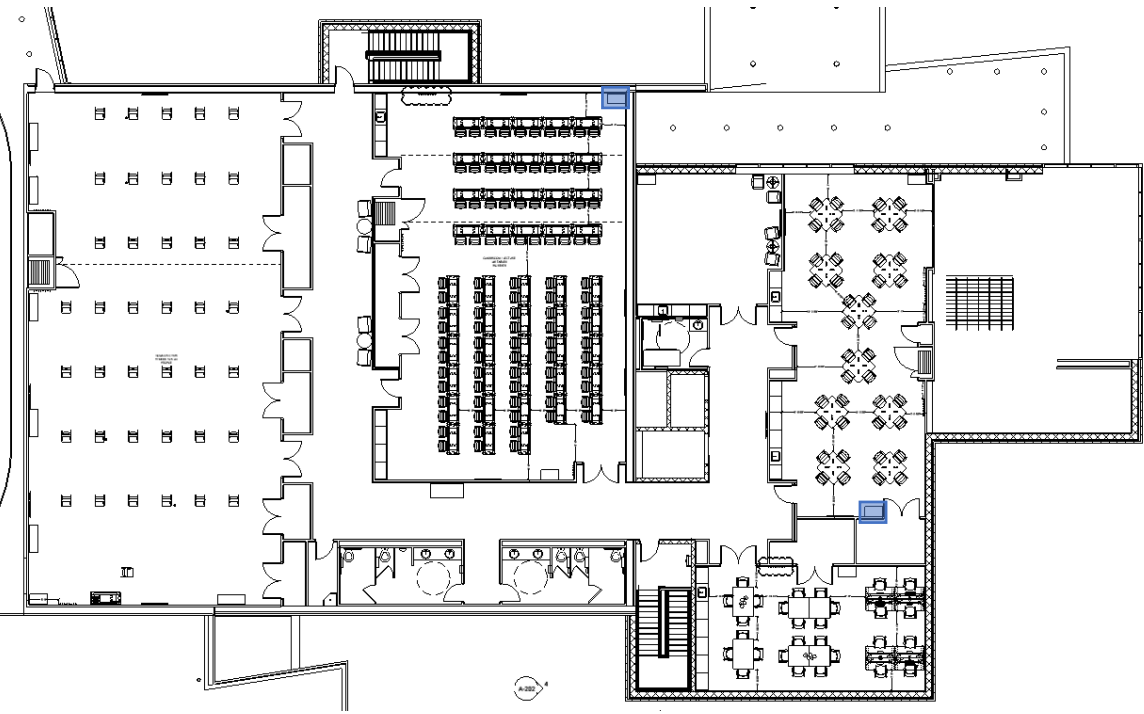


TEXTURED BLACK

VALIDATION

MULTIPURPOSE 2307 & 2301

WASTE CREDENZA - 2 BIN



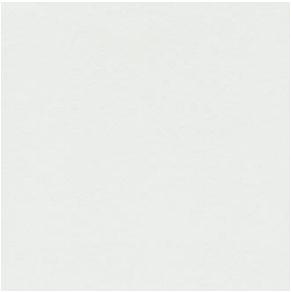
ALLSTEEL, AWARE
WASTE CREDENZA
40"H x 36" W x 20"D
1 BOTTLE OPENING, 1 TRASH OPENING
LOCATION: MULTIPURPOSE ROOM 2307 & CARD ROOM 2301
QTY:2

LAMINATE/EDGE

METAL



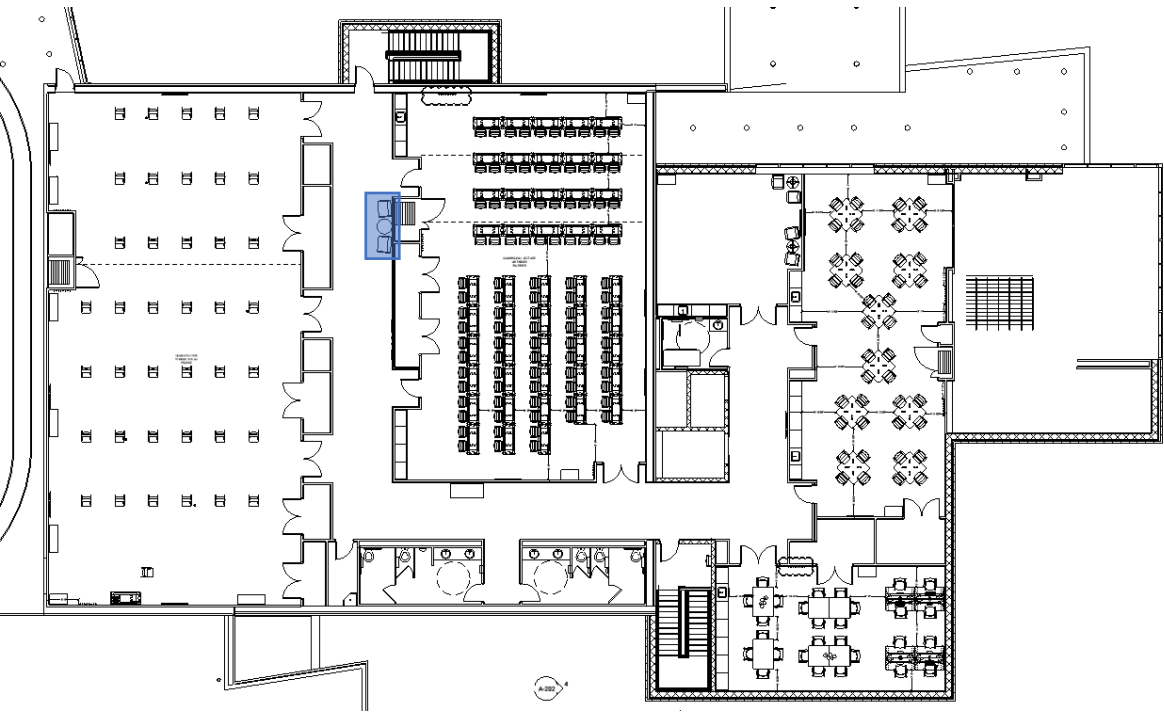
PINNACLE



DESIGNER WHITE

VALIDATION

HALLWAY
CHAIRS TO REPLACE BENCHES



OFS VOYAGE
BARIATRIC CHAIR
QTY: 2

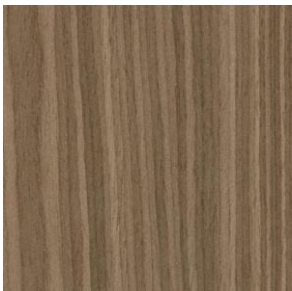
OFS KOSA COFFEE TABLE
30" ROUND x 15"H
QTY: 1

CHAIR FABRIC

CHAIR TRIM

TABLE LAMINATE

OFS TABLE BASE



CF STINSON,
BOND, OAT

DESERT

DESERT

WARM GREY

VALIDATION

BENCH LEGS



SWAP OUT STANDARD LEGS FOR 2"
TALLER LEGS
QTY: 4 BENCHES

FABRIC

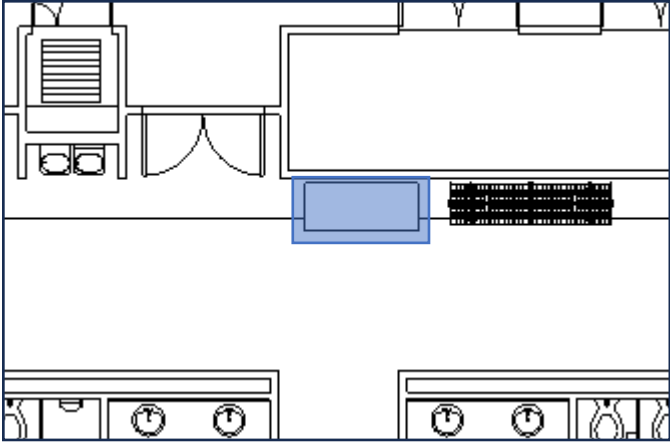


MAHARAM, VEER,
WAVELENGTH

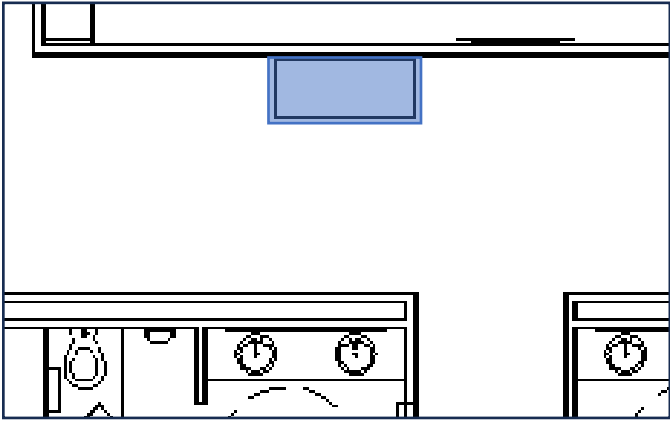
TRIM



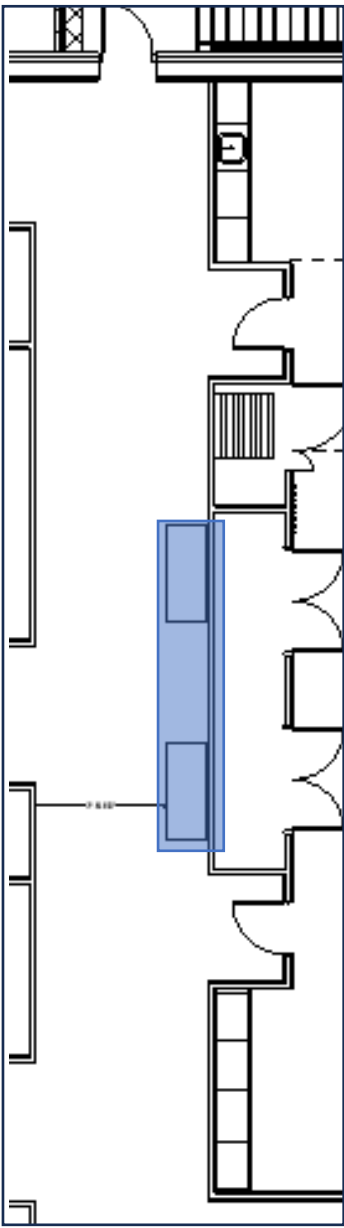
DESERT



OUTSIDE RESTROOM - 1ST FLR



OUTSIDE RESTROOM - 2ND FLR



HALLWAY
OUTSIDE FITNESS
ROOM - 2ND
FLOOR

VALIDATION

MULTIPURPOSE 2307 & 2301
CHAIRS



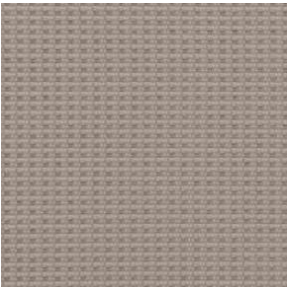
OFS ACEN CHAIR
MESH BACK
NESTING
FIXED ARMS
GLIDES
QTY: 24

CHAIR SEAT



CF STINSON,
LATERAL, MIST

CHAIR MESH



PLATINUM

CHAIR TRIM



BLACK

VALIDATION

CARD TABLE



NATIONAL PUBLIC SEATING
ACT SERIES TABLE
36" SQUARE
AIR-LIFT NESTING
CASTERS
LOCATION: TBD
QTY: 20

LAMINATE



PINNACLE

TABLE EDGE &
BASE



BLACK

Create space.



Create space.

**interior
environments**

equalis
GROUP

Interior Environments & Equalis Group

Publicly Procured Contract Vehicle

Interior Environments Contract Highlights

- Furniture and architectural products dealer specializing in K12 education solutions tailored to the unique needs of each school district.
- Showroom locations in Novi, MI; Denver, CO; Boise, ID; and Atlanta, GA, with trusted installation partners in all 50 states.
- For districts who value imaginative, learner-centered environments, Interior Environments designs innovative spaces while delivering an exceptional experience.
- Each manufacturer proposed in the contract has established a tiered pricing discount structure. End users will financially benefit from greater discounting with larger projects.

Who is Interior Environments?

Interior Environments combines quality work with a memorable experience built on a foundation of trust. Their talented team creates designs that reflect your organization's culture and needs with solutions that aren't always obvious. With over 25 years in business and four locations across the country, Interior Environments is an established and trusted design consultant and furniture dealer with experience in corporate workplaces, K12 education, hospitality, automotive dealerships, higher education, government, and healthcare. Their depth and breadth of experiences allows them to bring fresh ideas and innovative solutions to each project. Ultimately, IE create spaces of enduring value that are as unique as their clients. Because when they do their best work, you can do yours.

Save Time... we've done the procurement work so you don't have to.

Save Money... your dollar goes further with the collective buying power of Equalis Group.

Stay Legal... our competitive procurement process delivers statutory compliance in every state.

Contract #: COG-2152H

Lead Agency: CCOG

Get Started



Learn more about how we can help you achieve your procurement goals while Saving Time, Saving Money & Staying Legal. Email Engage@EqualisGroup.org or visit EqualisGroup.org/Map to connect with your dedicated Member Engagement Resource today.

Created by Public Sector Organizations *for Public Sector Organizations*



Who is Equalis Group?

Equalis Group is a Member-Driven, Supplier-Centric organization that embodies the power of partnership. Equalis Group operates with the guiding principle that when the objectives of buyers and sellers are aligned, sustainable value is created, transcending that of the typical short-term transactional relationship. With this differentiated approach, Equalis Group is not just a cooperative purchasing organization; we are a family.

We leverage Equalis Group members' combined buying power to command better pricing and favorable contract

terms from suppliers. We develop and administer a diverse portfolio of cooperative purchasing programs that cover a wide range of products and services and provide our members with a legal and compliant exemption to the bid/request for proposals (**RFP**) process.

Each program in our rapidly growing portfolio provides our members with contracting compliance and the ability to configure the solution that best meets their individual needs while achieving the lowest Total Cost of Ownership.

Time Saved through Equalis Group = More Resources for You to Invest

How many hours and over how many weeks or months does your team invest in a typical solicitation process? How many solicitations does your organization publish each year? How much time and effort can your organization save by leveraging Equalis Group's already-procured portfolio of programs? In what ways can you re-invest that saved time and energy to fulfill your organization's purpose?

Your Solicitation Process Today



Your Implementation Process with Equalis Group



Become a Member of Equalis Group

If you are not already a member, you can join Equalis Group in just minutes and immediately access our portfolio of cooperative purchasing programs. Simply visit www.equalisgroup.org/member-registration to get started. There are no dues, fees, or obligations.



OMNIA Partners Dealer contract overview

OMNIA Partners

OMNIA Partners is the nation's largest and most experienced cooperative purchasing organization dedicated to public sector procurement.

OMNIA Partners membership is free and open to public and nonprofit organizations across the United States, including municipal, state/provincial, K-12 and higher education institutions, tribal governments, electric cooperatives, and other public entities.

“We at OFS, Carolina and ROOM are proud to offer this government agency contract to our public agencies. OMNIA Partners has a stellar reputation in the cooperative landscape and has been a valued partner to us and to our clients for many years.”

Anna McClelland

Contract information

Contract #: R240113

Term: December 17, 2024 through December 31, 2027. Two additional one-year extensions available.

Scope: All OFS, Carolina and ROOM products are available from the latest and current catalogs and price lists

Email: Omnia@ofs.com

Vendor contact:

Anna McClelland
704.771.9003

amcclelland@ofs.com

or your OFS representative



To learn more about this contract,
please visit: www.omniapartners.com
or ofs.com/resources/contracts/omnia-partners



OMNIA Partners | Dealer Summary

OMNIA Partners contract #: R240113

Award date: 12/17/2024

Effective date: 12/17/2024

Expiration date: 12/31/2027 (Two additional one-year extensions available)

Dealer % - 62.4%

Margin % - 18.3%

Sell - % - 54%

No Freight or Fuel Surcharge

CDA for PO: CDA-1026504

Price list name & date	Client discount % off of the current list price. Dock delivery	Volume discount \$250,000+ per order
OFS and Carolina price lists -Current at time of order. OFS and Carolina may be combined to reach the next tier. Excluding Open Plan and ROOM	54.0%	56%
Open Plan (from Open Plan price lists. Example: Staks, Range, Agile, etc)	59%	61%
ROOM	54%	54%
Dealer Services: Design, Project Management, Installation, Reconfiguration, Service/Repair	\$75-\$100 per hour	
Dealer Services: Asset management, Refurbishment, Storage, Trade-ins, etc	Negotiable	
Financing	Call for current rates	
Parts	Net pricing	
Terms Net 30 days FOB Destination. P-card payments are subject to a processing fee that may vary by state		
Taxes Each Participating Entity is responsible for supplying the Supplier with valid tax exemption certification(s). When ordering, a Participating Entity must indicate if it is a tax exempt entity.		

Dock Delivery: All deliveries shall be delivered to the customer or dealer loading dock or site. End-User / buyer is responsible for unloading, unboxing, and assembly. Inside delivery or installation costs are to be quoted per project by an authorized dealer.

Reward: Dealer discounts at or below 62.4% for OFS and Carolina and 66.4% and below for open plan are eligible for half reward



OMNIA Partners | Dealer Summary

Order Instructions: Address orders either to OFS or to Authorized Dealer

- Customer purchase order, whether addressed to OFS or to an authorized dealer shall include the OFS OMNIA Partners contract number #R240113
- When ordering through OFS, list services such as installation separate from the product total. When ordering through dealers, services, and products may be separated or combined
- **The dealer shall forward a copy of the end-user purchase order or signed proposal to OFS - orders will be held without it**
- **The dealer shall include CDA# with order (call Representative for CDA)**
- **If orders are addressed to OFS - email Omnia@ofs.com for unique CDA# - do not send a dealer p.o.**

When addressed to Dealer:

Dealer Name
Dealer Address
Tag: OFS OMNIA Partners Contract #R240113

When addressed to OFS:

OFS
% Participating Dealer (if working with a dealer)
1204 East Sixth Street
Huntingburg IN 47542
Attention: order_entry@ofs.com
Tag: OFS OMNIA Partners Contract #R240113

Proposal Instructions: When providing pricing quotes to Members, all pricing quoted must reflect a Member's total cost of acquisition. This means that the quoted cost is for delivered equipment, products, and services that are operational for their intended purpose and includes all costs to the Member's requested delivery location.

Dealers: OFS/OMNIA Partners dealers may be found by contracting your local OFS/Carolina/ROOM representative or emailing Omnia@ofs.com or online at: <https://ofs.com/resources/contracts/omnia-partners>

OFS Contract contacts:

Andrea Whitworth
AWhitworth@ofs.com
336-870-4050

Anna McClelland
AMcClelland@ofs.com
704-771-9003



LETTER TO THE LIVONIA CITY COUNCIL

4.

Engineering
December 30, 2025

MEETING DATE

S011426/R012626

PRESENTED BY

Todd Zilincik, P.E., City Engineer

AGENDA ITEM

REQUEST TO WAIVE THE FORMAL BIDDING PROCESS AND APPROVE THE 2026 ASPHALT ROAD PROGRAM BY EXTENDING CONTRACT 25-A UNIT PRICES WITH NAGLE PAVING COMPANY: Engineering Division, re: for Contract 26-A in the amount of \$3,806,939.15 from budgeted funds. (CR 63-25)

BACKGROUND DETAILS

Based upon the recommendation for scheduled maintenance in the Pavement Management Study, the Department of Public Works established an Asphalt Road Program for 2026. Our consultant, OHM Advisors (OHM) has finalized plans for the 2026 Road Repair Program.

Previously in 2023, OHM provided plans and specifications for Contract 23-A. Bids for that project were opened on February 14, 2023, with one (1) bid being submitted. Nagle Paving Company was the lowest responsive qualified bidder and was awarded the 2023 contract (CR 94-23). Subsequently, Nagle Paving Company extended their bid unit prices and were awarded the 2024 (C.R.126-24) and 2025 (C.R. 63-25) paving programs as well.

Nagle Paving Company has once again agreed to extend the unit prices for the 2026 Asphalt Road Repair Program, which would result in a contract amount of \$3,806,939.15 and agreed upon 150 inspector days based on OHM's recommendation, said amount to be adjusted based upon the quantities of work completed. (Please see the attached proposal provided by Nagle Paving on December 30, 2025, in amount of \$3,806,939.15 and email dated December 3, 2025, from Rob Nagle)

A total of \$10.3 million dollars is budgeted for the 2026 road repair programs, including both concrete and asphalt. Based on the recommendation from the Citizen's Road Advisory Committee meeting held on October 9, 2025, a total of 22 asphalt road segments, inclusive of rehabilitation and maintenance, are anticipated to be repaired under the 2026 Asphalt Repair Program. OHM Advisors has provided quantities based on an anticipated \$4.1 million budget for the 2026 Asphalt Repair Program (Contract 26-A).

Nagle Paving Company has been our contractor for the 2012 and 2014 through 2025 Asphalt Pavement Programs, and we have been satisfied with the work they have performed under those programs. We are recommending extending the Contract 25-A unit prices and awarding the 2026 Asphalt Road Repair Program (Contract 26-A) to Nagle Paving Company.

In order to proceed with this project, we recommend that the Council take the following actions:

- Waive the formal bidding process under Section 3.04.140.E.3 of the Livonia Code of Ordinances, as amended, since no advantage to the City would result from competitive bidding.
- Extend the Contract 25-A unit prices for the 2026 Asphalt Road Repair Program (Contract 26-A) and award a contract in the amount of \$3,806,939.15 to Nagle Paving Company, 36780 Amrhein, Livonia, Michigan 48150. The award should be based on the bid unit prices from Contract 25-A, and the mutually agreed upon inspector days consisting of 150 days.
- Authorize an expenditure in the amount of \$3,806,939.15 for the 2026 Asphalt Road Repair Program from the following accounts:

Account Number 204-463-818-112 (Rehabilitation) \$3,806,939.15

- Authorize the City Engineer to approve minor adjustments in the work, as required.

PREFERRED COUNCIL RECOMMENDATION/RESOLUTION (Please complete this field. Attachments are not to be used in lieu of the recommendation)

In order to proceed with this project, we recommend that the Council take the following actions:

- Waive the formal bidding process under Section 3.04.140.E.3 of the Livonia Code of Ordinances, as amended, since no advantage to the City would result from competitive bidding.
- Extend the Contract 25-A unit prices for the 2026 Asphalt Road Repair Program (Contract 26-A) and award a contract in the amount of \$3,806,939.15 to Nagle Paving Company, 36780 Amrhein, Livonia, Michigan 48150. The award should be based on the bid unit prices

from Contract 25-A, and the mutually agreed upon inspector days consisting of 150 days.

- Authorize an expenditure in the amount of \$3,806,939.15 for the 2026 Asphalt Road Repair Program from the following accounts:

Account Number 204-463-818-112 (Rehabilitation) \$3,806,939.15

- Authorize the City Engineer to approve minor adjustments in the work, as required.

SPECIFIC NAME OF PRODUCT AND NUMBER TO BE PURCHASED (if more than one)

n/a

CONTRACT: Amount and/or purchase price and length of contract (with dates if applicable)

\$3,806,939.15

DETAILED WORK BEING PERFORMED

2026 Asphalt Road Repair Program

FISCAL CONSIDERATIONS (Amount requested and Account(s) used. If applicable, Grant Funding information)

\$3,806,939.15 from Account No. 204-463-818-112 (Rehabilitation)

ACCEPTANCE OF BID (Please detail the following: Why accepted, why not lowest bidder, company name, contact person, full address)

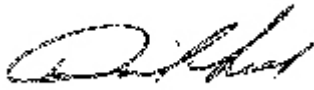
n/a

REASON TO WAIVE BID PROCESS (Emergency, Professional services, No advantage to City and why, Consortium package, etc): Waive the formal bidding process under Section 3.04.140.E.3 of the Livonia Code of Ordinances, as amended, since no advantage to the City would result from competitive bidding.

ATTACHMENTS

1. 2026 Asphalt Paving 26-A - Nagle Signed Proposal 12-30-25
2. 26-A Extension E-mail from Nagle
3. 26-A Contract Book
4. CR #63-25
5. Advisory Committee Resolution - Approval of 2026 Road Program, 10.9.25

APPROVED BY



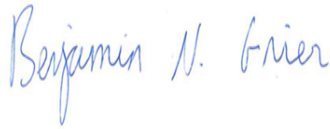
David Lear, Assistant City Engineer

Date: December 30, 2025



Don Rohraff, Director of Public Works

Date: December 30, 2025



Benjamin N. Grier, JD, CPA, Finance Director

Date: December 30, 2025



Carter Fisher, City Attorney

Date: January 05, 2026



Maureen Miller Brosnan, Mayor

Date: January 05, 2026

2026 ASPHALT PAVING PROGRAM

CITY OF LIVONIA, MICHIGAN CONTRACT 26-A

PROPOSAL

City of Livonia
33000 Civic Center Drive
Livonia, Michigan 48154

The undersigned, by submission of this proposal, represents that he/she is familiar with and has determined for himself/herself the nature and extent of the proposed work and the conditions under which it must be performed and completed, and agrees that he/she will contract with the City of Livonia to furnish at and for the following monies, all materials, labor, equipment, insurance, supervision, and all other things necessary or incidental to complete the entire work in accordance with the appended plans, specifications, general conditions and related contract documents. By submission of this bid, the undersigned represents that he/she is familiar with and understands all of the above referenced contract documents.

The undersigned agrees that if the proposal made herein is accepted, he/she will satisfactorily perform and complete all of the work and meet all of the requirements and obligations imposed upon him/her by the contract including the plans, specifications, and general conditions between **May 4, 2026** and **October 9, 2026**.

Also, the undersigned agrees that if the above proposal is accepted, he/she will execute the contract and furnish acceptable bonds, all on forms attached, within ten (10) calendar days from such acceptance.

To guarantee his/her fulfillment of the foregoing covenants, the bidder submits hereto his/her bid bond in the sum of 5% of the Proposal and agrees that same shall be forfeited to the City of Livonia, in the event of his/her failure to execute the contract or furnish acceptable bonds, not as a penalty but as actual liquidated damages. The bidder further agrees to pay as liquidated damages the sum of \$1,000.00 for each consecutive calendar day after the required completion date as hereinafter called for in this Proposal and provided in Paragraph 39 of the General Conditions. The City shall not be required to prove or show such liquidated damages.

TIME OF COMPLETION

The road improvements shall be opened to traffic no later than **September 18, 2026**.

All improvements to streets impacting schools shall be completed between **June 8, 2026** and **August 21, 2026**. These streets are outlined in the Progress Clause.

Final completion shall be no later than **October 9, 2026**.

It is hereby understood and mutually agreed, by and between the Contractor and Owner, that the time of completion as specified is an essential condition of this contract.

The Contractor agrees that said work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and Owner, that the time for completion of the work described herein are reasonable times for the completion of same, taking into consideration the average climate range and usual industrial conditions prevailing in this locality.

If the said Contractor fails to perform the work within the times herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration for the awarding of this contract, to pay to the Owner the sums as specified below, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default each of the times stipulated in the contract for completing the work.

The amount of liquidated damages for this project shall be as follows:

~~1A: \$1,000.00 per day for each calendar day that final completion and acceptance (excluding punch list items) of the street is not completed and accepted by the Owner 45 calendar days after an HMA~~ **Reconstruct** ~~street has started. NIC~~

~~1B: \$750.00 per day for each calendar day that final completion and acceptance (excluding punch list items) of the street is not completed and accepted by the Owner 30 calendar days after a HMA~~ **Rehabilitation** ~~street has started. NIC~~

~~1C: \$750.00 per day for each calendar day that final completion and acceptance (excluding punch list items) of the street is not completed and accepted by the Owner 21 calendar days after a HMA~~ **Maintenance** ~~street has started. NIC~~

~~2: \$500.00 per day per street for each calendar day that the surface restoration is not complete after fourteen (14) days of placing pavement material. NIC~~

3: \$250.00 per day per street for each calendar day the maintenance of traffic items and channelizing devices are not removed from the construction area after seven (7) days of placing surface restoration material.

~~\$1,000.00 per day per street for each calendar day that final completion of the entire project including surface restoration is not completed and accepted by the Owner after **October 24, 2025**. Note: will not be applied if 1A, 1B, 1C, 2, or 3 damages are incurred. NIC~~

~~\$1,500.00 per day per street for each calendar day that final completion of the roadways affecting schools including restoration is not completed and accepted by the Owner after August 22, 2025.~~ NIC

In the event that multiple cases of liquidated damages are to be assessed, the amounts shall be combined and assessed. This also includes multiple cases of liquidated damages on the same street. There is no maximum on the amount of liquidated damages that can be assessed.

If the said Contractor performs the work prior to the time herein specified, or any proper extension thereof granted by the Owner, the Owner does hereby agree, as part of consideration for the awarding of this contract, to pay the Contractor any remaining inspector days, as an incentive for having the work completed and accepted by the Owner prior to the completion date set forth in this contract.

It is agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the contract and additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this contract.

It is further agreed that should there be an increase or reduction of the amount of work specified within the contract that would increase or reduce the number of calendar days required to complete the project, a revision shall be made to reflect this change in the scope of work, and shall be agreed upon between the Owner's Representative and the Contractor.

Calendar Day is defined as every day shown on the calendar beginning and ending at midnight. Unless otherwise designated, the word "day" shall mean calendar day.

WAIVER

The Bidder does hereby represent and warrant that the price bid in this proposal is a complete and correct statement of the price bid for the work included in said proposal is complete, correct and submitted as intended by him and does hereby waive any right or claim he may now or hereafter have by reason of errors, mistakes or omissions made by him in said proposal.

BID NON-COLLUSIVE

The Bidder does hereby represent and warrant that this proposal is genuine and not collusive or sham, and that he has not in any manner, directly or indirectly agreed or colluded with any other person, firm or association to submit a sham bid or to refrain from bidding or in any way fix this proposal or that of the other bidder, or to secure any advantage against the Owner.

The Bidder does hereby represent and warrant that no officer or employee of the Owner is directly or indirectly interested in this proposal or in any contract which may be made under it, or any expected profits to arise there from.

NOTE: Bidder hereby acknowledges that the unit prices quoted represent all labor, and materials necessary to perform and complete the work in accordance with the current standards of the City of Livonia Engineering Department, MDOT 2020 Standard Specifications for Construction and the requirements of applicable regulatory agencies and accordance with the intent, extent and scope of work so described in the Contract Documents. All related items of work necessary to complete the project which are not detailed above, shall be incidental to the construction of the project.

NOTICE TO BIDDERS: Bidders must submit unit prices for all items in the Proposal to be considered a successful responsible bidder.

ATTACHMENTS: The following documents are attached to and made a condition of this bid:

- a. Bid Security in the form of Bid Bond in the sum of five (5%) percent of amount bid.
- b. A listing of Subcontractors and other persons and organizations required to be identified in the Bid.
- c. Statement of Qualifications.

BULLETINS: Bidder acknowledges receipt of the following bulletins:

No. _____	Date: _____
No. _____	Date: _____
No. _____	Date: _____

The Bidder hereby declares that he has inspected the site of the work and further declares that no charges in addition to the unit prices shall be made on account of it.

The undersigned agrees, if awarded the contract, to deliver the executed contract and bonds and furnish evidence of insurance within ten (10) days after date of award. In addition, the undersigned shall begin work within ten (10) days after receipt of written notice to proceed, unless otherwise directed by the Engineer, and complete the proposed work as outlined in the Special Conditions.

If this Proposal is accepted by the City of Livonia, and the undersigned shall fail to contract as aforesaid and to furnish the required surety bonds within fifteen (15) days of being notified of the acceptance of his/her bid, then the undersigned shall be considered due and payable to the Owner.

If the undersigned enters into the contract in accordance with the Proposal or if his/her Proposal is rejected, then the accompanying bid guarantee shall be voided.

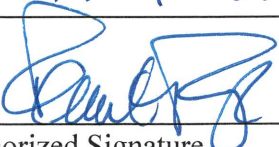
In submitting this bid, it is understood that the right is reserved by the Owner to reject any or all bids, reject any bids that may include unbalanced items, to waive irregularities and/or formalities and, in general, to make award in any manner deemed by it, in its sole discretion, to be in the best interest of the Owner.

SIGNED AND SEALED THIS 30th DAY OF December, 2025

MAILING ADDRESS:

39505 West 13 mile Rd, Suite 300

Novi, MI, 48377



Authorized Signature

President

Title

Nagle Paving Company

Firm Name

Rob Nagle

Representative

248-553-0600

Phone Number

rnagle@naglepaving.com

E-Mail Address

2026 ASPHALT PAVING PROGRAM, Contract 26-A
January 2026

ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
Part 1A - ROAD ITEMS					
1	Mobilization, Max \$200,000	1	LSUM	\$200,000.00	\$200,000.00
2	Tree, Rem, 19 inch to 36 inch	0	Ea	\$0	\$0
2a	Tree, Rem, 37 or Larger	0	Ea	\$0	\$0
2b	Tree, Rem, 6 inch to 18 inch	0	Ea	\$0	\$0
3	_Tree_Root_Grind	14	Ea	\$100.00	\$1,400.00
4	Culv, Rem, Less than 24 inch	14	Ea	\$500.00	\$7,000.00
5	Curb and Gutter, Rem	5,846	Ft	\$19.00	\$111,074.00
6	Sidewalk, Rem	243	Syd	\$19.00	\$4,617.00
7	_Pavt, Rem, Modified	1,571	Syd	\$23.75	\$37,311.25
7a	Pavt, Rem	0	Syd	\$0	\$0
8	Ditch Cleanout	5	Sta	\$800.00	\$4,000.00
8a	Ditching	5	Sta	\$4,400.00	\$22,000.00
9	_Station Grading 1	0	Sta	\$0	\$0
10	_Station Grading 2	84.46	Sta	\$1,700.00	\$143,582.00
10a	_Overburden Removal	0	Syd	\$0	\$0
11	_Subgrade Undercutting, Type II, Modified	300	Cyd	\$20.00	\$6,000.00
12	_Subgrade Undercutting, Type II, Special	200	Cyd	\$25.00	\$5,000.00
13	_Driveway Swale Excavation	5	Ea	\$300.00	\$1,500.00
14	Erosion Control, Inlet Protection, Fabric Drop	89	Ea	\$100.00	\$8,900.00
15	Erosion Control, Silt Fence	200	Ft	\$2.00	\$400.00
16	_Aggregate Base, 6 inch, Modified	770	Syd	\$13.50	\$10,395.00
17	_Aggregate Base, 8 inch, Modified	0	Syd	\$0	\$0
18	_Aggregate Base, Modified	2,897	Ton	\$39.50	\$114,431.50
19	Culv End Sect, Metal, 12 inch	16	Ea	\$575.00	\$9,200.00
20	Culv, CI A, CSP, 12 inch	329	Ft	\$197.00	\$64,813.00
20a	Sewer, CI IV, 12 inch, Tr Det A	0	Ft	\$0	\$0
20b	Sewer, CI IV, 12 inch, Tr Det B	0	Ft	\$0	\$0
21	Dr Structure Cover, Adj, Case 1	88	Ea	\$750.00	\$66,000.00
21a	Dr Structure Cover, Type B	0	Ea	\$0	\$0
21b	Dr Structure, 48 inch dia	0	Ea	\$0	\$0
22	Dr Structure, Adj, Add Depth	20	Ft	\$200.00	\$4,000.00
23	_Sanitary Structure Cover, Adj, Case 1	17	Ea	\$875.00	\$14,875.00
24	_Underdrain, Subgrade, 6 inch, Modified	500	Ft	\$33.00	\$16,500.00
25	Cold Milling HMA Surface	3	Syd	\$3.95	\$155,780.10
26	HMA Surface, Rem	22,134	Syd	\$4.70	\$104,029.80
26a	Pavt or Butt Joints, Rem	0	Syd	\$0	\$0
27	HMA, 36A	160	Ton	\$205.00	\$32,800.00
28	HMA, 4EML	0	Ton	\$0	\$0
29	HMA, 5EML	0	Ton	\$0	\$0
30	Pavt Joint and Crack Repair, Det. 7, Modified	0	Ft	\$0	\$0
31	Cold Milling Conc Pavt	0	Syd	\$0	\$0
32	_Hand Patching, Modified	870	Ton	\$145.00	\$126,150.00

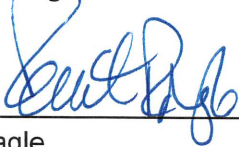
2026 ASPHALT PAVING PROGRAM, Contract 26-A
January 2026

ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
PART 1A - ROAD ITEMS (Continued)					
33	_Hand Patching, Special	50	Ton	\$255.00	\$12,750.00
34	_HMA, 13A (Leveling)		Ton	\$123.00	\$753,498.00
35	_HMA, 13A (Top)	6	Ton	\$134.00	\$823,698.00
36	Lane Tie, Epoxy Anchored	0	Ea	\$0	\$0
36a	Joint Contraction, Cp	0	Ea	\$0	\$0
	_Pavt Repr, with or without curb, Nonreinf Conc,				
37	7-8 inches	742	Syd	\$95.00	\$70,490.00
38	Driveway, Nonreinf Conc, 6 inch	229	Syd	\$84.50	\$19,350.50
38a	Driveway, Nonreinf Conc, 8 inch	0	Syd	\$0	\$0
39	Driveway Opening, Conc, Det M	407	Ft	\$50.00	\$20,350.00
40	_Curb and Gutter, 18 inch	1,370	Ft	\$45.00	\$61,650.00
41	_Curb and Gutter, 24 inch	2,041	Ft	\$47.00	\$95,927.00
42	_Curb and Gutter, 30 inch	2,435	Ft	\$50.00	\$121,750.00
43	Detectable Warning Surface	80	Ft	\$77.00	\$6,160.00
43a	Sidewalk, Conc, 4 inch	1,309	Sft	\$10.00	\$13,090.00
44	Curb Ramp Opening, Conc	76	Ft	\$50.00	\$3,800.00
46	Curb Ramp, Conc, 6 inch	583	Sft	\$17.00	\$9,911.00
47	Post, Mailbox	20	Ea	\$160.00	\$3,200.00
48	_Relocate Mailbox	294	Ea	\$150.00	\$44,100.00
48a	_Post, Steel, 3 Pound	0	Ft	\$0	\$0
48b	_Sign, Type III, Erect, Salv	0	Ea	\$0	\$0
49	Pavt Mrkg, Ovly Cold Plastic, 12 inch, Crosswalk	0	Ft	\$0	\$0
50	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar	0	Ft	\$0	\$0
51	Pavt Mrkg, Ovly Cold Plastic, Rt Turn Arrow Sym	0	Ea	\$0	\$0
51a	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym	0	Ea	\$0	\$0
51b	Pavt Mrkg, Ovly Cold Plastic, Railroad Sym	0	Ea	\$0	\$0
51c	Pavt Mrkg, Ovly Cold Plastic, School	0	Ea	\$0	\$0
51d	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	0	Ft	\$0	\$0
51e	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow	0	Ft	\$0	\$0
51f	Pavt Mrkg, Sprayable Thermopl, 6 inch, White	0	Ft	\$0	\$0
52	Pavt Mrkg, Wet Reflective Sprayable Thermopl, 4 inch, White	0	Ft	\$0	\$0
53	Pavt Mrkg, Wet Reflective Sprayable Thermopl, 4 inch, Yellow	0	Ft	\$0	\$0
54	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	0	Ea	\$0	\$0
55	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	0	Ea	\$0	\$0
56	Lighted Arrow, Type C, Furn	0	Ea	\$0	\$0
57	Lighted Arrow, Type C, Oper	0	Ea	\$0	\$0
58	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	0	Ft	\$0	\$0

**2026 ASPHALT PAVING PROGRAM,
Contract 26-A
January 2026**

ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
Part 1A - ROAD ITEMS (Continued)					
59	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, White, Temp	0	Ft	\$0	\$0
60	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, Yellow, Temp	0	Ft	\$0	\$0
61	Plastic Drum, Fluorescent, Furn	0	Ea	\$0	\$0
62	Plastic Drum, Fluorescent, Oper	0	Ea	\$0	\$0
63	Sign, Type B, Temp, Prismatic, Furn	0	Sft	\$0	\$0
64	Sign, Type B, Temp, Prismatic, Oper	0	Sft	\$0	\$0
65	Sign, Type B, Temp, Prismatic, Spec, Furn	0	Sft	\$0	\$0
66	Sign, Type B, Temp, Prismatic, Spec, Oper	0	Sft	\$0	\$0
67	_Traffic Control, Residential Street	13.75	Ea	\$2500.00	\$34,375.00
68	_Surface Restoration, Seeding	7,216	Syd	\$7.00	\$50,512.00
69	Monument Box Adj	0	Ea	\$0	\$0
70	Monument Preservation	0	Ea	\$0	\$0
71	Protect Corners	0	Ea	\$0	\$0
72	_Reimbursed Permit Fees	5,000	Dlr	\$1.00	\$5,000.00
73	_Adjust Sprinkler Head	90	Ea	\$85.00	\$7,650.00
74	_Gate Well Cover	0	Ea	\$0	\$0
75	_Gate Well Cover, Adj, Case 1	17	Ea	\$875.00	\$14,875.00
76	_Sprinkler Head	90	Ea	\$85.00	\$7,650.00
77	_Relocate Landscaping	5,000	Dlr	\$1.00	\$5,000.00
78	_Irrigation Piping	180	Ft	\$5.00	\$900.00
79	_Misc Preparing Pavement	130.26	Sta	\$1,900.00	\$247,494.00
Total Bid Amount (Items 1-79)					
Part 1b - INSPECTOR DAYS					
80	Inspector Days (150 Days Min.)	150	Days	\$680/day	\$102,000
Total (Items 1-80)					\$ 3,806,939.15

Acknowledgement



Rob Nagle
~~Vice~~ President

Date: 12-30-25



This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential, and/or exempt from disclosure under applicable laws. If the reader of the message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and/or reply to this e-mail message. Thank you.

From: Rob Nagle <rnagle@naglepaving.com>
Sent: Tuesday, December 30, 2025 9:26 AM
To: Lear, David <DLear@livonia.gov>
Subject: FW: 26-A Streets contract

Rob Nagle
President



39525 W. 13 Mile, Suite 300
Novi, MI 48377
248-553-0600
248-765-3109 Cell
rnagle@naglepaving.com
www.naglepaving.com

From: Rob Nagle
Sent: Wednesday, December 3, 2025 9:37 AM
To: Zilincik, Todd <tzilincik@livonia.gov>
Cc: Mark Loch <mark.loch@ohm-advisors.com>; Michael McNutt <michael.mcnutt@ohm-advisors.com>; Bruce Coleman <BColeman@naglepaving.com>
Subject: 26-A Streets contract

Good Morning Todd,

As discussed, Nagle Paving is interested in extending the 25-A contract into the 26-A contract. With the construction market raw material pricing softening, we can extend the 25-A prices with no increases for next year's street program. If we can get confirmation on this this winter, we can get our suppliers and subcontractors to buy in to the zero increase.

Please let me know if you have any questions.
Thanks,

Rob Nagle
President



39525 W. 13 Mile, Suite 300

Novi, MI 48377

248-553-0600

248-765-3109 Cell

rnagle@naglepaving.com

www.naglepaving.com

**CONTRACT DOCUMENTS
AND SPECIFICATIONS
FOR
2026 Asphalt Paving Program:
CONTRACT 26-A**

January 2026

Prepared for the
CITY OF LIVONIA
Department of Public Service
Engineering Division
12973 Farmington Road
Livonia, MI 48150

By

OHM ADVISORS
34000 Plymouth Road
Livonia, MI 48150
Phone: (734) 522-6711

2026 ASPHALT PAVING PROGRAM

CONTRACT 26-A

CITY OF LIVONIA, MICHIGAN

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2026 ASPHALT PAVING PROGRAM

CITY OF LIVONIA, MICHIGAN CONTRACT 26-A

PROPOSAL

City of Livonia
33000 Civic Center Drive
Livonia, Michigan 48154

The undersigned, by submission of this proposal, represents that he/she is familiar with and has determined for himself/herself the nature and extent of the proposed work and the conditions under which it must be performed and completed, and agrees that he/she will contract with the City of Livonia to furnish at and for the following monies, all materials, labor, equipment, insurance, supervision, and all other things necessary or incidental to complete the entire work in accordance with the appended plans, specifications, general conditions and related contract documents. By submission of this bid, the undersigned represents that he/she is familiar with and understands all of the above referenced contract documents.

The undersigned agrees that if the proposal made herein is accepted, he/she will satisfactorily perform and complete all of the work and meet all of the requirements and obligations imposed upon him/her by the contract including the plans, specifications, and general conditions between **May 4, 2026** and **October 9, 2026**.

Also, the undersigned agrees that if the above proposal is accepted, he/she will execute the contract and furnish acceptable bonds, all on forms attached, within ten (10) calendar days from such acceptance.

To guarantee his/her fulfillment of the foregoing covenants, the bidder submits hereto his/her bid bond in the sum of 5% of the Proposal and agrees that same shall be forfeited to the City of Livonia, in the event of his/her failure to execute the contract or furnish acceptable bonds, not as a penalty but as actual liquidated damages. The bidder further agrees to pay as liquidated damages the sum of \$1,000.00 for each consecutive calendar day after the required completion date as hereinafter called for in this Proposal and provided in Paragraph 39 of the General Conditions. The City shall not be required to prove or show such liquidated damages.

TIME OF COMPLETION

The road improvements shall be opened to traffic no later than **September 18, 2026**.

All improvements to streets impacting schools shall be completed between **June 8, 2026** and **August 21, 2026**. These streets are outlined in the Progress Clause.

Final completion shall be no later than **October 9, 2026**.

It is hereby understood and mutually agreed, by and between the Contractor and Owner, that the time of completion as specified is an essential condition of this contract.

The Contractor agrees that said work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and Owner, that the time for completion of the work described herein are reasonable times for the completion of same, taking into consideration the average climate range and usual industrial conditions prevailing in this locality.

If the said Contractor fails to perform the work within the times herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration for the awarding of this contract, to pay to the Owner the sums as specified below, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default each of the times stipulated in the contract for completing the work.

The amount of liquidated damages for this project shall be as follows:

~~1A: \$1,000.00 per day for each calendar day that final completion and acceptance (excluding punch list items) of the street is not completed and accepted by the Owner 45 calendar days after an HMA~~ **Reconstruct** ~~street has started. NIC~~

~~1B: \$750.00 per day for each calendar day that final completion and acceptance (excluding punch list items) of the street is not completed and accepted by the Owner 30 calendar days after a HMA~~ **Rehabilitation** ~~street has started. NIC~~

~~1C: \$750.00 per day for each calendar day that final completion and acceptance (excluding punch list items) of the street is not completed and accepted by the Owner 21 calendar days after a HMA~~ **Maintenance** ~~street has started. NIC~~

~~2: \$500.00 per day per street for each calendar day that the surface restoration is not complete after fourteen (14) days of placing pavement material. NIC~~

3: \$250.00 per day per street for each calendar day the maintenance of traffic items and channelizing devices are not removed from the construction area after seven (7) days of placing surface restoration material.

~~\$1,000.00 per day per street for each calendar day that final completion of the entire project including surface restoration is not completed and accepted by the Owner after **October 24, 2025**. Note: will not be applied if 1A, 1B, 1C, 2, or 3 damages are incurred. NIC~~

~~\$1,500.00 per day per street for each calendar day that final completion of the roadways affecting schools including restoration is not completed and accepted by the Owner after August 22, 2025.~~ NIC

In the event that multiple cases of liquidated damages are to be assessed, the amounts shall be combined and assessed. This also includes multiple cases of liquidated damages on the same street. There is no maximum on the amount of liquidated damages that can be assessed.

If the said Contractor performs the work prior to the time herein specified, or any proper extension thereof granted by the Owner, the Owner does hereby agree, as part of consideration for the awarding of this contract, to pay the Contractor any remaining inspector days, as an incentive for having the work completed and accepted by the Owner prior to the completion date set forth in this contract.

It is agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the contract and additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this contract.

It is further agreed that should there be an increase or reduction of the amount of work specified within the contract that would increase or reduce the number of calendar days required to complete the project, a revision shall be made to reflect this change in the scope of work, and shall be agreed upon between the Owner's Representative and the Contractor.

Calendar Day is defined as every day shown on the calendar beginning and ending at midnight. Unless otherwise designated, the word "day" shall mean calendar day.

WAIVER

The Bidder does hereby represent and warrant that the price bid in this proposal is a complete and correct statement of the price bid for the work included in said proposal is complete, correct and submitted as intended by him and does hereby waive any right or claim he may now or hereafter have by reason of errors, mistakes or omissions made by him in said proposal.

BID NON-COLLUSIVE

The Bidder does hereby represent and warrant that this proposal is genuine and not collusive or sham, and that he has not in any manner, directly or indirectly agreed or colluded with any other person, firm or association to submit a sham bid or to refrain from bidding or in any way fix this proposal or that of the other bidder, or to secure any advantage against the Owner.

The Bidder does hereby represent and warrant that no officer or employee of the Owner is directly or indirectly interested in this proposal or in any contract which may be made under it, or any expected profits to arise there from.

NOTE: Bidder hereby acknowledges that the unit prices quoted represent all labor, and materials necessary to perform and complete the work in accordance with the current standards of the City of Livonia Engineering Department, MDOT 2020 Standard Specifications for Construction and the requirements of applicable regulatory agencies and accordance with the intent, extent and scope of work so described in the Contract Documents. All related items of work necessary to complete the project which are not detailed above, shall be incidental to the construction of the project.

NOTICE TO BIDDERS: Bidders must submit unit prices for all items in the Proposal to be considered a successful responsible bidder.

ATTACHMENTS: The following documents are attached to and made a condition of this bid:

- a. Bid Security in the form of Bid Bond in the sum of five (5%) percent of amount bid.
- b. A listing of Subcontractors and other persons and organizations required to be identified in the Bid.
- c. Statement of Qualifications.

BULLETINS: Bidder acknowledges receipt of the following bulletins:

No. _____	Date: _____
No. _____	Date: _____
No. _____	Date: _____

The Bidder hereby declares that he has inspected the site of the work and further declares that no charges in addition to the unit prices shall be made on account of it.

The undersigned agrees, if awarded the contract, to deliver the executed contract and bonds and furnish evidence of insurance within ten (10) days after date of award. In addition, the undersigned shall begin work within ten (10) days after receipt of written notice to proceed, unless otherwise directed by the Engineer, and complete the proposed work as outlined in the Special Conditions.

If this Proposal is accepted by the City of Livonia, and the undersigned shall fail to contract as aforesaid and to furnish the required surety bonds within fifteen (15) days of being notified of the acceptance of his/her bid, then the undersigned shall be considered due and payable to the Owner.

If the undersigned enters into the contract in accordance with the Proposal or if his/her Proposal is rejected, then the accompanying bid guarantee shall be voided.

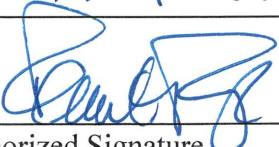
In submitting this bid, it is understood that the right is reserved by the Owner to reject any or all bids, reject any bids that may include unbalanced items, to waive irregularities and/or formalities and, in general, to make award in any manner deemed by it, in its sole discretion, to be in the best interest of the Owner.

SIGNED AND SEALED THIS 30th DAY OF December, 2025

MAILING ADDRESS:

39505 West 13 mile Rd, Suite 300

Novi, MI, 48377



Authorized Signature

President

Title

Nagle Paving Company

Firm Name

Rob Nagle

Representative

248-553-0600

Phone Number

rnagle@naglepaving.com

E-Mail Address

2026 ASPHALT PAVING PROGRAM, Contract 26-A
January 2026

ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
Part 1A - ROAD ITEMS					
1	Mobilization, Max \$200,000	1	LSUM	\$200,000.00	\$200,000.00
2	Tree, Rem, 19 inch to 36 inch	0	Ea	\$0	\$0
2a	Tree, Rem, 37 or Larger	0	Ea	\$0	\$0
2b	Tree, Rem, 6 inch to 18 inch	0	Ea	\$0	\$0
3	_Tree_Root_Grind	14	Ea	\$100.00	\$1,400.00
4	Culv, Rem, Less than 24 inch	14	Ea	\$500.00	\$7,000.00
5	Curb and Gutter, Rem	5,846	Ft	\$19.00	\$111,074.00
6	Sidewalk, Rem	243	Syd	\$19.00	\$4,617.00
7	_Pavt, Rem, Modified	1,571	Syd	\$23.75	\$37,311.25
7a	Pavt, Rem	0	Syd	\$0	\$0
8	Ditch Cleanout	5	Sta	\$800.00	\$4,000.00
8a	Ditching	5	Sta	\$4,400.00	\$22,000.00
9	_Station Grading 1	0	Sta	\$0	\$0
10	_Station Grading 2	84.46	Sta	\$1,700.00	\$143,582.00
10a	_Overburden Removal	0	Syd	\$0	\$0
11	_Subgrade Undercutting, Type II, Modified	300	Cyd	\$20.00	\$6,000.00
12	_Subgrade Undercutting, Type II, Special	200	Cyd	\$25.00	\$5,000.00
13	_Driveway Swale Excavation	5	Ea	\$300.00	\$1,500.00
14	Erosion Control, Inlet Protection, Fabric Drop	89	Ea	\$100.00	\$8,900.00
15	Erosion Control, Silt Fence	200	Ft	\$2.00	\$400.00
16	_Aggregate Base, 6 inch, Modified	770	Syd	\$13.50	\$10,395.00
17	_Aggregate Base, 8 inch, Modified	0	Syd	\$0	\$0
18	_Aggregate Base, Modified	2,897	Ton	\$39.50	\$114,431.50
19	Culv End Sect, Metal, 12 inch	16	Ea	\$575.00	\$9,200.00
20	Culv, CI A, CSP, 12 inch	329	Ft	\$197.00	\$64,813.00
20a	Sewer, CI IV, 12 inch, Tr Det A	0	Ft	\$0	\$0
20b	Sewer, CI IV, 12 inch, Tr Det B	0	Ft	\$0	\$0
21	Dr Structure Cover, Adj, Case 1	88	Ea	\$750.00	\$66,000.00
21a	Dr Structure Cover, Type B	0	Ea	\$0	\$0
21b	Dr Structure, 48 inch dia	0	Ea	\$0	\$0
22	Dr Structure, Adj, Add Depth	20	Ft	\$200.00	\$4,000.00
23	_Sanitary Structure Cover, Adj, Case 1	17	Ea	\$875.00	\$14,875.00
24	_Underdrain, Subgrade, 6 inch, Modified	500	Ft	\$33.00	\$16,500.00
25	Cold Milling HMA Surface	3	Syd	\$3.95	\$155,780.10
26	HMA Surface, Rem	22,134	Syd	\$4.70	\$104,029.80
26a	Pavt or Butt Joints, Rem	0	Syd	\$0	\$0
27	HMA, 36A	160	Ton	\$205.00	\$32,800.00
28	HMA, 4EML	0	Ton	\$0	\$0
29	HMA, 5EML	0	Ton	\$0	\$0
30	Pavt Joint and Crack Repair, Det. 7, Modified	0	Ft	\$0	\$0
31	Cold Milling Conc Pavt	0	Syd	\$0	\$0
32	_Hand Patching, Modified	870	Ton	\$145.00	\$126,150.00

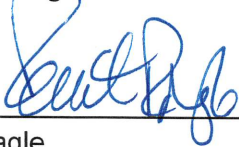
2026 ASPHALT PAVING PROGRAM, Contract 26-A
January 2026

ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
PART 1A - ROAD ITEMS (Continued)					
33	_Hand Patching, Special	50	Ton	\$255.00	\$12,750.00
34	_HMA, 13A (Leveling)		Ton	\$123.00	\$753,498.00
35	_HMA, 13A (Top)	6	Ton	\$134.00	\$823,698.00
36	Lane Tie, Epoxy Anchored	0	Ea	\$0	\$0
36a	Joint Contraction, Cp	0	Ea	\$0	\$0
	_Pavt Repr, with or without curb, Nonreinf Conc,				
37	7-8 inches	742	Syd	\$95.00	\$70,490.00
38	Driveway, Nonreinf Conc, 6 inch	229	Syd	\$84.50	\$19,350.50
38a	Driveway, Nonreinf Conc, 8 inch	0	Syd	\$0	\$0
39	Driveway Opening, Conc, Det M	407	Ft	\$50.00	\$20,350.00
40	_Curb and Gutter, 18 inch	1,370	Ft	\$45.00	\$61,650.00
41	_Curb and Gutter, 24 inch	2,041	Ft	\$47.00	\$95,927.00
42	_Curb and Gutter, 30 inch	2,435	Ft	\$50.00	\$121,750.00
43	Detectable Warning Surface	80	Ft	\$77.00	\$6,160.00
43a	Sidewalk, Conc, 4 inch	1,309	Sft	\$10.00	\$13,090.00
44	Curb Ramp Opening, Conc	76	Ft	\$50.00	\$3,800.00
46	Curb Ramp, Conc, 6 inch	583	Sft	\$17.00	\$9,911.00
47	Post, Mailbox	20	Ea	\$160.00	\$3,200.00
48	_Relocate Mailbox	294	Ea	\$150.00	\$44,100.00
48a	_Post, Steel, 3 Pound	0	Ft	\$0	\$0
48b	_Sign, Type III, Erect, Salv	0	Ea	\$0	\$0
49	Pavt Mrkg, Ovly Cold Plastic, 12 inch, Crosswalk	0	Ft	\$0	\$0
50	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar	0	Ft	\$0	\$0
51	Pavt Mrkg, Ovly Cold Plastic, Rt Turn Arrow Sym	0	Ea	\$0	\$0
51a	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym	0	Ea	\$0	\$0
51b	Pavt Mrkg, Ovly Cold Plastic, Railroad Sym	0	Ea	\$0	\$0
51c	Pavt Mrkg, Ovly Cold Plastic, School	0	Ea	\$0	\$0
51d	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	0	Ft	\$0	\$0
51e	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow	0	Ft	\$0	\$0
51f	Pavt Mrkg, Sprayable Thermopl, 6 inch, White	0	Ft	\$0	\$0
52	Pavt Mrkg, Wet Reflective Sprayable Thermopl, 4 inch, White	0	Ft	\$0	\$0
53	Pavt Mrkg, Wet Reflective Sprayable Thermopl, 4 inch, Yellow	0	Ft	\$0	\$0
54	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	0	Ea	\$0	\$0
55	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	0	Ea	\$0	\$0
56	Lighted Arrow, Type C, Furn	0	Ea	\$0	\$0
57	Lighted Arrow, Type C, Oper	0	Ea	\$0	\$0
58	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	0	Ft	\$0	\$0

**2026 ASPHALT PAVING PROGRAM,
Contract 26-A
January 2026**

ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
Part 1A - ROAD ITEMS (Continued)					
59	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, White, Temp	0	Ft	\$0	\$0
60	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, Yellow, Temp	0	Ft	\$0	\$0
61	Plastic Drum, Fluorescent, Furn	0	Ea	\$0	\$0
62	Plastic Drum, Fluorescent, Oper	0	Ea	\$0	\$0
63	Sign, Type B, Temp, Prismatic, Furn	0	Sft	\$0	\$0
64	Sign, Type B, Temp, Prismatic, Oper	0	Sft	\$0	\$0
65	Sign, Type B, Temp, Prismatic, Spec, Furn	0	Sft	\$0	\$0
66	Sign, Type B, Temp, Prismatic, Spec, Oper	0	Sft	\$0	\$0
67	_Traffic Control, Residential Street	13.75	Ea	\$2500.00	\$34,375.00
68	_Surface Restoration, Seeding	7,216	Syd	\$7.00	\$50,512.00
69	Monument Box Adj	0	Ea	\$0	\$0
70	Monument Preservation	0	Ea	\$0	\$0
71	Protect Corners	0	Ea	\$0	\$0
72	_Reimbursed Permit Fees	5,000	Dlr	\$1.00	\$5,000.00
73	_Adjust Sprinkler Head	90	Ea	\$85.00	\$7,650.00
74	_Gate Well Cover	0	Ea	\$0	\$0
75	_Gate Well Cover, Adj, Case 1	17	Ea	\$875.00	\$14,875.00
76	_Sprinkler Head	90	Ea	\$85.00	\$7,650.00
77	_Relocate Landscaping	5,000	Dlr	\$1.00	\$5,000.00
78	_Irrigation Piping	180	Ft	\$5.00	\$900.00
79	_Misc Preparing Pavement	130.26	Sta	\$1,900.00	\$247,494.00
Total Bid Amount (Items 1-79)					
Part 1b - INSPECTOR DAYS					
80	Inspector Days (150 Days Min.)	150	Days	\$680/day	\$102,000
Total (Items 1-80)					\$ 3,806,939.15

Acknowledgement



Rob Nagle
~~Vice~~ President

Date: 12-30-25

CITY OF LIVONIA

NOTICE TO BIDDERS

TRACKING OF TACK COAT DURING HMA PAVING

OHM:mrl

1 of 1

11/11/24

The City of Livonia has experienced problems with excessive tracking of tack coat or bituminous material onto City/County streets from adjacent road paving projects. This experience, along with City Council Resolution 281-07, has resulted in the requirement that the asphalt paving contractor attend a pre-paving meeting where ways to minimize this issue will be discussed. Potential paving sequences and haul routes will also be discussed.

Once paving begins, if it is determined, by the City Engineer and/or Inspector, that excessive tracking is occurring, the Engineer will stop the paving operation until a suitable solution is identified and implemented to rectify this situation. **Special consideration and notice will be taken for existing pavement markings outside of the limits of construction.** A fine of **\$1,000** shall be issued by the City if it is determined the tack coat tracking is excessive the first day of the violation. If the tack coat tracking issue continues due to inadequate or insufficient corrective measures, as determined by the Engineer, the Contractor will be issued a fine of \$2,000/day for each day the Contractor continues paving after the initial fine.

It is understood the tracking of tack coat is a by-product of asphalt paving. The Notice to Bidders has been established to prevent items such as the dropping of material from the rear of flo-boys or no planning of the pavement operations. Penalties will be administered if no effort to control these issues is taken.

CITY OF LIVONIA

NOTICE TO BIDDERS

MINIMUM REASONABLE PRICES

OHM: AMS

1 of 1

12/04/25

The City of Livonia has experienced problems recently with potential unbalancing of bids on several items. All bid items will be reviewed and compared to “reasonable costs” for those items of work. The following items of work shall have a minimum bidding price applied as noted below:

Item of Work	Minimum Bid Price
Subgrade Undercutting, Type II, Modified	\$20.00 / cyd
Subgrade Undercutting, Type II, Special	\$25.00 / cyd
Hand Patching, Modified	\$145.00 / ton
Hand Patching, Special	\$255.00 / ton
Surface Restoration, Seeding	\$7.00 / syd
Aggregate Base, 6”, Modified	\$13.50 / syd
Inspector Day (150 minimum)	\$680.00/day

NOTICE TO BIDDERS
FOR
STRUCTURE COVERS

OHM: AMS

1 OF 1

12/17/25

The Contractor shall salvage any structure covers replaced by the project or as directed by the Engineer. The Contractor shall transport salvaged covers and deliver to the City of Livonia's Department of Public Services on Glendale east of Farmington Road by the police gun range. The costs associated with this work will not be paid for separately and shall be included in other items of work.

The Contractor shall contact Mr. Ed Hoffman at (734) 466-2627 to arrange for delivery of the structure covers to the City of Livonia between the hours of 7:00 am and 3:00 pm.

NOTICE TO BIDDERS
FOR
HAND PATCHING, SPECIAL

OHM: JWB

1 OF 1

1/12/15

This pay item is for additional asphalt pavement areas that may need repair as directed by the Engineer. The areas of repair are within the limits of the City of Livonia, but not within the limits of construction on the typicals shown within the contract documents. The areas will be smaller sized patches from maintenance repairs performed by the City. Specific locations have not been determined, and the pay item may not be used. If the pay item is not used, no additional compensation will be given to the Contractor.

CERTIFICATE OF INSURANCE FOR CITY OF LIVONIA PROJECTS**ACORD FORM IS ACCEPTABLE (EXAMPLE FOR AMOUNTS OF COVERAGE ONLY)**

The subscribing insurance company certifies that insurance of the types and for limits of liability covering the work under contract with City of Livonia has been obtained by the contractor named below and that the City of Livonia (and, if this certificate is for a road project, the County of Wayne and the Michigan Department of Transportation) is an additional insured as to all General Liability/Commercial General Liability coverage.

Such insurance, here certified, is written in accordance with the company's regular policies and endorsements subject to the company's applicable manuals of rules and rates, except (1) the insurance shall not be subject to the usual "x" - explosion, "c" - collapse or "u" - underground property damage exclusions.

The insurer shall agree to provide the City of Livonia, in writing, the following:

1. A 30-day prior notice of any insurer-initiated cancellation or reduction in coverage for reasons other than nonpayment of the premium.
2. A 10-day prior notice of any cancellation or reduction in coverage for nonpayment of the premium.
3. Immediate notice of Contractor's cancellation or reduction of coverage.

The contractor shall cease operations if any insurance is canceled or reduced, and shall not resume operations until new insurance is in force.

NAME OF INSURED

ADDRESS	CITY	STATE	ZIP CODE
TELEPHONE NO.	FAX NO.		

ALL WORK PERFORMED FOR THE CITY OF LIVONIA AS A PRIME OR SUBCONTRACTOR

TYPE OF INSURANCE	POLICY NUMBER & NAME OF INSURANCE COMPANY (If more than one)	POLICY DATES		LIMITS: Each Occurrence: \$1,000,000 Aggregate: \$2,000,000 BODILY INJURY AND PROPERTY DAMAGE LIABILITY	
		EFFECTIVE	EXPIRATION		
☐ General Liability				General Aggregate	\$
☐ Professional Liability				Prods. comp/ops Aggregate	\$
☐ Commercial General Liability ☐ Claims Made ☐ Occurrence				Personal & Advertising Inj.	\$
☐ \$_____ P.D. Deductible				Each Occurrence	\$
☐ XCU Exclusion				Fire Damage (any one fire)	\$
☐ Owners/Contractors Protective				Medical Exp. (any one person)	\$
AUTOMOTIVE LIABILITY					
☐ Any Auto				Combined Single Limit (Minimum \$2,000,000.00)	\$
☐ All Owned Autos				Bodily Injury (per person) (Minimum \$500,000.00)	\$
☐ Scheduled Autos				Bodily Injury (per accident) (Minimum \$1,000,000.00)	\$
☐ Hired Autos					\$
☐ Non-Owned Autos				(Minimum \$1,000,000.00)	\$
☐ Garage Liability					
☐ Umbrella				Each Occurrence	\$
				Aggregate	\$
☐ Excess Liability Other Than Umbrella				Each Occurrence	\$
				Aggregate	\$
WORKERS COMPENSATION AND EMPLOYERS LIABILITY					
				STATUTORY	
				\$ (Each Accident)	
				\$ (Disease- Policy Limit)	
				\$ (Disease- Each Empl.)	
☐ Other					

NAME OF AGENCY	NAME OF INSURANCE COMPANY (If only one for all policies)		
ADDRESS	CITY	STATE	ZIP CODE
TELEPHONE NO.	FAX NO.		

PROOF OF LIABILITY INSURANCE REQUIREMENT
CITY OF LIVONIA PROJECTS

Insurance *Carrier* letterhead
(NOT agent or agency letterhead)

SAMPLE

Date

City of Livonia – Engineering Division
33000 Civic Center Drive
Livonia, MI 48154

Ref: **Name of Company (vendor)**
Carrier: **Name of Insurance Carrier**
Policy No: **number**
Policy Term: **START and END dates**

To Whom It May Concern:

Refer to attached certificate issued **(date)** and the following:

Notwithstanding the disclaimers on the referenced certificate, the coverages, coverage amounts, and expiration dates stated on the certificate are true and correct in all particulars, and the attached endorsement describes the notice the city of Livonia will receive prior to any change or cessation of coverage.

Sincerely,

Name
Title
Company

**PROOF OF LIABILITY INSURANCE REQUIREMENT
CITY OF LIVONIA PROJECTS**

THIS ENDORSEMENT CHANGES THE POLICY, PLEASE READ IT CAREFULLY

EARLIER NOTICE OF CANCELLATION PROVIDED BY US

Ref: **Name of Company (vendor)**
Carrier: **Name of Insurance Carrier**
Policy No: **number**
Policy Term: **START and END dates**

SAMPLE

Number of days' notice: **30**

For any statutorily permitted reason, the number of days required for notice of cancellation is increased to the number of days shown in the schedule above.

If this policy is cancelled by us we will send the named insured and any party listed in the following schedule, notice of cancellation based on the number of days' notice shown above.

SCHEDULE

Name of Person or Organization

The name of Person or Organization is any person or organization holding a certificate of insurance issued for you, provided the certificate:

1. Refers to this policy;
2. States that notice of:
 - a. Cancellation;
 - b. Nonrenewal, or
 - c. Material change reducing or restricting coverage;

Will be provided to that person or organization;

3. Is in effect at the time of the:
 - a. Cancellation
 - b. Nonrenewal; or
 - c. Material change reducing or restricting coverage; and
4. Is on file at your agent or broker's office for this policy.

Mailing Address

The mailing address is the address shown for that person or organization in that certificate of insurance.

SUBCONTRACTOR LISTING

Bidder agrees to use the following Subcontractors for the performance of the work of their respective trades unless otherwise approved in writing by the Owner prior to signing of the Contract. Bidder is aware of the Subcontract Provisions.

<u>ITEM</u>	<u>NAME, ADDRESS & PHONE NO. OF CONTRACTOR</u>	<u>APPROXIMATE DOLLAR VALUE OF SUBCONTRACT</u>
Underground Work	 Phone:	
HMA Paving	 Phone:	
Concrete Curb and Gutter	 Phone:	
Restoration Items	 Phone:	
Other (Specify) 	 Phone:	
Other (Specify) 	 Phone:	
Other (Specify) 	 Phone:	

LEGAL STATUS OF BIDDER

(The Bidder shall fill out the appropriate section and strike out the other two).

A Corporation duly organized and doing business under the laws of the State of

_____, for whom _____

whose signature is affixed to this Proposal, is duly authorized to execute contracts.

A Partnership, all members of which, with addresses, are:

An Individual, whose signature is affixed to this Proposal:

STATEMENT OF QUALIFICATIONS

Bidder must answer all questions. If more space is needed to complete a question, attach a separate sheet. Bidder may submit any additional information.

Name: _____

Address: _____ Phone: _____

Number of years operating under your present name: _____

Bonding Capacity: _____

Bonding Company: _____ Phone: _____

Pre-qualified by MDOT to bid on projects of this magnitude and type of work?

(circle one) YES NO Pre-qualification Number _____

General nature of work performed by your company _____

Background and experience of the principal members of your organization including officers.

Major equipment available for this contract _____

STATEMENT OF QUALIFICATIONS

PRIME CONTRACTOR

CURRENT PROJECTS:

	Project	Project	Project
Name:	_____	_____	_____
Owner:	_____	_____	_____
Contact Person:	_____	_____	_____
Phone:	_____	_____	_____
Contract Amount:	_____	_____	_____
Completion Date:	_____	_____	_____
% Complete:	_____	_____	_____

COMPLETED PROJECTS:

Name:	_____	_____	_____
Owner:	_____	_____	_____
Contact Person:	_____	_____	_____
Phone:	_____	_____	_____
Contract Amount:	_____	_____	_____
Date Completed:	_____	_____	_____

Additional information that may be pertinent to demonstrate your ability to complete this project.

Has your company defaulted on a contract?

If yes, where and why?

I hereby certify that the above answers are correct and true.

By: _____

Name

Signature

Title

number of additional sheets attached _____

STATEMENT OF QUALIFICATIONS

STORM SEWER/CULVERTS

SUBCONTRACTOR

CURRENT PROJECTS:

	Project	Project	Project
Name:	_____	_____	_____
Owner:	_____	_____	_____
Contact Person:	_____	_____	_____
Phone:	_____	_____	_____
Contract Amount:	_____	_____	_____
Completion Date:	_____	_____	_____
% Complete:	_____	_____	_____

COMPLETED PROJECTS:

Name:	_____	_____	_____
Owner:	_____	_____	_____
Contact Person:	_____	_____	_____
Phone:	_____	_____	_____
Contract Amount:	_____	_____	_____
Date Completed:	_____	_____	_____

Additional information that may be pertinent to demonstrate your ability to complete this project.

Has your company defaulted on a contract?

If yes, where and why?

I hereby certify that the above answers are correct and true.

By: _____

Name

Signature

Title

number of additional sheets attached _____

CONTRACT

ARTICLES OF AGREEMENT, made and entered into this _____ day of _____, 2026, by and between:

THE CITY OF LIVONIA

33000 CIVIC CENTER DRIVE, LIVONIA, MI 48154

party of the first part, hereinafter called the "Owner" and

_____ of the

City of _____ Livonia _____, County of _____ Wayne _____,

and State of _____ Michigan _____, party of the second part, hereinafter called the

"Contractor", to wit:

(1) That the Proposal, Advertisement, Instruction to Bidders, Description of Pay and Incidental Items, Bonds, General Conditions, Construction Specifications, Supplemental Specifications, Special Provisions, Plans and Drawings, and Addenda hereto attached or referred to identified as the **2026 Asphalt Paving Program: Contract 26-A**, shall be and are hereby made a part of this Agreement and Contract.

(2) That the party of the second part, under penalty of bond attached, shall furnish all labor, materials and appurtenances necessary, and do all the work as set forth in the Proposal and Addenda No. _____ n/a _____ according to the specifications, plans, and associated materials which have hereinbefore been made a part of this Contract in a manner, time and place, all and singular, as herein set forth.

IN CONSIDERATION WHEREOF, said party of the first part, for it and its successors, promises and agrees to pay to said party of the second part, an amount not to exceed the sum provided in the attached proposal including additions and deductions as provided therein, dated _____, (\$ _____) _____ (amounts in figures and writing) all in the time and manner provided in the Contract Documents.

For the faithful performance of all and singular of the stipulations, terms and conditions of this Agreement, said parties respectfully bind themselves, their successors, their heirs, executors, administrators and assigns.

CONTRACT

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals, in duplicate, the day and year first above written.

WITNESS:

PARTY OF THE FIRST PART:

CITY OF LIVONIA

By _____
Maureen Miller Brosnan, Mayor

and _____
Lori L. Miller, Clerk

WITNESS:

PARTY OF THE SECOND PART:

By _____

and _____

During the course of this Contract, the Contractor's responsible may be reached at the following phone numbers:

Day-time office number: _____

Night-time emergency number: _____

APPROVED:

Director of Public Works
Engineering Division

City Engineer

APPROVED AS TO FORM:

Director of Finance

Department of Law

CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period _____
to _____ A.D., 2026

performed any work, furnished any material, sustained any loss, damage or delay for any reason,
including soil conditions encountered or created, or otherwise done anything for which I shall ask,
demand, sue for or claim compensation from _____
_____.

or its agents, in addition to the regular items set forth in the contract numbered _____,
and dated _____ A.D., 2026

executed between myself and the Owner, and in the Change Orders for work issued by the Owner in
writing as provided thereupon, except as I hereby make claim for additional compensation and/or
extension of time, as set forth on the itemized statement attached hereto.

There (is) (is not) an itemized statement attached.

Date: _____

By: _____

Title: _____

CONTRACTOR'S AFFIDAVIT

STATE OF MICHIGAN)
)SS.
COUNTY OF WAYNE)

The undersigned, _____ hereby represents that on _____ he (it) was awarded a contract by _____ hereinafter called the Owner, to _____ in accordance with the terms and conditions of Contract No. _____, and the undersigned further represents that the subject work has now been accomplished and the said contract has now been completed.

The undersigned hereby warrants and certifies that all of his (its) indebtedness arising by reason of said contract has been fully or satisfactorily secured, and that all claims from subcontractors and others for labor and material used in accomplishing the said project, as well as all other claims arising from performance of said contract, have been fully paid or satisfactorily secured. The undersigned further agrees that if any such claim should hereafter arise, he (it) shall assume responsibility for same immediately upon request to do so by the Owner.

The undersigned, for a valuable consideration, receipt of which is hereby acknowledged, does further hereby waive, release and relinquish any and all claims or right of lien which the undersigned now has or may hereafter acquire upon the subject premises for labor and material used in accomplishing said project owned by the Owner.

This affidavit is freely and voluntarily given with full knowledge of the facts on this _____ day of _____, 2026.

Contractor

By: _____

Title _____

Subscribed and sworn to before me, a Notary Public
in and for _____ County, Michigan, on
this _____ day of _____, 2026.

Notary Public: _____

My Commission expires: _____

NOTICE OF AWARD

To: _____

Project Description: **2026 ASPHALT PAVING PROGRAM: CONTRACT 26-A**

The Owner has considered the Bid submitted by you for the above described Work in response to its Advertisement for Bids, dated _____, 2026, Instructions to Bidders, and Supplementary Instructions to Bidders.

You are required by the Instructions to Bidders to execute the Agreement and furnish the required Contractor's Performance Bond, Payment Bond and Certificate of Insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said Bonds within ten (10) days from the date of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as for a forfeiture of your Bid Security. The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the Owner.

Dated this _____ day of _____, 2026.

Owner _____ City of Livonia _____

By _____

Title _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by _____

this the _____ day of _____, 2026

By _____

Title _____

NOTICE TO PROCEED

To: _____ Date: _____

**2026 ASPHALT PAVING PROGRAM
CONTRACT 26-A**

You are hereby notified to commence Work in accordance with the Agreement dated, _____, _____, 2026, on or before _____, _____, 2026, and you are to reach final completion as outlined hereinbefore no later than _____, _____, 2026 (open to traffic) and _____, _____, 2026 (final contract completion).

Owner CITY OF LIVONIA

By _____

Title _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by:

this the _____ Day
of _____, 2026.

By _____

PERFORMANCE BOND

Know all men by these presents, that we, _____

As Principal and _____

As Surety of Sureties, are held and firmly bound unto THE CITY OF LIVONIA, Wayne County, Michigan, in the sum of _____ (\$_____) for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The Condition of the foregoing obligation is such that, whereas the said _____

_____ did on the _____

day of _____, 2026, by articles of the date, enter into a Contract with the said CITY OF LIVONIA for the construction of _____

Now Therefore, if the said _____

Shall well and faithfully do and perform all things agreed to be done and performed by said Contract, according to the terms thereof, then this obligation shall be void, but otherwise it shall remain in full force and effect.

Provided, that any alterations which may be made in the terms of the Contract or in the work to be done under it, or the granting by the said CITY OF LIVONIA of any extension of time for the performance of the Contract or any other forbearance on either the part of the said CITY OF LIVONIA or the Principal, to the other, shall not in any way release the executors, administrators, successors, or assigns, from their liability hereunder, notice to the Surety or Sureties of any such alteration, extension or forbearance being hereby waived.

Witness, our hands and seals, this _____ day of _____, 2026.

Signed, sealed and delivered in the presence of:

_____ By _____

_____ By _____

PB

LABOR AND MATERIALS BOND

Know all men by these presents, that we, _____
as Principal and _____
as Surety of Sureties, are held and firmly bound unto THE CITY OF LIVONIA, Wayne County,
Michigan, in the sum of _____ (\$ _____) for the
payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our
heirs, executors, administrators, successors and assigns.

The Condition of the foregoing obligation is such that, whereas the said _____
_____ did on the _____
day of _____, 2026, by articles of the date, enter into a Contract with the said CITY OF
LIVONIA for the construction of _____
_____ and payment for all labor and materials used therein.

Now therefore, if the said _____
shall pay for all labor and materials used in the fulfillment of the said Contract, and shall pay all
subcontractors doing work thereon, and shall indemnify and save harmless the said CITY OF
LIVONIA from and against all damages by reason of liens for labor or materials furnished
therefore, then this obligation shall be void, but otherwise it shall remain in full force and effect.

Provided, that any alterations which may be made in the terms of the Contract or in the work to be
done under it, or the granting by the said CITY OF LIVONIA of any extension of time for the
performance of the Contract or any other forbearance on either the part of the said CITY OF
LIVONIA or the Principal, to the other, shall not in any way release the Principal and the Surety
or Sureties, or either, or any of them, their heirs, executors, administrators, successors, or assigns,
from their liability hereunder, notice to the surety or Sureties of any such alteration, extension or
forbearance being hereby waived.

Witness, our hands and seals, this _____ day of _____, 2026.

Signed, sealed and delivered in the presence of:

By _____
By _____

MAINTENANCE AND GUARANTEE BOND

Know all men by these presents, that we, _____
As Principal, and _____ as Surety
(Sureties), are held and firmly bound unto THE CITY OF LIVONIA, WAYNE
COUNTY, MICHIGAN, hereinafter referred to as the CITY, in the sum of
_____ for the
payment of which, well and truly to be made, we hereby jointly and severally bind
ourselves, our heirs, executors, administrators, successors and assigns.

The condition of the foregoing obligation is such that, whereas the Principal did on the
_____ day of _____, 2026 by articles of that date, enter
into a Contract with the CITY for the construction of **2026 Livonia Asphalt Paving
Program.**

and, as a condition precedent to receiving final payment on said Contract, to execute the
Bond herein described.

Now therefore, the Principal guarantees that for a period of one (1) year from the date of
the final estimate he will, without cost to the CITY, keep in good order and repair any
defect in the work done under said Contract by his employees, agents, subcontractors, or
material suppliers, that may develop during said time due to improper materials, defective
equipment, workmanship or arrangements, and that he will likewise restore to good
condition any work disturbed while correcting such defects, excepting only such part or
parts of said work which may have been disturbed without his consent or approval after
acceptance thereof by the CITY; and that whenever directed to do so by the CITY,
through written notice served personally or by mail upon the Principal at _____

Or upon the Surety (Sureties) at _____
_____, he will proceed at once to make the repairs
specified, and in case of failure to do so, within one week from the date of service of said

notice or such additional time as may be fixed therein, the CITY shall have the right to purchase such materials and employ such labor and equipment as may be necessary; to undertake, do and make such repairs, and to be reimbursed by the Principal or Surety (Sureties) for the full expense thereof. If it is necessary to make any repair or set a barricade at once to protect life and property, the CITY may take such action immediately, without notice to the Principal or Surety (Sureties). The CITY shall not be obliged to obtain the lowest bids for doing the work, or any part thereof, but all sums actually paid therefor shall be reimbursed by either the Principal or Surety (Sureties). In this connection, the judgment of the CITY shall be final and conclusive. If the Principal, for a period of one (1) year from the date of the final estimate, shall keep the work done under the aforesaid Contract in good order and repair, excepting only such part or parts of said work which may have been disturbed without his consent or approval after acceptance thereof by the CITY, and shall, whenever given notice as herein provided, immediately proceed to make specified repairs, or, in default thereof, shall reimburse the CITY for expenses incurred in making such repairs, and shall fully indemnify, defend and save the CITY harmless from all suits and actions for damages of every name and description brought or claimed against it, for or on account of any injury or damage to person or property received or sustained by any party or parties, by or from any of the acts or omissions or through the negligence of the Principal's employees, agents, subcontractors or material suppliers in the performance of the work required by said Contract, and from any and all claims arising under the Workman's Compensation Act of the State of Michigan, as amended, then the above obligation shall be void, otherwise to remain in full force and effect.

In witness whereof, the parties hereto have caused this instrument to be executed by their respective authorized officers this _____ day of _____, A.D.2026.

Signed, Sealed and Delivered in the Presence of:

_____ (L.S.)

_____ (L.S.)

_____ (L.S.)

GENERAL CONDITIONS AND SPECIFICATIONS

ORDER OF PREFERENCE

The specifications in this book shall be taken in the following order of preference. The number one specification supersedes all specifications below it if there is a conflict between the specifications.

1. Special Provisions
2. Project Plans and Drawings
3. Supplemental Specifications
4. General Conditions and General Specifications
5. 2020 Michigan Department of Transportation Standard Specifications for Construction

This order shall hold throughout these specifications and shall be considered as part of the Contract Documents.

CITY OF LIVONIA
GENERAL CONDITIONS

<u>SECTION</u>	<u>TOPIC</u>
1.	CONTRACT DOCUMENTS
2.	DEFINITIONS
3.	INTENT OF THE CONTRACT DOCUMENTS
4.	CONTRACT DRAWINGS AND SPECIFICATIONS
5.	SHOP DRAWINGS
6.	SOIL CONDITIONS
7.	“OR EQUAL” CLAUSE
8.	PATENTS AND INFRINGEMENTS
9.	SUPERINTENDENCE
10.	WORKMEN
11.	SUBCONTRACTING
12.	ENGINEER’S STATUS
13.	INSPECTOR’S STATUS
14.	INSPECTION
15.	PROTECTION OF WORK
16.	ACCIDENT PREVENTION
17.	WORKING SPACE
18.	USE OF THE SITE
19.	ORDER OF COMPLETION – USE OF COMPLETED PORTION
20.	PERMITS, SURVEYS AND COMPLIANCE WITH LAWS
21.	LAYING OUT WORK
22.	SURVEY MONUMENTS

CITY OF LIVONIA
GENERAL CONDITIONS CONTINUED

<u>SECTION</u>	<u>TOPIC</u>
23.	SANITARY REGULATIONS
24.	REPORTS OF ERRORS AND DISCREPANCIES
25.	ESTIMATED QUANTITIES
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27.	PROOF OF INSURANCE
28.	PERFORMANCE BOND
29.	LABOR AND MATERIALS BOND
30.	MAINTENANCE AND GUARANTEE BOND
31.	FORFEITURE OF CONTRACT
32.	DEFINITION OF NOTICE
33.	ADDITIONAL OR OMITTED WORK – PAYMENT
34.	DEDUCTION FOR UNCORRECTED WORK
35.	TIME LIMIT OF CONTRACT
36.	EXTENSION OF TIME
37.	ESTIMATES AND PAYMENTS
38.	FAIR EMPLOYMENT PRACTICES ACT
39.	LIQUIDATED DAMAGES
40.	INSPECTOR DAYS
41.	FORCE ACCOUNT BASIS
42.	FIELD OFFICE

CITY OF LIVONIA
GENERAL CONDITIONS

1. CONTRACT DOCUMENTS

The Contract Documents shall consist of the Notice to Bidders, Proposal, General Conditions, Specifications, Bonds, Plans, Drawings, Contract and any additional documents, which may be made a part of the contract.

2. DEFINITIONS

Certain terms when used in the Contract Documents shall be respectively defined as follows:

"City or Owner"	The City of Livonia
"Contractor"	The person, firm or corporation to whom the within contract is awarded by the Owner and who is subject to the terms hereof.
"Subcontractor"	A person, firm or corporation, other than a Contractor, supplying labor and/or materials, which contribute in any manner to performance of the within contract.
"Surety"	Any person, firm or corporation that has executed, as surety, the Contractor's bonds securing the performance of the within contract.
"Engineer"	The City Engineer of the City of Livonia or any of his designated representatives.

3. INTENT OF THE CONTRACT DOCUMENTS

The respective Contract Documents are complementary, so that requirements of any particular document shall be applicable to all. The contract price, as such term is used in the Contract Documents, shall include the cost of all superintendence, labor and materials, and all other expenses necessary for the proper execution of the work.

The specifications, schedules, plans and drawings herein referred to shall be taken together to explain each other and to make the whole consistent. Work shown on a plan and not mentioned in the specifications, or vice versa, shall be performed as if shown on both, and, in case of ambiguity in the plans and specifications, the Engineer will decide as to the correct interpretation thereof. Where errors or omissions are encountered in the contract documents, the applicable sections of

the current edition of the Michigan Department of Transportation Standard Specifications for Construction shall prevail. A copy of this document may be acquired by contacting the Contract Division, Michigan Department of Transportation, P.O. Box 30050, Lansing, Michigan 48090. When not otherwise specifically defined in the Contract Documents, words therein which describe materials or work having a well-known technical or trade meaning, recognized by architects, engineers and the trade, shall be construed in accordance with such meaning.

4. CONTRACT DRAWINGS AND SPECIFICATIONS

The Contractor shall be held to have compared the premises with the contract drawings and specifications, prior to submitting a proposal, and to have fully informed himself as to the condition of the premises, existing structures and any other condition affecting the carrying out of the work. No additional consideration or compensation will be allowed by reasons of obvious errors or omissions in the contract drawings or specifications.

Unless otherwise provided in the Contract Documents, the City will furnish the Contractor free of charge copies of all contract drawings and specifications reasonably necessary to carry out the work.

All work shall strictly conform with the contract drawings and specifications, and the Contractor shall not proceed without reference thereto.

Approved or conformed copies of the contract drawings and specifications shall be maintained at the work-site by the Contractor and be made available to the City at all times.

5. SHOP DRAWINGS

The Contractor shall submit to the Engineer all shop or setting drawings and schedules required for the work, make any corrections therein required by the Engineer, and resubmit same without delay.

Approved copies of all shop or contract drawings shall be maintained at the work-site by the Contractor and be made available to the City at all times.

6. SOIL CONDITIONS

The Contractor shall be held to have made his own determination of soil conditions on the premises, prior to submitting a proposal, and shall complete the work in whatever soil materials and under whatever conditions he may encounter or create, without additional cost to the Owner. This shall apply whether or not borings are shown on the drawings.

7. "OR EQUAL" CLAUSE

Whenever an article, material, or item of equipment is specified in any of the Contract Documents by describing a proprietary product, or by using the name of a manufacturer or vendor, the term "or equal", if not inserted, shall be implied.

The specified article, material, or equipment shall be understood as indicating the type, function, minimum standard of design, efficiency and quality desired and shall not be construed in such a manner as to exclude manufacturers' products of comparable quality, design and efficiency. The Contractor shall comply with requirements in the Contractor's Documents relative to the City's approval of materials and equipment before they are incorporated in the work.

8. PATENTS AND INFRINGEMENTS

The Contractor agrees to indemnify and save the City, its servants and agents, harmless against any and all claims for royalties or infringements of patent rights in respect to tools, appliances, equipment, processes, or systems of construction and materials made, furnished or used under this Contract, and to defend at his own expense any and all suits of law or in equity which may be brought against the City, its servants or agents, for such claims; provided, however, that the City, its servants or agents, gives the Contractors immediate notice in writing of the institution of such suits and authorizes him to defend the same, furnishing him with such reasonable assistance and available information as will enable him to so defend. The provisions of this paragraph shall be binding upon the parties hereto, notwithstanding anything to the contrary implied or expressed elsewhere in any of the Contract Documents.

9. SUPERINTENDENCE

The Contractor shall give his personal superintendence to the work or have, at the site of the work at **ALL TIMES** a competent foreman, superintendent, or other representative who is satisfactory to the City and who has authority to act for the Contractor.

10. WORKMEN

The Contractor shall employ only competent, efficient workmen who are skilled in the work assigned to them and shall at all times enforce strict discipline and good order among his employees. Whenever the Engineer shall notify the Contractor, in writing, that in his opinion any man so employed is careless, incompetent, disorderly, or otherwise unsatisfactory, such man shall be relieved from the work and shall not again be employed thereon except with the written consent of the Engineer.

11. SUBCONTRACTING

The Contractor shall not subcontract any work to be performed or any materials to be furnished in the performance of this Contract without the written consent of the City. If the Contractor sublets any part of this Contract, he shall be as fully responsible to the City for the acts and omissions of his subcontractors, and of the persons they directly or indirectly employ as he is responsible for the acts and omissions of his own employees.

12. ENGINEER'S STATUS

The Engineer shall have general supervision and direction of the work, and authority to stop such work whenever necessary to insure proper performance of this Contract. He shall also have authority to reject all work and materials which do not conform with the Contract, to direct the applications of forces to any portion of the work, as in his judgment is required, and to decide questions which arise in the course of such work.

13. INSPECTORS' STATUS

The City may appoint on-the-job inspectors who shall be under the direction of the Engineer. Such inspector will inform the Engineer as to the work progress, the manner in which it is being done, and the quality of materials being used. They will call the Contractor's attention to any observed failure to follow the plans and specifications. They shall have the authority to reject materials or workmanship which are defective and to suspend the work until any questions concerning compliance with the contract can be referred to and decided by the Engineer; **but they shall have no authority to direct the contractor's work or workmen, to supervise the Contractor's operation**, or to change the contract plans or specifications.

In no instance shall any action or omission on the part of an inspector release the Contractor from his responsibility to complete the work in accordance with the plans and specifications.

14. INSPECTION

The City and its representatives shall at all times have access to the work whenever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for inspection.

The City shall have the right to reject materials and workmanship, which are defective, or to require their correction. Rejected workmanship shall be satisfactorily corrected, and rejected materials shall be promptly removed from the premises without charge to the City. If the Contractor does not correct such condemned work and remove rejected materials within a reasonable time, fixed by written notice, the City may remove them and charge the expense to the Contractor.

Should it be considered necessary or advisable by the City at the time before final acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall on request, promptly furnish any necessary facilities, labor and materials. If such work is found to be defective in any material respect, due to the fault of the Contractor, or his Subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the actual cost of labor and material necessary involved in the examination and replacement, plus 15%, shall be allowed the Contractor.

15. PROTECTION OF WORK

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect the City's and adjacent property from injury arising in connection with this contract. The work under this Contract shall be at the risk of the Contractor in every respect until finished and accepted by the City. The Contractor shall furnish and maintain necessary passageways, guard fences, lights and such other facilities and means of protection as may be needed.

16. ACCIDENT PREVENTION

Precaution shall be observed at all times for the protection of persons including employees and property. The safety provisions of applicable laws, as well as building and construction codes, shall be observed. Machinery and equipment shall be guarded, and all hazards guarded or eliminated, in accordance with the safety provisions of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable laws.

During the course of construction, provisions must be made to maintain access for emergency vehicles at all times. One lane of the existing roads may be closed to traffic during the process of work but must be opened at the end of each working day. During the progress of the work, the Contractor shall accommodate vehicular and pedestrian traffic in the existing roads right-of-way. Contractor's equipment operations on public streets shall be governed by all local traffic ordinances and regulations of the Fire and Police Divisions and the Department of Public Services. The Contractor shall provide the required signs, barricades and flashing lights on the barricades as directed by the Engineer. All signs and barricades shall conform to the Michigan Manual of Uniform Traffic Control Devices and the Michigan Department of Transportation Standard Specifications for Construction. This shall include Type III barricades to close areas and Type II barricades to direct traffic and protect work and advance warning arrow panels to direct traffic as necessary. The Contractor shall attach and maintain two battery-operated amber flashers (Type A) to each advanced warning or detour sign. In case detours or other traffic instructions are necessary, suitable warning or direction devices shall be installed and maintained by the Contractor.

Should the Contractor fail to comply with any provision of this Contract, affecting the public welfare or safety, the City may, with or without notice, cause the necessary precaution to be taken, and deduct the cost of such work from any money due or to become due the Contractor under this Contract, but the performance of such work by the City, or at its direction, shall not release the Contractor from his general or particular liability for the safety of persons or property.

17. WORKING SPACE

The Contractor shall confine his equipment, apparatus, materials storage and operations to limits indicated by applicable laws, permits or directions of the City and shall not necessarily encumber the premises with his materials.

Should the Contractor require space on privately owned property; he shall obtain such space at his own expense by agreement with the owner thereof. The City will require a copy of a signed waiver from property owner for use of the privately owned site.

18. USE OF THE SITE

In his operations the Contractor shall interfere as little as possible with traffic and shall in no case unduly obstruct traveled ways.

The Contractor shall at no time interfere with surface or underground drainage. Free access shall be provided at all times to hydrants and water and gas valves.

The Contractor shall enforce the City's instructions regarding signs, advertisements, fires and smoke.

19. ORDER OF COMPLETION – USE OF COMPLETED PORTION

The Contractor shall cooperate with the City, when reasonably possible, to complete any portion or portions of the work in such order of time as will be beneficial to the City without prejudice to the Contractor's interests. Use of a completed portion of the work by the City shall not be deemed as acceptance of the work so used or any part thereof.

20. PERMITS, SURVEYS AND COMPLIANCE WITH LAWS

The Contractor shall secure and pay for all permits, fees and licenses (including such fees that may be assigned to the City of Livonia as permit holder) necessary for performance of the work unless otherwise specifically provided in the Contract Documents.

The City shall furnish all surveys unless otherwise provided in like manner.

The Contractor shall give all notices, pay all fees, and comply with all applicable laws, as well as rules and regulations bearing on the conduct of the work.

21. LAYING OUT WORK

Principal reference lines or points and benchmarks shall be given by the Engineer when he deems necessary; or he shall be given twenty-four (24) hour advance notice if the Contractor requires such information.

The Engineer will set suitable stakes and marks showing the locations and elevations of the various parts of the work and will furnish the Contractor with cut sheets referring to the reference points. No work shall be undertaken until such stakes and marks have been set. The Contractor shall assure that the work at all times proceeds in accordance with the stakes and marks and shall provide all labor and materials to set required batter boards and, or laser devices and locate the work accurately with respect to the reference points. The Engineer will place grade

stakes at the Contractor's desired offset. Once these stakes are placed, any necessary transfer of grade and/or offset will be the responsibility of the Contractor.

The Contractor shall carefully preserve reference points and stakes and in case of willful or careless destruction thereof, he will be charged for re-staking at the rate of \$375.00 per hour. There will be a one-hour minimum per request and the standard 24-hour notice is required. In addition, the Contractor shall be responsible for any errors that may be caused by their loss or disturbance.

22. SURVEY MONUMENTS

The Contractor shall protect and preserve all land survey monuments or property corners along the line of his work. Where monuments or irons are unavoidably disturbed or removed due to operations under this Contract, the Contractor, at his own expense, shall employ the services of a registered land surveyor to establish, reset or replace such monuments or irons.

23. SANITARY REGULATIONS

Necessary sanitary conveniences for the use of laborers on the work, properly secluded from public observation, shall be constructed and maintained in sanitary condition by the Contractor, and their use shall be strictly regulated.

24. REPORT OR ERRORS AND DISCREPANCIES

If, in the course of the work, the Contractor finds any discrepancies between the plans and the physical conditions encountered, or any errors or omissions in the plans or layout, it shall be his duty to immediately inform the Engineer in writing. Any work done after such discovery, until authorized by the Engineer, will be at the Contractor's risk.

25. ESTIMATED QUANTITIES

The quantities of the various classes of work to be done and materials to be furnished under this Contract, which have been estimated as stated elsewhere herein, are approximate and only for the purpose of comparing, on a uniform basis, the bids offered for the work under this Contract; and neither the City nor its agents are to be held responsible should any of the estimated quantities be found incorrect during the performance of the work; and the Contractor shall make no claim for anticipated profit, nor for loss of profit, because of a difference between the quantities of the various classes of work actually done or materials actually delivered, and the estimated quantities as herein stated.

26. CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

The Contractor shall not commence work under this Contract until he has obtained the insurance required under this paragraph, nor shall the Contractor permit any Subcontractor to commence work on his Subcontract until he has obtained the insurance herein required.

- a. **Workmen's Compensation Insurance.** The Contractor shall procure and maintain during the life of this Contract, Workmen's Compensation Insurance for all of his employees who engage in the work to be performed; and, in case any such work is sublet, the Contractor shall require the Subcontractor to provide similar insurance for all of the latter's employees who engage in the work.
- b. **Contractor's Public Liability and Property Damage Insurance.** The Contractor shall procure and maintain during the life of this Contract, Contractor's Public Liability and Property Damage Insurance in the amount of not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in the amount of not less than \$1,000,000.00 on account of each accident; and, in an amount not less than \$1,000,000.00, each accident, for damage to property.
- c. **Owner's and Contractor's Protective Public Liability and Property Damage Insurance.** The Contractor shall procure and maintain during the life of this Contract, Owner's and Contractor's Protective Public Liability and Property Damage Insurance, in the name of the City, in an amount not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in an amount not less than \$1,000,000.00 on account of each accident; and in an amount not less than \$1,000,000.00, each accident, for damage to property. Such insurance shall include motor vehicle exposure and specific coverage by endorsement, which shall be described in the following manner:
- "It is hereby understood and agreed that such insurance as is afforded shall include specific coverage for the so-called Explosion, Collapse and Underground Hazards, which covers damage to property arising directly or indirectly from explosion, damage or structural injury to buildings or adjacent structures arising from operations under this Contract, including excavation or tunneling and damage sustained by wires, conduits, mains, sewers, and the like, occasioned by the Contractor's sub-surface operations."
- d. **Subcontractor's Public Liability and Property Damage Insurance.** The Contractor shall require each of his Subcontractors to procure and maintain during the life of their subcontract, Subcontractor's Public Liability and Property Damage Insurance in an amount not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in an amount not less than \$1,000,000.00 on account of each accident; and in an amount not less than \$1,000,000.00, each accident, for damage to property.

The Contractor shall require each of his Subcontractors to procure and maintain during the life of their subcontract, Owner's and Contractor's Protective Public Liability and Property Damage Insurance in an amount not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in an amount not less than \$1,000,000.00 on account of each accident; and in an amount not less than \$1,000,000.00, each accident, for damage to property.

e. **Contractor's Motor Vehicle Bodily Injury and Property Damage Insurance.**

- (1) The Contractor shall procure and maintain during the life of this Contract, Motor Vehicle Bodily Injury Insurance (Comprehensive Form) in an amount not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in an amount not less than \$1,000,000.00 on account of each accident; and in an amount not less than \$1,000,000.00, each accident for damage to property.
- (2) The Contractor shall procure and maintain during the life of this Contract, Hired and Non-Ownership Motor Vehicle Bodily Injury and Property Damage Insurance in an amount not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in an amount not less than \$1,000,000.00 for each accident; and in an amount not less than \$1,000,000.00, each accident, for damage to property.

27. PROOF OF INSURANCE – FORM 1304-A City of Livonia Projects

The City shall be an additional insured party under the Contractor's General Commercial insurance policy. The Contractor shall provide the City, at the time this Contract is returned by him for execution, the certificates and policy listed below. The City's additional insured status and a guarantee that thirty (30) days notice will be given to the City prior to cancellation of, or change in, any insurance coverage shall be endorsed on each certificate and policy:

1. Four (4) copies of Certificate of Coverage of Contractor's Workmen's Compensation Insurance.
2. Four (4) copies of Certificate of Coverage of Contractor's Public Liability and Property Damage Insurance.
3. Four (4) copies of Certificate of Coverage of Contractor's Motor Vehicle Bodily Injury and Property Damage Insurance covering owned, hired, and non-owned vehicles.
4. Four (4) copies of Owner's and Contractor's Protective Public Liability and Property Damage Insurance Policy.

28. PERFORMANCE BOND

The Contractor, within 15 days from the date of acceptance of his proposal, shall execute in favor of the City a Surety Bond Form in an amount at least equal to 100% of the contract price from an "A" rating or better company, as security for the faithful performance of this Contract.

29. LABOR AND MATERIALS BOND

The Contractor, within 15 days from the date of acceptance of his proposal, shall execute in favor of the City a Surety Bond Form in an amount at least equal to 100% of the contract price, as security for the payment of all persons performing labor and furnishing materials in connection with this Contract.

30. MAINTENANCE AND GUARANTEE BOND

The Contractor, as a condition precedent to final payment, shall execute in favor of the City a Maintenance and Guarantee Bond Form in an amount at least equal to 100% of the contract price. The guarantee shall cover all work performed and materials furnished under this Contract for a period of one (1) year subsequent to the date of the final estimate.

31. FORFEITURE OF CONTRACT

If the work to be done under the Contract shall be abandoned by the Contractor, or, if at any time in the judgment of the City, the Contractor shall fail to perform the work at a reasonable rate of progress, or to comply with all or any of the terms and requirements herein set forth, then the City shall have the right for take possession of the work, including Contractor's plans, supplies, and materials, at any time after having notified the Contractor in writing to discontinue the work under this Contract for said cause or causes, and such action shall not affect the right of the City to recover damaged resulting from such abandonment or failure to perform. Upon receiving such notice, the Contractor shall, upon demand, immediately give the City safe and peaceable possession of the work, including the plans, and shall then cease to have control over any portion thereof or the men employed thereon.

The City may then proceed to complete the work herein specified, by Contract or otherwise, and the entire cost incurred shall be charged to the Contractor and deducted from any sum or sums due or to become due under the Contract; the excess cost, if any, shall be paid to the City by the Contractor or his sureties.

32. DEFINITION OF NOTICE

Where the Contract Documents provide for the giving of any notice, it shall be deemed to have been given: (a) as to the City, when written notice shall have been delivered to the Engineer or the City Clerk, or shall have been placed in the United States mail, addressed to the City Clerk at the place where the bids and proposals for the Contract were opened; (b) as to the Contractor, when written notice shall have been delivered to his chief representative then present at the site of the work, or shall have been placed in the United States mail, addressed to the Contractor at his permanent place of business, as stated in the papers prepared by him to accompany his proposal; and (c) as to the Surety on a performance bond or labor and materials bond, when a written notice shall have been placed in the United States mail, addressed to the Surety at his home office or to the agents who executed such performance bond or labor and materials bond on the Surety's behalf.

33. ADDITIONAL OR OMITTED WORK - PAYMENT

The City may authorize changes in, additions to or deductions from the work to be performed or the materials to be furnished pursuant to the provision of this Contract.

Adjustments, if any, in the amounts to be paid to the Contractor by reason of any such change, addition or deduction shall be determined by one or more of the following methods:

- (a) By unit prices contained in the Contractor's original bid and incorporated in the construction contract.
- (b) By a supplemental schedule of prices contained in the Contractor's original bid and incorporated in the construction contract.
- (c) By an acceptable lump sum proposal from the Contractor.
- (d) On a force account basis in accordance with procedures set forth in Paragraph No. 41 of these General Conditions.

34. DEDUCTION FOR UNCORRECTED WORK

If the City deems it expedient to accept work, which has been damaged or not done in accordance with the Contract, an equitable adjustment will be made so as to deduct from the contract price the cost of repairing or properly performing such work.

35. TIME LIMIT OF CONTRACT

The parties hereto distinctly understand and agree that the time specified for completion of the work is the essence of this Contract, and that the Contractor shall not be entitled to claim performance of this agreement unless the work is satisfactorily completed, in every respect, within the time herein specified.

36. EXTENSION OF TIME

An extension of time may be granted by the City in the event of the work being delayed, beyond the prescribed time for completion, by carriers, the elements, general strikes, accidents or other causes not under the Contractor's reasonable control. Such an extension of time shall be deemed to be in full compensation for any loss or injury sustained by the Contractor by reason of delays caused as Aforesaid, and the Contract shall not thereby be invalidated in any respect.

37. ESTIMATES AND PAYMENTS

The City shall pay to the Contractor amounts bid in the proposal, or as modified by subsequent agreement, less deduction for any unsatisfactory or uncompleted work, based upon measurements made by the Engineer or as otherwise herein stipulated, and such measurement shall be final and conclusive.

A. BI-WEEKLY PROGRESS PAYMENT

Payments based on progress estimates will be made bi-weekly for ninety percent (90%) of the work completed until fifty percent (50%) completion less any deductions or reservations which may be made in accordance with the terms of this Contract provided that the work is progressing satisfactorily, all orders of the Engineer have been complied with, and the time of completion shall not have expired. No allowance will be made for materials furnished which have not been incorporated in the completed work unless otherwise stated on the Contract Documents. All retained funds will be separately held in interest bearing accounts and disbursed to the Contractor in accordance with Public Act No. 524, 1980.

The Contractor shall submit to the City an application for each payment and shall submit a Contractor's Declaration stating that he has not performed any work, furnished any material, sustained any loss, damage or delay, for any reasons, including soil conditions encountered or created, or otherwise done anything for which he will ask, demand, sue for, or claim compensation from the City and, if required, shall submit receipts or other vouchers showing his payments for materials and labor, including payments to subcontractors. (Forms included in Contract Documents)

The City may withhold payment of any progress estimate, or portion thereof, until the Contractor shall have furnished satisfactory evidence that he has paid all claims of every nature.

No payment shall be considered as acceptance of work completed, or any portion thereof, prior to compensation of all work required by this Contract and payment of the final estimate.

B. FINAL PAYMENT

Within thirty (30) days after completion of all work required by this Contract to the satisfaction of the City and the Engineer, in accordance with all and singular terms and stipulations herein contained, the City shall make final payment, based upon a final estimate made by the Engineer. Before such payment is made, the Contractor shall, as directed by the City, execute a Contractor's Affidavit that he has paid all claims of every nature, or secured a release from the surety or sureties approving payment. The final payment shall be considered as full approval and acceptance of the completed work herein specified.

Acceptance by the Contractor of the final payment aforesaid shall operate as, and shall be, a release of the City and its agents, from all claims by liability to the Contractor for anything done, furnished for, or relating to the work, as well as act or neglect of the City or of any person relating to or affecting the work.

38. FAIR EMPLOYMENT PRACTICES ACT

- (a) The Contractor agrees that neither he nor his subcontractors will discriminate against any employee or applicant for employment, to be employed in the

performance of this Contract, with respect to his hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of his race, color, religion, national history or ancestry.

- (b) The Contractor agrees that neither he nor his subcontractors will discriminate against any employee or applicant for employment, to be employed in the performance of his contract, with respect to his hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of his age or sex, except where based on a bona fide occupational qualification.
- (c) Breach of the covenants contained in either of the foregoing paragraphs may be regarded as a material breach of this Contract and may result in its cancellation, termination or suspension in whole or in part and in the Contractor being declared ineligible to contract in the future with the City of Livonia.

39. LIQUIDATED DAMAGES

The Contractor guarantees that he can and will complete the work within the time limit stated in the Contract Documents, or within the time as extended as provided elsewhere in the Contract Documents. Inasmuch as the damage and loss to the City which will result from the failure of the Contractor to complete the work within the stipulated time will be most difficult or impossible, of accurate determination, it is mutually agreed that the damages to the City for such delay and failure on the part of the Contractor shall be liquidated in the amount stated in the Form of Proposal, for each and every calendar day by which the Contractor shall fail to complete the work or any part thereof within the provisions hereof, and such liquidated damages shall not be considered as a penalty.

The City will deduct and retain out of any money due or to become due hereunder the amount of the liquidated damages, and in case those amounts are less than the amount of liquidated damages, the Contractor shall pay the difference upon demand of the City.

40. INSPECTOR DAYS (APPLICABLE IF SPECIFIED AS AN ITEM IN THE FORM OF PROPOSAL)

It shall be the responsibility of the bidder to include as a bid item in his proposal the number of inspection days he estimates will be required to complete this project. An inspector day shall be determined from the tabulation listed below for the time each inspector spends on the project. An inspector will be assigned to each work until carrying out separate operations needed to complete this project. This will be for, but not limited to, operations such as, while materials are being installed, during excavation and back-filling operations, all pressure tests, infiltration tests, T.V. inspection, placing concrete or asphalt paving, restoration operations, final inspection of the completed work or the checking of complaints on the project.

Delays in the progress of the work under the contract because of the Contractor's failure to diligently pursue his work will not eliminate an inspection fee being

charges against the Contractor. Inspection time may be charged to the Contract for each day for the availability of an inspector on the project. This time may be charged against a Contractor until such time as the Contractor is ready for final payment. Charges for each inspector assigned to the project shall be made in accordance with the following schedule:

	<u>Inspector Hours Chargeable</u>
1. For any working day of less than four (4) hours	4
2. For a working day Monday through Friday inclusive of more than four (4) but less than eight (8) hours	8
3. For each working hour of fraction thereof in excess of eight (8) hours Monday through Friday inclusive and each working hour of fraction thereof on Saturday	1.25
4. For each working hour or fraction thereof on Sunday	1.50

An inspector day shall then be computed by adding the above listed total chargeable hours and dividing such total number of chargeable hours by eight (8).

When the Contractor elects not to work, the minimum show-up time for each inspector on the project shall be four (4) hours. No show-up time will be included when the Contractor gives the project engineer at least 24 hours notice of his intent not to work. The Contractor shall give the Engineer at least 48 hours notice before beginning each operation such as installing materials or restoration operations.

Provisions have been made on the itemized price schedule for the insertion of the number of inspector days anticipated for completion of the project. The Contractor shall insert the number of inspector days, multiply by Six Hundred Eighty Dollars (\$680.00) per day and insert the total in the space provided. This total is a lump sum amount, which will be credited to the Contractor. The number of inspector days each month will be computed and the cost deducted from this credit amount. Should the credited amount become depleted, the cost of inspector days will continue to be deducted from the monthly payments to the Contractor. Upon completion of this project, any surplus remaining in the inspector day lump sum bid will be given to the Contractor.

The number of inspection days stated in the proposal will not be changed except by the authorized Change Order(s). An extension of time, if granted will not automatically constitute additional inspection days under the Contract.

41. FORCE ACCOUNT BASIS

When work performed is to be paid for on a force account basis, the method of construction, type and amount of equipment to be used shall be submitted and approved by the Engineer, prior to proceeding with the work. The Contractor shall furnish to the Engineer itemized reports of the costs of all force account work. The reports shall be furnished each week and shall include certification of the payroll

involved in the work. The bills shall show credits for any discounts offered by suppliers and only the net amount of the bill shall be charged to the force account work.

A. STATEMENTS

The Contractor and the Engineer shall compare records of force account work and bring them into agreement at the end of each day. From the weekly reports received from the Contractor, the Engineer will prepare, on regulation forms, itemized statements containing the following detailed information:

Name, class, dates, number of hour worked each day, total hours, rate and extension (rate multiplied by hours worked) for each employee and foreman engaged.

Equipment description, number of actual hours operated each day, total hours, rental rate, and extension (rate multiplied by hours operated) for each unit of equipment engaged. The Contractor's weekly report should fully describe each unit of equipment (rating, type of engine, optional equipment, type of blade, size of bucket, etc.)

Quantities of material used, unit prices, and total cost (extensions).

Freight on materials.

The compensation as herein provided shall be accepted by the Contractor as payment in full for all labor, including fringe benefits as hereinafter set forth, equipment and materials used for force account work, and the amount so paid shall cover profit, superintendence, general expense, overhead, and the use of small tools and equipment for which no rental is allowed. General Foreman and Superintendents shall be classified as management, and shall not be considered as a separate cost item for force account purposes.

B. LABOR

For all labor and foreman in direct charge of the specific work, the Contractor shall receive the actual rate of wage paid for each and every hour that said labor and foreman are actually engaged in such work, plus twenty percent (20%) of the sum, plus any additions as hereinafter provided.

C. BOND, INSURANCE, TAX

The force account percentage for labor and wage rates paid by the Contractor to its employees, shall cover any possible costs for bond premiums, workmen's compensation insurance, personal injury public liability and property damage public liability insurance, unemployment compensation, and federal social security levied against the Contractor will be paid at cost. The Contractor shall furnish satisfactory evidence of the amounts paid for each of these required costs as related to force account work. An amount equal to ten percent (10%) will be added to these costs.

D. MATERIALS

For materials and supplies furnished by the Contractor, and used in the specific work, the Contractor will be paid the actual cost of such materials used in the work, including freight charges, verified by original receipted bills, plus fifteen percent (15%) of the sum thereof.

Where materials used are not specifically purchased for use on this work but are taken from the Contractor's stock, the Contractor shall submit a certification of the quantity, price and freight on such materials in lieu of original receipted bills and invoices.

The City will pay sales and/or use tax as required by law on any material that is incorporated into the end product.

E. MACHINERY AND EQUIPMENT

For any Contractor-owned machinery and equipment including the foreman's transportation unit, which is determined to be necessary to use on work done by force account, the Contractor will be paid rental rates as follows:

1. The rate for each piece of Contractor owned equipment used, including appurtenances and attachments to equipment, will be determined by using the *Rental Rate Blue Book for Construction Equipment*, Volume 1, 2, or 3, by Equipment Watch, Inc. (Blue Book). The edition that is current at the time the force account work is started will apply. The base hourly rate will be equal to

the published monthly rental rate divided by 176, modified by the rate adjustment factor and the applicable map adjustment factor, plus the "estimated operating cost per hour."

2. For equipment not listed in the Blue Book, the rate will be determined by using the published rental rate listed for a similar piece of equipment giving proper consideration to the capacity, size, horsepower, and age of the equipment. For equipment for which there is no comparable in the Blue Book, the monthly rate shall be reasonable but not more than five percent of the invoiced cost of the equipment. The base hourly rate shall then be determined by dividing the monthly rate by 176. Rates shall be agreed upon in writing before the equipment is used.
3. No payment will be allowed for small hand and power tools that are not listed in the Blue Book. Small hand and power tools listed in the Blue Book at a rate of less than \$1.00 per hour will be considered as part of overhead and will not be paid for separately.
4. The rates used for Contractor owned trucks used to haul material will be those published by the Michigan Department of

Transportation. The rates will be reviewed and adjusted periodically. Separate payment for the driver will be allowed as described under labor. The rate for the foreman's transportation unit will be \$7.00 per hour.

5. The minimum time per day for equipment used productively in force account work will be two hours. For equipment which is required intermittently, the time will be determined in two-hour intervals after the equipment is first needed and put into use in the performance of the force account work. The rate for each two-hour interval will be full rate or stand by rate according to Idle Equipment Section G, depending upon the productive use or non-use of the equipment during each two-hour interval.
6. Travel time to the location of the force account work will be included when the equipment is moved under its own power. When equipment is moved from one site to another by means other than its own power, the actual operating time during periods of loading and unloading equipment will be paid for at the established rate and transportation costs will be allowed.

Transportation charges for each piece of equipment to and from the work site will be paid provided:

- Equipment is obtained from the nearest available source
- Return charges do not exceed the delivery charges; and
- Charges are restricted to those units of equipment not already available and not on or near the project.

F. NON-CONTRACTOR OWNED EQUIPMENT

If the Contractor is required to rent a specific type of equipment, the Contractor shall inform the Engineer of the need to rent the equipment and of the rental rate for that equipment before using it on the work site. The Contractor will be paid the actual rental for the equipment for the time that the equipment is used to accomplish the work, plus the cost of moving the equipment onto and away from the job, provided the total rental rate does not exceed the rental rate established by the Blue Book plus operating costs. The Contractor shall provide a copy of invoices for all rental expenses incurred.

STANDBY RATE AND ALLOWABLE HOURS

For Contractor owned equipment the standby rate will be one-half the rate established in Machinery and Equipment Section E. No payment will be allowed for operating costs. The standby rate will only be allowed if both of the following conditions are met:

1. The Engineer specifically required the equipment to remain on the site for later use on the force account activity; and

2. Work is being performed on the force account activity when the equipment is idle.

Payments for standby time will not be made on any day the equipment operates for eight or more hours. For equipment accumulating less than eight hours operating time on any normal work day, standby payment will be limited to only that number of hours that, when added to the operating time for that day, equals eight hours.

G. MISCELLANEOUS

No additional allowance will be made for general superintendence or other costs for which no specific allowance is provided.

H. SUBCONTRACTING OR HIRING SERVICES BY OTHERS

For administration costs in connection with approved subcontract work or hiring services by others to perform specialized type of work which the Contractor is not qualified to do, the Contractor shall receive an amount equal to five percent (5%) of the total cost of the work computed as set forth above. Prior approval of the Engineer is required.

The Contractor, while performing force account work at the request of the City, is operating within the framework of the entire contract and is subject to all the provisions herein.

42. FIELD OFFICE

When provided in the Instruction to Bidders, the Contractor shall furnish and maintain, for the exclusive use of the Engineer, an approved weather-proof building as a field office, for all construction projects. The building shall be located as approved by the Engineer, in full view of the work and with at least one window facing construction operations.

The building shall have a tight board floor and the floor space shall not be less than 160 square feet and the ceiling not less than eight (8) feet in height, and shall be provided with the following:

- a. Heating and air conditioning equipment that will maintain a temperature between 70° F and 80° F during working hours.
- b. At least two wall-mounted electrical power outlets per room that conform to local electric codes for office use.
- c. Not less than two 75-watt electric lights per room.
- d. Water and telephone service.
- e. A standard sized door.
- f. A minimum floor to ceiling height of 8 feet.

- g. A wooden locker for the storing of implements and testing equipment.
- h. A minimum of 6 feet of rigidly constructed 30-inch wide counter.
- i. At least three single sash windows with at least one sash, hinged or sliding window per room.
- j. Locks, bars, window locks, or a security system.
- k. Bottled water for drinking.
- l. First aid kits, smoke detectors, and fire extinguishers required by local fire and safety authorities. Maintain fire extinguishers and smoke detectors.

The Contractor shall provide, at a location near the field office, a sanitary facility. The construction, regular maintenance and final removal of the facility shall be in accordance with local restrictions and shall be incidental to the construction of the project.

A trailer having equal facilities and floor space may be used in place of above described field office if so desired.

The cost and maintenance of the above described facilities will not be paid for separately but shall be included in the price bid for various items of work under the contract. The building shall be removed by the Contractor upon completion of the Contract and shall become his property.

SUPPLEMENTAL GENERAL CONDITIONS

This section is to update and correct information in the general conditions provided in this contract. All items in this section are to supersede any duplicate information in the General Conditions that may conflict with information in this section.

All references to the MDOT Standard Specifications for Construction, no matter what edition is referenced, shall be taken to be referring to the MDOT 2020 Standard Specifications for Construction. In some instances, the section number referenced in the General Conditions may not correspond to the current version of the Standard Specifications. In such instances the Contractor shall refer to the applicable section in the 2020 edition of the Standard Specifications for Construction.

The Contractor shall obtain any necessary permits from MDOT and/or the Wayne County Department of Public Services prior to placing construction signing on MDOT and/or County roads. Upon receiving a written request by the Contractor, the City shall provide a check or reimburse the Contractor for any permit or application fees needed to obtain these permits.

The Contractor shall give seven (7) day notice prior to the following: start of work, layout, or survey work that is to be provided by the Engineer, and the need for inspection services. All references to a notice time period in the General Conditions shall be taken as 7 day notice.

The Contractor shall give seventy-two (72) hour notice for re-staking. The Contractor shall be charged for re-staking at the rate of three hundred seventy-five dollars (\$375.00) per hour.

Payments based on progress estimates will be made **monthly** for ninety percent (90%) of the work completed until fifty percent (50%) completion less any deductions or reservations, which may be made in accordance with the terms of this Contract provided that the work is progressing satisfactorily, all orders of the Engineer have been complied with, and the time of completion shall not have expired. Any reference to pay estimates in the General Conditions shall be taken to be on a monthly basis.

All references to time limits for submittals after the acceptance of a bid shall be taken to be ten (10) days per proposal page P-1.

All work shall take place between the hours of 7:00 A.M. and 9:00 P.M. in compliance with the City of Livonia noise control ordinance.

A minimum of 150 inspector days, as shown on page P-7 part 1B, item 80, shall be required as part of this contract.

In the event that the total cost for road items for a particular street in the contract changes by more than 25%, the total number of inspector days shall be eligible to be increased as negotiated with the Engineer. If the road item price decreases below the base bid, there shall be no reduction in the number of inspector days. There shall be no other considerations for a modification in the number of inspector days.

Liquidated damages are outlined in the Progress Clause of the Contract Book.

No field office will be required as part of this contract.

No dumping will be allowed in the City Dump.

SPECIFICATIONS - GENERAL

<u>Section</u>	<u>Topic</u>
1.	Materials and Workmanship
2.	Dewatering
3.	Sheeting, Shoring, and Bracing
4.	Tunneling
5.	Existing Structures and Utilities
6.	Roadway, Walkways and Porous Backfill
7.	Road Detours
8.	Dust Control
9.	Preservation of Trees
10.	Seeding and Sodding
11.	Final Clean-up

SPECIFICATIONS - GENERAL

1. MATERIALS AND WORKMANSHIP

Unless otherwise stipulated in the specifications, all equipment, materials, and articles incorporated in the work covered by this contract are to be new and of the best grade of their respective kinds for the purpose.

If not otherwise provided, material or work called for in this contract shall be furnished and performed in accordance with well-known established practice and standards recognized by Architects, Engineers, and the trade.

When required by the specifications, or when called for by the City, the Contractor shall furnish the City for approval, full information concerning the materials or articles which he contemplates incorporating in the work. Samples of materials shall be submitted for approval when so directed. Machinery, equipment, materials, and articles installed or used without such approval shall be at the risk of subsequent rejection.

2. DEWATERING

The Contractor shall provide and maintain adequate pumping and drainage facilities for removal and disposal of water from trenches or other excavations.

Where the work is in ground containing an excessive amount of water, the Contractor shall provide, install, maintain, and operate suitable well points, connecting manifolds and reliable pumping equipment to operate same to insure proper construction of the work.

Drainage or discharge lines shall be connected to adjacent public storm water drains or extended to nearby water courses wherever possible. In any event, all pumping and drainage shall be done without damage to any highway or other property, public or private, and without interference with the rights of the public or private property owners.

The Contractor shall receive no extra compensation for providing, maintaining or operating any dewatering or drainage facilities. .

3. SHEETING, SHORING AND BRACING

Where necessary in order to construct the work called for by the contract, to insure the safety of the men, or to protect other things of value, the Contractor shall use and, if necessary, leave in place, such sheeting, shoring, and bracing as is needed to carry out the work or to adequately insure the stability of such work, or to insure the safety of the men and/or to protect adjoining things of value. The Contractor will receive no extra compensation for sheeting, shoring, or bracing, whether removed or left in place.

4. TUNNELING

Tunnel work shall be constructed in accordance with the Engineer's specifications, "Road Permit" requirements or as otherwise noted on the drawings. The cost of tunneling shall be included in the unit prices unless listed as a separate item in the proposal.

Excavated tunnels shall be braced as necessary. Pipe shall be carefully set to line and grade. Voids shall be filled with a sand cement mixture consisting of three (3) bags of cement per yard of yellow sand thoroughly rammed into place except in cases where a permit requires a different backfill in which case such shall be used.

5. EXISTING STRUCTURES AND UTILITIES

Certain underground structures and utilities have been shown as an aid to the Contractor, but the City does not guarantee their location or that other underground structures or utilities may not be encountered.

Where utilities are encountered along the line of work, the Contractor shall perform his work in such a manner that utility service will not be interrupted and shall make all temporary provisions to maintain said service.

At any time when construction operations under this contract endanger conduits or structures of any public utility, the Contractor shall notify the utility owner and shall take such steps as may be required to protect said conduit or structure from damage.

Unless otherwise indicated in the contract documents, the Contractor shall replace any disturbed utility and reconstruct same on the original line and grade or, if necessary, at a new line and grade to be established by the engineer. Any damaged material shall be replaced with new material of the same quality as that replaced and all construction shall be in conformance with the requirements of the utility owner.

Where it is necessary that utility poles be moved to a new location or moved temporarily and replaced after construction, the Contractor shall arrange for the moving of such poles and the lines thereof.

Where it is the policy of any utility owner to make his own repairs or locations, the Contractor shall cooperate to the fullest extent with the utility.

Unless otherwise provided for in the proposal, the Contractor will receive no extra compensation for the relocation, replacement, maintenance of service or protection of any utilities encountered whether such utilities are shown on the contract drawings or not.

In all cases where permits, inspection fees or any charges are required by utilities, the Contractor shall secure all such permits and pay all such fees and charges.

6. ROADWAYS, WALKWAYS AND POROUS BACKFILL

Before roadways, sidewalks or other structures are disturbed, the Contractor shall make an examination of existing structures which may be disturbed, and careful notes shall be made of the condition of such structures and filed with the Engineer.

Where open cut construction crosses existing improved roadways or walkways, where the trench parallels an existing improved roadway or walkway which is disturbed by the Contractor's operations or where called for on the contract drawings, the Contractor shall backfill the trench with Michigan Department of Transportation Class II porous backfill. The backfill shall be placed in twelve inch (12") layers and shall be consolidated to maximum density by means of approved vibratory type compaction equipment. The porous material shall extend eight (8) feet beyond each side of the edge of the existing roadway or one (1) foot each side of the existing walkway at the ground level and shall slope at 45 degrees down the trench to the bottom of the trench and shall be placed prior to ordinary backfill.

A temporary gravel fill at least eight inches (8") thick shall be placed over the porous backfill to the width of the original roadway or walkway and shall be maintained in good condition with additional gravel as settling occurs until such time as permanent repairs or replacement of the original structures or surfaces have been made.

All structures including fences, curbing, walks, paving, road bases, road surfaces, etc. damaged or destroyed due to the Contractor's operations shall be repaired or replaced by him to at least as good condition as existed prior to the beginning of the work or to such condition as will meet with the full approval of the authority having jurisdiction. Where pavements or walkways must be cut, they shall be removed to the closest joint or shall be saw cut to provide a straight, neat joint as directed by the Engineer.

Unless otherwise provided for in the proposal, the Contractor will receive no extra compensation for porous backfill, for temporary surfaces or for repair or replacement of any structures damaged or destroyed by his operations. All such costs shall be considered as incidental to the work and included in the unit prices.

7. ROAD DETOURS

The Contractor, at his own expense, shall provide and maintain all temporary roadways as required due to his operations or as required under "Road Permits".

Temporary roads shall be constructed of six inches (6") of compacted 21AA Limestone or 21A Road Gravel meeting Michigan Department of Transportation Specifications.

8. DUST CONTROL

During the construction of any project, adequate dust control measures shall be maintained by the Contractor so as not to cause detriment to the safety, health, welfare, or comfort of any person or cause damage to property or business. If not shown as a pay item, dust control will be at Contractor's expense.

9. PRESERVATION OF TREES

The Contractor shall protect and preserve all trees along the line of work, and he will be held responsible for any damage to trees. Where necessary to preserve a tree and its main roots, the Contractor shall tunnel under such tree. Where specifically called for on the drawings, the Contractor shall remove trees completely, including stumps and main roots.

Where tunneling is not required for trees close to the trench and root trimming is necessary, the Contractor shall hand trench ahead of the machine digging and cut all roots cleanly to minimize damage to the roots.

The Contractor shall protect and/or replace all shrubbery damaged or destroyed by operations under this Contract.

Unless provided for otherwise in the Form of Proposal, the Contractor will receive no extra compensation for preservation of trees or for their removal where called for, or for the protection or replacement of shrubbery, and the cost of all work involved shall be included in the unit price bid.

10. SEEDING AND SODDING

Where established grass areas are disturbed by the Contractor's operation, he shall provide unless otherwise specified, not less than three inches (3") of approved topsoil and shall grade and seed with Michigan Department of Transportation Class A seeding, mulch, and fertilizer all in accordance with Section 816 of the General Specifications, dated 2020, of the Michigan Department of Transportation Standard Specifications. All work shall be done in an approved manner and seed shall be covered by light raking or dragging and then rolled with a light roller.

Where established lawn areas are disturbed by the Contractor's operations, he shall provide, unless otherwise specified, not less than three inch (3") of approved topsoil and shall grade, sod with approved first quality Kentucky Blue Grass, consisting of weed free turf freshly cut from an established nursery, and fertilize with a 10-6-4 commercial type fertilizer at the rate of 200 pounds per acre.

All work shall be done in accordance with Section 816 of the General Specifications, dated 2020, of the Michigan Department of Transportation Standard Specifications.

Unless otherwise called for in the proposal, the Contractor shall receive no extra compensation for seeding or sodding. All such costs shall be considered as incidental to the work and included in unit prices.

11. FINAL CLEAN-UP

Before work shall be considered ready for final inspection, the Contractor shall remove and properly dispose of all equipment, waste materials and excess excavation from the lines of the work, shall grade all trenches, and do any other necessary work to leave the premises in a workmanlike condition at least as good as existed before work was started.

SUPPLEMENTAL SPECIFICATIONS
GENERAL
Sheet 1 of 1

This section is to supplement and correct information in the Specifications-General as provided in this Contract. All items in this section are to override any duplicate information in the Specifications-General that may conflict with information in this section.

If not otherwise stated herein, material or work called for in this contract shall be furnished and performed in accordance with the MDOT 2020 Standard Specifications for Construction as provided for in the General Conditions of this Contract.

All references to the MDOT Standard Specifications for Construction, no matter what edition is referenced, shall be taken to be referring to the MDOT 2020 Standard Specifications for Construction. In some instances the section number referenced in the Specifications-General may not correspond to the current version of the Standard Specifications, in such instances the Contractor shall refer to the applicable section in the 2020 edition of the Standard Specifications for Construction.

Refer to the Special Provision for "Surface Restoration" for proper materials and procedure. The Contractor shall restore the work areas as directed by this Contract, the typical drawings, and/or as directed by the Engineer.

MDOT SUPPLEMENTAL SPECIFICATIONS
AND SPECIAL PROVISIONS

MICHIGAN
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION
FOR
ERRATA TO THE 2020 STANDARD SPECIFICATIONS

1 of 11

04-30-24

Page	Subsection	Errata
1-06	101.02	Delete the second abbreviation of the list on this page reading: "IES Illuminating Engineering Society"
1-06	101.02	Add the abbreviation to the list on this page reading: "IESNA Illuminating Engineering Society of North America"
1-07	101.02	Change the first abbreviation of the list on this page to read: MMUTCD..... Michigan Manual on Uniform Traffic Control Devices
1-83	108.05.A.2	In the first paragraph of this subsection change the language "MDOT Form 1130" to read "MDOT Form 1130A".
1-88	108.08.D	Move the last paragraph of this subsection to the left one indent to align with the first paragraph of the subsection and not with the subsection 108.08.D.3.
2-29	205.03.P.1	Delete the first sentence of this subsection and replace with the following: "Do not dispose of material, temporarily or permanently, beyond the normal plan fill slope across wetlands or floodplains."
2-30	205.03.P.2	Delete the first sentence of this subsection and replace with the following: "Do not dispose of material, temporarily or permanently, in wetlands or floodplains."
2-30	205.03.P.3	Delete the second paragraph of this subsection and replace with the following: "Contact the appropriate regulatory agencies to determine whether an area is a regulated wetland or floodplain before disposing of surplus or unsuitable material in areas outside the right-of-way and not shown on the plans as disposal sites."
2-30	205.03.P.3	Delete the first sentence of the third paragraph of this subsection and replace with the following: "Immediately move to an upland site any surplus or unsuitable material that was disposed of in portions of wetlands or floodplains not shown on the plans as disposal sites, at no additional cost to the Department."

2-30	205.03.P.4	Delete the first sentence of this subsection and replace with the following: "The Department will notify the applicable regulatory agencies if the Department becomes aware that the Contractor disposed of surplus or unsuitable material in portions of a wetland or floodplain not shown on the plans."
3-31	308.04.D	Change the subsection title from "D. General. " to read "A. General. "
4-7	401.03.E	Delete the third sentence of the second paragraph of this subsection and replace with the following: "Use precast or cast-in-place footings for precast end sections as required."
4-8	401.03.E	Delete the first sentence of the fourth paragraph on this page of this subsection and replace with the following: "When discharging stormwater directly to waters of the state, permanently label all end sections or other piped points of stormwater entry with "MDOT" or the local agency's name in a conspicuous location that will remain visible after construction."
4-11	401.04	Change the eighth pay item from the bottom of the list on this page to read as follows: Culv End Sect __ inch, Grate.....Each
4-12	401.04.C.4	Change this subsection to read: "The Engineer will measure Culv End Sect __ inch, Grate by each as shown on the plans for the size of grate required."
4-21	402.03	Add a new subsection to the end of subsection 402.03 on this page reading as follows: "K. Outfall Labeling. Label all stormwater outfalls directly discharging to waters of the state in accordance with subsection 401.03.E.
4-39	406.02	Change the third line in the list of materials to read: Coarse Aggregate 6A, 6AA, 17A.....902
4-41	406.03.A.3	Delete the third paragraph of this subsection and replace with the following: "Design joints between adjacent box culvert sections in accordance with Section 9 of ASTM C1577 and to accommodate the joint sealing material in accordance with section 914 as applicable."
4-50	406.03.G.3	Change the first sentence of the first paragraph to read: "Unless otherwise shown on the plans, construct culvert bedding for box culverts by placing a 9-inch-thick layer of 46G aggregate, covered with a 3-inch-thick layer of 34G, 34R aggregate, or approved equal."

4-51	406.03.G.3	Add the following sentence to the end of the second paragraph of this subsection: "The cold applied joint sealer must completely cover the external rubber gasket with the placement limits matching the width of the geotextile blanket."
4-52	406.04.B	In the second paragraph of this subsection delete the first sentence and replace with the following: "The Department will pay separately for cast-in-place concrete, other than for culvert segments, headwalls, wingwalls, aprons, and curtain walls."
5-26	502.02	Delete the first sentence of the subsection and the listed materials in this subsection.
5-26	502.02.A	Add the following to the end of the first sentence in this subsection: "(914.04A)"
5-26	502.02.B	Add the following to the end of the first sentence in this subsection: "(502.02B)"
5-35	503.04	Change the first paragraph to read: "The unit price for Paver-Placed Surface Seal , of the type required, includes the cost of preparing the surface, and placing a membrane and paver placed surface seal course for full-width coverage, except that the Department will pay separately for removing pavement markings in accordance with subsection 812.04"
5-46	504.04.A	Change the first paragraph to read: "A. General . The unit prices for Micro-Surface , regardless of the type required, include cleaning existing pavement, applying a bond coat, stationing, corrective action, and traffic control to complete corrective action."
6-20	602.04	Delete the fifteenth pay item of the list on this page reading: "Shoulder, Reinf Conc.....Square Yard
6-20	602.04	Change the sixteenth thru the eighteenth pay items on this page to read as follows: Shld, Nonreinf Conc.....Square Yard Shld, Nonreinf Conc, High PerformanceSquare Yard Shld, Freeway.....Square Yard
6-21	602.04.B.1	Delete this subsection and replace with the following: " Shld, Nonreinf Conc; and Shld, Nonreinf Conc, High Performance . The Engineer will measure, and the Department will pay for, Shld, Nonreinf Conc; and Shld, Nonreinf Conc, High Performance by area, based on plan quantities in accordance with subsection 109.01."
6-21	602.04.B.2	Delete this subsection and replace with the following:

“Shld, Freeway. The Engineer will measure, and the Department will pay for, **Shld, Freeway** based on plan quantities in accordance with subsection 109.01. If the Contractor uses concrete for the shoulder, the unit price for **Shld, Freeway** includes the cost of the transverse joints in the shoulder and the external longitudinal pavement joints.”

6-23	602.04.F	Add the following sentence to the end of the first paragraph of this subsection: Temporary concrete pavement, pavement within 4 feet of an obstruction, pavement areas less than 300 square yards, or pavement less than 3 feet wide will not be cored.
6-23	602.04.F	Delete the following language from this subsection on this page: “The Engineer will not core the following: 1. Temporary concrete pavement; 2. Pavement within 4 feet of an obstruction; 3. Pavement areas less than 300 square yards; or 4. Pavement less than 3 feet wide.”
6-24	602.04	Rename the following subsections as follows: “1. Initial Core.
6-24	602.04	2. Additional Cores.
6-24	602.04	3. Price Adjustment for Thickness.
6-25	602.04	4. Price Adjustments for Steel Locations within the Pavement.
6-26	602.04	5. Remove and Replace.”
6-29	603.02	Change the first sentence in the last paragraph in this subsection to read: “Provide coarse aggregate with no greater than 2.5% absorption in accordance with AASHTO T85.”
7-11	705.02	Change the second sentence in the last paragraph in this subsection to read: “Provide natural aggregate and with no greater than 2.50% absorption as specified in AASHTO T85 for structure concrete.”
7-29	706.02	Change the first sentence in the seventh paragraph in this subsection to read: “Provide natural aggregate and with no greater than 2.50% absorption as specified in AASHTO T85 for structure concrete.”
7-107	709.04	Change the Pay Unit on the second pay item from the top of the list on this page to read as follows: Thousand Board Foot

7-115	711.02	Change the first sentence in the last paragraph in this subsection to read: "Provide natural aggregate with a maximum absorption of 2.50% in accordance with AASHTO T85."
7-120	712.02	Change the first sentence in the sixth paragraph in this subsection to read: "Provide concrete containing natural aggregate with a maximum absorption of 2.50% in accordance with AASHTO T85."
7-185	718.02	Change the first sentence in the last paragraph in this subsection to read: "Provide concrete with natural aggregate with a maximum absorption of 2.50% in accordance with AASHTO T85."
8-12	804.03.B.2	Change the first sentence in this subsection to read: "Cast in place light standard and sign support foundations using fixed forms in accordance with the <i>MDOT Standard Plan R-50 series</i> ."
8-27		Change the last pay item at the bottom of this page to read as follows: Guardrail Anch, Bridge, Det __, CurvedEach
8-44	810.03.J.9	Add a period to the end of the third sentence in this subsection.
8-53	810.03.V	Add a period to the end of the second sentence of the first paragraph of this subsection.
8-53	810.04	Change the fourth pay item from the top of the list on this page to read as follows: Post, Steel, __ pound.....Foot
8-53	810.04	Change the last four pay items at the bottom of this page to read as follows: Fdn, Truss Sign Structure Type __, __ inch dia, Cased.....Foot Fdn, Truss Sign Structure Type __, __ inch dia, UncasedFoot Fdn, Cantilever Sign Structure Type __, __ inch dia, CasedFoot Fdn, Cantilever Sign Structure Type __, __ inch dia, Uncased.Foot
8-55	810.04.B.1	Delete the second paragraph of this subsection and replace with the following: "The unit prices for Fdn, Truss Sign Structure Type __, __ inch dia, Cased and Fdn, Cantilever Sign Structure Type __, __ inch dia, Cased include the cost of concrete, slurry, steel reinforcement, permanent casings, anchor bolts, excavation, and disposal of excavated material."
8-55	810.04.B.2	Delete this subsection and replace with the following: "Foundation, Truss Sign Structure, Uncased and Foundation, Cantilever Sign Structure, Uncased. The unit prices for Fdn,

Truss Sign Structure Type __, __ inch dia, **Uncased** and **Fdn, Cantilever Sign Structure Type** __, __ inch dia, **Uncased** include the cost of concrete, slurry, steel reinforcement, temporary casings, anchor bolts, excavation, and disposal of excavated material."

- | | | |
|-------|--------------|--|
| 8-57 | 810.04.I | Delete the first paragraph of this subsection and replace with the following:
"The unit price for Sign, Rem of the type required includes the cost of removing signs from supports and stacking by shape and size." |
| 8-57 | 810.04.I | Delete the second paragraph of this subsection and replace with the following:
"The unit prices for Ground Mtd Sign Supports, Rem; Cantilever, Rem and Truss, Rem include the cost of removing ground mounted sign supports, cantilever or truss supports." |
| 8-57 | 810.04.L | Change this subsection to read:
"The unit price for Sign, Erect, Salv of the type required includes erecting the salvaged sign on a new sign support or existing sign support, as shown on the plans, and attaching devices, and hardware, including brackets." |
| 8-110 | 812.04 | Change the fifth and sixth pay item from the top of the list on this page to read as follows:
Sign, Type B, Temp, Prismatic, Spec, Furn Square Foot
Sign, Type B, Temp, Prismatic, Spec, Oper Square Foot |
| 8-141 | 815.04.C.1.b | Delete this subsection in its entirety. |
| 8-141 | 815.04.C.1.c | Rename and change this subsection as follows:
"b. Removal and disposal of unacceptable plants including the root ball. |
| 8-141 | 815.04.C.1.d | Delete this subsection in its entirety. |
| 8-142 | 815.04.C.2.d | Change this subsection to read:
"During the first watering of the second growing season, remove and dispose of the guying material, identification tags, and inspection tags." |
| 8-144 | 816.03.A | Change the third sentence in this subsection to read:
"Use topsoil from within the project limits; or from off-site sources meeting the requirements in subsection 917.06." |
| 8-167 | 818.04 | Add the pay item to the bottom of the list on this page as follows:
Power Company (Estimated Cost to Contractor)..... Dollar |
| 8-170 | 818.04.G | Delete this subsection in its entirety. |
| 8-170 | 818.04 | Rename the following subsections as follows:
"G. Handholes (Hh). |

8-171	818.04	H. Service Disconnect.
8-171	818.04	I. Metered Service.
8-171	818.04	J. Unmetered Service.
8-172	818.04	K. Wood Pole.
8-172	818.04	L. Concrete Pole, Fit Up.
8-172	818.04	M. Steel Pole, Fit Up.
8-172	818.04	N. Bracket Arm."
8-171	818.04.J	Delete the second paragraph of this subsection and replace with the following: "The pay item, Power Company (Estimated Cost to Contractor) , establishes a budgeted amount in the contract to cover the cost of reimbursing the Contractor for payments made to the power company for providing electrical power at the locations shown on the plans. The Department will estimate the reimbursement costs to the Contractor and establish a budgeted amount as shown on the plans. The Department will pay the Contractor for power company invoices paid, as submitted to the Engineer."
8-176	819.03.B.5.b	In the second paragraph of this subsection delete the first sentence and replace with the following: "Tighten bolts connecting the pole to the frangible base to a snug tight condition in accordance with subsection 707.03.E.6.c."
8-185	820.01.B	Add a period to the end of the first sentence of this subsection.
8-187	820.02	Change the first line in the list of materials on this page to read: Conduit Material.....918
8-196	820.03.O	In the fourth paragraph of this subsection delete the last sentence and replace with the following: "Use smooth wall, Schedule 80, rigid PVC conduit, or coilable, Schedule 80 PE conduit in accordance with section 818."
8-199	820.04	Add the pay item to the list on this page: TS, (number) Way (type) Mtd (LED) Optic
8-200	820.04	Change the second pay item from the top of the list on this page to read as follows: TS Head, TempEach
8-200	820.04	Change the eleventh pay item from the top of the list on this page to read as follows: TS, Lens, Pedestrian Sym (LED)Each
8-200	820.04	Delete the following pay items from the list: Strain Pole, Steel, 6 bolt, ___ foot.....Each Mast Arm Pole, Cat____.....Each Mast Arm, ___Foot, Cat.....Each

- 8-200 820.04 Change the eleventh pay item from the bottom of the list on this page to read as follows:
Mast Arm, Rem.....Each
- 8-201 820.04 Delete the following pay item from the list:
Power Co. (Est Cost to Contractor)..... Dollar
- 8-202 820.04 Add the following pay item to the list:
Bracket, Truss, Salv.....Each
- 8-204 820.04.C Delete the last paragraph of this subsection in its entirety.
- 8-204 820.04.D Delete the first paragraph of this subsection in its entirety.
- 9-5 902.02 Delete the first line under the Material list and relace with the following:
"Wire Cloth and Sieves ASTM E11"
- 9-9 902.03.C.1.b Delete the first sentence in this subsection and replace with the following:
"The physical requirements for the coarse aggregate are as specified in Table 902-2 and as follows:"
- 9-14 Table 902-1 In the row that includes the information on the 34G material, under the column titled Item of Work by Section Number (Sequential) delete the reference to the section 404.
- 9-15 Table 902-2 Add the superscript (n) in the first row in the Dense-graded aggregates section of the table under the column titled Crushed Material, % min. (MTM 117).
- 9-16 Table 902-2 Add the superscript (n) in the first row in the Open-graded aggregates section of the table under the column titled Crushed Material, % min. (MTM 117).
- 9-16 Table 902-2 Delete the superscript footnote in the first through fourth rows under the header row that reads "(m)" in the column Loss, % max, LA Abrasion (MTM 102).
- 9-16 Table 902-2 Add the following row after the third row in the Open-graded aggregates section reading:
- | | | | | | |
|-----|----|----|----|----|----|
| 46R | -- | 45 | -- | -- | -- |
|-----|----|----|----|----|----|
- 9-16 Table 902-2 Add the superscript footnote in the header row that reads "(m)" in the column Loss, % max, LA Abrasion (MTM 102).
- 9-15 Table 902-2 Delete the footnote (d) in one location in the table.
- 9-17 Table 902-2 Delete the footnote (d) in one location in the table.

9-17	Table 902-2	Add the following footnote below the existing footnotes in this table. “(n) For recycled crushed concrete, if the source concrete uses primarily rounded river gravel aggregates, the minimum crushed particle content can be reduced to 90%.”
9-21	Table 902-6	Delete the footnote (b) in two locations in the table.
9-21	Table 902-6	Change the footnote (c) to read (b) in two locations in the table.
9-21	Table 902-6	Change the footnote (d) to read (c) in two locations in the table.
9-25	903.04	Delete the second sentence of the second paragraph of this subsection.
9-70	909.07.A	Delete the second sentence of this subsection.
9-70	909.05.D	Change the first sentence in this subsection to read: “Provide steel pipe for jacking in place meeting the requirements of ASTM A53/A53M for Type E or Type S, Grade B, or ASTM A139/A139M for Grade B.”
9-71	909.08.A	Change the first sentence in this subsection to read: “Provide bridge deck downspouts of PE pipe meeting the requirements of ASTM F714, PE 4710, DR 26 or Schedule 80 PVC.”
9-94	Table 910-01	Change the value in the fifth row under the header row in the Permittivity (min) (per second) column from 0.5 to read: “0.05”
9-94	Table 910-01	Change the value in the seventh row under the header row in the Permittivity (min.) (per second) column from 0.5 to read: “0.05”
9-95	Table 910-2	Change the second row under the Ultimate strength section to read: “CMD ^(c) 1950 lb/ft”
9-119	913.06	Change this subsection to read: Circular precast concrete units with circular reinforcement for adjusting rings, tops, risers, and sump bases for manholes, catch basins, and inlets must meet the requirements of AASHTO M199 and the following additions and exceptions:
9-133	917.03	Rename the four subsections following the first paragraph on this page as follows: D. Deciduous Shade Trees. E. Small Trees, Ornamentals, and Shrubs. F. Evergreen Trees. G. Vines, Ground Cover, and Herbaceous Ornamental Plants.
9-149	918.08	In the first paragraph of this subsection delete the second sentence and replace with the following:

"Provide light standards designed in accordance with AASHTO's LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals."

9-150	918.10	In the first paragraph of this subsection delete the first sentence and replace with the following: "Provide tower lighting units designed in accordance with AASHTO's LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals."
9-164	919.04.B	In the first paragraph of this subsection delete the first sentence and replace with the following: "Provide square tubular steel sign supports meeting the chemical, mechanical, and geometric properties of material used in the crash tests referenced in AASHTO's LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals."
9-170	920.02.C	Change the reference to Table 920-2 to read Table 920-3 in two locations.
9-222	922.10.A.3	Delete this subsection and replace with the following: "Conform to the wind load requirements specified by AASHTO's LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals with all equipment mounted without the need for additional ballast;"
10-23	1003.03.B	Delete the last sentence of this subsection and replace with the following: "Aggregate sampling for concrete will be performed by an MCAT-certified Aggregate Technician Level II."
10-42	Table 1006-01	Change footnote (a) to read: "(a) Ensure that the coarse aggregate's absorption does not exceed 2.5% in accordance with AASHTO T85."
10-43	Table 1006-02	Replace Table 1006-02 with the Table 1006-02 below.
1A - 20A	Pay Item Index	Replace the Pay Item Index in its entirety.

**Table 1006-2:
Overlay Mixtures**

Mixture Type	Aggregate	Slump (inch)	Air Content	Admixture Required	Mixture Proportions lb/yd ³ , dry weight					
					Cement ^(a)	Dry Densified Silica Fume ^(b)	Net Mix Water	Fine Agg	Coarse Agg	Latex Admixture
SFMC	2NS and 26A ^(c)	4–6	6.5 ±1.5%	^{(d),(e),(f)}	618	40	273 ^(g)	1273	1601	—
LMC	2NS and 26A ^(c)	^(h)	4.5 ±1.5%	—	658	—	^(h)	1490 ^{(i),(j)}	1300 ^{(i),(j)}	206

(a) Use only Type I Portland cement.

(b) For SFMC mixtures, the Contractor may use a blended silica fume Portland cement. However, if the silica fume content of the blended material is greater than 8% of the total cementitious material, submit to the Engineer modified mix proportions with Type I Portland cement added to the blended material to achieve the equivalent individual cementitious material mixture proportions.

(c) Provide coarse aggregate, 95% minimum crushed materials in accordance with Michigan Test Method (MTM) 117, with an absorption no greater than 2.5%, in accordance with AASHTO T85.

(d) Water-reducing high-range admixture or water-reducing high-range and retarding admixture.

(e) Virgin polypropylene collated fibers at 2 lb/yd³.

(f) Air-entraining admixture.

(g) Provide a net water to cementitious material ratio of 0.41 (cementitious material includes cement and silica fume).

(h) Add water in addition to water in the latex admixture to control slump to within 3 to 5 inches. Measure slump from 4 to 5 minutes after discharge from the mixer. During the waiting period, deposit concrete on the deck and do not disturb. If placing mixtures on sections within superelevated curves, the Contractor may need to use the lower allowable range of the slump requirement, as determined by the Engineer. Do not exceed water-cement ratio, by weight, of 0.30 including water contained in the latex emulsion.

(i) Aggregate proportions are approximate; due to gradation changes, the Contractor may increase proportions by no greater than 5% by weight of total aggregate if reducing coarse aggregate by an equivalent volume.

(j) Aggregate weights specified in the table are based on a dry bulk specific gravity of 2.65 for gravel and stone. Adjust the weights if the specific gravity of the materials used varies by more than 0.02 from the specified values.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
PROGRESS CLAUSE

OHM: AMS

1 OF 2

12/04/2025

Work may not start until after the pre-construction meeting and without the approval of the Engineer. In no case, shall any work commence prior to receipt of formal notice of award by the City of Livonia.

The project completion (open to traffic except punchlist) for all streets shall be completed on or before **September 18, 2026**.

The entire project (including punchlist) shall be completed on or before **October 9, 2026**.

The low bidder(s) for the work covered by this proposal will be required to meet with the City representatives to work out a detailed Progress Schedule. The schedule for this preconstruction meeting will be set after the low bidder is determined.

The named subcontractor(s) for Designated and/or Specialty Items, as shown in the proposal, is recommended to be at the scheduled meeting if such items materially affect the work schedule.

The Engineer will arrange the time and place for the meeting.

The Progress Schedule shall include, as a minimum, the controlling work items for the completion of the project and the planned dates that these work items will be controlling operations. When specified in the Bidding Proposal, the date the project is to be opened to traffic, as well as the final project completion date, shall also be included in the project schedule.

The contractor shall be limited to working on a maximum of eight (8) streets at a time. See Suggested Work Schedule below or approved otherwise by the Engineer. Once a rehabilitation street has started, the street must be completed within 40 calendar days. Once a maintenance street has started, the street must be completed within 21 calendar days. Each day after this time frame will be subject to liquidated damages that vary in the amount of \$750/day to \$1,000/day in addition to any liquidated damages associated with the final completion date of October 9, 2026.

If surface restoration is not complete after fourteen (14) days of placing pavement material for a street, liquidated damages in the amount of \$500.00 per day for each calendar day the surface restoration is not complete for the street. Also, if the maintenance of traffic items and channelizing devices are not removed from the construction area after seven days of placing the restoration, liquidated damages in the amount of \$250.00 per day for each calendar day the items are not removed.

\$1000.00 per day for each calendar day that completion of the entire project including surface restoration is not completed and accepted by the Owner after **October 9, 2026**.

\$1500.00 per day for each calendar day that completion of the roadways affecting schools is not completed and accepted by the Owner after **August 21, 2026**.

Items that may affect the Contractors schedule should be carefully considered, such as work limitations for work on school streets. Attached is the Engineer's phasing concept that considers

school streets, proximity of work to each other, and cost per phase. This is a suggested schedule and may be altered with approval by the Engineer. The Contractor's schedule shall be submitted to the Engineer and approved before beginning the work.

If the Bidding Proposal specifies other controlling dates, these shall also be included in the Progress Schedule.

Failure on the part of the Contractor to carry out the provisions of the Progress Schedule, as established, may be considered sufficient cause to prevent bidding future projects until a satisfactory rate of progress is again established.

Suggested Work Schedule

PHASE 1 **4 weeks: May 4 – July 3**

Road Name	From	To	Fix
Fairfax Ave	Purlingbrook Rd	End	Inlay
Maplewood Ave	Clarita Ave	Pickford Ave	3" Mill and Fill
Tuscany Ct	5 Mile Rd	End	3" Mill and Fill
Fairway Dr	Lyndon Ave	End	3" Mill and Fill
Fairway Ct	Fairway Dr	End	3" Mill and Fill
Hunters Pk	Plymouth Rd	End	3" Mill and Fill
Roselinda Dr	Plymouth Rd	South End	3" Mill and Fill

PHASE 2 **6 weeks: July 6 – Aug 22**

Road Name	From	To	Fix
Buckingham Ave	Middlebelt Rd	End	3" Mill and Fill
Riga Ave	#28033 Buckingham Ave	Acacia Ave	3" Mill and Fill
Acacia Ave	Riga Ave	Harrison Ave	3" Mill and Fill
Gita Ave	Riga Ave	Harrison Ave	3" Mill and Fill
Gita Ct	Gita Ave	End	3" Mill and Fill
Hartel Ave	Plymouth Rd	End	3" Mill and Fill
Harrison Rd	West Chicago Rd	Plymouth Rd	3" Mill and Fill
Myrna Ave	Merriman Rd	Hubbard Rd	Inlay

PHASE 3 **6 weeks: Aug 23 – Oct 9**

Road Name	From	To	Fix
Boston Post Rd	Beacon Ave	Stark Rd	Inlay
Wadsworth Ave	Boston Post Rd	End	Inlay
Standish Ave	Boston Post Rd	End	Inlay
Pricilla Ln	Boston Post Rd	Plymouth Rd	Inlay
Orangelawn Ave	E Clements Cl	Cavel Ave	Inlay
Orangelawn Ave	Arcola Ave	Inkster Rd	Inlay
Elmira Ave	Cavel Ave	Inkster Rd	Inlay

UTILITY CONTACT LIST

(UPDATED 6/25/25)

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Fire – City of Livonia Fire Department:

Robert Jennison
Fire Chief
14190 Farmington Road
Livonia, MI 48154
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After 5:00pm: 734.466.2470

Wayne County Traffic Signals:

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Wayne County DPS:

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Fax: 904.306.5037
Email: charlie_myers@CSX.com
Emergency: 1.800.232.0144

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Emergency: 800.331.4115

Sunoco Logistics / Energy Transfer

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UTILITY CONTACT LIST

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Anything Streetlight (other than outages)
Shalonda Stewart
734.397.4118

ITC – Local Government & Community Affairs:

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Charter Communications (formerly Spectrum):

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TURNKEY Network Solutions:

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Permit Coordinator
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Crown Castle Fiber:

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Macey Davis – Permitting and Operations
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McLeodUSA, a Windstream Company:

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CITY OF LIVONIA
SPECIAL PROVISION
FOR
COORDINATION CLAUSE

OHM: AMS

1 OF 2

12/17/2025

The Contractor shall be aware of other road construction work being done in the City of Livonia. The City's **2026 CONCRETE PAVING PROGRAM** will also be under construction between May and October, 2026. This project includes work on numerous streets within the City. The Contractor shall coordinate the work under this contract with the work being done on these projects.

The Contractor shall also be aware that other projects may be constructed within the City by other agencies or contractors that may impact work under this contract. Projects within the City may include:

2026 Road Repair Program – Concrete – Contract Number – 26-C

REHABILITATION

Street	From	To
Bridge Ave	#19304 Gary Ln	Laurel Ave
Laurel Ave	Bridge Ave	End
Golfview Dr	Curtis Rd	#36264 Clarita Ave
Bobrich Ave	Merriman Rd	#30690 Bobrich Ave
Parkdale Ave	Wayne Rd	Yale Ave
Park Lane Dr	#17461 Park Lane Dr	#17718 Park Lane Dr
Dardanella Ave	Levan Rd	#36393 Dardanella Ave
North Sherwood Ct	South Sherwood Ct	Newburgh Rd
South Sherwood Ct	North Sherwood Ct	Newburgh Rd
Lyndon Ave	#14509 Fairway Dr	#14512 Ronnie Ln
Oakview Ave	Henry Ruff Rd	Doris Ave
Pinetree St	Angeline Cir	East of Angeline Cir
Angeline Cir	#36694 Angeline Cir	#36646 Angeline Cir
Fremont Ave	Grandon Ave	End of concrete
Brentwood Ave	Grandon Ave	Dover Ave
Industrial Rd -1	Wayne Rd	#35550 Industrial Rd
Industrial Rd -2	Stark Rd	#34411 Industrial Rd
Blue Skies St	Lancaster St	Stonehouse Cir

SELECTIVE SLAB PROGRAM

Street	From	To
Glen Eagles Dr	Trumburry Dr	Muirfield Dr
Muirfield Dr	Augusta Dr	Glen Eagles Dr
Dardanella Ave	#36393 Dardanella Ave	Parklane Dr
WB Schoolcraft Rd	Off Ramp	Levan Rd
Richland St	Angeline Cir	Angeline Cir
Cavell Ave	Dover Ave	Grandon Ave
Westfield Ave	Merriman Rd	Middlebelt Rd
Hathaway Ave	Louise Ave	Middlebelt Rd
Sunbury Ave	Dover Ave	Grandon Ave

Construction activities and traffic control measures shall be coordinated with any other projects.

It is the Contractor's responsibility to coordinate his/her efforts with the other projects. Any additional costs incurred by the Contractor resulting from conflict with another project will be considered incidental and will not be paid for.

The Contractor shall not receive a time extension due to work delays resulting from conflicts with another project. Refer to the Proposal for information on the required completion date and associated penalties.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
MAINTAINING TRAFFIC

OHM: AMS

1 OF 6

12/17/2025

GENERAL ITEMS

The Contractor shall maintain traffic throughout the project in accordance to Section 812 of the 2020 Standard Specifications for Construction, including any Supplemental Specifications, and as specified here.

The Contractor shall notify the Engineer a minimum of 72 business hours prior to the implementation of any detours, road closures, or lane closures or major traffic shifts.

If no specific traffic control plan is included in the log book, traffic on all streets shall be maintained in accordance with the “**Residential Street Typical Traffic Control Detail Sheet**” and “**Residential Street Typical Traffic Control Detail Sheet for Full Closure**” as specified herein, and as noted herein. Changes or adjustments to the details within the log package or traffic control plans may be necessary, as determined by the Engineer.

CONSTRUCTION INFLUENCE AREA (CIA)

The following chart defines the CIA for each street to be constructed within the project. The CIA for each individual street in the chart includes the area within the right-of-way of that particular street from the initial advanced warning sign near the P.O.B. to the initial advanced warning sign near the P.O.E. The CIA shall also include the first 500’ of area within the right-of-way of all intersecting streets.

FIX TYPE	SECTION	STREETS
Rehab	2	Fairfax Ave – Purlingbrook Rd to End
Rehab	12	Maplewood Ave – Clarita Ave to Pickford Ave
Rehab	15	Myrna Ave – Merriman Rd to Hubbard Rd
Rehab	19	Tuscany Ct – 5 Mile Rd to End
Rehab	20	Fairway Dr – Lyndon Ave to End
Rehab	20	Fairway Ct – Fairway Dr to End
Rehab	24	Buckingham Ave – Middlebelt Rd to End
Rehab	24	Riga Ave - #28033 Buckingham Ave to Acacia Ave
Rehab	24	Acacia Ave – Riga Ave to Harrison Ave
Rehab	24	Gita Ave – Riga Ave to Harrison Ave
Rehab	24	Gita Ct – Gita Ave to End
Rehab	25	Hartel Ave – Plymouth Rd to End
Rehab	28	Boston Post Rd – Beacon Ave to Stark Rd
Rehab	28	Wadsworth Ave – Boston Post Rd to End
Rehab	28	Standish Ave – Boston Post Rd to End
Rehab	28	Priscilla Ln – Boston Post Rd to Plymouth Rd
Rehab	30	Hunters Pk – Plymouth Rd to End
Rehab	30	Roselinda Dr – Plymouth Rd to South End
Rehab	36	Orangelawn Ave – E Clements Circle to Cavell Ave

Rehab	36	Orangelawn Ave – Arcola Ave to Inkster Rd
Maintenance	36	Harrison Rd – West Chicago Rd to Plymouth Rd
Rehab	36	Elmira Ave – Cavell Ave to Inkster Rd

The Contractor shall coordinate its operations with Contractors performing work on other projects within or adjacent to the Construction Influence Area (CIA) or adjoining areas to avoid conflicts in the maintenance of traffic, construction signing, and to provide for the orderly progress of contract work.

The City of Livonia maintenance crews and/or Contract Maintenance Agencies may perform maintenance work within or adjacent to the Construction Influence Area (CIA). The Maintenance Division of the City of Livonia and/or Contract Maintenance Agency will coordinate their operations with the Engineer to minimize the interference to the Contractor. No additional payment will be made to the Contractor for the joint use of the traffic control items.

TRAFFIC RESTRICTIONS

General Restrictions:

No work shall be performed on **Memorial Day, May 26th, July 4th, or Labor Day** holiday periods as defined by the Engineer.

No work shall be performed on Sundays, unless otherwise approved by the City's Engineer.

All improvements to streets affecting schools shall be completed between **June 8, 2026** and **August 22, 2026**.

The minimum traveled lane width shall be 10' during the Stage Construction Sequence.

All lane closures shall originate from the same side of the roadway. No conflicting lane closures shall be permitted. The Contractor shall not be permitted to switch from the right lane to left lane and vice-versa unless specifically detailed within this log package.

The Contractor shall maintain safe and reasonable access to all businesses, homes, and streets at all times.

For HMA reconstruction, the Contractor shall sequence the work such that the placement of the aggregate base immediately follows the excavation to the subgrade. The Contractor shall maintain access to all residential driveways at the end of each work day. Maintenance aggregate required to maintain access to drives from subgrade to existing driveways will not be paid separately and shall be included in the cost of station grading.

TRAFFIC CONTROL DEVICES

General

All traffic control devices and their usage shall conform to the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), 2011 version, the 2020 Michigan Department of Transportation Standard Specifications for Construction, and as specified herein.

During construction, access to all businesses and residential drives shall be maintained, unless otherwise noted for a specific drive on the plans. The Contractor may close driveways where a business has multiple access points.

The Contractor shall place W20-1 signs (ROAD WORK AHEAD) on all crossroads within the project limits.

Payment for all equipment, labor, materials and traffic control materials required to cover temporary signs shall be considered to be included in the cost of **Traffic Control, Residential Street.**

Temporary signs, which are to remain in place for 30 days or more, shall be installed on permanent post mounts as directed by the Engineer. All other signs may be installed on portable supports.

When signs or traffic signal heads for this project are to be covered, they shall be covered in accordance with Section 812.03 of the 2020 Standard Specifications for Construction and applicable details therein except as noted above.

All traffic control devices moved to facilitate to Contractor's operation shall be replaced at the end of the workday. The Contractor shall routinely maintain the traffic control devices including, but not limited to proper placement, weighted with sandbags, cleaning for reflectivity, and replacing damaged devices. The Contractor shall be responsible for protecting the work area and shall supply the necessary traffic control devices apart from those called for on the plans to delineate the work area from adjacent property. The Contractor shall store materials and equipment in a location approved by the Engineer.

The Contractor will replace any damaged signs, barrels, and/or barricades as directed by the Engineer.

Temporary Signs

All diamond-shaped warning signs shall be 48" x 48" mounted at a 7' minimum bottom height unless otherwise specified in the details.

All construction signs that are to be left in place overnight shall be fluorescent orange prismatic sheeting per ASTM D 4956 Type VII sign material per section 922 of the 2020 MDOT Standard Specifications for Construction, as directed by the Engineer.

All signs placed shall be of **good quality** as determined by the Engineer. Signs determined by the Engineer to be defective or of poor quality shall be removed and replaced by the Contractor. Failure to remove and replace defective or poor-quality signs shall result in a stoppage of work.

All signs shown on the details or plans shown in the logbook shall be considered in the cost of the pay items **Traffic Control, Residential Street.**

Channelizing Devices

Channelizing devices shall be plastic drums with high intensity sheeting and be of **good quality**. Barricades determined by the Engineer to be defective or of poor quality shall be removed and replaced by the Contractor. No intermixing of different types of channelizing devices will be allowed.

Channelizing Devices shall be placed in accordance with the details included within the log package and the MMUTCD.

Plastic drum spacing shall be as follows: 50 ft on tangents, 25 ft on tapers, and 10 ft on radii, where tighter control is required and as directed by the Engineer.

Type III Barricades shall be 8 feet wide x 5 feet high.

Type III barricades shall be double sided and be of **good quality** as determined by the Engineer. Barricades determined by the Engineer to be defective or of poor quality shall be removed and replaced by the Contractor.

Failure to remove and replace defective or poor-quality channelizing devices shall result in stoppage of work.

Temporary Striping

“Type R” temporary pavement markings may be used on this project as directed by the Engineer. Temporary pavement markings shall be placed as shown on the plans or as directed by the Engineer and shall be considered to be included in the cost of **Traffic Control, Residential Street** and **Traffic Control, Full Closure**.

Permanent Pavement Markings

There are no permanent pavement marking's in this year's Paving Program.

MEASUREMENT AND PAYMENT

The estimate of quantities for maintaining traffic on this project is based on the Suggested Work Schedule, the Residential Street Typical Traffic Control Detail Sheet, specific traffic control plans as noted above, and described in this Special Provision and payment for these devices shall be according to Section 812.04 of the 2020 Standard Specifications for Construction unless otherwise specified.

The estimate of quantities for maintaining traffic on this project is based on the Suggested Work Schedule, the Residential Street Typical Traffic Control Detail Sheet, specific traffic control plans as noted above, and described in this Special Provision and payment for these devices shall be according to Section 812.04 of the 2020 Standard Specifications for Construction unless otherwise specified. If paid, signs must be placed for each street as shown in the details. If signs get eliminated, partial payment or no payment may be allowed. The Engineer may discuss eliminating signing from one or more of the streets if the signing is too dense.

Traffic Control, Residential Street, which will be paid for separately if additional pavement areas are added in association with the pay item Hand Patching, Special.

Any additional signing or maintaining traffic devices required to expedite the construction shall be at the Contractor's expense. There will be no consideration of payment for any unused traffic control devices.

The traffic control plan installed by the Contractor shall be paid for at the contract unit price for the following contract items:

Contract Item (Pay Item)	Pay Unit
Barricade, Type III, High Intensity, Lighted, Furn	Each
Barricade, Type III, High Intensity, Lighted, Oper	Each
Plastic Drum, High Intensity, Furn	Each
Plastic Drum, High Intensity, Oper.....	Each
Sign, Type B, Temp, Prismatic, Furn.....	Square Feet
Sign, Type B, Temp, Prismatic, Oper	Square Feet
Traffic Control, Residential Street.....	Each

The contract unit price for **Traffic Control, Residential Street** shall include all temporary signing, barricades, channeling devices, temporary pavement markings, flag control, and any additional minor traffic devices necessary per the traffic control detail in the logbook.

If the Engineer considers the traffic control plan as set up per the detail in the logbook to be insufficient, the Contractor must perform corrective measures to gain the Engineer's approval. The Contractor will receive additional pay for additional items needed to achieve a satisfactory evaluation from the Engineer per individual

pay items added to the project. Because of the safety issue with this item of work, the Contractor will not be paid for **Traffic Control, Residential Street** until gaining such approval from the Engineer.

The Contractor will be paid the contract unit price for **Traffic Control, Residential Street** subsequent to completing construction on a street with a traffic control plan approved by the Engineer. The following quantity will be paid for **Traffic Control, Residential Street**. Portions of one “each” may be paid on streets in close proximity to each other.

Log #	Road	From	To	Quantity
1	Fairfax Ave	Purlingbrook Rd	End	0.25
2	Maplewood Ave	Clarita Ave	Pickford Ave	0.25
3	Myrna Ave	Merriman Rd	Hubbard Rd	1
4	Tuscany Ct	5 Mile Rd	End	0.25
5	Fairway Dr	Lyndon Ave	End	0.75
6	Fairway Ct	Fairway Dr	End	0.25
7	Buckingham Ave	Middlebelt Rd	End	0.25
8	Riga Ave	#28033 Buckingham Ave	Acacia Ave	0.50
9	Acacia Ave	Riga Ave	Harrison Ave	0.50
10	Gita Ave	Riga Ave	Harrison Ave	0.50
11	Gita Ct	Gita Ave	End	0.25
12	Hartel Ave	Plymouth Rd	End	1
13	Boston Post Rd	Beacon Ave	Stark Rd	1
14	Wadsworth Ave	Boston Post Rd	End	0.25
15	Standish Ave	Boston Post Rd	End	0.25
16	Priscilla Ln	Boston Post Rd	Plymouth Rd	0.25
17	Hunters Park	Plymouth Rd	End	0.25
18	Roselinda Dr	Plymouth Rd	South End	0.25
19	Orangelawn Ave	E Clements Ave	Cavell Ave	0.75
20	Orangelawn Ave	Arcola Ave	Inkster Rd	0.25

21	Harrison Rd	West Chicago Rd	Plymouth Rd	1
22	Elmira Ave	Cavell Ave	Inkster Rd	0.50

If the Engineer requests additional signing not shown on the typical traffic control detail sheet and detour route for full closure, the additional work will be included in the pay item **Sign, Type B, Temp, Furn** and **Sign, Type B, Temp, Oper**.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
SOIL EROSION AND SEDIMENTATION CONTROL

OHM:AMS

1 OF 4

12/04/2025

a. Description. Soil Erosion and Sedimentation Control (SESC) measures shall be installed per the following: the 2020 MDOT Standard Specifications for Construction, MDOT Standard Plan R-96 Series, as directed by the Engineer, and as specified herein.

The measures for Soil Erosion and Sedimentation Control outlined herein apply for ALL streets. Specific information or additional details for individual streets reside in the typical cross sections and/or the plan sheets.

METHODS

The following describes the proper timing and sequence of construction for SESC measures:

1. Prior to earth stripping, earth excavation, or pavement removal, all temporary (and permanent, if applicable) SESC items must be in place as shown on the plans and/or as directed by the Engineer. Actual construction may vary to reflect materials used and to control site problems, subject to the approval of the Engineer.
2. Refer to "Soil Erosion and Sedimentation Control Typical Detail" sheet for proper placement of SESC items. Once the proper SESC items are in place, it is acceptable to perform pavement removal and/or any earthwork operations. Collected silt and sediment shall be removed periodically, and within 24 hours after rain events to maintain the effectiveness of SESC measures. All temporary SESC measures shall be regularly maintained and/or as directed by the Engineer. The maintenance of the SESC measures is the sole responsibility of the Contractor and shall not be paid for separately.
3. Install storm sewer, if applicable. Construct catch basins and place inlet filters. Place MDOT SESC item #29 for structures within curb and gutter, and place MDOT SESC item #30 for structures within the greenbelt. Install Check Dams immediately after ditching in locations shown in the to "Soil Erosion and Sedimentation Control Typical Detail" sheet or as directed by the Engineer.
4. Construct pavement.
5. Clear all accumulated sediment from sewers, catch basins and pavement areas with frequency. Silt will be temporarily stored in a non-erosive location (as determined by the Engineer) or removed from the site. Payment for this work is included in the SESC items and is as directed by the Engineer.
6. Restore all disturbed areas with "Surface Restoration, Seeding" or "Surface Restoration, Sodding" as called for in the typical cross sections or plan sheets. In areas where ditching is proposed, sod shall be installed within the ditch foreslope, backslope, and ditch bottom immediately following the construction of the ditch. All other final restoration must be completed within five (5) days of final earth grading. If the Engineer determines that restoration cannot be fully established due to seasonal constraints, the Contractor must install temporary restoration measures within five (5) days of final earth grading.
7. Place all remaining permanent SESC items. All permanent SESC measures must be installed

on a given roadway prior to moving on to another roadway.

8. Remove temporary erosion and sedimentation control items after permanent vegetation is established.
9. Contractor shall maintain and repair permanent vegetation items until fully established, as directed by the Engineer.
10. Perform "Sweeping" operation as outlined in the special provision. "Sweeping" is considered a part of SESC procedure.

The Contractor shall follow City rules and regulations for Soil Erosion and Sedimentation Control for all materials that are disposed off the project site.

The Engineer will provide certified soil erosion inspector to verify compliance on a weekly basis or within 24 hours of a storm event.

The Contractor shall conduct his operations in such a manner as to minimize the areas left barren during the construction and to disturb only those areas absolutely required for the construction of this project.

STREET-BY-STREET SUMMARY OF SESC PLAN (PER MDEQ RULE 1703)

As mandated by Michigan Department of Environmental Quality (MDEQ) Rule 1703 (R 323.1703), a soil erosion and Sedimentation Control Typical Detail has been prepared for each individual street to be reconstructed (i.e., an earth change). The Contractor shall refer to the "Soil Erosion and Sedimentation Control Typical Detail" sheets and the contents of this special provision for SESC requirements. The following is a street-by-street breakdown that summarizes SESC measures per street and addresses each item required by MDEQ Rule 1703. This breakdown serves as a supplement (additional notes) to the "Soil Erosion and Sedimentation Control Typical Detail" sheets:

RECONSTRUCTION ROADS

Road Name	From	To

REHABILITATION ROADS

Road Name	From	To
Fairfax Ave	Purlingbrook Rd	End
Maplewood Ave	Clarita Ave	Pickford Ave
Myrna Ave	Merriman Rd	Hubbard Rd
Tuscany Ct	5 Mile Rd	End
Fairway Dr	Lyndon Ave	End
Fairway Ct	Fairway Dr	End
Buckingham Ave	Middlebelt Rd	End
Riga Ave	#28033 Buckingham Ave	Acacia Ave

Acacia Ave	Riga Ave	Harrison Ave
Gita Ave	Riga Ave	Harrison Ave
Gita Ct	Gita Ave	End
Hartel Ave	Plymouth Rd	End
Boston Post Rd	Beacon Ave	Stark Rd
Wadsworth Ave	Boston Post Rd	End
Standish Ave	Boston Post Rd	End
Priscilla Ln	Boston Post Rd	Plymouth Rd
Hunters Park	Plymouth Rd	End
Roselinda Dr	Plymouth Rd	South End
Orangelawn Ave	E Clements Circle	Cavell Ave
Orangelawn Ave	Arcola Ave	Inkster Rd
Elmira Rd	Cavell Rd	Inkster Rd

MAINTENANCE ROADS

Road Name	From	To
Harrison Rd	West Chicago Rd	Plymouth Rd

(a.) The work on these streets may involve cold milling of pavement and the full-depth removal and replacement of existing pavement for pavement patches only or pulverization of the entire roadway. There are no lakes or streams within 500 feet of earth change except Hubbard.

(b.) Refer to the soil borings in "Appendix A" for existing soil material.

(c.) The following describes the proposed earth change:

(i.) The earth behind the edge of metal or back of curb shall have minimal disturbance. In these locations, the proposed grading limits shall be 5 feet maximum beyond the back of curb. All disturbed earth shall be restored with "Surface Restoration, Seeding". See the special provision for "Surface Restoration" for detailed information for this item

(ii.) The location of the existing grass ditch is noted on the "Soil Erosion and Sedimentation Control Typical Detail" sheet. The existing ditch shall not be disturbed.

(iii.) Refer to the "METHODS" portion of this special provision for the timing and sequence of the proposed earth change.

(iv.) & (v.) Refer to the "METHODS" portion of this special provision and the "Soil Erosion and Sedimentation Control Typical Detail" sheet for the location/description for installing/removing temporary and permanent SESC measures.

(vi.) After completion of the project, the property owner is responsible for maintenance of permanent SESC measures.

Pay Items**Pay Unit**

Erosion Control, Inlet Protection, Fabric Drop.....	Each
Erosion Control, Inlet Protection, Geotextile and Stone	Each
Erosion Control, Silt Fence	Foot

Surface Restoration, Sodding..... Square Yard
Surface Restoration, Seeding..... Square Yard

Payment for SESC Measures shall be measured and paid for as specified above and shall be considered payment in full for labor, materials, and equipment required to complete this work.

No additional payment shall be permitted for either maintenance or removal of temporary erosion control items.

Erosion Control, Inlet Protection, Geotextile and Stone shall be placed on/ under the existing drainage structures (inlets) cover, during the time of construction & removed after the construction phase per MDOT Standard Detail R-96 Series and as directed by the Engineer. Placing, maintenance, and removal of inlet protection are included in the pay item **Erosion Control, Inlet Protection, Geotextile and Stone**.

Erosion Control, Inlet Protection, Fabric Drop shall be placed around the existing drainage structures (inlets) cover, during the time of construction & removed after the construction phase per MDOT Standard Detail R-96 Series and as directed by the Engineer. Placing, maintenance, and removal of inlet protection is included in the pay item **Erosion Control, Inlet Protection, Fabric Drop**.

Erosion Control, Silt Fence shall be placed in ditches or along construction during the time of construction & removed after sufficient vegetation has taken root per MDOT Standard Detail R-96 Series and as directed by the Engineer. Placing, maintenance, and removal of silt fence is included in the pay item **Erosion Control, Silt Fence**.

Refer to Special Provision for **Surface Restoration, Sodding** and **Surface Restoration, Seeding**, respectively.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
**NON-COMPLIANCE WITH SOIL EROSION AND SEDIMENTATION CONTROL
REQUIREMENTS**

C&T:DMG

1 of 2

C&T:APPR:JAR:TWK:08-02-06
FHWA:APPR:08-11-06

a. Description. This special provision establishes negative adjustments related to the failure to properly install and maintain soil erosion and sedimentation control (SESC) measures and the conditions under which these adjustments will be determined and applied. Nothing in this special provision modifies section 107 of the Standard Specifications for Construction,

Delays to the project as a result of the Contractor conducting corrective actions for SESC do not constitute a valid reason for an extension of time.

Deficiencies with SESC measures must be corrected in the time frame stated herein. For those deficiencies not corrected within the stated time frame, the Engineer will make a negative adjustment to the contract as stated herein.

b. Construction. The Contractor must install all temporary erosion control measures identified on the plans and as directed by the Engineer for an impacted area of the project prior to the start of any earth disturbance including, but not limited to, clearing, grading and excavation in that area. The Engineer will inspect these measures every seven days and within 24 hours of precipitation events which result in off-site runoff. Deficiencies will be documented on the National Pollutant Discharge Elimination System (NPDES) Inspection Report (Form 1126).

If at any time during the project, including the time during the seasonal suspension, the Engineer documents deficient SESC measures, the Engineer will provide written notification with instructions for corrective action to the Contractor. The time frame for completion of these corrective actions will be specified in the notification and will be discussed with the Contractor as necessary.

Deficiencies are defined as one or more of the following:

1. failure to install or construct SESC measures shown on the plans or as directed by the Engineer;
2. failure to maintain the measures;
3. failure to conduct earth change activities in a manner consistent with all applicable environmental permit requirements;
4. failure to comply with the time limitations or the area limitations stated in subsections 208.03.B and 208.03.C, respectively, of the Standard Specifications for Construction.

SESC deficiencies are either emergency or non-emergency and the time frame for corrective action is determined accordingly. Sedimentation of a drainage structure or waters of the state or loss of support of the roadbed impacting public safety constitutes an emergency and corrective

actions must be completed within 24 hours of notification. Non-emergency deficiencies must be corrected within five calendar days of notification.

For those emergency corrective actions not completed within 24 hours of notification, the Contractor will be assessed \$100.00 per hour for every hour the deficiency remains uncorrected after the initial 24 hours of notification. For those non-emergency corrective actions not completed within five calendar days, the Contractor will be assessed \$500.00 per day for every day the deficiency remains uncorrected after the initial five days of notification.

If it is not practicable to complete the non-emergency corrective actions within five calendar days, the Contractor must document the reasons and propose a corrective action plan to the Engineer within five days of notification. The corrective action plan must contain the Contractor's course of action and a time frame for completion. If the reasons and the corrective action plan are acceptable to the Engineer, the Contractor will be allowed to proceed with the plan as proposed without incurring a negative adjustment. If the approved corrective action plan is not completed as proposed, the Contractor will be assessed \$1,000.00 per calendar day for every day the deficiency remains uncorrected after the time frame is exceeded in the approved corrective action plan.

The Contractor is required to correct, in the timeframe stated herein, all other emergency or non-emergency SESC deficiencies documented anywhere else on the project during completion of the approved corrective action plan.

c. Measurement and Payment. The Engineer will make the necessary monetary adjustment to the contract amount based on the length of time the Contractor allows the deficiencies to remain uncorrected after the time allowance stated herein and as described to cover any costs incurred by the department as a result of SESC violations.

All costs associated with corrective actions required due to the Contractor's failure to properly install or maintain soil erosion and sedimentation control measures on this project will be borne by the Contractor.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
PERMIT REQUIREMENTS

OHM/mrl

Page 1 of 1

12/09/24

a. Description. This special provision describes the way the reimbursement for permit fees in Section 107 of the 2020 MDOT Standard Specifications for Construction will be paid.

The following permits are required to be obtained by the contractor. The contractor shall fulfill all obligations and post all monies, insurance etc. as part of the approved application.

Wayne County ROW Permit:

- Construction Signing Permit - This permit covers the inspection for WCDPS for any temporary signs placed in the County ROW. The fee portion of this permit will be reimbursed under the Reimbursed Permit Fees pay item.
- MDOT Signing Permit – This permit is for placing plastic drums and temporary and permanent pavement markings on Plymouth Road. This is a no cost permit that has been applied for by the owner.

b. Measurement and Payment. All permit fees, as described in Section 107 of the Standard Specifications for Construction, will be paid for using the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
Reimbursed Permit Fees.....	Dollar

Reimbursed Permit Fees includes the reimbursement for the eligible permit fees with supporting receipts or other proof of payment documentation from the contractor.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
DUST CONTROL

OHM: mrl

1 OF 1

12/18/2018

a. Description. This work shall be done in accordance with Section 107 of the 2020 Michigan Department of Transportation Standard Specifications for Construction, the details shown in the contract documents, and as herein provided.

b. Construction. Dust Control shall be the continuous responsibility of the Contractor until final road treatment is completed and the roads have been accepted by the City of Livonia for maintenance.

All haul roads, detour roads, temporary access roads, other public or private roads, driveways, and parking lots used by the Contractor must be maintained in a dust-free condition for the duration of the contract. The control of the dust shall be accomplished by application of dust control materials and methods of application as approved and as directed by the Engineer. Such dust control measures shall be applied as often as is necessary to control dust. The Contractor shall note that due to the location of the project, neglect of dust control will not be tolerated.

In the event that dust control measures are deemed unacceptable by the Engineer, the Contractor shall receive written notification from the Engineer and shall have 24 hours to comply with this special provision. Failure by the Contractor to provide adequate dust control shall be sufficient reason for the City of Livonia to cause such necessary dust control measures to be taken and back charge all costs for same against monies due to the Contractor.

c. Measure and Payment. Cost of providing dust control shall not be paid for separately, but shall be considered included in the Maintaining Traffic pay items.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
SWEEPING

OHM: mrl
12/18/2018

1 OF 1

a. Description. The work shall consist of sweeping pavements in the construction area, including service roads, paved shoulders, widened areas, and cross streets, as directed by the Engineer.

b. Materials. The sweeper shall be a self-propelled or towed street sweeper equipped with pickup attachments (vacuum) and curb brushes. A “blower” is not acceptable.

c. Construction. Paved surfaces shall be swept as often as necessary to maintain traffic as directed by the Engineer. Paved surfaces shall also be swept on the day of HMA paving. The Engineer may require additional sweeping if excess sediment exists on the roadway prior to HMA paving.

Paved roadbeds shall be given a final cleaning within 5 working days prior to opening the pavement surface to traffic or notification by the contractor that the work is completed, whichever occurs first.

d. Measurement and Payment. The work of sweeping shall not be paid for separately, but shall be considered incidental to the project.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
TREE ROOT GRIND

OHM: mrl

1 OF 1

01/09/2023

a. Description. This work shall consist of grinding the roots of trees that are causing damage to the pavement section to a distance of 2 feet behind the edge of pavement as directed by the Engineer. The work in this Section shall be in accordance with the applicable portions of Section 202 of the Michigan Department of Transportation 2020 Standard Specifications for Construction. This Section shall include removal and disposal of the tree root material.

b. Measurement and Payment. The completed work as measured for **Tree Root Grind** will be paid for at the contract unit price for the following contract item (pay item).

Pay Item

Pay Unit

Tree Root GrindEach

Measurement and payment for **Tree Root Grind** shall be in accordance with the applicable portions of Section 202 of the Standard Specifications, Clearing.

Tree Root Grind shall be measured per tree and shall comprise all roots associated with that tree to be ground and disposed of properly. The pay item shall include all labor, materials, and equipment required to perform the work as listed above.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
PAVT, REM, MODIFIED

OHM: mrl

1 of 1

01/09/2023

a. Description. The work to remove the existing pavement as shown on the plans shall be done in accordance with Section 204, Removing Miscellaneous Structures and Materials, of the 2020 Michigan Department of Transportation Standard Specifications for Construction except as modified herein.

b. Materials and Construction Methods. Pavg, Rem, Modified shall include removing all existing HMA or concrete driveway pavements regardless of depth or various types of materials as shown on the plans in accordance with Sections 204.02 and 204.03 of the 2020 Michigan Department of Transportation Standard Specifications for Construction, and as directed by the Engineer. HMA roadway removal shall be paid as **HMA Surface, Rem**. Concrete roadway removal shall be paid as **Pavg, Rem**.

c. Measurement and Payment. The completed work for **Pavg, Rem, Modified** will be paid for at the contract unit price for the following:

Contract Item (Pay Item)	Pay Unit
Pavg, Rem, Modified.....	Square Yard

Pavg, Rem, Modified will be measured regardless of depth or material in its original position by the unit square yard and paid for at the contract unit price per square yard, which price shall be payment in full for all labor, materials, and equipment needed to accomplish this work. Payment for this contract item includes demolishing and removing, sawing where required, and disposing of materials. Backfilling all excavated areas or holes, within and below the subgrade surface limit, resulting from removal of the existing pavement will be included in **Station Grading_2** unless otherwise directed by the Engineer. Payment for earthwork for driveways on roads that are not being reconstructed or inlayed (ie. Where no Station Grading pay item is included) shall be included in the cost of the driveway pay items.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
DITCH CLEANOUT

OHM: mrl

1 OF 2

01/09/2023

a. Description. This work shall be done in accordance with Section 205 of the 2020 Michigan Department of Transportation Standard Specifications for Construction except as herein provided.

b. Construction. The work of **Ditch Cleanout** shall consist of constructing earth grades by excavating soil or rock and placing embankments or fills as necessary to develop the cross-section shown on the details. The work shall include the salvaging and stockpiling of selected materials, disposing of surplus or unsuitable material, furnishing and placing embankment materials, trimming the earth grade, and maintaining the work in a finished condition until acceptance.

Grading may be required from the edge of the roadway to back of ditch to flatten or create slopes on roadways where Station Grading is not being paid. This excavation will be included in the payment for **Ditch Cleanout**.

All suitable excavated material can be used to construct embankments (fill), backfill muckholes, or flatten slopes as directed by the Engineer.

All surplus excavated and unsuitable or waste material not able to be incorporated into the project shall become the property of and shall be disposed of by the Contractor. The Contractor shall follow federal, state and local regulations in the disposal of surplus materials.

All natural soil left in place in cut sections shall be compacted to not less than 95% of maximum unit weight.

Ditch Cleanout shall include all required excavation and embankment, in addition to the following items of work:

1. Removing trees and vegetation smaller than 3 inches in diameter within the ditch limits.
2. Removal of all other items in the ditch line that requires modification, which are identified as incidental and/or for which no other contract item applies.
3. Grading, topsoil striping and removal, excavation, disposal of unsuitable subgrade material, and embankment.
4. Ditching necessary to convey road drainage if existing drainage disrupted by construction activities.

c. **Measurement and Payment.** The completed work for **Ditch Cleanout** will be paid for at the contract unit prices for the following contract items (pay items):

Pay Item

Pay Unit

Ditch Cleanout Station

Ditch Cleanout will be measured in place by the station as measured along the centerline of the ditch, which price shall be payment in full for all labor, materials and equipment needed to accomplish this work. **Ditch Cleanout** shall be measured for each side of the road which the ditch applies.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
DRIVEWAY SWALE EXCAVATION

OHM: MRL

1 OF 1

1/9/2023

a. Description. Work consists of grading shallow basin adjacent to one side of existing driveways to ensure water runoff does not collect on the driveway pavement. Perform work in accordance with Section 205 of the 2020 Michigan Department of Transportation Standard Specifications for Construction except as herein provided.

b. Construction. The work of Driveway Swale Excavation requires earth excavation of no greater than one foot in depth with side slopes of 1 on 6 or flatter. This swale basin shall be placed to ensure water does not collect on the driveways and will be predominantly used on crush and shape streets when driveways are required to be reconstructed. If the change in slope of the driveway creates a low point in the driveway, whether at the tie-in point between the sidewalk or at the sidewalk (if sidewalk is present), then the described swale basin shall be placed. Complete the work as shown on the driveway detail or as instructed by the Engineer. Work includes excavating the ground in a circular pattern and flat slopes on all sides, disposing of surplus or unsuitable material, furnishing and placing embankment materials, trimming the earth grade, and maintaining the work in a finished condition until acceptance.

All natural soil left in place in cut sections shall be compacted to not less than 95% of maximum unit weight.

c. Measurement and Payment. The completed work as measured along the construction centerline shall include the entire grading limits on both sides of the road and will be paid for at the contract unit prices for the following contract items (pay items):

Pay Item

Pay Unit

Driveway Swale ExcavationEach

Driveway Swale Excavation will be paid only when the Engineer agrees that a Driveway Swale is required. All other grading work required on pulverized streets shall be included in the pay item HMA Base Crushing and Shaping, Modified.

All other driveway grading Earthwork and grading for driveway approaches shall be included in the cost of the proposed driveway material.

Restoration shall be paid separately as Surface Restoration, Seeding.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
STATION GRADING_2

OHM: AMS

1 OF 2

12/17/2025

a. Description. This work shall be done in accordance with Section 205 of the 2020 Michigan Department of Transportation Standard Specifications for Construction except as herein provided.

This pay item, Station Grading_2, is meant to be used in the inlay portions of Livonia Paving Project, which will involve required grading work, as described below, after removing pavement, including regrading subgrade. If aggregate material is required, this material will be paid separately as “_Aggregate Base, Modified”

b. Construction. The work of Station Grading shall consist of constructing earth grades by excavating soil or rock as necessary to develop the cross-section shown on the details. The work shall include the salvaging and stockpiling of selected materials, disposing of surplus or unsuitable material, furnishing and placing embankment materials, trimming the earth grade, and maintaining the work in a finished condition until acceptance.

Grading may be required to flatten or create slopes beyond the shoulder. This excavation will be included in the payment for Station Grading_2.

All suitable excavated material from the project, including undercut and sewer trench excavation, can be used to construct embankments (fill), backfill muckholes, or flatten slopes as directed by the Engineer.

All surplus excavated and unsuitable or waste material not able to be incorporated into the project shall become the property of and shall be disposed of by the Contractor. The Contractor shall follow federal, state and local regulations in the disposal of surplus materials.

After the subgrade has been excavated to the appropriate grade and the underdrains are in place as required on the plans, the engineer will inspect the grade. The Engineer will be given up to one week to allow the grade to dry out before making a decision on stabilization methods.

All natural soil left in place in cut sections shall be compacted to not less than 95% of maximum unit weight.

Station Grading shall include all required excavation and embankment within the grading limits as shown on the plans. In addition to the items as specified in the Standard Specifications for Construction, the following items are included:

1. Removal of all other items, which are identified as incidental and/or for which no other contract item applies.
2. Grading, topsoil striping and removal, excavation, disposal of unsuitable subgrade material, and embankment for those roads that are to be reconstructed.

c. Measurement and Payment. The completed work as measured along the construction centerline shall include the entire grading limits on both sides of the road and will be paid for at the contract unit prices for the following contract items (pay items):

Pay Item**Pay Unit**

Station Grading_2 Station

Station Grading_2 will only be measured along the inlay portions of paving project streets. All grading on pulverized streets shall be included in the pay item HMA Base Crushing and Shaping, Modified.

Earthwork and grading for driveway approaches shall be included in the cost of the proposed driveway material, and shall not be included in Station Grading_2.

Station Grading_2 shall not be measured along driveway approaches.

Station Grading_2 shall be measured along the centerline on the following streets at the following locations:

No.	Street	P.O.B.	P.O.E.	Stations
1	Fairfax	0+00	4+00	4.00
3	Myrna	0+00	26+89	26.89
7	Buckingham*	0+00	3+70	3.70
13	Boston Post	0+00	14+22	14.22
14	Wadsworth	0+00	6+85	6.85
15	Standish	0+00	9+37	9.37
16	Priscilla	0+00	4+49	4.49
19	Orangelawn	0+00	9+33	9.33
20	Orangelawn	0+00	2+29	2.29
22	Elmira	0+00	5+65	5.65
Total				86.79

* Paid only as needed on Buckingham

CITY OF LIVONIA
SPECIAL PROVISION
FOR
SUBGRADE UNDERCUTTING, TYPE II, MODIFIED

OHM: mrl

1 of 1

1/9/2023

a. Description. This work shall be done in accordance with Section 205 of the 2020 Michigan Department of Transportation (MDOT) Standard Specifications for Construction.

b. Materials. Subgrade Undercutting, Type II, Modified shall be done in accordance with the standard 2020 MDOT item "Subgrade Undercutting, Type II", with the exception that the backfill material shall be included in **Subgrade Undercutting, Type II, Modified**. This backfill material shall meet the 21AA gradation. The Engineer will determine the need for **Subgrade Undercutting, Type II, Modified** vs. **Subgrade Undercutting, Type II, Special**.

c. Construction Methods. For reconstructed streets, **Subgrade Undercutting, Type II, Modified** shall be performed on poor subgrade underneath the proposed aggregate base, as deemed necessary by the Engineer. The material shall be compacted in lifts not exceeding 10 inches. The material shall be compacted to a minimum of 95% of the maximum dry density of the material based on the Modified Proctor (ASTM D1557)

d. Measurement and Payment. When provided, **Subgrade Undercutting, Type II, Modified** shall be measured in cubic yards (Cyd) compacted in-place based on the lines and dimensions called for on the plans or as directed by the Engineer. The completed work shall be paid for at the contract unit price for the following contract pay item:

Contract Item (Pay Item)	Pay Unit
Subgrade Undercutting, Type II, Modified	Cubic Yard

CITY OF LIVONIA
SPECIAL PROVISION
FOR
SUBGRADE UNDERCUTTING, TYPE II, SPECIAL

OHM: mrl

1 of 1

1/9/2023

a. Description. This work shall be done in accordance with Section 205 of the 2020 Michigan Department of Transportation (MDOT) Standard Specifications for Construction.

b. Materials. Subgrade Undercutting, Type II, Special shall be done in accordance with the standard 2020 MDOT item "Subgrade Undercutting, Type II", with the exception that the backfill material shall be included in **Subgrade Undercutting, Type II, Special**. This backfill material shall be 1" x 3" stone/crushed concrete. The Engineer will determine the need for **Subgrade Undercutting, Type II, Special** vs. **Subgrade Undercutting, Type II, Modified**.

If the contractor decides to use crushed concrete, it shall be free of any and all steel and deleterious materials.

c. Construction Methods. For reconstructed streets, **Subgrade Undercutting, Type II, Special** shall be performed on poor subgrade underneath the proposed aggregate base, as deemed necessary by the Engineer. The material shall be compacted in lifts not exceeding 10 inches. The material shall be compacted to a minimum of 95% of the maximum dry density of the material based on the Modified Proctor (ASTM D1557).

d. Measurement and Payment. When provided, **Subgrade Undercutting, Type II, Special** shall be measured in cubic yards (Cyd) compacted in-place based on the lines and dimensions called for on the plans or as directed by the Engineer. The completed work shall be paid for at the contract unit price for the following contract pay item:

Contract Item (Pay Item)	Pay Unit
Subgrade Undercutting, Type II, Special	Cubic Yard

CITY OF LIVONIA
SPECIAL PROVISION
FOR
AGGREGATE BASE COURSES

OHM: mrl

1 of 2

12/11/2024

a. Description. This work shall be done in accordance with Section 302, Aggregate Base Courses, of the Michigan Department of Transportation 2020 Standard Specifications for Construction except as herein provided.

Aggregate Base, Modified shall be used when it is determined by the Engineer that the existing aggregate base material does not require complete removal and replacement. **Aggregate Base, Modified** shall be used to shape the finished surface of the existing aggregate base course to the required grade and cross section.

b. Materials. Dense-Graded Aggregate material for **Aggregate Base, Modified, and Aggregate Base, _ inch, Modified** shall meet the requirements specified in Section 902, Table 902-1 and 902-2 except that the material shall be 21AA aggregate. No Plastic fines shall be allowed.

c. Procedure. The six-inch maximum layer restriction in section 302 of the Standard Specifications for Construction has been deleted. Construct a test strip at the start of base work. Compact all layers to a uniform depth of not more than 10 inches ($\pm \frac{3}{4}$ inch). If the total plan base thickness exceeds 10 inches, construct the base in layers of equal thickness. The compaction specifications are revised as follows: The compaction specification shall be a minimum of 95 percent of the maximum dry density of the material based on the Modified Proctor (ASTM D1557) under hot mix asphalt pavement and concrete pavement. Secure the Engineer's approval for the method of placement and compaction before continuing.

If the acceptable method is substantially modified, the Engineer may require another test strip to confirm compliance with the specification. The Engineer may remove a portion later when conducting density testing to assure the compaction requirements are being met full-depth.

d. Measurement and Payment. The completed work as measured for AGGREGATE BASE COURSES will be paid for at the contract unit price for the following contract items (Pay Items).

Contract Item (Pay Item)	Pay Unit
Aggregate Base, Modified	Ton
Aggregate Base, _ inch, Modified	Square Yard

Payment for Aggregate Base Courses will be measured and paid for by the ton or square yard, as specified above, which will be considered as payment in full for labor, materials, and equipment needed to accomplish this work. A geotextile separator shall be included in the pay item **Aggregate Base, Modified**, and **Aggregate Base, _ inch, Modified** if crushed concrete is used as a base material. Crushed concrete used should meet MDOT's frequently used specification 03SP205(B) "Crushed Concrete", and not used near water courses.

Aggregate Base, Modified shall be used to add variable depth base material to roadways or

driveways and shall be the method of payment for maintenance aggregate, as required, to maintain traffic. It shall be used as directed by the Engineer.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
ADJUSTING SANITARY STRUCTURE COVER

OHM: mrl

1 of 1

1/6/2025

a. Description. This work shall consist of adjusting the existing sanitary structure cover to the proper elevation by removing the casting, salvaging the existing casting or placing a new casting per the direction of the Engineer, and setting it to the proper elevation. Any castings damaged by the Contractor's actions shall be replaced at the Contractor's expense. This work shall be done in accordance with Section 403 of the 2020 MDOT Standard Specifications for Construction and any details included within the contract documents.

b. Materials. The top of the sanitary structure shall be encapsulated per the following details utilizing the product Wrapid Seal.

c. Measurement and Payment. The completed work as measured for ADJUSTING SANITARY STRUCTURE COVER will be paid for at the contract unit price for the following contract item(s) (pay item(s)).

Contract Item (Pay Item)	Pay Unit
Sanitary Structure Cover, Adj, Case 1	Each
Sanitary Structure Cover, Adj, Case 2	Each
Sanitary Structure Cover, Adj, Add Depth	Foot

Measurement and payment for ADJUSTING SANITARY STRUCTURE COVER shall be in accordance with the applicable portions of Section 403 of the MDOT Standard Specifications, Drainage Structure. Any existing casting to be replaced with a new casting, if directed by the Engineer **AND** is not the result of Contractor's actions, shall be paid for as **Dr Structure Cover**. The top portion of the sanitary structure shall be encapsulated in Wrapid Seal.



WrapidSeal™

Manhole Encapsulation System

Canusa-CPS is a leading manufacturer of specialty pipeline coatings which, for over 30 years, have been used for sealing and corrosion protection of pipeline joints and other substrates. Canusa high performance products are manufactured to the highest quality standards and are available in a number of configurations to accommodate your specific project applications.

Product Description

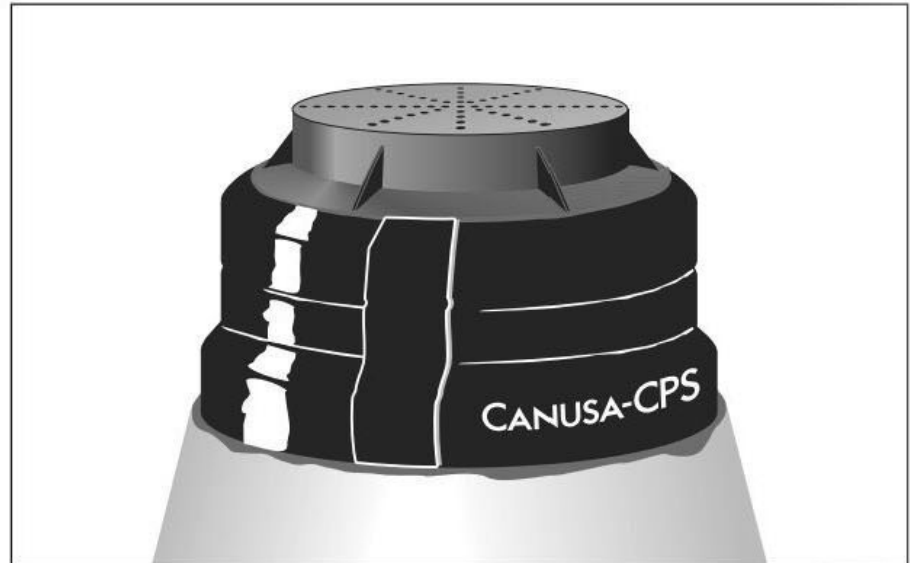
WrapidSeal™ is a wrap around heat shrinkable sheet that has been specifically designed for protection of buried and exposed manhole structures. WrapidSeal™ is supplied in bulk rolls of varying widths and consists of a crosslinked polyolefin backing, coated with a protective heat activated adhesive. A separate closure is used to create a complete sleeve with the adhesive effectively bonding to the substrate, providing corrosion protection and adhesion for the impermeable backing.

Features & Benefits

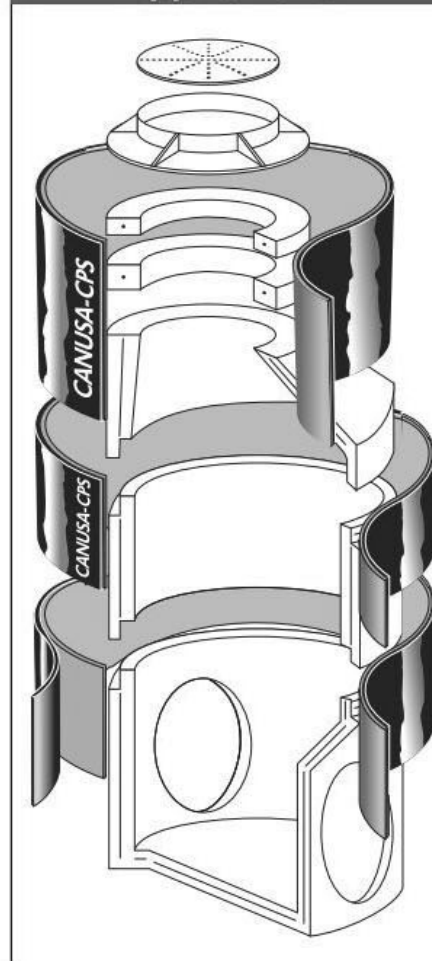
- Heat activated, high shrink membrane
Torch applied, shrinks to fit profile.
- High tensile & elongation
Accommodates movement
- Excellent abrasion resistance
Tough product, resists soil stress
- Bulk roll
Fits any size manhole
- Complete coverage
Reduces ground water infiltration.
- Provides corrosion protection
Extends service life.

Long Term Protection

Once installed, the system creates a barrier to water infiltration and effectively protects the manhole support structure and frame from ground moisture, preventing corrosion and freeze-thaw damage. In below grade vaults or concrete lines, WrapidSeal™ is used to minimize water infiltration, reducing dewatering costs and loads on waste water treatment facilities.



Applications



Applications



Manhole Encapsulation



Water Pipelines



Repair & Rehab



Step-Down Joints

Configurations



High Shrink



Multi-Sleeve Kit

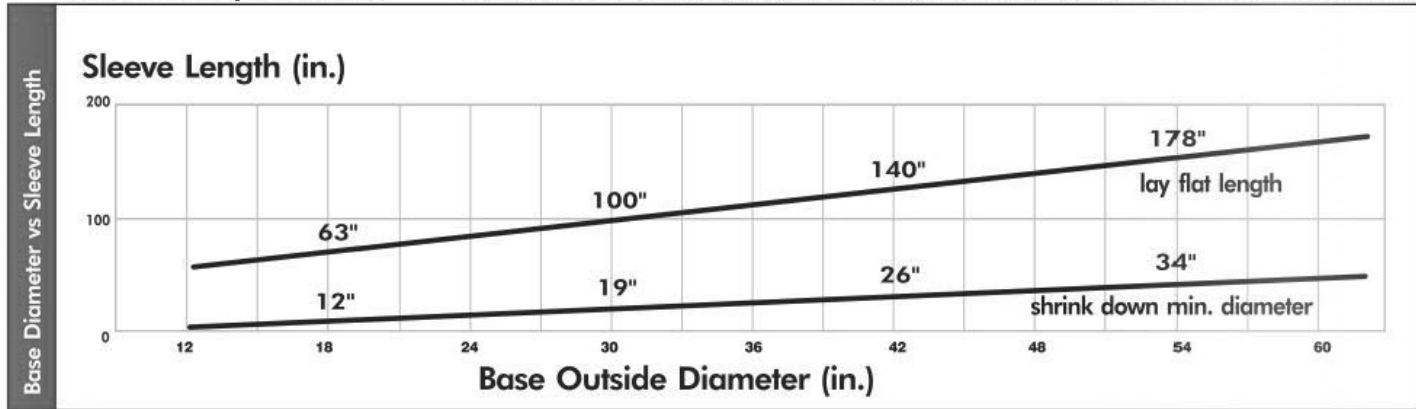
Pipe Sizes



300-1500+ (12-60"+)

Material Requirements

Size the sleeve such that it wraps around the perimeter of the manhole base plus 150mm (6") overlap. See the table below for length of WrapidSeal™ required.



Typical Product Properties

	Test Standard	Unit	Results
Adhesive	Softening Point	ASTM E28	°C (°F)
	Lap Shear Strength	DIN 30 672	N/cm² (psi)
Backing	Tensile Strength	ASTM D638	MPa (psi)
	Elongation	ASTM D638	%
	Hardness	ASTM D2240	Shore D
	Abrasion Resistance	ASTM D1044	mg
Sleeve	Peel Strength	ASTM D1000	N/cm (pli)
	Water Absorption	ASTM D570	%
	Low Temp. Flexibility	ASTM D2671D	°C (°F)

Ordering Information & Product Dimensions

WrapidSeal™ is supplied in 12" or 18" widths in 50' long bulk rolls. Closure seals and primer are ordered separately.

Specify the width of WrapidSeal™ required and the number or length and size of closure seals.

Distribution

Master Distributor in the United States:
CCI Pipeline Services
 Houston, Texas
www.WrapidSeal.com
 e-mail: sales@wrapidseal.com
 tel: (281) 350-2100

Applications

Below or Above Grade	Below Grade
Cast Iron Frame & Cover Grade Rings - Prevents Water Infiltration - Accommodates Ground Movement - Protects Against Degradation	Cone Section Pre-Cast Riser Pre-Cast Base Sewer Line - Prevents Water Infiltration - Resists Soil Stress



Canada

CANUSA-CPS
 a division of SHAWCOR LTD.
 25 Bethridge Road
 Rexdale, Ontario
 M9W 1M7,
 Canada
 Tel: +1 (416) 743-7111
 Fax: +1 (416) 743-5927

U.S.A./Latin America

CANUSA-CPS
 a division of SHAWCOR INC.
 2408 Timberloch Place
 Building C-8
 The Woodlands, Texas
 77380, U.S.A.
 Tel: +1 (281) 367-8866
 Fax: +1 (281) 367-4304

Europe/Middle East

CANUSA-CPS
 a division of Canusa Systems Ltd.
 Unit 3, Sterling Park
 Gatwick Road
 Crawley, West Sussex
 England RH10 9QT
 Tel: +44 (1293) 541254
 Fax: +44 (1293) 541777

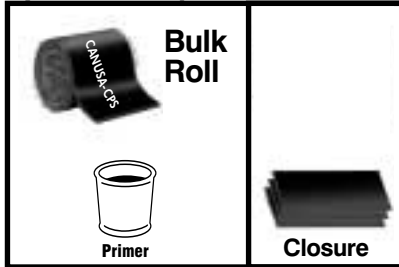
Asia/Pacific

CANUSA-CPS
 a division of SHAWCOR LTD.
 #05-31, Blk 52, Frontier
 Ubi Avenue 3
 Singapore
 408867
 Tel: +65-6749-8918
 Fax: +65-6749-8919

WrapidSeal™

Heat Shrinkable Manhole Encapsulation System

System Components



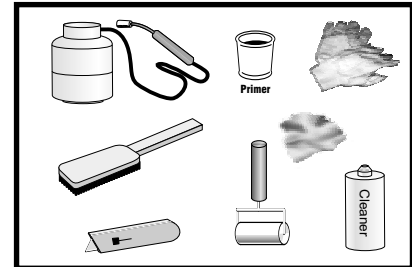
WrapidSeal is typically shipped in bulk rolls. Closures are shipped pre-cut. The adhesive is protected from contamination by an inner liner. Primer is sold separately.

Storage & Safety Guidelines

To ensure maximum performance, store Canusa products in a dry, ventilated area. Keep products sealed in original cartons and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements. Avoid prolonged storage at temperatures above 95°F (35°C) or below -4°F (-20°C). Product installation should be done in accordance with local health and safety regulations.

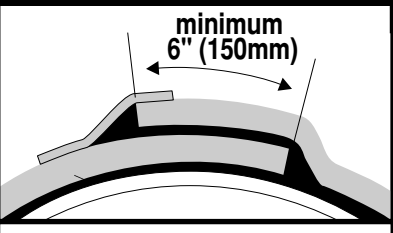
These installation instructions are intended as a guide for standard products. Consult your Canusa representative for specific projects or unique applications.

Equipment List



Propane tank, hose, torch & regulator. Appropriate tools for surface abrasion. Knife, roller, rags & approved cleaner. Wire brush, paint brush or paint roller, tape measure, and marker. Standard safety equipment; gloves, goggles, hard hat, etc.

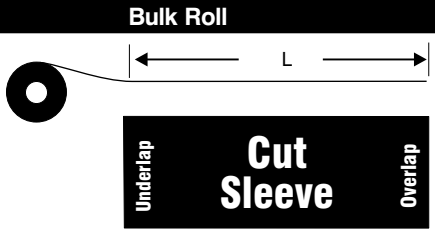
Product Preparation Guidelines



minimum
6" (150mm)

Sleeve Length = Manhole Circumference + 6" (150mm)

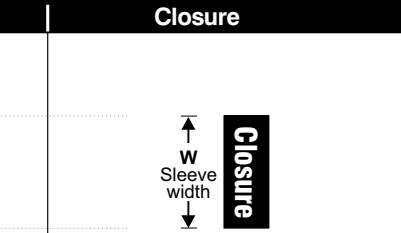
Bulk Roll



Cut Sleeve

Underlap Overlap

Closure



Closure

W
Sleeve width

As a guideline, cut the required lengths of Sleeve material (L) and Closure material (W) from the bulk roll as follows

L = Manhole structure circumference + overlap dimension

W = Sleeve Width

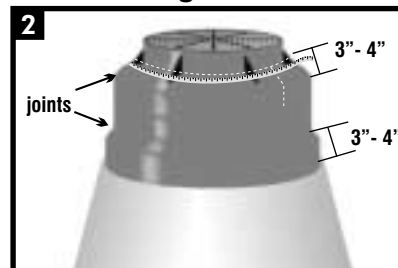
Ensure that the sleeve and closure are not damaged or contaminated.

Surface Preparation



Ensure all surfaces which the sleeve will be applied to are clean, dry and free of foreign objects and sharp edges.

Sleeve Sizing



WrapidSeal™ should be sized to extend 3" - 4" above and below the upper and lower joints of the cone section, grade rings and frame. As a guide, make a series of marks around the manhole where the bottom of the sleeve will be. Determine the layflat length of the sleeve by measuring the circumference of the manhole structure at the marks and add the overlap dimension, (6" minimum).

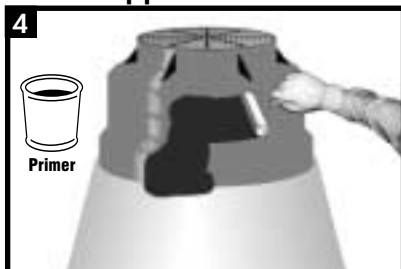
Pre-Heat



Using the torch, warm the surface to drive off any moisture.

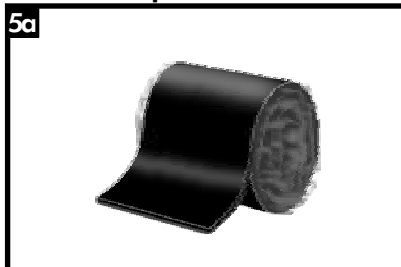
WrapidSeal™

Primer Application



Apply WrapidSeal™ Primer to the application surfaces, (i.e. steel, concrete, fiberglass etc.) Wait until the primer is slightly tacky to touch before proceeding. This will take 5-15 minutes depending on temperature and humidity conditions.

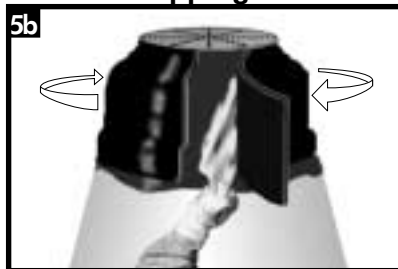
Sleeve Preparation



Roll up the cut sleeve ensuring that the release liner is still on the adhesive backing

Caution: Do not allow exposed adhesive to fold over on itself.

Sleeve Wrapping



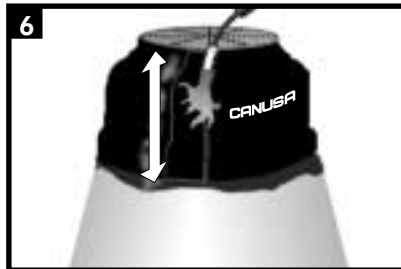
Remove ~6" of the release liner from the sleeve. Using the perimeter marks as a guide, begin wrapping the sleeve around the manhole while gradually removing the release liner.

Sleeve Overlap



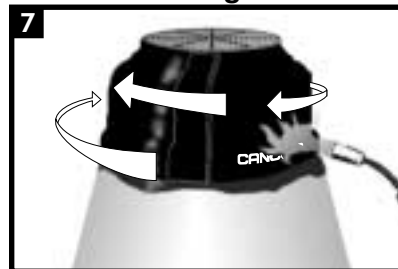
At the overlap, ensure that the top and bottom edges of the sleeve are uniformly aligned.

Closure Installation



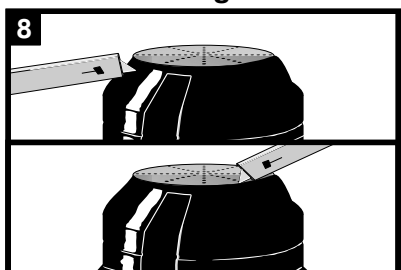
Place the closure seal on a flat surface (adhesive side up) and apply gentle heat to activate the adhesive. Center the closure vertically over the overlap and apply a small amount of heat to the face of the closure. Using a gloved hand pat the closure down and, alternating with heat and pressure. Continue until the closure is fully bonded.

Sleeve Shrinking



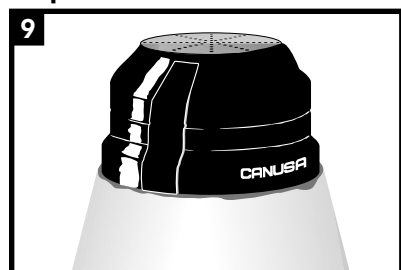
Using a moderate to high flame, begin heating the sleeve from the bottom edge. Apply heat circumferentially around the structure. Continue heating upward as the sleeve shrinks. Use a gloved hand or roller to smooth wrinkles and push out trapped air.

Sleeve Finishing



After shrinking, WrapidSeal™ will be draped over the manhole frame gussets. Using a knife, cut the sleeve around the gussets. Apply gentle heat and press the sleeve onto the steel frame. Trim excess material protruding above the steel manhole frame and cover.

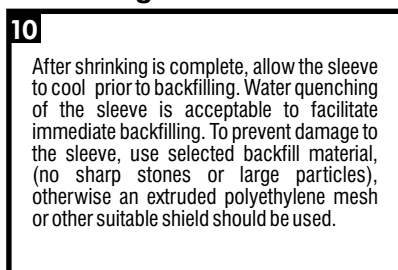
Inspection



Visually inspect the installed sleeve for the following:

- Sleeve is in full contact with the cone section and manhole frame
- Adhesive flows beyond the sleeve edges
- No cracks or holes in the sleeve backing

Backfilling Guidelines



After shrinking is complete, allow the sleeve to cool prior to backfilling. Water quenching of the sleeve is acceptable to facilitate immediate backfilling. To prevent damage to the sleeve, use selected backfill material, (no sharp stones or large particles), otherwise an extruded polyethylene mesh or other suitable shield should be used.

Please contact manufacturer's representative when considering use of WrapidSeal™ on above grade structural applications.

Master Distributor in the United States:
CCI Pipeline Services
Houston, Texas
www.WrapidSeal.com
e-mail: sales@wrapidseal.com
tel: (281) 350-2100



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Canusa warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the installation guide when used in compliance with Canusa's written instructions. Since many installation factors are beyond our control, the user shall determine the suitability of the products for their intended use and assume all risks and liabilities in connection therewith. Canusa's liability is stated in the standard terms and conditions of sale. Canusa makes no other warranty either expressed or implied. All information contained in this installation guide is to be used as a guide and is subject to change without notice. This installation guide supersedes all previous installation guides on this product. E&OE

Printed on recycled paper. ♻ Recyclable. IG-WSE-rev011

www.canusacps.com

CITY OF LIVONIA
SPECIAL PROVISION
FOR
UNDERDRAIN, SUBGRADE, 6 INCH, MODIFIED

OHM: mrl
1/9/2023

1 of 1

a. Description. This work shall be done in accordance with Section 404 of the Michigan Department of Transportation 2020 Standard Specifications for Construction except as herein provided.

b. Materials. Backfill material within the underdrain trench shall be MDOT Class I Granular Material in accordance with Section 902 of the Michigan Department of Transportation 2020 Standard Specifications for Construction.

The underdrain pipe shall be slotted or perforated and wrapped with geotextile. The underdrain pipe material shall be smooth interior wall corrugated polyethylene pipe, designated as AASHTO Type "S" (N-12) or an approved equal as determined by the Engineer. Perforations will be uniformly spaced holes having nominal diameters of not less than 3/16 inch nor greater than 3/8 inch and at such spacing as to provide a minimum inlet area of 3.5 square inches per linear foot of pipe. The City of Livonia does **NOT** accept the flexible, corrugated, thin wall polyethylene underdrain pipe.

c. Measurement and Payment. The completed work as measured for **Underdrain, Subgrade, 6 inch, Modified** will be paid for at the contract unit price for the following contract items (pay items).

Contract Item (Pay Item)

Pay Unit

Underdrain, Subgrade, 6 inch, ModifiedFoot

Payment for **Underdrain, Subgrade, 6 inch, Modified** will be measured and paid for by the foot, which shall be considered as payment in full for labor, materials, and equipment needed to accomplish this work. Underdrain, Outlet, 6", Underdrain, Outlet Ending, 6", and any structure tapping to connect underdrain shall be incidental to construction of the underdrain and shall be considered included in payment for **Underdrain, Subgrade, 6 inch, Modified**.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
MARSHALL HOT MIX ASPHALT MIXTURE

LIVONIA: KM

1 of 7

12/18/2018

a. Description. Furnish hot mix asphalt mixture, designed using Marshall Mixture Design Methods, according to the requirements of the MDOT Standard Specifications for Construction except as modified by this special provision.

b. Mix Design. The Contractor shall submit the mix designs to the City Engineer or representative 2 weeks prior to production for evaluation according to MDOT's Hot Mix Asphalt Procedures Manual and this Special Provision. Use a 50 blow Marshall hammer when compacting mixtures for the development of the Marshall mix designs.

c. Recycled Asphalt Pavement (RAP). The contractor may substitute Reclaimed Pavement (RAP) for a portion of the new materials required to produce the HMA mixture. The mix will be limited to a maximum of 10.0% and 30.0% use of RAP when used for the wearing course and underlying course respectively. The underlying course is defined as any course placed below the wearing course. The mixture will be designed and produced to meet all the criteria herein.

d. Materials. Table 1 provides the mix design criteria and production requirements and Table 2 provides the required aggregate properties for the mix design criteria and production. The Contractor is to use aggregates of the highest quality available to meet the minimum specifications.

TABLE 1: Master Range for Mixture & Production Requirements

PARAMETER	Mixture No.
	13A
Air Void, %	3.0- 5.0
VMA (min) (a)	14.0 *
VFA	65-82
Fines to Binder Ratio (max) (b)	1.2
Flow (0.01 inch)	8-16
Stability (min), lbs	900
(a) VMA calculated using Gsb of the combined aggregates. (b) Ratio of the weight of aggregate passing the No. 200 sieve to total asphalt binder content by weight; including fines and binder contributed by RAP. * VMA min will be 14.50 when used as a wearing course.	

TABLE 2: Master Range for Aggregate Properties

PARAMETER	Mixture No.
	13A
1 ½ inch	-
1 inch	-
¾ inch	100
½ inch	75-95
3/8 inch	60-90
No.4	45-80
No. 8	30-65
No. 16	20-50
No. 30	15-40
No. 50	10-25
No. 100	5-15
No. 200	3-6
Crushed (min), % (MTM 117)	60
Soft Particle (max), % (a)	4.0
Angularity Index (min) (b)	3.0
L.A. Abrasion (max), % loss (c)	40
Sand Ratio (d)	50
(a) The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 4.0 percent for aggregates used in top course. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 12.0 percent for aggregates used in base and leveling course. (b) The fine aggregates angularity of blended aggregates, determined by MTM 18, must meet the minimum requirement. In mixtures containing RAP, the required minimum fine aggregate angularity must be met by the virgin material. NAA fine aggregate angularity must be reported for information only and must include the fine material contributed by RAP if present in the mixture. (c) Los Angeles abrasion maximum loss must be met for the composite mixture, however, each individual aggregate must be less than 50. (d) Sand Ratio for 13A no more than 50% of the material passing the No. 4 sieve is allowed to pass the No. 30 Sieve. (e) The Aggregate wear index for all mixes shall be 260 min as determined by Michigan Test Method (MTM) 112-04.	

e. Mixture. The Contractor will be required to produce the mixture within the tolerances listed for Table 3 as outlined in this Special Provision.

In cases of non-conformance with any of the requirements as specified herein and if, in the Engineer's judgment, the non-conforming mixture warrants, the Contractor shall remove and replace it with a mixture conforming to the specification requirements at his own expense. If in the opinion of the Engineer the non-conforming mixture can remain in place, the City will exercise a reduction in payment in accordance with this Special Provision as outlined in HMA Paving Mixtures.

TABLE 3: Tolerances from Proposed Gradings and Assigned Bitumen Content (Percent)

	Range No.	Sieve 1/2"	Sieve 3/8"	Sieve No. 4	Sieve No. 8	Sieve No.30	Sieve No. 200	Assigned Bitumen
13A	1	± 5	± 5	± 5	± 5	± 4	+1.0,-1.5	-0.3,+0.4
	2	± 8	± 8	± 8	± 7	± 6	-2.0,-2.5	-0.5,+0.6

Mixtures Analysis Data: The Contractor, at least two (2) weeks prior to production, shall submit to the City's representative, for the Engineer's approval, a test report containing the following data:

1. The extracted aggregate gradation and asphalt content of the RAP stockpile (minimum one [1] test per 1000 Tons of RAP).
2. Average crushed content and aggregate type (gravel, slag, limestone, etc.) in the RAP stockpile (minimum one [1] test per 1000 Tons of RAP).
3. The blended Aggregate Wear Index (AWI) for all Top Course Hot Mix Asphalt Mixtures (HMA).
4. The "Proposed Grading" of the final blend of RAP and virgin aggregates.
5. The "Proposed Asphalt Content" of the mixture.
6. The type of asphalt cement to be added to the mixture.
7. The bulk specific gravities of all aggregates, including those within the RAP mixture.
8. Crushed content, fine aggregate angularity (as determined per ASTM C-1252-06), LA Abrasion, and soft particles for all virgin aggregates.

e. Construction Methods.

Sampling of Hot-Mix Asphalt (HMA) Mixtures

Representative's samples of HMA mixtures will be obtained from producers plant or project site. Samples obtained at producer's plant will be obtained by producer's personnel under the supervision of the City's representative. Samples obtained at project site will be obtained by the HMA mixture as determined by the City.

Laboratory and field testing of HMA mixtures is to be performed as expeditiously as sample temperatures allow. No mixture conditioning is required for plant produced HMA mixtures.

Bond Coat: The following rates of Bond Coat shall be used unless otherwise called for on the plans or directed by the Engineer.

1. **0.10-gal/sq. yd.** shall be applied over all existing pavements and pavement surfaces.
2. **0.05-gal/sq. yd.** shall be applied between subsequent HMA Mixture courses and over Concrete Base Course Pavements to be resurfaced.

Compaction of HMA Mixtures: The compaction of HMA Base, Binder, Leveling, and Top courses placed directly on an aggregate base shall be as described in Section 502 of the 2003 MDOT Standard Specifications for Construction.

Compaction of HMA Top Courses, excluding any mixture placed directly on an aggregate base, shall be as specified herein. These requirements take precedence over any conflicts with the requirements of the 2003 MDOT Standard Specifications for Construction.

Laboratory Density: The laboratory density shall be determined by the Marshall Procedure ASTM D 1559 using 50 blows on each end of the specimen as the compactive effort. The temperature of the asphalt specimen at the time of compaction shall be 275° F unless otherwise specified. One set of three (3) specimens shall be made on the first day of placement and on subsequent days as determined by the Engineer.

Measurement of Compaction: The measurement of field-compacted density shall be done with a nuclear gauge. The percent of compaction obtained shall be determined by dividing the field-compacted density by the laboratory density and multiplying the result by 100.

Procedure: The Engineer will furnish a nuclear gauge with an operator to monitor the Contractor's rolling operation to establish a compaction procedure that will aid in obtaining the specified density.

For Mainline HMA Top Course: Density tests shall be taken on the compacted pavement at a frequency of one test every 500 lineal feet of paving lane, except for the last unit which will be 500 lineal feet plus any fractional unit less than 250 lineal feet in length or which will be a fractional unit 250 lineal feet or more, in length. Miscellaneous areas such as intersections, crossovers and widened lanes less than 250 lineal feet will be tested at the discretion of the Engineer.

Nuclear density tests will be taken on a random basis longitudinally within each unit and transversely within each unit. Tests will be taken at the discretion of the Engineer in areas that have received the least amount of compactive effort.

Individual tests failing to meet 97 percent of the laboratory density will be penalized in accordance with the schedule below.

Compaction Density Tests: When individual density tests fail to meet 97.0 percent of laboratory density on the completed paving lane, two (2) additional tests will be taken in the 500

lineal feet unit. The two (2) additional tests will be taken a minimum of 50 feet each way from the original test.

The average of the three (3) tests will be used to base the penalty and compute an adjusted contract price in accordance with the following schedule:

Test Results	Adjusted Price
97.0%+	100%
96.0% to 96.9%	95%
95.0% to 95.9%	90%
94.0% to 94.9%	85%
93.0% to 93.9%	50%
Less than 93.0%	No Payment or Removal as directed by the Engineer

The tonnage to be penalized will be computed by the Engineer based on the nominal plan thickness, length of unit, width of paving lane, and yield factor as shown on the plans.

HMA Paving Mixtures Subject to Rejection of Penalty

Definitions:

Confirmed Ignition or Extraction Test- The initial ignition or extraction test result fails to meet Range No. 1, Range No. 2, or the Master Range and the laboratory ignition or extraction retest result of the same sample also fails to meet the Range No. 1, Range No. 2, or Master Range.

Consecutive Ignition or Extraction Tests- Two or more ignition or extraction tests run on the same asphalt mix (e.g., HMA Base) but representing separate samples (e.g., first sample tested a.m., second sample tested p.m., and the third sample tested a.m. the following day of production) from the same plant for the same project.

Initial Ignition or Extraction Test- The first ignition or extraction test run on a sample of asphalt mix.

Non-Conforming Mixture - Asphalt mixture which fails to meet the Range No. 1, Range No. 2, or Master Range as defined in this special provision.

Non-Conforming Test- The initial ignition or extraction test fails to meet Range No. 1, Range No. 2, or the Master Range and the laboratory ignition or extraction retest of the same sample is found within Range No. 1 and the Master Range on the same sample.

Range No.1- If, on two consecutive ignition or extraction tests of the same mixture, the asphalt binder content or the aggregate gradation on the same sieve, exceeds the uniformity tolerance of Range No. 1 (See Table 3) but meets the Master Range and the uniformity tolerance of Range No. 2, the mixture shall be rejected. If, in the Engineer's judgment, the non-conforming mixture warrants removal, the contractor shall remove and replace the non-conforming mixture at his/her expense. If, in the Engineer's judgment, the non-conforming mixture can remain in place, the contract unit price for the non-conforming mixture shall be reduced in accordance with the following schedule:

<u>Non-conforming Item</u>	<u>Reduction</u>
Asphalt Binder (minus)	10%
Asphalt Binder (Plus)	5%
Each Sieve.....	5%

The total accumulated reduction shall not exceed 20 percent for material outside Range No. 1 and within Range No. 2 and the Master Range.

Range No. 2 and Master Range- If any item in a confirmed ignition or extraction test as previously defined fails to conform to the Range No. 2 (See Table 3) tolerance or the Master Range (includes the minimum crushed content requirement); and if, in the Engineer's judgment, the non-conforming mixture warrants removal, the Contractor shall remove the non-conforming mixture and replace it with a mixture conforming to specification requirements at his/her expense. If, in the judgment of the Engineer, the non-conforming mixture can remain in place, the contract unit price for these mixtures shall be decreased by 10 percent for each item up to a maximum of 20 percent when there is more than one non-conforming item.

If a second consecutive test still indicates the items to be outside the Master Range or Range No. 2 tolerance, shipping to the project shall be stopped until corrections have been demonstrated to have been made. Payment for the accepted mixture, including the material represented by the first test, will be decreased by 20 percent of the contract unit price for those mixtures outside Range No. 2 but within the Master Range; and will be decreased by 20 percent of the contact price for those mixtures outside of the Maser Range.

Marshall Requirements- If any one test does not exhibit characteristics conducive to a non-yielding, stable, and serviceable pavement (e.g., low stability, low VMA, high or low air voids) the pavement shall be removed and replaced with the material conforming to specification requirements at the Contractor's expense.

If, in the Engineer's judgment, the non-conforming mixture can remain in place, the contract unit price for the non-conforming mixture shall be reduced in accordance with the following schedule:

<u>Non-Conforming Item</u>	<u>Reduction</u>
a. *0.1% to 0.5% below the minimum VMA requirement	5%
b. *0.6% to 1.0% below the minimum VMA requirement	10%
c. 1.1% to 1.5% below the minimum VMA requirement	15%
d. 1.6% to 2.0% below the minimum VMA requirement	25%
e. 2.1% to 2.5% below the minimum VMA requirement	50%
<u>Non-Conforming Item</u>	<u>Reduction</u>
f. *0.1% to 0.3% below the Air Void requirement	5%
g. *0.4% to 0.6% below the Air Void requirement	10%
h. 0.7% to 0.9% below the Air Void requirement	15%
i. 1.0% to 1.2% below the Air Void requirement	25%
j. 1.3% to 1.4% below the Air Void requirement	50%
k. *0.1% to 0.6% above the Air Void requirement	5%
l. *0.7% to 1.1% above the Air Void requirement	10%
m. 1.2% to 1.5 % above the Air Void requirement	15%

n. 1.6% to 1.8% above the Air Void requirement	15%
o. 1.9% to 2.0% above the Air Void requirement	25%
p. *Low stability greater than 5% below requirement	10%
q. Low stability greater than 15% below requirement	25%
r. *Not meeting the Flow requirement	10%

The above reductions shall be cumulative.

*Two consecutive tests will be required in order to implement this reduction. Consecutive tests may be performed on the same day of consecutive days of production of the same material.

f. Measurement and Payment. The completed work for as measured for HMA pavements will be paid for at the contract unit price for the following:

Contract Item (Pay Item)	Pay Unit
HMA, 13A (Top)	Ton
HMA, 13A (Leveling)	Ton

All HMA Mixtures will be measured by weight in tons. The pay items will be based on the type of mixture being specified. The Contract unit price will be payment in full for all materials, labor, and equipment required to complete the work as specified.

Bond Coat SS-1h will not be paid for separately but shall be included in the HMA mixture being placed. See HMA Application chart for bond application rates.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
RECYCLED HOT MIX ASPHALT MIXTURE ON LOCAL AGENCY PROJECTS

CFS:KPK

1 of 2

APPR:JWB:CJB:03-13-14

FHWA:APPR:03-13-14

Add the following subsection to subsection 501.02.A.2, on page 234 of the Standard Specifications for Construction.

- c. **Reclaimed Asphalt Pavement (RAP) and Binder Grade Selection.** The method for determining the binder grade in HMA mixtures incorporating RAP is divided into three categories designated Tier 1, Tier 2 and Tier 3. Each tier has a range of percentages that represent the contribution of the RAP binder toward the total binder, by weight. The tiers identified below apply to HMA mixtures with the following exception: Superpave mixture types E3, E3 High Stress, E10, E10 High Stress, E30, E30 High Stress, E50, and E50 High Stress used as leveling or top course must be limited to a maximum of 27 percent RAP binder by weight of the total binder in the mixture.

Recycled materials may be used as a substitute for a portion of the new materials required to produce HMA mixtures in accordance with contract.

- **Tier 1 (0% to 17% RAP binder by weight of the total binder in the mixture).** No binder grade adjustment is made to compensate for the stiffness of the asphalt binder in RAP.
- **Tier 2 (18% to 27% RAP binder by weight of the total binder in the mixture).** For all mixtures no binder grade change will occur in Tier 2 for all shoulder and temporary road mixtures.

The required asphalt binder grade must be at least one grade lower for the low temperature than the design binder grade required for the specified project mixture type. Lowering the high temperature of the binder one grade is optional. For example, if the design binder grade for the mixture type is PG 58-22, the required grade for the binder in the HMA mixture containing RAP would be a PG 52-28 or a PG 58-28.

For Marshall Mixes, no binder grade change will be required when Average Daily Traffic (ADT) is above 7000 or Commercial Average Daily Traffic (CADT) is above 700. No binder grade change will occur for LVSP, E03 and E1 mixtures used as leveling or top course.

The asphalt binder grade can also be selected using a blending chart for high and low temperatures. Supply the blending chart and the RAP test data used in determining the binder selection according to *AASHTO M 323*.

- **Tier 3 ($\geq 28\%$ RAP binder by weight of the total binder in the mixture).** The binder

grade for the asphalt binder is selected using a blending chart for high and low temperatures per *AASHTO M 323*. Supply the blending chart and the RAP test data used in determining the binder selection.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
MARSHALL HOT MIX ASPHALT MIXTURE

C&T:JWB

1 of 2

C&T:APPR:EHR:CJB:09-25-06

FHWA:APPR:06-06-11

a. Description. Furnish hot mix asphalt (HMA) mixture, designed using Marshall Mixture Design Methods, in accordance with the standard specifications except as modified by this special provision.

b. Mix Design. Submit the mix design for evaluation in accordance with the Department's HMA Production Manual. Use a 50 blow Marshall hammer when compacting mixtures for developing Marshall mix designs.

c. Recycled Mixtures. Substituting reclaimed asphalt pavement (RAP) for a portion of the new material required to produce HMA mixture is allowed provided that the mixture is designed and produced to meet all criteria specified herein, unless otherwise prohibited. RAP materials must be in accordance with the standard specifications.

d. Materials. Table 1 provides the mix design criteria and volumetric properties. Table 2 provides the required aggregate properties. Use aggregates of the highest quality available to meet the minimum specifications. Use the mixture designation number shown in the contract item name when determining mix design properties from Tables 1 and 2.

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

Pay Item**Pay Unit**

HMA, (type) Ton

Table 1: Mix Design Criteria and Volumetric Properties

	Mixture No.				
	2C	3C	4C	13A*	36A
Target Air Void, % (a)	3.00	4.00	4.00		4.00
VMA (min) (b)	11.00	13.00	14.00		15.00
VFA	65-78	65-78	65-78		65-78
Fines to Binder Ratio (max) (c)	1.2	1.2	1.2		1.2
Flow (0.01 inch)	8 -16	8 -16	8 -16		8 -16
Stability (min), lbs	1200	1200	1200		900
a. Lower target air voids by 1.00% if used in a separate shoulder paving operation. Consider reducing air void targets to 3.00% for lower traffic volume roadways when designing 13A and 36A mixtures for local agency use. b. VMA calculated using Gsb of the combined aggregates. c. Ratio of the weight of aggregate passing the No. 200 sieve to total asphalt binder content by weight; including fines and binder contributed by RAP.					

Table 2: Aggregate Properties

	Mixture No.				
	2C	3C	4C	13A*	36A
	Percent Passing Indicated Sieve or Property Limit				
1 1/2 inch	100				
1 inch	91-100	100			
3/4 inch	90 max.	91-100	100		
1/2 inch	78 max.	90 max.	91-100		100
3/8 inch	70 max.	77 max.	90 max.		92-100
No. 4	52 max.	57 max.	67 max.		65-90
No. 8	15-40	15-45	15-52		55-75
No. 16	30 max.	33 max.	37 max.		
No. 30	22 max.	25 max.	27 max.		25-45
No. 50	17 max.	19 max.	20 max.		
No. 100	15 max.	15 max.	15 max.		
No. 200	3-6	3-6	3-6		3-10
Crushed (min), % (MTM 117)	90	90	90		60
Soft Particle (max), % (a)	12.0	12.0	8.0		8.0
Angularity Index (min) (b)	4.0	4.0	4.0		3.0
L.A. Abrasion (max), % loss (c)	40	40	40		40
Sand Ratio (max) (d)	-	-	-		50
a. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 8.0 percent for aggregates used in top course. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 12.0 percent for aggregates used in base and leveling courses. b. The fine aggregate angularity of blended aggregates, determined by MTM 118, must meet the minimum requirement. In mixtures containing RAP, the required minimum fine aggregate angularity must be met by the virgin material. NAA fine aggregate angularity must be reported for information only and must include the fine material contributed by RAP if present in the mixture. c. Los Angeles abrasion maximum loss must be met for the composite mixture, however, each individual aggregate must be less than 50 d. Sand ratio for 13A and 36A no more than 50% of the material passing the No. 4 sieve is allowed to pass the No. 30 Sieve.					

* See City of Livonia Special Provision for Marshall Hot Mix Asphalt Mixture 13A.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
HAND PATCHING, MODIFIED

OHM: mrl

1 of 1

01/09/23

a. Description. This work shall consist of the placement of HMA in accordance with Section 501 of the 2020 MDOT Standard Specifications for Construction and any details included within the log package.

b. Material. The material used for hand patching work shall be MDOT 13A.

c. Measurement and Payment. The completed work as measured for **Hand Patching, Modified** will be paid for at the contract unit price for the following contract items (pay items).

Contract Item (Pay Item)	Pay
Unit	
Hand Patching, Modified.....	Ton

Measurement and payment for **Hand Patching, Modified** will be measured and paid for by the ton, which shall be considered as payment in full for labor, materials, and equipment needed to accomplish this work.

Distinction between **Hand Patching, Modified** and **HMA, 13A (Leveling)** shall not be made by the method of construction, but shall be determined by the dimensions of each individual patch as described below.

Hand Patching, Modified shall apply to asphalt pavement placed whereas the smallest dimension of the patch does not exceed 11' **OR** the largest dimension does not exceed 75'. The dimensions shall apply to each individual patch. Please see the Table 1 below for a guide to this provision.

Table 1: Hand Patching Dimensions

Smallest Dimension	Largest Dimension	Hand Patching
Less than 11'	Less than 75'	Yes
11' or more	Less than 75'	Yes
Less than 11'	75' or more	Yes
11' or more	75' or more	No (see note below)

In the event that the dimensions exceed the maximum amount as noted above, the HMA placed shall not be paid as **Hand Patching, Modified** but shall be paid for under the appropriate pay item, **HMA, 13A**.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
HAND PATCHING, SPECIAL

OHM: mrl

1 of 1

01/09/23

a. Description. This work shall consist of the placement of HMA in accordance with Section 501 of the 2020 MDOT Standard Specifications for Construction and any details included within the contract documents. This item is for areas of asphalt pavement repair that is not within the construction influence area (CIA) described in the Maintenance of Traffic special provision and shall be directed by the Engineer.

b. Material. The material used for hand patching work shall be MDOT 13A (Leveling) and (Top).

c. Measurement and Payment. The completed work as measured for **Hand Patching, Special** will be paid for at the contract unit price for the following contract items (pay items).

Contract Item (Pay Item)	Pay
Unit	
Hand Patching, Special	Ton

Measurement and payment for **Hand Patching, Special** will be measured and paid for by the ton, which shall be considered as payment in full for labor, materials, and equipment needed to accomplish this work.

Distinction between **Hand Patching, Modified** and **Hand Patching, Special** shall not be made by the method of construction, but shall be determined by the location of the hand patching. Locations outside of the construction influence area and as directed by the Engineer will be considered **Hand Patching, Special**.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
MISC PREPARING PAVEMENT

OHM: mrl

1 OF 2

01/09/23

a. Description. This work consists of preparing a pavement prior to placing HMA surfacing, all in accordance with Section 502 of the 2020 MDOT Standard Specifications for Construction and as provided herein.

b. Construction.

- 1. Pavement Repairs:** All broken surfaces not bonded to the base pavement or to other HMA pavements and/or patches, which in the opinion of the Engineer, may cause bleeding or instability in the proposed surfacing shall be removed. All underlying loose, deteriorated concrete shall be removed by use of a milling machine (18 inch maximum drum width), thorough sweeping with a power broom, compressed air jet, or other means as approved by the Engineer. Follow MDOT STD Plan No. R-44 Series for specifications for Detail 7 and Detail 8 repairs. Preparing pavement includes pavement repairs 0ft-3ft in width. Full-depth patch repairs exceeding the 3 ft width will be measured and paid for separately as **Pavt, Rem, Modified**.
- 2. Joints and Cracks:** On pavement surfaces not previously surfaced, all longitudinal and transverse joints and cracks 1 inch, or more, in width shall be cleaned of all filler, sealer, and foreign materials to a depth below the pavement surface of at least 1 inch, or as directed by the Engineer.
- 3. Pavement Markings:** Any existing non-paint pavement markings (thermoplastic, cold plastic, etc.) on an existing surface to be overlaid shall be removed and the surface cleaned.
- 4. Bond Coat:** Before the bond coat is applied at the rate specified, the existing pavement shall be dry and swept clean of dust, dirt and other foreign material through the use of a vactor truck. Cleaning through the use of hand brooms **SHALL NOT** be permitted. Hand application of the tack with the use of a brush/broom/etc. and bucket **SHALL NOT** be permitted. The bond coat shall be applied through the use of a pressure distributor in such a manner as to maintain a neat and clean curb face. No additional payment will be made for the work required for removing excess bond coat from the curb.

c.Measurement and Payment. The completed work as measured for **Misc Preparing Pavt** will be paid for at the specified unit price for the following contract item (pay Item):

Contract Item (Pay Item)

Pay Unit

Misc Preparing Pavt.....Station

Misc Preparing Pavt will be measured by length along the road centerline in stations, along each side of a boulevard, and the length thus measured will include the preparation of intersecting road and street pavements within 100 feet of the centerline of the road being surfaced.

The materials removed as part of **Misc Preparing Pavt** will be replaced with a HMA mixture as specified in the pay item **Hand Patching, Modified**, but will not be paid for separately.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
CONCRETE PAVEMENT- ALKALI-SILICA REACTIVITY

OHM: mrl
01/09/23

1 of 1

Description. This work shall be done in accordance with Section 602 of the 2020 Standard Specifications for Construction, except as specified herein.

The Contractor shall provide cement concrete mixtures for the project that are resistant to excessive expansion caused by alkali-silica reactivity (ASR). The Contractor may either follow ASTM C 1260 – Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar Bar Method) or replace 35% of the Portland cement with Ground Granulated Blast Furnace Slag (GGBFS). All concrete mix designs shall be presented to the Owner at the preconstruction meeting along with which of the two options the contractor will use to prevent ASR.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
COLD MILLING CONCRETE PAVEMENT

CFS:RAG

1 of 1

APPR:JFS:ARB:12-09-20

a. Description. This work consists of accurately removing the top portion of an existing concrete pavement to the depth and cross section shown on the log or plans, and as directed by the Engineer.

b. Equipment. Use cold milling machine(s) equipped with positive depth control adjustments and a positive means for controlling the cross slope. Equip the milling machine with an integral pickup and conveying device to immediately remove material being milled from the surface of the roadway and discharge the millings into a truck in one operation. Provide a machine with a means of effectively limiting the amount of dust escaping from the milling and removal process.

c. Construction. Cold mill the existing concrete pavement to the depth and cross section indicated on the log or plans, and as directed by the Engineer. Collect and dispose of the excess material resulting from the operations as specified in subsections 104.07.D and 204.03.B of the Standard Specifications for Construction.

Provide a final surface texture that is reasonably smooth and free of gouges, holes or large depressions. Prevent damage to the adjacent concrete. Where material is removed below the depth specified due to poor cold-milling practice, backfill and compact the resulting holes or depressions by hand patching in accordance with subsection 501.03.C.9 of the Standard Specifications for Construction. Repair all damage to adjacent surfaces as directed by the Engineer. All costs associated with this corrective work will be borne by the Contractor.

Provide protection around existing manholes, catch basin inlets, utility valve boxes, and any similar structures. Ensure any damage to such structures as a result of the milling operation are repaired at no additional cost to the contract. Prevent the milled material from falling into inlet openings. Remove any milled material that does fall into inlet openings.

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

Pay Item**Pay Unit**

Cold Milling Conc PavtSquare Yard

Cold Milling Conc Pavt includes removing concrete pavement as described herein, loading removed debris, hauling debris, and disposal of the debris. Material picked up by sweeping after cold milling will not be paid for separately. This work will be measured by area in square yards, regardless of the number of passes required to remove the concrete to the required depth.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
CONCRETE PAVEMENT, REPAIR

OHM: mrl

1 of 1

12/09/24

a. Description - This work shall consist of removing and replacing concrete slabs on existing concrete paved roadways. This work shall be done in accordance with Sections 602 and 603 of the 2020 MDOT Standard Specifications for Construction, except as specified herein.

Proposed concrete pavement repair shall match the existing pavement thickness and curb type as directed by the Engineer. The existing pavement may include integral curb. The proposed pavement shall match these existing conditions.

The Contractor shall also provide contraction joints in the repaired concrete pavement, as directed by the Engineer and shown on the plan details. The joints must match the adjacent existing pavement joint locations unless otherwise directed by the Engineer. This work shall be done in accordance with the 2020 MDOT Standard Specifications for Construction.

b. Materials - Concrete used for pavement shall meet the requirements of MDOT Grade P1 unless otherwise directed by the Engineer. Refer to Section 602 and 603 of the 2020 MDOT Standard Specifications for Construction for material requirements.

c. Measurement and Payment - The completed work as measured for will be paid for at the contract unit price for the following contract item(s) (pay item(s)).

Contract Item (Pay Item)

Pay Unit

Pavt Repr, With or Without Curb, Nonreinf Conc, 5-6 inchSquare Yard

Measurement and payment for **Pavt Repr, With or Without Curb, Nonreinf Conc, 5-6 inch** shall be measured and paid for in square yards. The work items (as referenced in the 2020 MDOT Standard Specifications for Construction) associated with the pavement repairs include: "Pavt, Repr, Rem", "Saw Cut, Intermediate", "Joint, Contraction, Crg", "Joint Contraction, Cp", "Joint, Expansion, Erg", "Joint, Tied, Trg", "Lane Tie, Epoxy Anchored", "Embankment, CIP", and "Pavt Repr, Nonreinf Conc, _ inch", shall be included in the pay item "**Pavt Repr, With or Without Curb, Nonreinf Conc, 5-6 inch**". The contract unit price shall be payment in full for furnishing all materials, labor and equipment required to complete the work as specified.

If the existing pavement has integral curb, the proposed pavement section shall match curb type. The area of integral curb shall be measured in square yards and included in the payment of the concrete pavement.

All costs associated with sealing the joints, including furnishing all materials, labor and equipment required to complete the work, shall be included in the pay item "**Pavt Repr, With or Without Curb, Nonreinf Conc, 5-6 inch**" and will not be paid for separately.

Subgrade Undercutting, Type II, Modified or Subgrade Undercutting, Type II, Special, if required, shall be paid for separately.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
CONCRETE CURB AND GUTTER

OHM: mrl

1 OF 1

01/09/23

a. Description. This work shall be done in accordance with Section 802 of the 2020 MDOT Standard Specifications for Construction, except as specified herein.

Curb and Gutter, _ inch shall conform to all requirements for concrete curb and gutter as detailed in MDOT Standard Detail R-30-G shown in the contract documents, the Typical Concrete Pavement Repair Detail for Concrete Streets, and this special provision. Proposed concrete curb and gutter shall match the existing curb as directed by the Engineer.

Curb and Gutter, _ inch shall also apply for curb repair on slab replacement streets as shown on the detail in the contract book. The curb and gutter shall be saw cut, so as to have a clean joint with the existing pavement, a distance shown on the typical into the pavement from the back of curb or as directed by the Engineer.

The Contractor will also provide epoxy-anchored dowels to tie-in the repaired concrete curb section to the existing concrete curb, as directed by the Engineer. This work shall consist of drilling, cleaning, supplying, and installing epoxy-anchored dowels in accordance with the 2020 MDOT Standard Specifications for Construction.

The epoxy-anchored dowels shall be $\frac{3}{4}$ " diameter deformed bars, epoxy coated, 16" long and positioned according to the details provided within this specification.

The cost of these epoxy-anchored dowels is included in the cost of the proposed concrete curb and gutter.

b. Measurement and Payment. The completed work as measured for will be paid for at the contract unit price for the following contract item(s) (pay item(s)).

<u>Pay Item</u>	<u>Pay Unit</u>
Curb and Gutter, 18 inch	Foot
Curb and Gutter, 24 inch	Foot
Curb and Gutter, 30 inch	Foot

Measurement and payment for **Curb and Gutter, _ inch** shall be measured and paid for in lineal feet. The contract unit price shall be payment in full for furnishing all materials, labor and equipment required to complete the work as specified.

Payment for adjacent pavement removal and replacement required to complete the concrete curb and gutter replacement are included in **Curb and Gutter, _ inch**.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
RELOCATE MAILBOX

OHM: mrl

1 OF 1

01/09/2023

a. Description. This work shall be in accordance with Section 807 of the 2020 Michigan Department of Transportation Standard Specifications for Construction, except as herein specified.

Prior to the start of construction, the Contractor shall mark each existing mailbox requiring relocation with a clear, readable address, remove the existing box and post in its entirety and temporarily reset them to a location acceptable to the Owner and the U.S. Postal Service personnel. Property owners must be notified of the new location.

The temporary placement of mailboxes during construction, including any “ganging” of mailboxes as directed by the U.S. Postal Service, will not be paid for separately but shall be considered as having been included in the pay item for **Relocate Mailbox**. All temporary mailboxes that are required for “ganging” purposes will not be paid for separately, but shall be included in the price for **Relocate Mailbox**.

All mailbox posts and boxes in its entirety shall be reset at their permanent location per postal regulations.

Mailboxes requiring relocation where the posts cannot be relocated shall be paid as Post, Mailbox, as described in Section 807 of the 2020 Michigan Department of Transportation Standard Specifications for Construction.

b. Measurement and Payment. Payment to remove and reset mailbox shall be made on the basis of unit prices per each. Payment shall include all labor, equipment, and material required to remove and reset the mailbox as directed by the Engineer.

Contract Item (Pay Item)

Pay Unit

Relocate Mailbox Each

All costs, including furnishing of materials, labor, and equipment required for construction of these items of work as specified shall be considered included in the unit cost for these items of work.

Payment shall be made as **Relocate Mailbox** or **Post, Mailbox** but not both.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
SURFACE RESTORATION

OHM: mrl

1 OF 3

01/09/2023

a. Description. This work consists of preparing all areas designated for surface restoration by the Engineer, and applying topsoil, fertilizer, seed, and mulch to those areas.

b. Materials. The materials and application rates specified in Sections 816 and 917 of the Michigan Department of Transportation 2020 Standard Specifications for Construction apply unless modified by this special provision or otherwise directed by the Engineer.

Materials included in Surface Restoration, Seeding:

1. Overburden Removal, except Levan Rd
2. Seeding, Mixture THM (Turf Loamy to Heavy)
3. Fertilizer, Chemical Nutrient, CI A
4. Topsoil Surface, Furn, 3 inch
5. Mulch Blanket shall be used on this project adjacent to the roadway and on steep slopes as required by the Engineer without credit for tucks, overlaps or wasted material. Mulch and Mulch Anchoring shall be used on flat slopes on the project.
6. Water, Sodding/Seeding

Materials included in Surface Restoration, Sodding:

1. Overburden Removal
2. Topsoil Surface, Furn, 2 inch
3. Sodding
4. Water, Sodding/Seeding

Furnished topsoil must be screened and free of stones larger than 1 inch in diameter and other debris. The topsoil shall consist of black-colored soil that is suitable for the growth of grass seed or sod. The topsoil shall be obtained from the upper layer of an existing fertile soil and be free of limbs, twigs, rocks, muck, roots, and debris, etc. and containing organic matter rich in nutrients with negligible clay content.

Top Soil shall meet the following requirements:

1. The pH range shall be from 6.0 to 7.5. Topsoil outside of this range shall be amended by the addition of pH adjusters as approved by the Engineer.
2. The organic matter content shall range between 2% and 6% (by dry sample weight).
3. The soil texture shall be a sandy loam, silt loam, or loam where the sand, silt, and clay contents (by dry sample) fall with the following ranges:

Sand- 40% to 65%
Silt- 25% to 60%
Clay- 5% to 15%

4. The gradation shall be as follows:

Sieve Designation	% Passing
1 inch screen	100
0.25 inch screen	97-100
No. 10 U.S.S. mesh sieve	95-100
No. 140 U.S.S. mesh sieve	15-35

5. The soil salinity as measured by the electrical conductivity of a saturated soil sample shall not exceed 2 dS/m (decisiemens/meter).

6. Topsoil samples may be taken from stockpiles by the Engineer for submission to a testing laboratory. Topsoil that does not meet the required specifications shall be removed from the project site by the Contractor and shall be replaced with suitable topsoil that meets the testing requirements.

c. Construction. Begin this work as soon as possible after final grading of the areas designated for turf establishment but no later than the maximum time frames stated in Subsection 208.03 of the standard specifications. It may be necessary, as directed by the Engineer, to place materials by hand. This restoration work along the street shall be completed within two weeks of placing the paving material for that street.

Failure to complete the surface restoration within two weeks may result in a negative contract price adjustment. After five calendar days of the Engineer's notification, the Contractor will be assessed \$500 per day for every day until the restoration is considered satisfactorily complete by the Engineer.

Failure to remove debris, sewer spoils, and or stock piles within the time two weeks will not be considered satisfactorily complete and will subject to the above noted liquidated damages.

Prior to placing topsoil, shape and compact all areas to be seeded. Place topsoil to the minimum depth indicated above, to meet proposed finished grade. If the area being restored requires more than the minimum depth of topsoil to meet finished grade, this additional depth must be filled using topsoil or, at the Contractor's option, embankment. Furnishing and placing this additional material is included in this item of work.

If an area washes out after this work has been properly completed and approved by the Engineer, make the required corrections to prevent future washouts and replace the topsoil, fertilizer, seed and mulch. This replacement shall be paid for as extra work.

If an area washes out for reasons attributable to the Contractor's activity or failure to take proper precautions, replacement shall be at the Contractor's expense.

All areas disturbed by the Contractor and/or his Subcontractor beyond the normal construction limits of this project shall be sodded or seeded as directed by the Engineer. No additional payment or compensation will be allowed for this activity.

Water sodded and seeded areas per section 816.03.H of the 2020 MDOT Standard Specifications for Construction. Five (5) additional watering applications shall be included in this cost as directed by the Engineer. The application rate for the additional watering shall follow section 816.03.H of the 2020 MDOT Standard Specifications for Construction. This watering is in addition to the watering detailed in

section 816.03.H of the 2020 MDOT Standard Specifications for Construction. No additional payment for watering shall be considered and shall be included in pay items **Surface Restoration, Seeding** and **Surface Restoration, Sodding**.

d. Measurement and Payment. The completed work as measured shall be paid for at the contract unit price for the following contract item (pay item).

Contract Item (Pay Item)	Pay Unit
Surface Restoration, Seeding	Square Yard
Surface Restoration, Sodding	Square Yard

Payment for **Surface Restoration, Seeding** and **Surface Restoration, Sodding** shall include all materials, equipment, and labor required to complete the work as described.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
ADJUSTING GATE WELL COVER

OHM: mrl

1 OF 1

12/18/2018

a. Description. This work shall consist of adjusting the existing gate well cover or gate box to the proper elevation by removing the casting, salvaging the existing casting or placing a new casting per the direction of the engineer, and setting it to the proper elevation. Any castings damaged by the Contractor's actions shall be replaced at the Contractor's expense. This work shall be done in accordance with the following: Section 403 of the 2020 MDOT Standard Specifications for Construction, any details included within the log package, and DWSD Standards.

b. Measurement and Payment. The completed work as measured for ADJUSTING GATE WELL COVER will be paid for at the contract unit price for the following contract item(s) (pay item(s)).

Contract Item (Pay Item)

Pay Unit

Gate Well Cover, Adj, Case 1	Each
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Payment for ADJUSTING GATE WELL COVER shall be in accordance with the applicable portions of Section 403 of the Standard Specifications, Drainage Structure. This work shall include adjusting the gate box (when required).

The City of Livonia shall provide any gate well covers required for replacement. In the event the City of Livonia is not able to provide a gate well cover, it shall be provided by the Contractor and paid for as "Dr Structure Cover."

CITY OF LIVONIA
SPECIAL PROVISION
FOR
SPRINKLER SYSTEM MODIFICATION

OHM: mrl

1 OF 2

2/7/18

a. Description. The work shall consist of adjusting or relocation of sprinkler heads and placement of irrigation system piping as directed by the Engineer. This work shall be done in accordance with the 2020 Michigan Department of Transportation Standard Specifications for Construction and as described herein.

b. Materials and Construction Methods. Relocation of sprinkler head or valve shall include removal of the existing head/valve and replacement of the same or, at the Contractor's expense, furnishing a new head/valve of equal size and material in the location as directed by the Engineer. Piping shall be installed 24 inches below proposed finished grade with new couplings and fittings to accommodate sprinkler heads.

Adjust Sprinkler Head involves raising or lowering an existing sprinkler head at its current location to meet the proposed finish grade. Adjust Sprinkler Head also involves the work to temporary relocate sprinkler heads and piping for construction activities.

All sprinkler system replacement items shall be compatible with the existing equipment and shall be of equal or better quality.

The Contractor shall contact the property owner and coordinate his work prior to disturbing any irrigation system.

c. Measurement and Payment. The completed work as measured shall be paid for at the contract unit price for the following contract item (pay item).

<u>Pay Item</u>	<u>Pay Unit</u>
Irrigation Piping	Foot
Relocate Sprinkler Head	Each
Relocate Irrigation Valve	Each
Adjust Sprinkler Head	Each
Sprinkler Head	Each

Adjust Sprinkler Head shall be measured for each sprinkler required to be raised or lowered at its current location. This price shall be payment in full for all materials, equipment, and labor required to perform the work as described, and shall include all additional piping, couplings and fittings necessary to raise or lower sprinkler head to finished grade without moving its location. Adjust Sprinkler Head shall be measured for each sprinkler that is temporarily relocated for construction activities as directed by the Engineer. The price shall be payment in full for all materials, equipment, and labor required to perform the work and shall include the piping, couplings, and fittings associated with the temporarily relocated sprinklers.

Irrigation Piping shall be measured from the center of sprinkler head to the point of disturbance and will be measured by the unit foot, and paid for at the contract unit price per foot, which price shall

be payment in full for all materials, equipment, and labor required to complete the work as described, including all necessary couplings and fitting to make the required connections.

Relocate Sprinkler Head shall be measured by each sprinkler head removed from the system and placed at a new permanent location, and paid for at the contract unit price per each. This price shall be payment in full for all materials, equipment, and labor required to complete the work as described, and shall include a new sprinkler head (if required). Additional piping, couplings, and fittings necessary to install the sprinkler head at the finished grade will be paid separately as **Irrigation Piping**.

Relocate Irrigation Valve shall be measured by each irrigation valve removed from the system and placed at a new permanent location, and paid for at the contract unit price per each. This price shall be payment in full for all materials, equipment, and labor required to complete the work as described, and shall include a new irrigation valve (if required). Additional piping, couplings, and fittings necessary to install the irrigation valve at the finished grade will be paid separately as **Irrigation Piping**.

Sprinkler Head shall be measured by each new sprinkler head placed in the system at a new permanent location, and paid for at the contract unit price per each. This price shall be payment in full for all materials, equipment, and labor required to complete the work as described. Additional piping, couplings, and fittings necessary to install the sprinkler head at the finished grade will be paid separately as **Irrigation Piping**. The sprinkler head shall match the type and size on the existing system. New sprinkler heads will not be paid due to careless handling by the Contractor of relocated or adjusted sprinkler heads.

CITY OF LIVONIA
SPECIAL PROVISION
FOR
RELOCATE LANDSCAPING

OHM: mrl

1 of 1

3/04/22

a. Description. The work shall include relocation of landscape features that are located within the right-of-way.

b. Materials. Materials shall include reusing the existing or provide new, but matching the existing landscape materials as directed by the Engineer.

c. Measurement and Payment. Measurement will be in square feet for the area of the face of retaining wall, measured from the top of the leveling pad to the top of the wall, including coping or cap stones.

Contract Item (Pay Item)

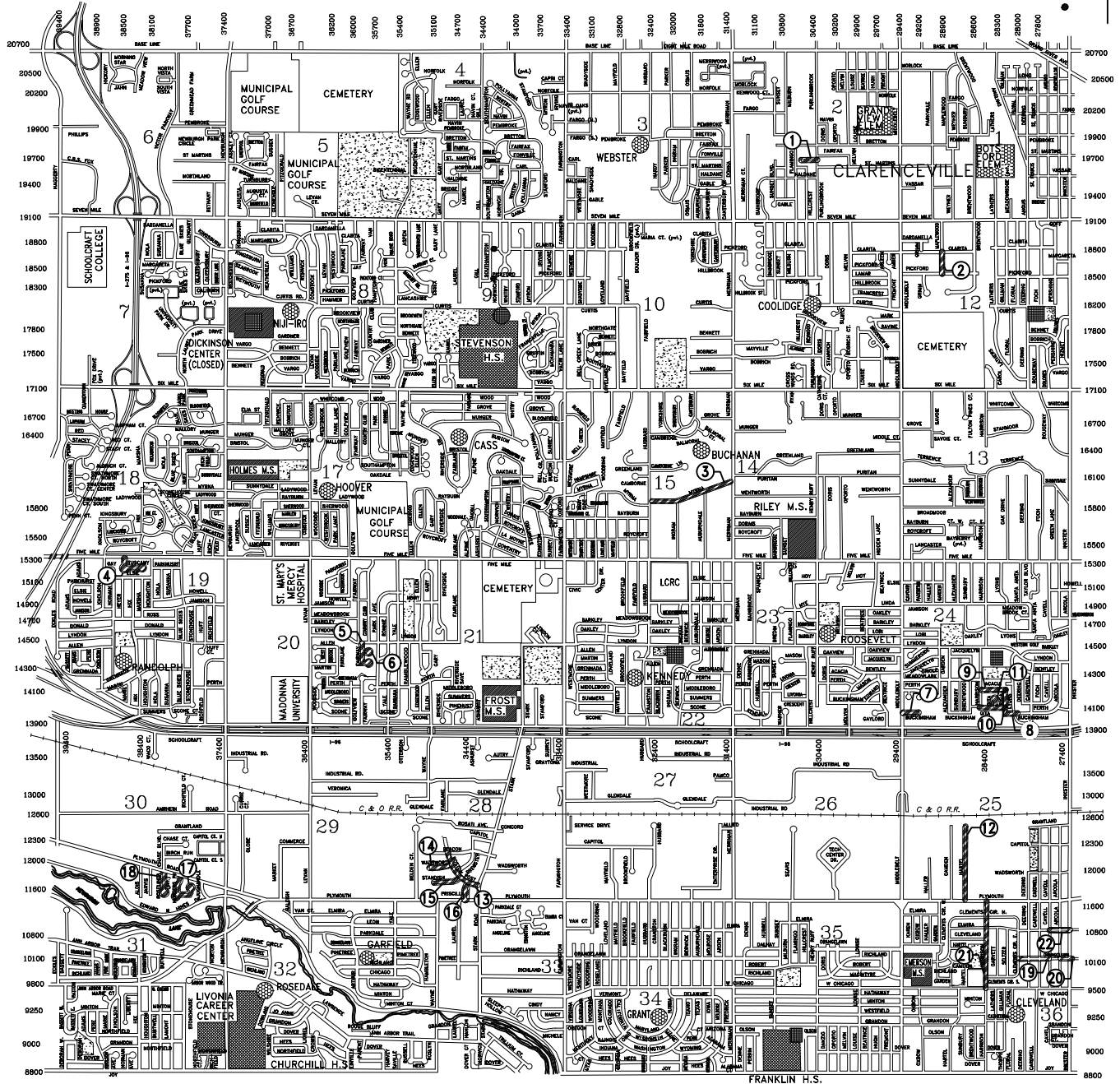
Pay Unit

Relocate Landscaping Dollar

Relocate Landscaping is set up as an as-needed item or work. The item is set as a budget. If this item is required, the payment of this work shall be negotiated with the Engineer and paid using this item.

PROJECT LOG

2026 ASPHALT PAVING PROGRAM PROJECT LOCATION MAP



REHABILITATE

1. FAIRFAX AVE
2. MAPLEWOOD AVE
3. MYRNA AVE
4. TUSCANY CT
5. FAIRWAY DR
6. FAIRWAY CT
7. BUCKINGHAM AVE
8. RIGA AVE
9. ACACIA AVE
10. GITA AVE

11. GITA CT
12. HARTEL AVE
13. BOSTON POST RD
14. WADSWORTH AVE
15. STANDISH AVE
16. PRISCILLA LN
17. HUNTERS PK
18. ROSELINDA DR
- 19-20. ORANGELAWN AVE
21. HARRISON RD

22. ELMIRA AVE



PLANS PREPARED BY:

Advancing Communities
Engineering Advisors

34000 Plymouth Road | Livonia, MI 48150
p (734) 522-6711 | f (734) 522-6427

**LOG OF PROJECT
2026 ASPHALT PAVING PROGRAM:**

1 of 6

12/05/25

DESCRIPTION OF WORK

The project consists of the following rehabilitation list:

REHABILITATION PROJECT

Log #	Road	From	To	Scope	Start Sta.	End Sta.
1	Fairfax Ave	Purlingbrook Rd	End	Inlay	0+00	4+00
2	Maplewood Ave	Clarita Ave	Pickford Ave	3" Mill and Fill	0+00	5+90
3	Myrna Ave	Merriman Rd	Hubbard Rd	Inlay	0+00	26+89
4	Tuscany Ct	5 Mile Rd	End	3" Mill and Fill	0+00	8+19
5	Fairway Dr	Lyndon Ave	End	3" Mill and Fill	0+00	9+04
6	Fairway Ct	Fairway Dr	End	3" Mill and Fill	0+00	3+11
7	Buckingham Ave	Middlebelt Rd	End	3" Mill and Fill	0+00	3+70
8	Riga Ave	#28033 Buckingham Ave	Acacia Ave	3" Mill and Fill	0+00	8+25
9	Acacia Ave	Riga Ave	Harrison Ave	3" Mill and Fill	0+00	6+25
10	Gita Ave	Riga Ave	Harrison Ave	3" Mill and Fill	0+00	7+19
11	Gita Ct	Gita Ave	End	3" Mill and Fill	0+00	3+72
12	Hartel Ave	Plymouth Rd	End	3" Mill and Fill	0+00	22+89
13	Boston Post Rd	Beacon Ave	Stark Rd	Inlay	0+00	14+22
14	Wadsworth Ave	Boston Post Rd	End	Inlay	0+00	6+85

Log #	Road	From	To	Scope	Start Sta.	End Sta.
15	Standish Ave	Boston Post Rd	End	Inlay	0+00	9+37
16	Priscilla Ln	Boston Post Rd	Plymouth Rd	Inlay	0+00	4+49
17	Hunters Pk	Plymouth Rd	End	3" Mill and Fill	0+00	10+94
18	Roselinda Dr	Plymouth Rd	South End	3" Mill and Fill	0+00	8+65
19	Orangelawn Ave	E Clements Cl	Cavell Ave	Inlay	0+00	9+33
20	Orangelawn Ave	Arcola Ave	Inkster Rd	Inlay	0+00	2+29
21	Harrison Rd	West Chicago Rd	Plymouth Rd	3" Mill and Fill	0+00	25+28
22	Elmira Ave	Cavell Ave	Inkster Rd	Inlay	0+00	5+65

DEFINITIONS

“Reconstruction” entails complete removal of existing asphalt/concrete pavement, base, subbase, subgrade, and placing new asphalt/concrete pavement with selective curb and gutter over an aggregate base. “Reconstruction” also includes subgrade undercuts, installing new driveway and side street approach improvements, sidewalk removal and replacement, pavement striping, drainage improvements, and restoration.

“Mill & Fill” involves full width 3” deep cold milling, full depth pavement patch repairs, crack repair, HMA overlay, subgrade undercuts, curb and gutter repair, side street approach improvements, driveway repairs as needed, sidewalk removal and replacement, minor drainage improvements, pavement striping, and restoration.

“HMA Inlay” Involves complete pavement removal of existing asphalt pavement, subgrade undercuts, grading existing aggregate base, adding new aggregate base if necessary, removal of excess or unsuitable spoils, placement of new asphalt pavement, installing new driveway and side street approach improvements (as required), sidewalk removal and replacement, drainage improvements, and restoration

“Pulverize” involves full depth pulverization of a flexible pavement, grading of new aggregate base if necessary, removal of excess or unsuitable spoils, placement of new asphalt pavement, subgrade undercuts, installing new driveway and side street approach improvements, sidewalk removal and replacement, drainage improvements, and restoration.

“Overlay” involves full depth pavement patch repairs, crack repair, subgrade undercuts, curb and gutter repair, HMA overlay, side street approach improvements, driveway repairs as needed, sidewalk removal and replacement, minor drainage improvements, pavement striping, and restoration.

Traffic shall be maintained throughout the project as provided in the details and Special Provision for Maintaining Traffic.

A "Minor Road" is defined as a side street which terminates or originates at a collector road. This designation affects the limits of work in terms the rehabilitation of the side street approaches and POB and POE approaches. The thickness of the existing pavement is not a determining factor as to whether the street is called a major or minor road. Refer to Special Detail "Work Limits for Residential Streets & Driveway Approaches"

GENERAL PLAN NOTES

The improvements in this proposal shall be done in accordance with City of Livonia Engineering Standards, the Michigan Department of Transportation 2020 Specifications, Supplemental Specifications, and Special Provisions packaged herein.

UNDERGROUND UTILITIES

For the protection of underground utilities and in conformance with Public Act 53, 2013, the contractor shall call Miss Dig (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. Miss Dig 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.

EXISTING UNDERGROUND UTILITIES

The contractor will be responsible for any damage to existing water mains and/or existing sanitary sewer due to the contractor's negligence during the construction of this project.

UNSEEN UNDERGROUND STRUCTURES

During the milling of Concrete pavement and pavement repair removal operations, existing drainage, sanitary structures or water main structures may be encountered that have been left below the existing pavement on previous overlay projects. These structure covers shall be adjusted to the proposed finished grade using the pay items provided in the miscellaneous estimates as directed by the Engineer. If an unseen (i.e. buried below the existing pavement due to previous overlay projects) structure casting is damaged in the milling or pavement removal process, the casting will be replaced and paid for separately, as directed by the Engineer. Adjustments will only be paid for once, regardless of the number of adjustments required.

SANITARY SEWER OR GATE WELL COVER

New sanitary sewer or gate well cover(s) may be required, as directed by the Engineer. The City will furnish the frame and covers as needed.

ADJUSTING STRUCTURES

Adjusting structure covers (drainage, sanitary and water main) shall be done in accordance with Section 403.3 of the 2020 Michigan Department of Transportation Standard Specifications for Construction. Final adjustment of structures shall be made after the placement of the leveling and prior to placing the top course. All structures covers shall be reused unless the existing cover is unsalvageable, as directed by the Engineer. Adjusting sanitary structures and adjusting gate well structures shall also be done in accordance to the included Special Provisions.

STATIONING

Stationing on this project is described independently on each street. Stationing was measured and painted on the pavement and is not necessarily exact or accurate. Stationing is shown for quantitative and general locating purposes only.

PAVEMENT CORES

The pavement core logs represent point information. Presentation of this information in no way infers that subsurface conditions are the same other than the exact location of the cores.

PAVEMENT MARKINGS

All markings, shapes and dimensions shall conform with MDOT pavement marking typicals PAVE-900 to PAVE-990 series unless specified otherwise by special provision.

ADJUSTING MONUMENT BOXES

It is the intent that all government corners on this project be preserved and that, where necessary, monument boxes be adjusted, whether shown or not.

MAILBOXES

The work included to relocate and/or replace any mailboxes that are within construction limits shall be included in the pay item "Post, Mailbox" or "Relocate Mailbox", whichever is applicable for the work required.

WAYNE COUNTY NOTES

- A. All work within the Wayne County road right-of-way shall be in accordance with the current standards and general specifications, including soil erosion and sedimentation control of the Wayne County Department of Public Services.
- B. These plans are not valid without attachment of the Wayne County permit specifications for construction within road right-of-way, parks, drain easements or sanitary sewer under the jurisdiction of Wayne County. (12/15/04). The Contractor shall have Wayne County approved plan and permit on site at all times.
- C. Restore all disturbed areas within the County right-of-way, as described in the special provision "Surface Restoration"
- D. All backfill under or within 3' of proposed or existing pavement, sidewalk or curb shall conform to Wayne County DPS requirements for Trench Backfill "B" (MDOT class III).
- E. The Contractor is to exercise due care and caution to protect County facilities from damage within the construction limits. The permit holder and Contractor shall be responsible for any and all damages that the facilities may sustain prior to the permit release. Repair of any County facilities shall be as determined by the County Engineer.

MISCELLANEOUS ITEMS

The following items of work are estimated for the project and apply as directed by the Engineer. These items may not be included in details or other contract documents.

PAY ITEM	GENERAL APPLICATION OF PAY ITEM (AS DIRECTED BY THE ENGINEER)
Tree Root Grind	Pavement heave due to adjacent tree roots
Driveway Swale Excavation	Trapping water when slope of drive traps water at sidewalk
Culv, Rem, Less than 24 inch	Replacement of culverts exposed in driveways
Ditch Cleanout	Drainage improvement for existing condition
Culv, CI A, CSP, 12 inch	Replacement of culverts exposed in driveways
Culv End Sect, Metal, 12 inch	Replacement of culverts exposed in driveways

NOTES APPLYING TO STANDARD PLANS

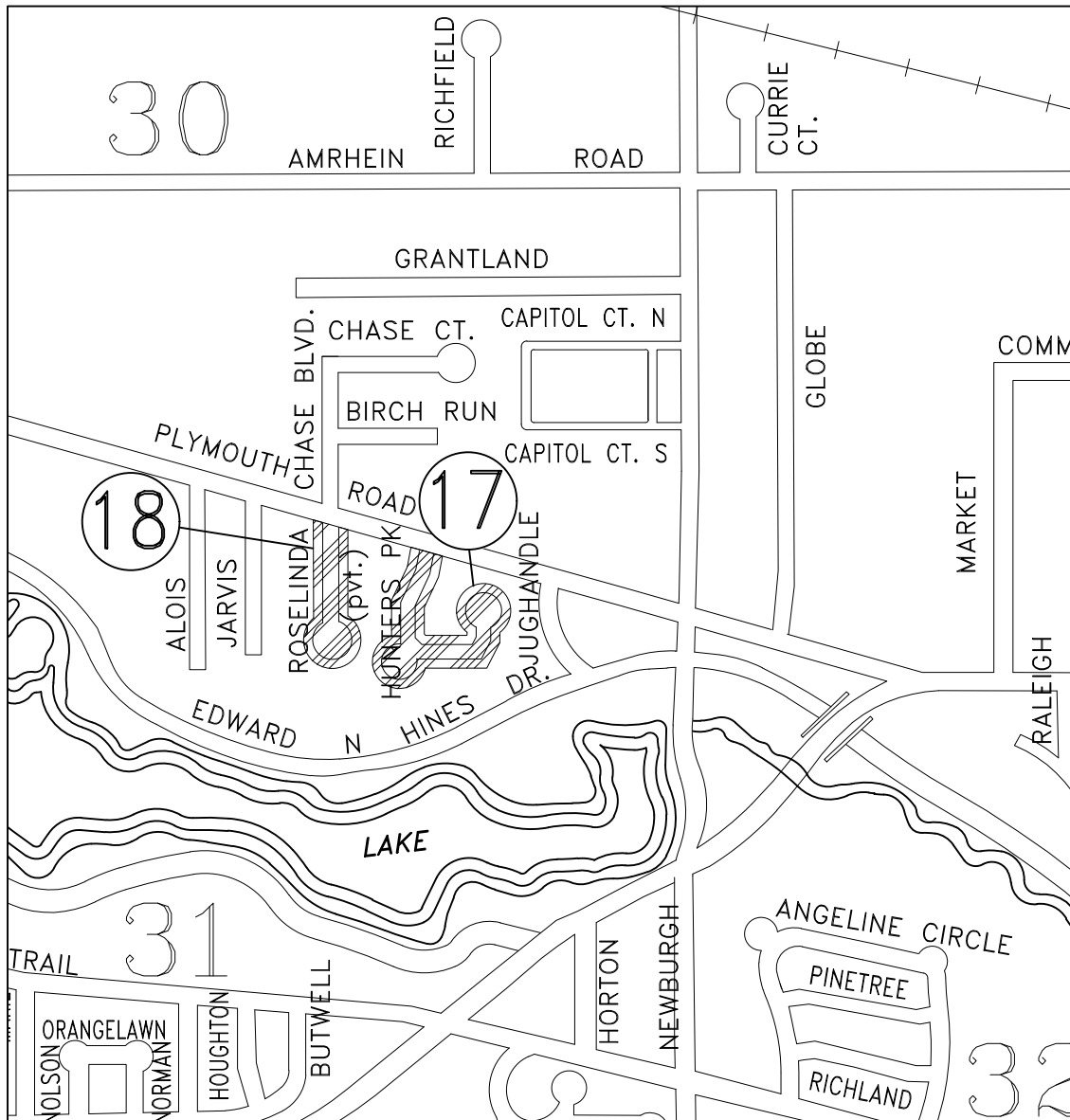
Where the following items are called for on the plan sheets, they are to be constructed according to the Michigan Department of Transportation Standard Plan given below opposite each item unless otherwise indicated.

<u>STD PLAN #</u>	<u>TITLE</u>
<u>R-28-K*</u>	Curb Ramp and Detectable Warning Details
<u>R-29-J*</u>	Driveway Openings & Approaches, and Concrete Sidewalks
<u>R-30-G</u>	Concrete Curb and Concrete Curb & Gutter
<u>R-44-G*</u>	Concrete Pavement Repair
<u>R-82-D</u>	Bedding and Filling Around Pipe Culverts
<u>R-83-C</u>	Utility Trenches
<u>R-88-E*</u>	Steel End Section
<u>R-96-E</u>	Soil Erosion & Sedimentation Control Measures
<u>R-100-I*</u>	Seeding and Tree Planting
<u>WZD-125-E</u>	Temporary Traffic Control Devices

* - Indicates MDOT Special Detail

2026 ASPHALT PAVING PROGRAM

PROJECT LOCATION MAP



 2026 ROADS-ASPHALT REHABILITATION (MILL/FILL OR INLAY)

-  ELEMENTARY SCHOOLS
-  MIDDLE SCHOOLS
-  SENIOR HIGH SCHOOLS
-  PARK SITES
-  SCHOOL OWNED, BUT NOT USED FOR K-12 INSTRUCTION

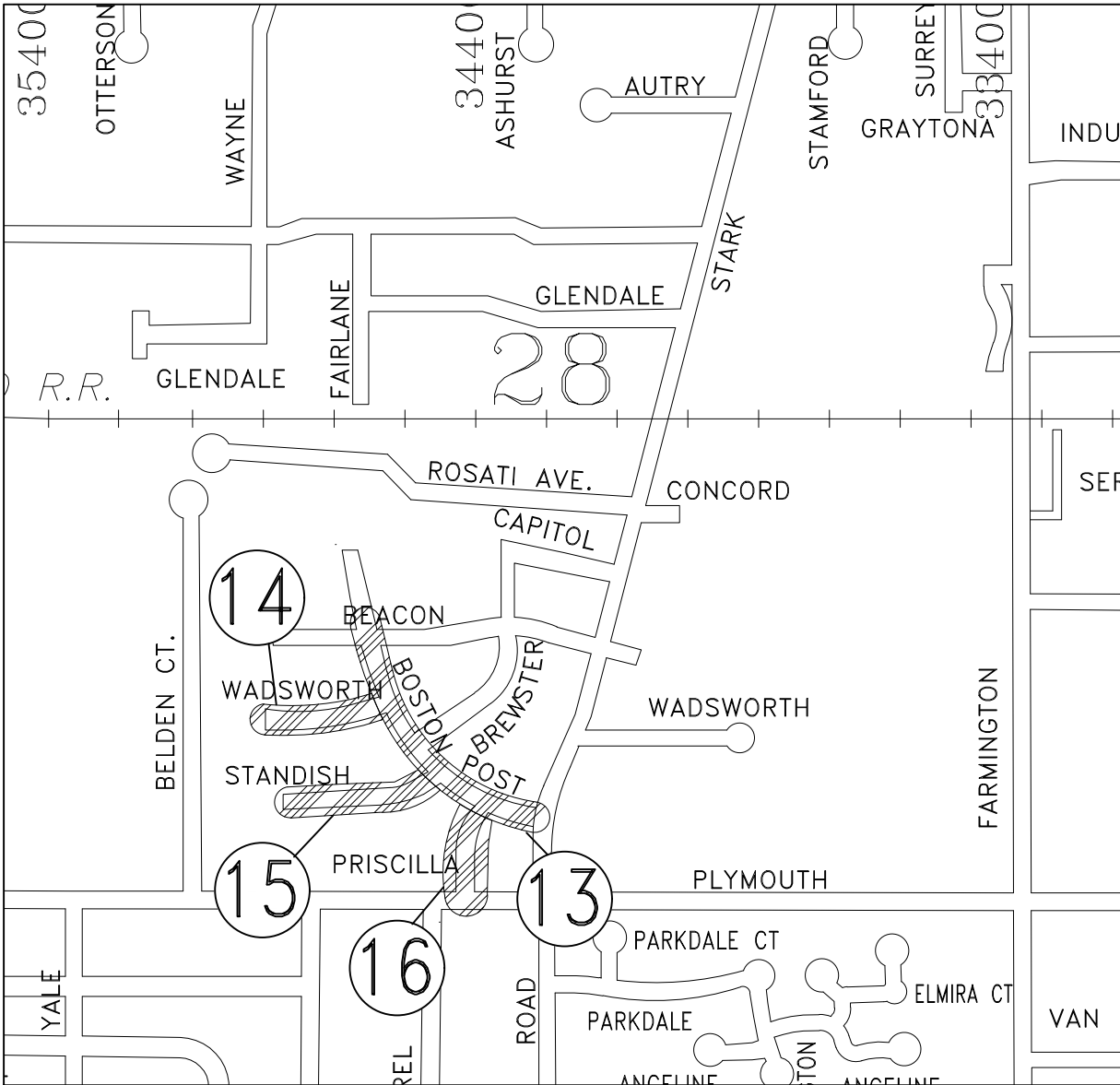
PLANS PREPARED BY:

OHM
Advancing Communities
Engineering Advisors

34000 Plymouth Road | Livonia, MI 48150
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2026 ASPHALT PAVING PROGRAM

PROJECT LOCATION MAP



2026 ROADS-ASPHALT REHABILITATION (MILL/FILL OR INLAY)



ELEMENTARY SCHOOLS



MIDDLE SCHOOLS



SENIOR HIGH SCHOOLS



PARK SITES



SCHOOL OWNED, BUT NOT
USED FOR K-12 INSTRUCTION



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2026 ASPHALT PAVING PROGRAM

PROJECT LOCATION MAP



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PROJECT LOCATION MAP



SCHOOL OWNED, BUT NOT
USED FOR K-12 INSTRUCTION

2026 ASPHALT PAVING PROGRAM

PROJECT LOCATION MAP



 2026 ROADS-ASPHALT REHABILITATION (MILL/FILL OR INLAY)

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2026 ASPHALT PAVING PROGRAM

PROJECT LOCATION MAP



2026 ROADS-ASPHALT REHABILITATION (MILL/FILL OR INLAY)



ELEMENTARY SCHOOLS



MIDDLE SCHOOLS



SENIOR HIGH SCHOOLS



PARK SITES



SCHOOL OWNED, BUT NOT
USED FOR K-12 INSTRUCTION



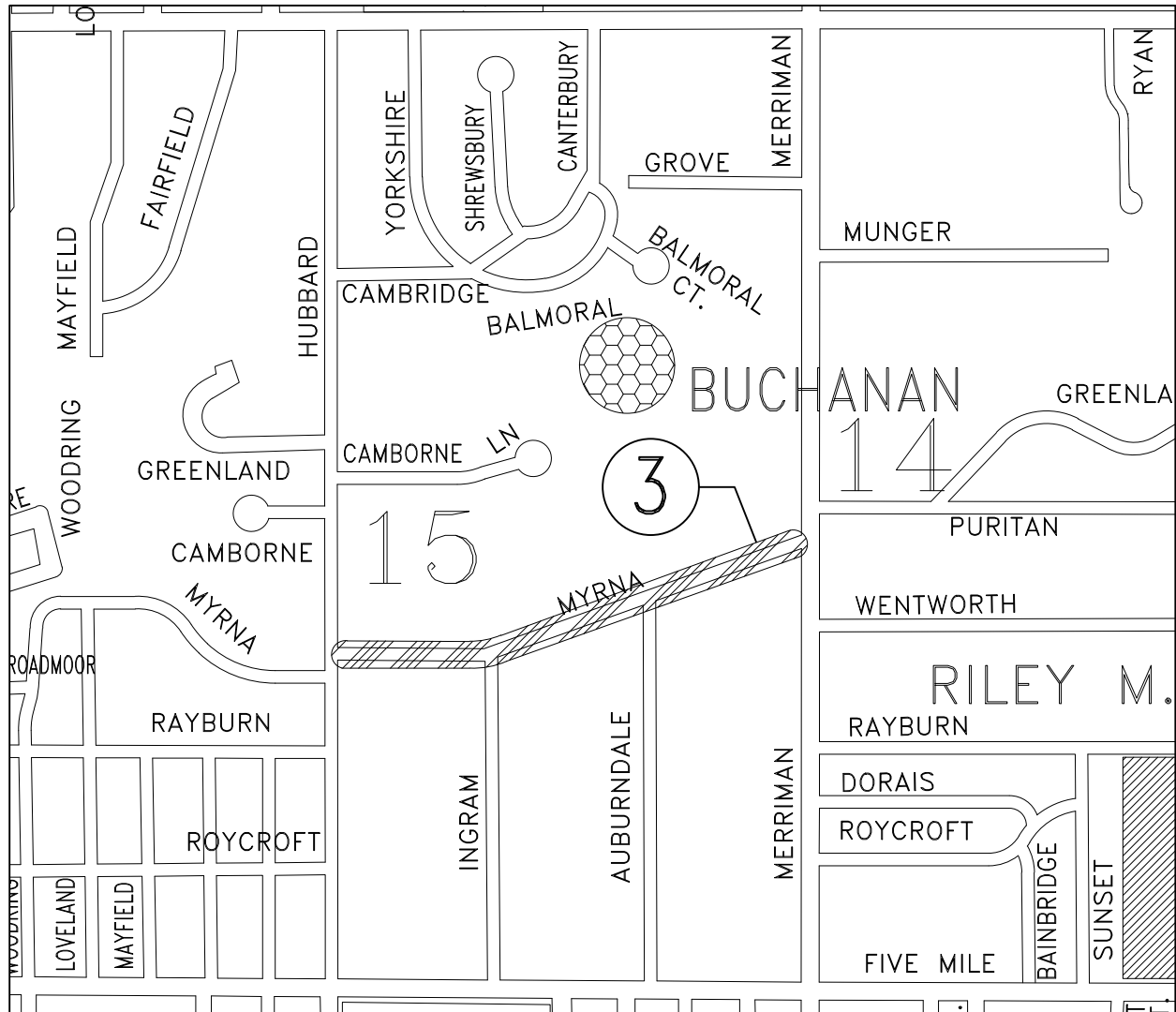
PLANS PREPARED BY:

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Engineering Advisors

2026 ASPHALT PAVING PROGRAM

PROJECT LOCATION MAP



 2026 ROADS-ASPHALT REHABILITATION (MILL/FILL OR INLAY)

-  ELEMENTARY SCHOOLS
-  MIDDLE SCHOOLS
-  SENIOR HIGH SCHOOLS
-  PARK SITES
-  SCHOOL OWNED, BUT NOT USED FOR K-12 INSTRUCTION

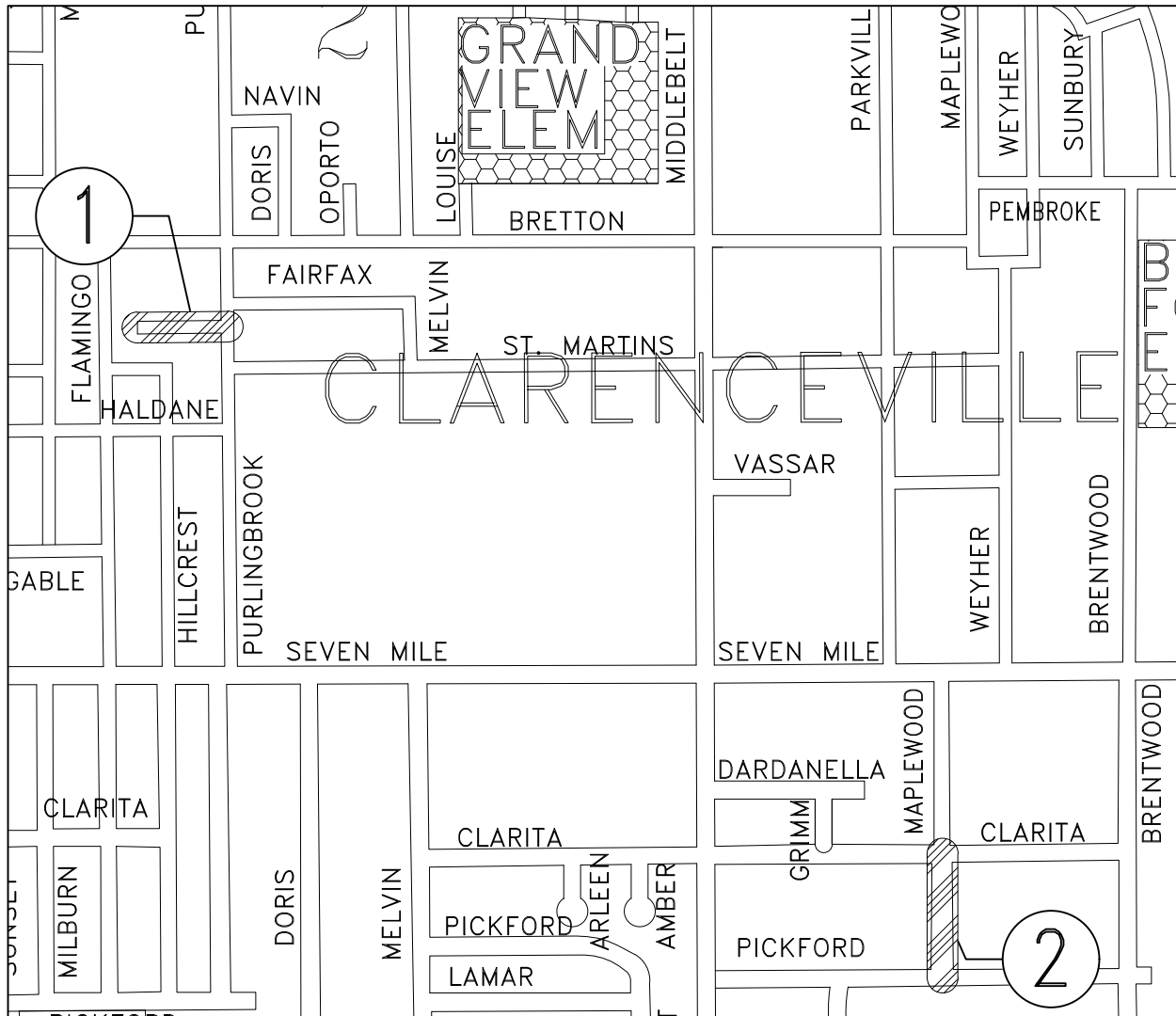


PLANS PREPARED BY:

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2026 ASPHALT PAVING PROGRAM

PROJECT LOCATION MAP



2026 ROADS-ASPALT REHABILITATION (MILL/FILL OR INLAY)



ELEMENTARY SCHOOLS



MIDDLE SCHOOLS



SENIOR HIGH SCHOOLS



PARK SITES



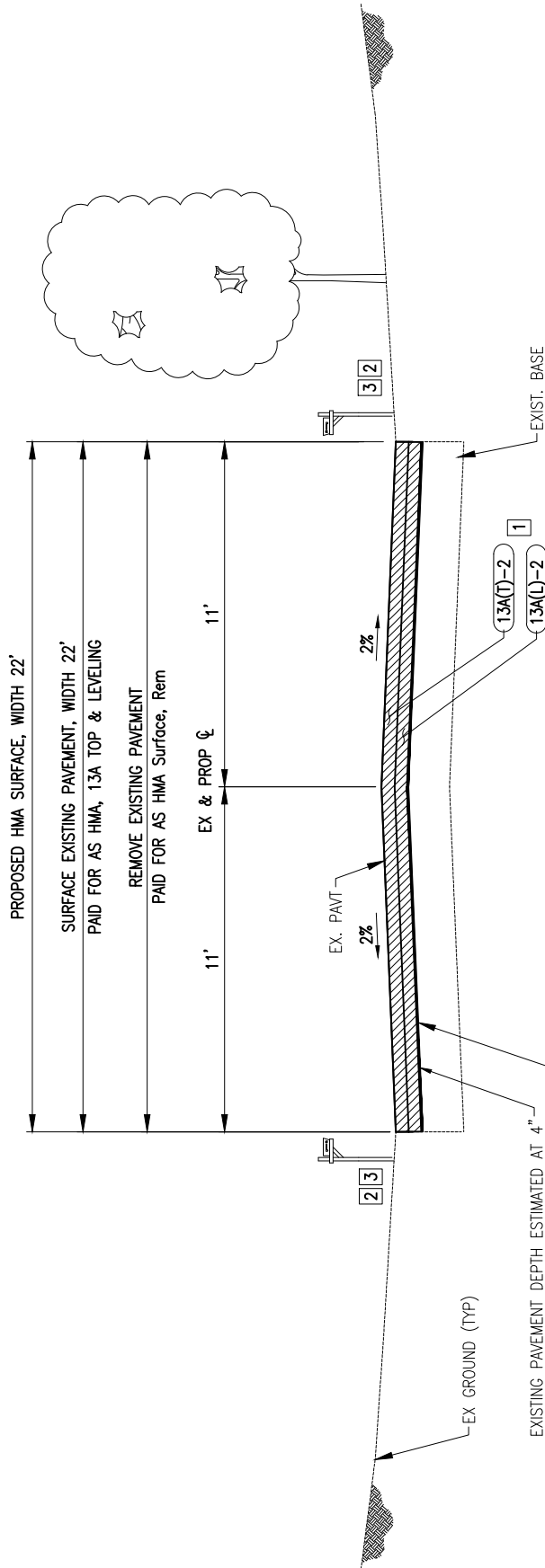
SCHOOL OWNED, BUT NOT
USED FOR K-12 INSTRUCTION



PLANS PREPARED BY:

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Engineering Advisors



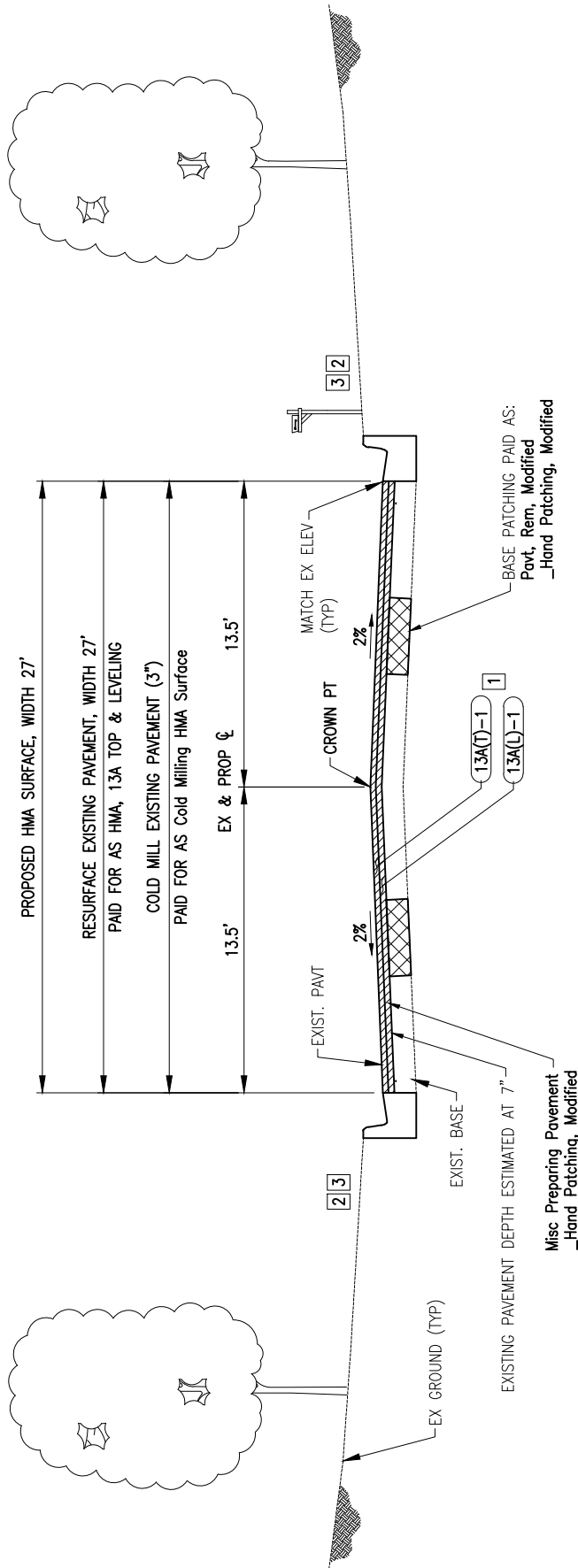
1 FAIRFAX AVE TYPICAL SECTION PURLINGBROOK ST TO END STA 0+00 TO STA 4+00

GRADING AND BASE REPLACEMENT PAID AS:
Aggregate Base, Modified AND Station Grading 2

- 1 HMA LAYER THICKNESS: 13A(T)-2: 2.0"
13A(L)-2: 2.0"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH
Surface Restoration, Seeding.
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION
FOR PROPER SEQUENCING OF ALL WORK ITEMS.

1 FAIRFAX AVE TYPICAL CROSS SECTION (4" INLAY)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-01
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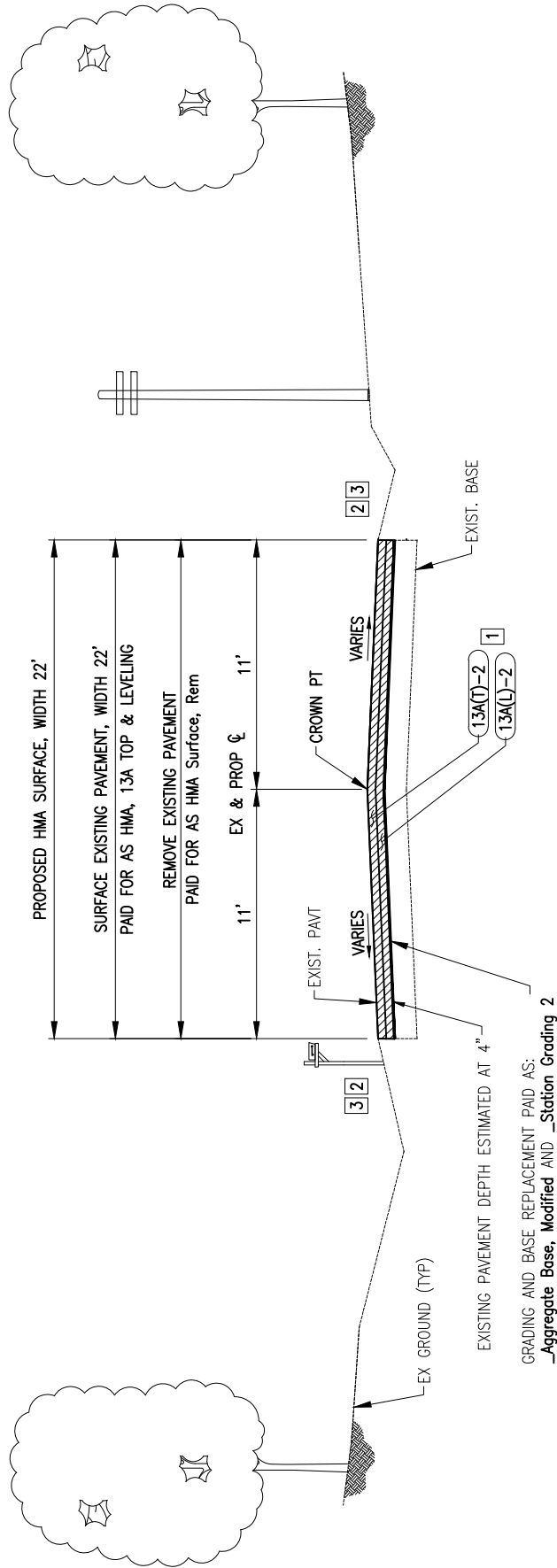
2 MAPLEWOOD AVE TYPICAL SECTION

CLARITA ST TO PICKFORD ST
STA 0+00 TO STA 5+90

- 1 HMA LAYER THICKNESS: 13A(L)-1: 1.5"
13A(T)-1: 1.5"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH **Surface Restoration, Seeding.**
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION FOR PROPER SEQUENCING OF ALL WORK ITEMS.

2 MAPLEWOOD AVE TYPICAL CROSS SECTION (3" MILL AND FILL)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-02
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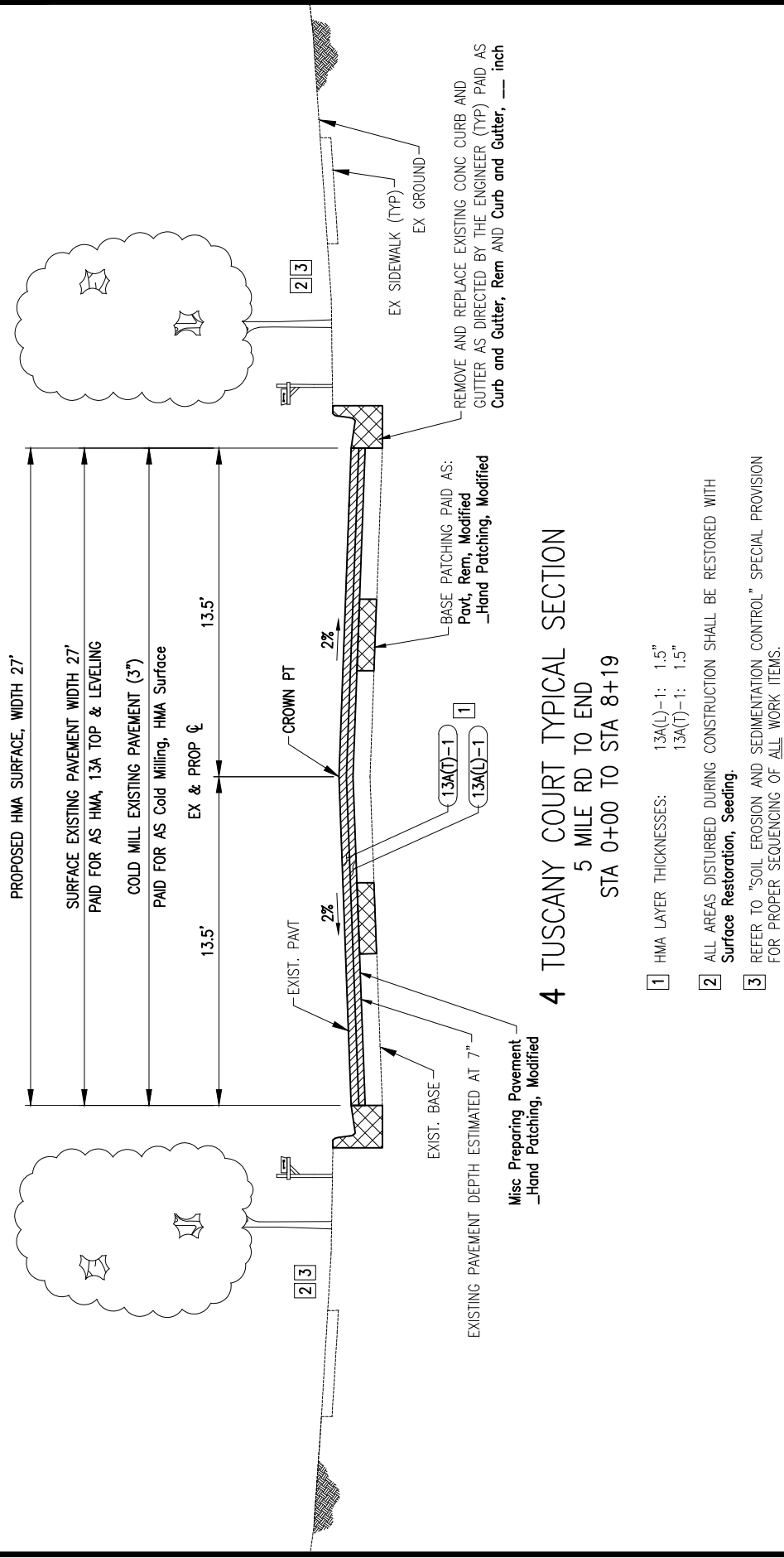


3 MYRNA AVE TYPICAL SECTION MERRIMAN RD TO HUBBARD ST STA 0+00 TO STA 26+89

- 1 HMA LAYER THICKNESSES: 13A(T)-2: 2.0"
13A(L)-2: 2.0"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH
Surface Restoration, Seeding.
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION
FOR PROPER SEQUENCING OF ALL WORK ITEMS.

3 MYRNA AVE TYPICAL CROSS SECTION (4" HMA OVERLAY)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-03
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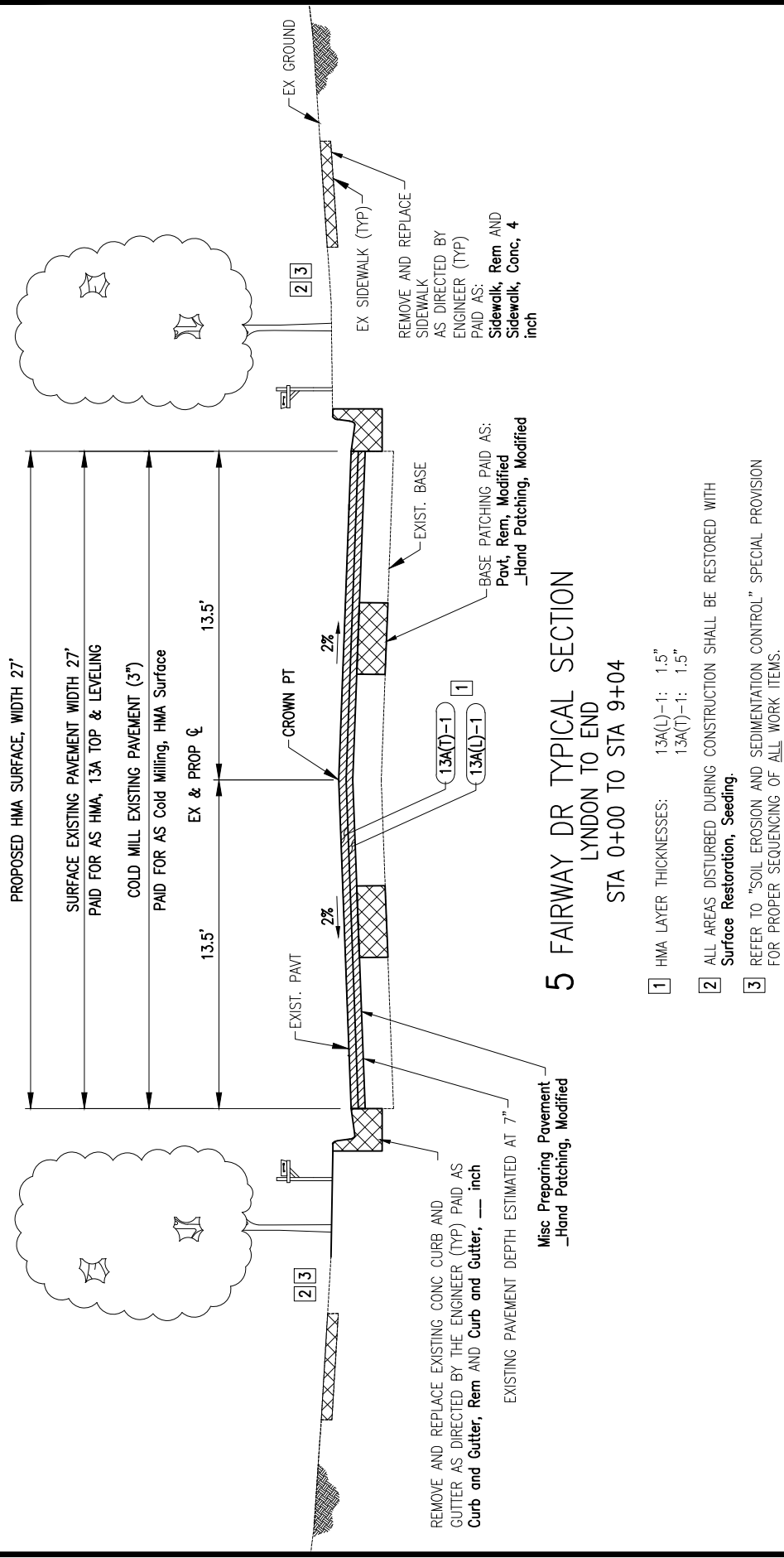


4 TUSCANY COURT TYPICAL SECTION
5 MILE RD TO END
STA 0+00 TO STA 8+19

- 1 HMA LAYER THICKNESSES: 13A(L)-1: 1.5" 13A(T)-1: 1.5"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH Surface Restoration, Seeding
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION FOR PROPER SEQUENCING OF ALL WORK ITEMS.

4 TUSCANY COURT TYPICAL CROSS SECTION (3" MILL AND FILL)

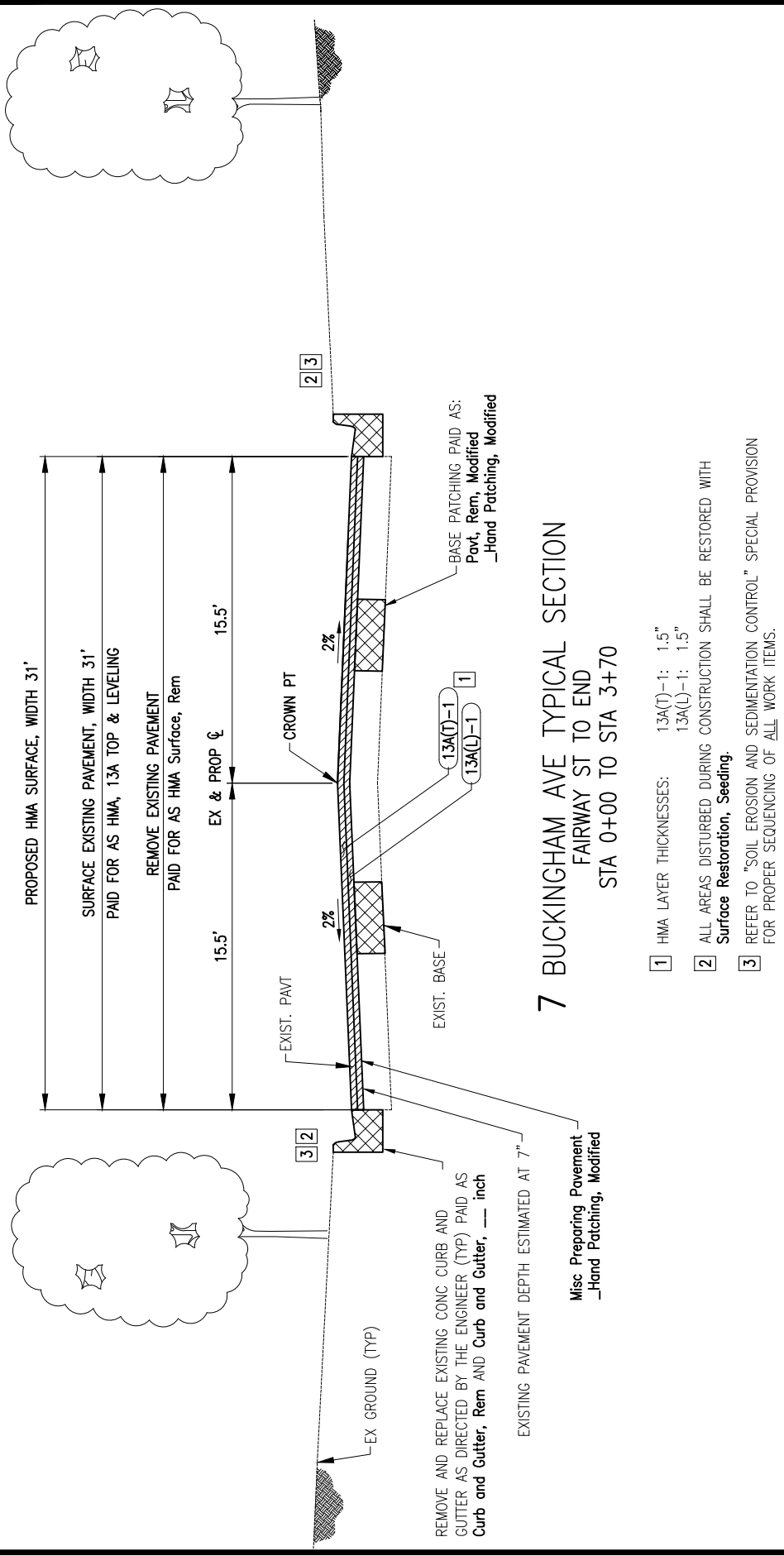
 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-04
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5 FAIRWAY DR TYPICAL SECTION
LYNDON TO END
STA 0+00 TO STA 9+04

5 FAIRWAY DR TYPICAL CROSS SECTION (3" MILL AND FILL)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/4/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-05
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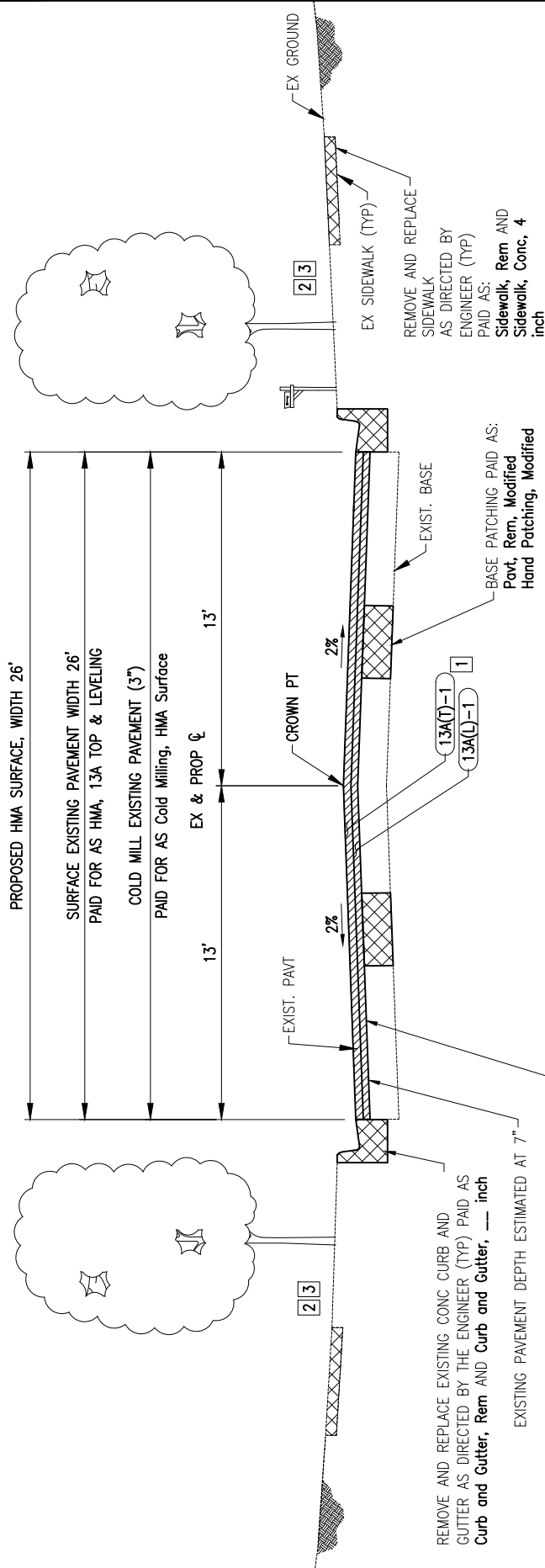


7 BUCKINGHAM AVE TYPICAL SECTION
 FAIRWAY ST TO END
 STA 0+00 TO STA 3+70

- 1 HMA LAYER THICKNESSES: 13A(T)-1: 1.5" 13A(L)-1: 1.5"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH **Surface Restoration, Seeding.**
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION FOR PROPER SEQUENCING OF ALL WORK ITEMS.

7 BUCKINGHAM AVE TYPICAL CROSS SECTION (3" MILL AND FILL)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/30/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-07
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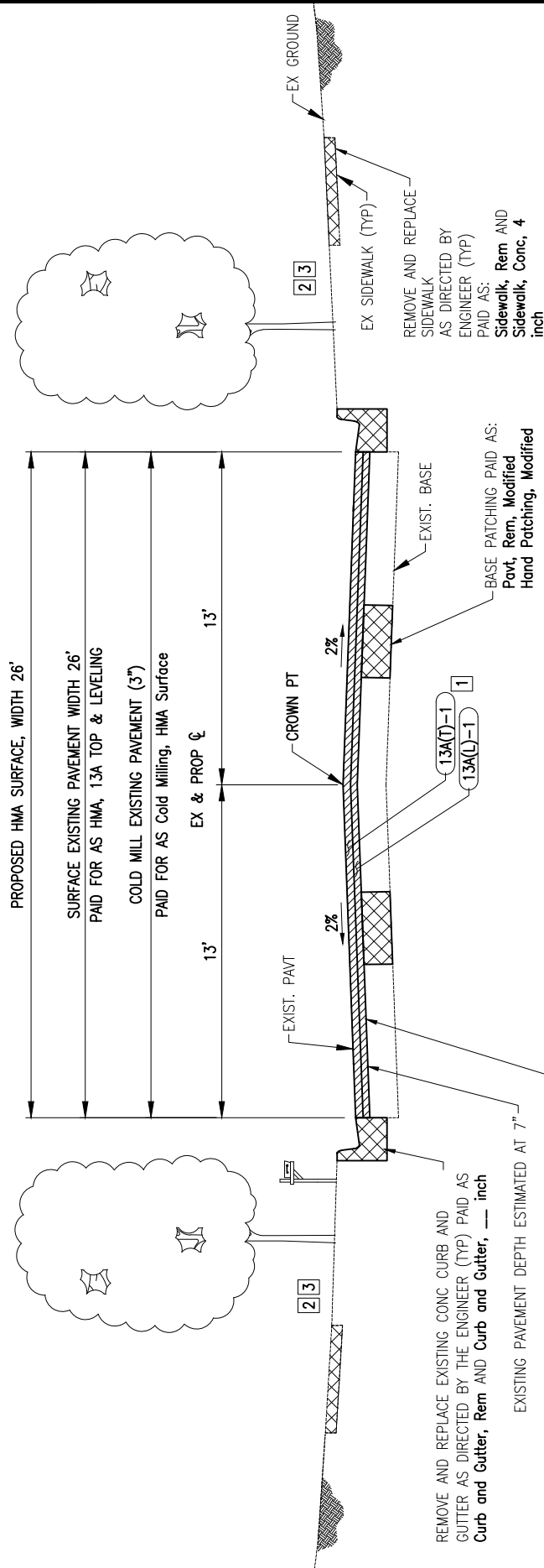


9 ACACIA AVE TYPICAL SECTION RIGA AVE AVE TO HARRISON AVE STA 0+00 TO STA 6+25

- 1 HMA LAYER THICKNESSES: 13A(T)-1: 1.5"
13A(L)-1: 1.5"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH
Surface Restoration, Seeding.
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION
FOR PROPER SEQUENCING OF ALL WORK ITEMS.

9 ACACIA AVE TYPICAL CROSS SECTION (3" MILL AND FILL)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-09
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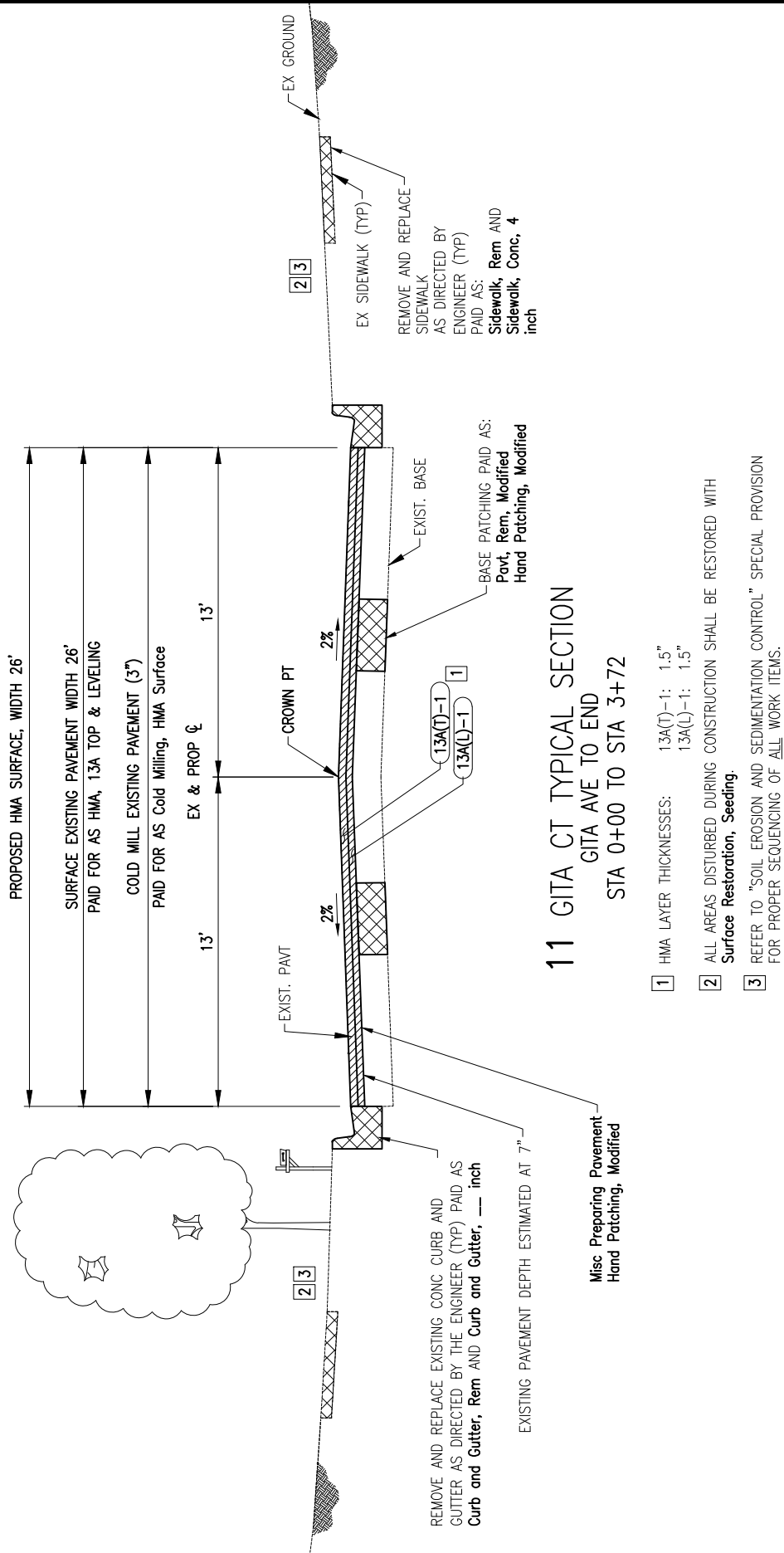


10 GITA AVE TYPICAL SECTION RICA AVE AVE TO HARRISON AVE STA 0+00 TO STA 7+19

- 1 HMA LAYER THICKNESSES: 13A(T)-1: 1.5"
13A(L)-1: 1.5"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH
Surface Restoration, Seeding.
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION
FOR PROPER SEQUENCING OF ALL WORK ITEMS.

10 GITA AVE TYPICAL CROSS SECTION (3" MILL AND FILL)

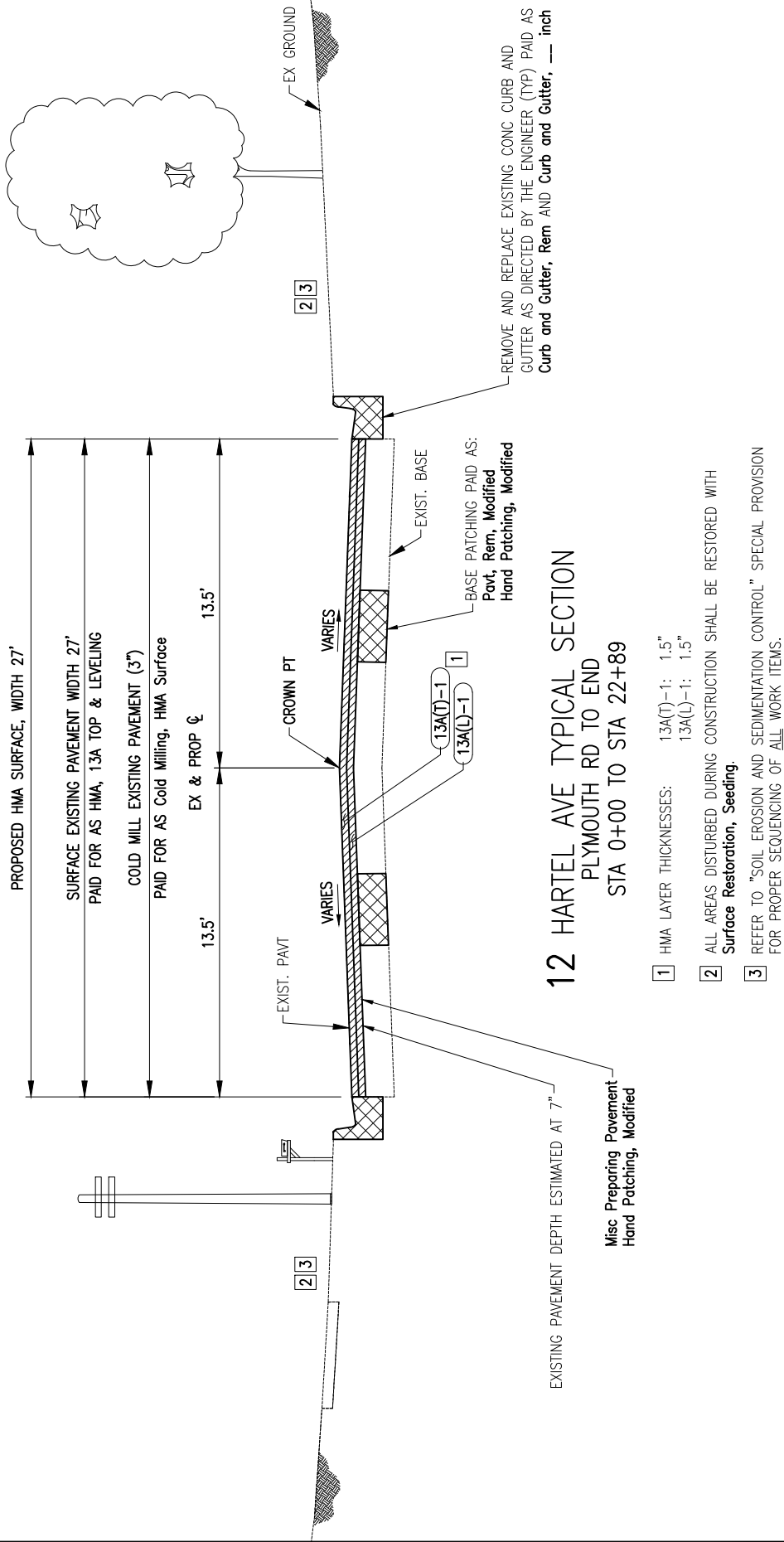
 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/30/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-10
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11 GITA CT TYPICAL CROSS SECTION (3" MILL AND FILL)

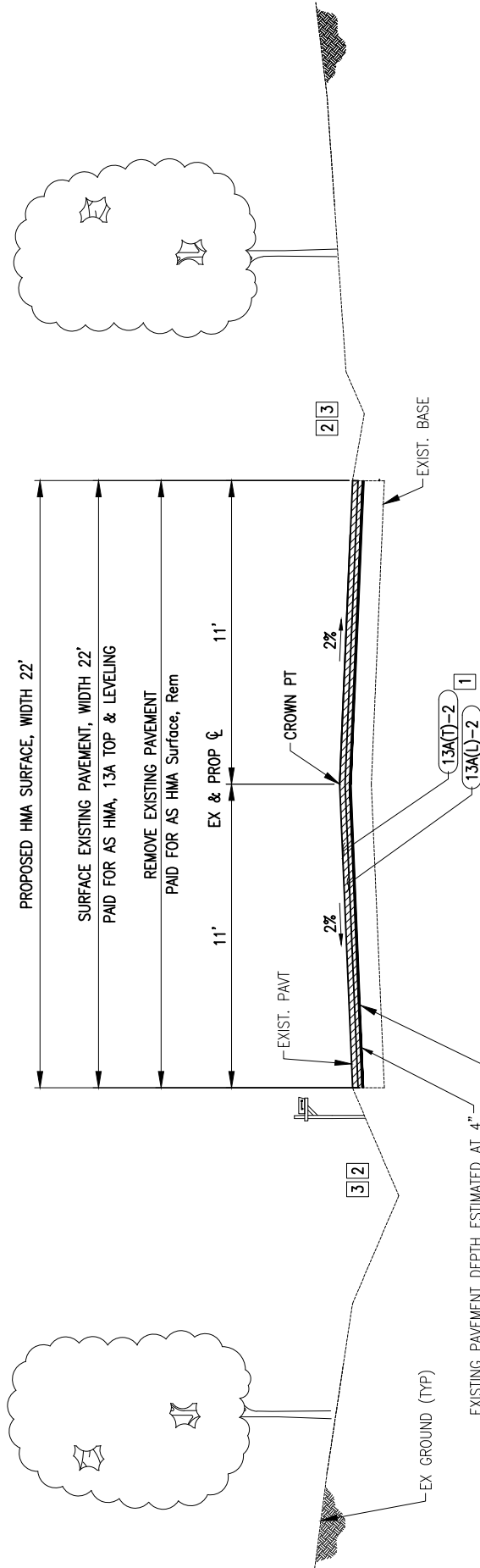
Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-11
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12 HARTEL AVE TYPICAL CROSS SECTION (3" MILL AND OVERLAY)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-12
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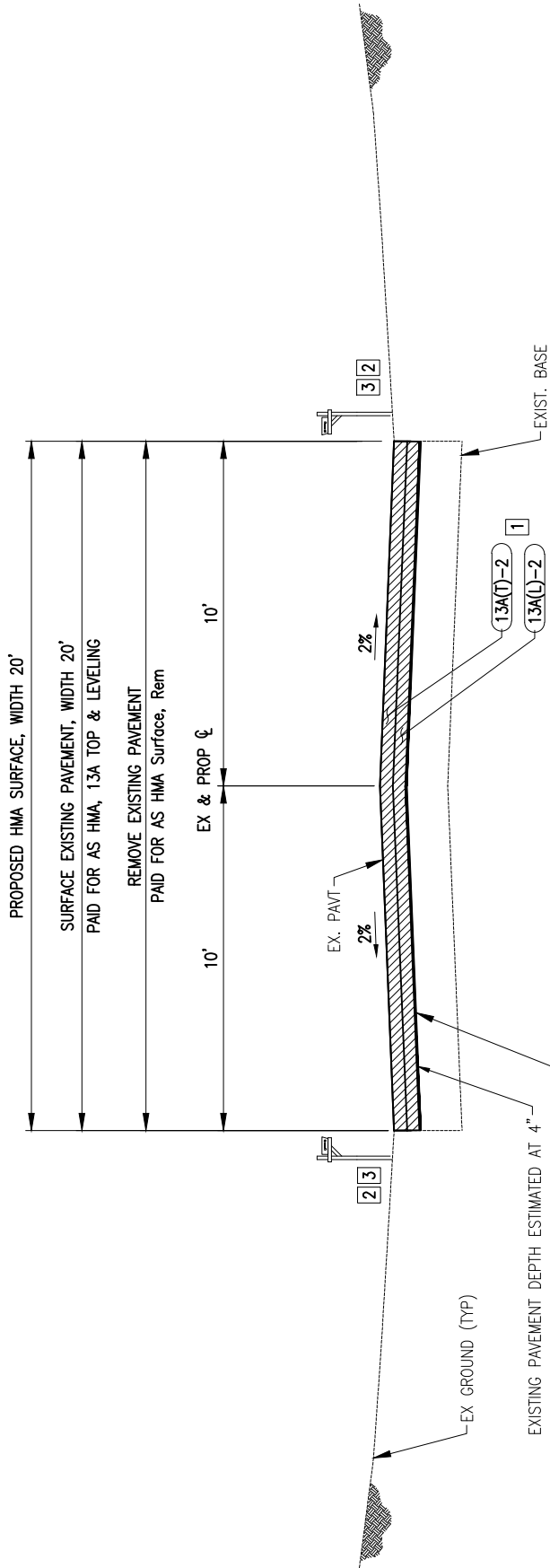
13 BOSTON POST RD TYPICAL SECTION
 BEACON AVE TO STARK RD
 STA 0+00 TO STA 14+22

GRADING AND BASE REPLACEMENT PAID AS:
 _Aggregate Base, 2 inch, Modified and _Station Grading 2

- 1 HMA LAYER THICKNESSES: 13A(T)-2: 2.0"
13A(L)-2: 2.0"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH **Surface Restoration, Seeding.**
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION FOR PROPER SEQUENCING OF ALL WORK ITEMS.

13 BOSTON POST RD TYPICAL CROSS SECTION (4" INLAY)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-13
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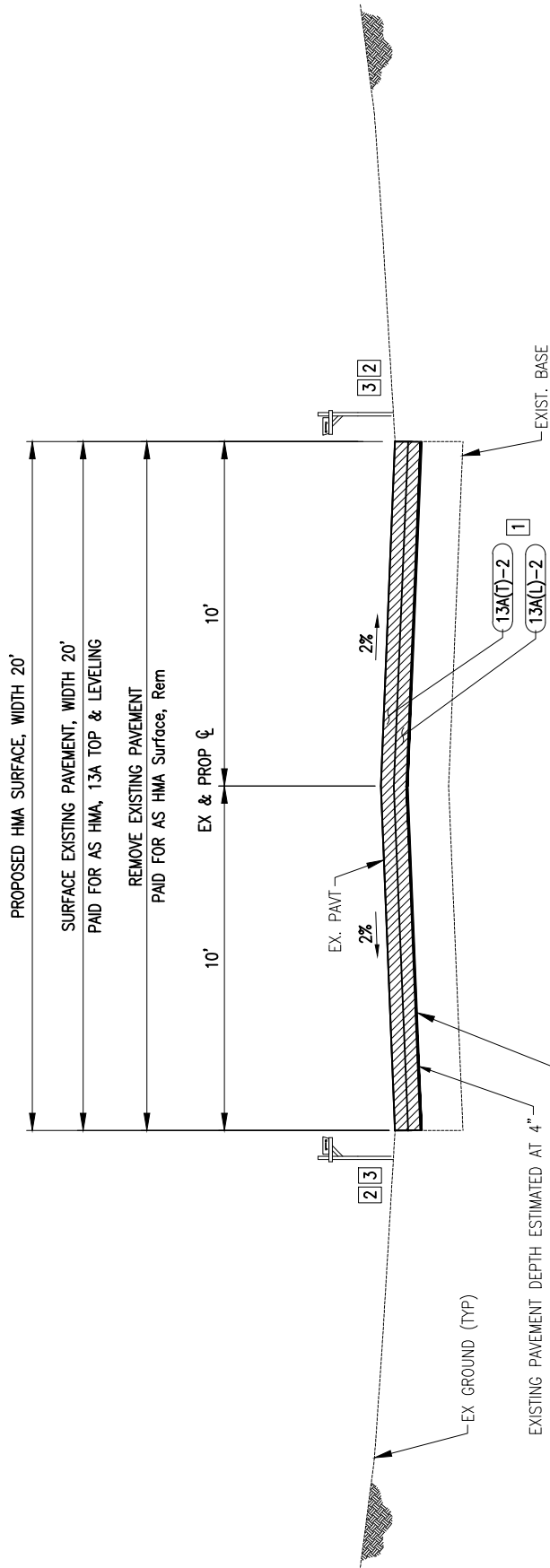
14 WADSWORTH AVE TYPICAL SECTION **BOSTON POST RD TO END** **STA 0+00 TO STA 6+85**

GRADING AND BASE REPLACEMENT PAID AS:
 _Aggregate Base, 2 inch, Modified AND _Station Grading 2

- 1 HMA LAYER THICKNESS: 13A(T)-2: 2.0"
13A(L)-2: 2.0"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH **Surface Restoration, Seeding.**
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION FOR PROPER SEQUENCING OF ALL WORK ITEMS.

14 WADSWORTH AVE TYPICAL CROSS SECTION (4" INLAY)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-14
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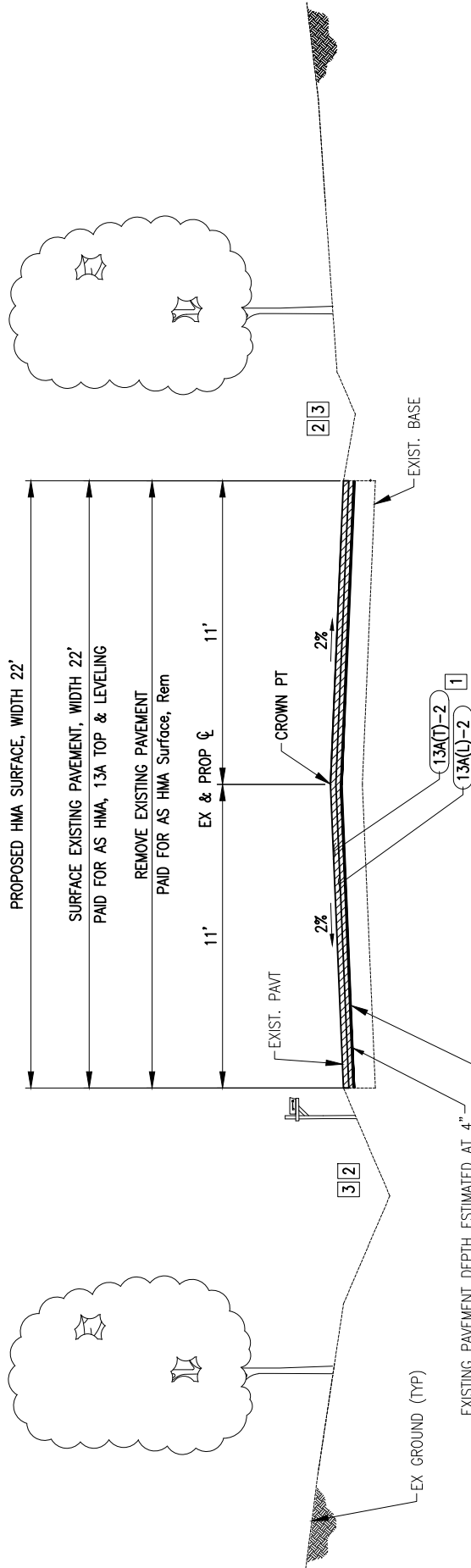
15 STANDISH AVE TYPICAL SECTION BOSTON POST RD TO END STA 0+00 TO STA 9+37

GRADING AND BASE REPLACEMENT PAID AS:
_Aggregate Base, Modified AND _Station Grading 2

- 1 HMA LAYER THICKNESS: 13A(T)-2: 2.0"
13A(L)-2: 2.0"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH
Surface Restoration, Seeding.
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION
FOR PROPER SEQUENCING OF ALL WORK ITEMS.

15 STANDISH AVE TYPICAL CROSS SECTION (4" INLAY)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-15
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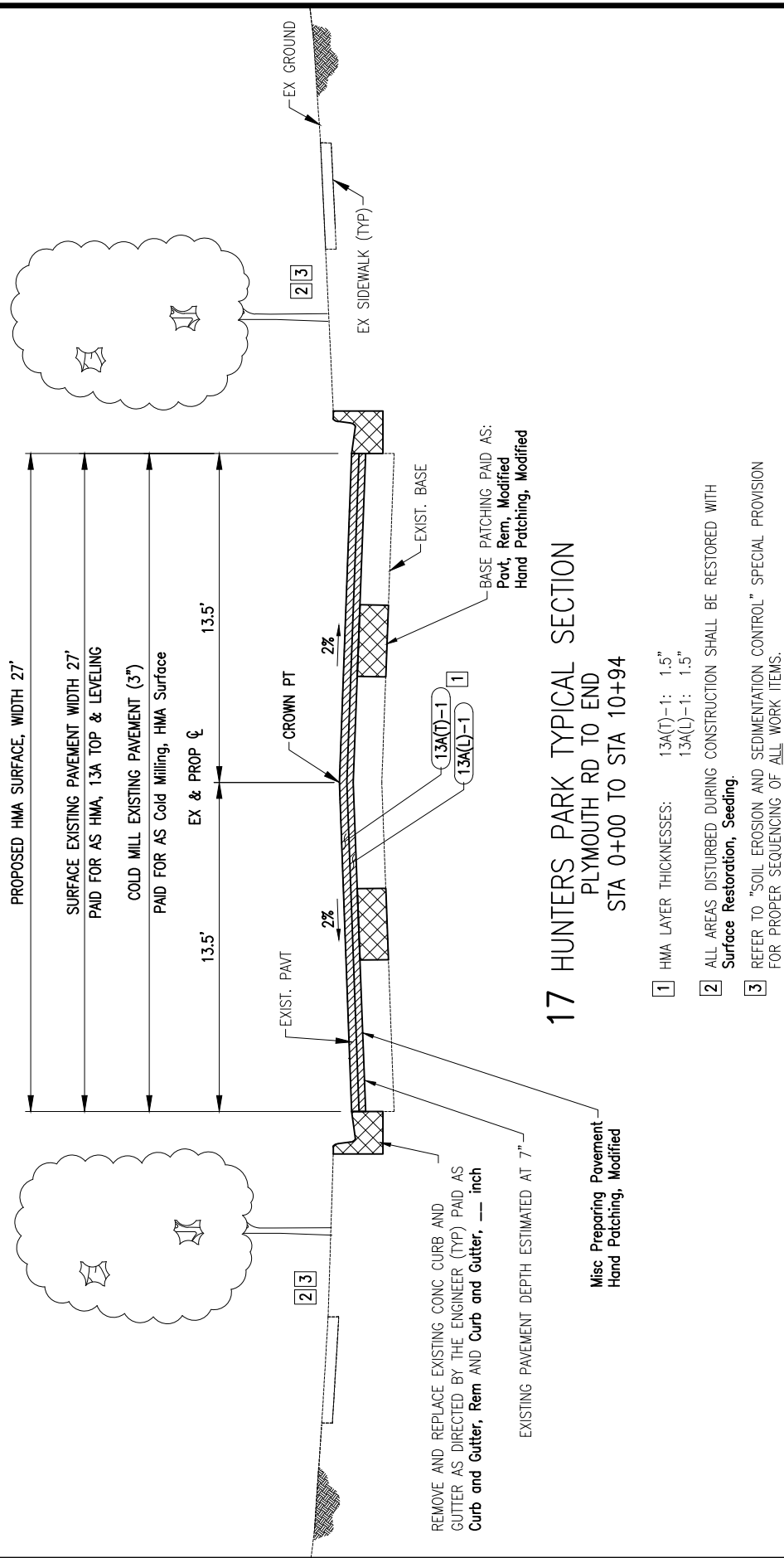
16 PRISCILLA LN TYPICAL SECTION BOSTON POST RD TO PLYMOUTH RD STA 0+00 TO STA 4+49

- 1 HMA LAYER THICKNESSES: 13A(T)-2: 2.0" 13A(L)-2: 2.0"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH **Surface Restoration, Seeding.**
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION FOR PROPER SEQUENCING OF ALL WORK ITEMS.

GRADING AND BASE REPLACEMENT PAID AS: **Aggregate Base, Modified** AND **Station Grading 2**

16 PRISCILLA LN TYPICAL CROSS SECTION (4" INLAY)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-16
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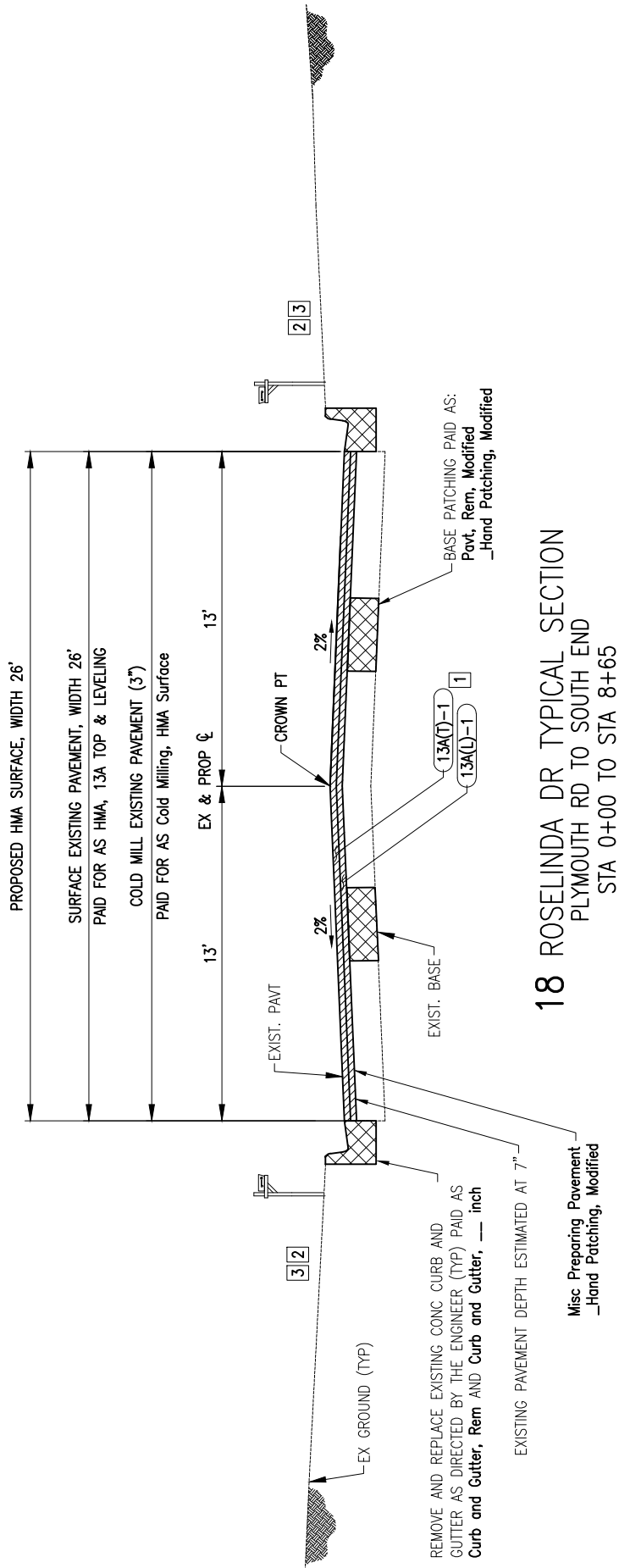


17 HUNTERS PARK TYPICAL SECTION PLYMOUTH RD TO END STA 0+00 TO STA 10+94

- 1 HMA LAYER THICKNESSES: 13A(T)-1: 1.5"
13A(L)-1: 1.5"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH
Surface Restoration, Seeding.
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION FOR PROPER SEQUENCING OF ALL WORK ITEMS.

17 HUNTERS PK TYPICAL CROSS SECTION (3" MILL AND FILL)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-17
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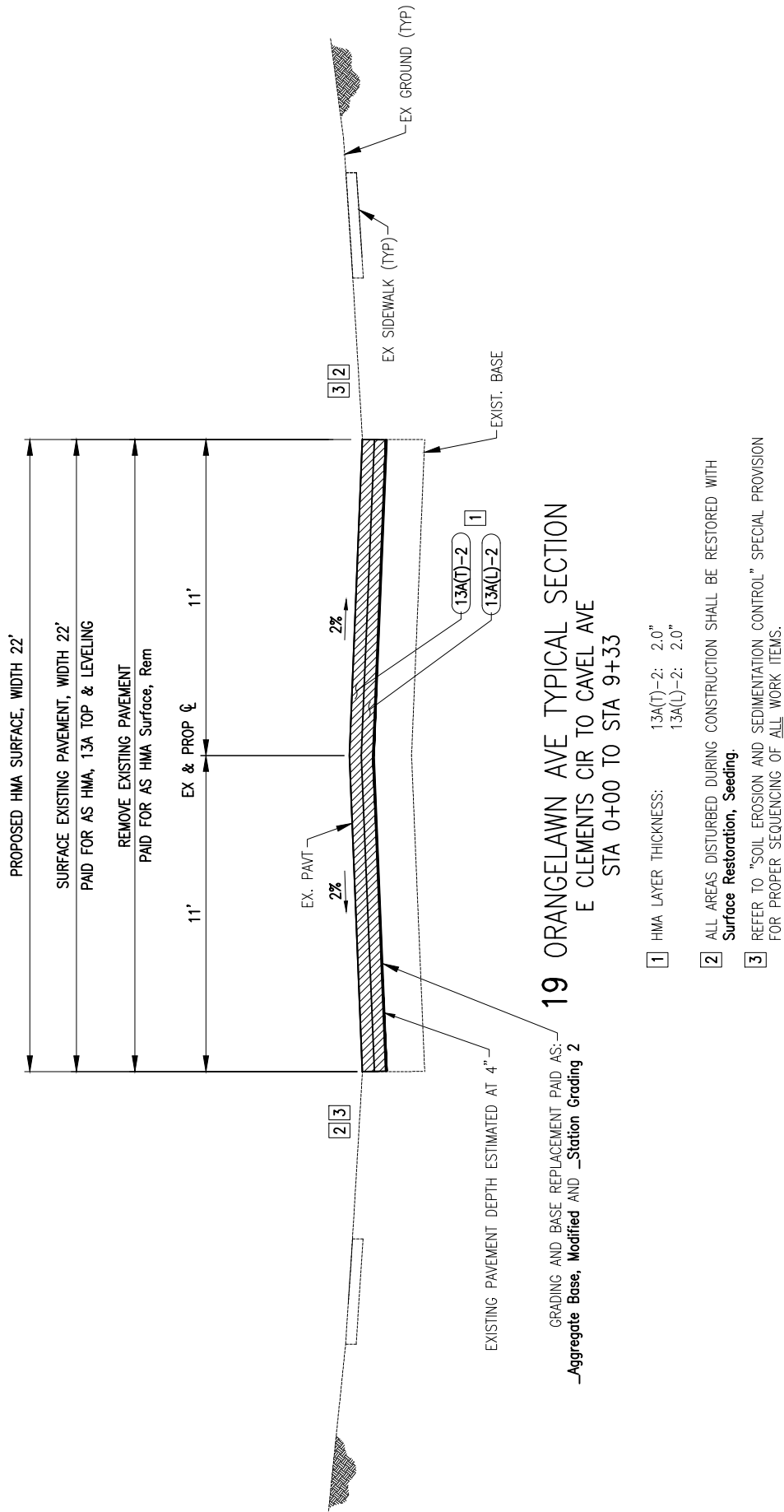


18 ROSELINDA DR TYPICAL SECTION PLYMOUTH RD TO SOUTH END STA 0+00 TO STA 8+65

- 1 HMA LAYER THICKNESSES: 13A(T)-1: 1.5" 13A(L)-1: 1.5"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH Surface Restoration, Seeding.
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION FOR PROPER SEQUENCING OF ALL WORK ITEMS.

18 ROSELINDA DR TYPICAL CROSS SECTION (INLAY)

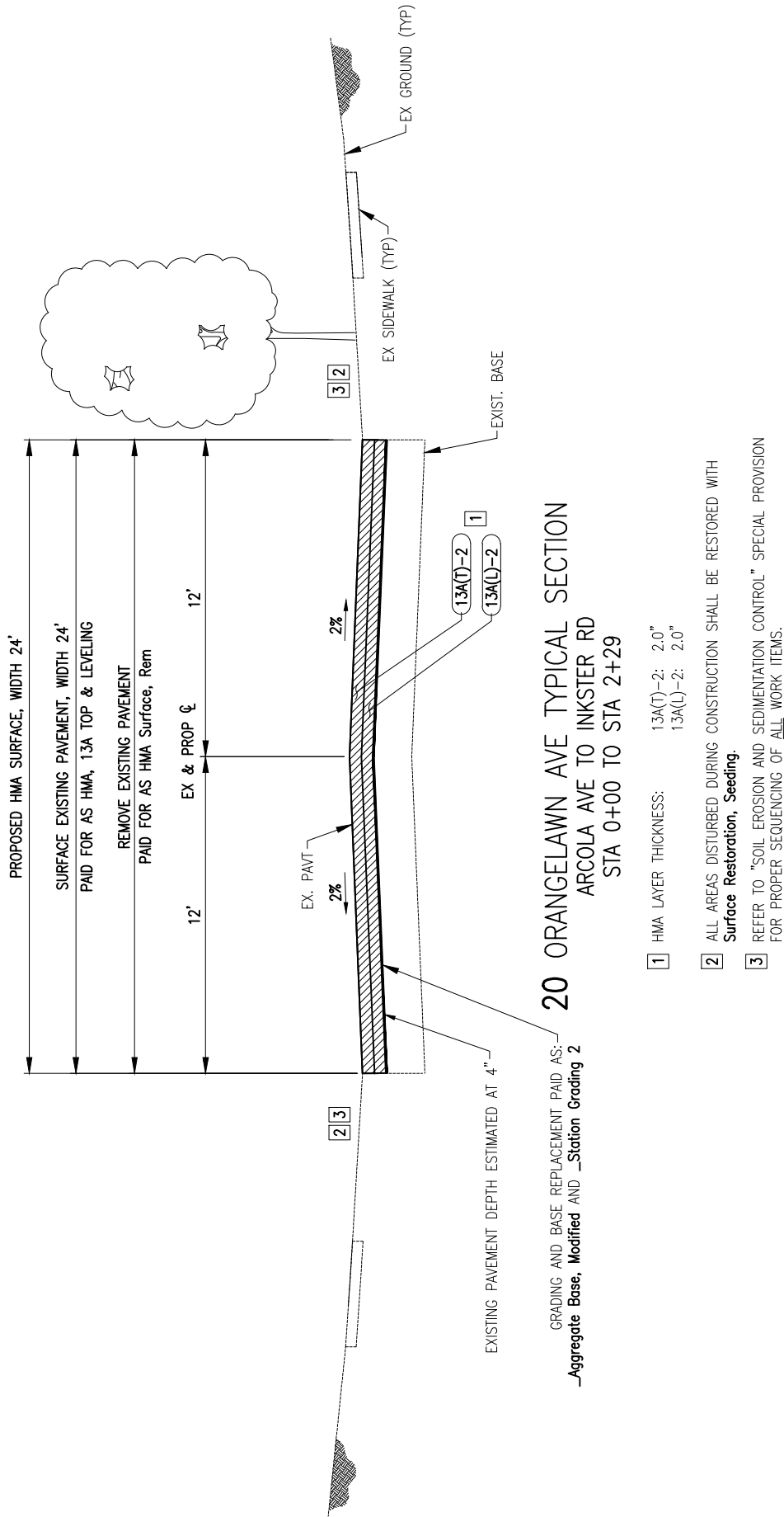
 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-18
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19 ORANGELAWN AVE TYPICAL CROSS SECTION (4" INLAY)

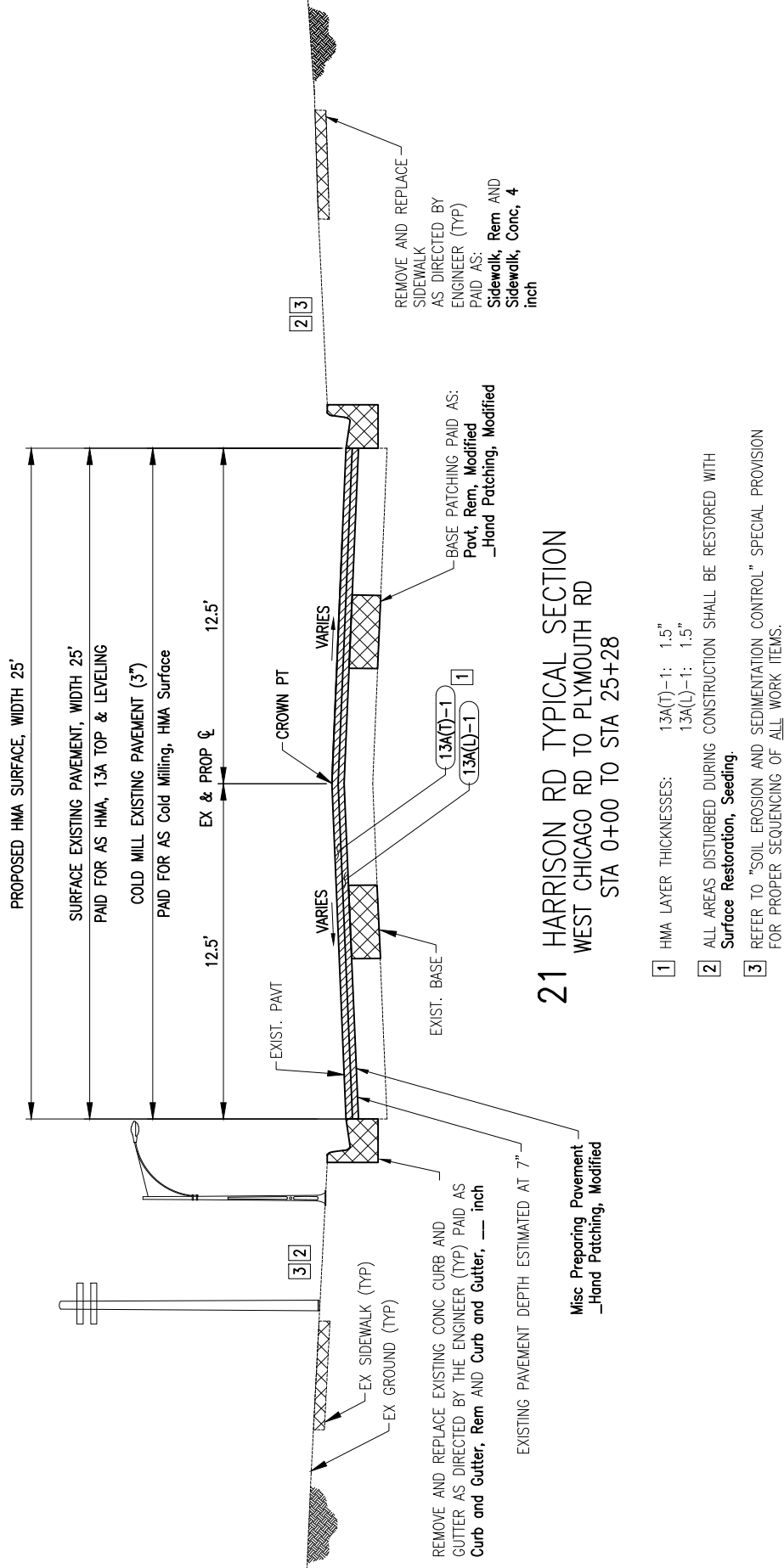
Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-19
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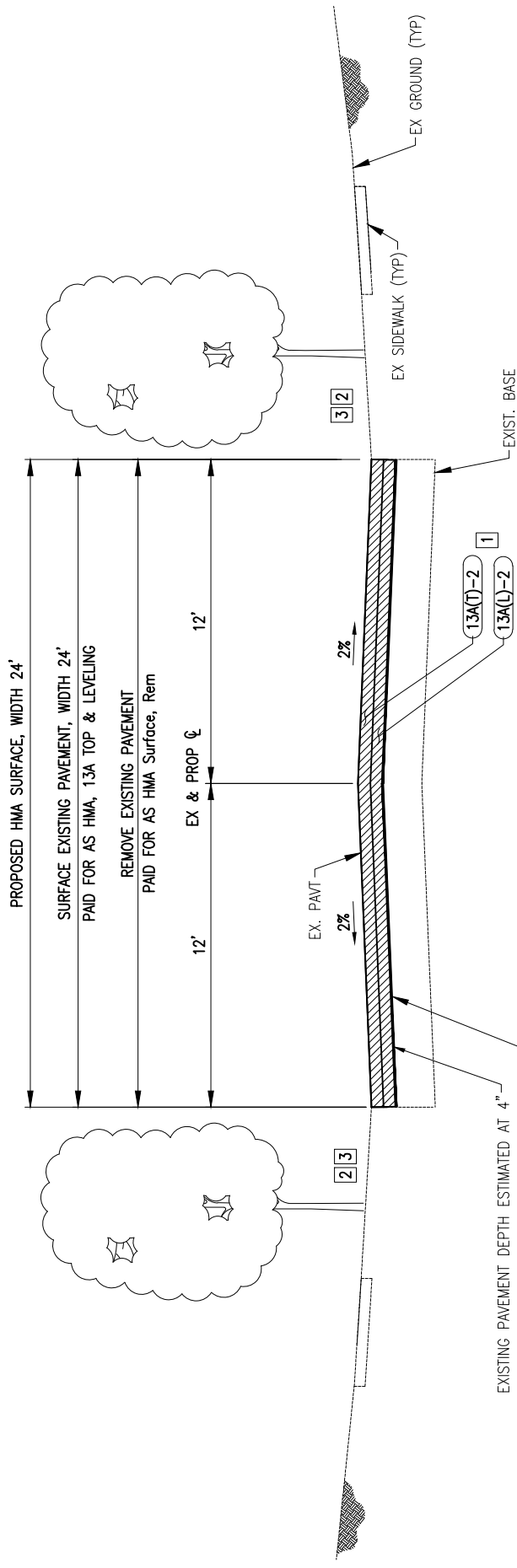
20 ORANGELAWN AVE TYPICAL CROSS SECTION (4" INLAY)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-20
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21 HARRISON RD TYPICAL CROSS SECTION (3" MILL AND FILL)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-21
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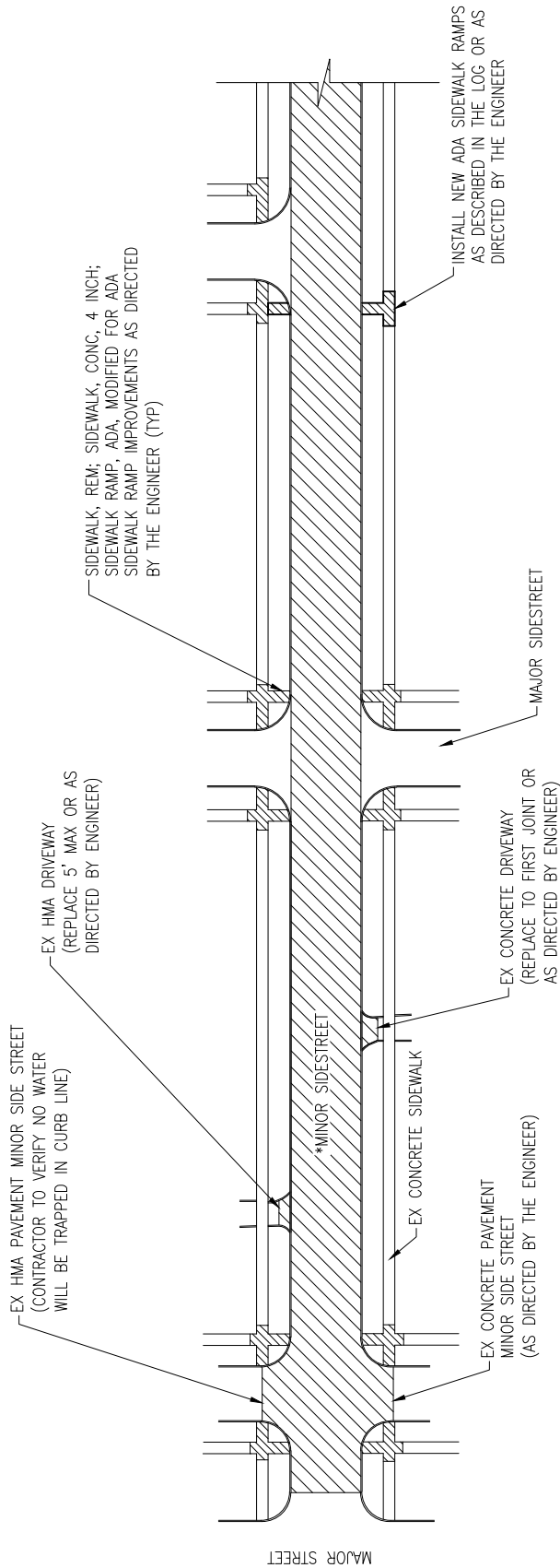
22 ELMIRA AVE TYPICAL SECTION
 CAVELL AVE TO INKSTER RD
 STA 0+00 TO STA 5+65

GRADING AND BASE REPLACEMENT PAID AS:
 -Aggregate Base, Modified AND -Station Grading 2

- 1 HMA LAYER THICKNESS: 13A(T)-2: 2.0"
13A(L)-2: 2.0"
- 2 ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH **Surface Restoration, Seeding.**
- 3 REFER TO "SOIL EROSION AND SEDIMENTATION CONTROL" SPECIAL PROVISION FOR PROPER SEQUENCING OF ALL WORK ITEMS.

22 ELMIRA AVE TYPICAL CROSS SECTION (4" INLAY)

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 10/31/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: TYP-22
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NOTE:

(*) AS SPECIFIED IN LOG OF PROJECT

THE LIMITS OF WORK AS SHOWN ARE FOR INFORMATION PURPOSES ONLY.

THE EXACT LIMITS ARE TO BE DETERMINED BY THE ENGINEER PRIOR TO THE MILLING OR PAVEMENT REMOVAL OPERATION.

AT MAJOR ROAD INTERSECTIONS, THE WORK SHALL STOP PRIOR TO THE MAJOR INTERSECTION RADIUS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

REFER TO MDT STANDARD PLAN R-28 SERIES FOR SIDEWALK RAMP DETAILS.

ONLY DRIVEWAYS SPECIFIED BY THE ENGINEER SHALL BE REPLACED.



WORK LIMITS FOR RESIDENTIAL STREETS AND DRIVEWAY APPROACHES

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/11/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-01
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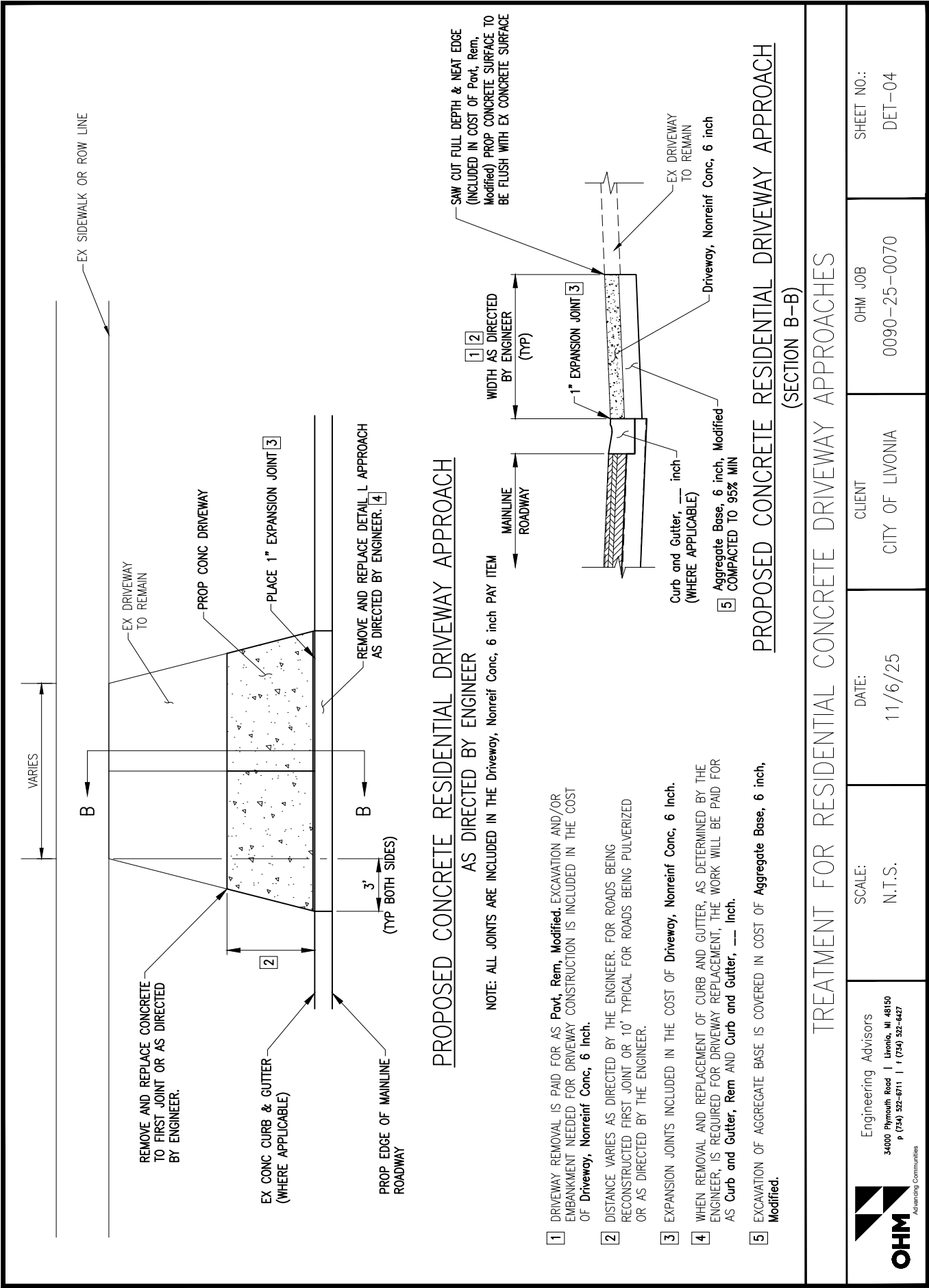
HMA APPLICATION ESTIMATE						
MIX TYPE	ITEM DESCRIPTION	TIER	RATE OF APPL. LB/SYD	EST THICKNESS (INCHES)	PERFORMANCE GRADE	LOCATION/NOTES
13A(T)-1	HMA, 13A (TOP)		165	1.5	64 - 22	TOP COURSE; AWI = 260 MIN.
13A(T)-2	HMA, 13A (TOP)		220	2.0	64 - 22	TOP COURSE; AWI = 260 MIN.
13A(L)-1	HMA, 13A (LEVELING)		165	1.5	64 - 22	LEVELING COURSE
13A(L)-2	HMA, 13A (LEVELING)		220	2.0	64 - 22	LEVELING COURSE
36A-1	HMA APPROACH		165	1.5	58-28	2 LIFTS OF 1.5" (3.0" TOTAL) FOR HMA RESIDENTIAL DRIVEWAYS; AWI=260 MIN
36A-2	HMA APPROACH		220	2.0	58-28	2 LIFTS OF 2.0" (4.0" TOTAL) FOR HMA RESIDENTIAL DRIVEWAYS; AWI=260 MIN
HPM-1	HAND PATCHING, MODIFIED		VARIES	VARIES	64 - 22	HMA, 13A (TOP)
HPS	HAND PATCHING, SPECIAL		VARIES	VARIES	64 - 22	HMA, 13A (LEVELING), (TOP)
*HMA BOND COAT SS-1H : 0.05 - 0.10 GAL/SYD INCLUDED IN COST OF HMA ITEMS						

NOTE: * FOR INFORMATION ONLY

PLACE HMA BOND COAT SS-1H @ 0.10 GAL/SYD BETWEEN EXISTING CURB AND GUTTER OR COLD MILLED PAVEMENT AND PROPOSED HMA SURFACING.
ALSO PLACE 0.05 GAL/SYD BETWEEN HMA LIFTS. HMA BOND COAT WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE HMA PAY ITEM BEING PLACED.

HMA APPLICATION CHART

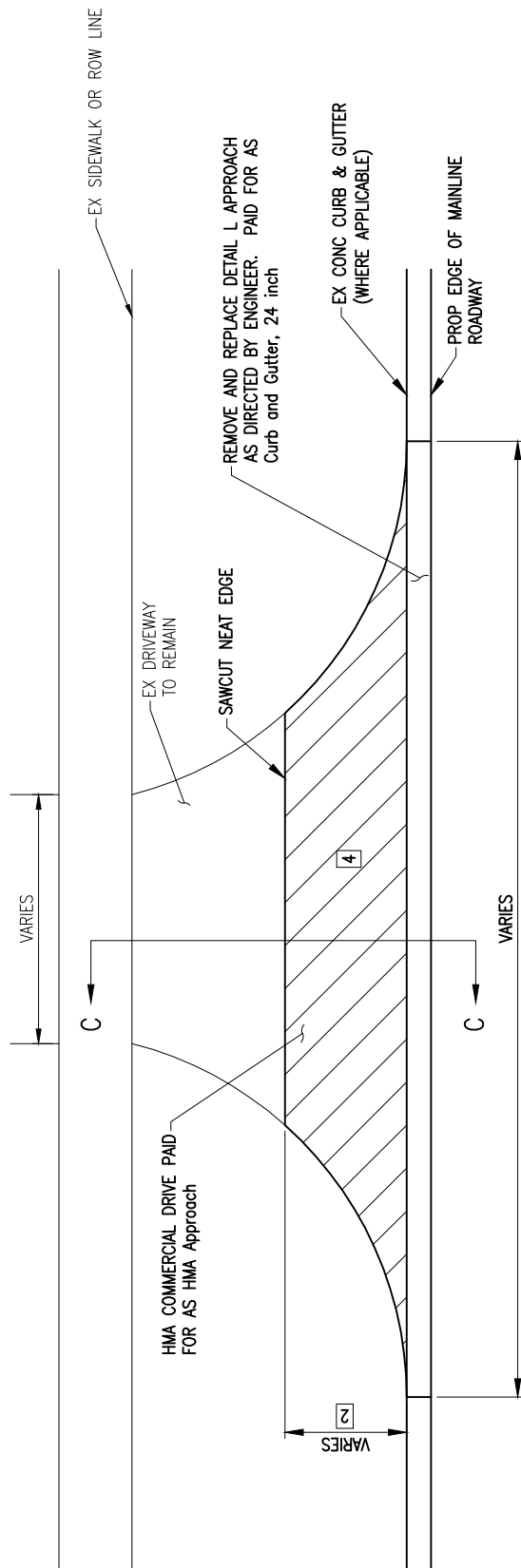
 OHM Advancing Communities	Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/11/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-02



PROPOSED CONCRETE RESIDENTIAL DRIVEWAY APPROACH
(SECTION B-B)

TREATMENT FOR RESIDENTIAL CONCRETE DRIVEWAY APPROACHES

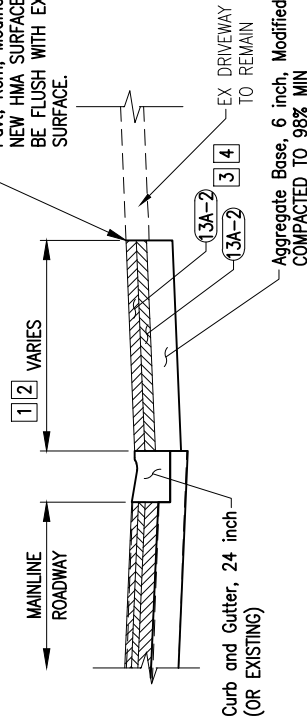
 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-04
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PROPOSED HMA COMMERCIAL DRIVEWAY APPROACH

AS DIRECTED BY ENGINEER

SAWCUT NEAT EDGE
(INCLUDED IN COST OF
Pavt, Rem, Modified,
NEW HMA SURFACE TO
BE FLUSH WITH EX HMA
SURFACE.



1 EXCAVATION AND/OR EMBANKMENT NEEDED FOR DRIVEWAY CONSTRUCTION IS INCLUDED IN THE COST OF **HMA Approach**. DRIVEWAY REMOVAL IS INCLUDED IN THE COST OF **Pavt, Rem, Modified**.

2 DISTANCE VARIES AS DIRECTED BY THE ENGINEER.

3 HMA LAYER THICKNESSES: 13A-2: 2.0"
PAID FOR AS HMA, 36A

4 NO HMA WEDGING OVER EXISTING DRIVE IS PERMITTED.

5 EXCAVATION OF AGGREGATE BASE IS COVERED IN COST OF **Aggregate Base, 6 inch, Modified**.

PROPOSED HMA COMMERCIAL DRIVEWAY APPROACH

(SECTION C-C)

TREATMENT FOR COMMERCIAL HMA DRIVEWAY APPROACHES



Engineering Advisors
34000 Plymouth Road | Livonia, MI 48150
P (734) 522-5711 | F (734) 522-6427

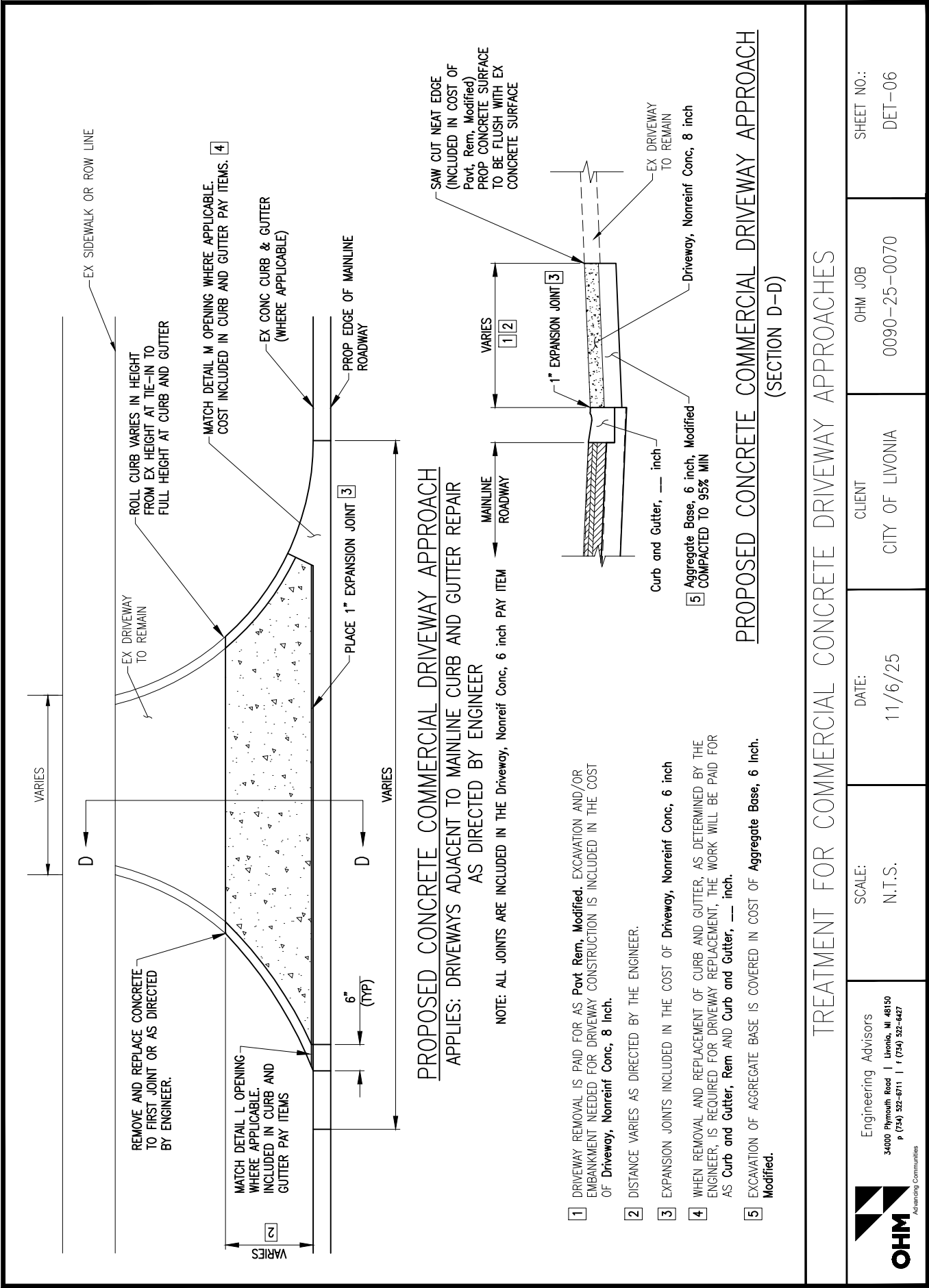
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N.T.S.

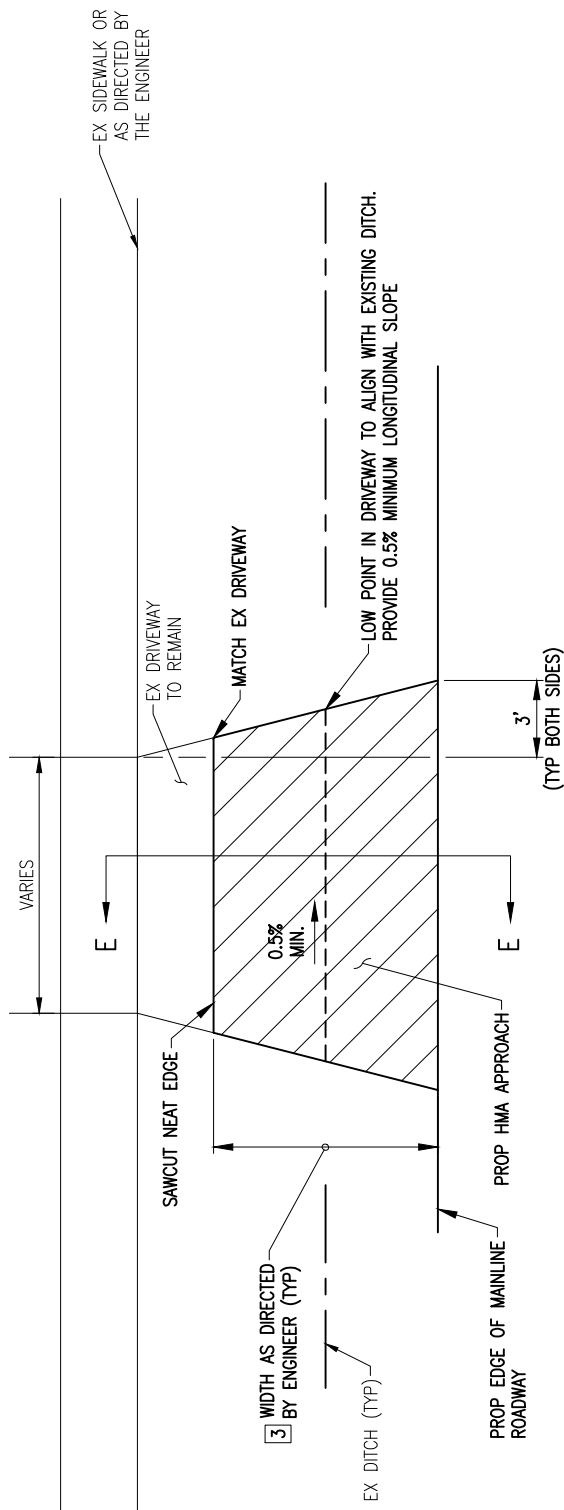
DATE:
11/6/25

CLIENT
CITY OF LIVONIA

OHM JOB
0090-25-0070

SHEET NO.:
DET-05

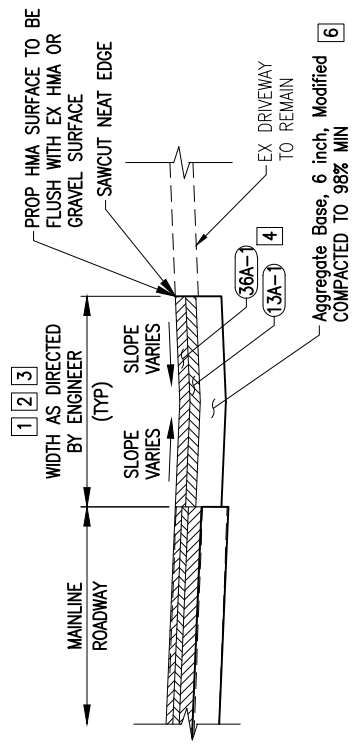




**PROPOSED HMA RESIDENTIAL DRIVEWAY
APPROACH ON PULVERIZATION STREETS**

AS DIRECTED BY ENGINEER

- 1 EXCAVATION AND/OR EMBANKMENT NEEDED FOR DRIVEWAY CONSTRUCTION IS INCLUDED IN THE COST OF **HMA, 36A**.
- 2 IF EX SURFACE IS HMA, THEN REMOVAL IS PAID AS **Pavt, Rem, Modified**. IF EX SURFACE IS GRAVEL, THEN REMOVAL OF GRAVEL SURFACE IS INCLUDED IN COST OF **HMA Approach**.
- 3 DISTANCE VARIES AS DIRECTED BY THE ENGINEER. 5' TYPICAL FOR ROADS BEING RECONSTRUCTED OR 10' TYPICAL FOR ROADS BEING PULVERIZED OR AS DIRECTED BY THE ENGINEER.
- 4 HMA LAYER THICKNESSES: 36A-1: 1.5"
PAID FOR AS HMA 36A 13A-1: 1.5"
- 5 NO HMA WEDGING OVER EXISTING DRIVE IS PERMITTED.
- 6 EXCAVATION OF AGGREGATE BASE IS COVERED IN COST OF **Aggregate Base, 6 inch, Modified**.

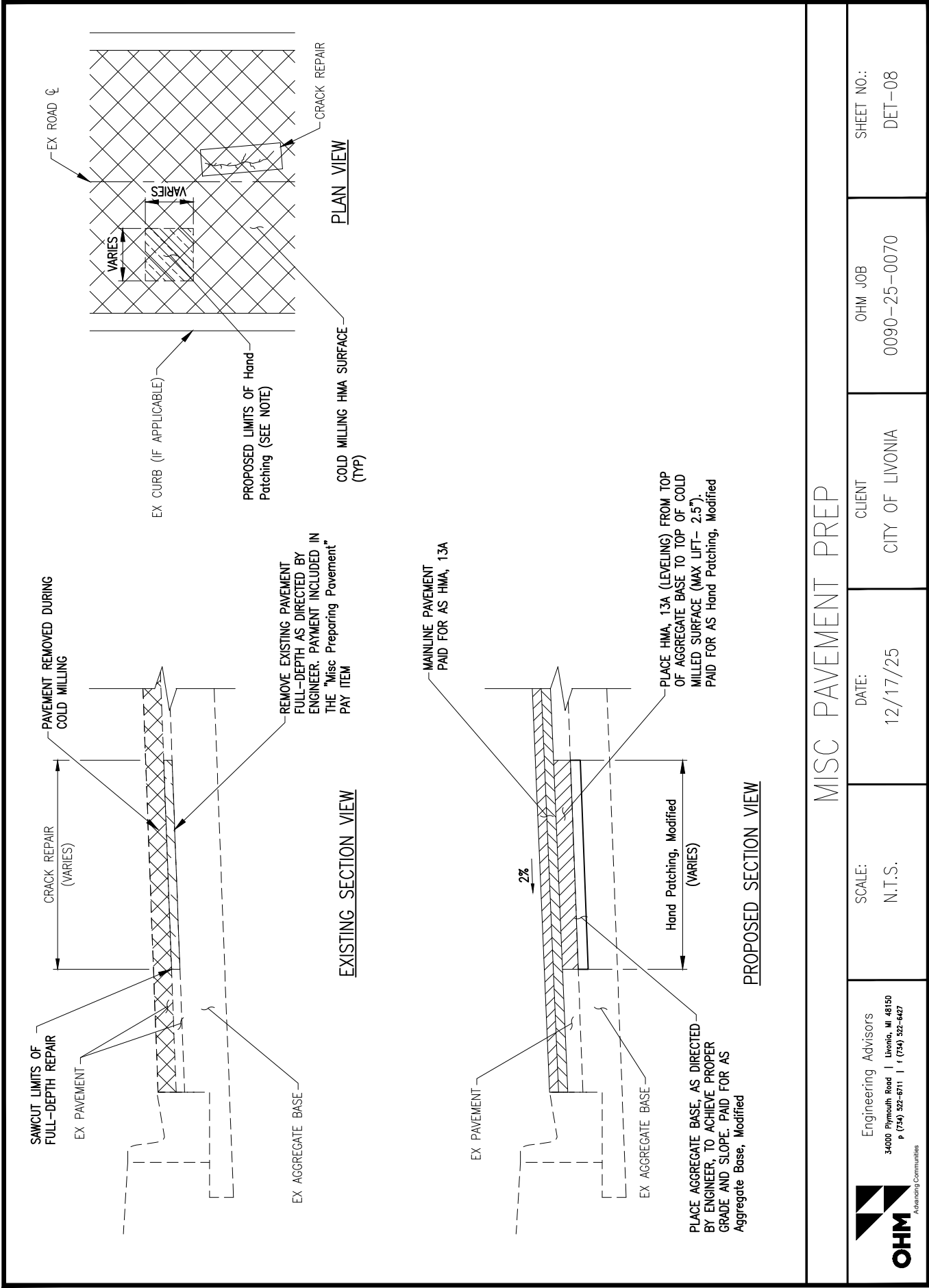


**PROPOSED HMA RESIDENTIAL DRIVEWAY
APPROACH ON PULVERIZATION STREETS**

(SECTION E-E)

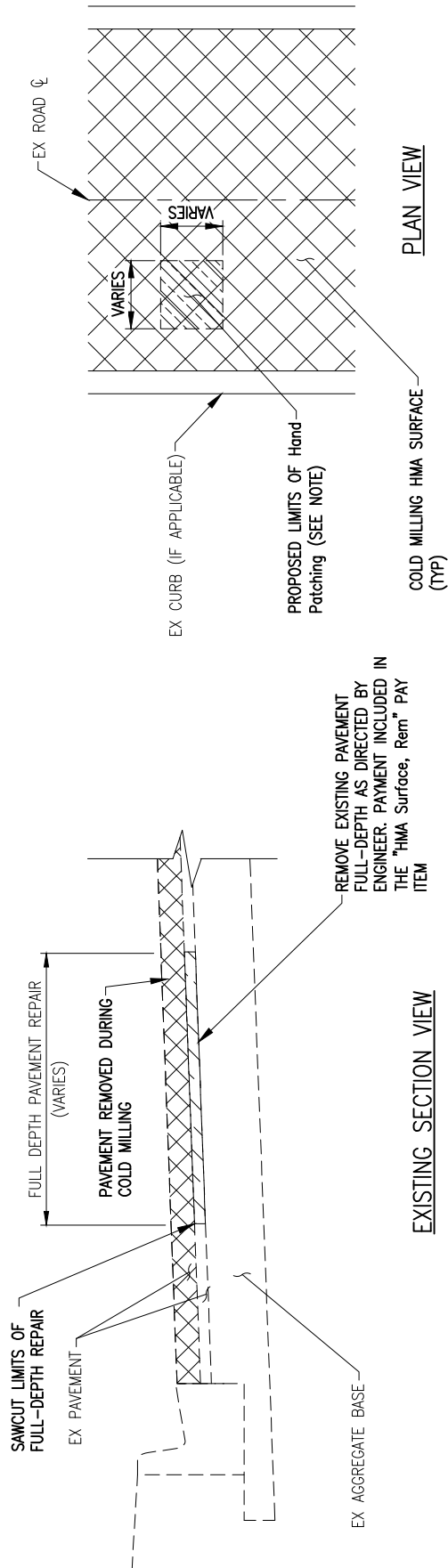
TREATMENT FOR RESIDENTIAL HMA AND GRAVEL DRIVEWAY APPROACHES ON PULVERIZATION STREETS

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/11/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-07
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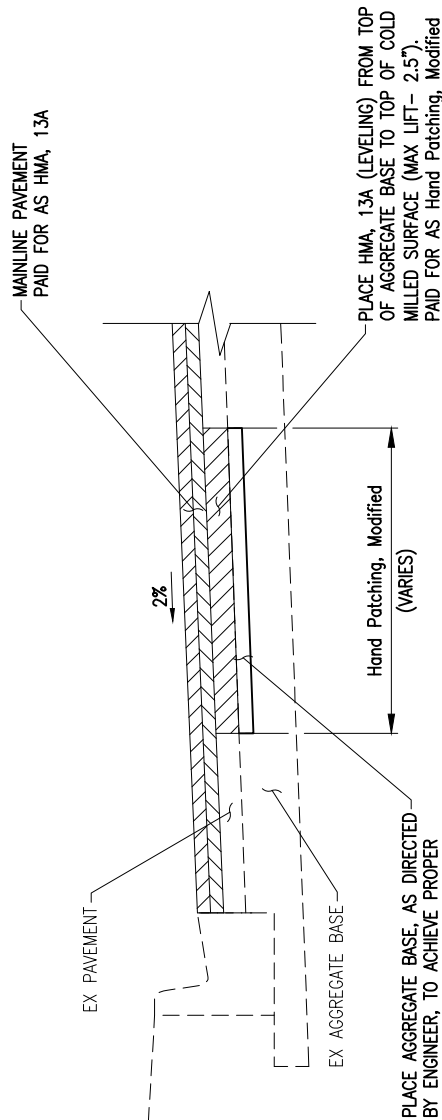
MISC PAVEMENT PREP

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427 Advancing Communities	SCALE: N.T.S.	DATE: 12/17/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-08
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REMOVE EXISTING PAVEMENT
FULL-DEPTH AS DIRECTED BY
ENGINEER. PAYMENT INCLUDED IN
THE "HMA Surface, Rem" PAY
ITEM

MAINLINE PAVEMENT
PAID FOR AS HMA, 13A



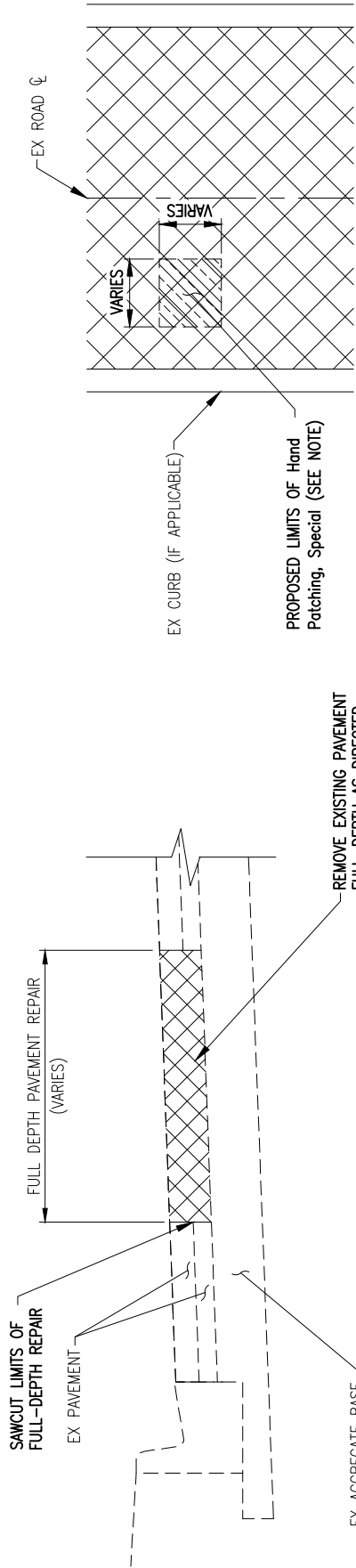
NOTES:

THE PATCH WILL NOT BE PAID AS HAND PATCHING, MODIFIED BUT WILL BE PAID AS **HMA, 13A** (LEVELING) IF THE SMALLEST DIMENSION IS MORE THAN 11' AND THE LARGEST DIMENSION IS MORE THAN 75'. SEE THE SPECIAL PROVISION FOR **Hand Patching, Modified** FOR DETAILS.

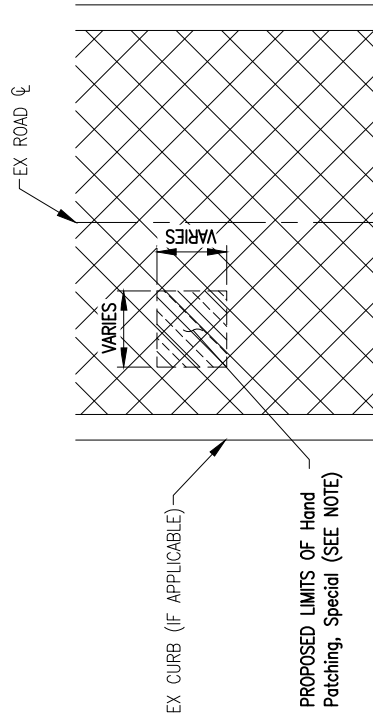
Hand Patching, Modified WILL ONLY BE QUANTIFIED FOR THOSE AREAS SPECIFIED BY THE ENGINEER

FULL DEPTH PAVEMENT REPAIR

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 12/17/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-09
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EXISTING SECTION VIEW

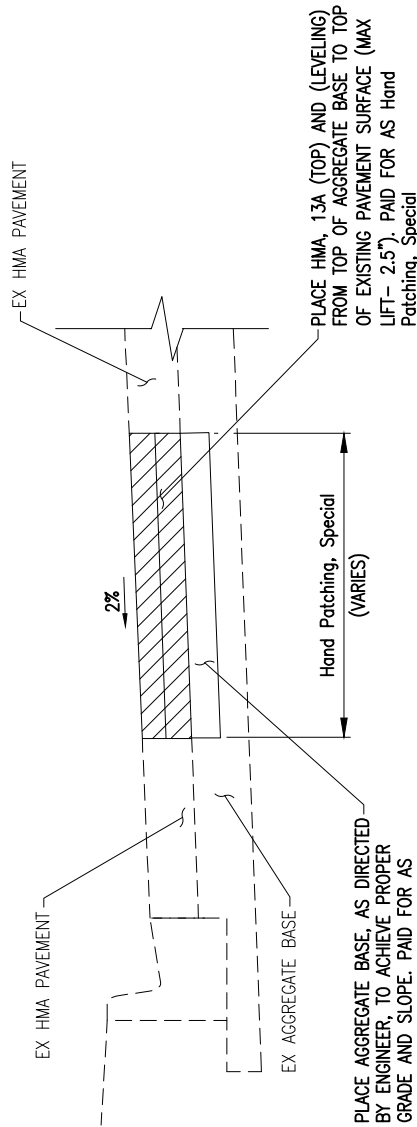


PLAN VIEW

NOTES:

THE PAY ITEM **Hand Patching, Special** APPLIES TO LOCATIONS OUTSIDE OF THE PROPOSED CONTRACT PAVING LIMITS AS DESCRIBED IN THE MAINTENANCE OF TRAFFIC AND AS DIRECTED BY THE ENGINEER.

THE PATCH WILL NOT BE PAID AS **Hand Patching, Special**, BUT WILL BE PAID AS HMA, 13A IF PAVING FULL WIDTH OF ROAD AND THE LENGTH IS GREATER THAN 200'.

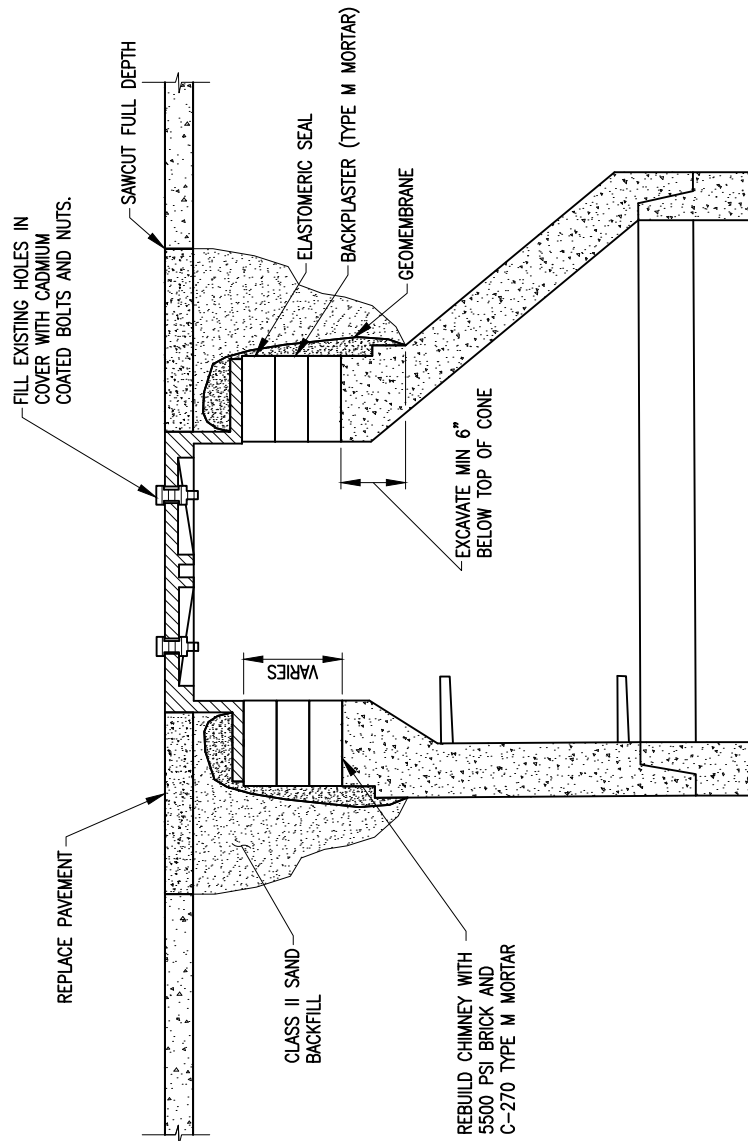


PROPOSED SECTION VIEW

HAND PATCHING, SPECIAL

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-10
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USE EXISTING FRAME & COVER OR IF DIRECTED BY ENGINEER PLACE NEW BOLTED WATERTIGHT CAST IRON MANHOLE COVER. NEW SANITARY SEWER COVER(S) SHALL MATCH THE EXISTING TYPE UNLESS OTHERWISE DIRECTED BY ENGINEER AND SHALL BE PROVIDED BY THE CITY.



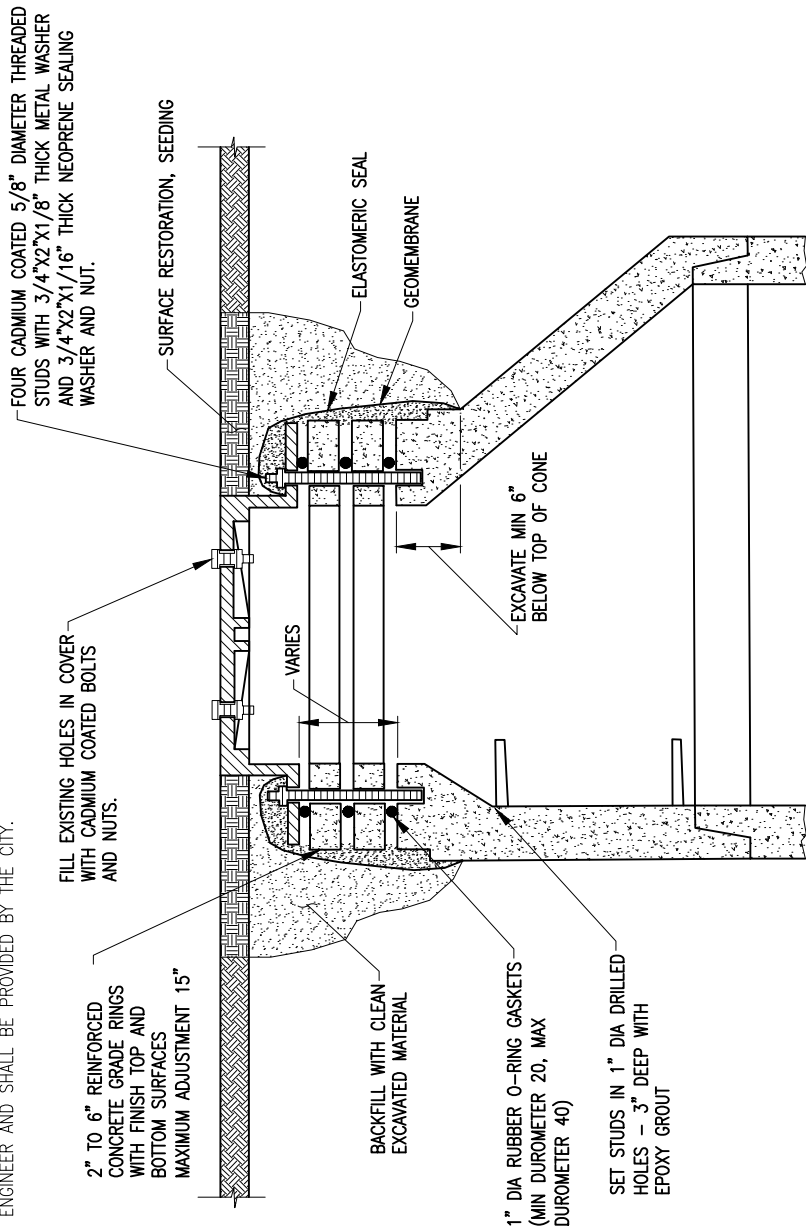
- NOTES:
1. SAWCUT PAVEMENT AND EXCAVATE TO DEPTH 6" (MIN) BELOW TOP OF CONE. COST INCLUDED PAY ITEM SANITARY STRUCTURE COVER, ADJ, CASE 1.
 2. REMOVE FRAME AND CHIMNEY (IF SCHEDULED OR DIRECTED BY ENGINEER) TO PRECAST CONE SECTION (WHERE APPLICABLE) AND CLEAN TOP OF CONE.
 3. REBUILD CHIMNEY (IF SCHEDULED OR DIRECTED BY ENGINEER) WITH 5500 PSI BRICK, AND C-270 TYPE-M MORTAR, BACKPLASTER (1/2" TYPE M MORTAR) TO TOP BRICK.
 - 4a. SET EXISTING FRAME IN MORTAR WITH 1/2" RECESS AT FLANGE. FILL WITH JOINT SEALER. (RESET FRAME AND COVER)
 - 4b. SET NEW FRAME IN MORTAR WITH 1/2" RECESS AT FLANGE. FILL WITH JOINT SEALER. (REPLACE FRAME AND COVER)
 5. SEAL CHIMNEY SECTION WITH ELASTOMERIC SEALER.
 6. COVER WITH GEOMEMBRANE.
 7. BACKFILL (95% COMPACTION)
 8. REPLACE PAVEMENT WITH HMA, 13A TO THE THICKNESS OF EXISTING PAVEMENT. COST INCLUDED IN PAY ITEM SANITARY STRUCTURE COVER, ADJ, CASE 1.

SANITARY COVERS WITHIN REHABILITATED OR RECONSTRUCTED PAVEMENT AREAS

SANITARY STRUCTURE ADJUST. CASE 1

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-11
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USE EXISTING FRAME & COVER OR IF DIRECTED BY ENGINEER PLACE NEW BOLTED WATERTIGHT CAST IRON MANHOLE COVER. NEW SANITARY SEWER COVER(S) SHALL MATCH THE EXISTING TYPE UNLESS OTHERWISE DIRECTED BY ENGINEER AND SHALL BE PROVIDED BY THE CITY.

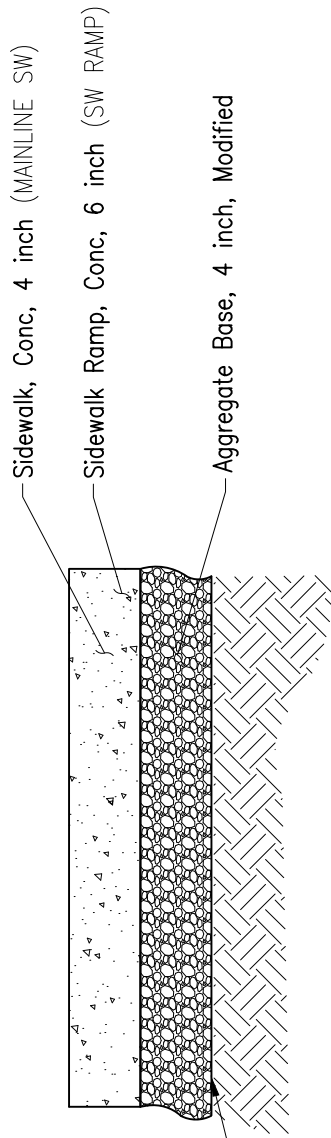


- NOTES:
1. EXCAVATE TO DEPTH 6" (MIN) BELOW TOP OF CONE.
 2. REMOVE FRAME AND CHIMNEY TO PRECAST CONE SECTION. CLEAN TOP OF CONE, DRILL AND SET BOLTS.
 3. INSTALL CONCRETE GRADE RINGS WITH RUBBER O-RING GASKETS AND INSTALL (EXISTING OR NEW) FRAME AND BOLT DOWN.
 4. SEAL CHIMNEY SECTION WITH ELASTOMERIC SEALER.
 5. COVER WITH GEOMEMBRANE.
 6. BACKFILL (90% COMPACTION)
 7. TOPSOIL AND RESTORE SURFACE (SOD AT ESTABLISHED LAWN AREAS, SEED AND MULCH FIELD AREAS)
 8. IF EXISTING MANHOLE CONE IS NOT PRECAST (BRICK OR CONE BRICK) REBUILD CHIMNEY WITH BRICK.

SANITARY COVERS WITHIN THE GREENBELT

SANITARY STRUCTURE COVER ADJUST, CASE 2

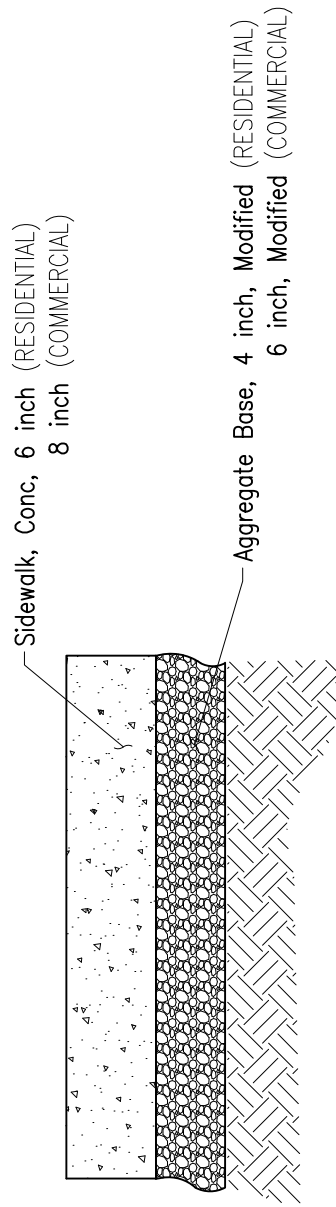
 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-12
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EXCAVATING, GRADING, AND BACKFILLING FOR SIDEWALK AND SIDEWALK RAMPS ARE INCLUDED IN THE SIDEWALK PAY ITEMS.

PROPOSED SIDEWALK/RAMP DETAIL

SCALE: N.T.S.



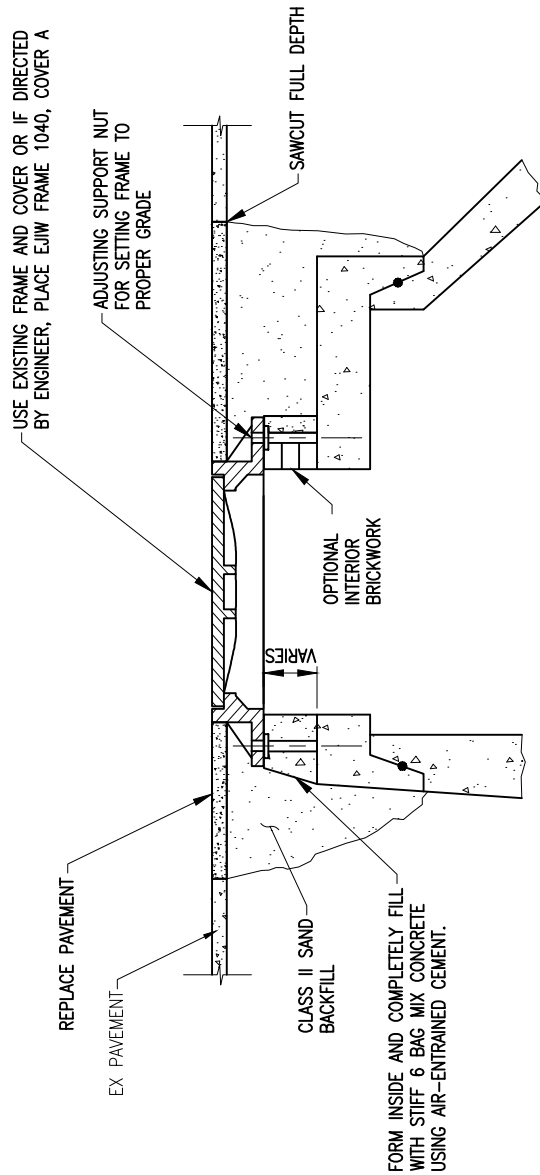
PROPOSED SIDEWALK IN DRIVEWAY DETAIL

SCALE: N.T.S.

PROPOSED SIDEWALK DETAIL SHEET

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-13
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P:\0000_0100\0090250070_2026_Livonia_Paving_Program\Drawings\Civil\Details\260110_SIDEWALK.dwg

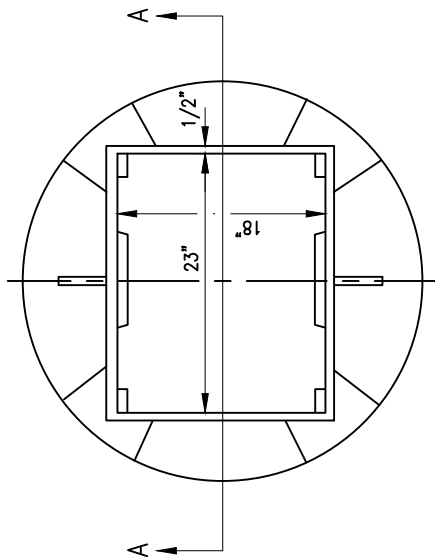


- NOTES:
1. SAWCUT PAVEMENT AND EXCAVATE TO DEPTH 6" (MIN) BELOW TOP OF CONE. INCLUDED IN PAY ITEM GATE WELL COVER, ADJ, CASE 1.
 2. REMOVE FRAME AND CHIMNEY (IF SCHEDULED OR DIRECTED BY ENGINEER) TO PRECAST CONE SECTION (WHERE APPLICABLE) AND CLEAN TOP OF CONE.
 3. REBUILD CHIMNEY (IF SCHEDULED OR DIRECTED BY ENGINEER) WITH 5500 PSI BRICK, AND C-270 TYPE-M MORTAR, BACKPLASTER (1/2" TYPE M MORTAR) TO TOP BRICK.
 - 4a. SET EXISTING FRAME IN MORTAR WITH 1/2" RECESS AT FLANGE. FILL WITH JOINT SEALER. (RESET FRAME AND COVER)
 - 4b. SET NEW FRAME IN MORTAR WITH 1/2" RECESS AT FLANGE. FILL WITH JOINT SEALER. (REPLACE FRAME AND COVER)
 5. BACKFILL (95% COMPACTION)
 6. REPLACE PAVEMENT WITH HMA, 13A TO THE THICKNESS OF EXISTING PAVEMENT. COST INCLUDED IN PAY ITEM GATE WELL COVER, ADJ, CASE 1.

GATE WELL COVERS WITHIN REHABILITATED OR RECONSTRUCTED PAVEMENT AREAS

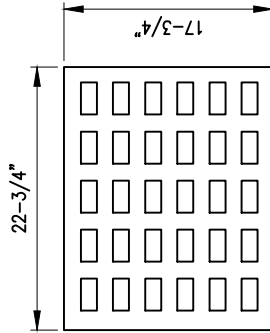
GATE WELL COVER ADJUST, CASE 1

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-14
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PLAN VIEW OF FRAME

MATERIAL:
GREY IRON, A.S.T.M. STD. SPEC. A48, CLASS 30.
BEARING SURFACES SHALL BE GROUND TO PREVENT
ROCKING. TOTAL WEIGHT 315 LBS.



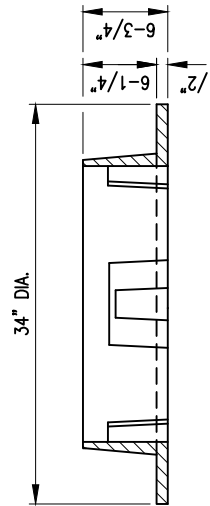
PLAN VIEW OF GRATE

SERIES 5000 M1 COVER
E.J.I.W. NO 5080

TROUT LOGO GRATE



DUMP NO WASTE!

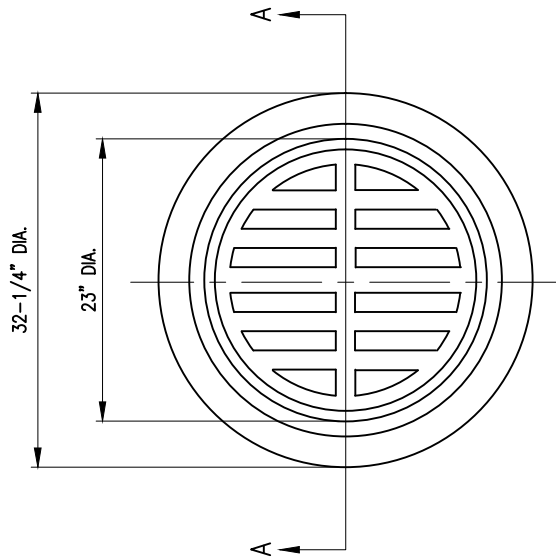


SECTION A-A

DRAINAGE STRUCTURE COVER DETAIL SHEET

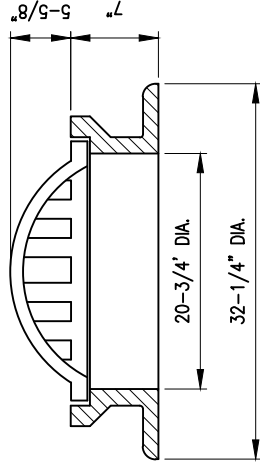
 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427 Advancing Communities	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-15
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TYPICALLY USED IN DITCH AREAS



PLAN VIEW OF FRAME

MATERIAL:
GREY IRON, A.S.T.M. STD. SPEC. A48, CLASS 30.
BEARING SURFACES SHALL BE GROUND TO
PREVENT ROCKING. TOTAL WEIGHT 315 LBS

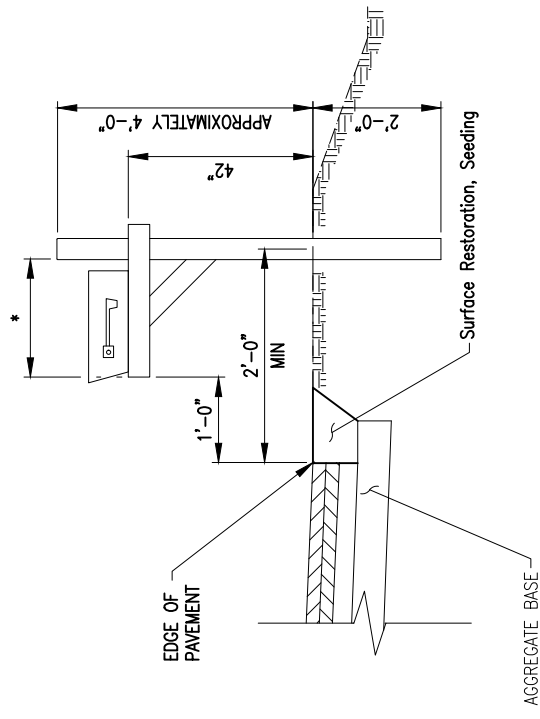


SECTION A-A

E.J.I.W. NO. 1010 FRAME
WITH TYPE "O" GRATE

"BEEHIVE" DRAINAGE STRUCTURE COVER DETAIL

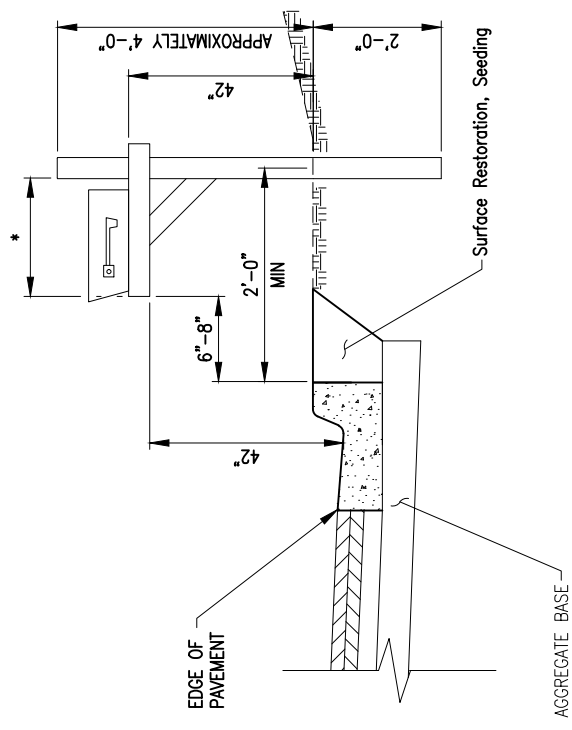
 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-16
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ROADWAY WITHOUT CURB

* AS REQUIRED BY POSTAL REGULATIONS

NOTE: MAILBOX FACE SHALL BE 1' BEHIND THE EDGE OF SHOULDER OR EDGE OF PAVEMENT



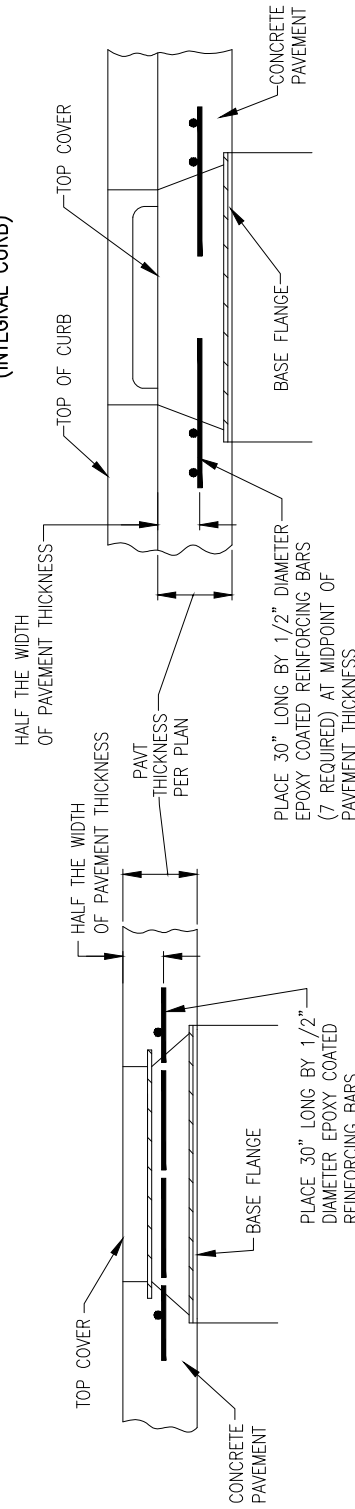
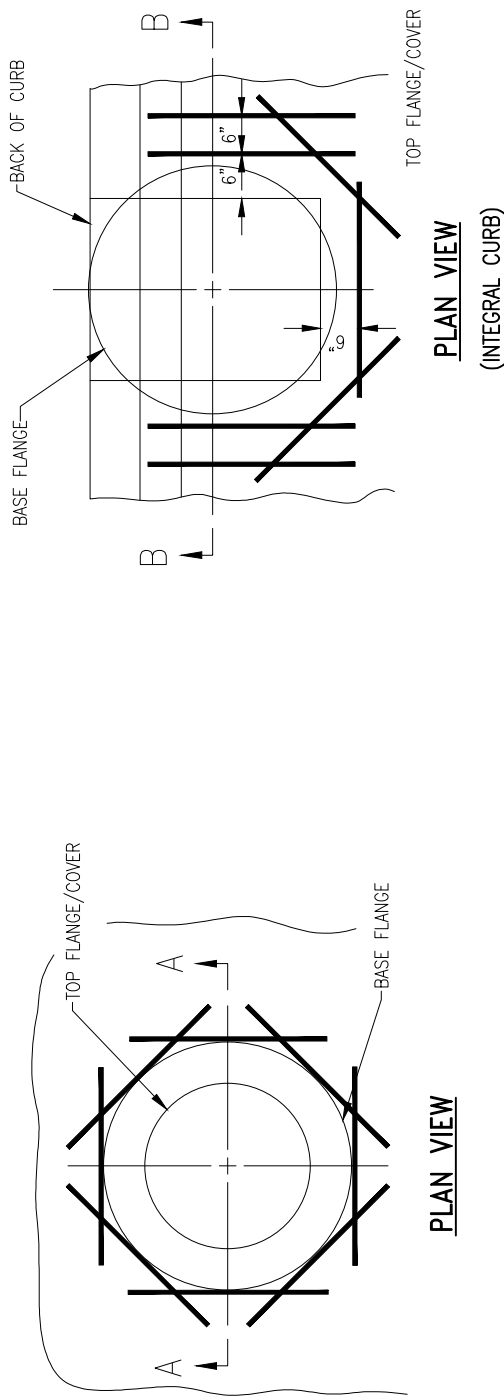
ROADWAY WITH CURB

* AS REQUIRED BY POSTAL REGULATIONS

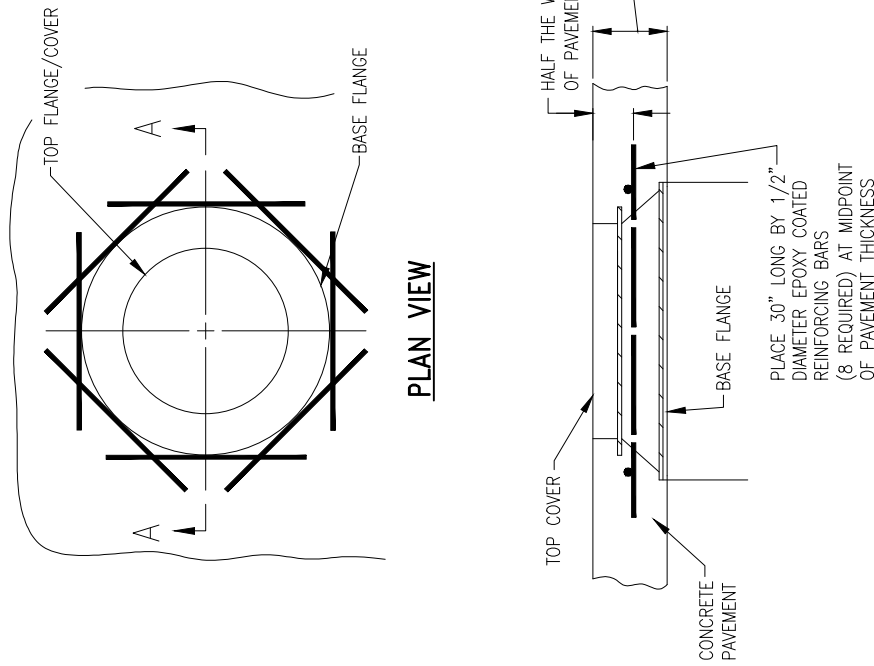
NOTE: MAILBOX FACE SHALL BE 6" - 8" BEHIND THE BACK OF CURB

TYPICAL MAILBOX RELOCATION

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-17
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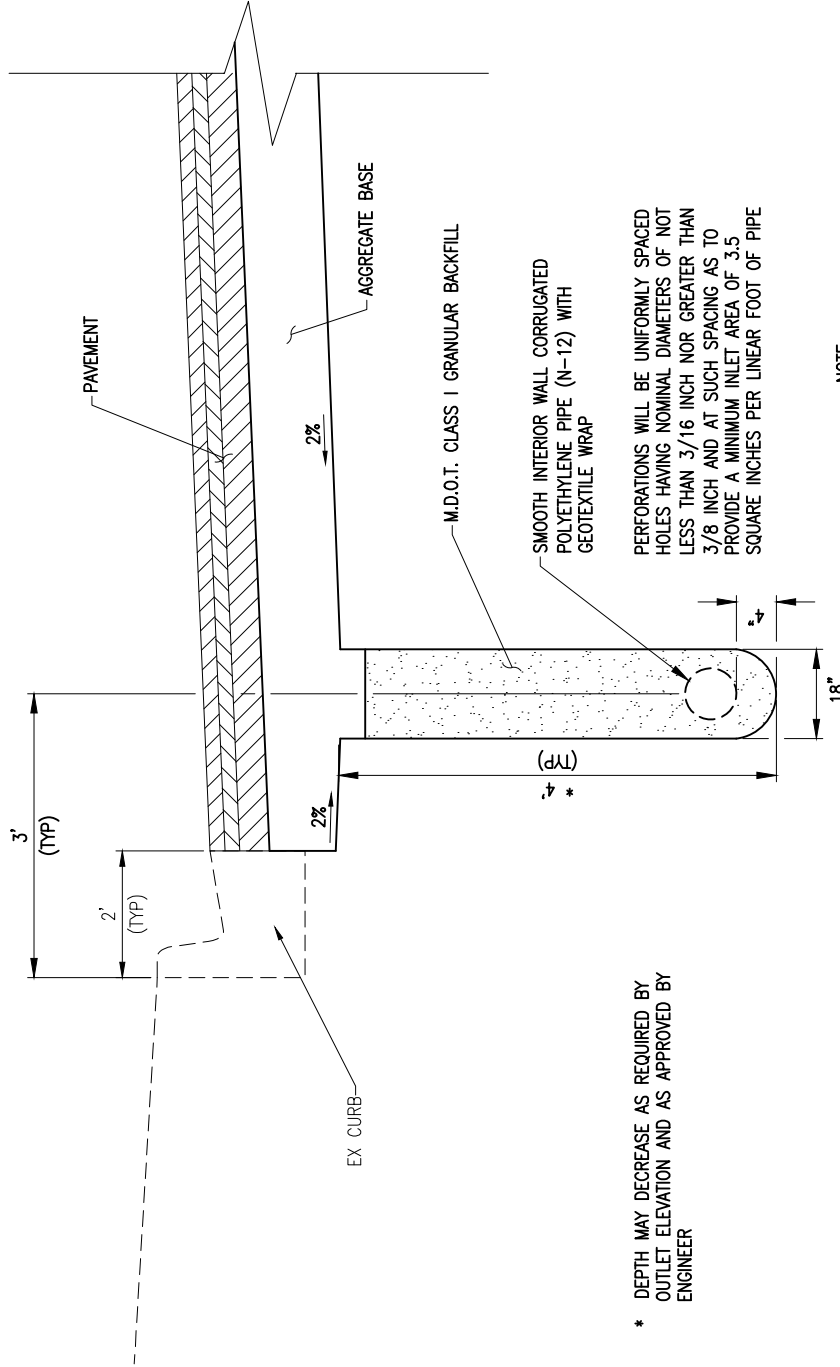


NOTE:
COST IS INCLUDED IN THE PAY ITEMS FOR Dr Structure Cover, Adj, Case I, Sanitary Structure Cover, Adj, Case I, AND Gate Well Cover, Adj, Case I



REINFORCEMENT FOR COVERS IN CONCRETE PAVEMENT AND/OR CONCRETE PAVEMENT W/INTEGRAL CURB

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/6/25	CLIENT: CITY OF LIVONIA	OHM JOB: 0090-25-0070	SHEET NO.: DET-18
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* DEPTH MAY DECREASE AS REQUIRED BY
OUTLET ELEVATION AND AS APPROVED BY
ENGINEER

NOTE:
UNDERDRAIN SHALL BE CONNECTED
TO EXISTING STORM SEWER.

UNDERDRAIN, SUBGRADE, 6 INCH, MODIFIED

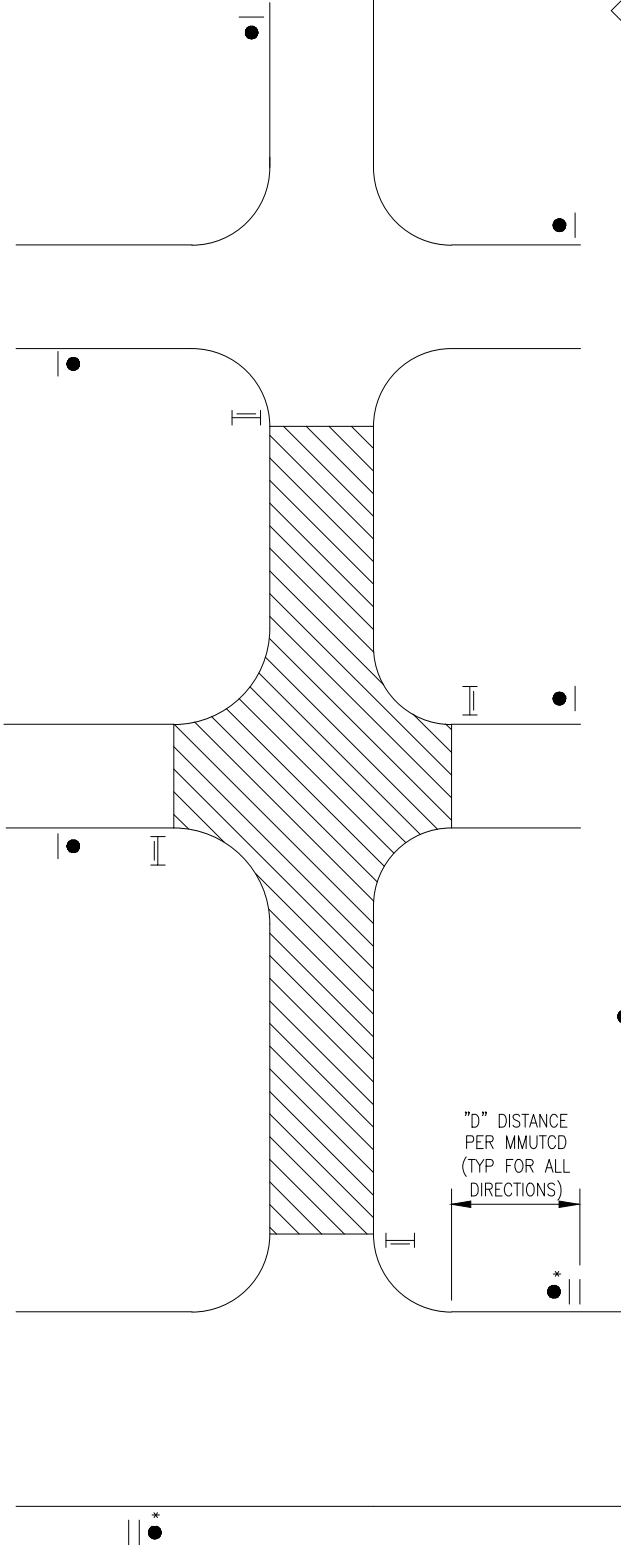
SUBGRADE UNDERDRAIN DETAIL

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-5711 F (734) 522-6427 Advancing Communities	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-20
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MAJOR ROAD

MINOR ROAD

MINOR ROAD



NOTES:

- ALL WORK WITHIN WAYNE COUNTY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS OF THE WAYNE COUNTY OF DEPARTMENT PUBLIC SERVICES.
- THESE PLANS ARE NOT VALID WITHOUT ATTACHMENT OF THE WAYNE COUNTY PERMIT SPECIFICATIONS FOR CONSTRUCTION WITHIN THE ROAD RIGHT-OF-WAY, PARKS, DRAIN EASEMENT OR SANITARY SEWER UNDER JURISDICTION OF THE WAYNE COUNTY (07/01/93) REVISED 12/15/2004.
- ALL TRAFFIC CONTROL DEVICES AND THEIR USAGE SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD), 2011, THE 2012 MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND AS SPECIFIED HEREIN.

- W20-1 48" X 48"
- * ADDITIONAL W20-1 48" X 48" WITH W16-8 (12" MIN. HEIGHT)

*ALL W20-1 PLACED ON A MAJOR ROAD SHALL BE LISTED WITH A W16-8. A MAXIMUM OF TWO W16-8 CAN BE LISTED BELOW EACH W20-1. IF MORE THAN TWO W16-8 ARE REQUIRED FOR A WORK ZONE, AN ADDITIONAL W20-1 SHALL BE ADDED. PAYMENT FOR ADDITIONAL SIGNAGE IS INCLUDED IN "TRAFFIC CONTROL, RESIDENTIAL STREET"

TYPE III BARRICADE W/ R11-4 60" X 30"

PAVEMENT WORK AREA LIMITS

Example Rd

W20-1

ROAD CLOSED
TO
THRU TRAFFIC

W16-8
(WIDTH VARIES)
(BLACK LETTERS WITH
ORANGE BACKGROUND)

R11-4

RESIDENTIAL STREET TYPICAL TRAFFIC CONTROL DETAIL SHEET

 Engineering Advisors 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427	SCALE: N.T.S.	DATE: 11/6/25	CLIENT CITY OF LIVONIA	OHM JOB 0090-25-0070	SHEET NO.: DET-21
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APPENDIX A SOIL BORINGS

THE FOLLOWING IS FOR INFORMATION ONLY ASSISTING THE CONTRACTOR IN MAKING HIS OR HER OWN DETERMINATION OF ASPHALT THICKNESS ON THE PROPOSED ROADWAYS. THE CORES REPRESENT POINT INFORMATION AND VARIATIONS TO THAT SHOWN COULD OCCUR OVER THE EXTENT EACH ROADWAY.

Myrna Avenue has an average of eight inches of road gravel overlaying brown sand and black sandy topsoil. The topsoil has a 5.5% organic content and is not considered a problem if left in place. The granular material extends to a two and one-half foot depth. Clay was encountered underlaying the sand and continued to the end of boring at six feet.

Although ground water was not found in any of the borings, surface drainage is a problem because existing storm lines are not functioning properly. A combination of storm lines and ditches handle surface water between Merriman and Auburndale and between Hubbard and Ingram. Between Ingram and Auburndale only ditches exist to drain the area.

The combination of permeable upper soil stratas, along with shallow impermeable clay subgrade soil, indicates the necessity to relieve surface seepage water buildup.

I would recommend, along with the asphalt paving of these streets, the total upgrading of the existing storm lines and ditches.

Jerry Kestner
March 23, 1984

CITY OF LIVONIA

LOG OF SOIL BORING

REPORT No. 1

PROJECT MYRNA AVE. SOIL INVESTIGATION DATE 9-29-76

LOCATION 31475 MYRNA AVE. SURFACE ELEV. —

STATION —

GROUND WATER
TABLE NONE

GROUND WATER
VOLUME NONE

SAMPLE NUMBER	DEPTH	LEGEND	SOIL DESCRIPTION
			GRAVEL Rd.
	1"	○	GRAVEL
	2"	○	
	3"	○	
	4"	○	
	5"	○	
	6"	○	
	7"	○	
	8"	○	
	9"	○	
	10"	○	
	11"	●	BROWN SAND
	12"	●	
	1'	●	
	2'	●	BROWN CLAY
	3'	●	
	4'	▨	
	5'	▨	
	6'	▨	BORING STOPPED →
	7'		
	8'		
	9'		
	10'		
	11'		
	12'		
	13'		
	14'		
	15'		
	16'		
	17'		
	18'		

CITY OF LIVONIA

LOG OF SOIL BORING

REPORT No. 2

PROJECT MYRNA AVE. SOIL INVESTIGATION DATE 9-29-76

LOCATION 31610 MYRNA AVE. SURFACE ELEV.

STATION

GROUND WATER
TABLE NONE

GROUND WATER
VOLUME NONE

SAMPLE NUMBER	DEPTH	LEGEND	SOIL DESCRIPTION
			GRAVEL Rd.
	1"	○ ● △	GRAVEL
	2"	○ ● ○	
	3"	○ ● ○	
	4"	○ ● ○	
	5"	○ ● ○	
	6"	○ ● ○	
	7"	○ ● ○	
	8"	○ ● ○	
	9"	○ ● ○	
	10"	○ ● ○	
	11"	○ ● ○	
	12"	○ ● ○	
	2'	○ ● ○	BROWN SAND
	3'	○ ● ○	
	4'	▨	BROWN CLAY
	5'	▨	
	6'		BORING STOPPED
	7'		
	8'		
	9'		
	10'		
	11'		
	12'		
	13'		
	14'		
	15'		
	16'		
	17'		
	18'		

CITY OF LIVONIA

LOG OF SOIL BORING

REPORT No. 3

PROJECT MYRNA AVE SOIL INVESTIGATION DATE 9-29-76

LOCATION 31690 MYRNA AVE. SURFACE ELEV.

STATION GROUND WATER
TABLE NONE

GROUND WATER
VOLUME NONE

SAMPLE NUMBER	DEPTH	LEGEND	SOIL DESCRIPTION
			GRAVEL Rd.
	1"		GRAVEL
	2"		
	3"		
	4"		
	5"		
	6"		
	7"		
	8"		
	9"		
	10"		
	11"		BLACK SANDY TOPSOIL
	12"		BROWN SAND
	2'		
	3'		BROWN CLAY
	4'		
	5'		
	6'		
	7'		BORING STOPPED
	8'		
	9'		
	10'		
	11'		
	12'		
	13'		
	14'		
	15'		
	16'		
	17'		
	18'		

CITY OF LIVONIA

LOG OF SOIL BORING

REPORT No. 4

PROJECT MYRNA AVE. SOIL INVESTIGATION DATE 9-29-76

LOCATION 32271 MYRNA SURFACE ELEV.

STATION

GROUND WATER
TABLE NONE

GROUND WATER
VOLUME NONE

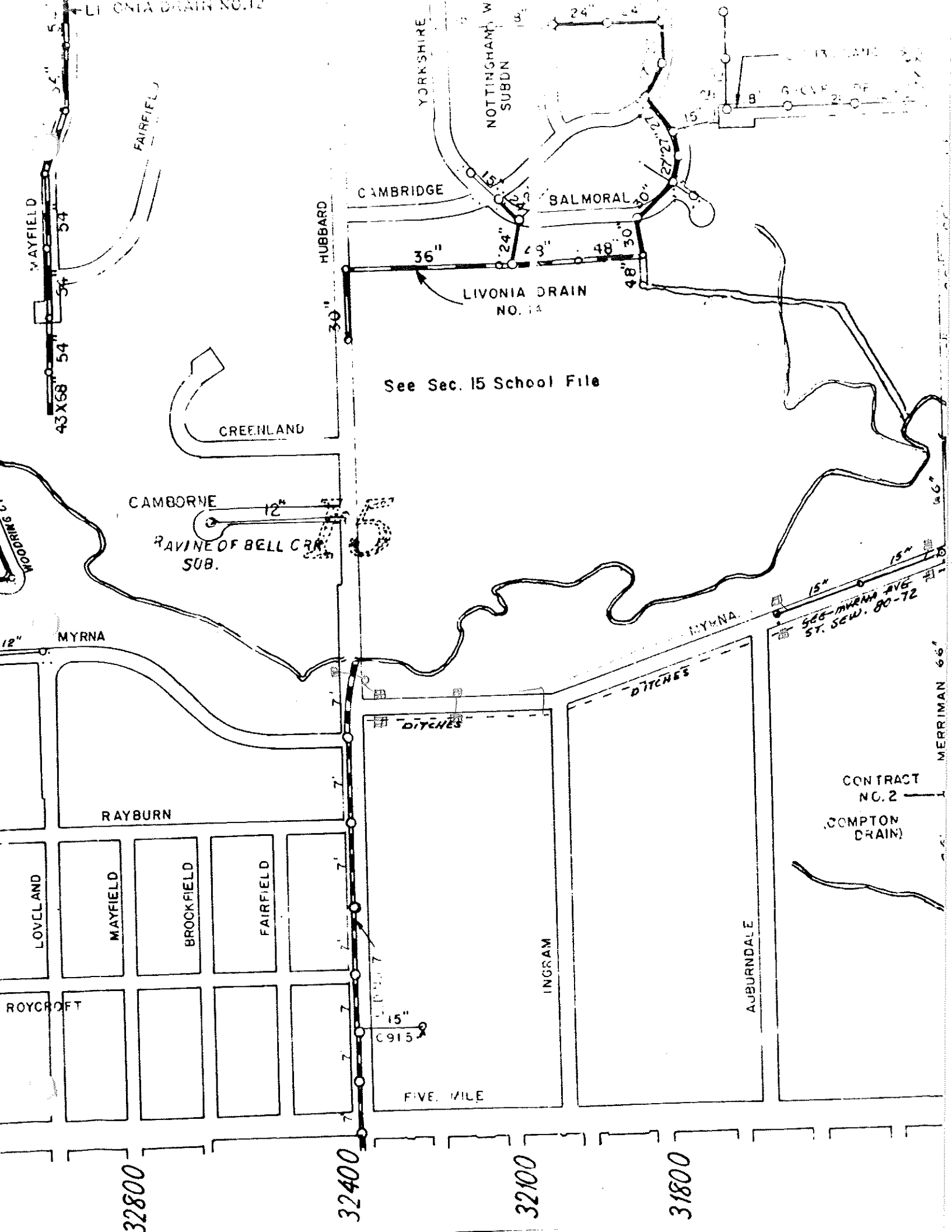
SAMPLE
NUMBER

DEPTH

LEGEND

SOIL DESCRIPTION

			GRAVEL Rd.
	1"	○	GRAVEL
	2"	○	
	3"	○	
	4"	○	
	5"	○	
	6"	○	
	7"	○	
	8"	○	
	9"	○	
	10"	○	
	11"	—	BLACK SANDY TOPSOIL
	12"	—	
	2'	▧	GRAY CLAY
	3'	▧	BROWN CLAY
	4'	▧	
	5'	▧	
	6'	▧	
	7'		BORING STOPPED
	8'		
	9'		
	10'		
	11'		
	12'		
	13'		
	14'		
	15'		
	16'		
	17'		
	18'		



LIVONIA DRAIN NO. 14

13. LAND

YORKSHIRE
NOTTINGHAM W
SUBDN

CAMBRIDGE

SALMORAL

HUBBARD

LIVONIA DRAIN
NO. 14

See Sec. 15 School File

GREENLAND

CAMBORNE

RAVINE OF BELL CREEK
SUB.

MYRNA

MYRNA

SEE MYRNA AVE
ST. SEW. 80-72

RAYBURN

DITCHES

DITCHES

CONTRACT
NO. 2
(COMPTON DRAIN)

LOVELAND

MAYFIELD

BROOKFIELD

FAIRFIELD

INGRAM

AUBURNDALE

FIVE MILE

MERRIMAN 66'

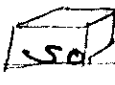
32800

32400

32100

31800

ORANGELAWN & ELMIRA AVENUES:

These two streets have an average of seven inches suitable gravel for a type IV pavement improvement. Subgrade soils are a combination of sand and clays. Storm sewers with Catch Basins are already in  surface drainage should not be a problem. I also feel these two streets would make a good type IV improvement.

CITY OF LIVONIA

SOIL LOG FOR ROAD STABILIZATION

PROJECT ORANGELAWN PAVING

REPORT No. 1

LOCATION Btwn. DEERING & CARDWELL

DATE 9-18-78

DRAINAGE SYSTEM ☐ CATCH BASINS

STREET WIDTH

☒ DITCHES

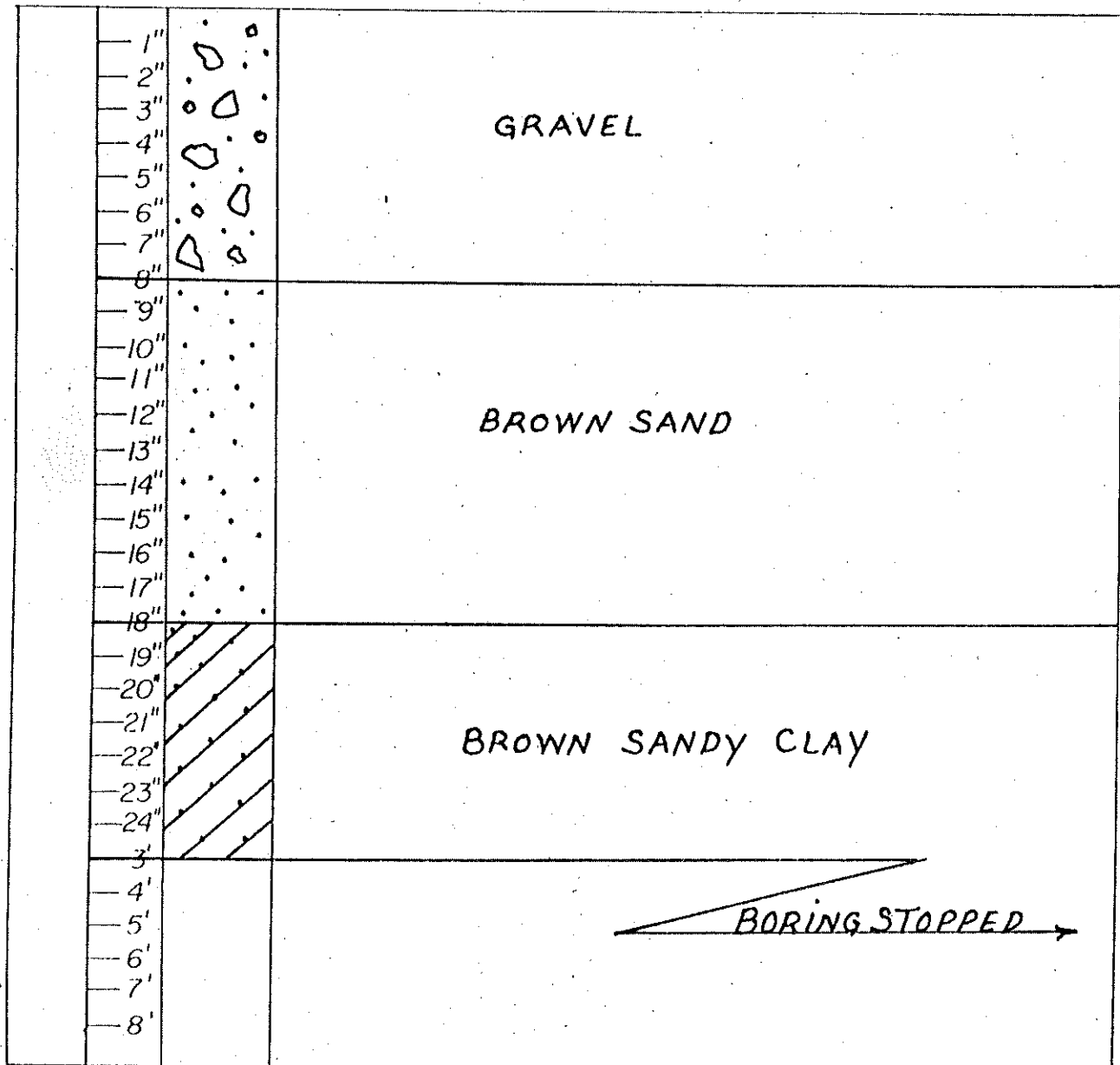
☐ NONE

SAMPLE
NUMBER

DEPTH

LEGEND

SOIL DESCRIPTION



CITY OF LIVONIA
SOIL LOG FOR ROAD STABILIZATION

REPORT No. 2

DATE 9-18-78

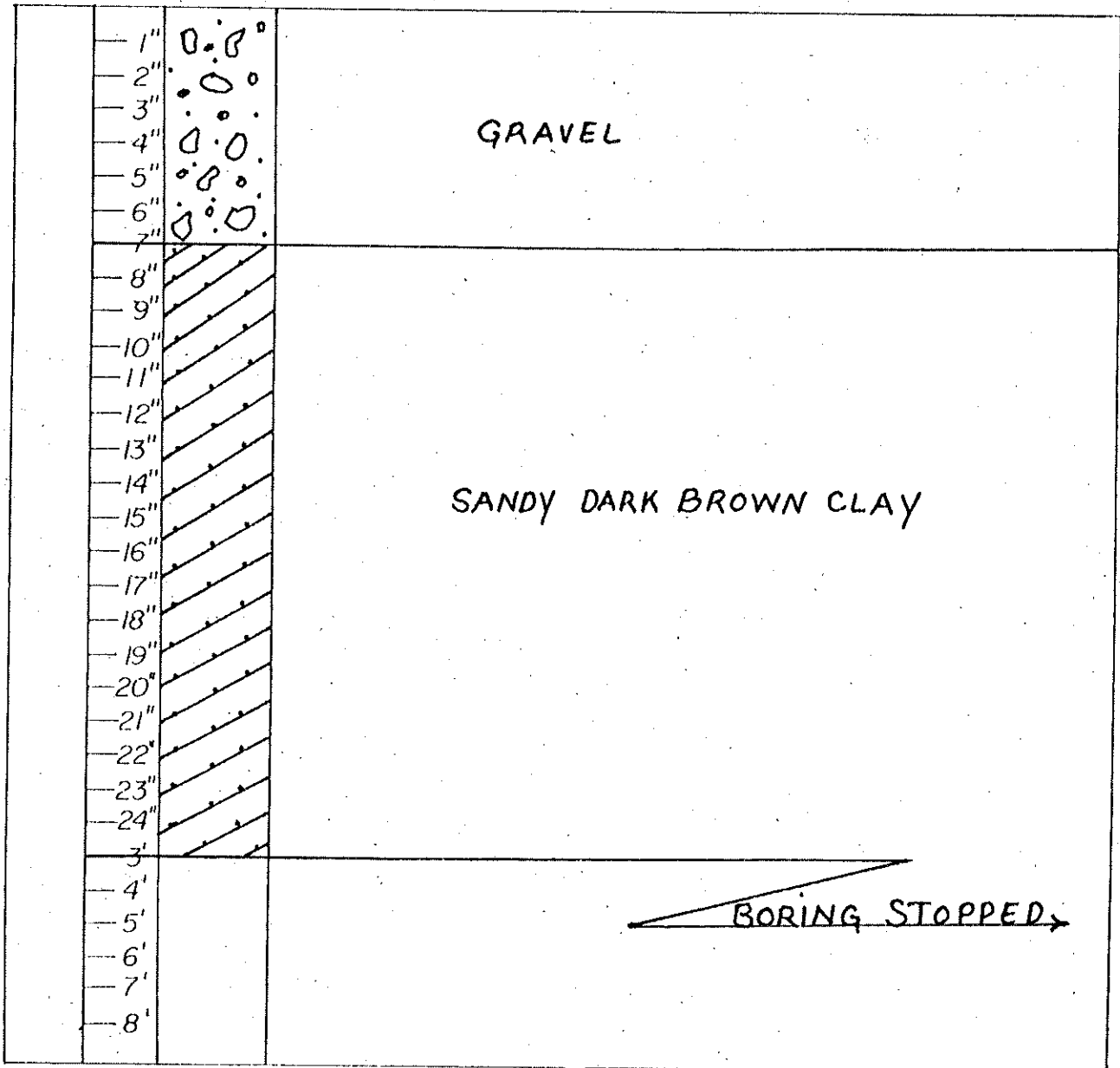
STREET WIDTH

NO ☐ DITCHES

☐ NONE

DEPT H

SOIL DESCRIPTION



CITY OF LIVONIA
SOIL LOG FOR ROAD STABILIZATION

PROJECT ELMIRA AVE. PAVING

REPORT No. 3

LOCATION BET. ARCOLA & CAYELL

DATE 9-18-78

DRAINAGE SYSTEM ☐ CATCH BASINS

STREET WIDTH

☒ DITCHES

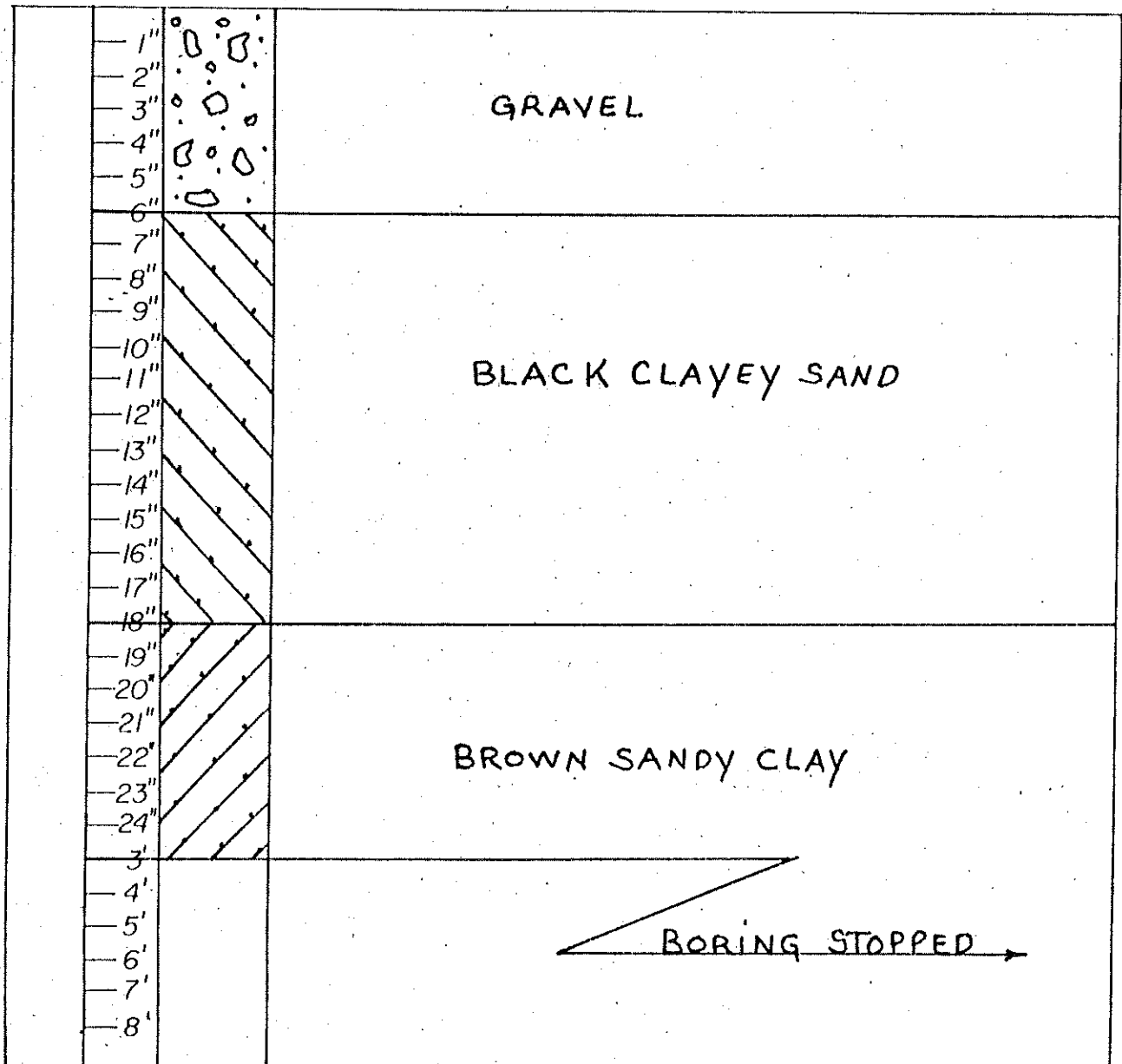
☐ NONE

SAMPLE
NUMBER

DEPTH

LEGEND

SOIL DESCRIPTION



CITY OF LIVONIA
SOIL LOG FOR ROAD STABILIZATION

PROJECT ELMIRA AVE PAVING

REPORT No. 4

LOCATION BET. CARDWELL & DEERING

DATE 9-18-78

DRAINAGE SYSTEM ☐ CATCH BASINS

STREET WIDTH

☒ DITCHES

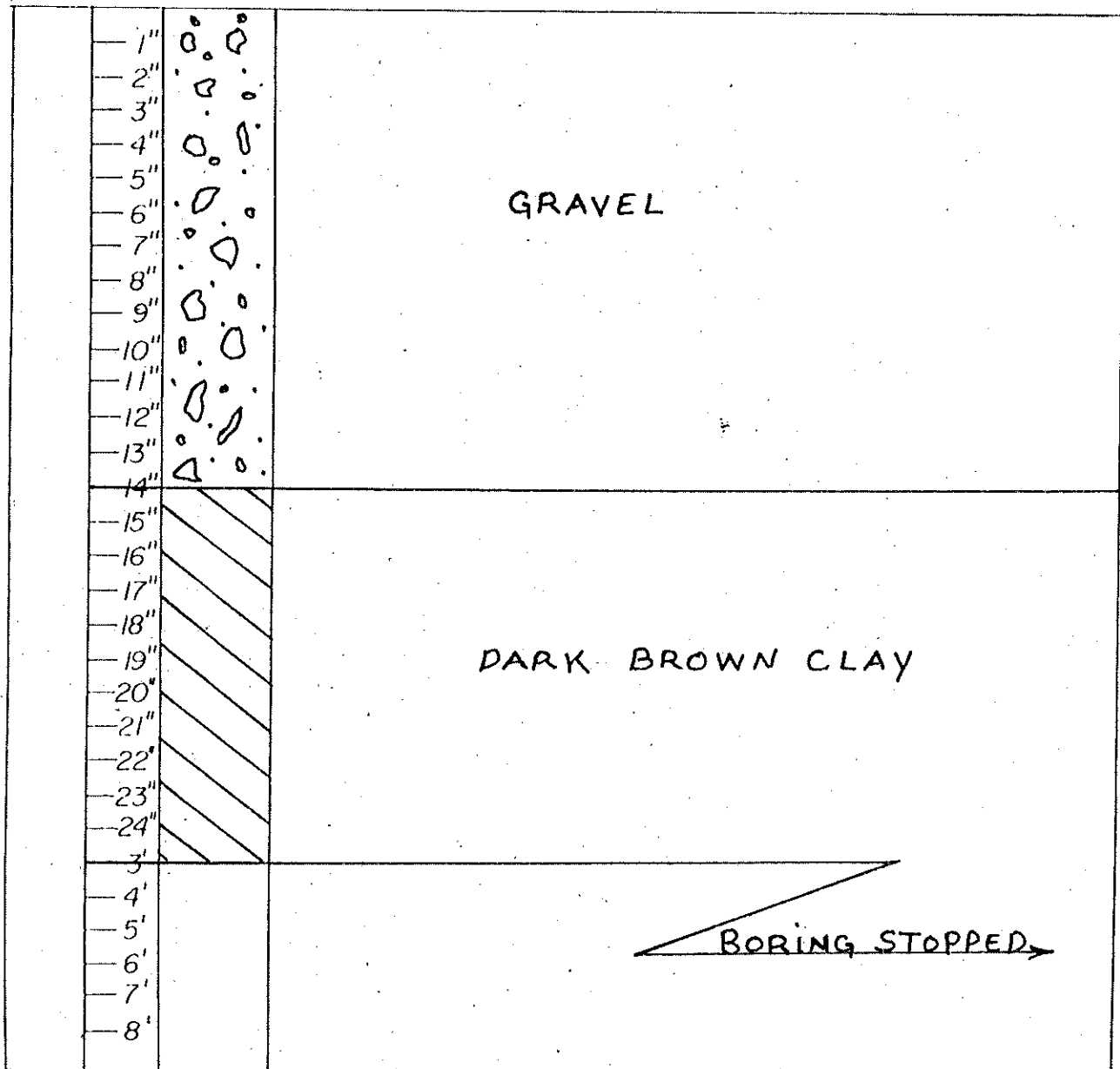
☐ NONE

SAMPLE
NUMBER

DEPTH

LEGEND

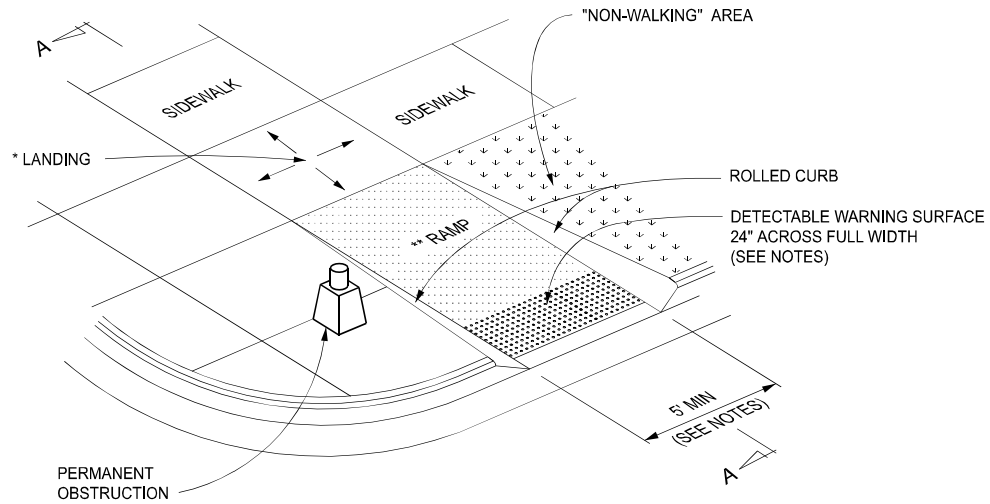
SOIL DESCRIPTION



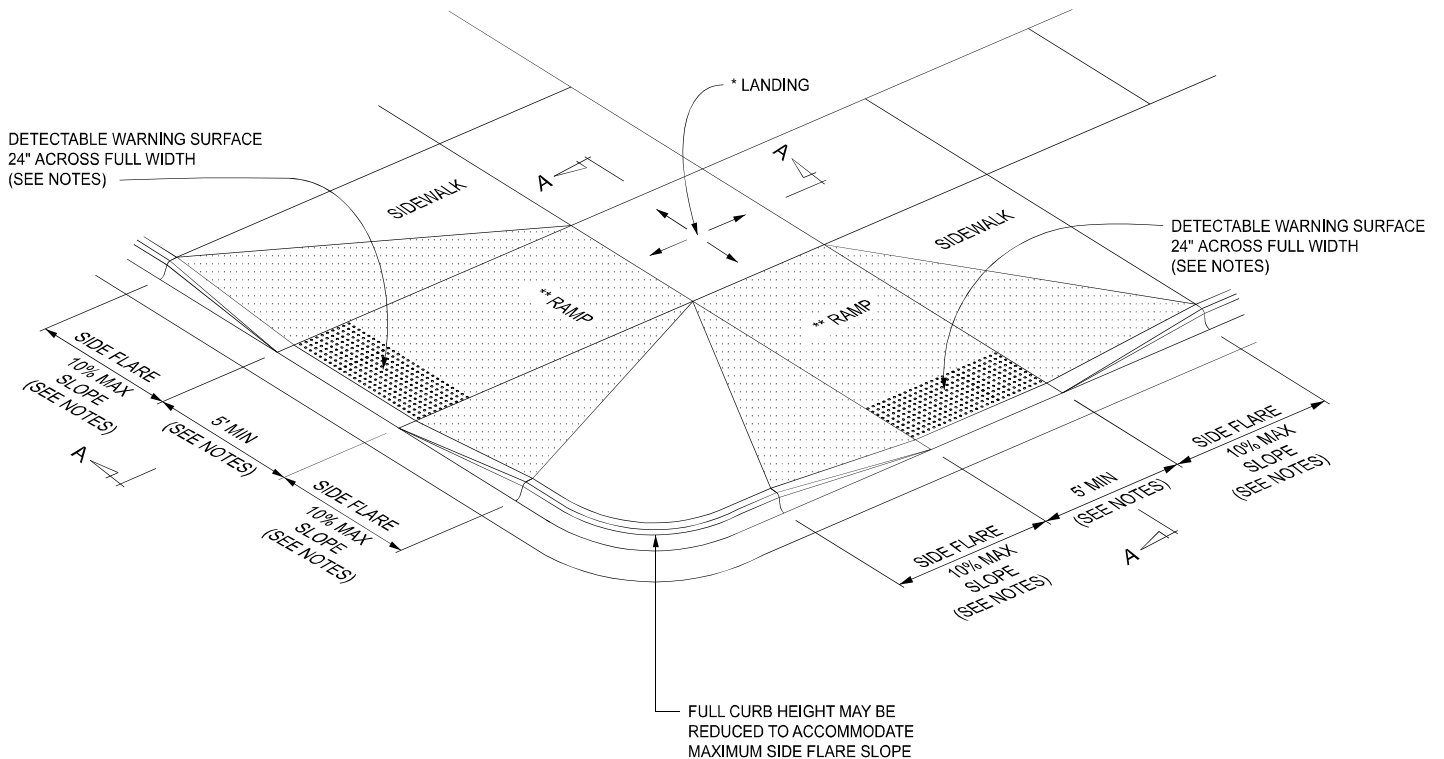
APPENDIX B
MDOT STANDARD PLANS

* MAXIMUM LANDING SLOPE IS 2.1% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.1%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



CURB RAMP TYPE R
(ROLLED SIDES)



CURB RAMP TYPE F
(FLARED SIDES, TWO RAMPS SHOWN)

APPROVED BY:  E-SIGNED by JASON GUTTING
on 2024-09-24 12:54:17 EDT
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY:  E-SIGNED by Demetrius Parker
on 2024-09-10 07:51:29 EDT
DIRECTOR, BUREAU OF DEVELOPMENT



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR
**CURB RAMP AND
DETECTABLE WARNING DETAILS**

12/18/2024
FHWA APPROVAL

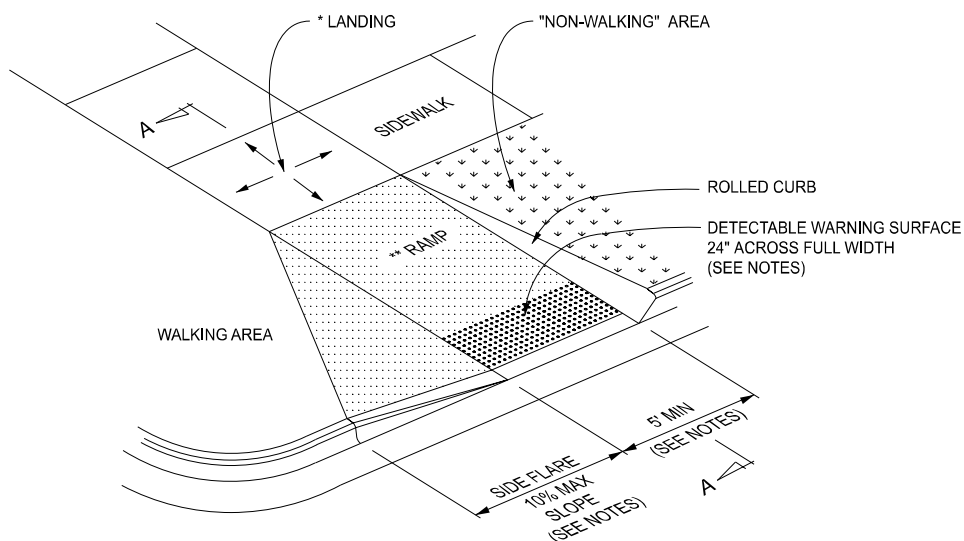
06/21/2014
PLAN DATE

R-28-K

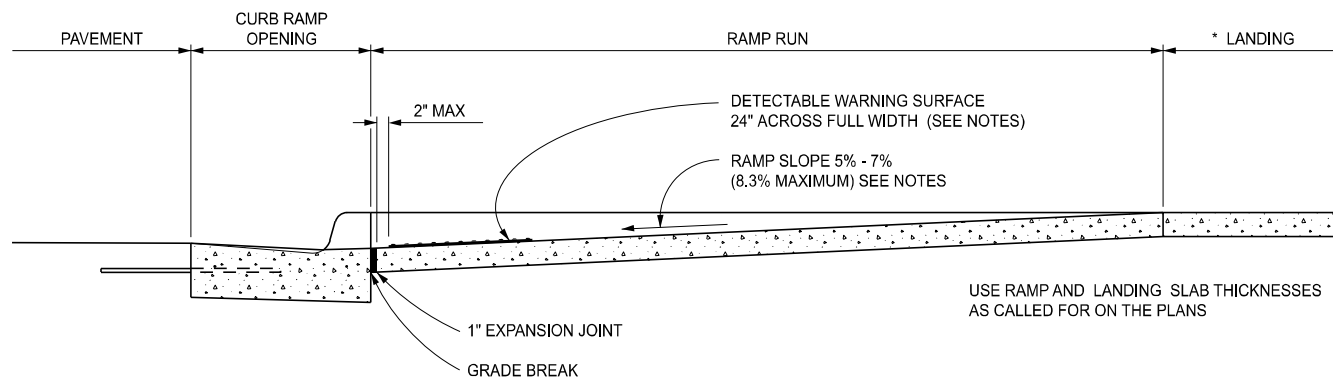
SHEET
1 OF 7

* MAXIMUM LANDING SLOPE IS 2.1% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.1%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



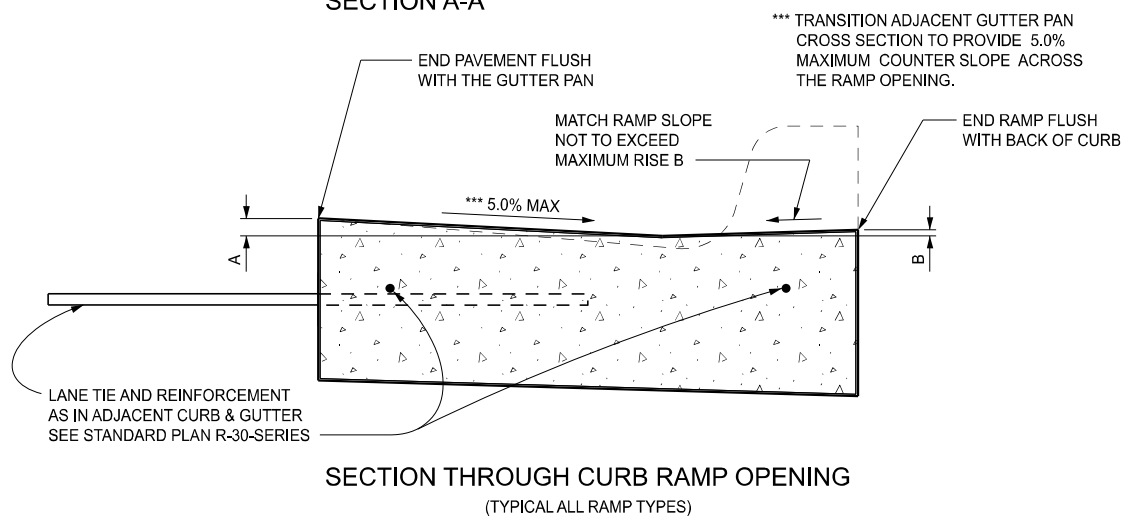
CURB RAMP TYPE RF
(ROLLED / FLARED SIDES)



SECTION A-A

CURB TYPE	MAXIMUM RISE (INCHES)	
	A	B
B1	¾	1
B2	¾	1
B3	¾	1
D1	¾	1
D2	¾	1
D3	¾	1
C1	½	½
C2	½	½
C3	¾	½
C4	¾	½
C5	1	½
C6	1	½
F1	½	½
F2	½	½
F3	¾	½
F4	¾	½
F5	1	½
F6	1	½

FOR CURB TYPES SEE
STANDARD PLAN R-30-SERIES



SECTION THROUGH CURB RAMP OPENING
(TYPICAL ALL RAMP TYPES)



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR
**CURB RAMP AND
DETECTABLE WARNING DETAILS**

12/18/2024
FHWA APPROVAL

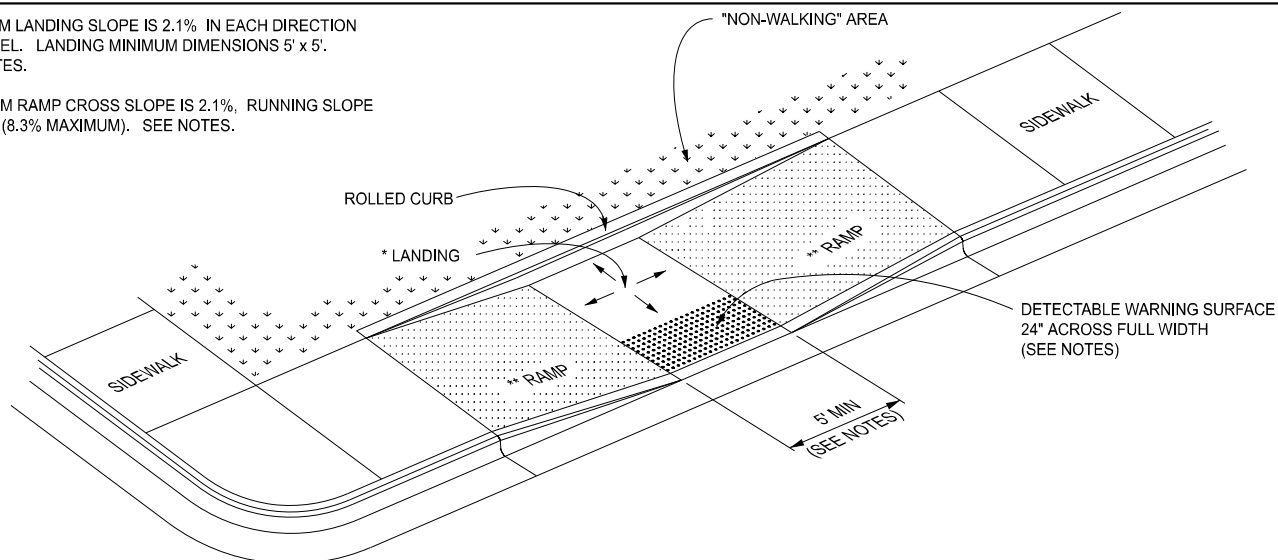
06/21/2014
PLAN DATE

R-28-K

SHEET
2 OF 7

* MAXIMUM LANDING SLOPE IS 2.1% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

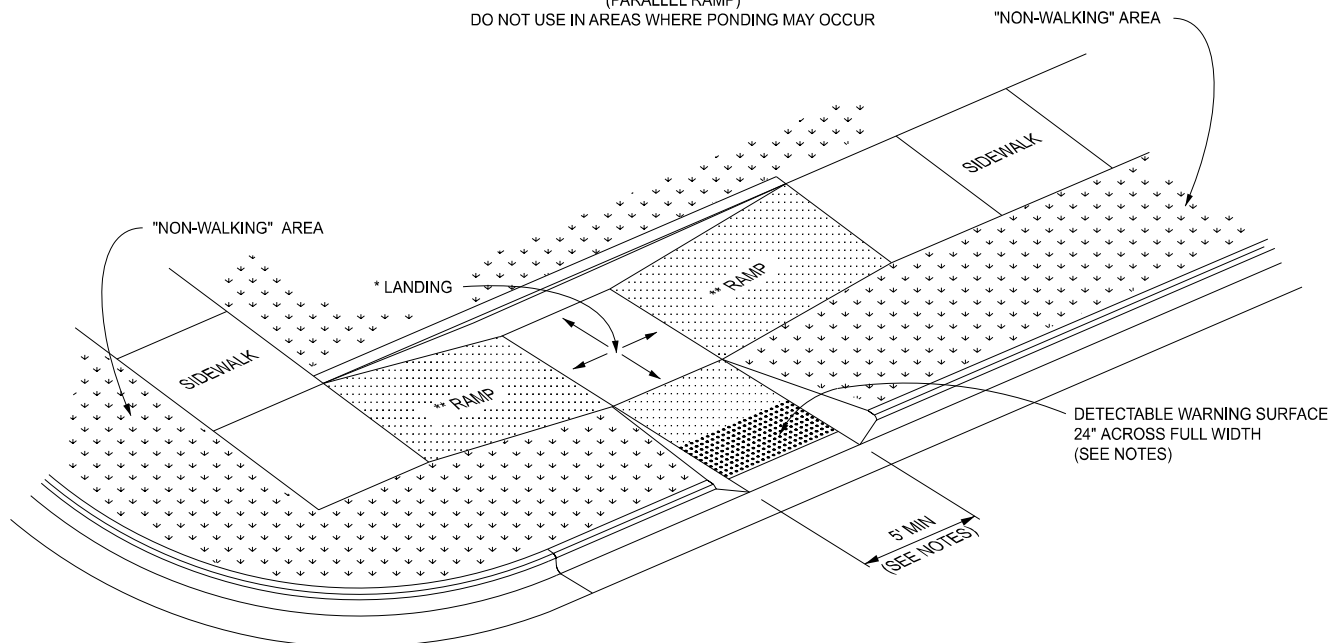
** MAXIMUM RAMP CROSS SLOPE IS 2.1%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



CURB RAMP TYPE P

(PARALLEL RAMP)

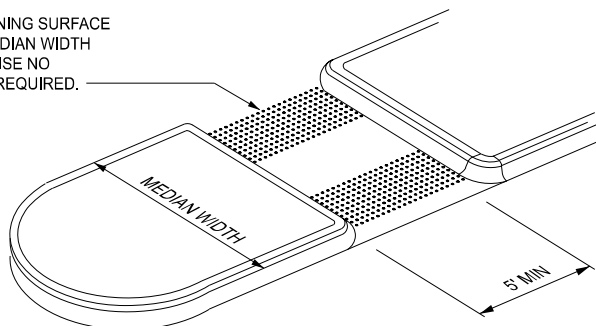
DO NOT USE IN AREAS WHERE PONDING MAY OCCUR



CURB RAMP TYPE C

(COMBINATION RAMP)

USE 24" DETECTABLE WARNING SURFACE ACROSS FULL WIDTH IF MEDIAN WIDTH IS AT LEAST 6'-0". OTHERWISE NO DETECTABLE WARNING IS REQUIRED.



CURB RAMP TYPE M

(MEDIAN ISLAND)



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR CURB RAMP AND DETECTABLE WARNING DETAILS

12/18/2024
FHWA APPROVAL

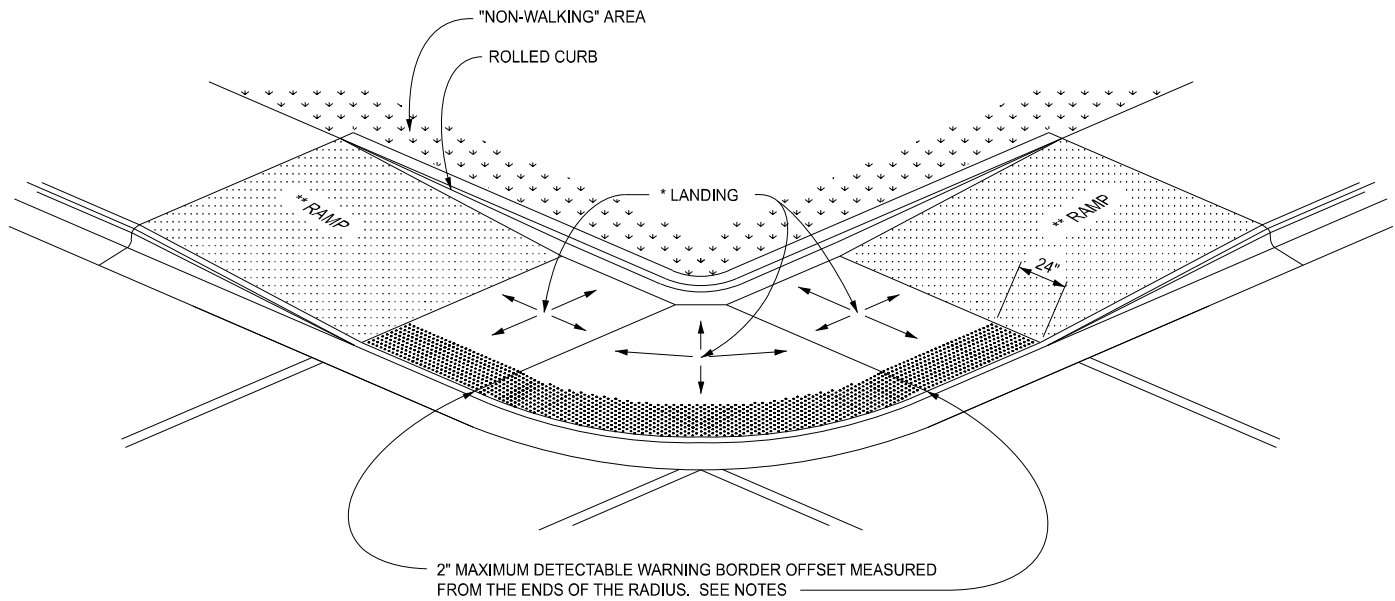
06/21/2024
PLAN DATE

R-28-K

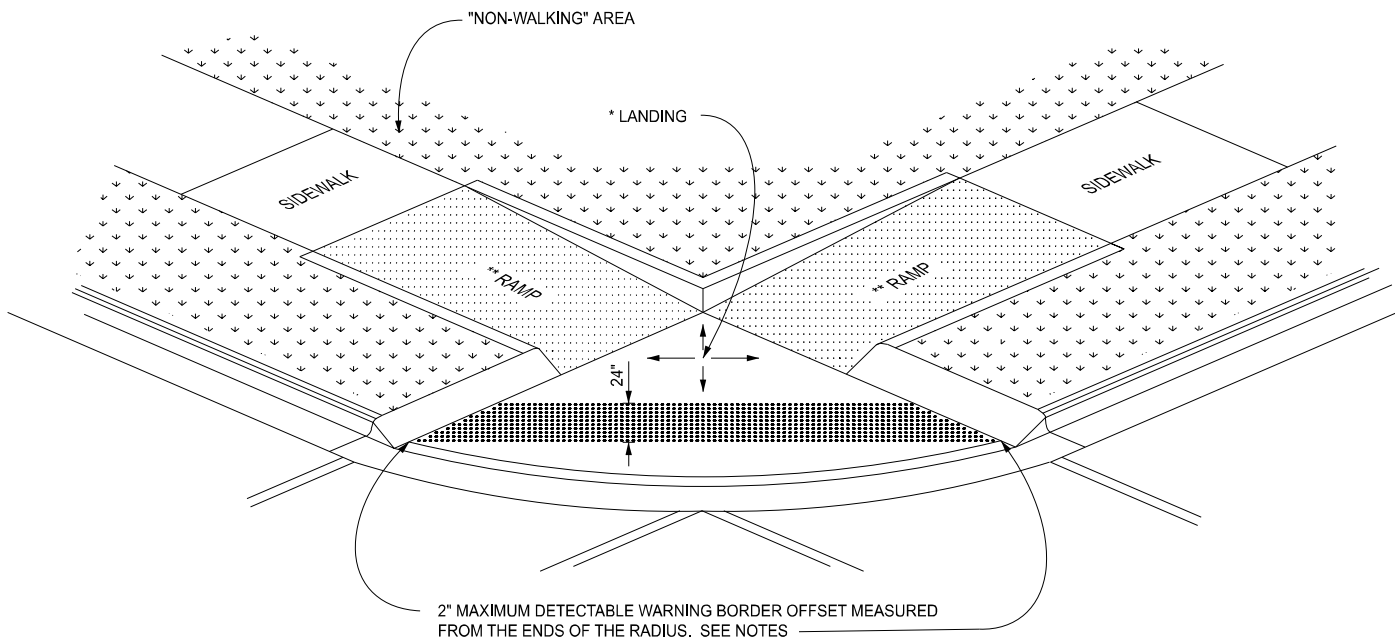
SHEET
3 OF 7

* MAXIMUM LANDING SLOPE IS 2.1% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.1%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



(RADIAL DETECTABLE WARNING SHOWN)



(TANGENT DETECTABLE WARNING SHOWN)

CURB RAMP TYPE D (DEPRESSED CORNER)

USE ONLY WHEN INDEPENDENT DIRECTIONAL RAMPS CAN NOT BE CONSTRUCTED FOR EACH CROSSING DIRECTION



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR CURB RAMP AND DETECTABLE WARNING DETAILS

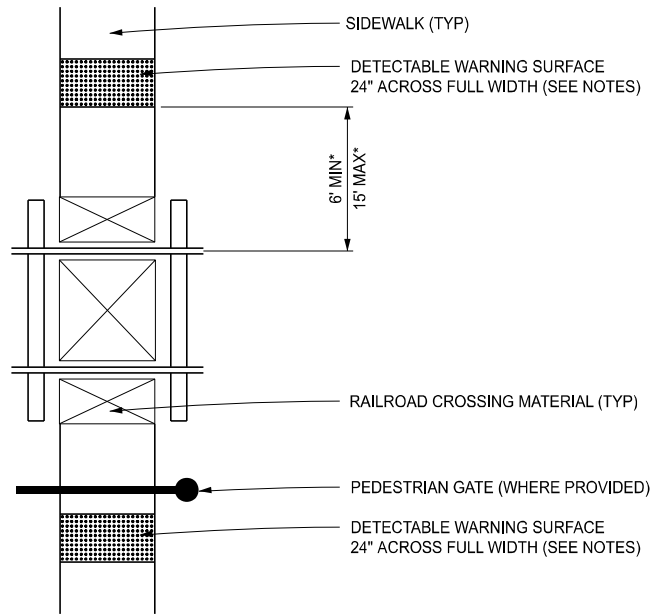
12/18/2024
FHWA APPROVAL

06/21/2024
PLAN DATE

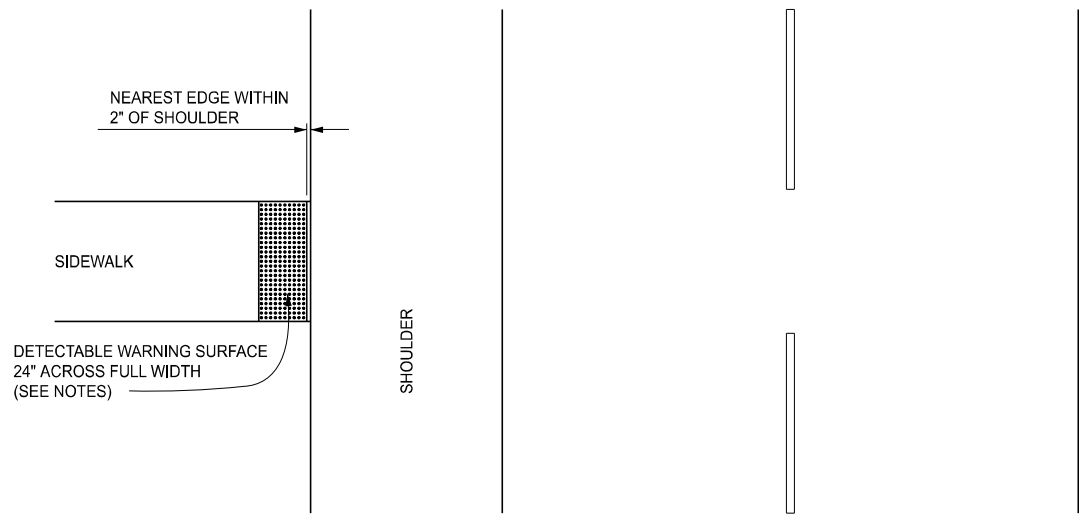
R-28-K

SHEET
4 OF 7

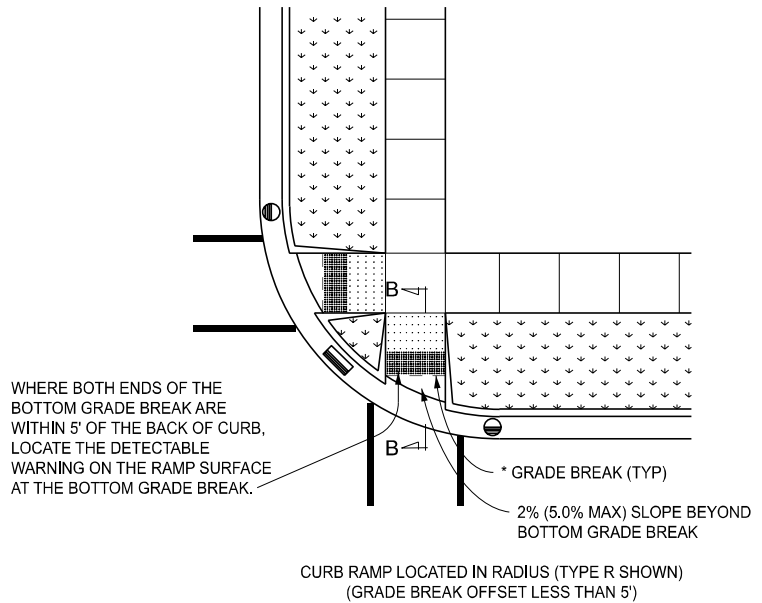
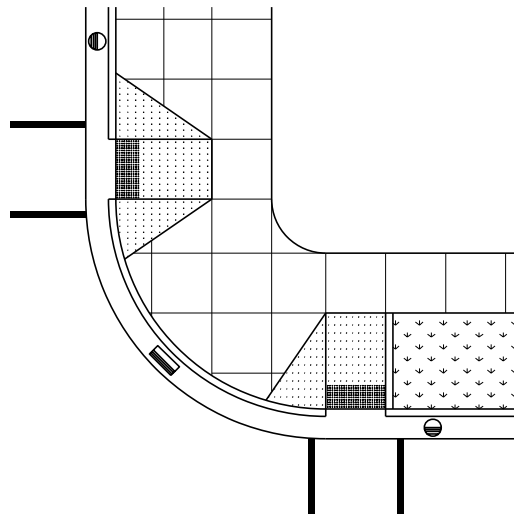
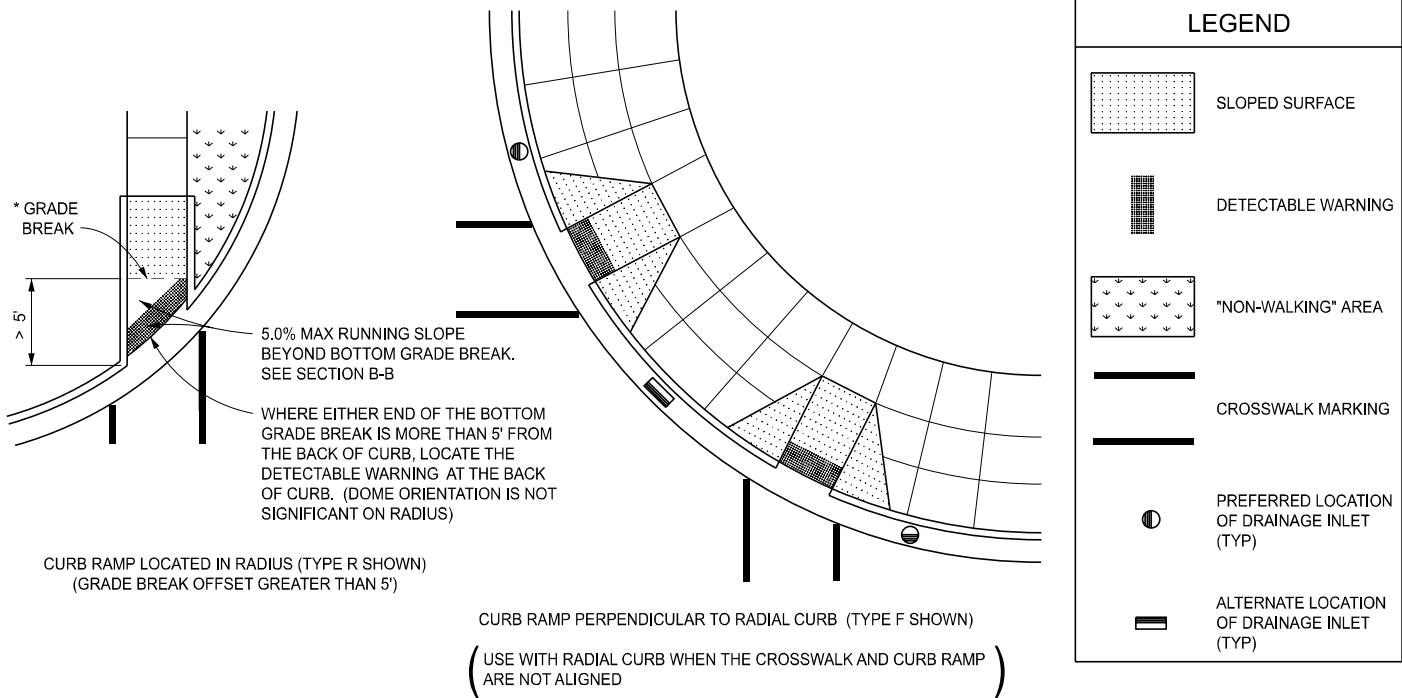
* LOCATE THE DETECTABLE WARNING SURFACE SO THAT THE EDGE NEAREST THE RAIL CROSSING IS 6' MINIMUM AND 15' MAXIMUM FROM THE CENTERLINE OF THE NEAREST RAIL. DO NOT PLACE DETECTABLE WARNING ON RAILROAD CROSSING MATERIAL.



DETECTABLE WARNING AT RAILROAD CROSSING



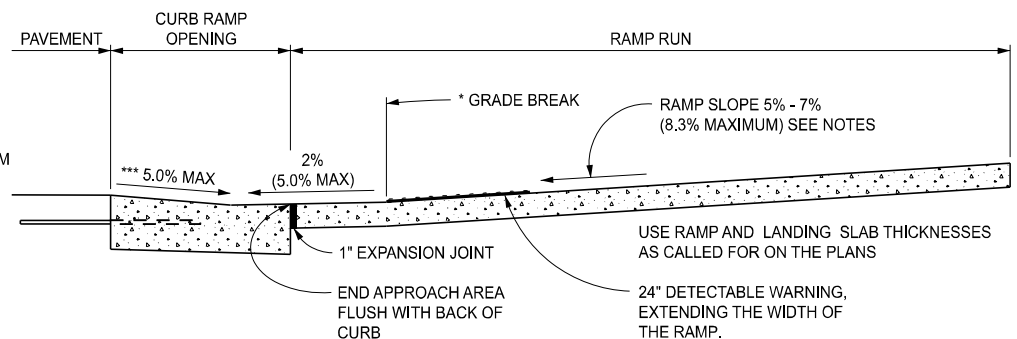
DETECTABLE WARNING AT FLUSH SHOULDER OR ROADWAY



* ENSURE GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMP BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.

*** TRANSITION ADJACENT GUTTER PAN CROSS SECTION TO PROVIDE 5.0% MAXIMUM COUNTERSLOPE ACROSS THE RAMP OPENING.

SEE SHEET 2 FOR CURB RAMP OPENING DETAILS.



SECTION B-B

CURB RAMP ORIENTATION



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

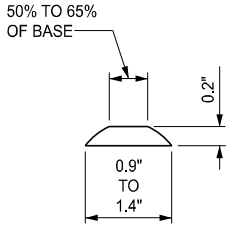
STANDARD PLAN FOR CURB RAMP AND DETECTABLE WARNING DETAILS

12/18/2024
FHWA APPROVAL

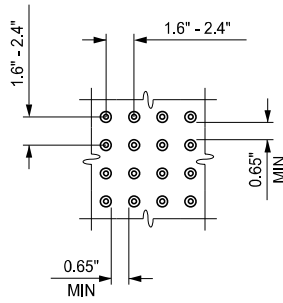
06/21/2024
PLAN DATE

R-28-K

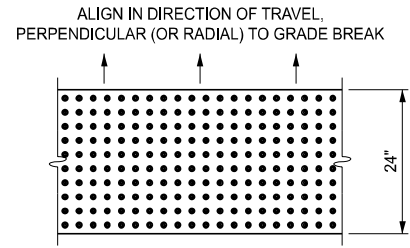
SHEET
6 OF 7



DOME SECTION



DOME SPACING



DOME ALIGNMENT

DETECTABLE WARNING DETAILS

NOTES:

APPLY DETAILS SPECIFIED ON THIS PLAN TO ALL CONSTRUCTION, RECONSTRUCTION, OR ALTERATION OF STREETS, CURBS, OR SIDEWALKS IN THE PUBLIC RIGHT OF WAY.

LOCATE CURB RAMPS AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

PROVIDE RAMPS AT ALL CORNERS OF AN INTERSECTION WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. PROVIDE RAMPS AT MARKED AND/OR SIGNALIZED MID-BLOCK CROSSINGS.

PROVIDE SURFACE TEXTURE TO THE RAMP BY COARSE BROOMING, TRANSVERSE TO THE RUNNING SLOPE.

RAMP THE SIDEWALK WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK.

ENSURE A UNIFORM GRADE ON THE RAMP. SLOPE THE RAMP IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL, WHERE CONDITIONS PERMIT.

INCREASE RAMP WIDTH, IF NECESSARY, TO ACCOMMODATE SIDEWALK SNOW REMOVAL EQUIPMENT NORMALLY USED BY THE MUNICIPALITY.

REDUCE RAMP WIDTH TO NOT LESS THAN 4' AND LANDINGS TO NOT LESS THAN 4' x 4' WHEN 5' MINIMUM WIDTHS ARE NOT FEASIBLE.

CURB RAMPS WITH A RUNNING SLOPE $\leq 5\%$ DO NOT REQUIRE A TOP LANDING. HOWEVER, FOR ANY CONTINUOUS SIDEWALK OR PEDESTRIAN ROUTE CROSSING THROUGH OR INTERSECTING THE CURB RAMP, INDEPENDENTLY MAINTAIN A CROSS SLOPE NOT GREATER THAN 2.1% PERPENDICULAR TO ITS OWN DIRECTION(S) OF TRAVEL.

ENSURE DETECTABLE WARNING SURFACE COVERS A MINIMUM OF 24' IN THE DIRECTION OF RAMP/PATH TRAVEL AND THE FULL WIDTH OF THE RAMP/PATH OPENING, EXCLUDING CURBED OR FLARED CURB TRANSITION AREAS. IF A BORDER IS DESIRED, OFFSET THE BORDER 2" MAXIMUM ALONG THE EDGES OF THE DETECTABLE WARNING. FOR RADIAL CURB, MEASURE THE OFFSET FROM THE ENDS OF THE RADIUS.

DO NOT EXCEED A RAMP CROSS SLOPE OF 2.1% FOR NEW ROADWAY CONSTRUCTION. FOR ALTERATIONS TO EXISTING ROADWAYS, TRANSITION THE CROSS SLOPE TO MEET AN EXISTING ROADWAY GRADE. APPLY THE CROSS SLOPE TRANSITION UNIFORMLY OVER THE FULL LENGTH OF THE RAMP.

THE MAXIMUM RUNNING SLOPE OF 8.3% IS RELATIVE TO A FLAT (0%) REFERENCE. HOWEVER, NO RAMP OR SERIES OF RAMPS IS REQUIRED TO EXCEED 15 FEET IN LENGTH, NOT INCLUDING LANDINGS OR TRANSITIONS.

DO NOT PLACE DRAINAGE STRUCTURES IN LINE WITH RAMPS. GIVE PRECEDENCE TO THE LOCATION OF THE RAMP, OVER THE LOCATION OF THE DRAINAGE STRUCTURE. WHERE EXISTING DRAINAGE STRUCTURES ARE LOCATED IN THE RAMP PATH OF TRAVEL, USE A MANUFACTURER'S ADA COMPLIANT GRATE. LIMIT OPENINGS TO $\frac{1}{2}$ " OR LESS. PLACE ELONGATED OPENINGS SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

ENSURE THE TOP OF THE JOINT FILLER (FOR ALL RAMP TYPES) IS FLUSH WITH THE ADJACENT CONCRETE.

LOCATE CROSSWALK AND STOP LINE MARKINGS TO STOP TRAFFIC SHORT OF RAMP CROSSINGS. SEE THE "MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR SPECIFIC DETAILS FOR MARKING APPLICATIONS.

PROVIDE FLARED SIDES WITH A MAXIMUM SLOPE OF 10%, MEASURED ALONG THE ROADSIDE CURB LINE, WHERE AN UNOBSTRUCTED CIRCULATION PATH LATERALLY CROSSES THE CURB RAMP. FLARED SIDES ARE NOT REQUIRED WHERE THE RAMP IS BORDERED BY LANDSCAPING, UNPAVED SURFACE OR PERMANENT FIXED OBJECTS. WHERE NOT REQUIRED, CONSIDER FLARED SIDES IN ORDER TO AVOID SHARP CURB RETURNS AT RAMP OPENINGS.

INSTALL DETECTABLE WARNING PLATES USING FABRICATED OR FIELD CUT UNITS CAST AND/OR ANCHORED IN THE PAVEMENT TO RESIST SHIFTING OR HEAVING.



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR CURB RAMP AND DETECTABLE WARNING DETAILS

12/18/2024

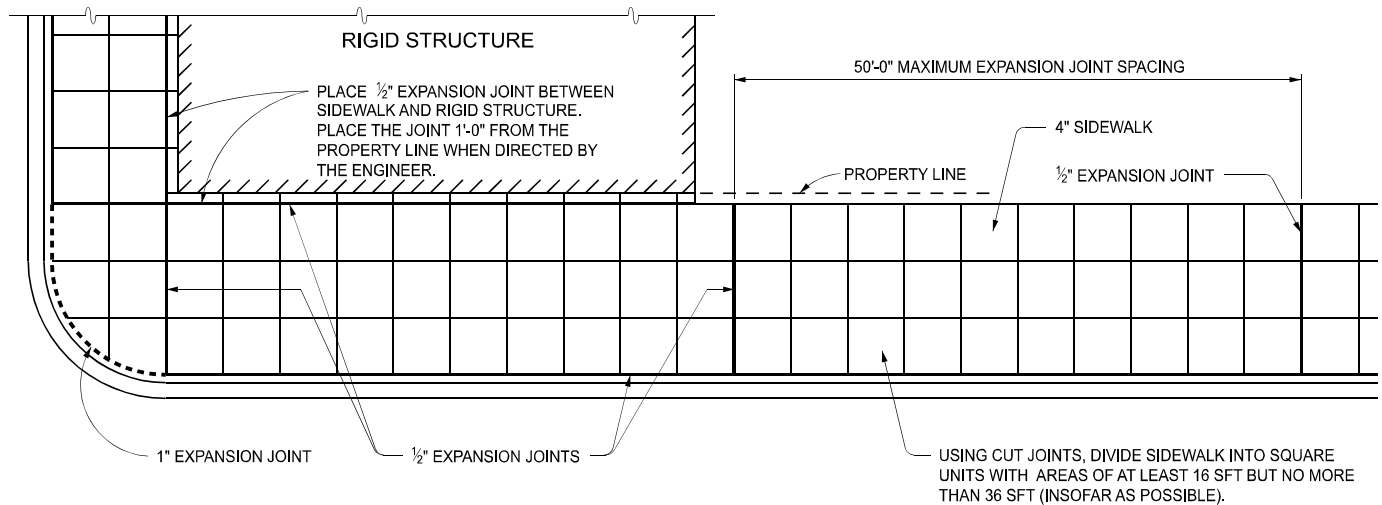
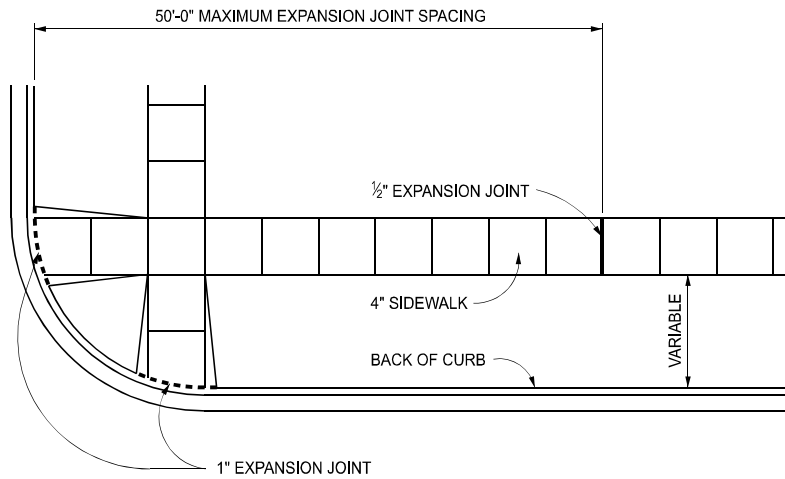
FHWA APPROVAL

06/21/2024

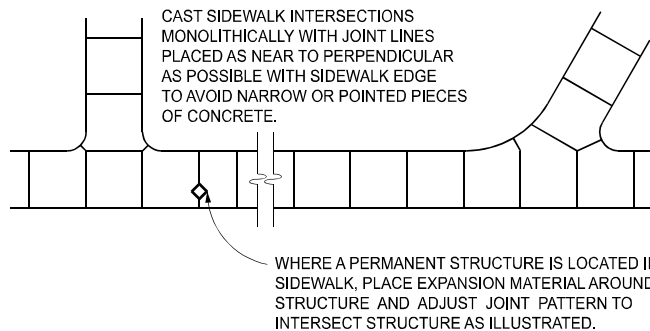
PLAN DATE

R-28-K

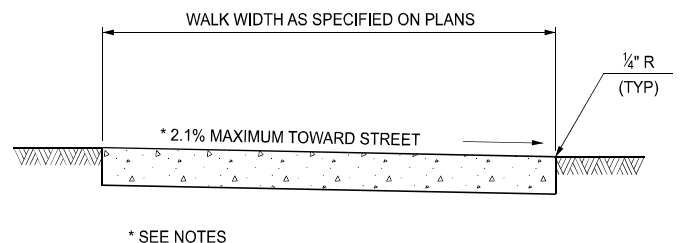
SHEET
7 OF 7



LOCATION OF JOINTS IN CONCRETE SIDEWALK



TYPICAL SIDEWALK JOINT LAYOUTS



4" CONCRETE SIDEWALK

APPROVED BY: E-SIGNED by JASON GUTTING on 2024-09-24 12:55:49 EDT
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: E-SIGNED by Demetrius Parker on 2024-09-24 09:51:28 EDT
DIRECTOR, BUREAU OF DEVELOPMENT



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

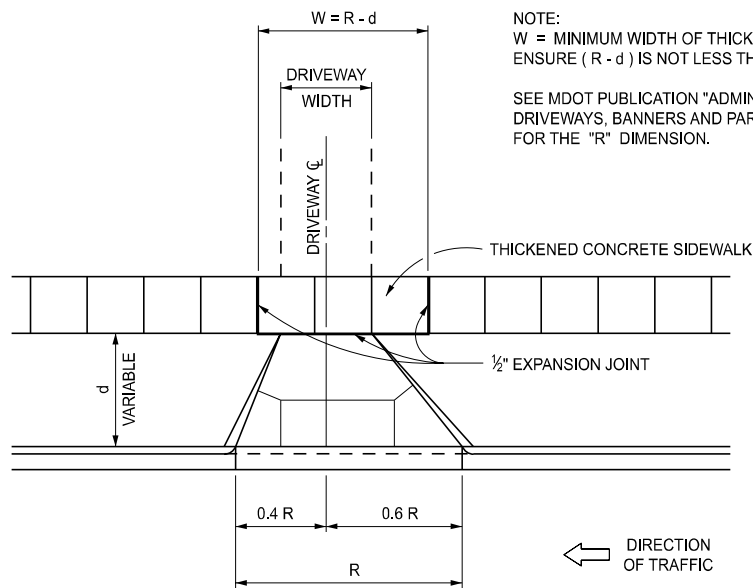
STANDARD PLAN FOR DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK

12/18/2024
FHWA APPROVAL

06/12/2024
PLAN DATE

R-29-J

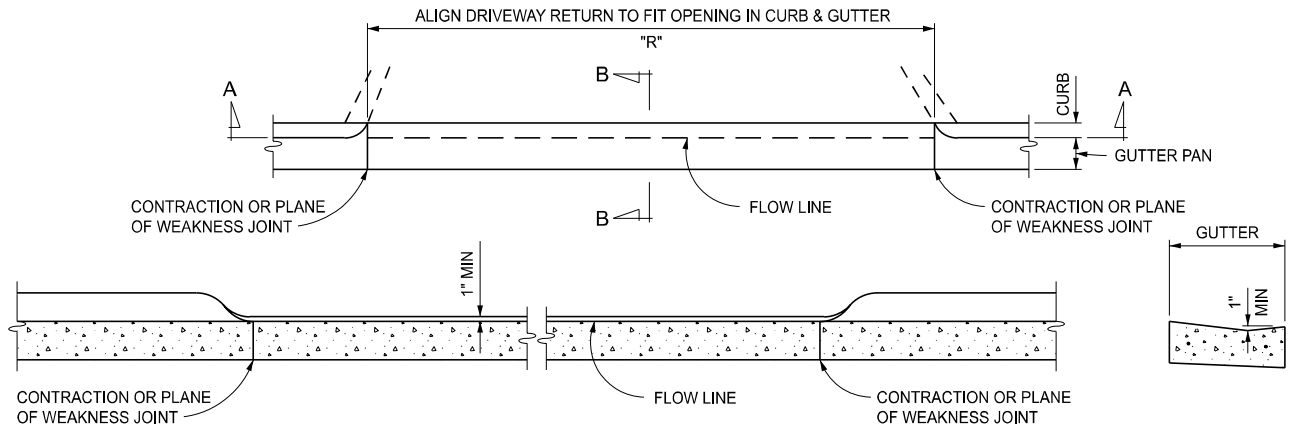
SHEET
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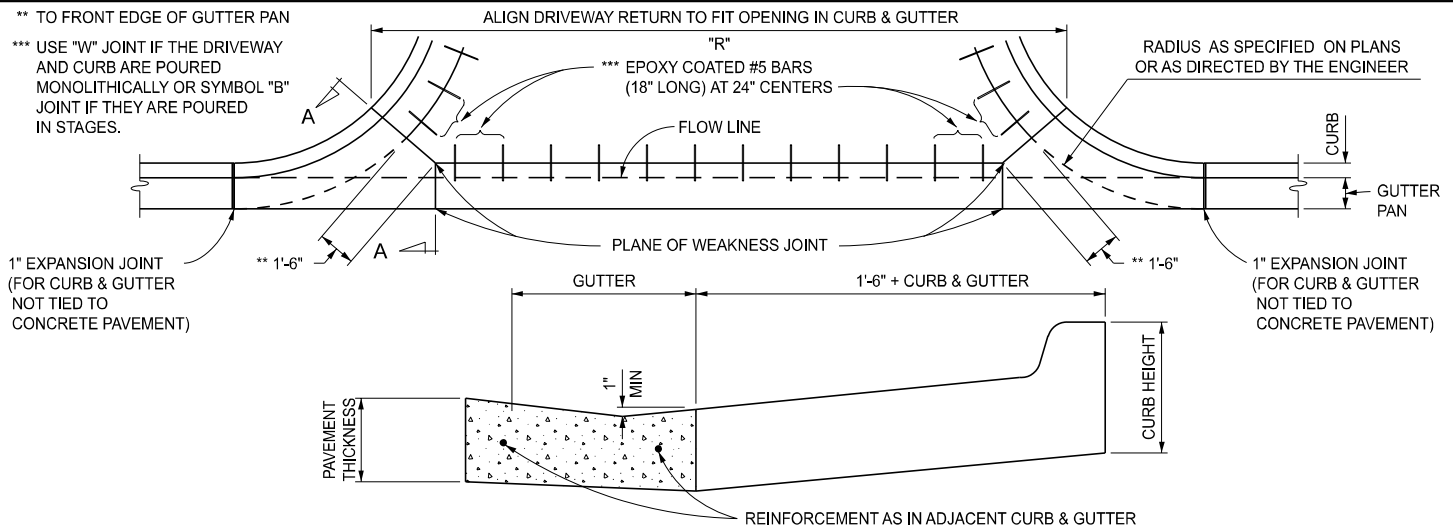
NOTE:
W = MINIMUM WIDTH OF THICKENED CONCRETE SIDEWALK.
ENSURE (R - d) IS NOT LESS THAN DRIVEWAY WIDTH.

SEE MDOT PUBLICATION "ADMINISTRATIVE RULES REGULATING DRIVEWAYS, BANNERS AND PARADES ON OR OVER HIGHWAYS" FOR THE "R" DIMENSION.

CONCRETE DRIVEWAY OPENING LAYOUT



SECTION A - A
CONCRETE DRIVEWAY OPENING, DETAIL L



SECTION A - A
CONCRETE DRIVEWAY OPENING, DETAIL M

NOTE:
ENSURE LONGITUDINAL LANE TIES ARE CONTINUOUS THROUGH THE DRIVEWAY OPENING IN ROADWAYS WITH CONCRETE PAVEMENTS AND ADJUST THE SPACING OF THE #5 BARS IN CONCRETE DRIVEWAYS TO AVOID CONFLICT WITH THE LONGITUDINAL LANE TIES.



DEPARTMENT DIRECTOR
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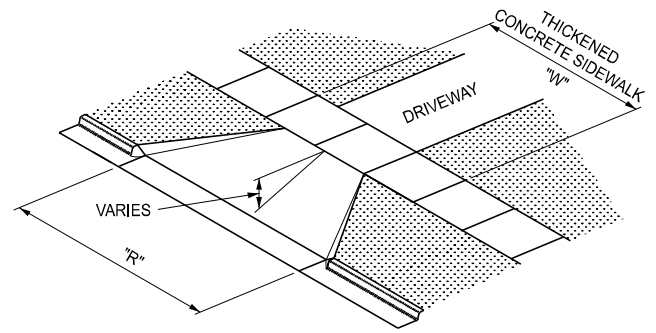
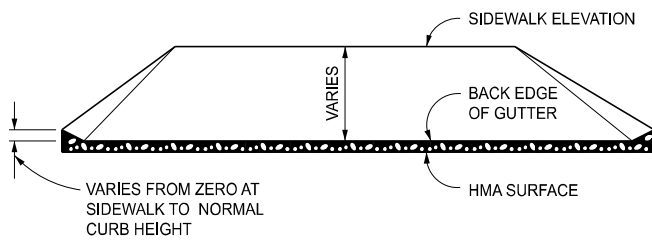
STANDARD PLAN FOR
DRIVEWAY OPENINGS & APPROACHES,
AND CONCRETE SIDEWALK

12/18/2024
FHWA APPROVAL

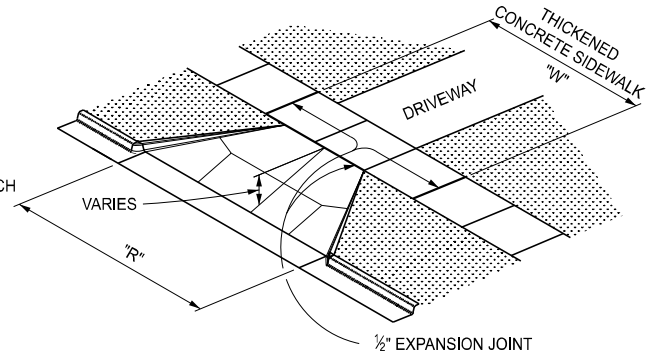
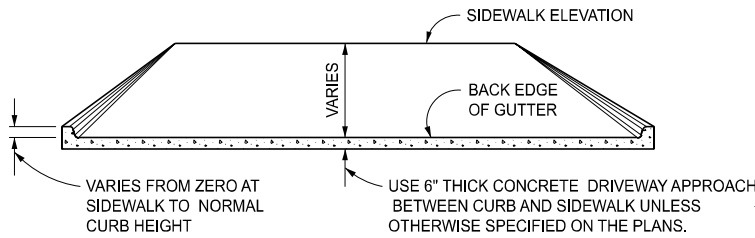
06/12/2024
PLAN DATE

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2 OF 4

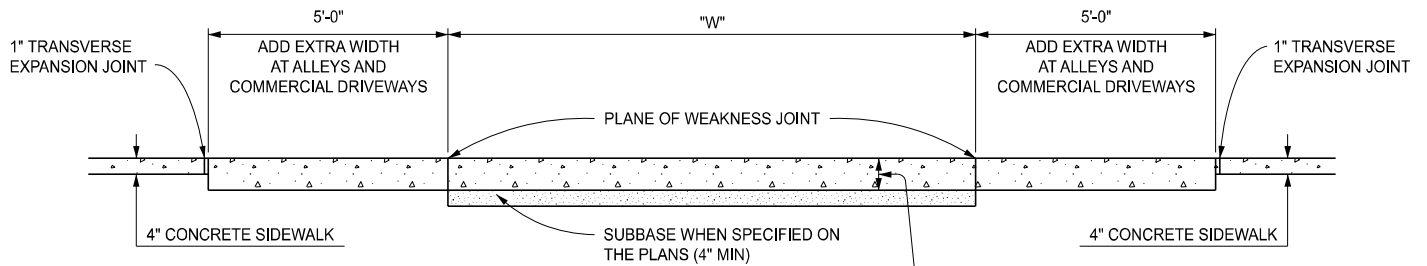


HMA DRIVEWAY APPROACH
(TO BE USED WITH DETAIL L)



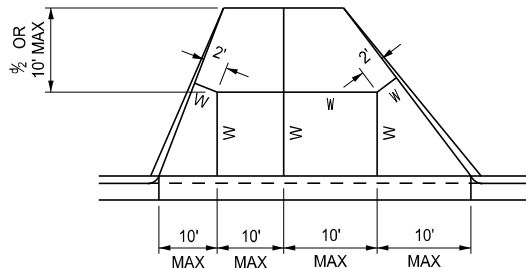
CONCRETE DRIVEWAY APPROACH
(TO BE USED WITH DETAIL L OR M)

NOTES:
INCLUDE MONOLITHIC CURB IN THE CONCRETE DRIVEWAY APPROACH QUANTITY.
SEE CHART ON THIS SHEET WHEN REINFORCEMENT IS REQUIRED (SPECIFIED ON THE PLANS).



WHEN CONCRETE DRIVEWAY APPROACH IS SPECIFIED, MATCH THICKENED CONCRETE SIDEWALK THICKNESS TO THICKNESS OF CONCRETE DRIVEWAY APPROACH. WHEN HMA DRIVEWAY APPROACH IS SPECIFIED, USE 6" MINIMUM FOR THICKENED CONCRETE SIDEWALK THICKNESS.

THICKENED CONCRETE SIDEWALK



ADJUST DRIVEWAY JOINTS AS NEEDED TO ALIGN WITH ANY COINCIDING TRANSVERSE PAVEMENT JOINTS.

USE JOINT LAYOUT AS INDICATED OR AS DIRECTED BY THE ENGINEER.

INTERMEDIATE DRIVEWAY JOINT DETAILS

REINFORCEMENT FOR CONCRETE DRIVEWAYS

CONCRETE DRIVEWAY THICKNESS	WIRE SIZE (6" x 6" MESH)	AVERAGE WEIGHT (LBS/100 SFT)
LESS THAN 8"	W1.4	21
	W2.9	42
8" OR GREATER	USE WIRE FABRIC REINFORCEMENT SPECIFIED ON STANDARD PLAN R-37-SERIES	



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

**STANDARD PLAN FOR
DRIVEWAY OPENINGS & APPROACHES,
AND CONCRETE SIDEWALK**

12/18/2024

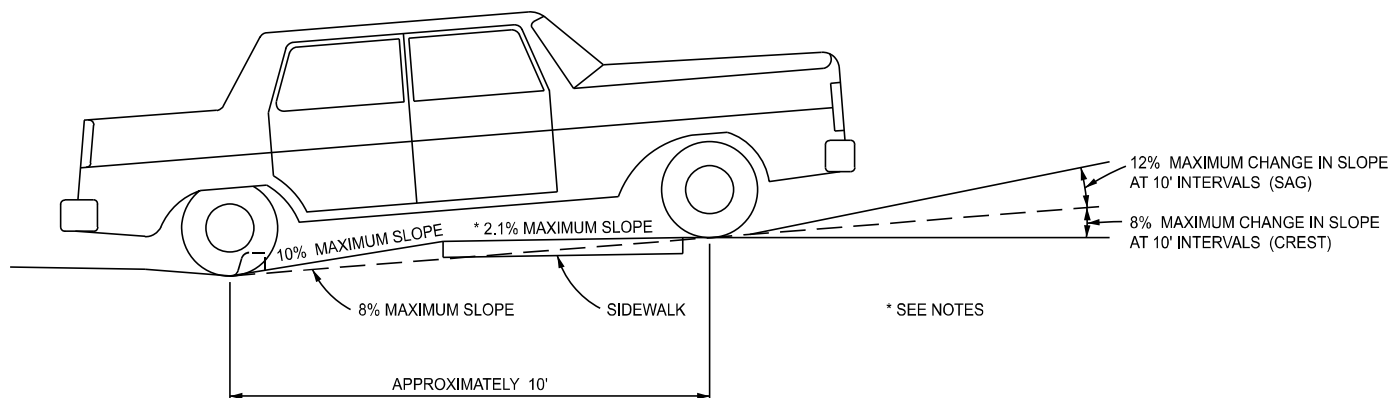
FHWA APPROVAL

06/12/2024

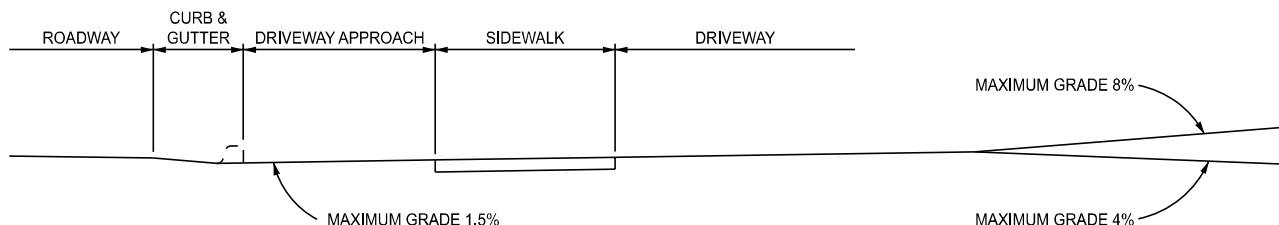
PLAN DATE

R-29-J

SHEET
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LOW VOLUME COMMERCIAL OR RESIDENTIAL DRIVEWAY SLOPES



COMMERCIAL DRIVEWAY PROFILE FOR MAJOR TRAFFIC GENERATORS

NOTES:

SEE MDOT PUBLICATION "ADMINISTRATIVE RULES REGULATING DRIVEWAYS, BANNERS, AND PARADES ON OR OVER HIGHWAYS" AND GEOMETRIC DESIGN GUIDE G-680-SERIES, "COMMERCIAL DRIVEWAYS" FOR DRIVEWAY DESIGN.

SEE STANDARD PLAN R-30-SERIES FOR CURB AND GUTTER DETAILS.

LIMIT TRANSVERSE SIDEWALK SLOPES TO 2.1% MAXIMUM. PROVIDE LONGITUDINAL DRAINAGE IF THE TRANSVERSE SLOPE IS REQUIRED TO BE LESS THAN 1.5%.

CONSIDER THE TYPES OF VEHICLES USING THE DRIVE WHEN SETTING GRADES FOR COMMERCIAL DRIVES.



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

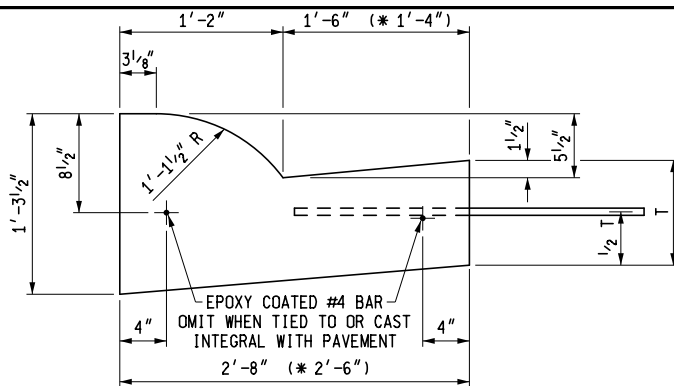
STANDARD PLAN FOR DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK

12/18/2024
FHWA APPROVAL

06/12/2024
PLAN DATE

R-29-J

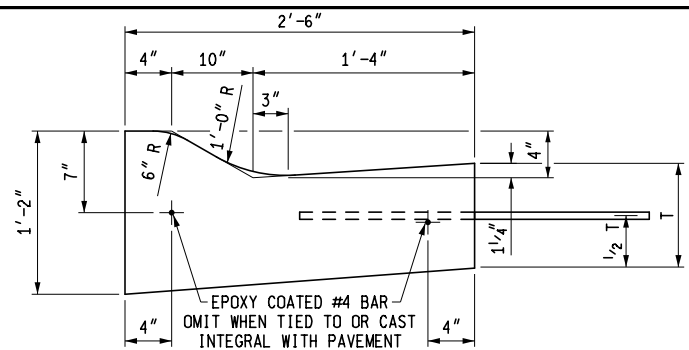
SHEET
4 OF 4



(* GUTTER PAN WIDTH MAY BE REDUCED WHEN APPROVED BY THE ENGINEER)

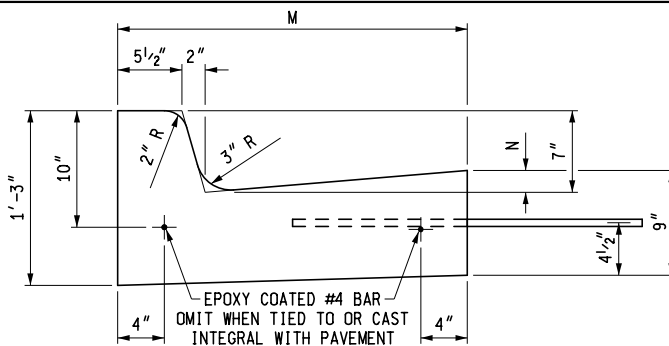
DETAIL	DIMENSION	LANE TIES	CONCRETE CYD / LFT	CONCRETE CYD / LFT
	T			
B1	9"	AS SHOWN	0.0900	(* 0.0855)
B2	9"	OMITTED	0.0900	(* 0.0855)
B3	10"	AS SHOWN	0.0941	(* 0.0894)

B



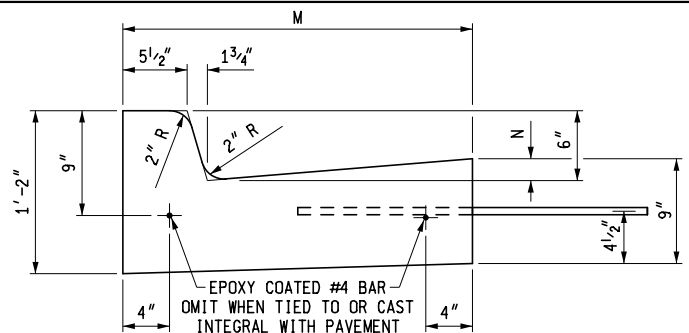
DETAIL	DIMENSION	LANE TIES	CONCRETE CYD / LFT
	T		
D1	9"	AS SHOWN	0.0788
D2	9"	OMITTED	0.0788
D3	10"	AS SHOWN	0.0826

D



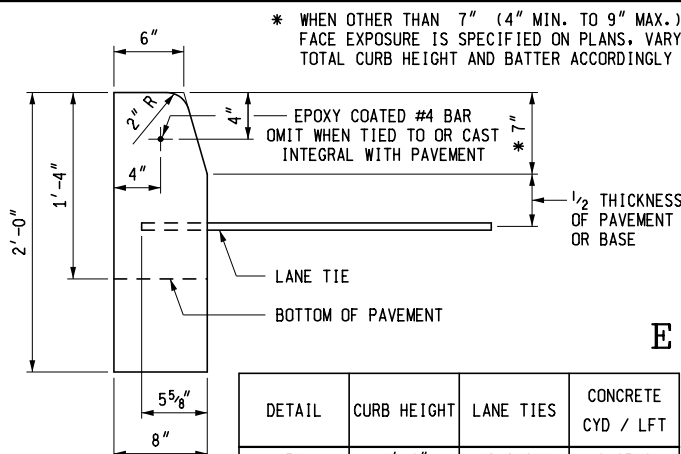
DETAIL	DIMENSION		LANE TIES	CONCRETE CYD / LFT
	M	N		
C1	1'-6"	7 $\frac{7}{8}$ "	AS SHOWN	0.0506
C2	1'-6"	7 $\frac{7}{8}$ "	OMITTED	0.0506
C3	2'-0"	13 $\frac{3}{8}$ "	AS SHOWN	0.0632
C4	2'-0"	13 $\frac{3}{8}$ "	OMITTED	0.0632
C5	2'-6"	17 $\frac{7}{8}$ "	AS SHOWN	0.0757
C6	2'-6"	17 $\frac{7}{8}$ "	OMITTED	0.0757

C



DETAIL	DIMENSION		LANE TIES	CONCRETE CYD / LFT
	M	N		
F1	1'-6"	7 ₈ "	AS SHOWN	0.0484
F2	1'-6"	7 ₈ "	OMITTED	0.0484
F3	2'-0"	13 ₈ "	AS SHOWN	0.0610
F4	2'-0"	13 ₈ "	OMITTED	0.0610
F5	2'-6"	17 ₈ "	AS SHOWN	0.0737
F6	2'-6"	17 ₈ "	OMITTED	0.0737

F



E

DETAIL	CURB HEIGHT	LANE TIES	CONCRETE CYD / LFT
E1	1'-4"	AS SHOWN	0.0310
E2	1'-4"	OMITTED	0.0310
E4	2'-0"	OMITTED	0.0477



PREPARED
BY
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Kirk T. Steudle

APPROVED BY: Handy Van Fleet
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Mark A. [Signature]
DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

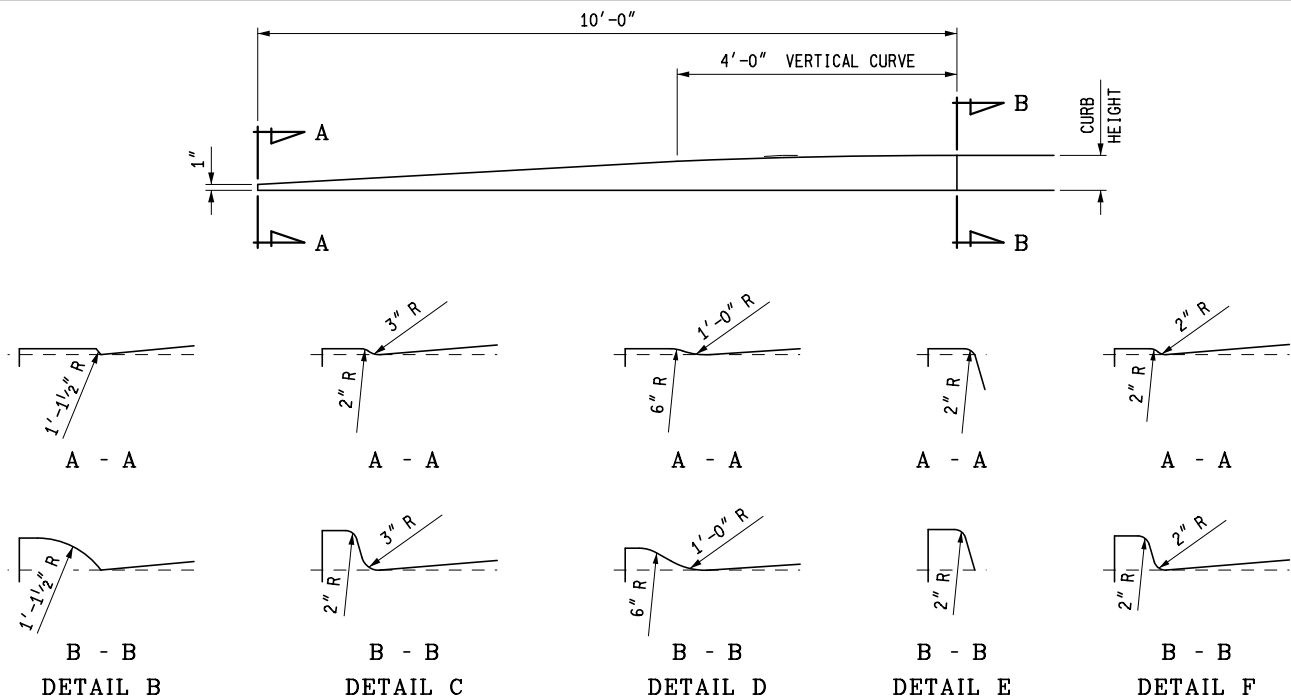
CONCRETE CURB AND CONCRETE CURB & GUTTER

9-30-2014
F.H.W.A. APPROVAL

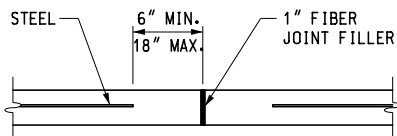
2-6-2014
PLAN DATE

R-30-G

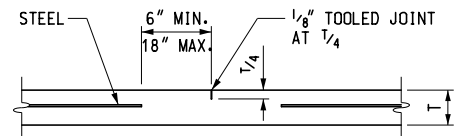
SHEET
1 OF 2



CONCRETE CURB, CURB AND GUTTER ENDINGS



1" FIBER JOINT FILLER



CONTRACTION JOINT

NOTES:

CURB AND GUTTER RADII SHALL BE DIMENSIONED TO THE FRONT EDGE OF THE GUTTER PAN OR EDGE OF PAVEMENT.

CONCRETE CURB AND GUTTER ENDINGS WILL BE PAID FOR IN LINEAR FEET OF THE ADJACENT CURB DETAIL.

JOINTS SHALL BE PLACED AT RIGHT ANGLES TO THE EDGE OF CONCRETE CURB AND GUTTER.

JOINTS DETAILED ON THE PLANS SHALL SUPERSEDE THOSE SPECIFIED ON THIS STANDARD PLAN.

BOTTOM SLOPE OF CURB AND GUTTER STRUCTURE MAY BE THE SAME SLOPE AS BOTTOM OF PAVEMENT. BACK OF CURB AND VERTICAL EDGE OF GUTTER PAN MAY HAVE A MAXIMUM $\frac{1}{2}$ " BATTER TO FACILITATE FORMING.

WHEN CURB AND GUTTER IS CAST INTEGRALLY, SEE CURRENT STANDARD PLAN R-31-SERIES.

ALL JOINTS FOR CURB OR CURB AND GUTTER ARE INCLUDED IN THE PAY ITEM FOR THE CURB OR CURB AND GUTTER.

JOINTS IN CURB OR CURB AND GUTTER NOT TIED TO CONCRETE PAVEMENT; ADJACENT TO CONCRETE BASE COURSE; OR ADJACENT TO HMA PAVEMENT:

- PLACE 1" FIBER JOINT FILLER AT 400' MAXIMUM INTERVALS.
- PLACE 1" FIBER JOINT FILLER AT SPRING POINTS OF INTERSECTING STREETS.
- PLACE $\frac{1}{2}$ " ISOLATION JOINT AT CATCH BASINS PER STANDARD PLAN R-37-SERIES.
- PLACE CONTRACTION JOINTS AT 40' MAXIMUM INTERVALS.

JOINTS IN CURB OR CURB AND GUTTER TIED TO JOINTED PAVEMENT

- PLACE 1" FIBER JOINT FILLER OPPOSITE ALL TRANSVERSE EXPANSION JOINTS IN PAVEMENT.
- PLACE $\frac{1}{2}$ " ISOLATION JOINT AT CATCH BASINS PER STANDARD PLAN R-37-SERIES.
- PLACE CONTRACTION JOINTS OPPOSITE ALL TRANSVERSE CONTRACTION JOINTS IN PAVEMENT.
- A SYMBOL (B) JOINT SHALL BE PLACED BETWEEN CURB OR CURB AND GUTTER AND ADJACENT CONCRETE PAVEMENT AS SPECIFIED ON STANDARD PLAN R-41-SERIES.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

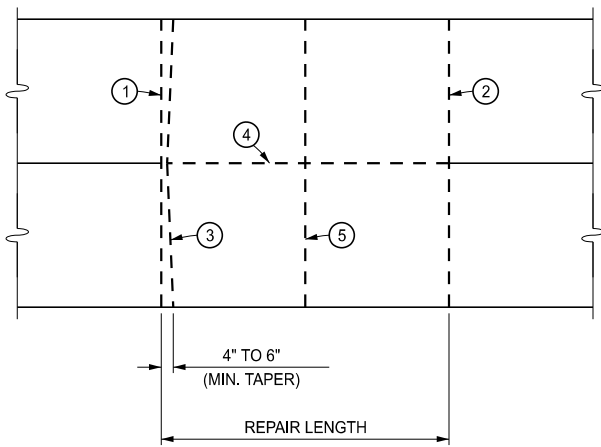
CONCRETE CURB AND CONCRETE CURB & GUTTER

9-30-2014
F.H.W.A. APPROVAL

2-6-2014
PLAN DATE

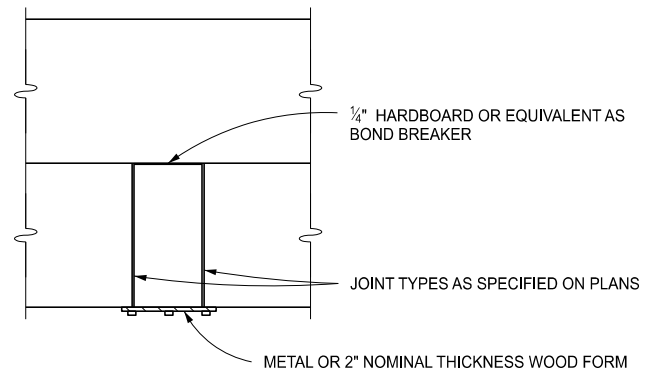
R-30-G

SHEET
2 OF 2

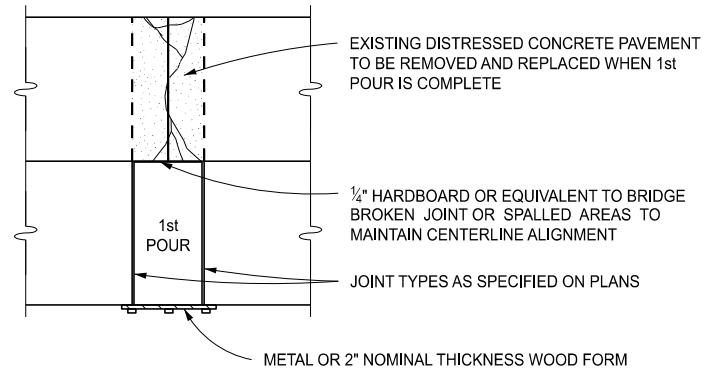


SAWING DIAGRAM FOR
FULL DEPTH CAST IN PLACE REPAIRS

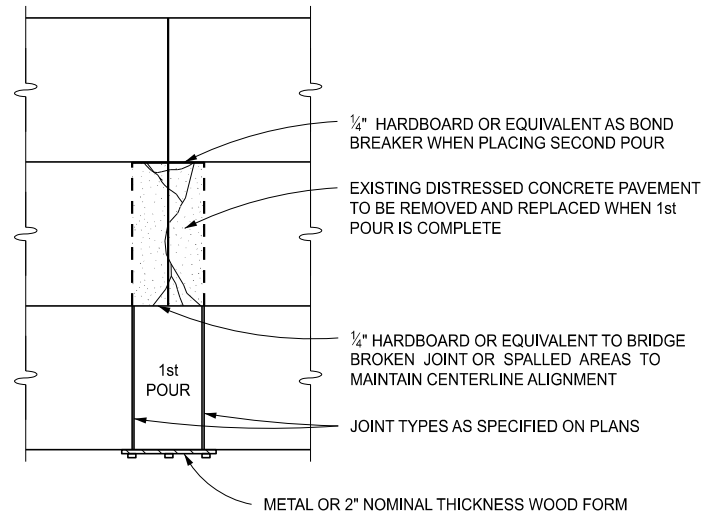
- ① & ② THESE SAW CUTS SHALL BE FULL DEPTH AND PERPENDICULAR TO THE EDGE OF THE ROADWAY, WITHIN A TOLERANCE OF 1". OVERCUTTING IS ALLOWED INTO ADJACENT SHOULDERS AND WITHIN THE LIMITS OF A SUBSEQUENT REPAIR TO THE ADJACENT LANE. OUTSIDE THESE LIMITS, OVERCUTTING IS NOT ALLOWED INTO ADJACENT NON-REINFORCED CONCRETE PAVEMENTS AND IS RESTRICTED TO 3" INTO ADJACENT REINFORCED CONCRETE PAVEMENTS.
- ③ THIS FULL DEPTH SAW CUT IS MADE TO FACILITATE OPENING A TRENCH ACROSS THE SLAB TO RELIEVE COMPRESSION IN THE PAVEMENT PRIOR TO REMOVAL OF THE FAILED AREA. THIS SAW CUT MAY BE OMITTED PROVIDED NO SPALLING OF THE REMAINING CONCRETE OCCURS. IF SPALLING DOES OCCUR, THE CONTRACTOR WILL BE REQUIRED TO MAKE THIS SAW CUT ON SUBSEQUENT REPAIRS. WHEN THIS SAW CUT IS USED AND THE ADJACENT LANE IS NOT REPAIRED, NO OVERCUTTING INTO THAT LANE SHALL BE MADE.
- ④ THIS LONGITUDINAL FULL DEPTH SAW CUT IS MADE BETWEEN LANES OR BETWEEN ANY COMBINATION OF THE FOLLOWING: LANE, RAMP, CURB, CONCRETE SHOULDER, OR PARTIAL LANE WIDTH REPAIR.
- ⑤ IF REQUIRED, INTERMEDIATE SAW CUTS MAY BE MADE TO REMOVE A SECTION OF PAVEMENT LANE WHICH IS OVER 5'-0" IN LENGTH, TO PERMIT LOADING INTO THE HAULING UNITS.
- ADDITIONAL SAW CUTS, AT CONTRACTOR'S EXPENSE, MAY BE MADE INSIDE THE REPAIR LIMITS TO REDUCE 5'-0" BY 12'-0" OR LESS SLABS INTO SMALLER PIECES TO FACILITATE REMOVAL.



ONE LANE REPAIRS
(2 - LANE ROADWAY SHOWN)



ALL LANES REPAIRED
(2 - LANE ROADWAY SHOWN)



MORE THAN ONE LANE REPAIRED
BUT REPAIR LESS THAN FULL WIDTH
(3 - LANE ROADWAY SHOWN)

FORMING NOTES:

STAKES USED TO HOLD HMA FILLER OR HARDBOARD IN PLACE DURING CONCRETE PLACEMENT SHALL BE REMOVED BEFORE SCREEDING THE CONCRETE.

ADJACENT LANE REPAIRS MAY BE CAST INTEGRALLY, WHEN APPROVED BY THE ENGINEER.

FORMING REQUIREMENTS FOR
CAST-IN-PLACE REPAIRS 12'-0" OR LESS

APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR
CONCRETE PAVEMENT REPAIR

(SPECIAL DETAIL)
FHWA APPROVAL

01/07/2025
PLAN DATE

R-44-G

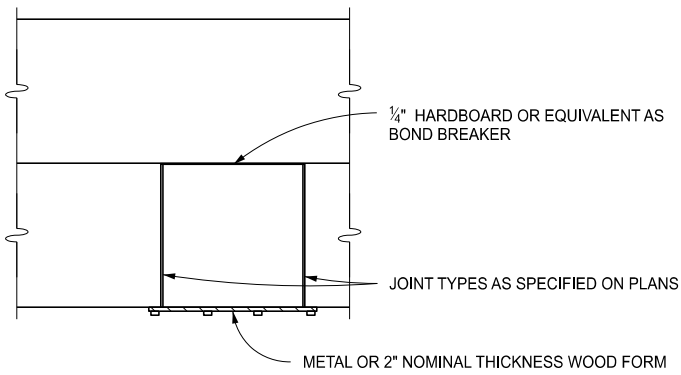
SHEET
1 OF 7

FORMING NOTES:

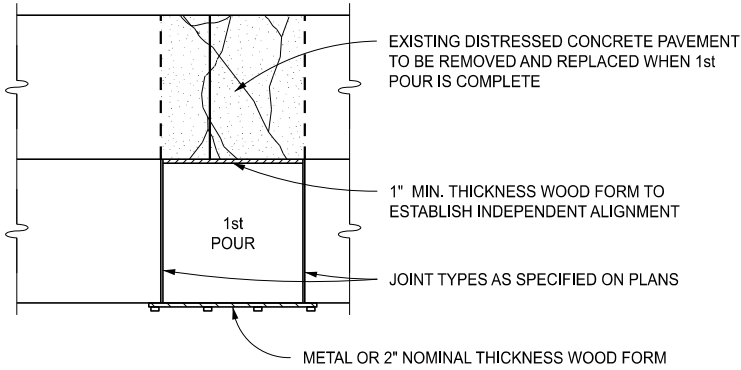
WHERE REPAIRS LONGER THAN 12'-0" ARE REQUIRED, A NEW GRADE MUST BE ESTABLISHED ALONG THE OLD PAVEMENT INNER JOINT LINE INDEPENDENT OF THE OLD PAVEMENT SURFACE, SO THAT SCREEDING MAY BE DONE PERPENDICULAR TO THE CENTERLINE AND INDEPENDENT OF THE OLD PAVEMENT GRADE.

STAKES USED TO HOLD HMA FILLER OR HARDBOARD IN PLACE DURING CONCRETE PLACEMENT SHALL BE REMOVED BEFORE SCREEDING THE CONCRETE.

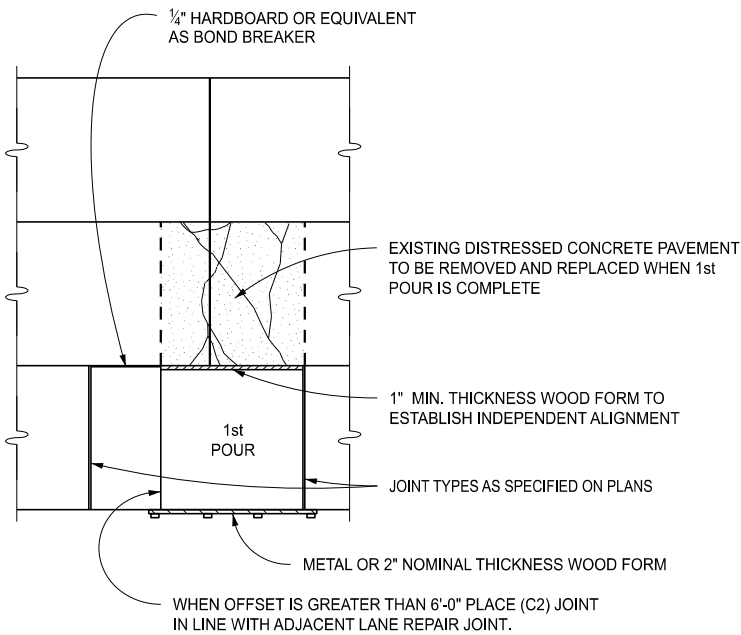
ADJACENT LANE REPAIRS MAY BE CAST INTEGRALLY, WHEN APPROVED BY THE ENGINEER.



ONE LANE REPAIRS
(2 - LANE ROADWAY SHOWN)



ALL LANES REPAIRED
(2 - LANE ROADWAY SHOWN)



MORE THAN ONE LANE REPAIRED
BUT REPAIRS ARE OFFSET
(3 - LANE ROADWAY SHOWN)

FORMING REQUIREMENTS FOR CAST-IN-PLACE REPAIRS GREATER THAN 12'-0"



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

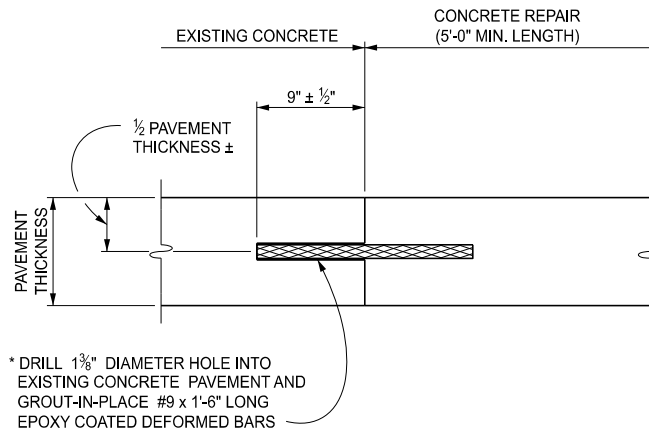
STANDARD PLAN FOR CONCRETE PAVEMENT REPAIR

(SPECIAL DETAIL)
FHWA APPROVAL

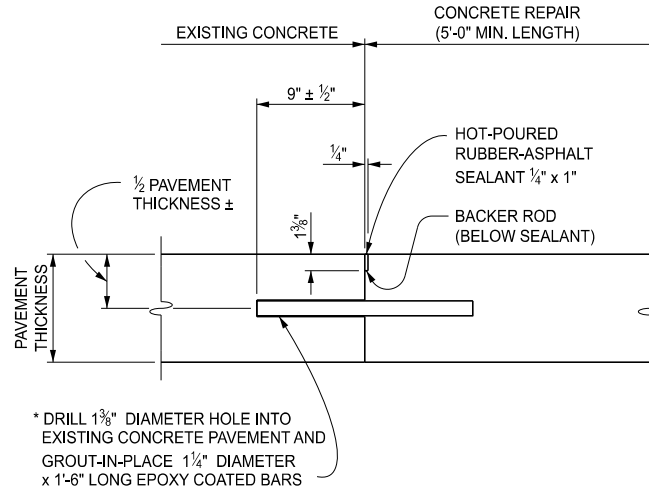
01/07/2025
PLAN DATE

R-44-G

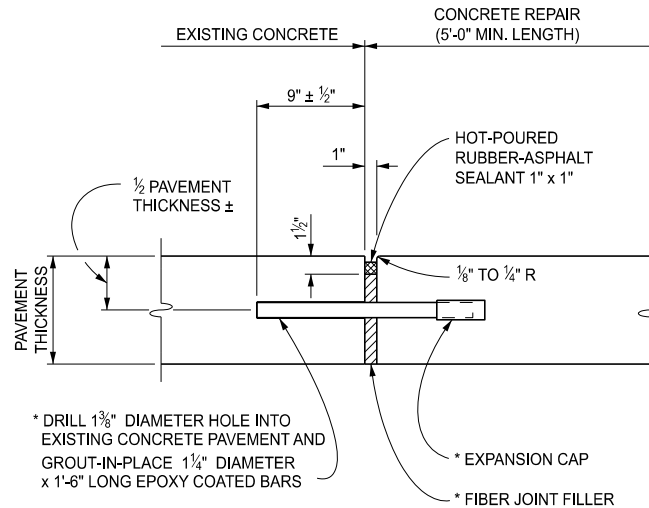
SHEET
2 OF 7



TIED JOINT, Trg



CONTRACTION JOINT, Crg



EXPANSION JOINT, Erg

* SEE SHEET 4 OF 7 FOR BAR SPACING
AND SHEET 7 OF 7 FOR NOTES.

CAST-IN-PLACE REPAIR JOINTS USING GROUTED DOWEL OR DEFORMED BARS



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

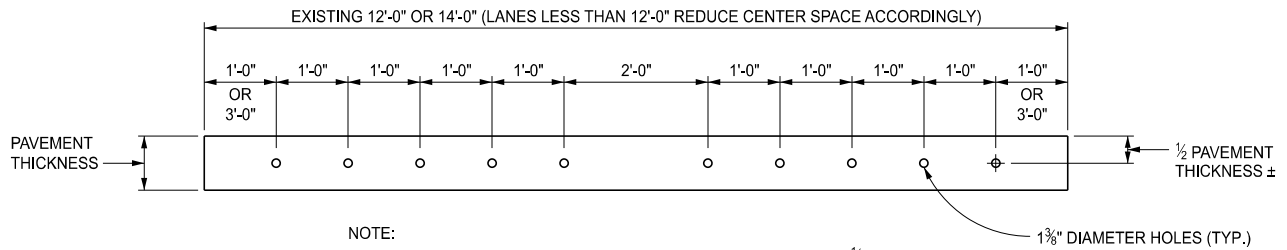
STANDARD PLAN FOR CONCRETE PAVEMENT REPAIR

(SPECIAL DETAIL)
FHWA APPROVAL

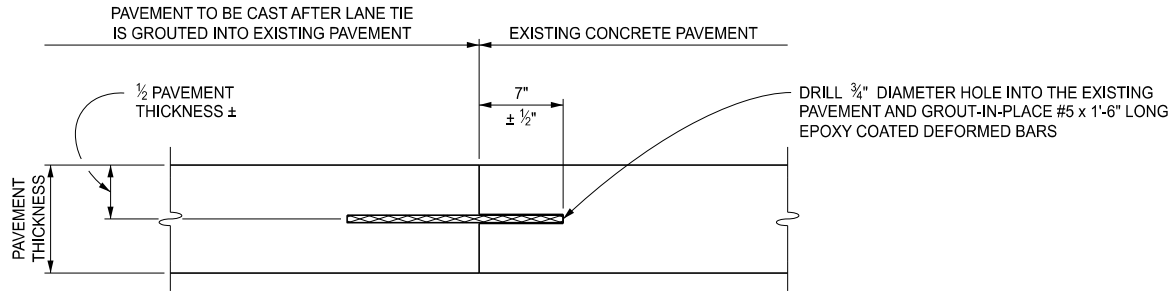
01/07/2025
PLAN DATE

R-44-G

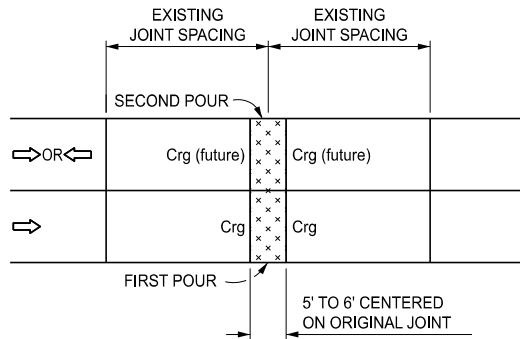
SHEET
3 OF 7



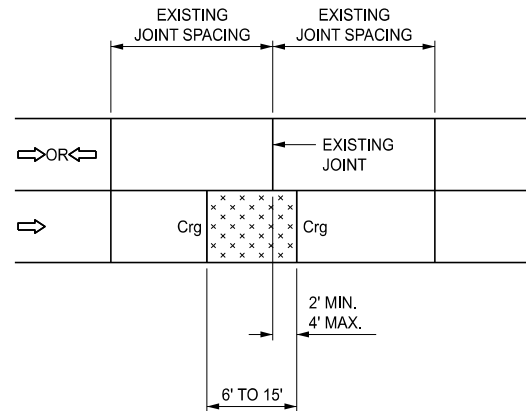
DOWEL OR DEFORMED BAR SPACING FOR CONCRETE REPAIRS



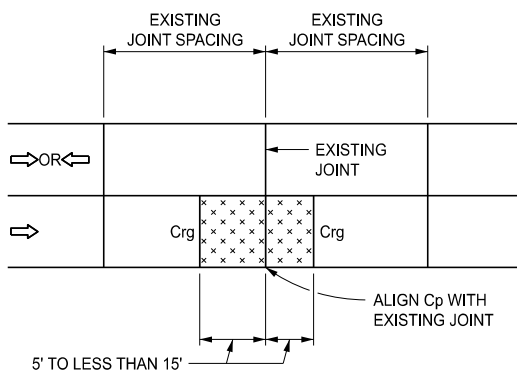
EPOXY ANCHORED LANE TIE



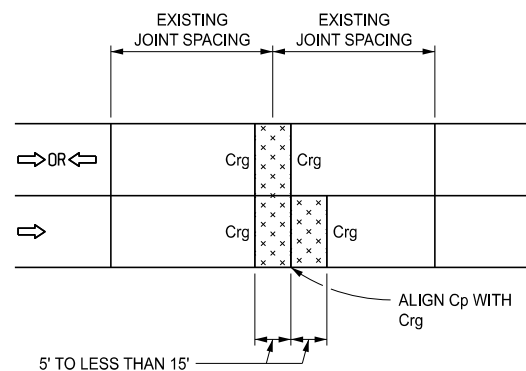
SINGLE LANE OR FULL WIDTH REPAIR



REPAIR LENGTH 6' - 15' WITH ONE JOINT NEAR AN EXISTING JOINT (SINGLE LANE REPAIR)



REPAIR LENGTHS OVER 15' WITH Cp JOINT (SINGLE LANE REPAIR)



OFFSETTING LANE REPAIRS WITH Cp JOINT



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

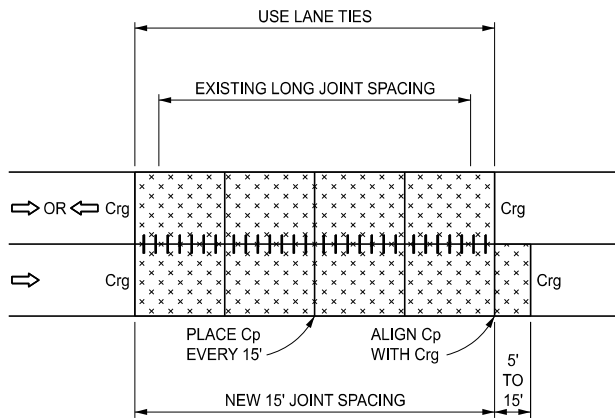
STANDARD PLAN FOR CONCRETE PAVEMENT REPAIR

(SPECIAL DETAIL)
FHWA APPROVAL

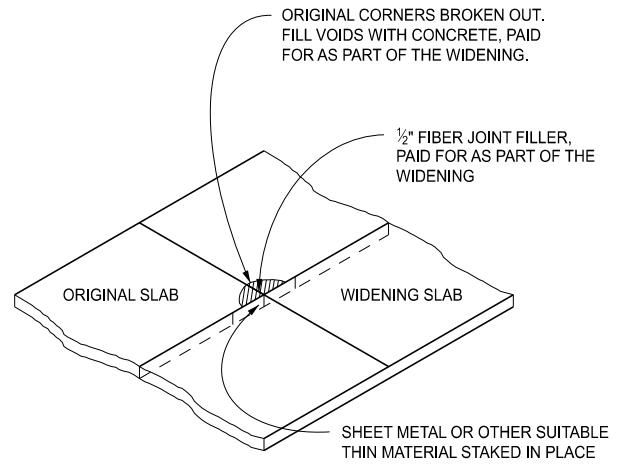
01/07/2025
PLAN DATE

R-44-G

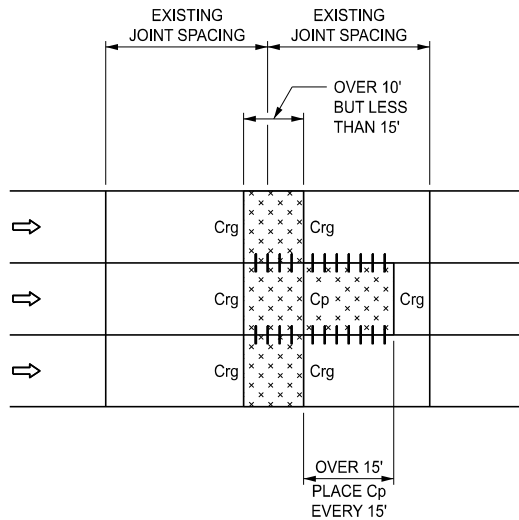
SHEET
4 OF 7



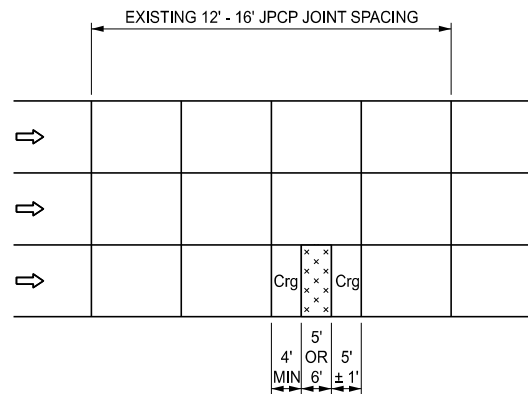
LONG REPAIR SHOWING
Cp JOINT ALIGNMENTS AND LANE TIES



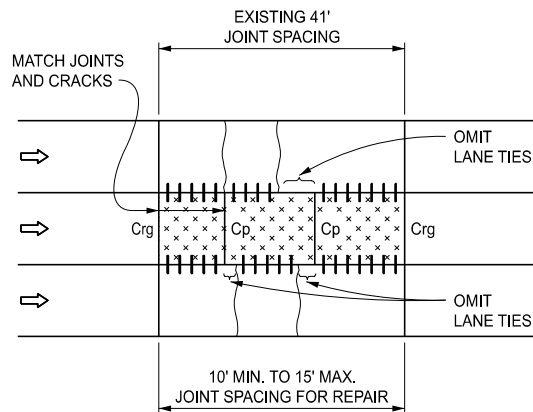
JOINT PATCH ADJACENT TO WIDENING SLAB



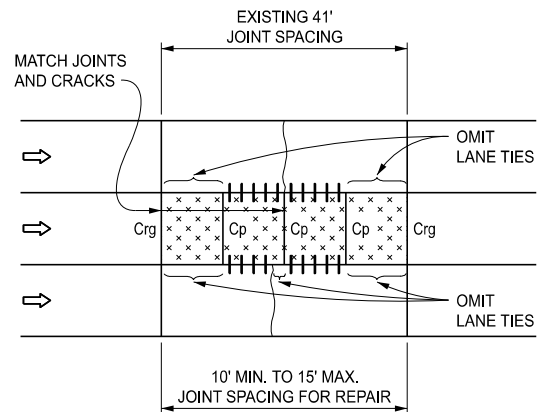
FULL WIDTH MULTI-LANE REPAIRS
WITH OFFSET IN ONE LANE



REPAIR OF 12' - 16' JPCP WITH
ONLY ONE MID-PANEL CRACK
(IF THE PANEL HAS MORE THAN ONE MID-PANEL CRACK
OR IF THE JOINT SPACING IS 12' REPLACE ENTIRE PANEL)
(SINGLE LANE OR FULL WIDTH REPAIR)



TWO CRACK PANEL REPAIR



MID PANEL CRACK REPAIR



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

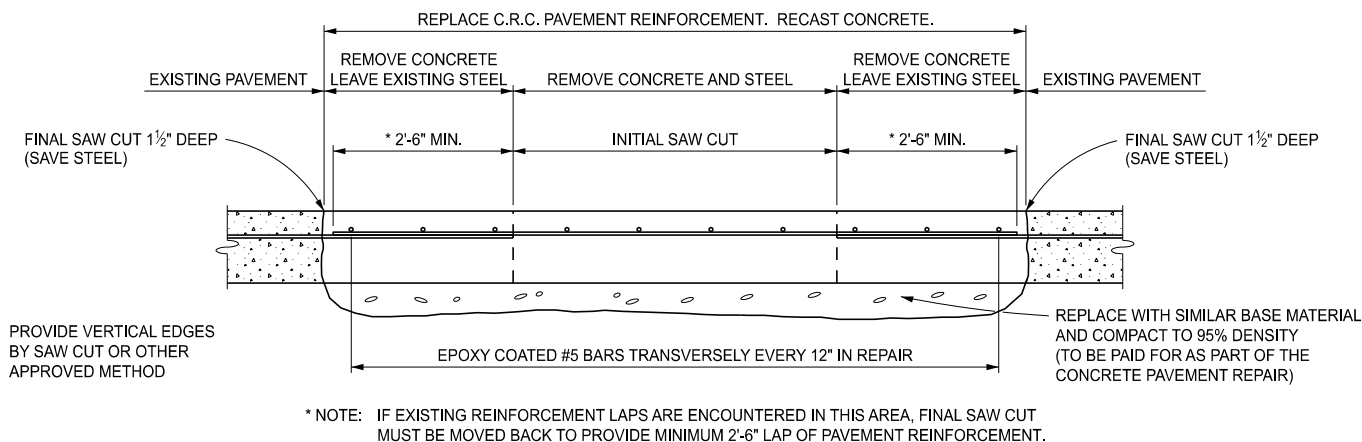
STANDARD PLAN FOR
CONCRETE PAVEMENT REPAIR

(SPECIAL DETAIL)
FHWA APPROVAL

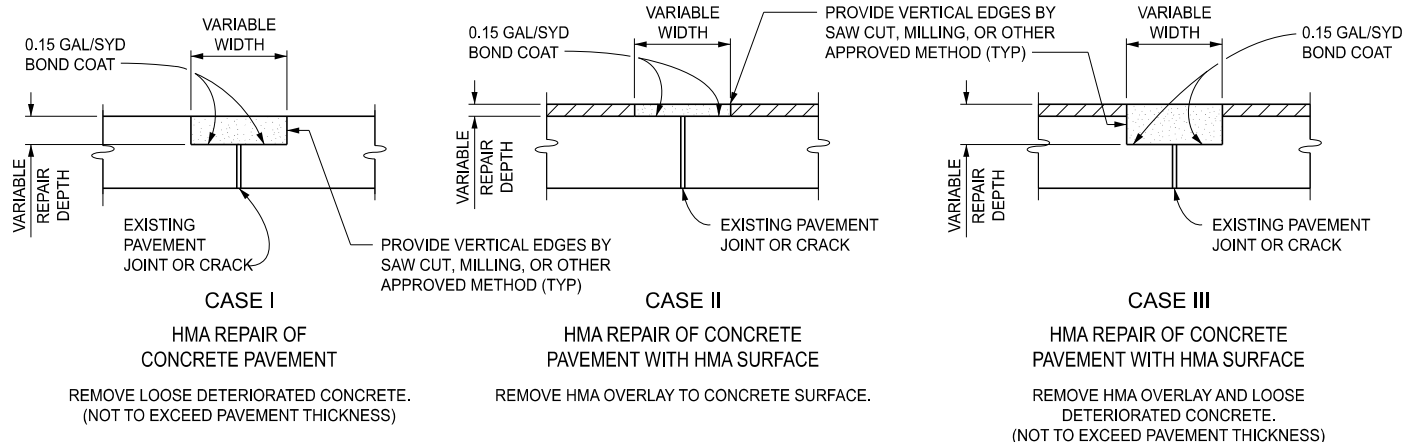
01/07/2025
PLAN DATE

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SHEET
5 OF 7



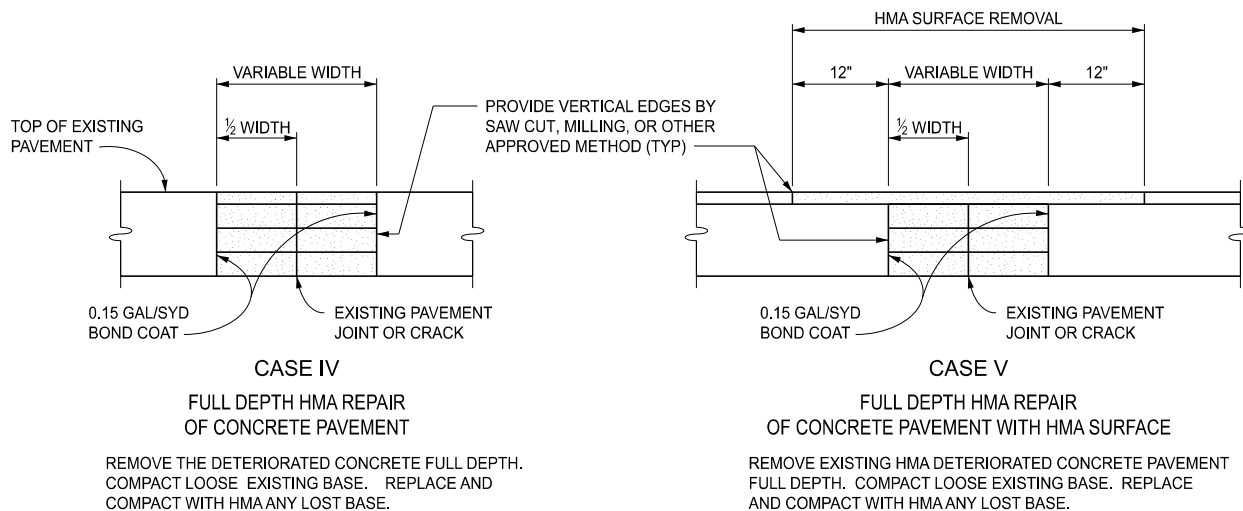
REPAIRING CONTINUOUSLY REINFORCED CONCRETE



FOR CASES I, II, & III, THE REMOVED MATERIAL SHALL BE REPLACED WITH A HMA TOP COURSE MIXTURE, OR OTHER APPROVED MIXTURE. THE HMA SHALL BE COMPACTED WITH A MACHINE VIBRATOR OR APPROVED ROLLER WITH BASE LIFT THICKNESSES NOT TO EXCEED 3" AND WITH THE TOP LIFT THICKNESS NOT TO EXCEED 2". THE FINAL SURFACE OF THE REPAIR SHALL BE FLUSH WITH THE EXISTING PAVEMENT SURFACE.

SURFACE REPAIR FOR JOINT OR CRACK (TRANSVERSE OR LONGITUDINAL)

DETAIL
7



FOR CASES IV, & V, THE REMOVED MATERIAL SHALL BE REPLACED WITH A HMA TOP COURSE MIXTURE, OR OTHER APPROVED MIXTURE. THE HMA SHALL BE COMPACTED WITH A MACHINE VIBRATOR OR APPROVED ROLLER WITH BASE LIFT THICKNESSES NOT TO EXCEED 3" AND WITH THE TOP LIFT THICKNESS NOT TO EXCEED 2". THE FINAL SURFACE OF THE REPAIR SHALL BE FLUSH WITH THE EXISTING PAVEMENT SURFACE.

FULL DEPTH REPAIR FOR JOINT OR CRACK (TRANSVERSE OR LONGITUDINAL)

DETAIL
8



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

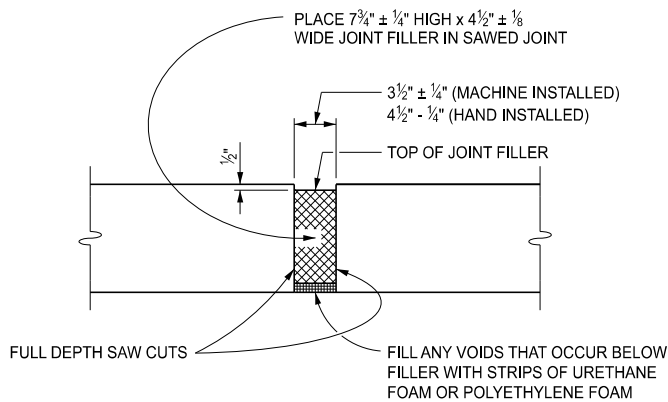
STANDARD PLAN FOR CONCRETE PAVEMENT REPAIR

(SPECIAL DETAIL)
FHWA APPROVAL

01/07/2025
PLAN DATE

R-44-G

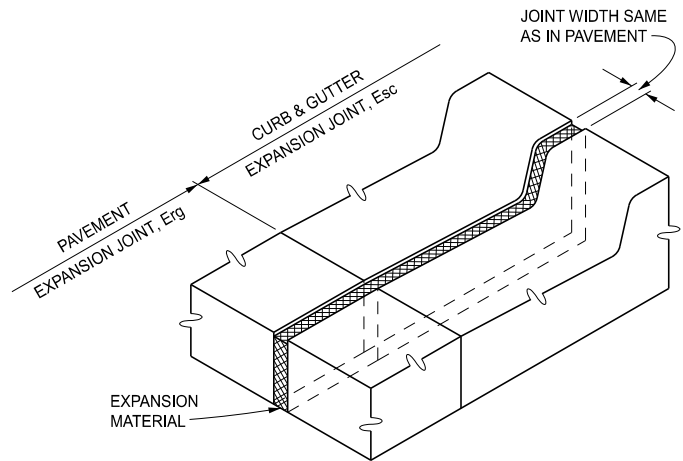
SHEET
6 OF 7



NOTES:
WHEN PRESSURE RELIEF JOINT IS TO BE CONSTRUCTED THROUGH CONCRETE SHOULDER, TRENCHING BELOW CONCRETE MAY BE NECESSARY TO ALLOW ROOM FOR 7 1/4" FILLER.

PRESSURE RELIEF JOINT

THIS DETAIL ALSO APPLIES TO HMA SURFACED CONCRETE PAVEMENT REQUIRING PRESSURE RELIEF JOINTS



CURB, GUTTER, AND CURB FACE SHALL BE SAWED AS DEEP AS THE EXISTING PAVEMENT THICKNESS. THE REMAINING CONCRETE SHALL BE CHIPPED OUT AND EXPANSION MATERIAL OF SUFFICIENT THICKNESS SHALL BE PLACED IN SAWED JOINT TO FILL THE GAP AS DIRECTED BY THE ENGINEER.

EXPANSION JOINT, Esc

NOTES:

CONCRETE PAVEMENT REPAIRS (INCLUDING JOINT TYPES) OR PRESSURE RELIEF DETAILS SHALL BE AS SPECIFIED ON THE PLANS OR IN THE LOG OF PROJECT.

IF THE EXISTING PAVEMENT HAS A HMA SURFACE, THE SAW CUTS SHALL EXTEND THROUGH THE UNDERLYING PORTLAND CEMENT CONCRETE.

SAW OVERCUTS IN ADJACENT LANE, SHOULDER, RAMP, AND GUTTERS THAT WILL REMAIN IN PLACE, SHALL BE CLEANED AND THEN SEALED WITH HOT-POURED RUBBER-ASPHALT.

WHEN THE CONCRETE PAVEMENT REPAIR IS CONSTRUCTED IN PREPARATION FOR AN OVERLAY, Crg JOINT RESERVOIRS AND SEALANTS SHALL BE OMITTED AND EXPANSION JOINTS (Erg) SHALL HAVE THE FIBER JOINT FILLER KEPT FLUSH TO THE PAVEMENT SURFACE.

EXPANSION CAPS SHALL BE ACCORDING TO STANDARD PLAN R-40-SERIES.

TRANSVERSE CONTRACTION Cp AND EXPANSION E2 JOINTS SHALL BE ACCORDING TO STANDARD PLAN R-39-SERIES.

DOWEL AND DEFORMED BARS USED IN Trg, Crg, AND Erg JOINTS SHALL BE EPOXY COATED ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS.

DOWEL BARS AND DEFORMED BARS FOR TIED JOINTS SHALL BE GROUTED INTO EXISTING PAVEMENT WITH A GROUT SELECTED FROM THE PREQUALIFIED MATERIALS LISTED IN THE DEPARTMENT'S "MATERIALS SOURCE GUIDE" UNDER ADHESIVE SYSTEMS FOR GROUTING DOWEL BARS AND TIE BARS FOR FULL-DEPTH CONCRETE PAVEMENT REPAIRS.

THE BACKER ROD SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

THE SAME TYPE JOINT SHALL EXTEND ACROSS ADJACENT LANE REPAIRS.

AFTER GROUTING IN-PLACE, RC-250 OR AN APPROVED BOND BREAKER SHALL BE APPLIED TO THAT PORTION OF Crg AND Erg DOWEL BARS THAT EXTEND INTO THE CAST CONCRETE.

REPAIRED CONCRETE PAVEMENTS REQUIRE THAT 1" OF Erg EXPANSION JOINTS BE DISTRIBUTED THROUGHOUT A GIVEN 1000' SECTION.

WHERE THERE ARE NO REPAIR LOCATIONS WITHIN A 1000' LENGTH, NO EXPANSION SPACE WILL BE PROVIDED.

EXPANSION JOINT FILLER SHALL EXTEND THE FULL DEPTH OF THE REPAIR AND BE FLUSH WITH THE EXISTING PAVEMENT SURFACE. PRIOR TO SEALING, THE JOINT FIBER FILLER AT THE PAVEMENT SURFACE SHALL BE REMOVED BY CUTTING 1" WIDE AND 1 1/2" DEEP TO PERMIT THE PLACEMENT OF THE HOT-POURED RUBBER ASPHALT SEALANT. HOLES IN EXPANSION JOINT FILLER SHALL BE 1 1/2" MAXIMUM DIAMETER AND SHALL BE ALIGNED TO FIT DRILLED HOLES IN CONCRETE.

Erg JOINTS SHALL BE CONSTRUCTED ONLY WHEN THEY EXTEND ACROSS ALL LANES, RAMP, OR SHOULDERS.

WHEN Erg JOINTS ARE PLACED ADJACENT TO CONCRETE CURB AND GUTTER THAT IS NOT REQUIRED TO BE REMOVED, AN Esc JOINT SHALL BE CONSTRUCTED IN THE CURB AND GUTTER.

JOINT RESERVOIRS FOR THE HOT-POURED RUBBER-ASPHALT SEALANT SHALL BE ABRASIVE BLAST CLEANED, FOLLOWED BY A FINAL CLEANING OF OIL-FREE COMPRESSED AIR PRIOR TO SEALING.

LANE TIES (TO ADJACENT PAVEMENT LANE, WHEN REQUIRED) SHALL BE SPACED ACCORDING TO STANDARD PLAN R-41-SERIES, EXCEPT THAT THE FIRST LANE TIE ADJACENT TO A TRANSVERSE JOINT SHALL BE INSTALLED AT A DISTANCE OF 1'-8" FROM THE JOINT. WHEN BOTH SIDES OF A LONGITUDINAL JOINT ARE POURED INTEGRALLY, LANE TIES SHALL BE STRAIGHT DEFORMED EPOXY COATED BARS CAST-IN-PLACE AS SPECIFIED ON STANDARD PLAN R-41-SERIES. WHEN ADJACENT LANES ARE CAST SEPARATELY, LANE TIES SHALL BE GROUTED-IN-PLACE AS SPECIFIED ON THIS PLAN. THE GROUT SHALL BE SELECTED FROM THE PREQUALIFIED MATERIALS LISTED IN THE DEPARTMENT'S "MATERIALS SOURCE GUIDE", UNDER LANE TIES.

THE MONTH AND YEAR OF CASTING AND STATION NUMBER (IF REMOVED) SHALL BE STENCILED ON EACH CONCRETE REPAIR.

ALL REPAIRS WILL BE JOINTED PLAIN CONCRETE PAVEMENT.



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR CONCRETE PAVEMENT REPAIR

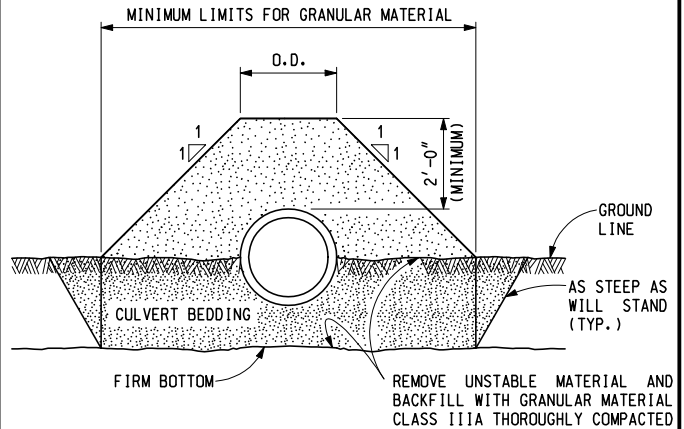
(SPECIAL DETAIL)
FHWA APPROVAL

01/07/2025
PLAN DATE

R-44-G

SHEET
7 OF 7

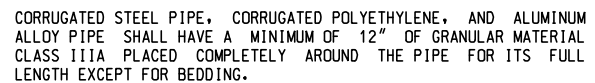
EMBANKMENT BETWEEN GROUND LINE AND 2'-0" MINIMUM ABOVE TOP OF PIPE CULVERT SHALL CONSIST OF GRANULAR MATERIAL CLASS IIIA COMPACTED TO 95% OF ITS MAXIMUM UNIT WEIGHT. THE MATERIAL SHALL BE DEPOSITED AND COMPACTED IN LAYERS NOT MORE THAN 10" IN THICKNESS.



NOTE:
PLACE AND COMPACT CULVERT BEDDING TO THE LEVEL OF $\frac{1}{4}$ THE DIAMETER OF THE PIPE CULVERT AND THEN EXCAVATE AND SHAPE A TRENCH TO FIT THE PIPE. AFTER PLACING CULVERT, CONTINUE FILLING WITH CULVERT BEDDING TO GROUND LINE.

CROSS-SECTION SHOWING CULVERT INSTALLATION IN UNSTABLE SOIL

NOTES:



UNSTABLE SOIL IS SOIL TOO SOFT OR SPONGY TO PROVIDE A FIRM BED FOR THE PIPE CULVERT.

PIPE CULVERTS IN CUT SECTIONS SHALL BE PLACED ACCORDING TO THE DETAILS SPECIFIED ON STANDARD PLAN R-83-SERIES.

WHEN AN END SECTION IS USED IN LIEU OF A HEADWALL, A STABLE FOUNDATION SHALL BE PROVIDED FOR THE END SECTION COMPARABLE TO THAT PROVIDED BY THE CULVERT.

WHEN BELL AND SPIGOT PIPE IS USED IN A ROCK TRENCH, A MINIMUM OF 4" OF CULVERT BEDDING WILL BE REQUIRED UNDER THE BELL.

CROSS-SECTION SHOWING CULVERT INSTALLATION IN ROCK



Calvin Roberts
ENGINEER OF MAINTENANCE

James D. Culp
ENGINEER OF TRAFFIC AND SAFETY

ENGINEER OF TRAFFIC AND SAFETY

DEPARTMENT DIRECTOR
Gloria J. Jeff

J.H. Plesch
ENGINEER OF DEVELOPMENT

BEDDING AND FILLING AROUND PIPE CULVERTS

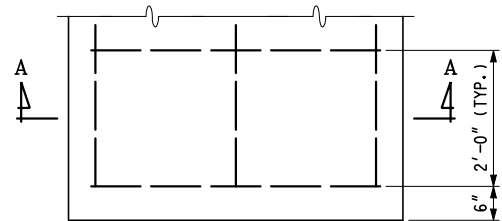
SHEET

PLAN DATE

1 OF 2

Diagram illustrating the standard manhole construction details:

- Top width: O.D.
- Side slopes: 1:1
- Height from ground line to top: 2' - 0" (MINIMUM)
- Ground Line
- Opening diameter: O.D.
- Foundation width: 4" (each side)
- Foundation label: FULL BEARING
- Distance from center to edge: O.D. / 2
- Label: DESIRABLE MIN.



#6 BAR (TYP.)
LENGTH AS REQUIRED

#6 BAR
LENGTH = 1.5 OUTSIDE DIAMETER

O.D./12
(2" MIN.)

4"

0.0 D./2

4"

0.0 D./4

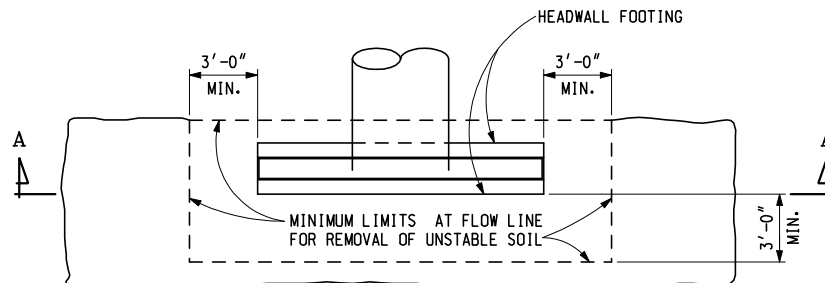
1.0 D./4

0.0 D./4

0.0 D. + 8"

INSIDE DIAMETER OF PIPE	OUTSIDE DIAMETER OF PIPE	CYD CONCRETE PER LFT	LBS STEEL PER LFT
18"	1.916'	0.061	9.7
24"	2.500'	0.096	10.3
30"	3.083'	0.140	11.0
36"	3.667'	0.191	11.6
42"	4.250'	0.250	12.3

CULVERT INSTALLATION WITH CONCRETE CRADLE

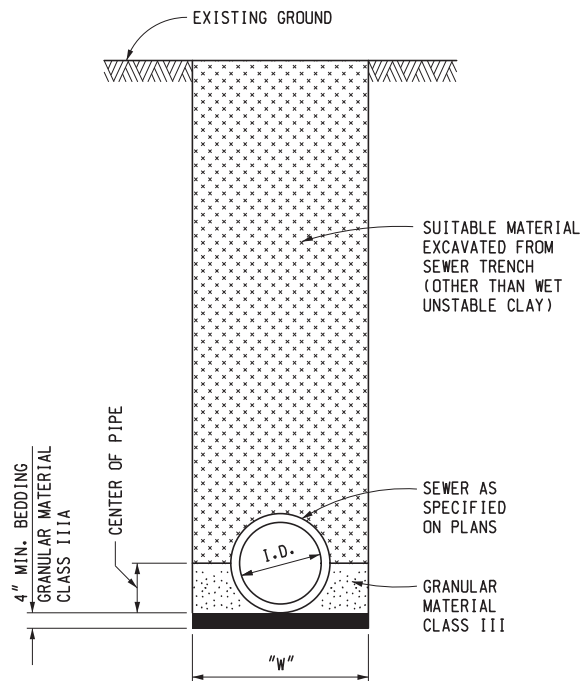


NOTE:
THE TRENCH FOR THE CURTAIN WALL SHALL BE
EXCAVATED AFTER THE GRANULAR MATERIAL
CLASS II IS PLACED AND COMPACTED TO THE
ELEVATION OF THE TOP OF THE CURTAIN WALL.

CULVERT HEADWALL INSTALLATION IN UNSTABLE SOIL

BEDDING AND FILLING AROUND PIPE CULVERTS

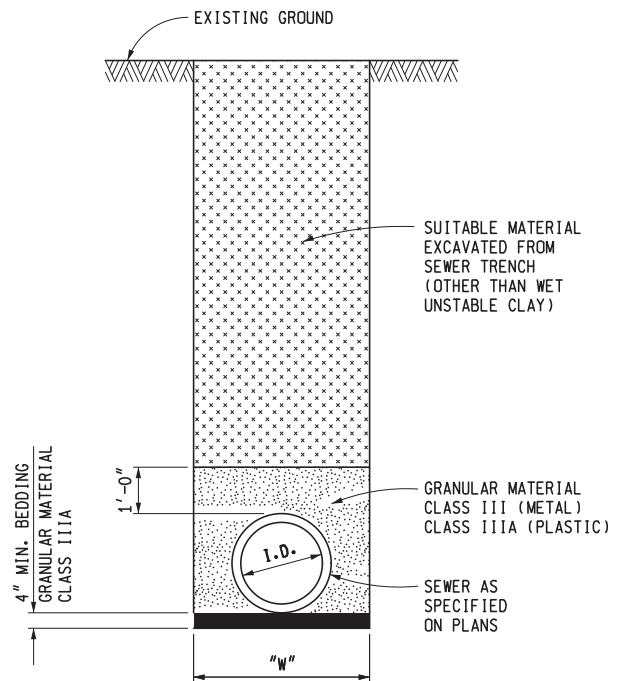
SHEET
2 OF 2



SEWER NOT UNDER ROADBED CONCRETE

NOTE: FOR "W" SEE NOTES ON SHEET 5

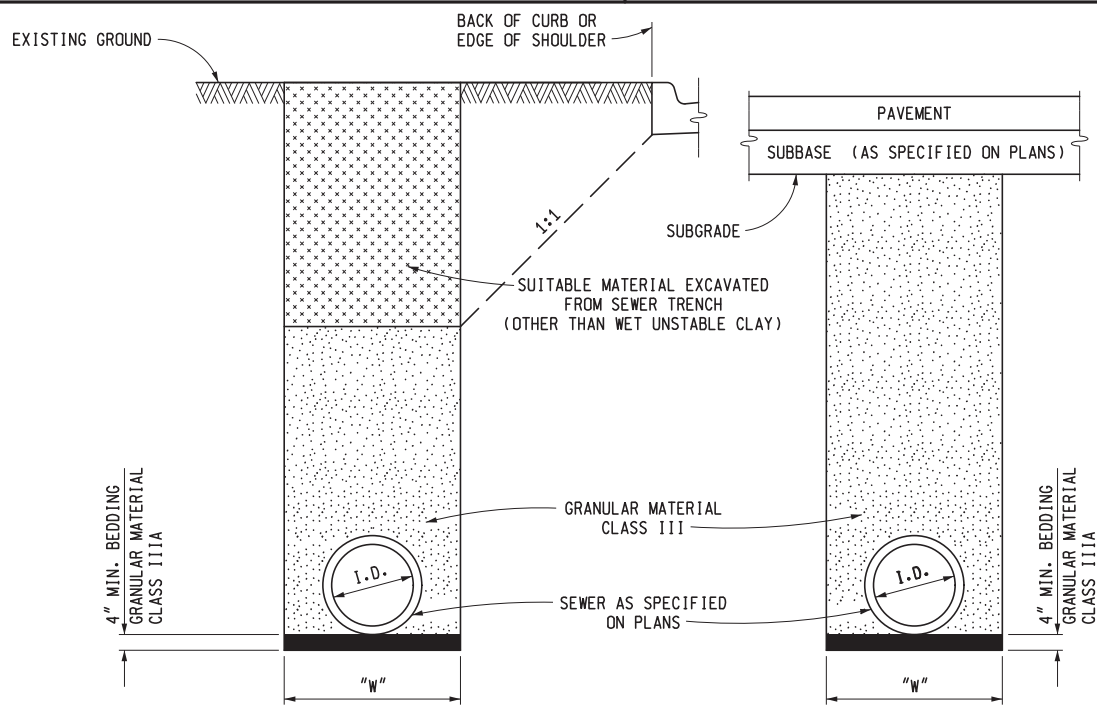
A1



SEWER NOT UNDER ROADBED METAL & PLASTIC

NOTE: FOR "W" SEE NOTES ON SHEET 5

A2



SEWER UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED CONCRETE & METAL PIPE

B1



PREPARED
BY
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Kirk T. Steudle

APPROVED BY: Kimberly Avery
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Bradley C. Wieferich
DIRECTOR, BUREAU OF DEVELOPMENT

Digitally signed by Kimberly Avery
DN: cn=Kimberly Avery, o=MDOT,
ou=Bureau of Field Services,
email=averyk@michigan.gov, c=US
Date: 2016.12.15 09:03:17 -0500

Digitally signed by Bradley C. Wieferich
DN: cn=Bradley C. Wieferich, o=Michigan
Department of Transportation, ou=Design
Division, email=wieferichb@michigan.gov, c=US
Date: 2016.12.15 09:05:44 -0500

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

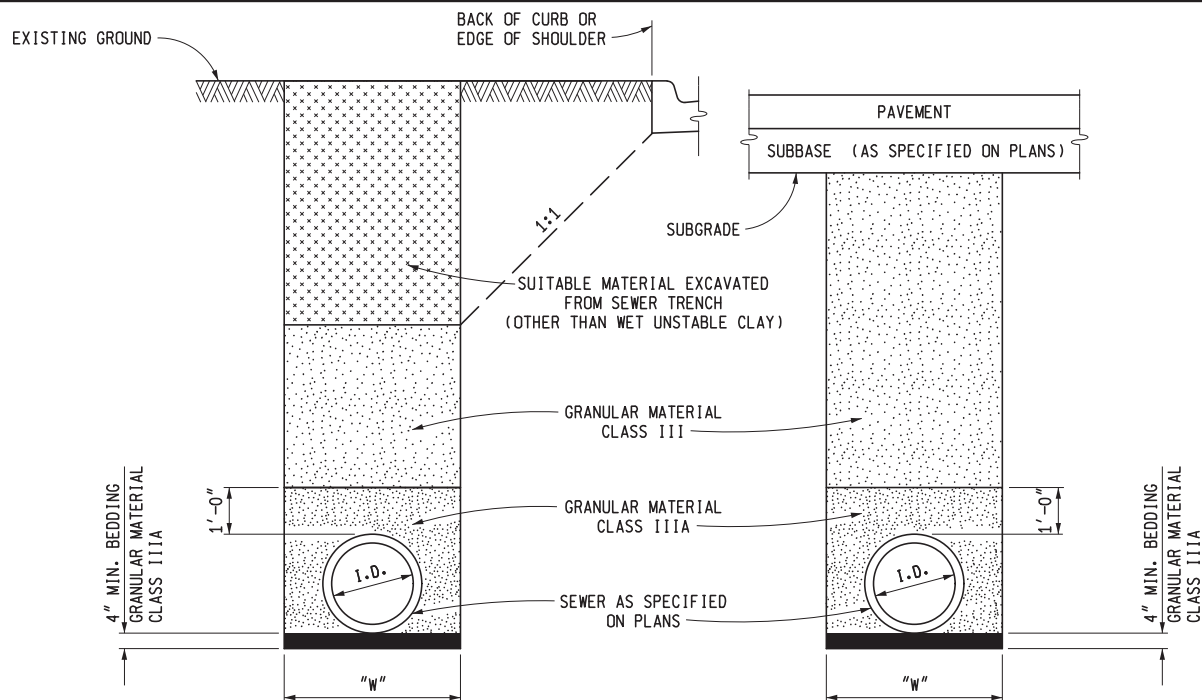
UTILITY TRENCHES

7-25-2017
F.H.W.A. APPROVAL

2-8-2016
PLAN DATE

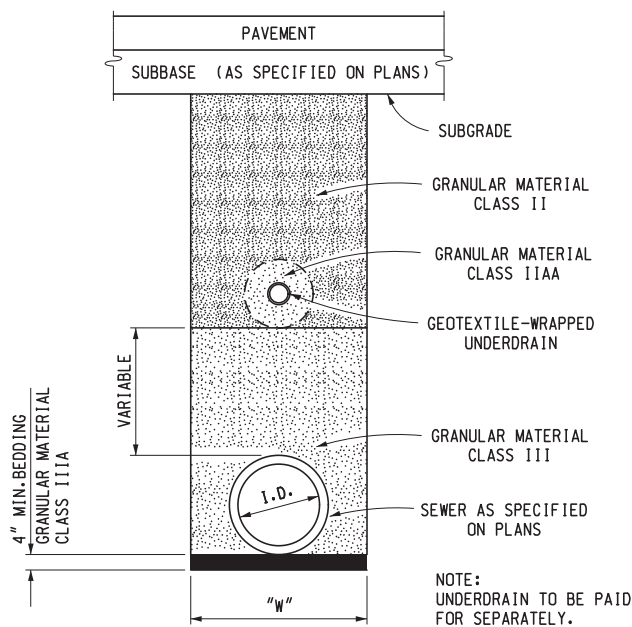
R-83-C

SHEET
1 OF 5



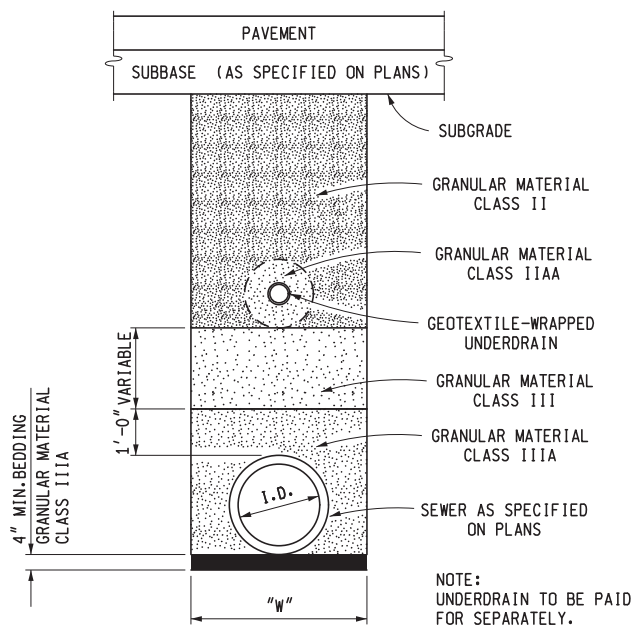
**SEWER UNDER ROADBED OR
WITHIN INFLUENCE OF ROADBED
PLASTIC PIPE**

B2



**SEWER WITH UNDERDRAIN UNDER ROADBED
CONCRETE & METAL PIPE**

C1



**SEWER WITH UNDERDRAIN UNDER ROADBED
PLASTIC PIPE**

C2

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

UTILITY TRENCHES

7-25-2017
F.H.W.A. APPROVAL

2-8-2016
PLAN DATE

R-83-C

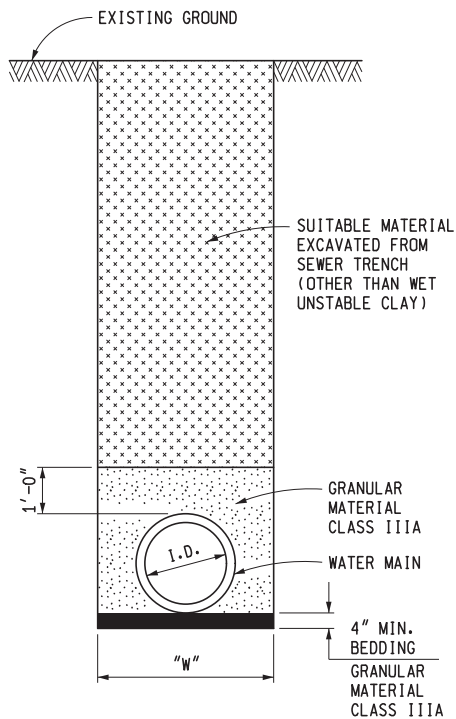
SHEET
2 OF 5



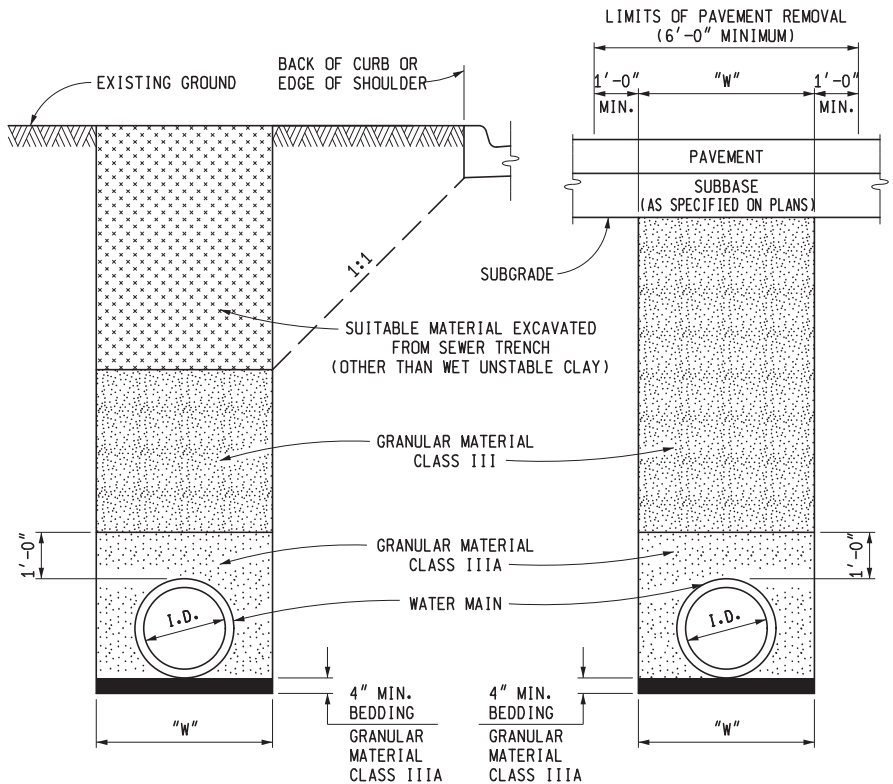
SEWER WITH UNDERDRAIN UNDER ROADBED PLASTIC PIPE (FOR SHALLOW SEWERS)

E

7-25-2017 F.H.W.A. APPROVAL	2-8-2016 PLAN DATE	R-83-C	SHEET 3 OF 5
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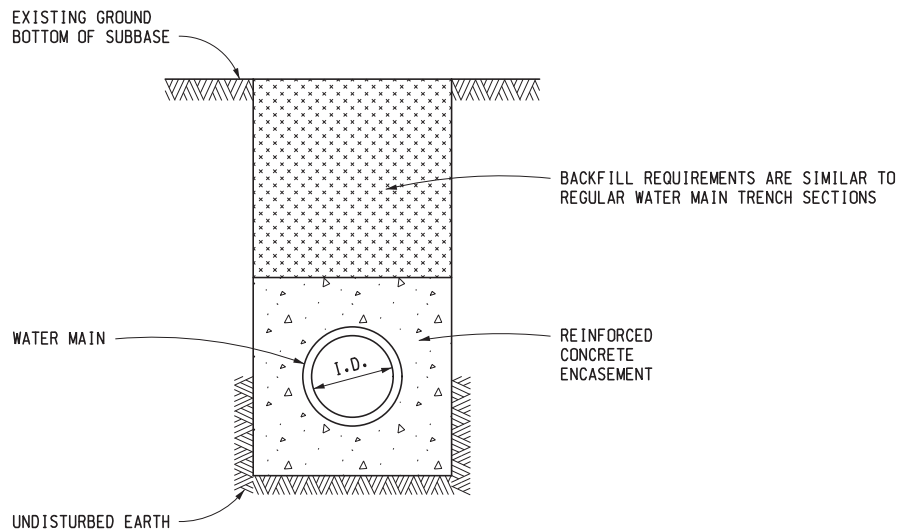


**WATER MAINS
NOT UNDER ROADBED** F



NOTE: WHEN WATER MAIN IS PLACED IN PROPOSED ROADBED AREA, IT SHALL BE BACKFILLED WITH SELECTED EXCAVATION MATERIAL ABOVE FUTURE SUBGRADE TO EXISTING GROUND LINE.

**WATER MAINS UNDER ROADBED
OR WITHIN INFLUENCE OF ROADBED** G



NOTE:
REINFORCEMENT SHALL BE AS SPECIFIED ON PLANS.

WATER MAINS IN REINFORCED CONCRETE ENCASEMENT H

**REQUIRED ENCASEMENT
SIZE FOR RESPECTIVE
PIPE SIZES**

DIAMETER OF PIPE	ENCASEMENT SIZE AND TRENCH WIDTH
6" - 12"	3'-0"
16"	3'-6"
24"	4'-6"
30"	5'-0"
36"	5'-6"
42"	6'-0"
48"	7'-0"
54"	7'-6"
60"	8'-0"
66"	8'-6"
72"	9'-0"

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

UTILITY TRENCHES

7-25-2017
F.H.W.A. APPROVAL

2-8-2016
PLAN DATE

R-83-C

SHEET
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NOTES:

BACKFILLING SHALL BE ACCORDING TO THE STANDARD SPECIFICATION.

SUFFICIENT TRENCH WIDTH SHALL BE PROVIDED TO ALLOW FREE WORKING SPACE AND TO PERMIT COMPACTING THE BACKFILL AROUND THE PIPE.

THE FOLLOWING ARE MINIMUM TRENCH WIDTHS:

I.D. PIPE SIZE (INCHES)	LESS THAN 18	21	24	30	36
"W" TRENCH WIDTH (FEET)	3.0	3.5	4.0	5.0	6.0

I.D. PIPE SIZE (INCHES)	42	48	54	60	66	72
"W" TRENCH WIDTH (FEET)	7.0	8.0	9.5	10.0	10.5	11.0

I.D. PIPE SIZE (INCHES)	78	84	90	96	102	108
"W" TRENCH WIDTH (FEET)	11.5	12.0	12.5	13.0	13.5	14.0

ESTIMATED PAVEMENT REMOVAL WIDTH IS TO BE TRENCH WIDTH "W" PLUS 1'-0" EACH SIDE OF THE TRENCH (6'-0" MINIMUM).

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

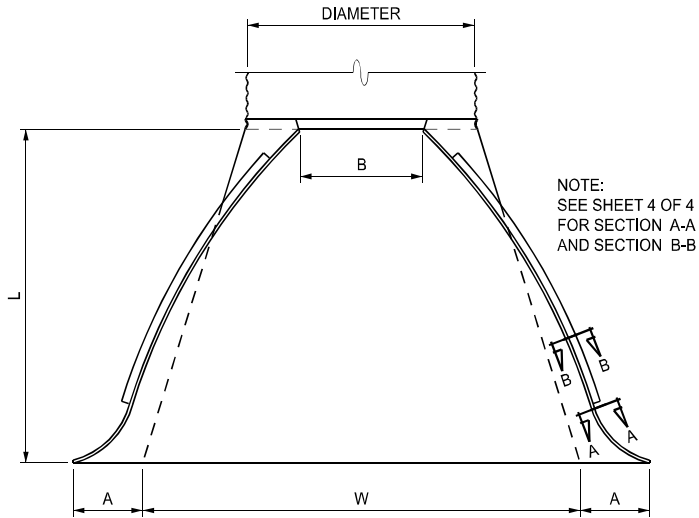
UTILITY TRENCHES

7-25-2017
F.H.W.A. APPROVAL

2-8-2016
PLAN DATE

R-83-C

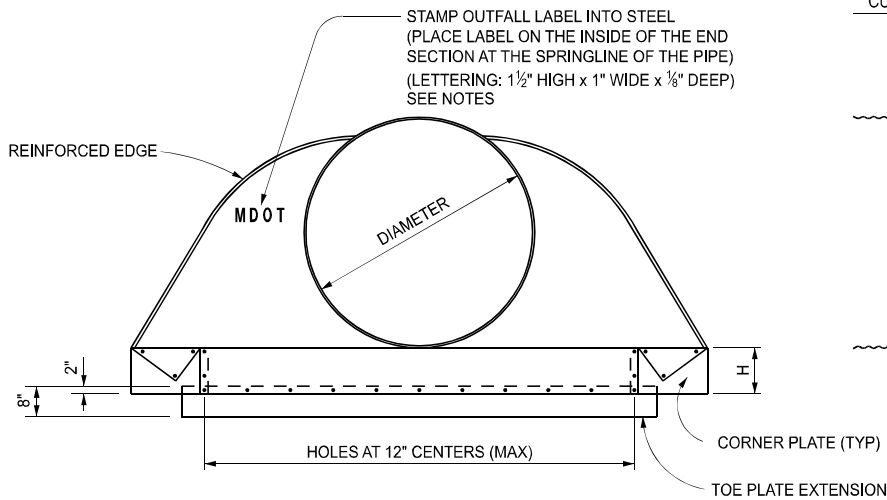
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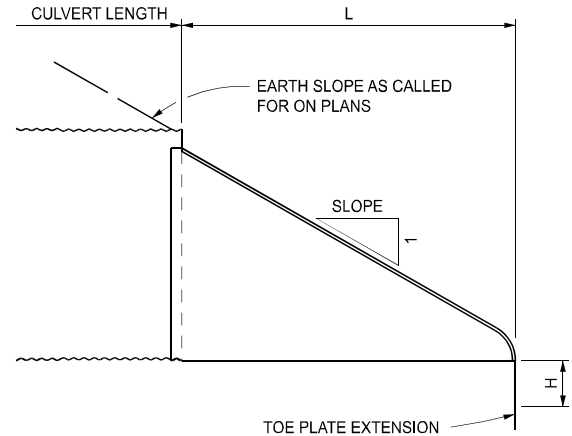
PLAN VIEW

DIMENSIONS								
DIMENSIONS IN INCHES							APPROX SLOPE	BODY
PIPE DIAMETER	MIN. THK.	A ± 1"	B MAX.	H ± 1"	L ± 1½"	W ± 2"		
12	0.064	6	6	6	21	24	2.50	1 Pc
15	0.064	7	8	6	26	30	2.50	1 Pc
18	0.064	8	10	6	31	36	2.50	1 Pc
21	0.064	9	12	6	36	42	2.50	1 Pc
24	0.064	10	13	6	41	48	2.50	1 Pc
30	0.079	12	16	8	51	60	2.50	1 Pc
36	0.079	14	19	9	60	72	2.50	2 Pc
42	0.109	16	22	11	69	84	2.50	2 Pc
48	0.109	18	27	12	78	90	2.25	2 Pc
54	0.109	18	30	12	84	102	2.00	2 Pc
* 60	0.109	18	33	12	87	114	1.75	3 Pc
* 66	0.109	18	36	12	87	120	1.50	3 Pc
* 72	0.109	18	39	12	87	126	1.33	3 Pc
* 78	0.109	18	42	12	87	132	1.25	3 Pc
* 84	0.109	18	45	12	87	138	1.16	3 Pc

* ALL THREE PIECE BODIES HAVE .0109" SIDES AND .0138" CENTER PANELS. ENSURE THE WIDTH OF CENTER PANEL IS GREATER THAN 20% OF THE PIPE PERIPHERY. TIGHTLY JOIN MULTIPLE PANEL BODIES AT LAP SEAMS USING 3/8" DIAMETER GALVANIZED RIVETS OR BOLTS.



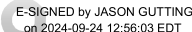
END VIEW

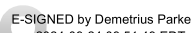


LONGITUDINAL VIEW

NOTE: SEE SHEET 3 FOR CONNECTION DETAILS

STEEL END SECTION FOR CORRUGATED STEEL CIRCULAR PIPE

APPROVED BY: 
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: 
DIRECTOR, BUREAU OF DEVELOPMENT



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

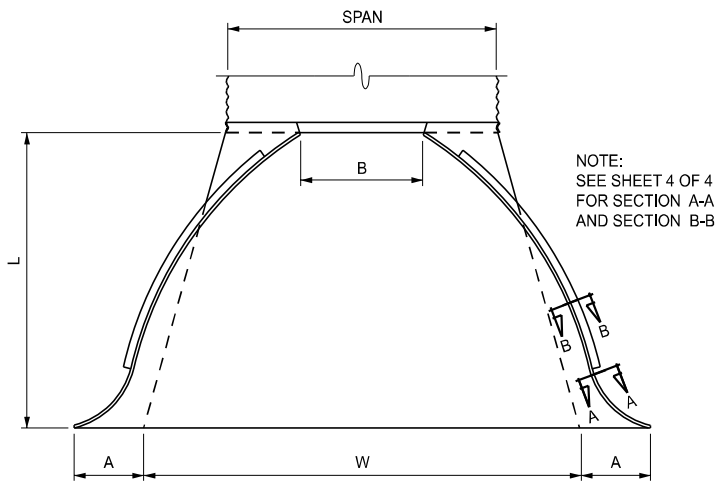
STANDARD PLAN FOR STEEL END SECTION

12/18/2024
FHWA APPROVAL

06/12/2024
PLAN DATE

R-88-E

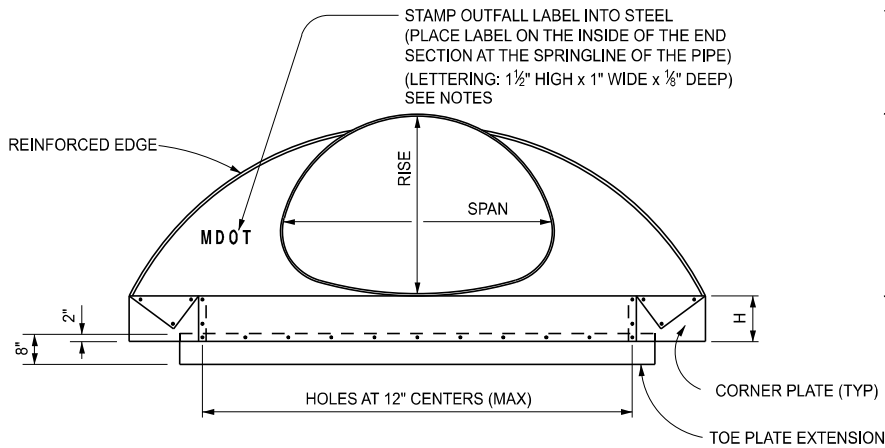
SHEET
1 OF 4



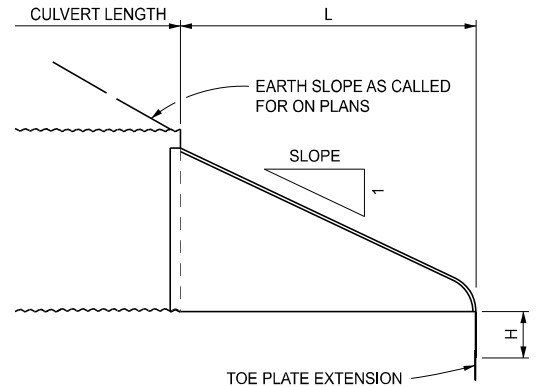
PLAN VIEW

DIMENSIONS								
DIMENSIONS IN INCHES							APPROX SLOPE	BODY
SPAN / RISE	MIN. THK.	A ± 1"	B MAX.	H ± 1"	L ± 1½"	W ± 2"		
17 x 13	0.064	7	9	6	19	30	2.50	1 Pc
21 x 15	0.064	7	10	6	23	36	2.50	1 Pc
24 x 18	0.064	8	12	6	28	42	2.50	1 Pc
28 x 20	0.064	9	14	6	32	48	2.50	1 Pc
35 x 24	0.079	10	16	6	39	60	2.50	1 Pc
42 x 29	0.079	12	18	8	46	75	2.50	1 Pc
49 x 33	0.109	13	21	9	53	85	2.50	2 Pc
57 x 38	0.109	18	26	12	63	90	2.50	2 Pc
64 x 43	0.109	18	30	12	70	102	2.25	2 Pc
* 71 x 47	0.109	18	33	12	77	114	2.25	3 Pc
* 77 x 52	0.109	18	36	12	77	126	2.00	3 Pc
* 83 x 57	0.109	18	39	12	77	138	2.00	3 Pc

* ALL THREE PIECE BODIES HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ENSURE THE WIDTH OF CENTER PANEL IS GREATER THAN 20% OF THE PIPE PERIPHERY. TIGHTLY JOIN MULTIPLE PANEL BODIES AT LAP SEAMS USING 3/8" DIAMETER GALVANIZED RIVETS OR BOLTS.



END VIEW



LONGITUDINAL VIEW

NOTE: SEE SHEET 3 FOR CONNECTION DETAILS

STEEL END SECTION FOR CORRUGATED STEEL PIPE ARCHES



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

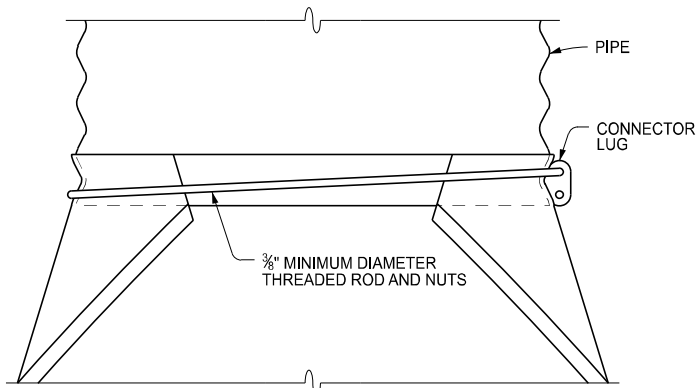
STANDARD PLAN FOR STEEL END SECTION

12/18/2024
FHWA APPROVAL

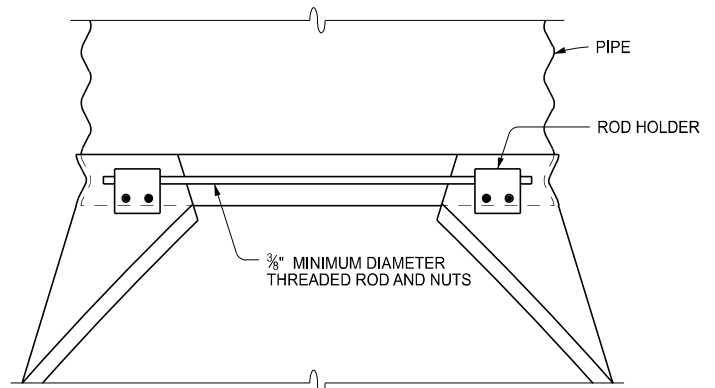
06/12/2024
PLAN DATE

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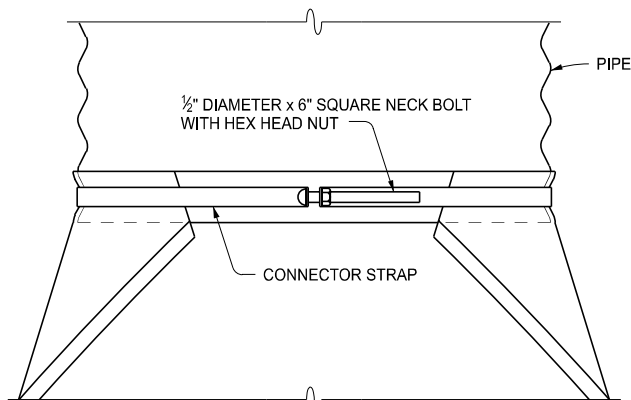
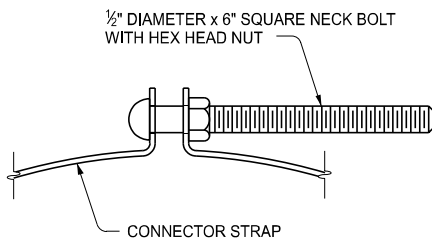
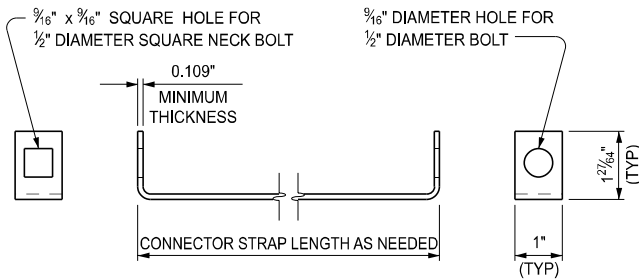
SHEET
2 OF 4



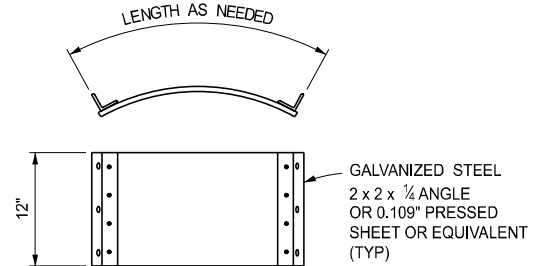
TYPE 1 CONNECTOR
USE ON CIRCULAR PIPE DIAMETERS 12" THROUGH 24"



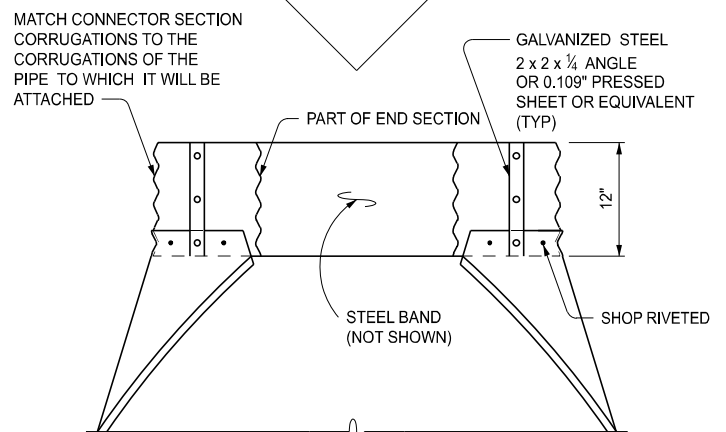
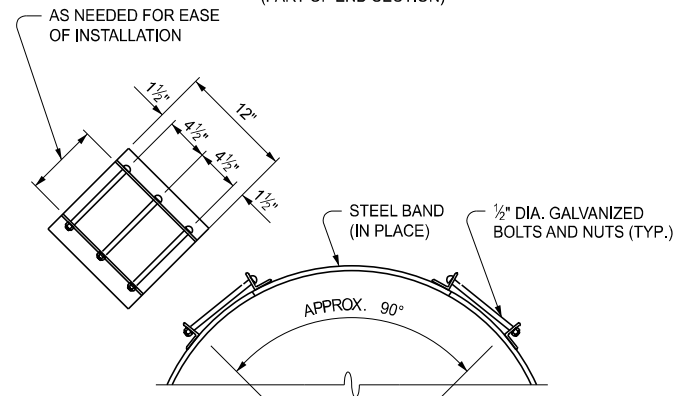
TYPE 2 CONNECTOR
USE ON CIRCULAR PIPE DIAMETERS 30" AND 36"
AND FOR ARCH PIPE SIZES 35" x 24" AND 42" x 29"



TYPE 1A CONNECTOR
USE ON CIRCULAR PIPE DIAMETERS 12" THROUGH 24"
AND FOR ARCH PIPE SIZES 17" x 13" THROUGH 28" x 20"



STEEL BAND
(PART OF END SECTION)



TYPE 3 CONNECTOR
USE ON CIRCULAR PIPE DIAMETERS 42" THROUGH 84"
AND FOR ARCH PIPE SIZES 49" x 33" THROUGH 83" x 57"



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

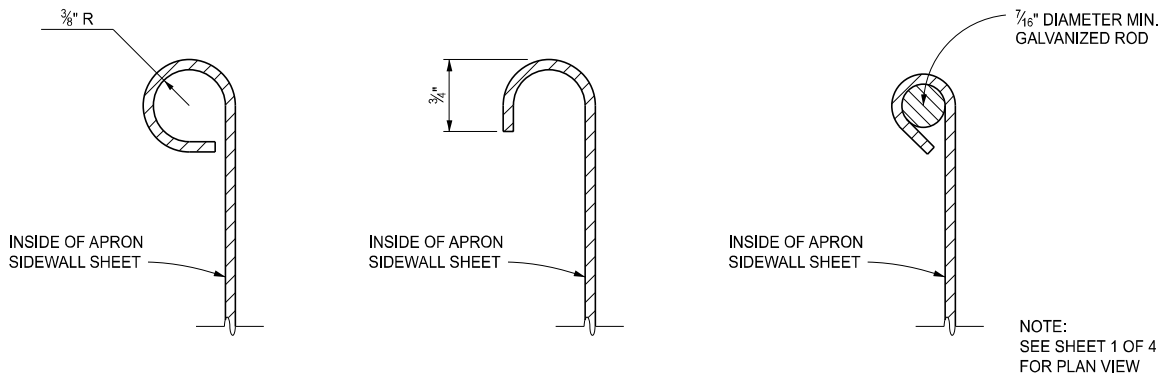
STANDARD PLAN FOR
STEEL END SECTION

12/18/2024
FHWA APPROVAL

06/12/2024
PLAN DATE

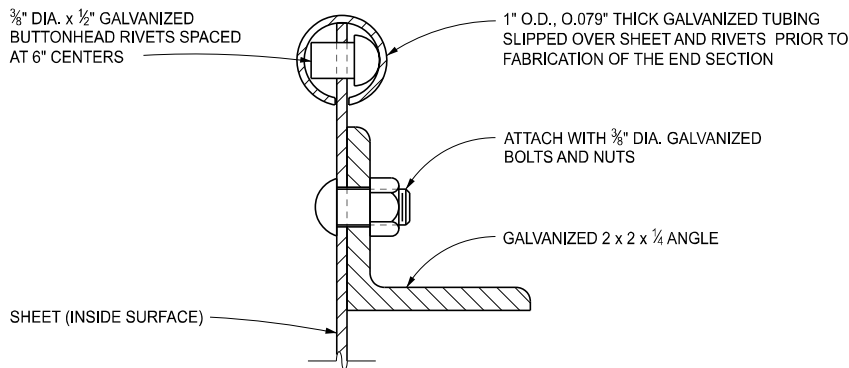
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SECTION A - A

REINFORCED EDGE ALTERNATIVES



SECTION B - B

USE ON CIRCULAR PIPE DIAMETERS 60" THROUGH 84"
AND FOR ARCH PIPE SIZES 77" x 52" AND 83" x 57"

NOTES:

ENSURE GALVANIZED STEEL MEETS THE REQUIREMENTS SPECIFIED IN THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

GALVANIZED TOE PLATE EXTENSIONS ARE REQUIRED ON STEEL END SECTIONS AS FOLLOWS:

1. WHEN INDICATED ON THE PLANS.
2. WHEN AUTHORIZED BY THE ENGINEER.
3. WHEN THE HEIGHT OF FILL IS 10' OR MORE.
4. WHEN THE CULVERT GRADE IS 10% OR MORE.

MATCH PUNCH GALVANIZED TOE PLATE EXTENSIONS TO FIT HOLES IN THE TOE PLATE AND SUPPLY LOOSE, COMPLETE WITH 3/8" DIAMETER GALVANIZED BOLTS. LENGTH OF THE TOE PLATE EXTENSION = W + A (FOR ALL SIZES).

ENSURE ALL CONNECTOR SECTIONS, TOE PLATES EXTENSIONS AND CORNER PLATES ARE GALVANIZED AND MATCH THE THICKNESS OF THE APRON CENTER PANEL.

THE USE OF CONNECTOR TYPES DESIGNATED FOR LARGER CORRUGATED STEEL PIPES WILL BE ALLOWED ON SMALLER CORRUGATED PIPES.

CIRCULAR AND ARCH PIPES SHOWN ON THIS PLAN HAVE 2 2/3" x 1/2" CORRUGATIONS; EQUIVALENT PIPE SIZES WITH 3" x 1" OR 5" x 1" CORRUGATIONS WILL BE ALLOWED.

THE DEPARTMENT WILL ACCEPT ALTERNATE DESIGNS THAT HAVE PRIOR APPROVAL.

USE OUTFALL LABELS ONLY WHERE STORMWATER WILL DISCHARGE DIRECTLY INTO THE WATERS OF THE STATE.



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR STEEL END SECTION

12/18/2024
FHWA APPROVAL

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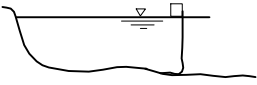
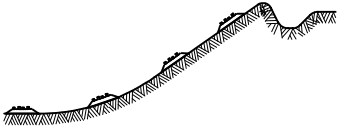
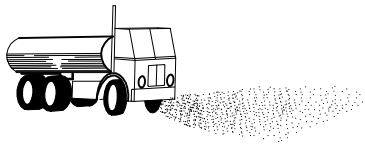
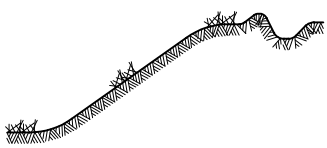
R-88-E

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● APPLICABLE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

(COMPREHENSIVE DETAILS ARE LOCATED IN SECTION 6 OF
THE SOIL EROSION & SEDIMENTATION CONTROL MANUAL)

- A = SLOPES
B = STREAMS AND WATERWAYS
C = SURFACE DRAINAGEWAYS
D = ENCLOSED DRAINAGE (INLET & OUTFALL CONTROL)
E = LARGE FLAT SURFACE AREAS
F = BORROW AND STOCKPILE AREAS
G = DNRE PERMIT MAY BE REQUIRED

KEY	DETAIL	CHARACTERISTICS	A	B	C	D	E	F	G
1	 TURBIDITY CURTAIN	A Turbidity Curtain is used when slack water area is necessary to isolate construction activities from the watercourse. The still water area contains the sediments within the construction limits.		●					
2	 GRUBBING OMITTED	Retains existing root mat which assists in stabilizing slopes. Assists in the revegetation process by providing sprout growth. Reduces sheet flow velocities preventing rilling and gulying. Discourages off-road vehicle use.	●				●		
3	 PERMANENT/TEMPORARY SEEDING	Inexpensive but effective erosion control measure to stabilize flat areas and mild slopes. Permits runoff to infiltrate soil, reducing runoff volumes. Proper preparation of the seed bed, fertilizing, mulching and watering is critical to its success.	●		●		●	●	
4	 DUST CONTROL	Dust control can be accomplished by watering, and/or applying calcium chloride. The disturbed areas should be kept to a minimum. PERMANENT/TEMPORARY SEEDING (KEY 3) should be applied as soon as possible.	●				●	●	
5	 SODDING	Provides immediate vegetative cover such as at spillways and ditch bottoms. Proper preparation of the topsoil, placement of the sod, and watering is critical to its success.	●				●	●	
6	 VEGETATED BUFFER STRIPS	Reduces sheet flow velocities preventing rilling and gulying. Assists in the collection of sediments by filtering runoff. Assists in the establishment of a permanent vegetative cover.	●				●		



PREPARED
BY
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Kirk T. Steudle

APPROVED BY:

ENGINEER OF DELIVERY

APPROVED BY:

ENGINEER OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

SOIL EROSION & SEDIMENTATION CONTROL MEASURES

9-10-2010

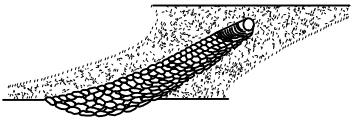
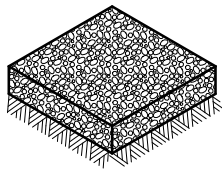
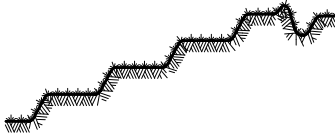
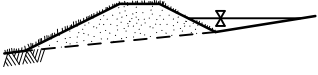
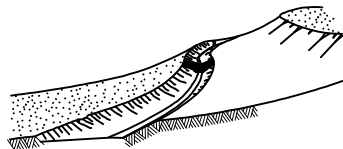
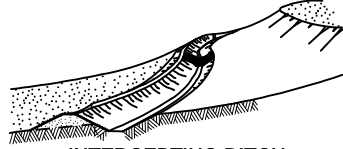
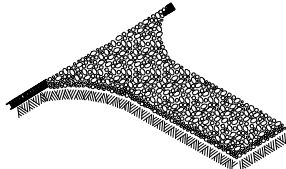
F.H.W.A. APPROVAL

6-3-2010

PLAN DATE

R-96-E

SHEET
1 OF 6

KEY	DETAIL	CHARACTERISTICS	A	B	C	D	E	F	G
7	 RIPRAP	Used where vegetation cannot be established. Very effective in protecting against high velocity flows. Should be placed over a geotextile liner.	•	•	•	•			•
8	 AGGREGATE COVER	Can be used in any area where a stable condition is needed for construction operations, equipment storage or in heavy traffic areas. Reduces potential soil erosion and fugitive dust by stabilizing raw areas.	•				•	•	
9	 BENCHES	Reduces sheet flow velocities preventing rilling and gulying. Assists in the collection and filtering of sediments. Provides access for stabilizing slopes.	•					•	
10	 DIVERSION DIKE	Assists in the diversion of runoff to a stable outlet or sediment control device. Reduces sheet flow velocities preventing rilling and gulying. Collects and diverts runoff to properly stabilized drainage ways. Works well with INTERCEPTING DITCH (KEY 11)	•				•	•	
11	 INTERCEPTING DITCH	Assists in the diversion of runoff to a stable outlet or sediment control device. Reduces sheet flow velocities preventing rilling and gulying. Works well with DIVERSION DIKE (KEY 10)	•				•	•	
12	 INTERCEPTING DITCH AND DIVERSION DIKE	Assists in the diversion of runoff to a stable outlet or sediment control device. Reduces sheet flow velocities preventing rilling and gulying.	•				•	•	
13	 GRAVEL FILTER BERM	Useful in filtering flow prior to its reentry into a lake, stream or wetland. Works well with SEDIMENT TRAP (KEY 20) and TEMPORARY BYPASS CHANNEL (KEY 35). Not to be used in lieu of a CHECK DAM (KEY 37) in a ditch.	•		•			•	
14	 GRAVEL ACCESS APPROACH	Provides a stable access to roadways minimizing fugitive dust and tracking of materials onto public streets and highways.					•	•	

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

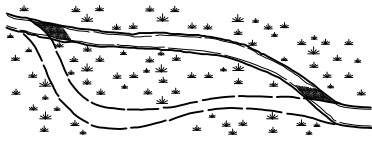
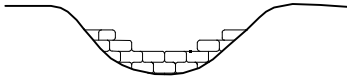
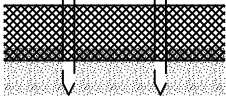
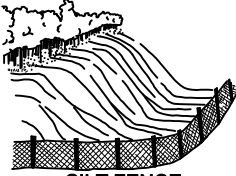
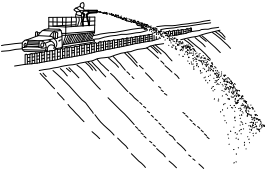
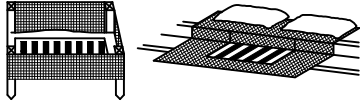
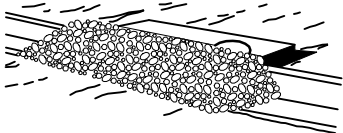
SOIL EROSION & SEDIMENTATION CONTROL MEASURES

9-10-2010
F.H.W.A. APPROVAL

6-3-2010
PLAN DATE

R-96-E

SHEET
2 OF 6

KEY	DETAIL	CHARACTERISTICS	A	B	C	D	E	F	G
23	 STREAM RELOCATION	A detail depicting the proper procedures for stream relocation. Maintains same width, depth, and flow velocity as the natural stream. Revegetate banks with PERMANENT/TEMPORARY SEEDING (KEY 3), MULCHING AND MULCH ANCHORING (KEY 28), MULCH BLANKETS AND HIGH VELOCITY MULCH BLANKETS (KEY 33) and woody plants to shade the stream.		•					•
24	 SAND AND STONE BAGS	Sand and stone bags are a useful tool in the prevention of erosion. Can be used to divert water around a construction site by creating a DIVERSION DIKE (KEY 10). Works well for creating a CONSTRUCTION DAM (KEY 36) and temporary culvert end fill.	•	•	•	•	•	•	•
25	 SAND FENCE AND DUNE STABILIZATION	A Sand Fence traps blowing sand by reducing wind velocities. Can be used to prevent sand from blowing onto roads. Must be maintained until sand source is stabilized.	•				•	•	
26	 SILT FENCE	A permeable barrier erected below disturbed areas to capture sediments from sheet flow. Can be used to divert small volumes of water to stable outlets. Ineffective as a filter and should never be placed across streams or ditches where flow is concentrated.	•				•	•	
27	 PLASTIC SHEETS OR GEOTEXTILE COVER	Plastic Sheets can be used to create a liner in temporary channels. Can also be used to create a temporary cover to prevent erosion of stockpiled materials.	•	•	•			•	
28	 MULCHING AND MULCH ANCHORING	Anchored mulch provides erosion protection against rain and wind. Mulch must be used on seeded areas to promote water retention and growth. Should be inspected after every rainstorm and repaired as necessary until vegetation is well established.	•		•		•	•	
29	 INLET PROTECTION FABRIC DROP	Provides settling and filtering of silt laden water prior to its entry into the drainage system. Can be used in median and side ditches where vegetation will be disturbed. Allows for early use of drainage systems prior to project completion.			•		•		
30	 INLET PROTECTION GEOTEXTILE AND STONE	Provides settling and filtering of silt laden water prior to its entry into the drainage system. Should be used in paved areas where drainage structures are existing or proposed. Allows for early use of drainage systems prior to project completion.			•		•		

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

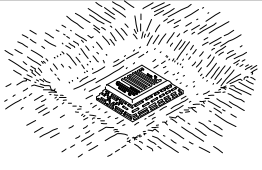
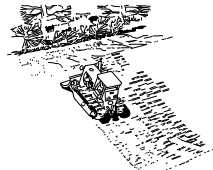
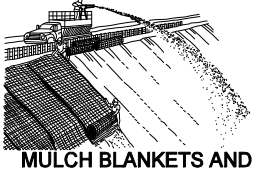
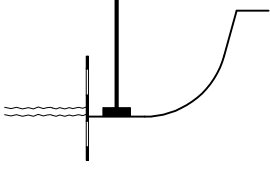
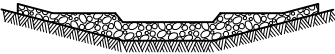
SOIL EROSION & SEDIMENTATION CONTROL MEASURES

9-10-2010
F.H.W.A. APPROVAL

6-3-2010
PLAN DATE

R-96-E

SHEET
4 OF 6

KEY	DETAIL	CHARACTERISTICS	A	B	C	D	E	F	G
31	 INLET PROTECTION SEDIMENT TRAP	An Inlet Protection Sediment Trap is a temporary device that can be used in areas where medium flows are anticipated. Effective in trapping small quantities of sediments prior to water entering the drainage system. Can be used in areas such as median and side ditches.			•		•		
32	 SLOPE ROUGHENING AND SCARIFICATION	A simple and economical way to reduce soil erosion by wind and water. Can be accomplished by harrowing with a disk, back blading, or tracking with a dozer perpendicular to the slope.	•				•	•	
33	 MULCH BLANKETS AND HIGH VELOCITY MULCH BLANKETS	Mulch blankets provide an immediate and effective cover over raw erodible slopes affording excellent protection against rain and wind erosion. High velocity mulch blankets work well for stabilizing the bottom of ditches in waterways.	•		•		•	•	
34	 COFFERDAM	Used to create a dry construction area and protect the stream from raw erodible areas. Must be pumped dry or dewatered according to DEWATERING WITH FILTER BAG (KEY 18).		•					•
35	 TEMPORARY BYPASS CHANNEL	Utilized when a dry construction area is needed. Isolates stream flows from raw erodible areas minimizing erosion and subsequent siltation. Can incorporate SEDIMENT BASIN (KEY 21), CHECK DAM (KEY 37), and GRAVEL FILTER BERM (KEY 13) to remove sediments from water. Construction sequence of events may be necessary.		•					•
36	 CONSTRUCTION DAM	Used to create a dry or slack water area for construction. Isolates the stream from raw erodible areas. Can be created out of any non-erodible materials such as SAND AND STONE BAGS (KEY 24), a gravel dike with clay core or plastic liner, steel plates or plywood.		•					•
37	 CHECK DAM	Can be constructed across ditches or any area of concentrated flow. Protects vegetation in early stages of growth. A Check Dam is intended to reduce water velocities and capture sediment. A Check Dam is not a filtering device.	•		•			•	

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

SOIL EROSION & SEDIMENTATION CONTROL MEASURES

9-10-2010
F.H.W.A. APPROVAL

6-3-2010
PLAN DATE

R-96-E

SHEET
5 OF 6

NOTES:

THIS STANDARD PLAN WILL SERVE AS A KEY IN THE SELECTION OF THE APPROPRIATE SOIL EROSION AND SEDIMENTATION CONTROL DETAILS. THIS PLAN ALSO PROVIDES THE KEY TO THE NUMBERED EROSION CONTROL ITEMS SPECIFIED ON THE CONSTRUCTION PLANS. REFER TO THE MDOT SOIL EROSION & SEDIMENTATION CONTROL MANUAL, SECTION 6 FOR SPECIFIC DETAILS, CONTRACT ITEMS (PAY ITEMS), AND PAY UNITS.

COLLECTED SILT AND SEDIMENT SHALL BE REMOVED PERIODICALLY TO MAINTAIN THE EFFECTIVENESS OF THE SEDIMENT TRAP, SEDIMENT BASIN, AND SILT FENCE. AGGREGATES PLACED IN STREAMS SHOULD CONTAIN A MINIMUM OF FINES.

TEMPORARY EROSION AND SEDIMENTATION CONTROL PROVISIONS SHALL BE COORDINATED WITH THE PERMANENT CONTROL MEASURES TO ASSURE EFFECTIVE CONTROL OF SEDIMENTS DURING CONSTRUCTION OF THE PROJECT.

ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE REMOVED AFTER VEGETATION ESTABLISHMENT OR AT THE DISCRETION OF THE ENGINEER. CARE SHALL BE TAKEN DURING REMOVAL TO MINIMIZE SILTATION IN NEARBY DRAINAGE COURSES.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

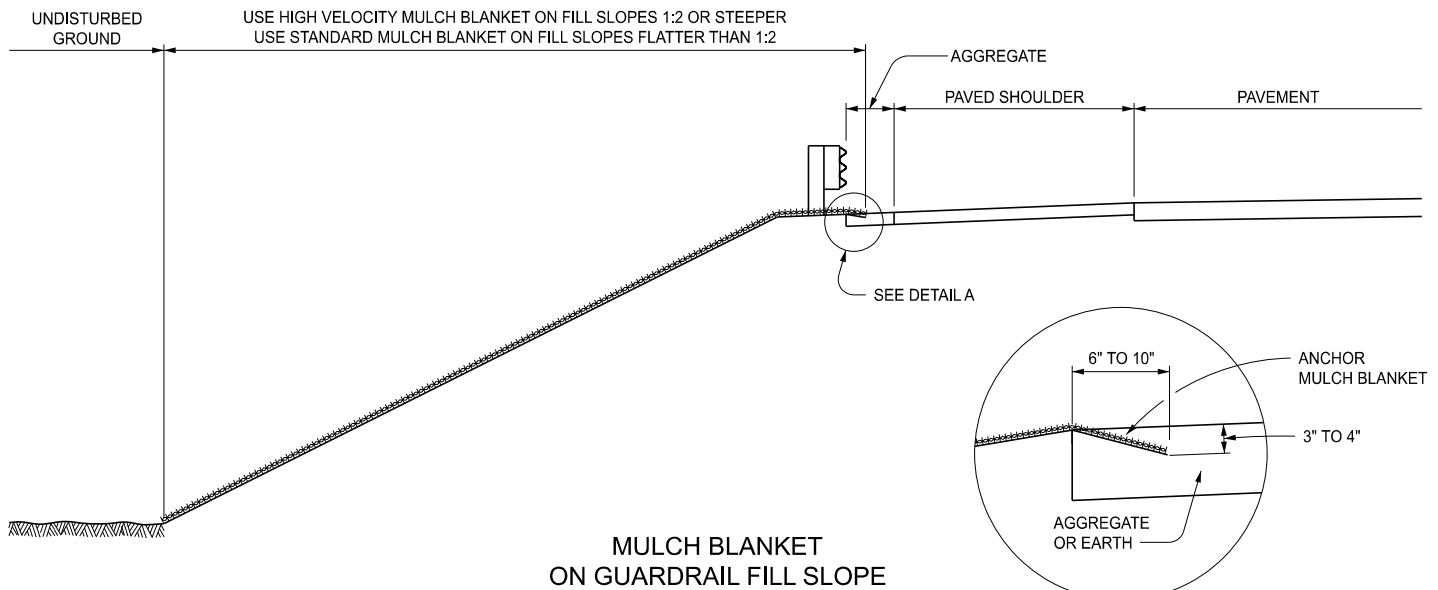
SOIL EROSION & SEDIMENTATION
CONTROL MEASURES

9-10-2010
F.H.W.A. APPROVAL

6-3-2010
PLAN DATE

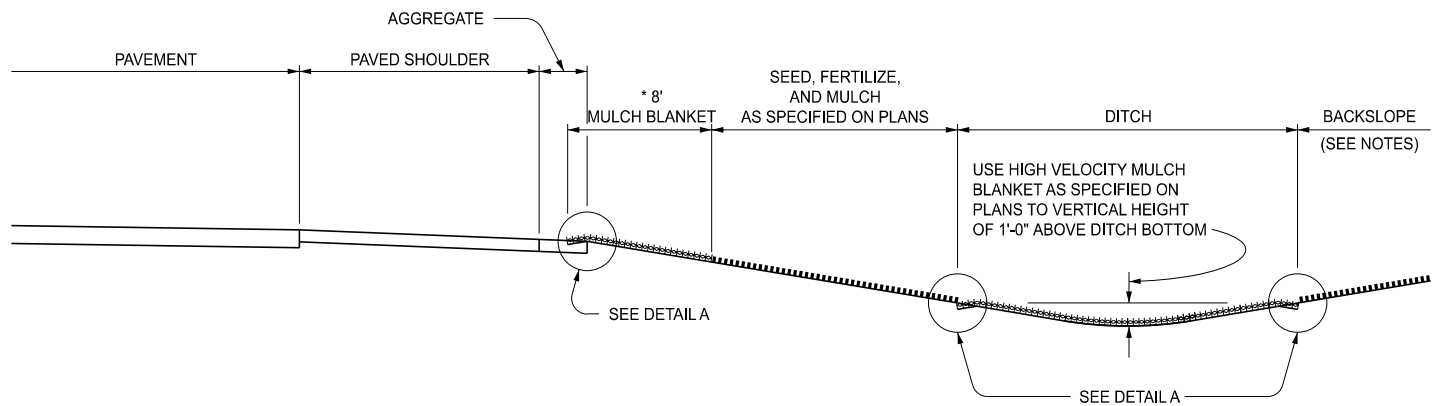
R-96-E

SHEET
6 OF 6

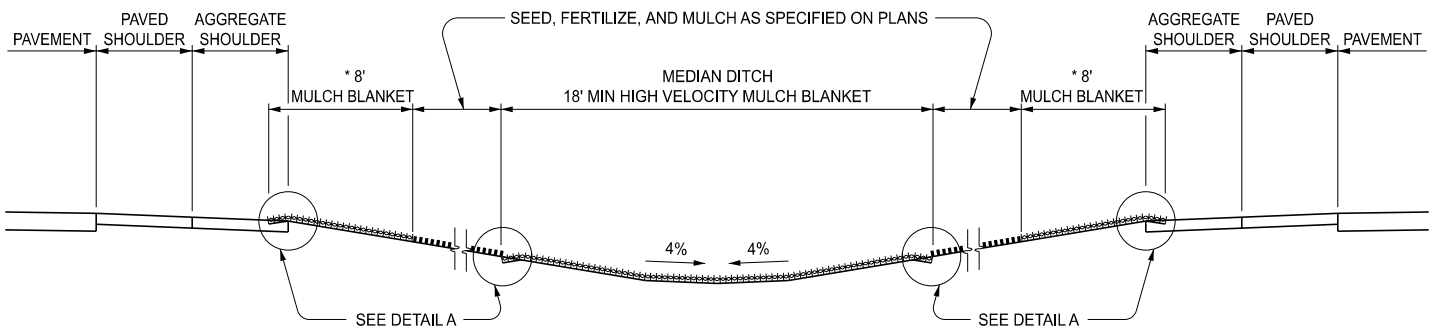


MULCH BLANKET
ON GUARDRAIL FILL SLOPE

DETAIL A



TYPICAL SLOPE AND DITCH PROTECTION



MULCH BLANKET SPILLWAY DITCH

* NOTE:

USE MULCH BLANKET ON BOTH SIDES OF NORMAL SECTIONS, HIGH SIDES OF ALL SUPERELEVATED SECTIONS, AND LOW SIDES OF PAVEMENTS HAVING A SUPERELEVATION OF 5% OR LESS. USE HIGH VELOCITY MULCH BLANKET ON THE LOW SIDE OF PAVEMENTS HAVING A RATE OF SUPERELEVATION GREATER THAN 5%.

APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

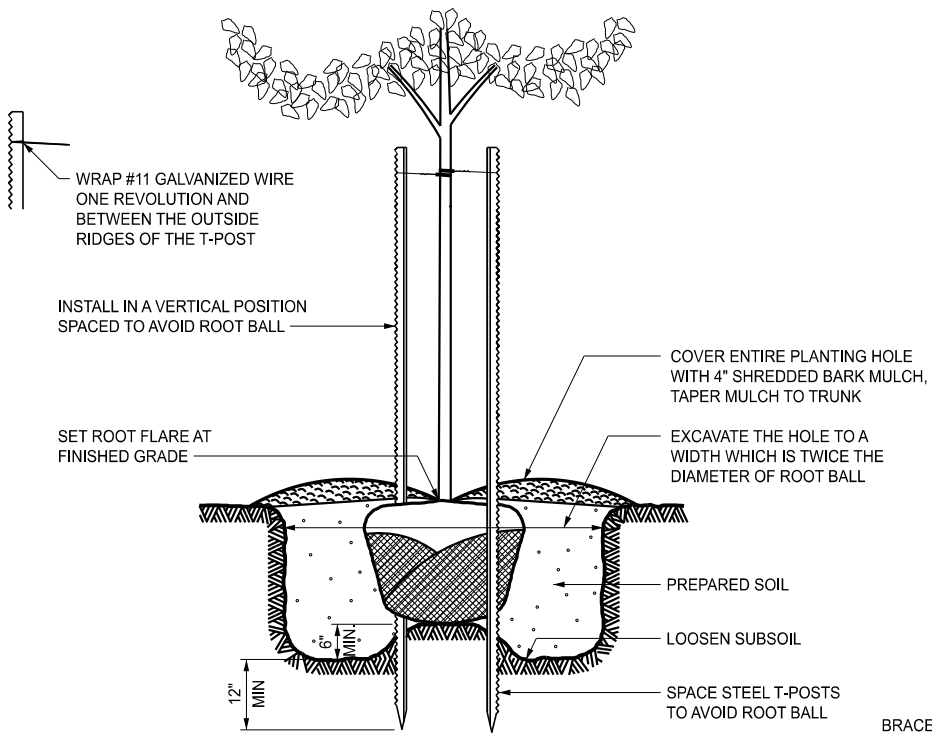
STANDARD PLAN FOR
SEEDING AND TREE PLANTING

SPECIAL DETAIL
FHWA APPROVAL

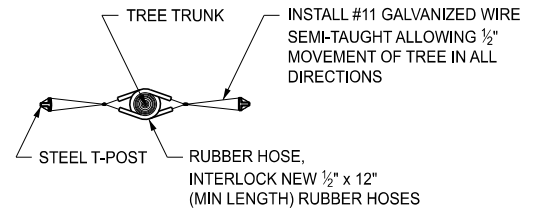
11/01/2024
PLAN DATE

R-100-I

SHEET
1 OF 4



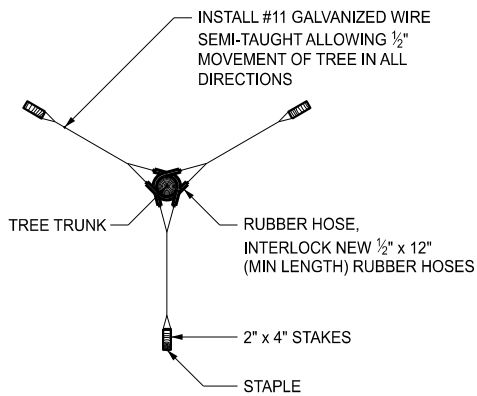
BRACING - VERTICAL STAKES



BRACING DETAIL

BRACE DECIDUOUS TREES 2" TO 4" IN CALIPER OR 8' OR MORE IN HEIGHT WITH TWO STAKES.

BRACE DECIDUOUS TREES LESS THAN 2" IN CALIPER OR 8' IN HEIGHT WITH ONE STAKE ON THE WESTERLY SIDE OF THE PLANT.

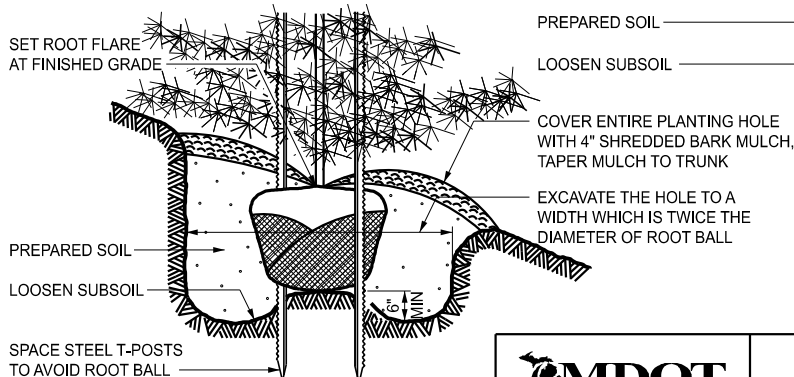


TRIPOD GUYING DETAIL

GUY EVERGREENS OVER 4" IN CALIPER OR 6' IN HEIGHT WITH THE TRIPOD METHOD AND UNDER 6' IN HEIGHT WITH TWO STAKES.



GUYING - TRIPOD METHOD



SLOPE PLANTING



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

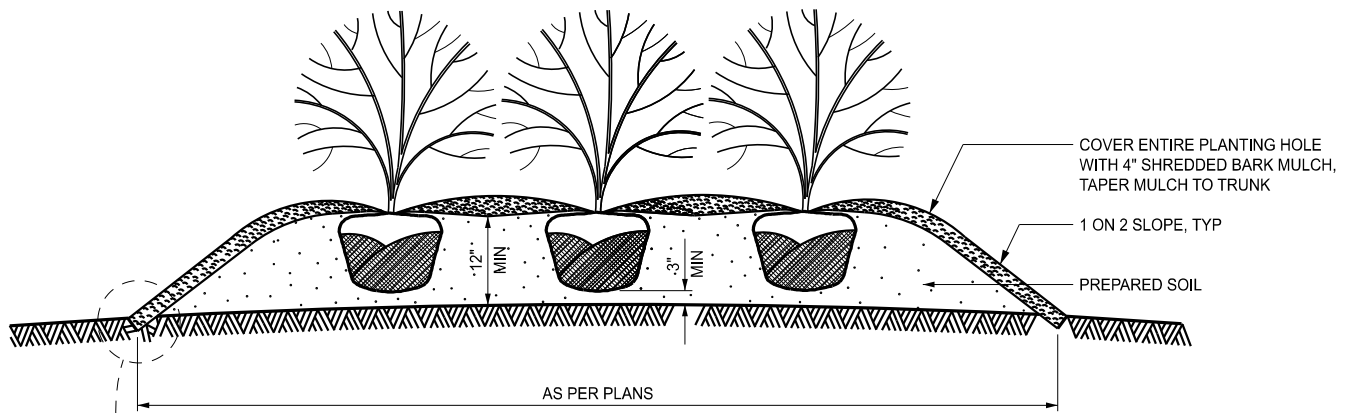
**STANDARD PLAN FOR
SEEDING AND TREE PLANTING**

SPECIAL DETAIL
FHWA APPROVAL

11/01/2024
PLAN DATE

R-100-I

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RAISED SHRUB BED DETAIL

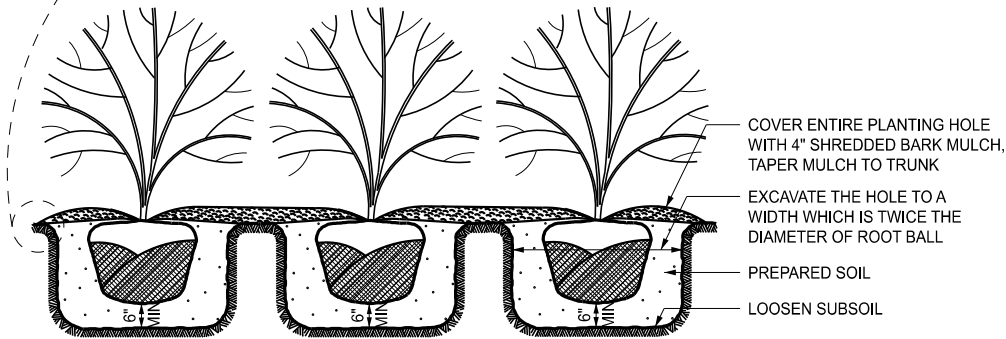
INCLUDE SHRUB BEDS IN THE FIRST AND SECOND WATERING AND CULTIVATION.

CUT 6" x 12" (MIN) EDGING AROUND THE PERIMETER OF ALL SHRUB BEDS SHOWN ON THE PLANS. SPRAY A NON-PERSISTANT GLYPHOSATE HERBICIDE TO ENTIRE SHRUB BEDS PRIOR TO PLANTING AND BARK PLACEMENT.

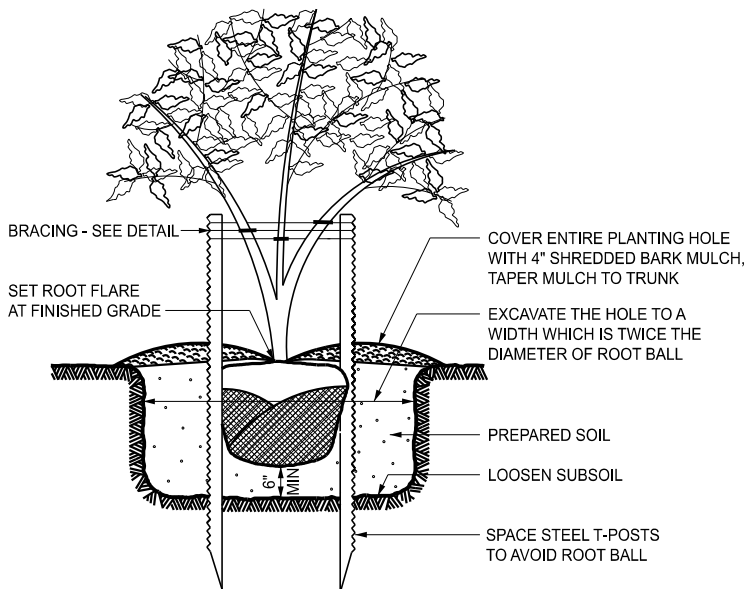
USE THE PAY ITEM 'SITE PREPARATION, MAX' TO PAY FOR SHRUB BEDS.

SET ALL PLANTS PLUMB AND FACE THE BEST SIDE OF THE PLANT IN THE MAIN DIRECTION OF VIEWING.

SHRUB BED EDGING DETAIL



SHRUB BED DETAIL



MULTIPLE STEM TREES

PLANTING NOTES:

REMOVE ALL EXCAVATED MATERIAL FROM THE SITE IMMEDIATELY.

LOOSEN SUBSOIL TO A DEPTH OF 4". LOOSEN EARTH ON SIDES OF PLANT POCKET TO BREAK ANY GLAZING CAUSED BY DIGGING.

FILL WITH PREPARED SOIL TO $\frac{1}{2}$ THE DEPTH OF THE ROOT BALL AND PACK FIRMLY. THEN PUDDLE WITH WATER.

BACKFILL WITH PREPARED SOIL SO THAT AFTER COMPACTION THE AREA IS FLUSH WITH THE SURROUNDING GROUND LEVEL.

COVER ENTIRE PLANT POCKET AREA WITH 4" MULCH. PRUNE, BRACE AND GUY.

COMPLETELY REMOVE ANY CONTAINERS PLANTS ARE FURNISHED IN BEFORE PLANTING.

TREE HEIGHTS ARE SHOWN BEFORE PRUNING. TREE PLANTING DEPTHS ARE SHOWN AFTER SETTLING.



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

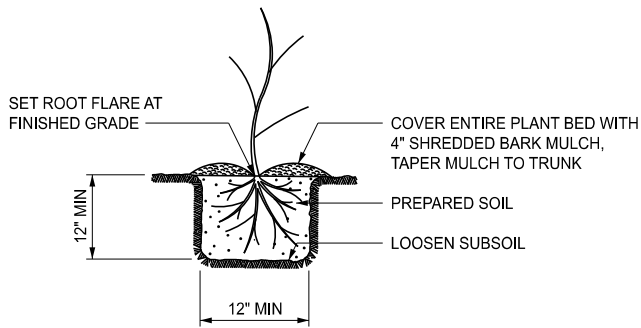
STANDARD PLAN FOR
SEEDING AND TREE PLANTING

SPECIAL DETAIL
FHWA APPROVAL

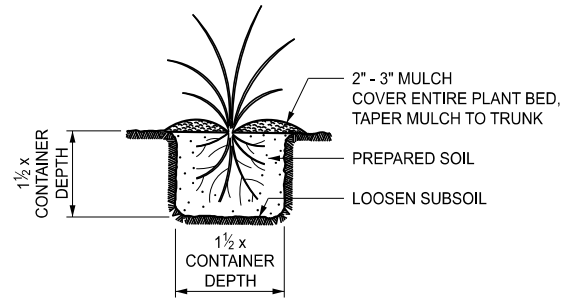
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PLAN DATE

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BARE ROOT PLANTS



PERENNIAL PLANTS

PLANTING BARE ROOT PLANT MATERIAL

REFER TO THE "SPECIAL PROVISIONS FOR BARE ROOT PLANTING" FOR SHIPPING, STORAGE AND HANDLING REQUIREMENTS.

KEEP ROOTS IMMERSUED IN WATER PRIOR TO PLANTING TO MAINTAIN ROOT MOISTURE.

PRUNE ROOTS AS NECESSARY (TO REMOVE ALL DAMAGED OR BROKEN ROOTS) AND AS REQUIRED BY THE DISTRICT FORESTER OR RESOURCE SPECIALIST.

DIG PLANTING HOLES AT LEAST 12" WIDE AND 12" DEEP TO ACCOMMODATE ROOT MASS.

SET PLANTS PLUMB WITH THE ROOT SPREAD PUT IN A NATURAL POSITION AT A DEPTH EQUAL TO THE DEPTH AT THE NURSERY.

HOLD PLANT FIRMLY AND PUDDLE (NOT TAMP) THE BACKFILL AROUND THE ROOTS WITH WATER. USE SUFFICIENT WATER TO ENSURE SATURATION OF THE BACKFILL, BUT DO NOT OVERWATER, CAUSING A FLOATING SOIL MASS WHICH PREVENTS COMPACTION AND MAY RESULT IN AIR POCKETS ADJACENT TO THE ROOTS. ENSURE BACKFILL IS FLUSH WITH THE GROUND AFTER COMPACTION.

COVER ENTIRE PLANT POCKET AREA WITH 4" MULCH AS SHOWN.

INCLUDE PERENNIAL BEDS IN THE FIRST AND SECOND WATERING AND CULTIVATION.

USE FULLY DEVELOPED CONTAINER PLANTS FOR PERENNIALS.

EXCAVATE ENTIRE PERENNIAL BED DOWN 12" AND REPLACE WITH 12" OF PREPARED SOIL.

USE THE PAY ITEM 'SITE PREPARATION, MAX' TO PAY FOR PERENNIAL BEDS.

SEEDING NOTES:

THIS STANDARD ILLUSTRATES THE TYPICAL USE OF SEEDING WITH MULCH (AS THESE ITEMS RELATE TO ROADWAY CONSTRUCTION). USE THE PLANS AND STANDARD SPECIFICATIONS FOR CONSTRUCTION TO DETERMINE THE ACTUAL DESIGN AND MATERIALS USED TO CONSTRUCT THE COMPLETE SECTION (WHICH INCLUDES SEEDING WITH MULCHING).

ITEMS CALLED FOR ON THIS STANDARD ARE OPTIONAL FOR EROSION CONTROL MEASURES. SEE STANDARD PLAN R-96-SERIES.

USE HIGH VELOCITY MULCH BLANKET ON ALL DITCHES FOR EROSION CONTROL.

SEED, FERTILIZE, AND MULCH WITH MULCH BLANKET THE FIRST 8' BEHIND THE CURB OR SHOULDER IN URBAN MEDIAN AREAS. FOR THE REMAINING AREAS, SEED, FERTILIZE, AND MULCH WITH MULCH BLANKET (OR STANDARD MULCH ANCHORED IN PLACE WITH A MULCH ADHESIVE OR A MULCH NET).

SEED, FERTILIZE, AND TOPSOIL (AS SPECIFIED ON PLANS) ALL AREAS WHERE MULCH BLANKET IS CALLED FOR. NO MULCH OR ANCHORING MULCH IS REQUIRED WHERE MULCH BLANKET IS INSTALLED.

APPLY THE FRONT SLOPE RESTORATION TREATMENT TO THE BACKSLOPE.



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

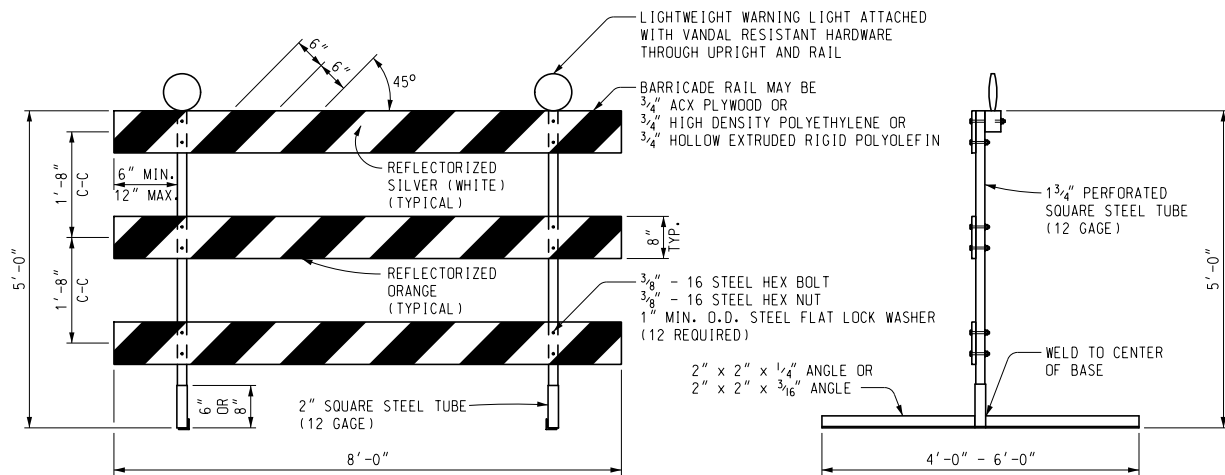
STANDARD PLAN FOR SEEDING AND TREE PLANTING

SPECIAL DETAIL
FHWA APPROVAL

11/01/2024
PLAN DATE

R-100-I

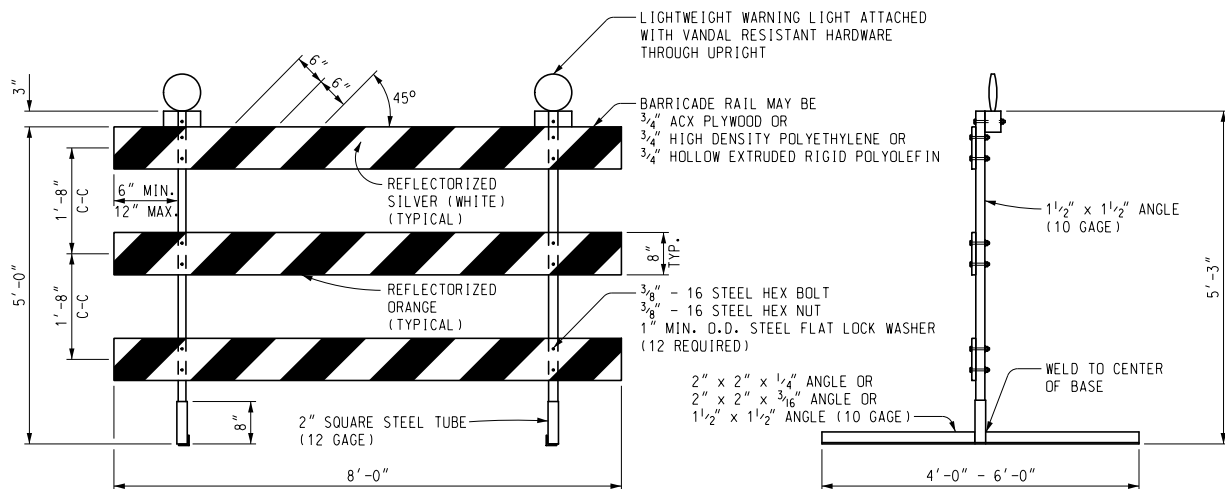
SHEET
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FRONT ELEVATION

SIDE VIEW

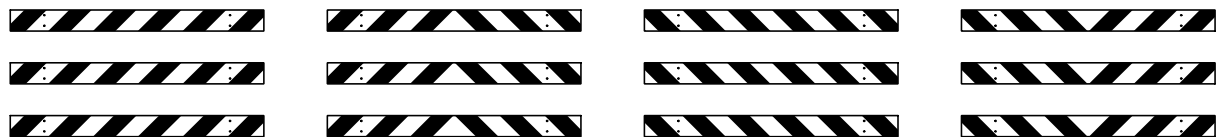
PERFORATED SQUARE STEEL TUBE OPTION



FRONT ELEVATION

SIDE VIEW

ANGLE IRON OPTION



LEFT DIRECTIONAL

BI-DIRECTIONAL

RIGHT DIRECTIONAL

CLOSURES

BARRICADE RAIL SHEETING OPTIONS TYPE III BARRICADES

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



PREPARED
BY
OPERATIONS
FIELD SERVICES

DRAWN BY: ECH

CHECKED BY: MWB

DEPARTMENT DIRECTOR
Paul C. Ajegba

APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

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

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF FIELD SERVICES SPECIAL DETAIL FOR

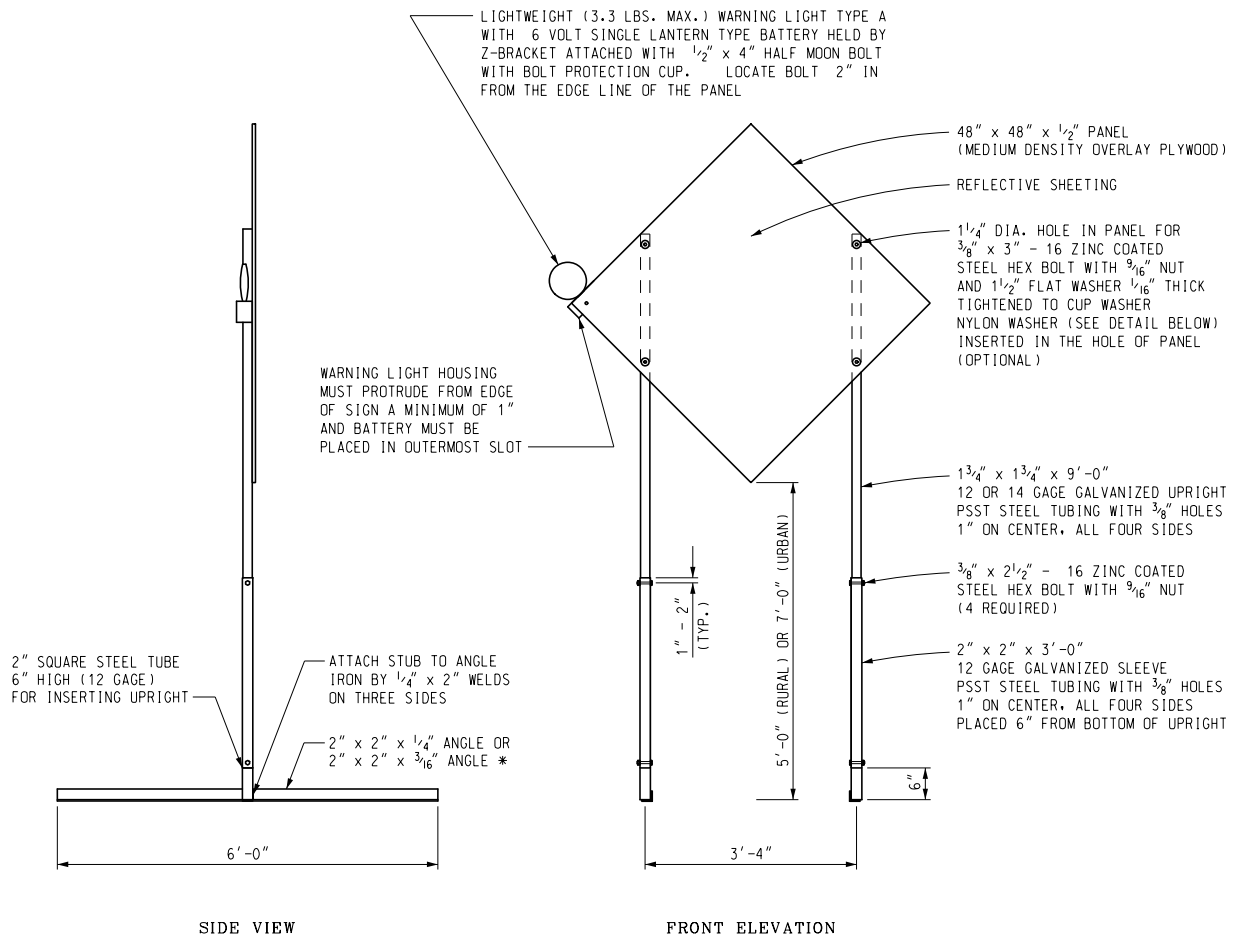
Temporary Traffic Control Devices

F.H.W.A. APPROVAL

6/16/22
PLAN DATE

WZD-125-E

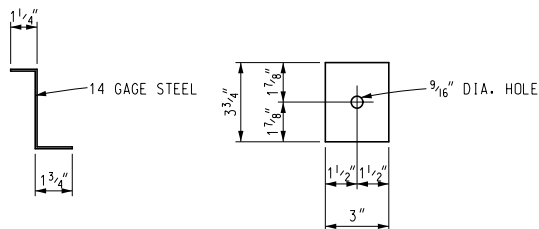
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1 OF 3



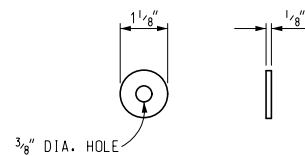
TEMPORARY SIGN SUPPORT

(WARNING LIGHT PLACED ON SIDE CLOSEST TO TRAFFIC)

* SIGN STAND IS BALLASTED WITH FOUR OR MORE 35 LB SANDBAGS. A MINIMUM OF ONE ON EACH END.
UPRIGHTS SHALL NOT EXTEND ABOVE THE SIGN PANEL.



Z-BRACKET DETAIL



OPTIONAL NYLON WASHER

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

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF FIELD SERVICES SPECIAL DETAIL

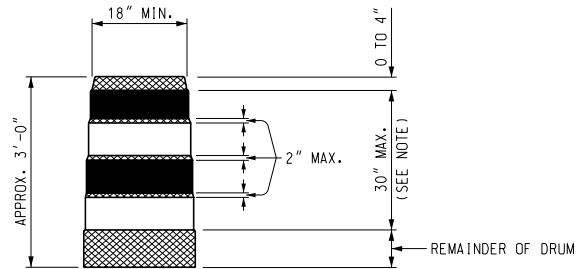
SPECIAL DETAIL
F.H.W.A. APPROVAL

6/16/22
PLAN DATE

WZD-125-E

SHEET
2 OF 3

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



- REFLECTORIZED ORANGE
- REFLECTORIZED WHITE
- NON REFLECTORIZED ORANGE

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

PLASTIC DRUM

NOTES:

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

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

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

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

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

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF FIELD SERVICES SPECIAL DETAIL

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

6/16/22
PLAN DATE

WZD-125-E

SHEET
3 OF 3

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

APPENDIX “C”

**CITY OF LIVONIA
ORDINANCE #2344**

**CITY OF LIVONIA
TACK COAT**

3.04.140 Bids or quotes—Required when—Procedures—Council authority.

F. Bids from City-Based Firms.

1. In comparing bids, the bid of any city-based firm may be deemed a better bid than the bid of any competing firm which is not city-based, whenever the bid of such competing firm shall be less than three (3) percent lower than the bid of the city-based firm on any contract bid in an amount of two hundred thousand dollars (\$200,000.00) or less, and less than one (1) percent lower on any amount bid in excess thereof. The foregoing percentages shall each be deemed to apply to the city-based bid and, as the case may be, to the full and complete amount of the contract bid, e.g., the equalization credit of one (1) percent would apply to the full contract amount bid, and not merely to the amount in excess of two hundred thousand dollars (\$200,000.00). The firm making the lowest bid thus evaluated shall be deemed the lowest bidder. No contract hereafter awarded by reason of an equalization percentage credit shall be sublet to any subcontractor which is not a city-based firm. Any bidder who claims entitlement to an equalization percentage credit shall agree to make available to the city the records necessary to establish eligibility. Section 3.04.140(E) shall not apply to contracts authorized pursuant to Section 3.04.140(D).
2. "City-based firm" means a firm which is located within the city and which has made payment of commercial, office, manufacturing or research and engineering property taxes on real or personal property for at least one (1) calendar year.

G. All bids, regardless of amount, shall constitute public records, and shall be preserved in the office of the city clerk for a period of six (6) years following the date of opening. (Ord. No. 3180 , § 1, 7-11-2022; Ord. 2864, § 3, 2011; Ord. 2853, § 1, 2010; Ord. 2344, § 1, 1996; Ord. 2264, § 1, 1994; Ord. 2228, § 1 (part), 1994; Ord. 2175, § 1, 1993; Ord. 2171, § 1, 1993; Ord. 1699, § 1, 1983; Ord. 1111, § 1 (part), 1973; prior code § 2-213)

DEPARTMENT OF LAW

CITY ATTORNEY
Sean P. Kavanagh

CHIEF ASSISTANT CITY ATTORNEY
Cathryn K. White

ASSISTANT CITY ATTORNEY
Michael E. Fisher

ASSISTANT CITY ATTORNEY
Barbara J. Scherr



Jack Engebretson
MAYOR

33000 CIVIC CENTER DRIVE
LIVONIA, MICHIGAN 48154-3097
(734) 466-2520
FAX: (734) 421-4870

November 21, 2007

TO: HONORABLE MEMBERS OF THE CITY COUNCIL

FROM: DEPARTMENT OF LAW

SUBJECT: How to Require Asphalt Companies to Clean Up Black Tar
Left on City Streets

REF: Council Resolutions 281-07

Dear Council Members:

At your regular meeting on June 18, 2007, you adopted Council Resolution 281-07, referring the referenced question to the Department of Law. Although the purely technical aspects of this problem remain under study by the City Engineer, some legal options are set forth below.

Initially, the issue is complicated by the difficulty of cleaning excess black tar off City streets. The Engineering Department is reviewing the feasibility of preventive measures, instead.

Provisions of the Code of Ordinances – either as they currently exist or as they could be amended – could be of assistance in compelling contractors to clean up tar deposits on City streets. For example, Code of Ordinances Section 8.36.080 prohibits the driving of "any vehicle or truck within the City, the wheels or tires of which carry onto or deposit in any street, alley, or other public place, mud, dirt, sticky substances, litter or foreign matter of any kind." Since the principal source of the excess black tar observed on certain City streets is the tires of construction-related vehicles coming from asphaltting work sites, enforcement of this section could compel the desired clean-up.

The difficulty with this approach is that it requires that one or more persons actually witness the truck carrying the tar onto the road, and entails a potentially lengthy and cumbersome court process. The clean-up would presumably be a condition of probation, or something of the sort.

To: Honorable Members of the Council
Re: How to Require Asphalt Companies to Clean
Up Black Tar Left on City Streets

November 21, 2007
Page 2

Perhaps a more effective way of compelling such a clean-up is to make it part of the permit/deposit process. Code of Ordinances Section 12.04.070 could, for example, require that all permit applications related to asphalt work in public places include a statement by the applicant that he/she/they/it will comply with Section 8.36.080. Sections 12.04.110 and 120 could be interpreted and/or amended to allow the City to use cash deposits made by contractors in connection with such projects to finance the tar clean-up. Section 12.04.160(A)(4) could be cited in revoking the permit of any contractor who tracks tar onto City streets. In the event an asphaltting job is via a City contract, we can mandate tar clean-up as part of the contract with penalty provisions and/or a cash reserve for the City to arrange for hiring a cleaning company if the contractor does not do so.

Assuming the technical feasibility of preventing and/or cleaning up such tar deposits, contractual requirements and/or ordinances offer options for keeping the streets free of excess tar.

We trust the foregoing is sufficient for your purposes.

Approved for submission:

Very truly yours,

Jack Engebretson, Mayor

Sean P. Kavanagh, City Attorney

Michael E. Fisher, Asst. City Attorney

MEF/lks

cc: Mayor, Clerk, Council, Finance, Planning, Police, DPW, Engineering

P:\Council\2007\adm resp\CR 281-07

any public place without first having obtained a permit therefor from the department in the manner hereinafter provided. (Prior code § 5-105)

12.04.060 Permit—Application required—Issuance conditions.

No permit shall be issued by the department unless and until the applicant shall have:

A. Filed an application for the permit upon the form furnished by the department;

B. Paid the permit fee as hereinafter required; and

C. Furnished the insurance and made the cash deposit in those cases where the same are required by the provisions of this chapter. (Prior code § 5-106)

12.04.070 Permit—Contents of application.

Every application for a permit required by the provisions of this chapter shall be signed by the applicant and shall include at least the following information:

A. The full name, address and place of business and telephone number of the person applying for the permit;

B. A full description of the operation to be undertaken; the location in specific terms where the proposed operation will be performed or made, and the estimated length of the time necessary to complete the operation; and

C. Such other information as the department or regulations may require. (Ord. 1600 § 2, 1981; prior code § 5-107)

12.04.080 Permit—Period of validity.

Permits shall be issued and shall be effective for a period sufficient, in the opinion of the department, to allow the permit holder a reasonable time within which to complete performance of the proposed operation. In no case shall a permit be issued for more than one (1) consecutive twelve-month period. (Ord. 1600 § 3, 1981; prior code § 5-108)

12.04.090 Permit—Fee schedule.

No permit required under the terms of this chapter shall be issued unless there is first deposited with the city the following fees:

A. Permit processing fees—in the amount of seven dollars (\$7.00) for each permit. A yearly fee for public utility companies and cable television companies in the amount of two hundred ninety [dollars] (\$290.00);

B. Inspection service fee—in accordance with the following schedule:

1. Sidewalk—Construction, reconstruction or repair—Eight cents (\$0.08) per square foot—Twenty dollars (\$20.00) minimum,

2. Drive approach—Construction, reconstruction or repair—Forty dollars (\$40.00) each,

3. Driveway culvert—Construction, reconstruction or repair—Forty dollars (\$40.00) each,

4. Curb cut—Forty dollars (\$40.00) each,

5. Hydrant use (does not include water charge)—Fourteen dollars (\$14.00) service charge plus four dollars (\$4.00) per day rental charge,

6. Connection (only) to city water main:

3" thru 6"..... \$130.00

8" and larger..... 180.00

7. Connection (only) to city storm sewer:

Smaller than 18"..... \$90.00

18" thru 42"..... 180.00

Larger than 42"..... 260.00

8. Saddle connection (only) to city sanitary sewer..... \$90.00

9. Plot plan and grade certification..... \$75.00

10. Each re-review (for plot plan and grade certification)..... \$75.00

C. Public utility companies and cable television companies in accordance with the following schedule:

1. Yearly fee for purposes of inspection of repairs, maintenance of the existing utility, minor service connections in the amount of four hundred thirty dollars (\$430.00),

HEALTH AND SAFETY

8.36.210

4. All such containers shall be emptied by the owners or operators of such centers or businesses at periodic intervals frequently enough to prevent overfilling or the attraction of insects or animals.

D. Damaging Receptacles. It is unlawful for any person to willfully damage or deface any litter container, as provided in this section. (Ord. 1183 § 1, 1975: prior code § 5-1206)

8.36.070 Throwing litter from vehicles prohibited.

No person, while a driver or passenger in a vehicle, shall throw or deposit litter upon any street or other public place within the city, or upon private property. (Prior code § 5-1207)

8.36.080 Spilling loads or carrying litter from tires onto streets prohibited.

No person shall drive or move any truck or other vehicle within the city unless such vehicle is so constructed or loaded as to prevent any load, contents or litter from being blown or deposited upon any street, alley or other public place, nor shall any person drive or move any vehicle or truck within the city, the wheels or tires of which carry onto or deposit in any street, alley or other public place, mud, dirt, sticky substances, litter or foreign matter of any kind. (Prior code § 5-1208)

8.36.090 Depositing litter in parks prohibited.

No person shall throw or deposit litter in any park within the city except public receptacles and in such a manner that the litter will be prevented from being carried or deposited by the elements upon any part of the park or upon any street or other public place. Where public receptacles are not provided, all such litter shall be carried away from the park by the person responsible for its presence and properly disposed of elsewhere as provided in this chapter. (Prior code § 5-1209)

8.36.100 Throwing litter into lakes and fountains prohibited.

No person shall throw or deposit litter in any fountain, pond, lake, stream, bay or any other body of water in a park or elsewhere within the city. (Prior code § 5-1210)

8.36.160 Dropping litter from aircraft prohibited.

No person in an aircraft shall throw out, drop or deposit within the city any litter, handbill or any other object. (Prior code § 5-1217)

8.36.180 Throwing litter on occupied private property prohibited.

No person shall throw or deposit litter on any occupied private property within the city, whether owned by such person or not, except that the owner or person in control of private property may maintain authorized private receptacles for collection in such a manner that litter will be prevented from being carried or deposited by the elements upon any street, sidewalk or other public place or upon any private property. (Prior code § 5-1219)

8.36.190 Owner to maintain premises free of litter.

The owner or person in control of any private property shall at all times maintain the premises free of litter; provided, however, that this section shall not prohibit the storage of litter in authorized private receptacles for collection. (Prior code § 5-1220)

8.36.200 Litter on vacant lots.

No person shall throw or deposit litter on any open or vacant private property within the city, whether owned by such person or not. (Prior code § 5-1221)

8.36.210 Litter on open private property-- Removal notice authorized when.

The director of public works is authorized and empowered to notify the owner of any open or vacant private property within the city, or the agent of such owner, to properly dispose of litter located on such owner's property which is dangerous to public health, safety or welfare. Such notice shall be by certified mail with return receipt requested, addressed to the owner at his last known address. (Prior code § 5-1222(a))

2. Fee for inspection of new aerial cable on new wood poles, new buried cable (including ducts and manhole construction), new gas mains, or oil lines—recover actual costs of inspection. Notwithstanding any other provisions of this section, whenever the city council shall determine by resolution to pave any street, install public sewer or water facilities or street lighting improvements, the public utility company shall not be required to pay inspection fees connected with the relocation or installation of its facilities. (Ord. 2625, § 1, 2003; Ord. 2005 § 1 (part), 1989; Ord. 1644 § 1, 1982; Ord. 1600 § 4, 1981; prior code § 5-109)

12.04.100 Permit—Cash deposits—Required—Amounts.

A. No permit required under the terms of this chapter shall be issued unless there is first deposited with the city a cash deposit in accordance with the following schedule to ensure protection of existing pavements and utilities and/or restoration of the public place:

1. In those cases where a permit is requested for one (1) or more construction operations within the public place, the department may require the following minimum cash deposits, not to exceed five thousand dollars (\$5,000.00):

Water connection—3" or larger ..	\$300.00
Public utility easement	300.00
Gravel street	500.00
Seal coat or asphalt-capped street	750.00
Full-depth asphalt street	1,500.00
Concrete street	2,000.00

2. In those cases where a permit is requested for completing activities adjoining the public place, the department may require the following minimum cash deposits:

Hydrant use	\$800.00*
(and related tools and equipment)	
Site development	
Residential site	500.00
Commercial site	1,000.00

*Charges for water may be deducted from this cash deposit.

3. In those cases where a permit is requested by a utility company or cable television company to complete construction operations within the public place, the department may accept a yearly letter from a qualified representative of the company giving assurances to the city that the company will make necessary repairs or restorations to the public place caused by the company's operations and further, that the company will reimburse the city for any expenditures incurred by the city in completing such repairs or restorations deemed necessary by the department.

B. All cash deposits shall be nontransferable from site to site and shall be released to the applicant as hereinafter provided. (Ord. 2005 § 1 (part), 1989; Ord. 1644 § 2, 1982; Ord. 1600 § 5, 1981; prior code § 5-110)

12.04.110 Permit—Payment of fees and deposits—Deposit return conditions.

All fees and cash deposits shall be paid to the city treasurer. Each cash deposit shall be retained by the city treasurer until receipt of a written certificate of compliance from the department that complete restoration of the particular public place has been completed in accordance with this ordinance and any regulations adopted hereunder. (Ord. 1600 § 6, 1981; prior code § 5-111)

12.04.120 Permit—Cash deposits—Use by city authorized when.

All cash deposits shall be held by the city treasurer subject to the provisions of this chapter and said regulations. In the event of failure or refusal of a permit holder to fully comply with either this chapter or the said regulations, the department, upon forty-eight (48) hours' notice to the permit holder, shall have the right and authority to cause the particular operation or operations involved to be fully completed, and the particular public place or places fully restored to proper condition, and the department is hereby authorized to use the permit holder's deposit or deposits, or such portion thereof as may be required, for such purpose. (Ord. 1600 § 7, 1981; prior code § 5-112)

STREETS, SIDEWALKS, AND PUBLIC PLACES

12.04.160

cant from any and all claims which may result from the operations to be performed under the permit. The insurance shall be in not less than the amount of one million dollars (\$1,000,000.00), combined single limit for bodily injury and property damage.

B. A duplicate executed copy or photostatic copy of the original of such insurance policy, approved as to form by the city attorney, shall be filed with the department. The evidence of insurance coverage shall be immediately forwarded to the city clerk to be filed. (Ord. 1960 § 1, 1988: Ord. 1600 § 8, 1981: prior code § 5-113)

12.04.140 Permit holder—Personal liability.

Any person to whom a permit is issued shall be liable for all damage both to property and to persons, resulting from accidents which may occur as a result of the operation for which the permit was issued; and such person shall be further liable to the city for any and every loss and damage which the city may sustain, and for all sums it may have to pay to any person as a result of such accident. The issuance of any permit or the depositing of insurance as hereinbefore required shall not be construed as imposing any liability or responsibility of any kind on the city or the several departments of the city. (Prior code § 5-114)

12.04.150 Permit—Waiver of insurance requirements—Conditions.

The department may waive all insurance requirements contained in Section 12.04.130 as to any application for a permit related to the construction of sidewalks, driveway approaches, driveway culverts or curb cuts within the public right-of-way. Further, the department may accept, in lieu of the insurance policy requirements contained in Section 12.04.130, a yearly letter from a qualified representative of a public utility company or cable television company wherein the company agrees to indemnify and save the city harmless from and against all claims of public liability and property damage brought or recovered against the city by reason of any negligent act or omission of such company, its agents or employees in the execution of any work in the

public place for which a permit has been issued. Such letter of indemnification shall be approved as to form by the city attorney and filed with the department and the city clerk. No other waiver shall be given except by resolution of the city council, in which event adequate protection for the city shall be furnished by bond, cash deposit or insurance, or in such other manner as the city council directs. Nothing contained in this section shall prevent the city council, city or department from requiring any additional bonds, deposits or insurance as a prerequisite to the acceptance by the city of any bid, offer or contract, and in such cases the city council shall require such other deposits, bonds and insurance coverage as it may deem necessary to fully protect the city. (Ord. 1644 § 3, 1982: Ord. 1600 § 9, 1981: prior code § 5-115)

12.04.160 Permit—Refusal or revocation conditions—Hearing.

A. Permits requested or issued under the provisions of this chapter may be refused or revoked by the department for any of the following causes:

1. Fraud, misrepresentation or false statement contained in the application for permit;
2. Fraud, misrepresentation or false statement made by a permit holder in the performance of the authorized operation;
3. Incompetency in the performance of the authorized operation;
4. Failure to comply with any of the provisions of the ordinances of the city, including this chapter, or the rules and regulations of the department in performing the operation;
5. For any other good and sufficient cause.

B. Written notice of refusal or revocation, stating the cause therefor, shall be delivered to the applicant or permit holder personally or mailed by certified or registered mail to the address given in his application. Any person whose permit is refused or revoked shall have the right to a hearing before the city council, provided a written request therefor is filed with the city clerk within ten (10) days following the delivery or mailing of the notice of refusal or revocation. The city council

shall have the right to either affirm or overrule any refusal or revocation of a permit. (Ord. 1600 § 10, 1981: prior code § 5-116)

12.04.170 Permit—Application constitutes agreement.

An application for any permit required under the provisions of this chapter shall be deemed and shall constitute an agreement by the applicant to promptly complete the work to be authorized; to observe all pertinent laws and regulations of the city in connection therewith; repair all damage done to the public place and installations on, over or within such street, including trees, signs and other public improvements; and to protect and save harmless the city from all damages or actions at law that may arise or may be brought on account of injury to persons or property resulting from the work done under the permit or in connection therewith. The acceptance of any permit required under the provisions of this chapter shall be deemed and shall constitute an authorization by the permit holder for the city to use in whole or in part the applicant's cash deposit for the purpose of restoring the public place to its former condition or repairing all damage done to the public place in the event the permit holder fails to make such restoration or repairs. (Prior code § 5-117)

12.04.180 No permit required for city employees or public utilities.

Notwithstanding any other provision of the preceding sections of this chapter, any person hired or engaged by the city itself to perform any operation or operations in any public place pursuant to contract or purchase order shall not be required to obtain a permit or make a cash deposit; further, public utility companies shall be required to obtain a permit and pay the fee therefor but shall not be required to make any cash deposit. (Prior code § 5-118)

12.04.190 Street work—Permit required.

It is unlawful for any person to perform any operation in, on or over any street except in accordance with the provisions of this chapter and

the regulations of the department, or without first obtaining a written permit therefor as hereinbefore provided in this chapter. (Prior code § 5-119)

12.04.200 Damage and obstructions prohibited.

It is unlawful for any person to make any excavation in or cause any damage to any street in the city; and it is unlawful for any person to place any article, thing or obstruction in any street except under the conditions and in the manner permitted in this chapter; provided, however, that this section shall not be deemed to prohibit such temporary obstructions as may be incidental to the expeditious movement of articles and things to and from abutting premises, nor to the lawful parking of vehicles within the part of the street reserved for vehicular traffic and travel. (Prior code § 5-120)

12.04.210 Backfilling specifications.

All trenches in a public street or other public place, except by special permission from the department, shall be backfilled with approved granular material to within twelve (12) inches of the surface. On main thoroughfares, this material shall contain one (1) sack of cement per yard of fill. The remaining portions shall be filled with road gravel as specified by the department; any settlement shall be corrected within eight (8) hours after notification to do so. (Ord. 1600 § 11, 1981: prior code § 5-121)

12.04.220 Utility poles.

Utility poles may be placed in such streets as the department shall prescribe, and shall be located thereon in accordance with the directions of the department. Such poles shall be removed or relocated as the department shall from time to time direct. (Ord. 1600 § 12, 1981: prior code § 5-122)

12.04.230 Posts, signs, pipes and other installations in street—Maintenance.

Every owner of, and every person in control of, any estate hereafter maintaining a sidewalk vault, coal hole, manhole or any other excavation, or any post, pole, sign, awning, wire, pipe, conduit, cul-

APPENDIX D
WAYNE COUNTY
PERMIT INFORMATION

(Regular Meeting of 02/24/25)

#63-25 RESOLVED, that having considered the report and recommendation of the City Engineer, dated January 30, 2025, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is approved for submission by the Mayor, to which is attached a Contractor Recommendation letter from OHM Advisors, 34000 Plymouth Road, Livonia, MI 48150, dated January 31, 2025, in connection with the 2025 Asphalt Road Paving Program (Contract 25-A), THE COUNCIL DOES HEREBY ACCEPT THE UNIT PRICE BID OF NAGLE PAVING COMPANY, 36780 AMRHEIN, LIVONIA, MICHIGAN 48150, FOR PERFORMING ALL WORK REQUIRED IN CONNECTION WITH THE 2025 ASPHALT ROAD PAVING PROGRAM (CONTRACT 25-A) ON VARIOUS ASPHALT STREETS THROUGHOUT THE CITY OF LIVONIA, BY EXTENDING THEIR CONTRACT 24-A BID UNIT PRICES, except for the revised unit prices for Item 7a - Pavement Removal, Item 37 – 5-6 inch concrete pavement repair, Item 38a – Driveway, Non-reinforced concrete 8 inch and Item 43a – Sidewalk, Concrete 4 inch and the mutually agreed upon inspector days consisting of 150 days, in an amount not to exceed \$4,275,775.15, based on the Engineering Division's estimate of units involved, and subject to a final payment based upon the actual units completed in accordance with the unit prices accepted herein; FURTHER, the Council does hereby authorize an expenditure in an amount not to exceed \$4,275,775.15 from funds budgeted in Account No: 204-463-818-112 (Rehabilitation) for this purpose; and the City Engineer is hereby authorized to approve minor adjustments in the work as it becomes necessary but this authorization does not entitle the City Engineer to authorize any increase in the not to exceed amount or to contract with other parties; and the Mayor and City Clerk are hereby authorized to execute a contract, approved as to form and substance by the Department of Law, for and on behalf of the City of Livonia with Nagle Paving Company and to do all other things necessary or incidental to the full performance of this resolution; FURTHER, the Council does hereby authorize such action without competitive bidding for the reasons indicated in the aforesaid communication, and such action is taken in accordance with Section 3.04.140.E.3 of the Livonia Code of Ordinances, as amended.

Motion by Andrea Kohloff, seconded by John Grzebik

RESOLVED, that the Citizens Advisory Committee on the Roads, having reviewed the proposed 2026 Road Repair Program presented by the Department of Public Works on October 9, 2025 which includes comments from concerned residents / business owners, does hereby recommend that the 2026 Road Repair Program Road based on available funding to the Livonia City Council for its approval with a proposed road budget of \$10.3 Million (\$4.5 Million for Concrete, \$4.3 Million for Asphalt and \$1.5 Million for Selective Slab Maintenance).

Approved 10/9/25: Kevra - Chairman, Carey, Grzebik,
Gierak, Kohloff and Boadway
Absent: Green, Hoen



LETTER TO THE LIVONIA CITY COUNCIL

5.

Engineering
January 2, 2026

MEETING DATE

S011426/R012626

PRESENTED BY

Todd Zilincik, P.E., City Engineer

AGENDA ITEM

REQUEST TO APPROVE FINAL COST INFORMATION AND TO AUTHORIZE ADDITIONAL APPROPRIATIONS AND EXPENDITURES: Engineering Division, re: for the 2025 Sidewalk Program, Contract 25-G. (CR 95-25)

BACKGROUND DETAILS

Council Resolution No. 95-25, adopted March 31, 2025, approved a contract for the 2025 Sidewalk Program with Joe Rotondo Construction Corporation, 38807 Ann Arbor Road, Suite 2, Livonia, Michigan 48150. The final allocation of costs connected to this project are shown in Attachment A. In order to finalize this project, it is recommended that the City Council establish a final project cost at \$1,102,784.95 (this includes the 10% Engineering Division's administrative fee) of which \$183,150.00 is to be charged to Single Lot Assessments and a total of \$919,634.95 is to be charged to the following City funds: \$750,000.00 to the Road, Sidewalk and Tree Fund, Account No. 204-447-977-010; \$91,045.42 to the Michigan Transportation Fund (Local Road – Distributed Sidewalk Cost), Account No. 203-451-977-010; \$53,626.00 to the Unexpended Fund Balance of the Water and Sewer Fund (592); \$10,000 to the Non-motorized Paths Fund, Account No. 204-463-974-200; and \$13,017.88 from the Contractual Services Contingencies Fund, Account No. 101-447-818-600. Also included in the final project cost is \$1,945.65 for Contractor permitted damaged walk with these costs to be charged to the Forfeited Bond Fund, Account No. 101-000-658-702.

PREFERRED COUNCIL RECOMMENDATION/RESOLUTION (Please complete this field. Attachments are not to be used in lieu of the recommendation)

In order to finalize this project, it is recommended that the City Council establish a final project cost at \$1,102,784.95 (this includes the 10% Engineering Division's administrative fee) of which \$183,150.00 is to be charged to Single Lot Assessments and a total of \$919,634.95 is to be charged to the following City funds: \$750,000.00 to the Road, Sidewalk and Tree Fund, Account No. 204-447-977-010; \$91,045.42 to the Michigan Transportation Fund (Local Road – Distributed Sidewalk Cost), Account No. 203-451-977-010; \$53,626.00 to the Unexpended Fund Balance of the Water and Sewer Fund (592); \$10,000 to the Non-motorized Paths Fund, Account No. 204-463-974-200; and \$13,017.88 from the Contractual Services Contingencies Fund, Account No. 101-447-818-600. Also included in the final project cost is \$1,945.65 for Contractor permitted damaged walk with these costs to be charged to the Forfeited Bond Fund, Account No. 101-000-658-702.

SPECIFIC NAME OF PRODUCT AND NUMBER TO BE PURCHASED (if more than one)

N/A

CONTRACT: Amount and/or purchase price and length of contract (with dates if applicable)

N/A

DETAILED WORK BEING PERFORMED

N/A

FISCAL CONSIDERATIONS (Amount requested and Account(s) used. If applicable, Grant Funding information)

\$183,150.00 charged to Single Lot Assessments
\$750,000.00 from Road, Sidewalk and Tree Fund, Account No. 204-447-977-010
\$91,045.42 from Michigan Transportation Fund (Local Road – Distributed Sidewalk Cost), Account No. 203-451-977-010
\$53,626.00 from Unexpended Fund Balance of the Water and Sewer Fund (592)
\$10,000 from Non-motorized Paths Fund, Account No. 204-463-974-200
\$13,017.88 from Contractual Services Contingencies Fund, Account No. 101-447-818-600
\$1,945.65 from Forfeited Bond Fund, Account No. 101-000-658-702

ACCEPTANCE OF BID (Please detail the following: Why accepted, why not lowest bidder, company name, contact person, full address)

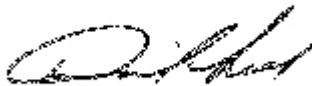
N/A

REASON TO WAIVE BID PROCESS (Emergency, Professional services, No advantage to City and why, Consortium package, etc): N/A

ATTACHMENTS

1. 1_12-23-25 Attachment A - Final Cost Breakdown for the 2025 Sidewalk Program Rev
2. 2_CR 95-25

APPROVED BY



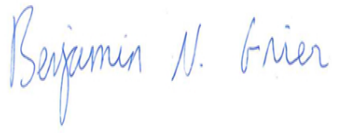
David Lear, Assistant City Engineer

Date: January 02, 2026



Don Rohraff, Director of Public Works

Date: January 02, 2026



Benjamin N. Grier, JD, CPA, Finance Director

Date: January 06, 2026



Maureen Miller Brosnan, Mayor

Date: January 07, 2026

ATTACHMENT A

2025 SIDEWALK PROGRAM - Contract Award Amount -- \$1,109,347.50

A. Final Cost Information:

Construction Costs (Rotondo)	\$954,333.70
†Construction Costs (Precision)	\$53,017.88
Administrative Fee (10%)	<u>\$95,433.37</u>
Total Project Cost	<u>\$1,102,784.95</u>

B. Apportionment of Costs:

	<u>Final Costs</u>	<u>Authorized</u>	<u>Additional to be Authorized</u>
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*Total Single Lot Assessment	*\$183,150.00	\$272,782.25	
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Total City Participation

Tree Root Repairs	\$750,000.00	\$750,000.00	
ADA Ramps			
Local Roads	\$91,045.42	\$97,000.00	(\$5,954.58)
Major Roads	\$0	\$10,000.00	(\$10,000.00)
Water & Sewer Repairs	\$53,626.00	\$60,000.00	(\$6,374.00)
Non-motorized Paths	\$10,000.00	\$10,000.00	
Contractual Services			
Contingencies	\$13,017.88	\$15,000.00	(\$1,982.12)
Contractor Damaged Walk (Forfeited Bond Fund)	\$1,945.65	\$0.00	\$1,945.65
Total Project Cost	<u>\$1,102,784.95</u>	<u>\$1,214,782.25</u>	

Notes:

*Includes additional homeowner requested walk at 10 locations totaling \$9,311.50

†The Precision Concrete portion of the construction costs uses a grinding technique to repair the lifted walk.

A total of 604 locations were completed under this contract (not including the 13 locations (32 corners) where ADA ramps were completed).

Attachment for letter dated January 2, 2026.

November 18, 2024, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is approved for submission by the Mayor, the Council does hereby authorize the Mayor and City Clerk to execute a contract extension, for and on behalf of the City of Livonia, with Engineered Comfort Systems, Inc., 12480 Allen Road., Taylor, MI 48180, pursuant to Council resolution 304-24, adopted on September 9, 2024, to include the Livonia Police Department Headquarters HVAC chiller installation, in an amount not to exceed \$156,243.50, and waives the building inspection fees associated therewith; FURTHER, the Council does hereby authorize an appropriation and expenditure in an amount not to exceed \$156,243.50 from Account No: 401-000-976-000 (Capital Projects) for this purpose; FURTHER, the Council does hereby authorize such action without competitive bidding for the reasons indicated in the aforesaid communication, and such action is taken in accordance with Section 3.04.140.E.3 of the Livonia Code of Ordinances, as amended; and the City Engineer is hereby authorized to approve minor adjustments in the work as it becomes necessary but this authorization does not entitle the City Engineer to authorize any increase in the not to exceed amount or to contract with other parties; and the City Clerk is hereby requested to do all other things necessary or incidental to the full performance of this resolution.

#95-25 RESOLVED, that having considered a communication from the City Engineer, dated February 24, 2025, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is approved for submission by the Mayor, the Council does hereby authorize and accept the quote of Joe Rotondo Construction Corp., 38807 Ann Arbor Road, Suite 2, Livonia, Michigan 48150 ("Rotondo"), for performing all work required in connection with the 2025 Sidewalk Repair Program (Contract 25-G) by extending their Contract 24-G unit prices for contract 25-G, and determines as follows:

1. Livonia Code of Ordinances, as amended, since no advantage to the To waive the formal bidding process under Section 3.04.140.E.3 of the City would result from competitive bidding;
2. To extend Contract 24-G unit prices for Contract 25-G, 2025 Sidewalk Repair Program in an amount not to exceed \$1,054,347.50 to Joe Rotondo Construction Corp., 38807 Ann Arbor Road, Suite 2, Livonia, MI 48150, on the basis of the bid unit prices from 2024, Contract 24-G, with the exception of revised unit prices for bid items 1, 2, and 3 (concrete sidewalk of various thickness of 4, 6 or 8-inches and agreed upon inspector days of

110 based on quantities) said amount to be adjusted based upon the quantities of work actually completed;

3. To authorize a payment not-to-exceed \$30,000.00 to Precision Concrete Inc., 1896 Goldeneye Drive, Holland, MI 49424 for the saw-cutting portion of the contract;

4. To authorize an advance in an amount not to exceed \$272,782.25 (single lot assessments portion of the program) from the Road, Sidewalk and Tree Fund with the provision that this fund be reimbursed from that portion of the project, which is to be financed by special assessment at such time as funds are subsequently received for the payment of bills as assessments by affected property owners;

5. To authorize an expenditure from budgeted funds in an amount not to exceed \$10,000.00 from Account No. 202-451-977-010 (Major Road – Dist. Sidewalk Cost) and \$97,000.00 from Account No. 203-451-977-010 (Local Road - Dist. Sidewalk Cost) to cover the costs related to the construction or reconstruction of handicap ramps at major and local roads;

6. To authorize an expenditure in an amount not to exceed \$60,000.00 from the Unexpended Fund Balance of the Water and Sewer Fund for sidewalk work adjacent to and including water and sewer structure repairs;

7. To authorize an expenditure in an amount not to exceed \$750,000.00 to repair sidewalks heaved by tree roots from budgeted funds in the Road, Sidewalk and Tree Fund (Account No. 204-447-977-010 Distributed Sidewalk Cost) for the 2025 Sidewalk Repairs;

8. To authorize the City Engineer to approve minor adjustments in the work, as it becomes necessary but this authorization does not entitle the City Engineer to authorize any increase in the not to exceed amount or to contract with other parties; and

9. To authorize the Mayor and City Clerk to execute a contract for and on behalf of the City of Livonia with the aforesaid bidder and to do all other things necessary or incidental to the full performance of this resolution.

#96-25 RESOLVED, that having considered the report and recommendation of the Assistant City Engineer, dated February 28, 2025, submitted pursuant to Council Resolution 220-24, adopted on June 17, 2024, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is



LETTER TO THE LIVONIA CITY COUNCIL

7.

Engineering
January 2, 2026

MEETING DATE

S011426/R012626

PRESENTED BY

Todd Zilincik, P.E., City Engineer

AGENDA ITEM

REQUEST TO WAIVE THE FORMAL BIDDING PROCESS AND APPROVE THE 2026 SIDEWALK REPAIR PROGRAM BY EXTENDING CONTRACT 25-G UNIT PRICES WITH JOE ROTONDO CONSTRUCTION CORP. AND REQUEST TO AUTHORIZE AN APPROPRIATION AND EXPENDITURE TO PRECISION CONCRETE CUTTING, INC.; Engineering Division, re: for Contract 26-G. (CR 95-25)

BACKGROUND DETAILS

The proposed 2026 Sidewalk Repair Program consists of resident complaints and requests of approximately 500 scattered locations throughout the city. The list indicating where sidewalks require installation, repair and/or replacement adjacent to private property is included.

The Engineering Division was approached by Joe Rotondo Construction Corp. concerning their willingness to extend the unit prices from 2025 Sidewalk Repair Program (25-G) for the 2026 and 2027 Sidewalk Repair Program (26-G & 27-G) contracts. This extension will allow the city to continue our efforts to control costs and to offer our residents quality workmanship. Please note that the Joe Rotondo Construction Corp. is a local contractor and has completed concrete repairs for the City of Livonia over the past several years, including the Sidewalk Programs from 2006 through 2011 and 2013 through 2025.

Please see the attached form of proposal dated December 30, 2025, from Joe Rotondo Construction Corp. for the 2026 Sidewalk Repair Program (Contract 26-G). The prices for the 26-G contract have been extended from the 25-G program, with an agreed upon number of inspection days of 110 which was based on quantities.

Also, please note that in 2025 Rotondo Construction Corp. was under budget by approximately \$100,000, by \$18,000 in 2024, by \$43,000 in 2023 and \$25,000 in 2022.

Therefore, we are recommending extending the Contract 25-G unit prices with Joe Rotondo Construction Corp. to complete the sidewalk repairs for the 2026 and 2027 Sidewalk Repair Programs, Contracts 26-G & 27-G. In addition, we are continuing to utilize Precision Concrete, Inc. to provide a cost-effective measure of eliminating vertical displacements by sawcutting/grinding at various locations throughout the City of Livonia.

The total project cost for the 2026 Sidewalk Repair Program (26-G) is \$1,033,629.85 which includes a 10% administrative fee (\$93,966.35) and the contract amount of \$939,663.50 (Rotondo

\$909,663.50 and Precision Concrete Cutting \$30,000). Amounts for the 2027 Sidewalk Repair Program (27-G) will not be available until the beginning of next year, so we will bring those numbers before the Council for approval at that time.

In order to proceed with this project, we recommend that the Council take the following actions:

- Waive the formal bidding process under Section 3.04.140.E.3 of the Livonia Code of Ordinances, as amended, since no advantage to the City would result from competitive bidding.
- Extend contract 25-G unit prices for Contracts 26-G & 27-G and approve the 2026 Sidewalk Repair Program in the amount of \$909,663.50 to Joe Rotondo Construction Corp., 38807 Ann Arbor Road, Suite 2, Livonia, MI 48150. The award should be based on the bid unit prices from Contract 25-G and agreed upon inspector days of 110 based on quantities, said amount to be adjusted based upon the quantities of work completed.
- Authorize a payment not-to-exceed \$30,000.00 to Precision Concrete Inc., 1896 Goldeneye Drive, Holland, MI 49424 for the sawcutting portion of the 2026 and 2027 Sidewalk Program contracts.
- Authorize an advance of \$268,629.85 (single lot assessments portion of the program) for the 2026 program from the Road, Sidewalk and Tree Fund with the provision that this fund be reimbursed from that portion of the project which is to be financed by special assessment at such time as funds are subsequently received for the payment of bills as assessments by affected property owners.
- Authorize an expenditure of \$45,000 for the 2026 program from the Unexpended Fund Balance of the Water and Sewer Fund for sidewalk work adjacent to and including water and sewer structure repairs.
- Authorize an expenditure of \$670,000.00 for the 2026 program to repair sidewalks heaved by tree roots from budgeted funds in the Road, Sidewalk and Tree Fund (Account No. 204-447-977-010 Distributed Sidewalk Cost).
- Authorize an expenditure from budgeted funds of \$10,000.00 from Account No. 202-451-977-010 (Major Road – Dist. Sidewalk Cost) and \$40,000.00 from Account No. 203-451-977-010 (Local Road - Dist. Sidewalk Cost) for the 2026 program to cover the costs related to the construction or reconstruction of handicap ramps at major and local roads.
- Authorize the City Engineer to approve minor adjustments in the work, as required.

Please note that property owners are required to notify the City of their intention to have the installation, repair, or the removal and replacement of certain unsafe sections of sidewalk by May 4, 2026, if they choose to have the work completed themselves, otherwise the City's contractor will repair them.

In order to proceed with this project, we recommend that the Council take the following actions:

- Waive the formal bidding process under Section 3.04.140.E.3 of the Livonia Code of Ordinances, as amended, since no advantage to the City would result from competitive bidding.
- Extend contract 25-G unit prices for Contracts 26-G & 27-G and approve the 2026 Sidewalk Repair Program in the amount of \$909,663.50 to Joe Rotondo Construction Corp., 38807 Ann Arbor Road, Suite 2, Livonia, MI 48150. The award should be based on the bid unit prices from Contract 25-G and agreed upon inspector days of 110 based on quantities, said amount to be adjusted based upon the quantities of work completed.
- Authorize a payment not-to-exceed \$30,000.00 to Precision Concrete Inc., 1896 Goldeneye Drive, Holland, MI 49424 for the sawcutting portion of the 2026 and 2027 Sidewalk Program contracts.
- Authorize an advance of \$268,629.85 (single lot assessments portion of the program) for the 2026 program from the Road, Sidewalk and Tree Fund with the provision that this fund be reimbursed from that portion of the project which is to be financed by special assessment at such time as funds are subsequently received for the payment of bills as assessments by affected property owners.
- Authorize an expenditure of \$45,000 for the 2026 program from the Unexpended Fund Balance of the Water and Sewer Fund for sidewalk work adjacent to and including water and sewer structure repairs.
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- Authorize an expenditure from budgeted funds of \$10,000.00 from Account No. 202-451-977-010 (Major Road – Dist. Sidewalk Cost) and \$40,000.00 from Account No. 203-451-977-010 (Local Road - Dist. Sidewalk Cost) for the 2026 program to cover the costs related to the construction or reconstruction of handicap ramps at major and local roads.
- Authorize the City Engineer to approve minor adjustments in the work, as required.

SPECIFIC NAME OF PRODUCT AND NUMBER TO BE PURCHASED (if more than one)

N/A

CONTRACT: Amount and/or purchase price and length of contract (with dates if applicable)

\$939,663.50 (Joe Rotondo Construction Corp. \$909,663.50 and Precision Concrete Inc. \$30,000)

DETAILED WORK BEING PERFORMED

2026 Sidewalk Repair Program

FISCAL CONSIDERATIONS (Amount requested and Account(s) used. If applicable, Grant Funding information)

\$268,629.85 Single Lot Assessment from the Road, Sidewalk and Tree Fund to be reimbursed through Special Assessments

\$45,000 from Unexpended Fund Balance of the Water and Sewer Fund

\$670,000.00 from Road, Sidewalk and Tree Fund (Account No. 204-447-977-010 Distributed Sidewalk Cost)

\$10,000.00 from Account No. 202-451-977-010 (Major Road – Dist. Sidewalk Cost)

\$40,000.00 from Account No. 203-451-977-010 (Local Road - Dist. Sidewalk Cost)

Totaling \$1,033,629.85 (which includes the 10% administrative cost of \$93,966.35)

ACCEPTANCE OF BID (Please detail the following: Why accepted, why not lowest bidder, company name, contact person, full address)

n/a

REASON TO WAIVE BID PROCESS (Emergency, Professional services, No advantage to City and why, Consortium package, etc): Waive the formal bidding process under Section 3.04.140.E.3 of the Livonia Code of Ordinances, as amended, since no advantage to the City would result from competitive bidding.

ATTACHMENTS

1. 2026 Sidewalk Program Form of Proposal - Signed
2. 25-G Contract
3. 26-G Contract Book
4. CR 95-25

APPROVED BY



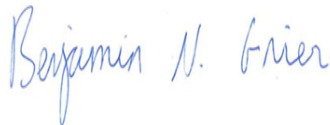
David Lear, Assistant City Engineer

Date: January 02, 2026



Don Rohraff, Director of Public Works

Date: January 02, 2026



Benjamin N. Grier, JD, CPA, Finance Director

Date: January 02, 2026



Date: January 05, 2026

Carter Fisher, City Attorney

A handwritten signature in black ink, appearing to read "Maureen Miller Brosnan". The signature is written in a cursive, flowing style.

Maureen Miller Brosnan, Mayor

Date: January 05, 2026

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
FORM OF PROPOSAL

City of Livonia
33000 Civic Center Drive
Livonia, Michigan 48154

The undersigned, by the submission of this proposal, represents that they is familiar with and has determined for themselves the nature and extent of the proposed work and the conditions under which it must be performed and completed, and agrees that they will contract with the City of Livonia to furnish at and for the following monies, all materials, labor, equipment, insurance, supervision, and all other things necessary or incidental to complete the entire work in accordance with the appended plans, specifications, general conditions and related contract documents. By submission of this bid, the undersigned represents that he/she is familiar with and understands all of the above referenced contract documents.

The undersigned agrees that if the proposal made herein is accepted, they will satisfactorily perform and complete all of the work and meet all of the requirements and obligations imposed on them by the contract, including the plans, specifications and general conditions. The contractor is to commence work on or before **June 1, 2026** and all work shall be completed on or before **September 26, 2026**. City offices will be closed May 25th, July 4th and September 20th, 2026. The work shall be completed within one hundred twenty (120) calendar days of the "Notice to Proceed", **no exceptions**.

Also, the undersigned agrees that if the above proposal is accepted, they will execute the contract and furnish acceptable bonds, all on forms attached, within ten (10) calendar days from such acceptance.

To guarantee his fulfillment of the foregoing covenants, the bidder attached hereto their certified check or bid bond in the sum of 5% of the Proposal and agrees that same shall be forfeited to the City of Livonia, in the event of his/her failure to execute the contract or furnish acceptable bonds, not as a penalty but as liquidated damages. **The bidder further agrees to pay as liquidated damaged the sum of \$250.00 for each consecutive calendar day after the required completion date as hereinafter provided in Paragraph 39 of the General Conditions.** The City shall not be required to prove or show such liquidated damages.

No bid shall be withdrawn for at least one hundred twenty (120) days after the scheduled closing time for receiving bids.

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
FORM OF PROPOSAL

Item No.	Item Description	Qty	Unit	Bid Unit Price (\$)	Total Price (\$)
1	Remove and Replace 4" Concrete Sidewalk	72,500	s.f.	\$ 9.00	\$ 652,500.00
2	Remove and Replace 6" Concrete Sidewalk or Approach	13,000	s.f.	\$ 9.50	\$ 123,500.00
3	Remove and Replace 8" Concrete Sidewalk or Approach	641	s.f.	\$ 11.00	\$ 7,051.00
4	Remove and Replace 7" Plain Concrete Pavement	250	s.f.	\$ 9.25	\$ 2,312.50
5	Remove Concrete Curb & Gutter (at ramp locations & replace w/ flush curb)	500	l.f.	\$ 45.00	\$ 22,500.00
6	Remove and Replace Concrete Curb (6" to 8")	100	l.f.	\$ 1.00	\$ 100.00
7	Place 4" Concrete Sidewalk	25	s.f.	\$ 1.00	\$ 25.00
8	Remove and Replace 6" Concrete Sidewalk (incl. first ADA ramp flag w/ 4'x2' dome/tactile at approximately 20 locations w/ 30 s.f. each)	1,200	s.f.	\$ 14.00	\$ 16,800.00
9	Place 6" Concrete Sidewalk (incl. first ADA ramp flag w/ 5'x2' dome/tactile at approximately 6 locations w/ 30 s.f. each)	60	s.f.	\$ 14.00	\$ 840.00
10	Place 8" Concrete Sidewalk	100	s.f.	\$ 1.00	\$ 100.00
11	Remove 4" to 6" Sidewalk or Approach	100	s.f.	\$ 1.50	\$ 150.00
12	Remove and Replace 9" Reinforced Concrete Pavement	250	s.f.	\$ 1.00	\$ 250.00
13	Remove and Replace 2" to 6" Asphalt	100	s.f.	\$ 0.50	\$ 50.00
14	Remove 1" to 3" Asphalt	100	s.f.	\$ 0.10	\$ 10.00
15	Remove +3" to 6" Asphalt	100	s.f.	\$ 0.10	\$ 10.00
16	Special Saw Cutting	50	s.f.	\$ 2.00	\$ 100.00
17	Horizontal Curb Saw-Cutting	50	l.f.	\$ 0.10	\$ 5.00
18	Adjust Sprinkler Line (ADA Ramp Locations Only)	200	l.f.	\$ 5.00	\$ 1,000.00
19	Replace In-Kind Sprinkler Head (ADA Ramp Locations Only)	25	ea.	\$ 27.00	\$ 675.00

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
FORM OF PROPOSAL

Item No.	Item Description	Qty	Unit	Bid Unit Price (\$)	Total Price (\$)
20	Place 4" to 6" Concrete Sidewalk w/ Integral Curb (Ramp Locations Only)	500	s.f.	\$ 9.20	\$ 4,600.00
21	Adjust Structure (top 1')	15	ea.	\$ 275.00	\$ 4,125.00
22	Adjust Structure (each additional 1')	10	ea.	\$ 50.00	\$ 500.00
23	Adjust Sanitary Structure – Top 30" (incl. adjustment and encapsulation)	15	ea.	\$ 900.00	\$ 13,500.00
24	Excavation	10	c.y.	\$ 1.00	\$ 10.00
25	Class II Sand (C.I.P.)	10	c.y.	\$ 1.00	\$ 10.00
26	3" Topsoil, Seed, Mulch and Fertilizer	50	s.y.	\$ 1.00	\$ 50.00
27	Sod	15	s.y.	\$ 1.00	\$ 15.00
28	Stone 21AA Limestone	25	c.y.	\$ 15.00	\$ 375.00
29	Wayne County Permit Fees	1	l.s.	\$ 3,500.00	\$ 3,500.00
30	Inspector Days (Min.110 Days)	110	Days	\$ 500.00	\$ 55,000.00
Total Bid (Items 1-30)					\$ 909,663.50
31	Precision Concrete Cutting*	1	l.s.	\$ 30,000.00	\$ 30,000.00

*Note: Line Item 31 will be paid separately to Precision Concrete Cutting for grinding vertical separations throughout the City of Livonia.

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
FORM OF PROPOSAL

The undersigned agrees that the City of Livonia may increase or decrease the quantity of work without changing the unit price bid for the work.

The undersigned represents that he acknowledges that the City reserves the right to accept or reject any bid or all bids and to waive irregularities in bids.

ROTONDO CONSTRUCTION CORP.
Contractor

38807 ANN ARBOR RD. SUITE 2 LIVONIA, MI 48150
Address

248-474-0707 383208882 12/30/2025
Telephone No. Federal I.D. No. Date

MARC ROTO EXECUTIVE OFFICER
By Title
MARCO ROTO

NOTE:

- A. The contractor must submit one (1) Form of Proposals and all other bid documents to be submitted electronically following the instructions in the "Notice to Bidders" and "Instructions to Bidders" sections and recommend that the contractor retain one (1) copy for their file.
- B. Bidder should not add any conditions or qualifying statement to their bid, otherwise the bid may be declared irregular as being not responsive to the Notice to Bidders.
- C. The name of the signee must be clearly printed or typed under their signature.

2025 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 25-G
FORM OF PROPOSAL

City of Livonia
33000 Civic Center Drive
Livonia, Michigan 48154

The undersigned, by the submission of this proposal, represents that they is familiar with and has determined for themselves the nature and extent of the proposed work and the conditions under which it must be performed and completed, and agrees that they will contract with the City of Livonia to furnish at and for the following monies, all materials, labor, equipment, insurance, supervision, and all other things necessary or incidental to complete the entire work in accordance with the appended plans, specifications, general conditions and related contract documents. By the submission of this bid, the undersigned represents that he/she is familiar with and understands all of the above referenced contract documents.

The undersigned agrees that if the proposal made herein is accepted, they will satisfactorily perform and complete all of the work and meet all of the requirements and obligations imposed on them by the contract including the plans, specifications and general conditions. The contractor is to commence work on or before **June 2, 2025** and all work shall be completed on or before **September 26, 2025**. City offices will be closed May 26th, July 4th and September 21st, 2025. The work shall be completed within one hundred twenty (120) calendar days of the "Notice to Proceed", **no exceptions**.

Also, the undersigned agrees that if the above proposal is accepted, they will execute the contract and furnish acceptable bonds, all on forms attached, within ten (10) calendar days from such acceptance.

To guarantee his fulfillment of the foregoing covenants, the bidder attached hereto their certified check or bid bond in the sum of 5% of the Proposal and agrees that same shall be forfeited to the City of Livonia, in the event of his/her failure to execute the contract or furnish acceptable bonds, not as a penalty but as liquidated damages. **The bidder further agrees to pay as liquidated damaged the sum of \$250.00 for each consecutive calendar day after the required completion date as hereinafter provided in Paragraph 39 of the General Conditions.** The City shall not be required to prove or show such liquidated damages.

No bid shall be withdrawn for at least one hundred twenty (120) days after the scheduled closing time for receiving bids.

2025 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 25-G
FORM OF PROPOSAL

SCATTERED & TARGET LOCATIONS 1 THRU 554

Note: Scattered and Target locations will have the same unit prices

Item No.	Item Description	Qty	Unit	Bid Unit Price (\$)	Total Price (\$)
1	Remove and Replace 4" Concrete Sidewalk	86,236	s.f.	\$ 9. ⁰⁰	\$ 776,124. ⁰⁰
2	Remove and Replace 6" Concrete Sidewalk or Approach	14,178	s.f.	\$ 9.50	\$ 134,691. ⁰⁰
3	Remove and Replace 8" Concrete Sidewalk or Approach	1,620	s.f.	\$ 11. ⁰⁰	\$ 17,820. ⁰⁰
4	Remove and Replace 7" Plain Concrete Pavement	250	s.f.	\$ 9.25	\$ 2,312.50
5	Remove Concrete Curb & Gutter (at ramp locations & replace w/ flush curb)	500	l.f.	\$ 45. ⁰⁰	\$ 22,500. ⁰⁰
6	Remove and Replace Concrete Curb (6" to 8")	100	l.f.	\$ 1. ⁰⁰	\$ 100. ⁰⁰
7	Place 4" Concrete Sidewalk	25	s.f.	\$ 1. ⁰⁰	\$ 25. ⁰⁰
8	Remove and Replace 6" Concrete Sidewalk (incl. first ADA ramp flag w/ 4'x2' dome/tactile at approximately 20 locations w/ 30 s.f. each)	1,200	s.f.	\$ 14. ⁰⁰	\$ 16,800. ⁰⁰
9	Place 6" Concrete Sidewalk (incl. first ADA ramp flag w/ 5'x2' dome/tactile at approximately 6 locations w/ 30 s.f. each)	60	s.f.	\$ 14. ⁰⁰	\$ 840. ⁰⁰
10	Place 8" Concrete Sidewalk	100	s.f.	\$ 1. ⁰⁰	\$ 100. ⁰⁰
11	Remove 4" to 6" Sidewalk or Approach	100	s.f.	\$ 1.50	\$ 150. ⁰⁰
12	Remove and Replace 9" Reinforced Concrete Pavement	250	s.f.	\$ 1. ⁰⁰	\$ 250. ⁰⁰
13	Remove and Replace 2" to 6" Asphalt	100	s.f.	\$.50	\$ 50. ⁰⁰
14	Remove 1" to 3" Asphalt	100	s.f.	\$.10	\$ 10. ⁰⁰
15	Remove +3" to 6" Asphalt	100	s.f.	\$.10	\$ 10. ⁰⁰
16	Special Saw Cutting	50	s.f.	\$ 2. ⁰⁰	\$ 100. ⁰⁰
17	Horizontal Curb Saw-Cutting	50	l.f.	\$.10	\$ 5. ⁰⁰
18	Adjust Sprinkler Line (ADA Ramp Locations Only)	200	l.f.	\$ 5. ⁰⁰	\$ 1,000. ⁰⁰
19	Replace In-Kind Sprinkler Head (ADA Ramp Locations Only)	25	ea.	\$ 27. ⁰⁰	\$ 675. ⁰⁰

2025 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 25-G
FORM OF PROPOSAL

Item No.	Item Description	Qty	Unit	Bid Unit Price (\$)	Total Price (\$)
20	Place 4" to 6" Concrete Sidewalk w/ Integral Curb (Ramp Locations Only)	500	s.f.	\$ 9.20	\$ 4,600.00
21	Adjust Structure (top 1')	15	ea.	\$ 275.00	\$ 4,125.00
22	Adjust Structure (each additional 1')	10	ea.	\$ 50.00	\$ 500.00
23	Adjust Sanitary Structure – Top 30" (incl. adjustment and encapsulation)	14	ea.	\$ 900.00	\$ 12,600.00
24	Excavation	10	c.y.	\$ 1.00	\$ 10.00
25	Class II Sand (C.I.P.)	10	c.y.	\$ 1.00	\$ 10.00
26	3" Topsoil, Seed, Mulch and Fertilizer	50	s.y.	\$ 1.00	\$ 50.00
27	Sod	15	s.y.	\$ 1.00	\$ 15.00
28	Stone 21AA Limestone	25	c.y.	\$ 15.00	\$ 375.00
29	Wayne County Permit Fees	1	l.s.	\$ 3,500.00	\$ 3,500.00
30	Inspector Days (Min. 110 Days)	110	Days	\$ 500.00	\$ 55,000.00
Total Bid (Items 1-30)					\$1,054,347.50
31	Precision Concrete Cutting*	1	l.s.	\$ 15,000.00	\$ 15,000.00

*Note: Line Item 31 will be paid separately to Precision Concrete Cutting for grinding vertical separations throughout the City of Livonia.

2025 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 25-G
FORM OF PROPOSAL

The undersigned agrees that the City of Livonia may increase or decrease the quantity of work without changing the unit price bid for the work.

The undersigned represents that he acknowledges that the City reserves the right to accept or reject any bid or all bids and to waive irregularities in bids.

ROTONDO CONSTRUCTION CORP.
Contractor

38807 ANN ARBOR RD. SUITE 2 - LIVONIA, MI 48150
Address

248-474-0707 383208882 2/21/25
Telephone No. Federal I.D. No. Date

JOE ROTONDO PRESIDENT
By Title

NOTE:

- A. The contractor must submit one (1) Form of Proposals and all other bid documents to be submitted electronically following the instructions in the "Notice to Bidders" and "Instructions to Bidders" sections and recommend that the contractor retain one (1) copy for their file.
- B. Bidder should not add any conditions or qualifying statement to their bid, otherwise the bid may be declared irregular as being not responsive to the Notice to Bidders.
- C. The name of the signee must be clearly printed or typed under their signature.

SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR

2026 SIDEWALK PROGRAM

CITY OF LIVONIA, MICHIGAN

CONTRACT 26-G



DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

DECEMBER 2025

2026 SIDEWALK PROGRAM
CITY OF LIVONIA,
MICHIGAN CONTRACT 26-G
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2025 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 25-G
NOTICE TO BIDDERS

Sealed proposals for the **2025 Sidewalk Repair Program** will be received by the City of Livonia, Michigan via MITN website (www.mitn.info) as owner until 2:00 P.M. on **Tuesday, _____**, at which time said proposals will be opened and publicly read. The bids will be recorded by the Purchasing Manager and the City Clerk. Bid opening results will be completed via Zoom meeting and posted to the MITN website.

A mandatory pre-bid meeting is scheduled for Wednesday, _____ at 10 am to be held at the DPW Headquarters Conference Room located at 12973 Farmington Road, Livonia, Michigan 48150. Bidders, or their representatives, must attend the pre-bid meeting to be eligible to bid on the project.

Bidders wishing to attend the bid opening via the zoom meeting shall use the following information:

Website: <https://us02web.zoom.us/j/82294127641>
Meeting I.D.: 822 9412 7641
Phone: (312) 626-6799

The City of Livonia seeks proposals for the following:

The removal and replacement of concrete sidewalk 4, 6, and 8-inches in thickness, concrete curb and gutter, ADA ramps and other related items of work within the City of Livonia.

Instructions to bidders and specifications may be obtained by registering with the Michigan Inter-Governmental Trade Network (MITN) at www.mitn.info.

Bids shall be in accordance with the requirements of this notice to be deemed "responsive". Late bids will not be considered.

All addendums will be posted on MITN Website. Any information not obtained from the MITN website should not be relied upon.

All bids must be submitted electronically in Adobe Acrobat Format.

Each proposal shall be accompanied by a bid bond on the Michigan Standard Form issued by an approved Surety Company.

Bids are to be submitted on the MITN website marked "**BID - 2025 Sidewalk Repair Program: Contract 25-G**" and received on or before the time and date given above.

The Prime Contractor shall demonstrate that they have successfully completed projects in the last five (5) years of equal scope (i.e. residential concrete sidewalk repairs and ADA ramp replacements) in the State of Michigan and where each year totaled more than \$600,000 in construction work. Equipment utilizing a telehandler to significantly reduce ruts and restoration issues for removal of sidewalk will be required unless contractor may provide an alternative approved method of removal.

No bidder may withdraw their proposal within one hundred twenty (120) calendar days after the date set for opening thereof. The right to accept any bid, to reject any or all proposals and to waive irregularities in bidding is reserved by the City of Livonia. Portions of this Contract may be deleted due to unforeseen circumstances without compensation. Acceptance of any bid does not constitute a binding agreement until a written Contract is signed by both parties.

Todd J. Zilincik, P.E.
City Engineer

Maureen Miller Brosnan
Mayor

INSTRUCTIONS TO BIDDERS

1. QUALIFICATIONS OF BIDDER

To demonstrate Bidder's qualifications to perform the Work, the OWNER requires the Bidder to furnish all of the applicable information on the enclosed Statement of Qualifications and Project References as well as the Subcontractor List. The aforementioned statement must be submitted with the sealed Bid at the time of the Bid Opening. Firms responding to this solicitation shall demonstrate in their bid response a minimum of five (5) years experience in providing the types of goods/services specified herein.

2. ADVERTISEMENT

The published Advertisement for Bids for the proposed work contains information necessary to Bidders. A copy of the Advertisement for Bids is attached hereto as the Notice to Bidders and is to be considered a part of the Instructions to Bidders as fully as if repeated herein.

3. EXAMINATION OF THE CONTRACT DOCUMENTS

Before submitting a Bid, each Bidder should:

- a. Examine the Contract Documents (including any Addenda and the other related data identified in the Bidding Documents) thoroughly;
- b. Visit the site to become familiar with local conditions that may in any manner affect performance of the Work;
- c. Become familiar with Federal, State, and local laws, ordinances, rules and regulations affecting performance of the work; and
- d. Carefully correlate his observations with the requirements of the Contract Documents.
- e. Establish firm lead times for all materials to be used in satisfying the requirements of this project.
- f. Ensure that they are able to obtain and maintain the insurance coverages required until project completion as determined by the City of Livonia.

Where information concerning existing conditions, including subsurface conditions, is provided in the Contract Documents, such information is provided for the convenience of the Bidder and not as a guarantee of conditions. The Bidder shall be satisfied as to the sufficiency and representation of such data and shall make all investigations necessary so that the Bid shall be based upon knowledge and estimation of conditions to be met. The Bidder shall make all the investigations necessary to become adequately informed regarding the availability of all facilities which will be required to perform the work.

Submission of a Bid will constitute an incontrovertible representation by the Bidder that Bidder has complied with all the requirements of this Section.

4. MANDATORY PRE-BID CONFERENCE (REQUIRED FOR THIS CONTRACT)

A Pre-Bid meeting will be held and is noted in the Advertisement or Invitation to Bid. Representatives of OWNER and ENGINEER will be present to discuss the Project. Bidders are required to attend and participate in the conference. Addenda will be transmitted to all prospective Bidders on record as having received bid documents from the MITN website (www.mitn.info) All addenda will be posted on the MITN website as necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

INSTRUCTIONS TO BIDDERS

5. INTERPRETATION OF CONTRACT DOCUMENTS

All questions about the meaning or intent of the Contract Documents shall be submitted to Gus Kandah, gkandah@livonia.gov for this contract. Replies will be issued by Addenda posted to the MITN website (www.mitn.info). Questions received less than four (4) days prior to the date of opening of Bids will not be answered. Only those questions that are answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6. ADDENDA

Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed by the City of Livonia. Any addenda issued during the time of bidding or forming a part of the Contract Documents shall be included in the Bid and shall be made a part of the Contract Documents. Receipt of each Addendum shall be acknowledged in the Bid.

7. BID SECURITY

A Bid must be accompanied by Bid security made payable to OWNER (the City of Livonia) in an amount of 5% of Bidder's maximum Bid price. The required security must be in the form of a Bid bond by a surety licensed to conduct business in the State of Michigan and named in the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Department. Attorneys-in-fact who execute the Bid Security or Bid Bond on behalf of the Surety shall affix to the bond a certified and copy of the power of attorney. The Bid security of the successful Bidder will be retained until the Agreement has been executed and the successful bidder has furnished the required Contract security, whereupon Bid Security will be returned. If Bidder fails to execute and deliver the Agreement and furnish the required Contract security within ten days of receipt of the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid Security of any Bidder whom OWNER believes to have a reasonable chance of receiving the Award may be retained by the OWNER until the earlier of the seven (7) days after the effective date of the Agreement or 120 days after the Bid opening. Bid Security of other Bidders will be returned within seven (7) days of the Bid opening.

8. CONTRACT TIME

The number of days allowed for the Completion of Work (the Contract Time) is set forth in the Bid and will be included in the executed Agreement. Any provisions for liquidated damages are set forth in the Contract Documents.

9. SUBSTITUTE AND "OR EQUAL" ITEMS

The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or equal" items. Whenever materials or equipment are specified or described in the Bidding Documents by using the name of one or more Suppliers, the Bid shall be based on providing the materials or equipment of one of the Suppliers named. Whenever it is specified or described in the Bidding Documents that a substitute or an "or equal" item of material may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement.

INSTRUCTIONS TO BIDDERS

10. SUBCONTRACTOR, SUPPLIERS AND OTHERS

The Bidder to whom an Award is made will not be entitled to additional compensation or extension of Contract Time by reason of failure to fully understand all Subcontractor or Supplier quotations. The Bidder is responsible for all coordination between Subcontractors and Suppliers during bidding and construction so that work is completed for the Contract Price and within the Contract Time.

11. PREPARATION OF BID

The Bid form is included with the Bidding Documents. Additional copies may be obtained from the MITN website (www.mitn.info). All blanks on the Bid form shall be completed by printing in ink or by typewriter and the Bid signed. A Bid price shall be indicated for each unit price item listed therein, or the words "no Bid", "No Change", or "Not Applicable" entered. In case of discrepancy between the Total Amount Bid and the summation of the products of item quantity and unit price, unit prices shall govern.

Alterations to prices or amounts already entered on the Bid form may be made only by crossing out the price or amount in ink and entering the new price or amount above or below the voided price or amount in ink, with the change initialed and dated by the Bidder in ink.

The Bid shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled in on the Bid form. Alternate Bids will not be considered unless expressly requested by the OWNER or ENGINEER. Oral Bids will not be considered. A conditional Bid or conditions attached to Bids shall have no force or effect.

A Bid shall be submitted on the MITN website (www.mitn.info) no later than the date and time prescribed and shall be accompanied by the Bid security and other required documents. Late bids will not be considered. It is the responsibility of the firm submitting the bid to ensure that it is submitted by the deadline specified in the bid documents.

12. REQUIREMENTS FOR SIGNING BIDS

A Bid that has not been signed by the individual authorized to do so shall have attached thereto a Power of Attorney evidencing authority to sign the Bid in the name of the person for whom it is signed. Bids that are signed by a partnership shall be signed by all of the partners or by an Attorney-in-Fact. If signed by an Attorney-in-Fact, there shall be attached to the Bid a Power of Attorney evidencing authority to sign the Bid, executed by the partners.

Bids that are signed for a corporation shall have the correct corporate name thereof and the signatures of the president or other authorized officers of the corporation manually written below the corporate name following the word "By." If such a Bid is manually signed by an officer other than the president of the corporation, a certified resolution of the Board of Directors evidencing the authority of such official to sign the Bid shall be attached to it. Such a Bid shall also bear the attested signature of the secretary of the corporation and the impression of the corporate seal.

13. MODIFICATION OR WITHDRAWAL OF BIDS

Any Bidder may withdraw its Bid, either personally or by written request, at any time prior to the scheduled time for Bid Opening. If, within 24 hours after Bids are opened, any Bidder files a duly signed, written notice with OWNER and promptly thereafter demonstrated to the

INSTRUCTIONS TO BIDDERS

reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work. No withdrawal of a Bid shall be permitted on account of mistake or any other reason after the expiration of this 24-hour period.

14. OPENING OF BIDS

Bids will be opened at the time and place indicated in the Advertisement for Bids and, unless obviously nonresponsive, read aloud publicly. An abstract of the amounts of the Bids and alternates, if any, will be made available to Bidders after the opening of Bids.

15. AWARD OF CONTRACT

The OWNER reserves the right to accept any Bid or alternate and award the Contract to other than the lowest bidder; to waive any irregularities or informalities, or both; to reject any or all Bids; and in general to make the award of the Contract in any manner deemed by the OWNER, in its sole discretion, to be in the best interests of the OWNER.

More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of the Bidder and the rejection of all Bids in which that Bidder has an interest.

Opening and reading the Bids shall not constitute the acceptance of a Bidder as qualified. The right is reserved by the OWNER to determine a Bidder's qualifications, either from the OWNER'S knowledge or from other sources.

Should the OWNER be unable to award the Contract within 90 calendar days following the opening of Bids, the OWNER reserves the right to award the Contract at a later date to the lowest qualified Bidder at its Bid price, providing said Bidder is willing to accept such award.

Award of the Contract may be contingent upon receipt of easement, permits from involved outside regulatory agencies, and commitment of funding to the Project by the OWNER. The OWNER reserves the right to delay issuance of a Notice to Proceed or terminate the Contract pending acquisition of such easements and permits. The CONTRACTOR shall not be entitled to compensation or damages in the event of such termination.

The OWNER further reserves the right to require the CONTRACTOR to schedule work in such a manner as to remain outside of those areas for which easements have not been obtained until such time as easements are obtained. The OWNER further reserves the right to add or delete items of work or entire sections of work for any reason whatsoever, including but not limited to, budgetary constraints or the inability to obtain necessary construction easements.

16. INSURANCE

The successful Bidder will be required to carry insurance in the amounts and kinds specified in the General Conditions, as may be modified by the Supplementary Conditions. Such insurance must be issued by companies and in a form satisfactory to the OWNER. Certificates of such insurance must be attached to each copy of the executed Contract Documents. These certificates shall contain a provision that coverages afforded under the policies will not be

INSTRUCTIONS TO BIDDERS

cancelled or materially changed unless at least thirty (30) days prior written notice has been given to the OWNER and ENGINEER, as evidenced by return receipt or registered or certified mail.

17. BONDS

The successful Bidder will be required to furnish for each set of executed Contract Documents and conformed copies thereof, original conformed performance bond, payment bond and maintenance and guarantee bonds on the forms attached hereto a surety acceptable to the OWNER and meeting the requirements specified in the General Conditions, as may be modified by the Supplementary Conditions. All required bonds must be submitted to and approved by the owner prior to the start of any work being performed in conjunction with the contract. Failure to submit bonds in a timely manner may result in cancellation of the contract.

18. EXECUTION OF THE AGREEMENT

When the OWNER issues a Notice of Award to the successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement bound into the Project Manual with the other Contract Documents. Within ten (10) days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to the OWNER. Within fifteen (15) days thereafter, OWNER will deliver one fully signed counterpart to the Successful Bidder.

In case of failure to comply with this requirement, the Successful Bidder shall be considered to have abandoned all rights and interest in the Award and its Bond Security may be declared forfeited to the OWNER and the Contract may be awarded to another Bidder.

19. PROGRESS MEETING

Bi-weekly or monthly progress meetings will be held at the DPW Headquarters Conference Room located at 12973 Farmington Road, Livonia, Michigan 48154. The meetings will start during the first week that the Contractor or one of his sub-contractors is scheduled to begin work as presented at the pre-construction meeting. The time and day of the progress meetings will be scheduled at the pre-construction meeting.

Representatives of the Contractor and any sub-contractors scheduled to perform work during the upcoming week will be required to attend. The City of Livonia will be represented by the Project Engineer and the Senior Engineering Inspector.

Meetings will continue until the project is complete or work is suspended due to weather or seasonal limitations. Meetings will be rescheduled when the work suspension is lifted.

The site of the meeting may be changed to the project site at the discretion of the Project Engineer. Only the Project Engineer may cancel a scheduled progress meeting. A failure of the Contractor to attend the scheduled meetings may result in increased retainage being imposed until the situation is corrected.

INSTRUCTIONS TO BIDDERS

20. HOURS OF OPERATION FOR PROJECT WORK

Contractor will be allowed to begin working any time after 7:00 a.m. in accordance with City ordinance requirements. No work shall be performed on Sundays. Saturday work may be permitted with prior approval from the City Engineer.

21. BID FORMAT

Documents to be returned in response to this bid shall include, and follow the order specified below:

- A. Bid Surety
- B. Acknowledgement of Addenda (if any)
- C. Form of Proposal (FP-1 thru FP-4)
- D. Statement of Qualifications Project References (SQRP-1 thru SQPR-3)

Ensure that the information listed above is returned with your sealed bid response. Please note that you do not need to reprint and return the entire packet of documents that you received from the MITN site.

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
FORM OF PROPOSAL

City of Livonia
33000 Civic Center Drive
Livonia, Michigan 48154

The undersigned, by the submission of this proposal, represents that they is familiar with and has determined for themselves the nature and extent of the proposed work and the conditions under which it must be performed and completed, and agrees that they will contract with the City of Livonia to furnish at and for the following monies, all materials, labor, equipment, insurance, supervision, and all other things necessary or incidental to complete the entire work in accordance with the appended plans, specifications, general conditions and related contract documents. By submission of this bid, the undersigned represents that he/she is familiar with and understands all of the above referenced contract documents.

The undersigned agrees that if the proposal made herein is accepted, they will satisfactorily perform and complete all of the work and meet all of the requirements and obligations imposed on them by the contract, including the plans, specifications and general conditions. The contractor is to commence work on or before **June 1, 2026** and all work shall be completed on or before **September 26, 2026**. City offices will be closed May 25th, July 4th and September 20th, 2026. The work shall be completed within one hundred twenty (120) calendar days of the "Notice to Proceed", **no exceptions**.

Also, the undersigned agrees that if the above proposal is accepted, they will execute the contract and furnish acceptable bonds, all on forms attached, within ten (10) calendar days from such acceptance.

To guarantee his fulfillment of the foregoing covenants, the bidder attached hereto their certified check or bid bond in the sum of 5% of the Proposal and agrees that same shall be forfeited to the City of Livonia, in the event of his/her failure to execute the contract or furnish acceptable bonds, not as a penalty but as liquidated damages. **The bidder further agrees to pay as liquidated damaged the sum of \$250.00 for each consecutive calendar day after the required completion date as hereinafter provided in Paragraph 39 of the General Conditions.** The City shall not be required to prove or show such liquidated damages.

No bid shall be withdrawn for at least one hundred twenty (120) days after the scheduled closing time for receiving bids.

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
FORM OF PROPOSAL

Item No.	Item Description	Qty	Unit	Bid Unit Price (\$)	Total Price (\$)
1	Remove and Replace 4" Concrete Sidewalk	72,500	s.f.	\$ 9.00	\$ 652,500.00
2	Remove and Replace 6" Concrete Sidewalk or Approach	13,000	s.f.	\$ 9.50	\$ 123,500.00
3	Remove and Replace 8" Concrete Sidewalk or Approach	641	s.f.	\$ 11.00	\$ 7,051.00
4	Remove and Replace 7" Plain Concrete Pavement	250	s.f.	\$ 9.25	\$ 2,312.50
5	Remove Concrete Curb & Gutter (at ramp locations & replace w/ flush curb)	500	l.f.	\$ 45.00	\$ 22,500.00
6	Remove and Replace Concrete Curb (6" to 8")	100	l.f.	\$ 1.00	\$ 100.00
7	Place 4" Concrete Sidewalk	25	s.f.	\$ 1.00	\$ 25.00
8	Remove and Replace 6" Concrete Sidewalk (incl. first ADA ramp flag w/ 4'x2' dome/tactile at approximately 20 locations w/ 30 s.f. each)	1,200	s.f.	\$ 14.00	\$ 16,800.00
9	Place 6" Concrete Sidewalk (incl. first ADA ramp flag w/ 5'x2' dome/tactile at approximately 6 locations w/ 30 s.f. each)	60	s.f.	\$ 14.00	\$ 840.00
10	Place 8" Concrete Sidewalk	100	s.f.	\$ 1.00	\$ 100.00
11	Remove 4" to 6" Sidewalk or Approach	100	s.f.	\$ 1.50	\$ 150.00
12	Remove and Replace 9" Reinforced Concrete Pavement	250	s.f.	\$ 1.00	\$ 250.00
13	Remove and Replace 2" to 6" Asphalt	100	s.f.	\$ 0.50	\$ 50.00
14	Remove 1" to 3" Asphalt	100	s.f.	\$ 0.10	\$ 10.00
15	Remove +3" to 6" Asphalt	100	s.f.	\$ 0.10	\$ 10.00
16	Special Saw Cutting	50	s.f.	\$ 2.00	\$ 100.00
17	Horizontal Curb Saw-Cutting	50	l.f.	\$ 0.10	\$ 5.00
18	Adjust Sprinkler Line (ADA Ramp Locations Only)	200	l.f.	\$ 5.00	\$ 1,000.00
19	Replace In-Kind Sprinkler Head (ADA Ramp Locations Only)	25	ea.	\$ 27.00	\$ 675.00

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
FORM OF PROPOSAL

Item No.	Item Description	Qty	Unit	Bid Unit Price (\$)	Total Price (\$)
20	Place 4" to 6" Concrete Sidewalk w/ Integral Curb (Ramp Locations Only)	500	s.f.	\$ 9.20	\$ 4,600.00
21	Adjust Structure (top 1')	15	ea.	\$ 275.00	\$ 4,125.00
22	Adjust Structure (each additional 1')	10	ea.	\$ 50.00	\$ 500.00
23	Adjust Sanitary Structure – Top 30" (incl. adjustment and encapsulation)	15	ea.	\$ 900.00	\$ 13,500.00
24	Excavation	10	c.y.	\$ 1.00	\$ 10.00
25	Class II Sand (C.I.P.)	10	c.y.	\$ 1.00	\$ 10.00
26	3" Topsoil, Seed, Mulch and Fertilizer	50	s.y.	\$ 1.00	\$ 50.00
27	Sod	15	s.y.	\$ 1.00	\$ 15.00
28	Stone 21AA Limestone	25	c.y.	\$ 15.00	\$ 375.00
29	Wayne County Permit Fees	1	l.s.	\$ 3,500.00	\$ 3,500.00
30	Inspector Days (Min.110 Days)	110	Days	\$ 500.00	\$ 55,000.00
Total Bid (Items 1-30)					\$ 909,663.50
31	Precision Concrete Cutting*	1	l.s.	\$ 30,000.00	\$ 30,000.00

*Note: Line Item 31 will be paid separately to Precision Concrete Cutting for grinding vertical separations throughout the City of Livonia.

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
FORM OF PROPOSAL

The undersigned agrees that the City of Livonia may increase or decrease the quantity of work without changing the unit price bid for the work.

The undersigned represents that he acknowledges that the City reserves the right to accept or reject any bid or all bids and to waive irregularities in bids.

ROTONDO CONSTRUCTION CORP.
Contractor

38807 ANN ARBOR RD. SUITE 2 LIVONIA, MI 48150
Address

248-474-0707 383208882 12/30/2025
Telephone No. Federal I.D. No. Date

MARC ROTO EXECUTIVE OFFICER
By Title
MARCO ROTO

NOTE:

- A. The contractor must submit one (1) Form of Proposals and all other bid documents to be submitted electronically following the instructions in the "Notice to Bidders" and "Instructions to Bidders" sections and recommend that the contractor retain one (1) copy for their file.
- B. Bidder should not add any conditions or qualifying statement to their bid, otherwise the bid may be declared irregular as being not responsive to the Notice to Bidders.
- C. The name of the signee must be clearly printed or typed under their signature.

STATEMENT OF QUALIFICATIONS
PROJECT REFERENCES

List similar projects completed within the last (5) years:

Project Title: _____

Client: _____

Contact Person: _____ Phone: _____

Contract Amount: _____

Start Date: _____ Completion Date: _____

Project Description: _____

Project Title: _____

Client: _____

Contact Person: _____ Phone: _____

Contract Amount: _____

Start Date: _____ Completion Date: _____

Project Description: _____

STATEMENT OF QUALIFICATIONS
PROJECT REFERENCES

Project Title: _____

Client: _____

Contact Person: _____ Phone: _____

Contract Amount: _____

Start Date: _____ Completion Date: _____

Project Description: _____

Project Title: _____

Client: _____

Contact Person: _____ Phone: _____

Contract Amount: _____

Start Date: _____ Completion Date: _____

Project Description: _____

STATEMENT OF QUALIFICATIONS
PROJECT REFERENCES

Project Title: _____

Client: _____

Contact Person: _____ Phone: _____

Contract Amount: _____

Start Date: _____ Completion Date: _____

Project Description: _____

Project Title: _____

Client: _____

Contact Person: _____ Phone: _____

Contract Amount: _____

Start Date: _____ Completion Date: _____

Project Description: _____

Form Completed by: _____

Name

Signature

Date

3.04.140 Bids or quotes—Required when—Procedures—Council authority.

F. Bids from City-Based Firms.

1. In comparing bids, the bid of any city-based firm may be deemed a better bid than the bid of any competing firm which is not city-based, whenever the bid of such competing firm shall be less than three (3) percent lower than the bid of the city-based firm on any contract bid in an amount of two hundred thousand dollars (\$200,000.00) or less, and less than one (1) percent lower on any amount bid in excess thereof. The foregoing percentages shall each be deemed to apply to the city-based bid and, as the case may be, to the full and complete amount of the contract bid, e.g., the equalization credit of one (1) percent would apply to the full contract amount bid, and not merely to the amount in excess of two hundred thousand dollars (\$200,000.00). The firm making the lowest bid thus evaluated shall be deemed the lowest bidder. No contract hereafter awarded by reason of an equalization percentage credit shall be sublet to any subcontractor which is not a city-based firm. Any bidder who claims entitlement to an equalization percentage credit shall agree to make available to the city the records necessary to establish eligibility. Section 3.04.140(E) shall not apply to contracts authorized pursuant to Section 3.04.140(D).
2. "City-based firm" means a firm which is located within the city and which has made payment of commercial, office, manufacturing or research and engineering property taxes on real or personal property for at least one (1) calendar year.

G. All bids, regardless of amount, shall constitute public records, and shall be preserved in the office of the city clerk for a period of six (6) years following the date of opening. (Ord. No. 3180 , § 1, 7-11-2022; Ord. 2864, § 3, 2011; Ord. 2853, § 1, 2010; Ord. 2344, § 1, 1996; Ord. 2264, § 1, 1994; Ord. 2228, § 1 (part), 1994; Ord. 2175, § 1, 1993; Ord. 2171, § 1, 1993; Ord. 1699, § 1, 1983; Ord. 1111, § 1 (part), 1973; prior code § 2-213)

GENERAL CONDITIONS

<u>SECTION</u>	<u>TOPIC</u>
1.	CONTRACT DOCUMENTS
2.	DEFINITIONS
3.	INTENT OF THE CONTRACT DOCUMENTS
4.	CONTRACT DRAWINGS AND SPECIFICATIONS
5.	SHOP DRAWINGS
6.	SOIL CONDITIONS
7.	"OR EQUAL" CLAUSE
8.	PATENTS AND INFRINGEMENTS
9.	SUPERINTENDENCE
10.	WORKMEN
11.	SUBCONTRACTING
12.	ENGINEER'S STATUS
13.	INSPECTOR'S STATUS
14.	INSPECTION
15.	PROTECTION OF WORK
16.	ACCIDENT PREVENTION
17.	WORKING SPACE
18.	USE OF THE SITE
19.	ORDER OF COMPLETION – USE OF COMPLETED PORTION
20.	PERMITS, SURVEYS AND COMPLIANCE WITH LAWS
21.	LAYING OUT WORK
22.	SURVEY MONUMENTS
23.	SANITARY REGULATIONS
24.	REPORTS OF ERRORS AND DISCREPANCIES
25.	ESTIMATED QUANTITIES

GENERAL CONDITIONS

<u>SECTION</u>	<u>TOPIC</u>
26.	CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE
27.	PROOF OF INSURANCE
28.	PERFORMANCE BOND
29.	LABOR AND MATERIALS BOND
30.	MAINTENANCE AND GUARANTEE BOND
31.	FORFEITURE OF CONTRACT
32.	DEFINITION OF NOTICE
33.	ADDITIONAL OR OMITTED WORK – PAYMENT
34.	DEDUCTION FOR UNCORRECTED WORK
35.	TIME LIMIT OF CONTRACT
36.	EXTENSION OF TIME
37.	ESTIMATES AND PAYMENTS
38.	FAIR EMPLOYMENT PRACTICES ACT
39.	LIQUIDATED DAMAGES
40.	INSPECTOR DAYS
41.	FORCE ACCOUNT BASIS
42.	FIELD OFFICE

GENERAL CONDITIONS

1. CONTRACT DOCUMENTS

The Contract Documents shall consist of the Notice to Bidders, Proposal, General Conditions, Specifications, Bonds, Plans, Drawings, Contract and any additional documents, which may be made a part of the contract.

2. DEFINITIONS

Certain terms when used in the Contract Documents shall be respectively defined as follows:

“City or Owner” The City of Livonia

“Contractor” The person, firm or corporation to whom the within contract is awarded by the Owner and who is subject to the terms hereof.

“Subcontractor” A person, firm or corporation, other than the Contractor, supplying labor and/or materials, which contribute in any manner to performance of the work within contract.

“Surety” Any person, firm or corporation that has executed, as surety, the Contractor’s bonds securing the performance of the within contract.

“Engineer” The City Engineer of the City of Livonia or any of his designated representatives.

3. INTENT OF THE CONTRACT DOCUMENTS

The respective Contract Documents are complementary, so that requirements of any particular document shall be applicable to all. The contract price, as such term is used in the Contract Documents, shall include the cost of all superintendence, labor and materials, and all other expenses necessary for the proper execution of the work.

The specifications, schedules, plans and drawings herein referred to shall be taken together to explain each other and to make the whole consistent. Work shown on a plan and not mentioned in the specifications, or vice versa, shall be performed as if shown on both, and, in case of ambiguity in the plans and specifications, the Engineer will decide as to the correct interpretation thereof. Where errors or omissions are encountered in the contract documents, the applicable sections of the current edition of the Michigan Department of Transportation Standard Specifications for Construction shall prevail. A copy of this document may be acquired by contacting the Contract Division, Michigan Department of Transportation, P.O. Box 30050, Lansing, Michigan 48090. When not otherwise specifically defined in the Contract Documents, words therein which describe materials or work having a well-known technical or trade meaning, recognized by architects, engineers and the trade, shall be construed in accordance with such meaning.

GENERAL CONDITIONS

4. CONTRACT DRAWINGS AND SPECIFICATIONS

The Contractor shall be held to have compared the premises with the contract drawings and specifications, prior to submitting a proposal, and to have fully informed themselves as to the condition of the premises, existing structures and any other condition affecting the carrying out of the work. No additional consideration or compensation will be allowed by reasons of obvious errors or omissions in the contract drawings or specifications.

Unless otherwise provided in the Contract Documents, the City will furnish the Contractor free of charge copies of all contract drawings and specifications reasonably necessary to carry out the work.

All work shall strictly conform with the contract drawings and specifications, and the Contractor shall not proceed without reference thereto.

Approved or conformed copies of the contract drawings and specifications shall be maintained at the worksite by the Contractor and be made available to the City at all times.

5. SHOP DRAWINGS

The Contractor shall submit to the Engineer all shop or setting drawings and schedules required for the work, make any corrections therein required by the Engineer, and resubmit same without delay.

Approved copies of all shop or contract drawings shall be maintained at the work-site by the Contractor and be made available to the City at all times.

6. SOIL CONDITIONS

The Contractor shall be held to have made their own determination of soil conditions on the premises, prior to submitting a proposal, and shall complete the work in whatever soil materials and under whatever conditions they may encounter or create, without additional cost to the Owner. This shall apply whether or not borings are shown on the drawings.

7. "OR EQUAL" CLAUSE

Whenever an article, material, or item of equipment is specified in any of the Contract Documents by describing a proprietary product, or by using the name of a manufacturer or vendor, the term "or equal", if not inserted, shall be implied.

The specified article, material, or equipment shall be understood as indicating the type, function, minimum standard of design, efficiency and quality desired and shall not be construed in such a manner as to exclude manufacturers' products of comparable quality, design and efficiency. The Contractor shall comply with requirements in the Contractor's Documents relative to the City's approval of materials and equipment before they are incorporated in the work.

GENERAL CONDITIONS

8. PATENTS AND INFRINGEMENTS

The Contractor agrees to indemnify and save the City, its servants and agents, harmless against any and all claims for royalties or infringements of patent rights in respect to tools, appliances, equipment, processes, or systems of construction and materials made, furnished or used under this Contract, and to defend at their own expense any and all suits of law or in equity which may be brought against the City, its servants or agents, for such claims; provided, however, that the City, its servants or agents, gives the Contractors immediate notice in writing of the institution of such suits and authorizes them to defend the same, furnishing them with such reasonable assistance and available information as will enable them to so defend. The provisions of this paragraph shall be binding upon the parties hereto, notwithstanding anything to the contrary implied or expressed elsewhere in any of the Contract Documents.

9. SUPERINTENDENCE

The Contractor shall give their personal superintendence to the work or have, at the site of the work at **all times** a competent foreman, superintendent, or other representative who is satisfactory to the City and who has authority to act for the Contractor.

10. WORKERS

The Contractor shall employ only competent, efficient workers who are skilled in the work assigned to them and shall at all times enforce strict discipline and good order among their employees. Whenever the Engineer shall notify the Contractor, in writing, that in their opinion any worker so employed is careless, incompetent, disorderly, or otherwise unsatisfactory, such worker shall be relieved from the work and shall not again be employed thereon except with the written consent of the Engineer.

11. SUBCONTRACTING

The Contractor shall not subcontract any work to be performed or any materials to be furnished in the performance of this Contract without the written consent of the City. If the Contractor sublets any part of this Contract, they shall be as fully responsible to the City for the acts and omissions of his subcontractors, and of the persons they directly or indirectly employ as they are responsible for the acts and omissions of their own employees.

12. ENGINEER'S STATUS

The Engineer shall have general supervision and direction of the work, and authority to stop such work whenever necessary to insure proper performance of this Contract. They shall also have authority to reject all work and materials which do not conform with the Contract, to direct the applications of forces to any portion of the work, as in their judgment is required, and to decide questions which arise in the course of such work.

13. INSPECTORS' STATUS

The City may appoint on-the-job inspectors who shall be under the direction of the Engineer. Such inspector will inform the Engineer as to the work progress, the manner in which it is being done, and the quality of materials being used. They will call the

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Contractor's attention to any observed failure to follow the plans and specifications. They shall have the authority to reject materials or workmanship which are defective and to suspend the work until any questions concerning compliance with the contract can be referred to and decided by the Engineer; **but they shall have no authority to direct the contractor's work or workers, to supervise the Contractor's operation**, or to change the contract plans or specifications.

In no instance shall any action or omission on the part of an inspector release the Contractor from their responsibility to complete the work in accordance with the plans and specifications.

14. INSPECTION

The City and its representatives shall at all times have access to the work whenever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for inspection.

The City shall have the right to reject materials and workmanship, which are defective, or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be promptly removed from the premises without charge to the City. If the Contractor does not correct such condemned work and remove rejected materials within a reasonable time, fixed by written notice, the City may remove them and charge the expense to the Contractor.

Should it be considered necessary or advisable by the City at the time before final acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall on request, promptly furnish any necessary facilities, labor and materials. If such work is found to be defective in any material respect, due to the fault of the Contractor, or their Subcontractors, they shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the actual cost of labor and material necessary involved in the examination and replacement, plus 15%, shall be allowed the Contractor.

15. PROTECTION OF WORK

The Contractor shall continuously maintain adequate protection of all their work from damage and shall protect the City's and adjacent property from injury arising in connection with this contract. The work under this Contract shall be at the risk of the Contractor in every respect until finished and accepted by the City. The Contractor shall furnish and maintain necessary passageways, guard fences, lights and such other facilities and means of protection as may be needed.

16. ACCIDENT PREVENTION

Precaution shall be observed at all times for the protection of persons including employees and property. The safety provisions of applicable laws, as well as building and construction codes, shall be observed. Machinery and equipment shall be guarded, and all hazards guarded or eliminated, in accordance with the safety provisions of the Manual of Accident Prevention in Construction, published by the Associated General

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Contractors of America, to the extent that such provisions are not in contravention of applicable laws.

During the course of construction, provisions must be made to maintain access for emergency vehicles at all times. One lane of the existing roads may be closed to traffic during the process of work but must be opened at the end of each working day. During the progress of the work, the Contractor shall accommodate vehicular and pedestrian traffic in the existing roads right-of-way. Contractor's equipment operations on public streets shall be governed by all local traffic ordinances and regulations of the Fire and Police Divisions and the Department of Public Services. The Contractor shall provide the required signs, barricades and flashing lights on the barricades as directed by the Engineer. All signs and barricades shall conform to the Michigan Manual of Uniform Traffic Control Devices and the Michigan Department of Transportation Standard Specifications for Construction. This shall include Type III barricades to close areas and Type II barricades to direct traffic and protect work and advance warning arrow panels to direct traffic as necessary. The Contractor shall attach and maintain two battery-operated amber flashers (Type A) to each advanced warning or detour sign. In case detours or other traffic instructions are necessary, suitable warning or direction devices shall be installed and maintained by the Contractor.

Should the Contractor fail to comply with any provision of this Contract, affecting the public welfare or safety, the City may, with or without notice, cause the necessary precaution to be taken, and deduct the cost of such work from any money due or to become due the Contractor under this Contract, but the performance of such work by the City, or at its direction, shall not release the Contractor from their general or particular liability for the safety of persons or property.

17. WORKING SPACE

The Contractor shall confine their equipment, apparatus, materials storage and operations to limits indicated by applicable laws, permits or directions of the City and shall not necessarily encumber the premises with their materials.

Should the Contractor require space on privately owned property; they shall obtain such space at their own expense by agreement with the owner thereof. The City will require a copy of a signed waiver from property owner for use of the privately owned site.

18. USE OF THE SITE

In their operations the Contractor shall interfere as little as possible with traffic and shall in no case unduly obstruct traveled ways.

The Contractor shall at no time interfere with surface or underground drainage. Free access shall be provided at all times to hydrants and water and gas valves.

The Contractor shall enforce the City's instructions regarding signs, advertisements, fires and smoke.

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19. ORDER OF COMPLETION – USE OF COMPLETED PORTION

The Contractor shall cooperate with the City, when reasonably possible, to complete any portion or portions of the work in such order of time as will be beneficial to the City without prejudice to the Contractor's interests. Use of a completed portion of the work by the City shall not be deemed as acceptance of the work so used or any part thereof.

20. PERMITS, SURVEYS AND COMPLIANCE WITH LAWS

The Contractor shall secure and pay for all permits, fees and licenses (including such fees that may be assigned to the City of Livonia as permit holder) necessary for performance of the work unless otherwise specifically provided in the Contract Documents.

The City shall furnish all surveys unless otherwise provided in like manner.

The Contractor shall give all notices, pay all fees, and comply with all applicable laws, as well as rules and regulations bearing on the conduct of the work.

21. LAYING OUT WORK

Principal reference lines or points and benchmarks shall be given by the Engineer when they deem necessary; or they shall be given twenty-four (24) hour advance notice if the Contractor requires such information.

The Engineer will set suitable stakes and marks showing the locations and elevations of the various parts of the work and will furnish the Contractor with cut sheets referring to the reference points. No work shall be undertaken until such stakes and marks have been set. The Contractor shall assure that the work at all times proceeds in accordance with the stakes and marks and shall provide all labor and materials to set required batter boards and, or laser devices and locate the work accurately with respect to the reference points. The Engineer will place grade stakes at the Contractor's desired offset. Once these stakes are placed, any necessary transfer of grade and/or offset will be the responsibility of the Contractor.

The Contractor shall carefully preserve reference points and stakes and in case of willful or careless destruction thereof, they will be charged for re-staking at the rate of \$100.00 per hour. There will be a one-hour minimum per request and the standard 24-hour notice is required. In addition, the Contractor shall be responsible for any errors that may be caused by their loss or disturbance.

22. SURVEY MONUMENTS

The Contractor shall protect and preserve all land survey monuments or property corners along the line of their work. Where monuments or irons are unavoidably disturbed or removed due to operations under this Contract, the Contractor, at their own expense, shall employ the services of a registered land surveyor to establish, reset or replace such monuments or irons.

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23. SANITARY REGULATIONS

Necessary sanitary conveniences for the use of laborers on the work, properly secluded from public observation, shall be constructed and maintained in sanitary condition by the Contractor, and their use shall be strictly regulated.

24. REPORT OR ERRORS AND DISCREPANCIES

If, in the course of the work, the Contractor finds any discrepancies between the plans and the physical conditions encountered, or any errors or omissions in the plans or layout, it shall be their duty to immediately inform the Engineer in writing.

Any work done after such discovery, until authorized by the Engineer, will be at the Contractor's risk.

25. ESTIMATED QUANTITIES

The quantities of the various classes of work to be done and materials to be furnished under this Contract, which have been estimated as stated elsewhere herein, are approximate and only for the purpose of comparing, on a uniform basis, the bids offered for the work under this Contract; and neither the City nor its agents are to be held responsible should any of the estimated quantities be found incorrect during the performance of the work; and the Contractor shall make no claim for anticipated profit, nor for loss of profit, because of a difference between the quantities of the various classes of work actually done or materials actually delivered, and the estimated quantities as herein stated.

26. CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

The Contractor shall not commence work under this Contract until they have obtained the insurance required under this paragraph, nor shall the Contractor permit any Subcontractor to commence work on their Subcontract until they have obtained the insurance herein required.

a) **Workmen's Compensation Insurance.** The Contractor shall procure and maintain during the life of this Contract, Workmen's Compensation Insurance for all of their employees who engage in the work to be performed; and, in case any such work is sublet, the Contractor shall require the Subcontractor to provide similar insurance for all of the latter's employees who engage in the work.

b) **Contractor's Public Liability and Property Damage Insurance.** The Contractor shall procure and maintain during the life of this Contract, Contractor's Public Liability and Property Damage Insurance in the amount of not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in the amount of not less than \$1,000,000.00 on account of each accident; and, in an amount not less than \$1,000,000.00, each accident, for damage to property.

c) **Owner's and Contractor's Protective Public Liability and Property Damage Insurance.** The Contractor shall procure and maintain during the life of this Contract, Owner's and Contractor's Protective Public Liability and Property Damage Insurance, in the name of the City, in an amount not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in an

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amount not less than \$1,000,000.00 on account of each accident; and in an amount not less than \$1,000,000.00, each accident, for damage to property. Such insurance shall include motor vehicle exposure and specific coverage by endorsement, which shall be described in the following manner:

"It is hereby understood and agreed that such insurance as is afforded shall include specific coverage for the so-called Explosion, Collapse and Underground Hazards, which covers damage to property arising directly or indirectly from explosion, damage or structural injury to buildings or adjacent structures arising from operations under this Contract, including excavation or tunneling and damage sustained by wires, conduits, mains, sewers, and the like, occasioned by the Contractor's sub-surface operations."

d) **Subcontractor's Public Liability and Property Damage Insurance.** The Contractor shall require each of their Subcontractors to procure and maintain during the life of their subcontract, Subcontractor's Public Liability and Property Damage Insurance in an amount not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in an amount not less than \$1,000,000.00 on account of each accident; and in an amount not less than \$1,000,000.00, each accident, for damage to property.

The Contractor shall require each of his Subcontractors to procure and maintain during the life of their subcontract, Owner's and Contractor's Protective Public Liability and Property Damage Insurance in an amount not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in an amount not less than \$1,000,000.00 on account of each accident; and in an amount not less than \$1,000,000.00, each accident, for damage to property.

e) **Contractor's Motor Vehicle Bodily Injury and Property Damage Insurance.**

(1) The Contractor shall procure and maintain during the life of this Contract, Motor Vehicle Bodily Injury Insurance (Comprehensive Form) in an amount not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in an amount not less than \$1,000,000.00 on account of each accident; and in an amount not less than \$1,000,000.00, each accident for damage to property.

(2) The Contractor shall procure and maintain during the life of this Contract, Hired and Non-Ownership Motor Vehicle Bodily Injury and Property Damage Insurance in an amount not less than \$1,000,000.00 for injuries, including accidental death, to each person; and, subject to the same limit for each person, in an amount not less than \$1,000,000.00 for each accident; and in an amount not less than \$1,000,000.00, each accident, for damage to property.

27. PROOF OF INSURANCE

The Contractor shall provide the City, at the time this Contract is returned by them for execution, the certificates and policy listed below. A guarantee that thirty (30) days notice will be given to the City prior to cancellation of, or change in, any insurance coverage shall be endorsed on each certificate and policy:

a) Four (4) copies of Certificate of Coverage of Contractor's Workmen's Compensation Insurance.

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- b) Four (4) copies of Certificate of Coverage of Contractor's Public Liability and Property Damage Insurance.
- c) Four (4) copies of Certificate of Coverage of Contractor's Motor Vehicle Bodily Injury and Property Damage Insurance covering owned, hired, and non-owned vehicles.
- d) Four (4) copies of Owner's and Contractor's Protective Public Liability and Property Damage Insurance Policy.

28. PERFORMANCE BOND

The Contractor, within 15 days from the date of acceptance of their proposal, shall execute in favor of the City a Surety Bond Form in an amount at least equal to 100% of the contract price, as security for the faithful performance of this Contract.

29. LABOR AND MATERIALS BOND

The Contractor, within 15 days from the date of acceptance of their proposal, shall execute in favor of the City a Surety Bond Form in an amount at least equal to 100% of the contract price, as security for the payment of all persons performing labor and furnishing materials in connection with this Contract.

30. MAINTENANCE AND GUARANTEE BOND

The Contractor, as a condition precedent to final payment, shall execute in favor of the City a Maintenance and Guarantee Bond Form in an amount at least equal to 100% of the contract price. The guarantee shall cover all work performed and materials furnished under this Contract for a period of one (1) year subsequent to the date of the final payment.

31. FORFEITURE OF CONTRACT

If the work to be done under the Contract shall be abandoned by the Contractor, or, if at any time in the judgment of the City, the Contractor shall fail to perform the work at a reasonable rate of progress, or to comply with all or any of the terms and requirements herein set forth, then the City shall have the right for take possession of the work, including Contractor's plans, supplies, and materials, at any time after having notified the Contractor in writing to discontinue the work under this Contract for said cause or causes, and such action shall not affect the right of the City to recover damaged resulting from such abandonment or failure to perform. Upon receiving such notice, the Contractor shall, upon demand, immediately give the City safe and peaceable possession of the work, including the plans, and shall then cease to have control over any portion thereof or the workers employed thereon.

The City may then proceed to complete the work herein specified, by Contract or otherwise, and the entire cost incurred shall be charged to the Contractor and deducted from any sum or sums due or to become due under the Contract; the excess cost, if any, shall be paid to the City by the Contractor or his sureties.

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32. DEFINITION OF NOTICE

Where the Contract Documents provide for the giving of any notice, it shall be deemed to have been given: (a) as to the City, when written notice shall have been delivered to the Engineer or the City Clerk, or shall have been placed in the United States mail, addressed to the City Clerk at the place where the bids and proposals for the Contract were opened; (b) as to the Contractor, when written notice shall have been delivered to their chief representative then present at the site of the work, or shall have been placed in the United States mail, addressed to the Contractor at their permanent place of business, as stated in the papers prepared by them to accompany their proposal; and (c) as to the Surety on a performance bond or labor and materials bond, when a written notice shall have been placed in the United States mail, addressed to the Surety at their home office or to the agents who executed such performance bond or labor and materials bond on the Surety's behalf.

33. ADDITIONAL OR OMITTED WORK - PAYMENT

The City may authorize changes in, additions to or deductions from the work to be performed or the materials to be furnished pursuant to the provision of this Contract.

Adjustments, if any, in the amounts to be paid to the Contractor by reason of any such change, addition or deduction shall be determined by one or more of the following methods:

- a) By unit prices contained in the Contractor's original bid and incorporated in the construction contract.
- b) By a supplemental schedule of prices contained in the Contractor's original bid and incorporated in the construction contract.
- c) By an acceptable lump sum proposal from the Contractor.
- d) On a force account basis in accordance with procedures set forth in Paragraph No. 41 of these General Conditions.

34. DEDUCTION FOR UNCORRECTED WORK

If the City deems it expedient to accept work, which has been damaged or not done in accordance with the Contract, an equitable adjustment will be made so as to deduct from the contract price the cost of repairing or properly performing such work.

35. TIME LIMIT OF CONTRACT

The parties hereto distinctly understand and agree that the time specified for completion of the work is the essence of this Contract, and that the Contractor shall not be entitled to claim performance of this agreement unless the work is satisfactorily completed, in every respect, within the time herein specified.

36. EXTENSION OF TIME

An extension of time may be granted by the City in the event of the work being delayed, beyond the prescribed time for completion, by carriers, the elements, general strikes, accidents or other causes not under the Contractor's reasonable control. Such an extension of time shall be deemed to be in full compensation for any loss or injury

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sustained by the Contractor by reason of delays caused as aforesaid, and the Contract shall not thereby be invalidated in any respect.

37. ESTIMATES AND PAYMENTS

The City shall pay to the Contractor amounts bid in the proposal, or as modified by subsequent agreement, less deduction for any unsatisfactory or uncompleted work, based upon measurements made by the Engineer or as otherwise herein stipulated, and such measurement shall be final and conclusive.

A. PROGRESS PAYMENTS

For Engineering Division administered projects a progress estimate will be processed bi-weekly. For Consultant administered projects a progress estimate will be processed monthly. These progress estimates will be for ninety percent (90%) of the work until fifty percent (50%) completion less any deductions or reservations which may be made in accordance with the terms of this Contract provided that the work is progressing satisfactorily, all orders of the Engineer have been complied with, and the time of completion shall not have expired. **Payments will be made through the Finance Department, net thirty (30) days.** No allowance will be made for materials furnished which have not been incorporated in the completed work unless otherwise stated on the Contract Documents. All retained funds will be separately held in interest bearing accounts and disbursed to the Contractor in accordance with Public Act No. 524, 1980.

The Contractor shall submit to the City an application for each payment and shall submit a Contractor's Declaration stating that they have not performed any work, furnished any material, sustained any loss, damage or delay, for any reasons, including soil conditions encountered or created, or otherwise done anything for which they will ask, demand, sue for, or claim compensation from the City and, if required, shall submit receipts or other vouchers showing their payments for materials and labor, including payments to subcontractors. (Forms included in Contract Documents)

The City may withhold payment of any progress estimate, or portion thereof, until the Contractor shall have furnished satisfactory evidence that they have paid all claims of every nature.

No payment shall be considered as acceptance of work completed, or any portion thereof, prior to compensation of all work required by this Contract and payment of the final estimate.

B. FINAL PAYMENT

Within thirty (30) days after completion of all work required by this Contract to the satisfaction of the City and the Engineer, in accordance with all and singular terms and stipulations herein contained, the City shall make final payment, based upon a final estimate made by the Engineer. Before such payment is made, the Contractor shall, as directed by the City, execute a Contractor's Affidavit that they have paid all claims of every nature, or secured a release from the surety or sureties approving

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payment. The final payment shall be considered as full approval and acceptance of the completed work herein specified.

Acceptance by the Contractor of the final payment aforesaid shall operate as, and shall be, a release of the City and its agents, from all claims by liability to the Contractor for anything done, furnished for, or relating to the work, as well as act or neglect of the City or of any person relating to or affecting the work.

38. FAIR EMPLOYMENT PRACTICES ACT

- a) The Contractor agrees that neither they nor their subcontractors will Discriminate against any employee or applicant for employment, to be employed in the performance of this Contract, with respect to their hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of their race, color, religion, national history or ancestry.
- b) The Contractor agrees that neither they nor their subcontractors will Discriminate against any employee or applicant for employment, to be employed in the performance of their contract, with respect to their hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of their age or sex, except where based on a bona fide occupational qualification.
- c) Breach of the covenants contained in either of the foregoing paragraphs may be regarded as a material breach of this Contract and may result in its cancellation, termination or suspension in whole or in part and in the Contractor being declared ineligible to contract in the future with the City of Livonia.

39. LIQUIDATED DAMAGES

The Contractor guarantees that they can and will complete the work within the time limit stated in the Contract Documents, or within the time as extended as provided elsewhere in the Contract Documents. Inasmuch as the damage and loss to the City which will result from the failure of the Contractor to complete the work within the stipulated time will be most difficult or impossible, of accurate determination, it is mutually agreed that the damages to the City for such delay and failure on the part of the Contractor shall be liquidated in the amount stated in the Form of Proposal, for each and every calendar day by which the Contractor shall fail to complete the work or any part thereof within the provisions hereof, and such liquidated damages shall not be considered as a penalty.

The City will deduct and retain out of any money due or to become due hereunder the amount of the liquidated damages, and in case those amounts are less than the amount of liquidated damages, the Contractor shall pay the difference upon demand of the City.

40. INSPECTOR DAYS (APPLICABLE IF SPECIFIED AS AN ITEM IN THE FORM OF PROPOSAL)

It shall be the responsibility of the bidder to include as a bid item in their proposal the number of inspection days they estimate will be required to complete this project. An inspector day shall be determined from the tabulation listed below for the time each inspector spends on the project. An inspector will be assigned to each work until carrying out separate operations needed to complete this project. This will be for, but not limited to, operations such as, while materials are being installed, during excavation

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and back-filling operations, all pressure tests, infiltration tests, T.V. inspection, placing concrete or asphalt paving, restoration operations, final inspection of the completed work or the checking of complaints on the project.

Delays in the progress of the work under the contract because of the Contractor's failure to diligently pursue their work will not eliminate an inspection fee being charges against the Contractor. Inspection time may be charged to the Contract for each day for the availability of an inspector on the project. This time may be charged against a Contractor until such time as the Contractor is ready for final payment. Charges for each inspector assigned to the project shall be made in accordance with the following schedule:

	<u>Inspector Hours Chargeable</u>
a) For any working day of less than four (4) hours	4
b) For a working day Monday through Friday inclusive of more than four (4) but less than eight (8) hours	8
c) For each working hour of fraction thereof in excess of eight (8) hours Monday through Friday inclusive and each working hour of fraction thereof on Saturday	1.25
d) For each working hour or fraction thereof on Sunday	1.5

An inspector day shall then be computed by adding the above listed total chargeable hours and dividing such total number of chargeable hours by eight (8).

When the Contractor elects not to work, the minimum show-up time for each inspector on the project shall be four (4) hours. No show-up time will be included when the Contractor gives the project engineer at least 24 hours notice of their intent not to work. The Contractor shall give the Engineer at least 48 hours notice before beginning each operation such as installing materials or restoration operations.

Provisions have been made on the itemized price schedule for the insertion of the number of inspector days anticipated for completion of the project. The Contractor shall insert the number of inspector days, multiply by unit price indicated on form of proposal and insert the total in the space provided. This total is a lump sum amount, which will be credited to the Contractor. The number of inspector days each month will be computed, and the cost deducted from this credit amount. Should the credited amount become depleted, the cost of inspector days will continue to be deducted from the monthly payments to the Contractor. Upon completion of this project, any surplus remaining in the inspector day lump sum bid will be given to the Contractor.

The number of inspection days stated in the proposal will not be changed except by the authorized Change Order(s). An extension of time, if granted will not automatically constitute additional inspection days under the Contract.

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41. FORCE ACCOUNT BASIS

When work performed is to be paid for on a force account basis, the method of construction, type and amount of equipment to be used shall be submitted and approved by the Engineer, prior to proceeding with the work. The Contractor shall furnish to the Engineer itemized reports of the costs of all force account work. The reports shall be furnished each week and shall include certification of the payroll involved in the work. The bills shall show credits for any discounts offered by suppliers and only the net amount of the bill shall be charged to the force account work.

A. STATEMENTS

The Contractor and the Engineer shall compare records of force account work and bring them into agreement at the end of each day. From the weekly reports received from the Contractor, the Engineer will prepare, on regulation forms, itemized statements containing the following detailed information:

Name, class, dates, number of hours worked each day, total hours, rate and extension (rate multiplied by hours worked) for each employee and foreman engaged.

Equipment description, number of actual hours operated each day, total hours, rental rate, and extension (rate multiplied by hours operated) for each unit of equipment engaged. The Contractor's weekly report should fully describe each unit of equipment (rating, type of engine, optional equipment, type of blade, size of bucket, etc.)

Quantities of material used, unit prices, and total cost (extensions).

Freight on materials.

The compensation as herein provided shall be accepted by the Contractor as payment in full for all labor, including fringe benefits as hereinafter set forth, equipment and materials used for force account work, and the amount so paid shall cover profit, superintendence, general expense, overhead, and the use of small tools and equipment for which no rental is allowed. General Foreman and Superintendents shall be classified as management and shall not be considered as a separate cost item for force account purposes.

B. LABOR

For all labor and foreman in direct charge of the specific work, the Contractor shall receive the actual rate of wage paid for each and every hour that said labor and foreman are actually engaged in such work, plus twenty percent (20%) of the sum, plus any additions as hereinafter provided.

C. BOND, INSURANCE, TAX

The force account percentage for labor and wage rates paid by the Contractor to its employees, shall cover any possible costs for bond premiums, workmen's compensation insurance, personal injury public liability and property damage public

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liability insurance, unemployment compensation, and federal social security levied against the Contractor will be paid at cost. The Contractor shall furnish satisfactory evidence of the amounts paid for each of these required costs as related to force account work. An amount equal to ten percent (10%) will be added to these costs.

D. MATERIALS

For materials and supplies furnished by the Contractor, and used in the specific work, the Contractor will be paid the actual cost of such materials used in the work, including freight charges, verified by original receipted bills, plus fifteen percent (15%) of the sum thereof.

Where materials used are not specifically purchased for use on this work but are taken from the Contractor's stock, the Contractor shall submit a certification of the quantity, price and freight on such materials in lieu of original receipted bills and invoices.

The City will pay sales and/or use tax as required by law on any material that is incorporated into the end product.

E. MACHINERY AND EQUIPMENT

For any Contractor-owned machinery and equipment including the foreman's transportation unit, which is determined to be necessary to use on work done by force account, the Contractor will be paid rental rates as follows:

1. The rate for each piece of Contractor owned equipment used, including appurtenances and attachments to equipment, will be determined by using the *Rental Rate Blue Book for Construction Equipment*, Volume 1, 2, or 3, by Equipment Watch, Inc. (Blue Book). The edition that is current at the time the force account work is started will apply. The base hourly rate will be equal to the published monthly rental rate divided by 176, modified by the rate adjustment factor and the applicable map adjustment factor, plus the "estimated operating cost per hour."

2. For equipment not listed in the Blue Book, the rate will be determined by using the published rental rate listed for a similar piece of equipment giving proper consideration to the capacity, size, horsepower, and age of the equipment. For equipment for which there is no comparable in the Blue Book, the monthly rate shall be reasonable but not more than five percent of the invoiced cost of the equipment. The base hourly rate shall then be determined by dividing the monthly rate by 176. Rates shall be agreed upon in writing before the equipment is used.

3. No payment will be allowed for small hand and power tools that are not listed in the Blue Book. Small hand and power tools listed in the Blue Book at a rate of less than \$1.00 per hour will be considered as part of overhead and will not be paid for separately.

4. The rates used for Contractor owned trucks used to haul material will be those published by the Michigan Department of Transportation. The rates will be

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reviewed and adjusted periodically. Separate payment for the driver will be allowed as described under labor. The rate for the foreman's transportation unit will be \$7.00 per hour.

5. The minimum time per day for equipment used productively in force account work will be two hours. For equipment which is required intermittently, the time will be determined in two-hour intervals after the equipment is first needed and put into use in the performance of the force account work. The rate for each two-hour interval will be full rate or stand by rate according to Idle Equipment Section G, depending upon the productive use or non-use of the equipment during each two-hour interval.

6. Travel time to the location of the force account work will be included when the equipment is moved under its own power. When equipment is moved from one site to another by means other than its own power, the actual operating time during period of loading and unloading equipment will be paid for at the established rate and transportation costs will be allowed.

Transportation charges for each piece of equipment to and from the work site will be paid provided:

- a) Equipment is obtained from the nearest available source
- b) Return charges do not exceed the delivery charges; and
- c) Charges are restricted to those units of equipment not already available and not on or near the project.

F. NON-CONTRACTOR OWNED EQUIPMENT

If the Contractor is required to rent a specific type of equipment, the Contractor shall inform the Engineer of the need to rent the equipment and of the rental rate for that equipment before using it on the work site. The Contractor will be paid the actual rental for the equipment for the time that the equipment is used to accomplish the work, plus the cost of moving the equipment onto and away from the job, provided the total rental rate does not exceed the rental rate established by the Blue Book plus operating costs. The Contractor shall provide a copy of invoices for all rental expenses incurred.

G. STANDBY RATE AND ALLOWABLE HOURS

For Contractor owned equipment the standby rate will be one-half the rate established in Machinery and Equipment Section E. No payment will be allowed for operating costs. The standby rate will only be allowed if both of the following conditions are met:

- a) The Engineer specifically required the equipment to remain on the site for later use on the force account activity; and
- b) Work is being performed on the force account activity when the equipment is idle.

Payments for standby time will not be made on any day the equipment operates for eight or more hours. For equipment accumulating less than eight hours operating time on any normal workday, standby payment will be limited to only that number of hours that, when added to the operating time for that day, equals eight hours.

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H. MISCELLANEOUS

No additional allowance will be made for general superintendence or other costs for which no specific allowance is provided.

I. SUBCONTRACTING OR HIRING SERVICES BY OTHERS

For administration costs in connection with approved subcontract work or hiring services by others to perform specialized type of work which the Contractor is not qualified to do, the Contractor shall receive an amount equal to five percent (5%) of the total cost of the work computed as set forth above. Prior approval of the Engineer is required.

The Contractor, while performing force account work at the request of the City, is operating within the framework of the entire contract and is subject to all the provisions herein.

42. FIELD OFFICE

When provided in the Instruction to Bidders, the Contractor shall furnish and maintain, for the exclusive use of the Engineer, an approved weather-proof building as a field office, for all construction projects. The building shall be located as approved by the Engineer, in full view of the work and with at least one window facing construction operations.

The building shall have a tight board floor and the floor space shall not be less than 160 square feet and the ceiling not less than eight (8) feet in height, and shall be provided with the following:

- a) Heating and air conditioning equipment that will maintain a temperature between 70° F and 80° F during working hours.
- b) At least two wall-mounted electrical power outlets per room that conform to local electric codes for office use.
- c) Not less than two 75-watt electric lights per room.
- d) Water and telephone service.
- e) A standard sized door.
- f) A minimum floor to ceiling height of 8 feet.
- g) A wooden locker for the storing of implements and testing equipment.
- h) A minimum of 6 feet of rigidly constructed 30-inch wide counter.
- i) At least three single sash windows with at least one sash, hinged or sliding window per room.
- j) Locks, bars, window locks, or a security system.
- k) Bottled water for drinking.
- l) First aid kits, smoke detectors, and fire extinguishers required by local fire and safety authorities. Maintain fire extinguishers and smoke detectors.

The Contractor shall provide, at a location near the field office, a sanitary facility. The construction, regular maintenance and final removal of the facility shall be in accordance with local restrictions and shall be incidental to the construction of the project.

GENERAL CONDITIONS

A trailer having equal facilities and floor space may be used in place of above described field office if so desired.

The cost and maintenance of the above described facilities will not be paid for separately but shall be included in the price bid for various items of work under the contract. The building shall be removed by the Contractor upon completion of the Contract and shall become their property.

SPECIFICATIONS – GENERAL

<u>SECTION</u>	<u>TOPIC</u>
1.	MATERIALS AND WORKMANSHIP
2.	DEWATERING
3.	SHEETING, SHORING AND BRACING
4.	TUNNELING
5.	EXISTING STRUCTURES AND UTILITIES
6.	ROADWAY, WALKWAYS AND POURUS BACKFILL
7.	ROAD DETOURS
8.	DUST CONTROL
9.	PRESERVATION OF TREES
10.	SEEDING AND SODDING
11.	FINAL CLEAN – UP

SPECIFICATIONS – GENERAL

1. MATERIALS AND WORKMANSHIP

Unless otherwise stipulated in the specifications, all equipment, materials, and articles incorporated in the work covered by this contract are to be new and of the best grade of their respective kinds for their purpose.

If not otherwise provided, material or work called for in this contract shall be furnished and preformed in accordance with well-known established practice and standards recognized by Architects, Engineers and the trade.

When required by the specifications, or when called for by the City, the contractor shall furnish the City for approval, full information concerning the materials or articles, which they contemplate incorporating in the work. Samples of materials shall be submitted for approval when so directed. Machinery, equipment, materials, and articles installed or used without such approval shall be at the risk of subsequent rejection.

2. DEWATERING

The Contractor shall provide and maintain adequate pumping and drainage facilities for the removal and disposal of water from trenches or other excavations.

Where the work is in ground containing an excessive amount of water, the contractor shall provide, install, maintain and operate suitable well points, connecting manifolds and reliable pumping equipment to operate same and to insure proper construction of the work.

Drainage or discharge lines shall be connected to adjacent public storm water drains or extended to nearby watercourses wherever possible. All pumping and drainage shall be done without damage to any roadway or other property, public or private, and without interference with the rights of the public or private property owners.

The cost for dewatering shall be included in the unit prices bid for sewer construction.

“SEE ALSO DEWATERING SPECIFICATIONS” if included with these specifications.

3. SHEETING, SHORING AND BRACING

Where necessary in order to construct the work called for by the contract, to insure the safety of the workers, or to protect other things of value, the contractor shall use and, if necessary, leave in place, such sheeting shoring and bracing as is needed to carry out the work or to adequately insure the stability of such work, to insure the safety of the workers and/or to protect adjoining things of value. The Contractor will receive no extra compensation for sheeting, shoring, or bracing, whether removed or left in place.

SPECIFICATIONS – GENERAL

4. TUNNELING

Tunnel work shall be constructed in accordance with the Engineer's specifications, "Road Permit" requirements or as otherwise noted on the drawings. The cost of tunneling shall be included in the unit prices unless listed as a separate item in the proposal.

Excavated tunnels shall be braced as necessary. Pipe shall be carefully set to line and grade. Voids shall be filled with a sand cement mixture consisting of three (3) bags of yellow sand thoroughly rammed into place except in cases where a permit requires a different backfill in which case such shall be used.

5. EXISTING STRUCTURES AND UTILITIES

Certain underground structures and utilities have been shown as an aid to the Contractor, but the City does not guarantee their location or that other underground structures or utilities may not be encountered.

Where utilities are encountered along the line of work, the Contractor shall perform their work in such a manner that utility service will not be interrupted and shall make all temporary provisions to maintain said service.

At any time when construction operations under this contract endangered conduits or structures of any public utility, the contractor shall notify the utility owner and shall take such steps as may be required to protect said conduit or structure from damage.

Unless otherwise indicated in the contract documents, the Contractor shall replace any disturbed utility and reconstruct same on the original line and grade or, if necessary, at a new line and grade or, if necessary, at a new line and grade to be established by the engineer. Any damaged material shall be replaced with new material of the same quality as that replaced and all construction shall be in conformance with the requirements of the utility owner.

Where it is necessary that utility poles be moved to a new location or moved temporarily and replaced after construction, the Contractor shall arrange for the moving of such poles and the lines thereof.

Where it is the policy of any utility owner to make their own repairs or relocations, the contractor shall cooperate to the fullest extent with the utility.

Unless otherwise provided for in the proposal, the Contractor will receive no extra compensation for the relocation, replacement, maintenance of service or protection of any utilities encountered whether such utilities are shown on the contract drawings or not.

In all cases where permits, inspection fees or any changes are required by utilities, the Contractor shall secure all such permits and pay all fees and charges.

6. ROADWAYS, WALKWAYS AND POURIOUS BACKFILL

Before roadways, sidewalks or other structures are disturbed, the Contractor shall make an examination of existing structures, which may be disturbed, and careful notes shall be made of the condition of such structures and filed with the Engineer.

SPECIFICATIONS – GENERAL

Where open cut construction crosses existing improved roadways or walkways, where the trench parallels an existing improved roadway or walkway which is disturbed by the contractor's operation or where called for on the contract drawings, the Contractor shall backfill the trench with Michigan Department of Transportation Class II porous backfill. The backfill shall be placed in twelve-inch (12") layers and shall be consolidated to maximum density by means of approved vibratory type compaction equipment. The porous material shall extend eight feet (8') beyond each side of the edge of the existing roadway or one foot (1') each side of the existing walkway at the ground level and shall slope at 45 degrees down the trench to the bottom of the trench and shall be placed prior to ordinary backfill.

A temporary fill at least eight inch (8") thick shall be placed over the porous backfill to the width of the original roadway or walkway and shall be maintained in good condition with additional gravel as settling occurs until such time as permanent repairs or replacement of the original structures have been made.

All structures including fences, curbing, walks, paving, road bases, road surfaces, etc. damaged or destroyed due to the Contractor's operation shall be repaired or replaced by them to at least as good condition as existed prior to the beginning of the work or to such condition as will meet with the full approval of the authority having jurisdiction. Where pavements or walkways must be cut, they shall be removed to the closest joint or shall be saw cut to provide a straight, neat joint as directed by the engineer.

Unless otherwise provided for in the proposal, the Contractor will receive no extra compensation for porous backfill, for temporary surfaces or for repair or replacement of any structures damaged or destroyed by their operations. All such costs shall be considered as incidental to the work and included in the unit prices.

7. ROAD DETOURS

The Contractor, at their own expense shall provide and maintain all temporary roadways as required due to their operations or as required under "Road Permits".

Temporary roads shall be constructed of six inches (6") of compacted 21 AA Limestone or 21A Road Gravel meeting Michigan Department of Transportation Specifications.

8. DUST CONTROL

During the construction of any project, adequate dust control measures shall be maintained by the Contractor so as not to cause detriment to the safety, health, welfare, or comfort of any person or cause damage to property or business. If not shown as a pay item, dust control will be at the Contractor's expense.

9. PRESERVATION OF TREES

The contractor shall protect and preserve all trees along the line of work, and he will be held responsible for any damage to trees. Where necessary to preserve a tree and its main roots, the Contractor shall tunnel under such tree. Where specifically called for on the drawings, the contractor shall remove trees completely, including stumps and main roots.

SPECIFICATIONS – GENERAL

Where tunneling is not required for trees close to the trench and root trimming is necessary, the Contractor shall hand trench ahead of the machine digging and cut all roots cleanly to minimize damage to the roots.

The Contractor shall protect and/or replace all shrubbery damaged or destroyed by operations under this contract.

Unless provided for otherwise in the Form of Proposal, the contractor will receive no extra compensation for preservation of trees or for their removal where called for, or for the protection or replacement of shrubbery, and the cost of all work involved shall be included in the unit price bid.

10. SEEDING AND SODDING

Where established grass areas are disturbed by the Contractor's operation, he shall provide unless otherwise specified, not less than 3" of approved topsoil and shall grade and seed with Michigan Department of Transportation Class "A" seeding, mulch and fertilizer all in accordance with section 816 and 917 of the 2012 Michigan Department of Transportation Standard Specifications. All work shall be done in an approved manner and seed shall be covered by light raking or dragging and then rolled with a light roller.

Where established lawn areas are disturbed by the Contractor's operations, they shall provide, unless otherwise specified, not less than one inch (1") of approved topsoil and shall grade, sod with approved first quality Kentucky Blue Grass, consisting of weed free turf freshly cut from an established nursery, and fertilized with a 10-6-4 commercial type fertilizer at the rate of 200 pounds per acre.

All work shall be done in accordance with Section 816 and 917 of the 2012 Michigan Department of Transportation Standard Specifications.

Unless otherwise called for in the proposal, the contractor shall receive no extra compensation for seeding or sodding. All such costs shall be considered incidental to the work and included in the unit prices.

11. FINAL CLEAN-UP

Before work shall be considered ready for final inspection, the Contractor shall remove and properly dispose of all equipment, waste materials and excess excavation from the lines of the work, shall grade all trenches, and do any other necessary work to leave the premises in a workmanlike condition at least as good as existed before work has started.

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
SPECIAL CONDITIONS FOR SIDEWALK PROGRAM

DESCRIPTION OF WORK

1. The contract covers the removal and replacement of existing sidewalks, the installation of new sidewalks and the construction of MDOT sidewalk ramps in the City of Livonia. The sidewalks to be improved under this contract are shown on the Project Location Maps and are indicated. Scattered sidewalk replacements are spread throughout the City. Some locations are within a Wayne County right-of-way or Michigan Department of Transportation right-of-way and require permitting.
2. Before submitting a proposal, each bidder shall personally inspect the site of the proposed work to arrive at a clear understanding of the conditions under which the work is to be done.
3. Contractor shall be held to have compared the premises with the drawings and specifications and to have satisfied themselves as to the conditions affecting the performance of the work, before delivery of their proposal.
4. No allowance or extra consideration on behalf of the Contractor will subsequently be allowed by reason of error or oversight on the part of the contractor on account of interferences by the Owner's or by other Contractor's activities.
5. It is expressly understood by the bidder that the City may delete or add work in any location it so deems necessary, after the contract is awarded and work is under way. Such additional work shall be accomplished at the unit prices bid.
6. Final grades for the sidewalk will be established by the Engineer as construction progresses. Minor adjustments in line and/or grade may be necessary in order to meet existing field conditions. No additional compensation will be authorized for minor adjustments in line or grade related to the construction of the sidewalks. Sidewalk ramps shall be paid for at the contract unit price bid for 4" sidewalk.
7. When sidewalk is placed in areas where there are existing lawns, the Contractor shall place good quality topsoil in the void left by the form work and place MDOT THM seed if required by the Engineering Department. No sod replacement will be required if, in the opinion of the Engineer, the Contractor is diligent in keeping the excavations for form work to a minimum.
8. Contractor shall not place any sod and/or debris inside of sidewalk line on private property.
9. Contractor shall have available on the job, a concrete saw which shall be used for sawing concrete to be removed as directed by the Engineer. Only when specifically called for on the Form of Proposal saw cutting will be paid for at the unit price bid. The Contractor shall use caution in the removal of concrete. Concrete damaged by the Contractor's fault shall be removed and replaced **AT NO COST TO THE CITY.**
10. Contractor's attention is called to necessity for acquiring a permit from the City of Livonia's Engineering Department for all sidewalk or other concrete work within the right-of-way constructed for private owners and not part of this contract.

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
SPECIAL CONDITIONS FOR SIDEWALK PROGRAM

11. Contractor shall have available on the job, a root grinder or similar tool for removing roots as directed by the Engineer. The Contractor shall remove all roots beneath the sidewalk to minimum depth of six inches (6") below the subgrade. This work shall be considered incidental to the contract.
12. All disturbed area shall be restored with 3" of topsoil and MDOT THM (turf loamy to heavy) seed applied at a rate of 220 lbs. per acre. This work shall be considered incidental to the contract.
13. Removal and disposal of broken concrete is the responsibility of the Contractor and he shall obtain his own dump sites.
14. The Contractor shall be responsible for protecting all freshly poured concrete against damage from vandalism, public travel, frost, improper curing, or other causes prior to acceptance by the City.
15. The Contractor shall be responsible for any, and all, damage to existing utilities caused by his operations.
16. The Contractor shall notify Detroit Edison Company and the Consumers Power Company relative to the location of underground street light cables and gas services respectively (See Paragraph 5 of Specifications General). The Contractor shall use care in locating and preserving such systems where encountered. The repair of any underground lawn sprinkler system damages by the Contractor shall include acceptable clamps. This work shall be considered incidental to the contract.
17. Unit price bid for removal and replacement of concrete pavement shall include the integral curb and gutter.
18. Removal of trees 4-inches in diameter and smaller shall be incidental to the contract.
19. Any manholes or other surface utility structures in the walk or between the walk and roadway or curb not conforming to the new grade shall be adjusted to grade. Adjustments should be made with approved brick, mortared in place and plastered.
20. **IT IS THE INTENT OF THIS CONTRACT TO DO ALL WORK BETWEEN JUNE 1, 2026 AND SEPTEMBER 25, 2026.**
21. The Contractor is hereby made aware of the City's Ordinances regarding this project.

SCHEDULING

Prior to commencing work, the contractor will be given the address lists and the Engineer's order of preference for this project.

WORK AREA

The Contractor shall be alert to the fact that their work areas are very visible to the public and that their work operation shall have a direct impact on a large number of people on a

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
SPECIAL CONDITIONS FOR SIDEWALK PROGRAM

daily basis. The work shall be organized to reduce the number of work days to a minimum. Also, the Contractor shall keep their area as clean and dust free as practical at all times.

SPECIAL NOTE

The City of Livonia has expressed concern regarding the poor barricading, unnecessary damage to lawns, marred concrete surfaces and prompt repair to sprinkler systems in past programs.

The Contractor will be required to provide barricades and lights strictly in accordance with the specifications. Unnecessary damage to lawns and non-responsive action to sprinkler repairs will not be tolerated. Equipment such as trucks, heavy tractors, and backhoes or tractors with pads, used for breaking concrete, shall not be used on established lawns. Also, the Contractor will be held responsible to protect finished concrete from all surface marring, whether or not such marring is accidental or intentional. Damaged concrete, including graffiti, hand prints, dates, etcetera scribed into the walk will not be accepted by the City.

TIME OF COMPLETION

The contractor is to commence work on or before **June 1, 2026** and all work shall be completed on or before **September 25, 2026**. City offices will be closed on May 25th, July 4th and September 1st, 2026. The work shall be completed within seventy-five (75) calendar days of the "Notice to Proceed", **no exceptions**.

A proposed work schedule shall be submitted by the Contractor and approved by the Engineer prior to beginning any construction.

WAYNE COUNTY & MDOT PERMITS FOR CONSTRUCTION

The Contractor is responsible for obtaining any Michigan Department of Transportation (MDOT) and Wayne County Permits to perform work within the respective rights-of-way. All fees and insurance are incidental to the contract.

Contacts:

Wayne Co. Permit Coordinator:	Hikmat Kessem:	(734) 858-2774
MDOT Permit Coordinator:	Ron Jackson:	(248) 361-0889

FINAL PAYMENT

Upon completion of all work required by this contract, in accordance with all singular terms and stipulations herein contained, the City will withhold five (5) percent of the Final Estimate made by the Engineer. Final payment shall be made, at which time the Contractor will execute a Contractors' Affidavit that he has paid all claims of every nature or secured a release from the Surety or Sureties approving payment. The final payment shall be considered as full approval and acceptance of the completed work herein specified.

**SPECIFICATIONS FOR
CONCRETE SIDEWALK AND DRIVE APPROACH**

A. DESCRIPTION

This work shall consist of a single course of concrete, constructed on a prepared subgrade.

B. MATERIALS

All concrete shall have a minimum 28-day compressive strength of 3,500 psi.

The minimum cement content shall be (6) sacks of cement per cubic yard of concrete.

All concrete shall have an entrained air content between the limits of 5% and 7%.

The materials shall meet the requirements specified in the following designated sections of the 2012 Michigan Department of Transportation Standard Specifications for Construction.

Material	Section
Concrete (P1)	601, 901, 902, 903, and 911
Granular Materials	901 and 902
Pre-molded Joint Filler	602 and 914
Concrete Curing Materials	903.05

Asphalt approaches shall be constructed with six inch (6") compacted thickness of M.D.O.T. 21A aggregate and 2" of 1100 (36A) plant mix asphalt (See Table BC-1A, BC-1B and BC-1C).

C. LOCATION AND WIDTH

All sidewalk placed in residential areas shall be five feet (5') in width and shall be located one foot (1') from the property line toward the centerline of the street. All sidewalk placed in commercial areas shall be six feet (6') in width and shall be located adjacent to the property line. The City Engineer must authorize any deviation in the above width or location.

All driveway approaches shall not be less than ten feet (10') or more than sixteen feet (16') in width at the sidewalk. The width of the approach at the road shall be not less than sixteen (16') feet or more than twenty – five feet (25').

D. THICKNESS

All sidewalks shall not be less than four inches (4") in thickness. Residential driveway approaches and adjacent sidewalk shall not be less than six inches (6") in thickness from edge of street pavement to property line. Commercial driveway approaches and adjacent sidewalk shall not be less than eight inches (8") in thickness from edge of street pavement to property line.

Concrete may be cored at locations determined by the Engineer. In case of short cores payment will be adjusted accordingly to Table 602-2 of Section 602.04 of the 2020 Michigan department of Transportation Standard Specifications for Construction.

**SPECIFICATIONS FOR
CONCRETE SIDEWALK AND DRIVE APPROACH**

E. CONSTRUCTION METHODS

1. Preparation of Subgrade

The subgrade shall be formed by excavating or filling to the required elevation for bottom of concrete, or to bottom of the subbase if a subbase is required. The subbase shall be porous, M.D.O.T. Class II material constructed in accordance with Section 902 and Table 902-3 of the 2012 Michigan Department of Transportation Standard Specifications for Construction. The subgrade shall be thoroughly tamped or otherwise compacted to insure its stability. In cuts, the subgrade shall be excavated wide enough to permit the proper placing of forms. In fills, the subgrade shall be made at least one foot (1') wider on each side than required width of sidewalk or drive approach.

When the construction for sidewalk or approaches requires fill material to provide the necessary foundation, the material shall be approved, suitable, excavated material from the project or borrow pit as required. The embankment shall be constructed in layers not exceeding twelve inches (12") in depth and each layer shall be thoroughly compacted by methods having the approval of the City Engineer.

2. Forms

The forms shall be made of wood or metal, straight and free from warp, and of sufficient strength to resist springing during the process of depositing concrete against them. The forms shall be the full depth of the concrete. The side forms shall be firmly staked to the required line and grade and shall provide for a transverse slope of one quarter inch ($\frac{1}{4}$ ') per foot toward the centerline of the road unless otherwise provided. When unit slab areas are to be placed, slab division forms shall be so placed that the slab division joints will be straight and continuous.

3. Grading

All walks shall be constructed with a cross-slope of one quarter inch ($\frac{1}{4}$ ") in each foot of width upwards from the top of the curb, to the property line, or from the established grades thereof. However, at intersections of streets, junction with existing work and other special conditions where it is not practical and reasonable to follow this cross-slope the walk shall be constructed as directed by the Engineer.

Driveways across public property shall be constructed at such grades as established by the Engineer.

A template of proper thickness shall be provided to check the subgrade over the entire area of the slab.

**SPECIFICATIONS FOR
CONCRETE SIDEWALK AND DRIVE APPROACH**

4. Structures

Any manholes or other surface utility structures in the walk or between the walk and roadway or curb not conforming to the new grade shall be adjusted to grade. Adjustments should be made with approved brick or block, mortared in place; manhole frame shall be mortared in place and edges plastered over.

5. Mixing Concrete

Transit mixed concrete shall be required. Truck mixers shall be of the revolving drum type. The size of the batch shall not exceed the maximum rating capacity of the mixer as stated by the manufacturer. The time interval between loads shall not exceed fifteen (15) minutes.

6. Placing and Finishing Concrete

The base shall be moist and the concrete shall be deposited thereon to the depth specified on the plans, standard details or in the proposal. The concrete shall be thoroughly spaded along the faces of the forms and before finishing operations are started, the concrete shall be struck off to the required grade and cross section. The surface shall be floated just enough to produce a smooth surface free from irregularities. All edges and joints shall be rounded to a radius of one half inch ($\frac{1}{2}$ ") with an approved finishing tool. The surface shall be broomed to slightly roughen the surface and remove the finishing tool marks. The concrete should then be identified by stamping the year and Contractor's name in the surface.

7. Joints

Joints shall be constructed true to line with their faces perpendicular to the surface of the sidewalk and shall not vary more than a quarter inch ($\frac{1}{4}$ ") from their designated position. Transverse joints shall be constructed at right angles to the centerline of the sidewalk and longitudinal joints shall be constructed parallel to the centerline unless otherwise required.

When the sidewalk is constructed in partial width slabs, transverse joints in the succeeding slab shall be placed in line with like joints in the adjacent slab. In the case of widening existing sidewalks, transverse joints shall be in place in line with like joints in the existing sidewalk.

The concrete at the faces of all joints shall be thoroughly spaded or vibrated and compacted to fill all voids, and the surface shall be finished smooth and substantially true to grade.

a. Transverse Expansion Joints: One inch (1") transverse expansion joints shall be placed through concrete sidewalk in line with all expansion joints in the abutting curb, gutter or combination curb and gutter. In case the sidewalk is not intended to abut such a structure, or in case the sidewalk is intended to abut a structure having no expansion joints, then one half inch ($\frac{1}{2}$ ") transverse expansion joints shall be

SPECIFICATIONS FOR CONCRETE SIDEWALK AND DRIVE APPROACH

placed through the sidewalk at uniform intervals of not more than forty feet (40').

Expansion joint filler shall extend to the full depth of the joint and the top shall be slightly below the finished surface of the sidewalk. The filler shall be temporarily supported until concrete is placed against it from both sides.

b. Longitudinal Expansion Joints: One half inch (1/2") expansion joints shall be placed between the sidewalk and back of the abutting parallel curb or gutter, and between the sidewalk and buildings or other rigid structures. When directed by the Engineer, the expansion joint between the sidewalk and buildings shall be placed one foot (1') from the property line and parallel to it.

One inch (1") expansion joints shall be placed between sidewalk approaches and the back of curb or gutter, or the edge of pavement.

Expansion joint filler shall extend to the full depth of the joint and the top shall be slightly below the finished surface of the sidewalk.

c. Contraction Joints: Sidewalk other than temporary concrete sidewalk shall be divided into unit areas of not more than 36 square feet. Insofar as feasible, the unit areas shall be square and of not less than 16 square feet. The unit areas shall be produced by use of slab division forms extending the full depth of the concrete or by cutting joints into the concrete, after floating, to a depth of not less than one quarter (1/4) the thickness of the sidewalk. The cuts shall be not less than one eighth inch (1/8") or more than one quarter inch (1/4") in width and shall be finished smooth and substantially true to line.

8. Curing

The concrete shall be protected against the elements as specifically required by the Engineer.

No concrete shall be placed during the period from November 1 to May 1, without written authorization of the City Engineer. From May 1 to November 1, concrete may be placed when the air temperature, in the shade and away from artificial heat, is 35° F and rising. Concrete shall not be placed when the air temperature, in the shade and away from artificial heat, is 40° F and falling.

Chemicals shall not be added to lower the freezing point except by written authorization of the City Engineer. When deviation from the above requirements is authorized, all cold weather work shall be protected in accordance with the requirements of Section 602.03 of the 2012 Michigan Department of Transportation Standard Specifications for Construction.

**SPECIFICATIONS FOR
CONCRETE SIDEWALK AND DRIVE APPROACH**

9. Protection of Work

All newly placed concrete shall be properly protected by lighted barricades, covers, blankets and watchmen if necessary, to prevent damage by vehicles, rain or freezing weather, persons or animals. Immediately after the concrete is placed and finished, white membrane-curing compound shall be applied. The materials and use of which shall be in accordance with Section 903.06 of the 2012 Michigan Department of Transportation Standard Specifications for Construction.

10. Backfilling

After the concrete has gained sufficient strength (70% of design strength as required under Section 803.03 of the 2012 Michigan Department of Transportation Standard Specifications for Construction), all rails, forms, stakes and wood supports, shall be removed in a manner as not to injure finished concrete and all exposed edges of the concrete shall be backfilled immediately. The remaining public area between the curb and property line shall be finish graded to meet the established street grade and cross-slope. Surplus excavation and materials shall be removed from the site and the job left in a neat and workmanlike manner. All areas disturbed by the Contractor shall be restored with topsoil and seed or sod.

11. Testing of Materials

The test of materials for the project shall be in accordance with the 2012 Michigan Department of Transportation Standard Specifications for Construction, applicable Michigan Testing Manuals, and ASTM test methods except as follows:

a. For Preparation of Subgrade

The **Contractor** shall, at his expense, arrange for a testing company, acceptable to the City, before starting his operations, to make necessary periodic proctor and density tests and sample the gradation of outside fill materials to be used. The testing company shall supply the Engineer with three (3) copies of all tests. Samples of the material shall be made as directed by the Engineer.

b. For Concrete Curb and Gutter

1. The **Contractor** shall, through the use of an acceptable testing company, supply testing for cement, fine aggregate, coarse aggregate, concrete mix and test cylinders.

2. Testing for the determination of air content of the mix shall be made by a method approved by the Engineer. An air test shall be taken not less than once in the morning and once in the afternoon for each portion of a partial workday or partial concrete placement.

SPECIFICATIONS FOR CONCRETE SIDEWALK AND DRIVE APPROACH

Results of these tests shall be used by the Contractor and testing laboratory, subject to the approval of the Engineer, to adjust the mix if necessary, to maintain entrained air within the limits required. Subsequent tests shall be made for proper control and determination of entrained air for each mix adjustment. The City will make a supplemental air test from time to time.

3. **Test Cylinders:** Three (3) test cylinders shall be made for every 600 lineal feet of concrete curb and gutter placed or fraction thereof for each day's concrete placement. One shall be tested for 7-day strength, one for 28-day strength, and the other shall be used as a supplemental cylinder. The cylinders will be made in the presence of an inspector, in cylinder forms supplied by the Contractor.

4. The Contractor shall properly store the cylinders on the job and shall deliver them to the testing laboratory within 48 hours after they are made. The cylinders shall be marked or identified by date and station number consecutively.

All costs for the mix designs, material testing, proctor testing, density testing, concrete cylinder compression testing, and pavement cores will be the paid for by the Contractor incidental to the project.

12. Measurement and Payment

"Excavation in excess of 8 inches" will be paid for at the contract unit price per cubic yard, bank measured, which price shall be payment in full for all work required in excavating greater than 8" of existing material and the disposal thereof.

"Fill in excess of 8 inches" will be paid for at the contract unit price per cubic yard, compacted in place, for Granular Material M.D.O.T. CLII, which price shall be payment in full for furnishing the material, loading, hauling, spreading and compacting that portion of the subbase which is greater than 8" in depth.

"Concrete Sidewalk" and/or "Concrete Approaches" will be paid for at the contract unit price per square foot, which price shall be payment in full for any excavating or filling of less than 8", furnishing the materials and constructing the pavement proper, including jointing, finishing, curing, testing of materials and mix, backfilling and all clean up including placement of topsoil and seeding on all disturbed areas.

"Removing existing concrete curb" will be paid at the contract unit price per lineal foot, which price shall be payment in full for all work required in removing an existing curb by means of saw cutting for construction or widening of a drive approach.

SPECIFICATIONS FOR
CONCRETE SIDEWALK AND DRIVE APPROACH

13. Sidewalk Ramps

Sidewalk ramps shall be placed in compliance with A.D.A. Standard Specifications. "See M.D.O.T. Standard Detail R-28-J"

SPECIFICATIONS FOR
CONCRETE SIDEWALK AND DRIVE APPROACH

**Table BC-1A Master Gradation Range, Percent Bitumen, and
Crushed Particle Content for Bituminous Mixtures**

Sieve Sizes	Total Percent Passing Designated Sieve for Applicable Bituminous Mixture (a)									
	No. 1800 No. 1500 No. 1300 (36A) (36B)	No. 1800 No. 1500 No. 1300 (20AAA) (20AAA)	No. 1100 (36A) (36B)	No. 1100 (20AA)	No. 1100 (20A)	No. 900 (20AA)	No. 900 (20A)	No. 900 (20B)	No. 700 No. 500 (20C)	Curb Mixture
1 ½"	-	-	-	-	-	-	-	-	100	-
1"	-	-	-	-	-	-	-	-	80-100	-
¾"	-	100	-	100	100	100	100	100	-	100
½"	100	90-100	100	90-100	-	90-100	-	-	-	-
3/8"	92-100	65-95	92-100	65-95	60-90	65-95	60-90	60-95	55-90	75-90
No. 4	65-90	55-75	65-90	-	-	-	-	-	-	-
No. 8	55-75	45-70	55-75	45-70	40-65	45-70	40-65	40-70	30-55	55-75
No. 30	25-50	20-45	25-50	20-45	20-40	20-45	20-40	20-45	15-40	-
No. 200(b)	4-10	3-10	4-10	3-10	3-10	3-10	3-10	3-10	3-10	7-15
% Bitumen in Mixture ©	5-9	5-7	5-9	5-7	5-7	5-7	5-8	5-8	3-6	6-9
Crushed Particle Content, %, Min.	(d)	60	(d)	40	25	40	25	-	25	40

- (a) Composition limits are shown in percent by weight, based on the total aggregate, including mineral filler, in the mixture.
- (b) The Job-Mix-Formula shall have a minimum total percent passing a No. 200 sieve of 5.0 percent.
- (c) The percent of bitumen in the mixture shown in Table BC-1A, is a range and the actual bitumen content in the production mixture shall be as determined by the Job-Mix-Formula. For mixtures No. 900, 1100, 1300, 1500 and 1800 placed in two courses, the leveling course will be designed to have up to 0.5 percent less bitumen than the optimum specified for the top course. Mixtures No. 500 and 700 will be designed to have a target air void of 4.0 percent.
- (d) 36A = 60%; 36B = 40%.

SPECIFICATIONS FOR
CONCRETE SIDEWALK AND DRIVE APPROACH

Table BC-1B Uniformity Tolerance Limits for Bituminous Mixtures

Type of Course	Type of Aggregate	Range (a)	Percentage Passing Designated Sieves				Bitumen Content
			(b)	No. 8	No. 30	No. 200	
Top and Leveling Courses	(c)	Range 1	±5.0	±5.0	±4.0	±1.0	±0.40
		Range 2	±8.0	±8.0	±6.0	±2.0	±0.50
Base Courses	(c)	Range 1	±7.0	±7.0	±6.0	±2.0	±0.40
		Range 2	±9.0	±9.0	±9.0	±3.0	±0.50
Leveling and Base Courses	(d)	Range 1	±6.0	±6.0	±5.0	±2.0	±0.30
		Range 2	±9.0	±9.0	±9.0	±4.0	±0.50

- (a) Range 1: This range allows for normal mixture and testing variations. The mixture shall be proportioned to test as closely as possible to the Job-Mix-Formula.
- (b) This includes all sieve sizes No. 4 and larger listed on the JMF.
- (c) All new dense-graded aggregate or when the amount of reclaimed asphalt pavement blended with new dense-graded aggregate is 15 percent or less.
- (d) When the amount of reclaimed asphalt pavement blended with new dense -graded aggregate is greater than 15 percent up to a maximum of 50 percent.

SPECIFICATIONS FOR
CONCRETE SIDEWALK AND DRIVE APPROACH

Table BC-1C
Mix Design Criteria

Mixture Designation	Aggregate Required	Stability Pounds Minimum	Flow Hundredths of an inch	VMA Percent Minimum	Air Voids Percent Target (a) (b)
500	20C	500	—	13.0	4.0
700	20C	700	8-16	13.0	4.0
900	20B/20A/20AA	900	8-16	13.5	2.5
1100	20A/20AA/36A/ 36B	1100	8-16	13.5	3.0
1300	20AAA/36A/ 36B	1300	8-16	14.0	3.0
1500	20AAA/36A/ 36B	1500	8-16	14.0	3.0
1800	20AAA/36A/ 36B	1800	9-16	14.0	3.0

- (e) Unless otherwise authorized by the Engineer.
(f) Material Used strictly for shoulders shall have an air void target value 0.5 percent less.

SUPPLEMENTAL SPECIFICATION FOR
CONCRETE SIDEWALKS

The intent of the specifications is to provide for the replacement of existing sidewalk when such replacement is necessary in conjunction with the project.

1. Any sidewalk damaged by the contractor, which is not indicated on the plans to be replaced, shall be replaced by the contractor at his expense.
2. All sidewalks shall not be less than 4" in thickness.
3. Construction methods and materials shall meet the current requirements specified in the 2012 M.D.O.T. Standard Specifications for Construction Section 803.
4. Sidewalk ramps shall be placed in compliance with A.D.A. Standard Specifications. "See M.D.O.T. Standard Detail R-28-H"
5. Saw cutting of portions of sidewalks to be removed shall be incidental to sidewalk removal.

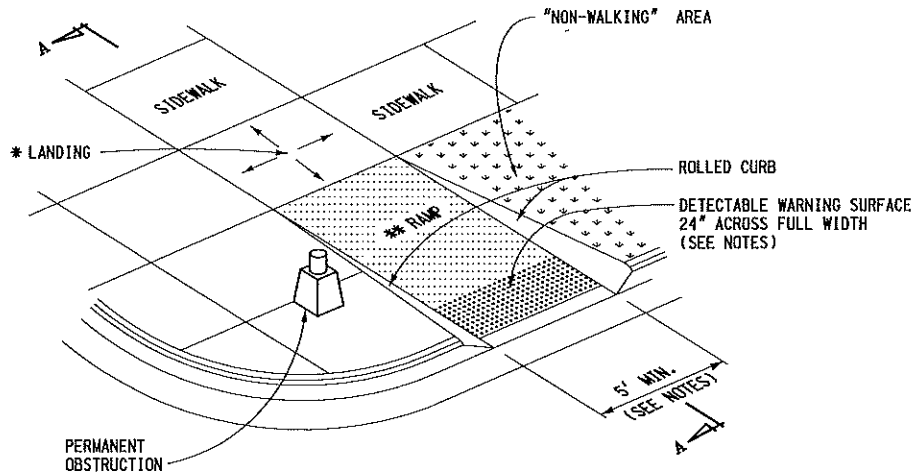
SUPPLEMENTAL SPECIFICATION FOR **CONCRETE APPROACHES**

The intent of the specifications is to provide for the replacement of existing drive approaches when such replacement is necessary in conjunction with the project.

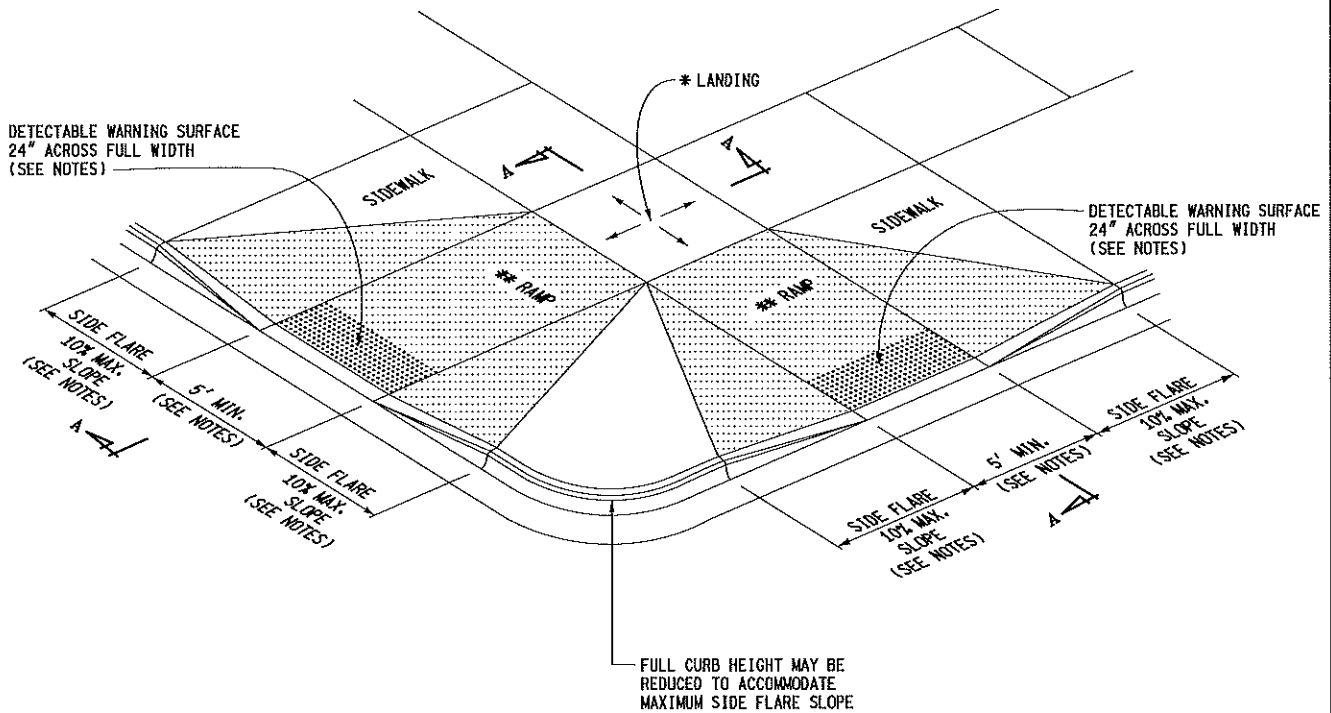
1. All existing drive approaches shall be replaced in kind, except as otherwise indicated by the Engineer.
2. Existing concrete drive approaches shall be replaced with a minimum 6" uniform 3,500 psi concrete (M.D.O.T. P1).
3. Existing asphalt drive approaches shall be replaced with a minimum 6" compacted M.D.O.T. 21AA crushed limestone aggregate base and with a minimum 2" of M.D.O.T. No. 1100 T, 36 A. Bituminous Mixture.
4. Existing gravel drive approaches shall be replaced with 6" compacted M.D.O.T. 21AA crushed limestone aggregate base.
5. Saw cutting of portions of drive approach to be removed shall be incidental to drive approach removal.
6. Excavation of existing drive approach material shall be included in the unit price bid for placement of 21AA crushed limestone aggregate, 2" bituminous drive approach or 6" concrete drive approach.
7. Driveway replacement, when necessary, shall be covered under this specification.

* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



CURB RAMP TYPE R
(ROLLED SIDES)



CURB RAMP TYPE F
(FLARED SIDES, TWO RAMPS SHOWN)



PREPARED
BY
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Paul C. Ajegba

APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

CURB RAMP AND DETECTABLE WARNING DETAILS

F.H.W.A. APPROVAL

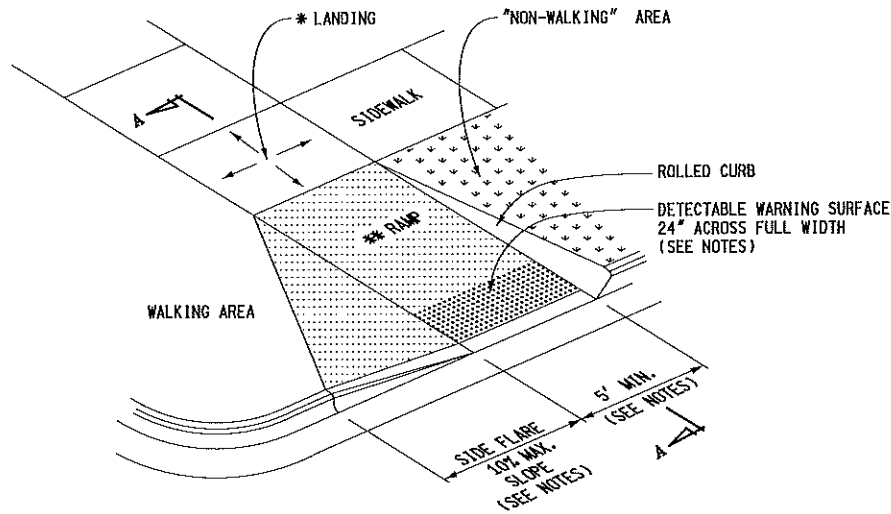
5-8-2020
PLAN DATE

R-28-J

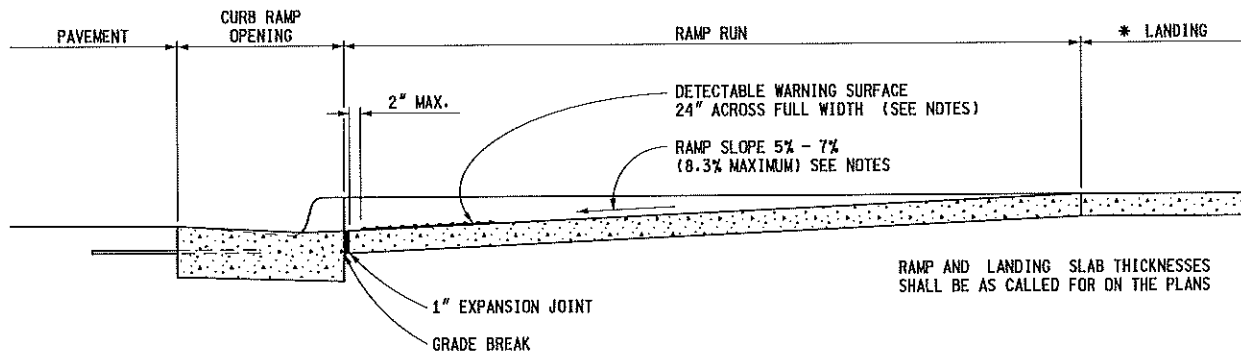
SHEET
1 OF 7

* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



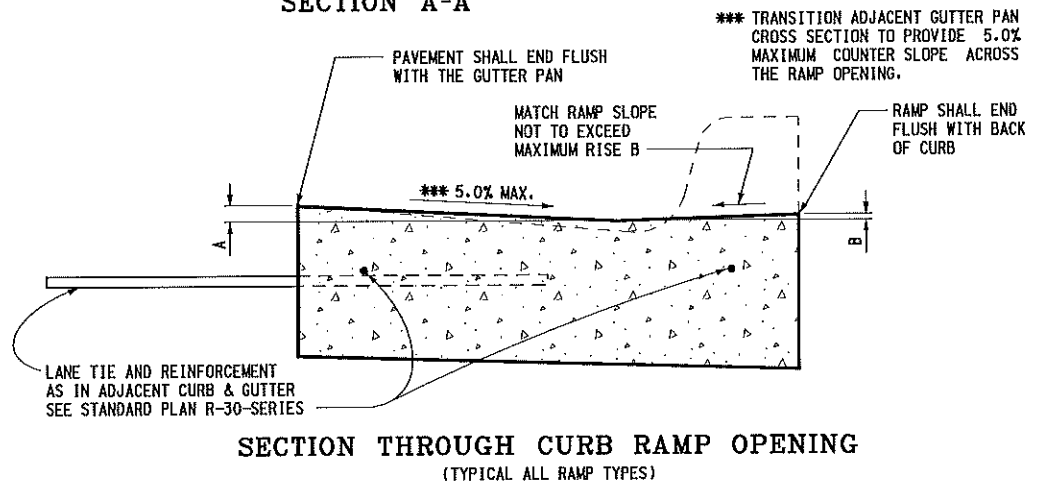
CURB RAMP TYPE RF
(ROLLED / FLARED SIDES)



SECTION A-A

CURB TYPE	MAXIMUM RISE (INCHES)	
	A	B
B1	3/4	1
B2	3/4	1
B3	3/4	1
D1	3/4	1
D2	3/4	1
D3	3/4	1
C1	1/2	1/2
C2	1/2	1/2
C3	3/4	1/2
C4	3/4	1/2
C5	1	1/2
C6	1	1/2
F1	1/2	1/2
F2	1/2	1/2
F3	3/4	1/2
F4	3/4	1/2
F5	1	1/2
F6	1	1/2

FOR CURB TYPES SEE
STANDARD PLAN R-30-SERIES



SECTION THROUGH CURB RAMP OPENING
(TYPICAL ALL RAMP TYPES)

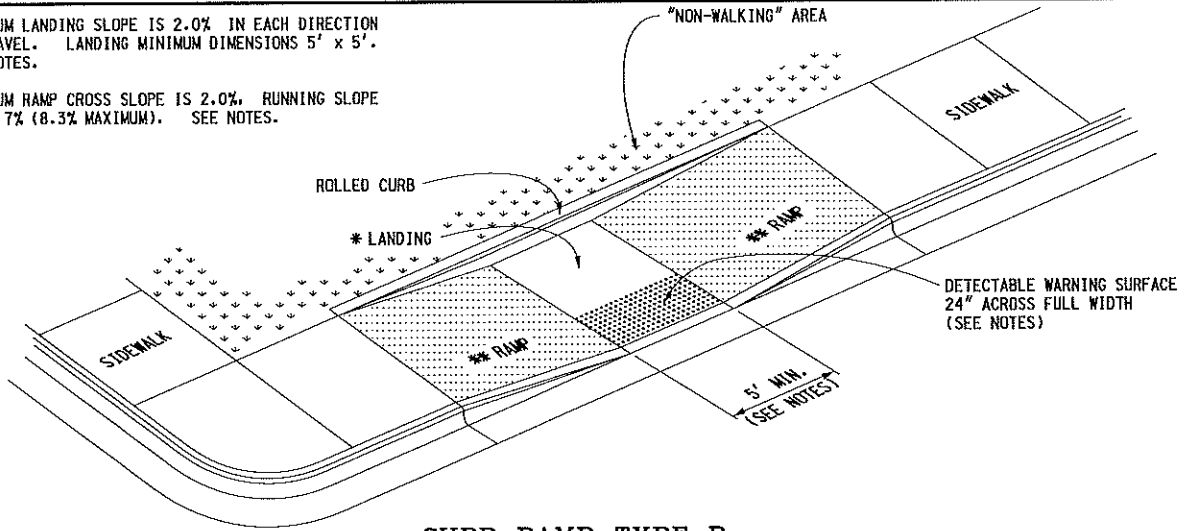
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

CURB RAMP AND DETECTABLE WARNING DETAILS

F.H.W.A. APPROVAL	5-8-2020	R-28-J	SHEET 2 OF 7
	PLAN DATE		

* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

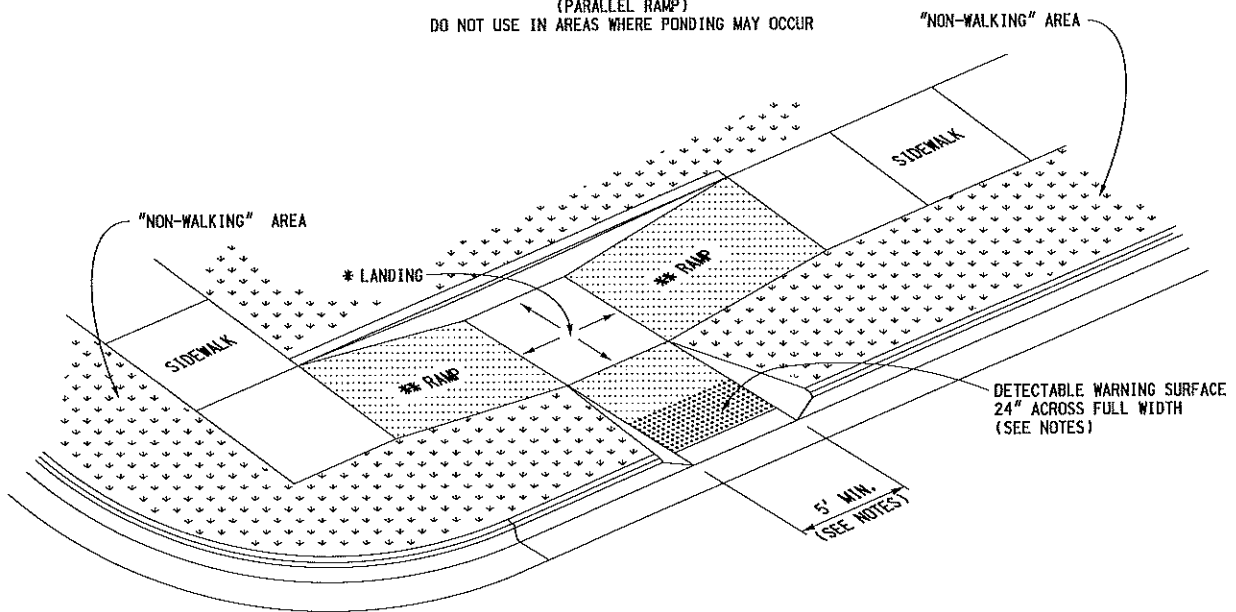
** MAXIMUM RAMP CROSS SLOPE IS 2.0%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



CURB RAMP TYPE P

(PARALLEL RAMP)

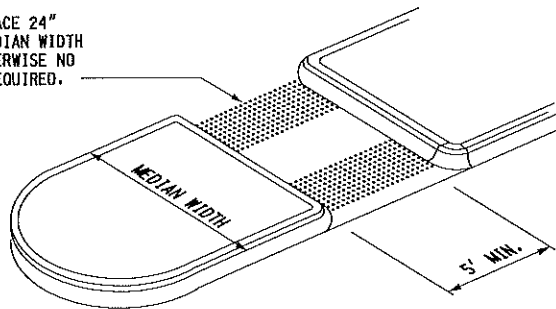
DO NOT USE IN AREAS WHERE PONDING MAY OCCUR



CURB RAMP TYPE C

(COMBINATION RAMP)

DETECTABLE WARNING SURFACE 24" ACROSS FULL WIDTH IF MEDIAN WIDTH IS AT LEAST 6'-0". OTHERWISE NO DETECTABLE WARNING IS REQUIRED.



CURB RAMP TYPE M

(MEDIAN ISLAND)

MICHIGAN DEPARTMENT OF TRANSPORTATION
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CURB RAMP AND DETECTABLE WARNING DETAILS

F.H.W.A. APPROVAL

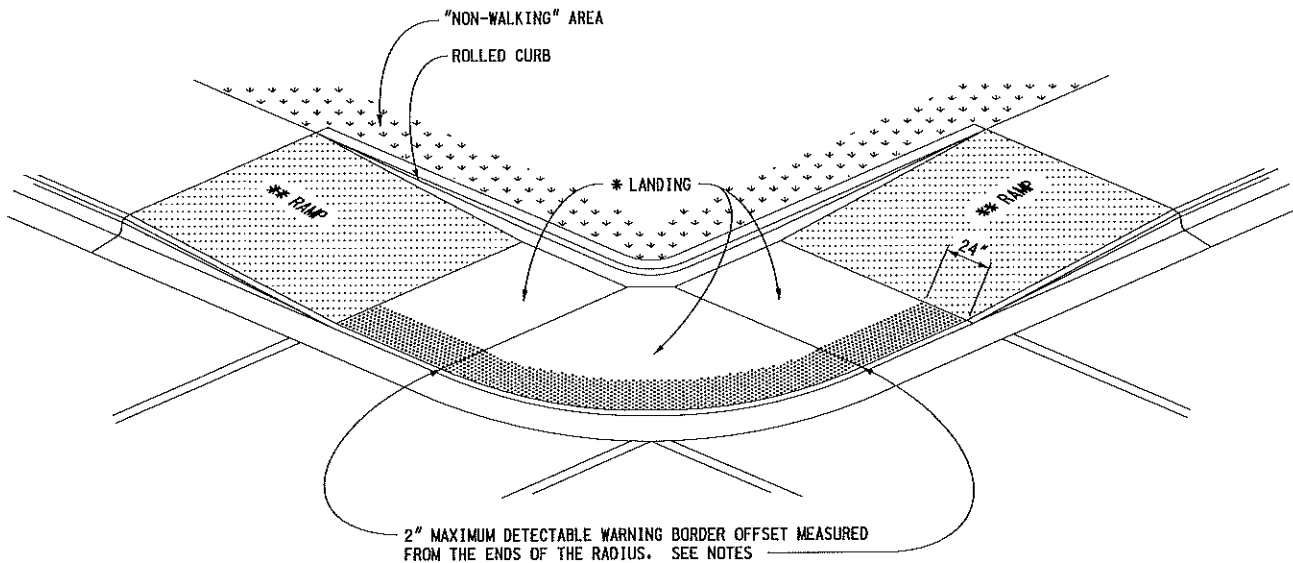
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PLAN DATE

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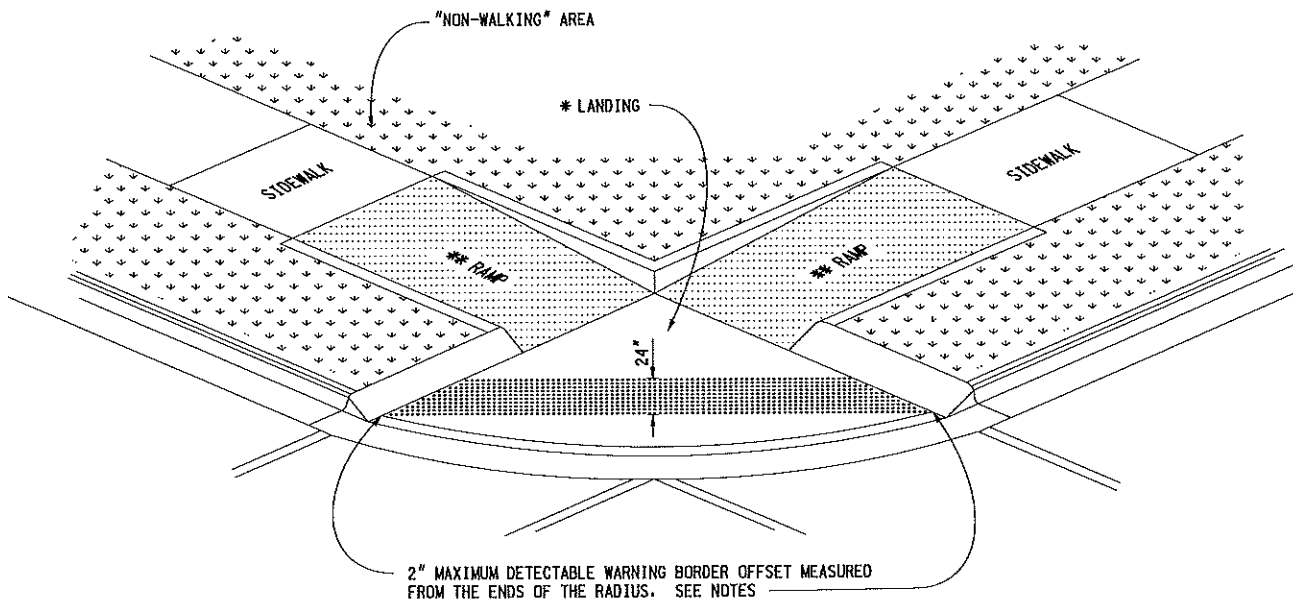
SHEET
3 OF 7

* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



(RADIAL DETECTABLE WARNING SHOWN)



(TANGENT DETECTABLE WARNING SHOWN)

CURB RAMP TYPE D (DEPRESSED CORNER)

USE ONLY WHEN INDEPENDENT DIRECTIONAL RAMPS CAN NOT BE CONSTRUCTED FOR EACH CROSSING DIRECTION

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

CURB RAMP AND DETECTABLE WARNING DETAILS

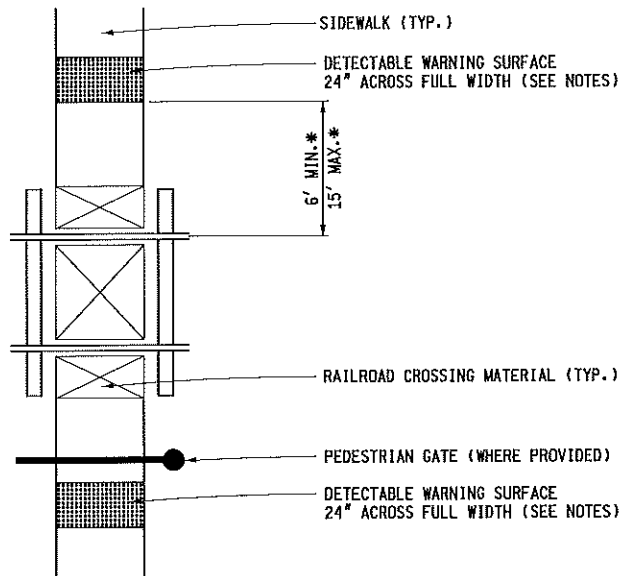
F.H.W.A. APPROVAL

5-8-2020
PLAN DATE

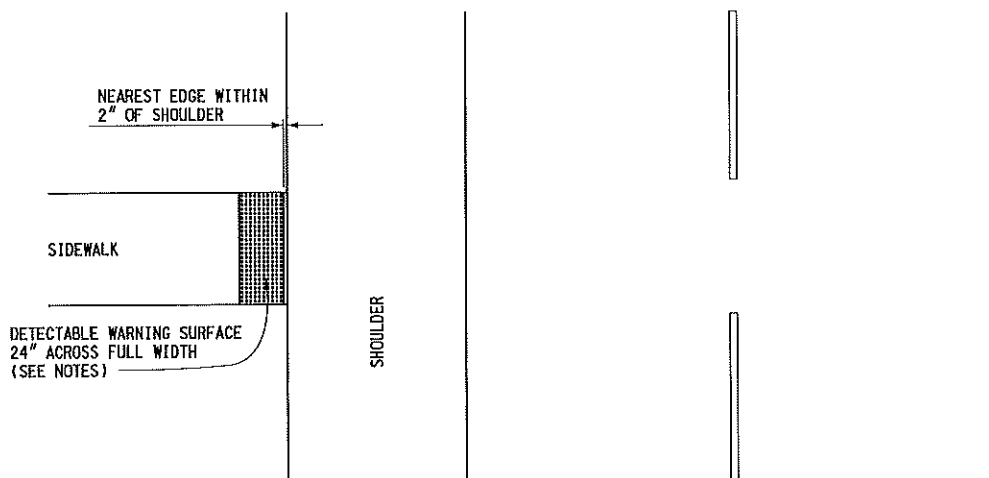
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* THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE RAIL CROSSING IS 6' MINIMUM AND 15' MAXIMUM FROM THE CENTERLINE OF THE NEAREST RAIL. DO NOT PLACE DETECTABLE WARNING ON RAILROAD CROSSING MATERIAL.



DETECTABLE WARNING AT RAILROAD CROSSING



DETECTABLE WARNING AT FLUSH SHOULDER OR ROADWAY

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

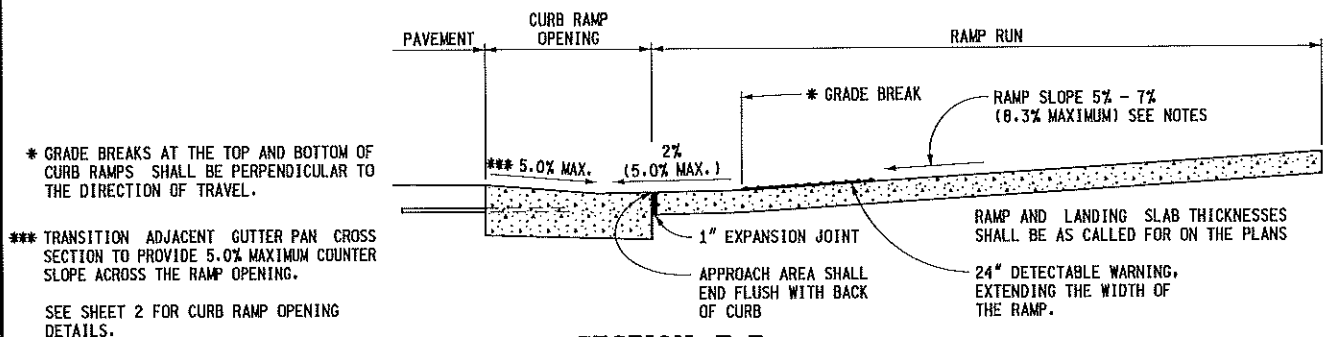
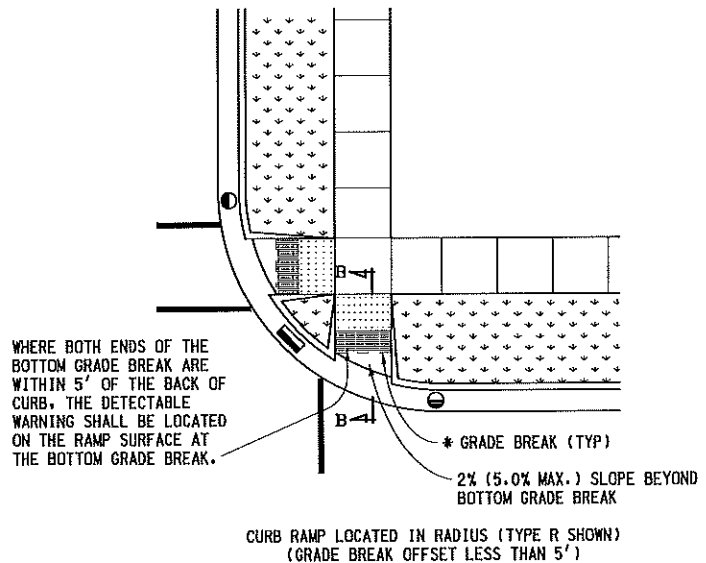
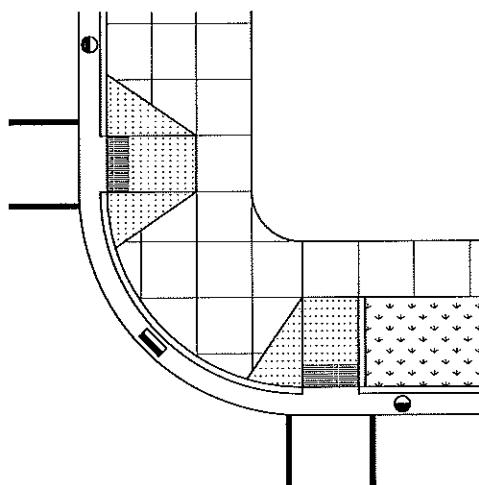
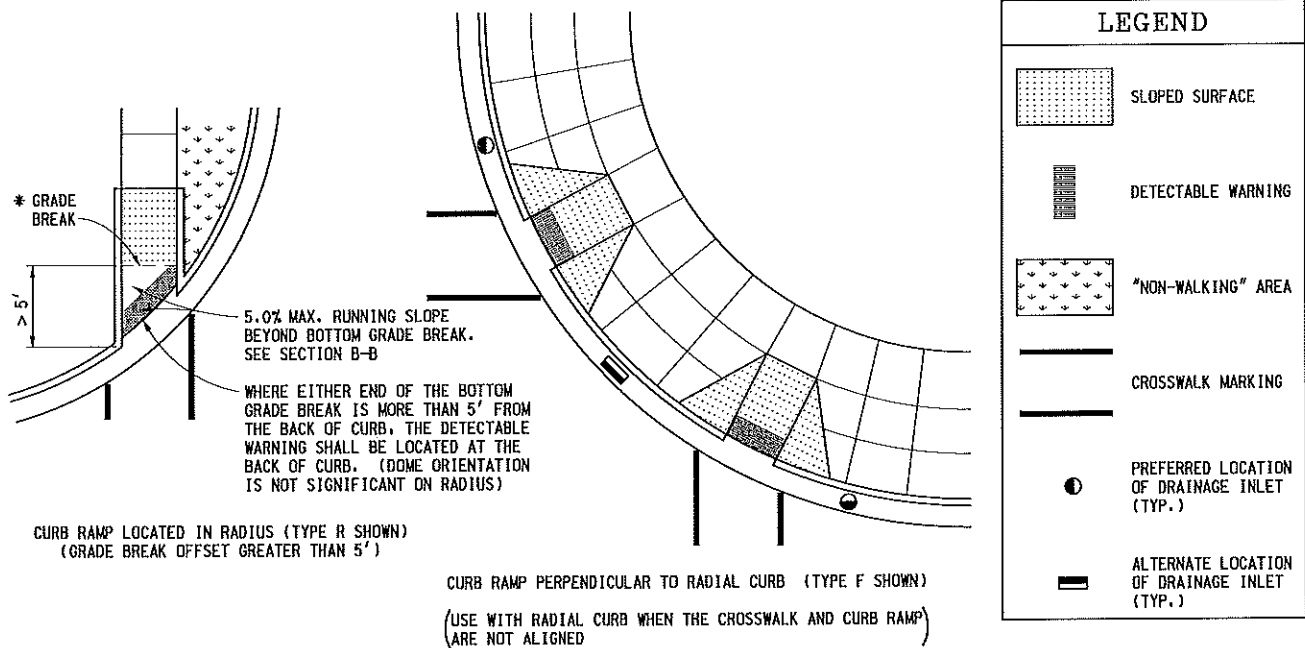
CURB RAMP AND DETECTABLE WARNING DETAILS

F.H.W.A. APPROVAL

5-8-2020
PLAN DATE

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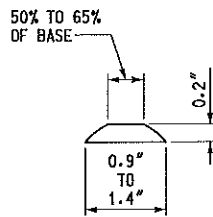
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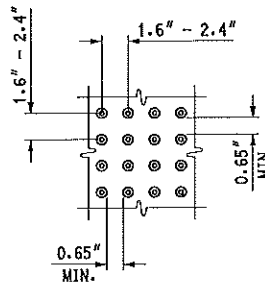
SECTION B-B CURB RAMP ORIENTATION

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

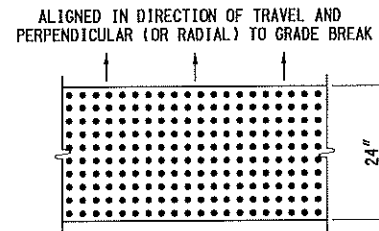
CURB RAMP AND DETECTABLE WARNING DETAILS



DOME SECTION



DOME SPACING



DOME ALIGNMENT

DETECTABLE WARNING DETAILS

NOTES:

DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION, RECONSTRUCTION, OR ALTERATION OF STREETS, CURBS, OR SIDEWALKS IN THE PUBLIC RIGHT OF WAY.

CURB RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

RAMPS SHALL BE PROVIDED AT ALL CORNERS OF AN INTERSECTION WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. RAMPS SHALL ALSO BE PROVIDED AT MARKED AND/OR SIGNALIZED MID-BLOCK CROSSINGS.

SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE RUNNING SLOPE.

SIDEWALK SHALL BE RAMPED WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK.

CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP. WHERE CONDITIONS PERMIT, IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

RAMP WIDTH SHALL BE INCREASED, IF NECESSARY, TO ACCOMMODATE SIDEWALK SNOW REMOVAL EQUIPMENT NORMALLY USED BY THE MUNICIPALITY.

WHEN 5' MINIMUM WIDTHS ARE NOT PRACTICABLE, RAMP WIDTH MAY BE REDUCED TO NOT LESS THAN 4' AND LANDINGS TO NOT LESS THAN 4' x 4'.

CURB RAMPS WITH A RUNNING SLOPE $\leq 5\%$ DO NOT REQUIRE A TOP LANDING. HOWEVER, ANY CONTINUOUS SIDEWALK OR PEDESTRIAN ROUTE CROSSING THROUGH OR INTERSECTING THE CURB RAMP MUST INDEPENDENTLY MAINTAIN A CROSS SLOPE NOT GREATER THAN 2% PERPENDICULAR TO ITS OWN DIRECTION(S) OF TRAVEL.

DETECTABLE WARNING SURFACE COVERAGE IS 24" MINIMUM IN THE DIRECTION OF RAMP/PATH TRAVEL AND THE FULL WIDTH OF THE RAMP/PATH OPENING EXCLUDING CURBED OR FLARED CURB TRANSITION AREAS. A BORDER OFFSET NOT GREATER THAN 2" MEASURED ALONG THE EDGES OF THE DETECTABLE WARNING IS ALLOWABLE. FOR RADIAL CURB THE OFFSET IS MEASURED FROM THE ENDS OF THE RADIUS.

FOR NEW ROADWAY CONSTRUCTION, THE RAMP CROSS SLOPE MAY NOT EXCEED 2.0%. FOR ALTERATIONS TO EXISTING ROADWAYS, THE CROSS SLOPE MAY BE TRANSITIONED TO MEET AN EXISTING ROADWAY GRADE. THE CROSS SLOPE TRANSITION SHALL BE APPLIED UNIFORMLY OVER THE FULL LENGTH OF THE RAMP.

THE MAXIMUM RUNNING SLOPE OF 8.3% IS RELATIVE TO A FLAT (0%) REFERENCE. HOWEVER, IT SHALL NOT REQUIRE ANY RAMP OR SERIES OF RAMPS TO EXCEED 15 FEET IN LENGTH NOT INCLUDING LANDINGS OR TRANSITIONS.

DRAINAGE STRUCTURES SHOULD NOT BE PLACED IN LINE WITH RAMPS. THE LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER THE LOCATION OF THE DRAINAGE STRUCTURE. WHERE EXISTING DRAINAGE STRUCTURES ARE LOCATED IN THE RAMP PATH OF TRAVEL, USE A MANUFACTURER'S ADA COMPLIANT GRATE. OPENINGS SHALL NOT BE GREATER THAN $\frac{1}{2}$ ". ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.

CROSSWALK AND STOP LINE MARKINGS, IF USED, SHALL BE SO LOCATED AS TO STOP TRAFFIC SHORT OF RAMP CROSSINGS. SPECIFIC DETAILS FOR MARKING APPLICATIONS ARE GIVEN IN THE "MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

FLARED SIDES WITH A SLOPE OF 10% MAXIMUM, MEASURED ALONG THE ROADSIDE CURB LINE, SHALL BE PROVIDED WHERE AN UNOBSTRUCTED CIRCULATION PATH LATERALLY CROSSES THE CURB RAMP. FLARED SIDES ARE NOT REQUIRED WHERE THE RAMP IS BORDERED BY LANDSCAPING, UNPAVED SURFACE OR PERMANENT FIXED OBJECTS. WHERE THEY ARE NOT REQUIRED, FLARED SIDES CAN BE CONSIDERED IN ORDER TO AVOID SHARP CURB RETURNS AT RAMP OPENINGS.

DETECTABLE WARNING PLATES MUST BE INSTALLED USING FABRICATED OR FIELD CUT UNITS CAST AND/OR ANCHORED IN THE PAVEMENT TO RESIST SHIFTING OR HEAVING.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

CURB RAMP AND DETECTABLE WARNING DETAILS

F.H.W.A. APPROVAL

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SPECIFICATIONS FOR CONCRETE PAVEMENT REPAIR

This specification covers the removal of broken pavement and unsuitable subgrade material, and replacement with concrete pavement over 9" of compacted 21AA crushed limestone or approved material, and related items of work, within the City of Livonia.

Unit price for remove and replace concrete pavement shall include saw cutting concrete and integral curb and gutter, placing hook bolts, curing compound, and sealing joints.

Grades for the pavement will be established by the Engineer as construction progresses. Minor adjustments in line and/or grade may be necessary to meet existing field conditions. No additional compensation will be authorized for minor adjustments in line or grade related to the construction of the pavement.

Where pavement is placed in areas where there are existing lawns, the Contractor shall place good quality topsoil and seed, MDOT THM in the void left by the formwork. No sod replacement will be required if, in the opinion of the Engineer, the Contractor is diligent in keeping the excavations for formwork to a minimum.

All disturbed areas shall be restored in kind. This work shall be considered incidental to the contract.

The Contractor shall have available on the job, a concrete saw which shall be used for sawing concrete to be removed as directed by the Engineer. The Contractor shall use caution in the removal of concrete. Concrete damaged by the Contractor's fault shall be removed and replaced at no cost to the City.

Disposal of the broken concrete and unsuitable subgrade material is the responsibility of the Contractor, and he shall obtain his own dump sites.

The Contractor shall be responsible for protection of all freshly poured concrete against damage from vandalism, public travel, frost, improper curing, or other causes prior to acceptance by the City.

Control of traffic in the construction area shall be accomplished in strict accordance with the most current Michigan Manual of Uniform Traffic Control Devices (MMUTCD). Traffic control shall be incidental to the project.

Concrete Block, minimum of six (6) inch shall be used to reconstruct drainage structures.

Existing expansion joints shall be replaced with 1" thick Preformed Vinyl Joint Filler. The Preformed Vinyl Joint Filler shall extend the length of the existing slab and shall be deep enough to extend from the top of the subgrade to within 1/2" below the top of pavement. Hot-poured sealant shall then be used to seal the 1/2" deep joint between the top of the Preformed Fiber Joint Filler and the top of pavement.

Longitudinal lane tie joints and transverse weakened plane joints shall be constructed with 1/4" wide by 2" deep Premolded Bituminous Joint Filler. The Premolded Bituminous Joint Filler shall extend the length of the existing slab and shall be set to where the top of the Premolded Bituminous Joint Filler is 1/8" below the top pavement.

SPECIFICATIONS FOR CONCRETE PAVEMENT REPAIR

The Contractor shall not place any equipment, materials and/or debris on existing lawns or private property. All debris and materials shall be removed from the work site daily. All excavated areas shall be properly barricaded. Said barricades shall be lighted if left overnight.

Backfilling around reconstructed structures shall be done with M.D.O.T. Class II Material. This work shall be incidental to the Contract.

All new pavement shall be tied to the existing adjacent pavement by means of 5/8" diameter expansion-anchored hook bolts placed every 24". Expansion-anchored hook bolts shall meet the requirements of the Michigan Department of Transportation 2012 Standard Specifications for Construction.

All concrete shall have a minimum of 28 days compressive strength of 3,500 psi. Minimum cement content shall be six (6) sack of cement per cubic yard of concrete. All concrete shall have an entrained air content between the limits of 5% and 7%.

The materials shall meet the requirements specified in the following designated sections of the 2012 Michigan Department of the State Highway Standard Specifications.

When called for by the Engineer, the Contractor shall provide concrete with higher cement content. This additional cement will be paid for at the unit price bid per bag.

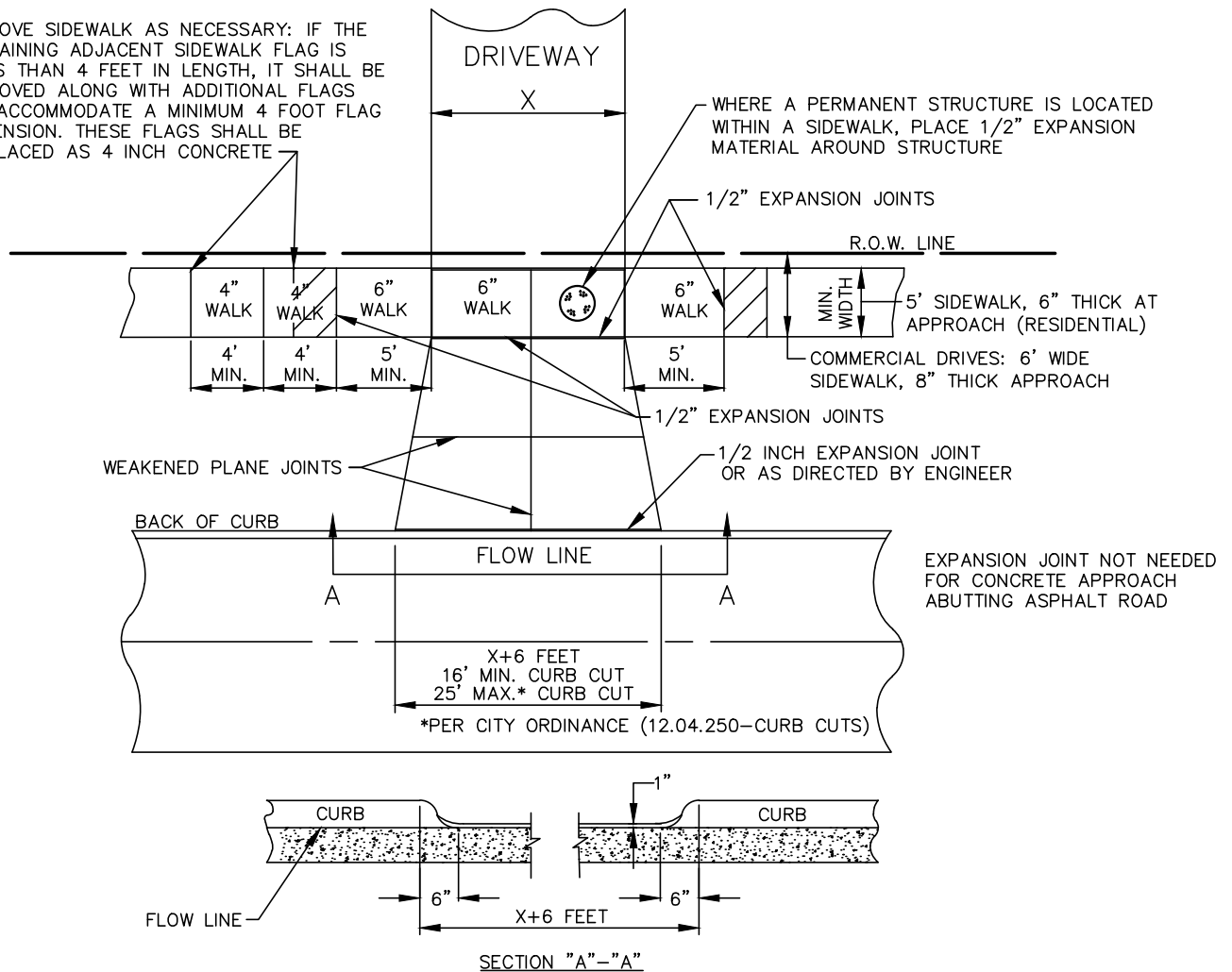
MUNICODE
12.04.250 – CURB CUTS

A. It is unlawful for any person, other than employees, agents or contractors of the city, to make or cause to have any opening in or through any curb of any street except as may otherwise be specifically authorized by a permit from the department.

B. All curb cuts and sidewalk driveway crossings to provide access to private property shall comply with the following:

1. No single curb-cut shall exceed twenty-five (25) feet nor be less than 16 feet.
2. The minimum distance between any curb cut and a public crosswalk shall be five (5) feet.
3. The minimum distance between any curb cuts, except those serving residential property, shall be twenty-five (25) feet.
4. The maximum number of lineal feet of sidewalk driveway crossing permitted for any lot, parcel of land, business or enterprise shall be forty-five percent (45%) of the total abutting street frontage up to and including two hundred (200) lineal feet of street frontage; plus twenty percent (20%) of the lineal feet of street frontage in excess of two hundred (200) feet.
5. The necessary adjustments to utility poles, light standards, fire hydrants, catch basins, street or railway signs, signals, street trees, or other public improvements or installations, shall be accomplished without cost to the city.
6. All construction shall be in accordance with plans and specifications approved by department.

REMOVE SIDEWALK AS NECESSARY: IF THE REMAINING ADJACENT SIDEWALK FLAG IS LESS THAN 4 FEET IN LENGTH, IT SHALL BE REMOVED ALONG WITH ADDITIONAL FLAGS TO ACCOMMODATE A MINIMUM 4 FOOT FLAG DIMENSION. THESE FLAGS SHALL BE REPLACED AS 4 INCH CONCRETE



NOTES:

CURB DROP SHALL BE A HORIZONTAL SAW CUT AT 1 INCH ABOVE GUTTER LINE.

RESIDENTIAL APPROACH:
CONSTRUCT DRIVE APPROACH WITH 6 INCH NON-REINFORCED CONCRETE ON SUITABLE BASE OR 2 INCH HOT MIXED ASPHALT (HMA) ON A 6 INCH 21 AA LESTONE BASE, OR 6 INCH HMA (MIN. TWO LIFTS) ON SUITABLE BASE.

AT ALL CONCRETE DRIVES PLACE A 1/2 INCH EXPANSION JOINT AT BACK OF CURB AND 1/2 INCH EXPANSION JOINT AT FACE OF SIDEWALK OR RIGHT OF WAY LINE. MAINTAIN NORMAL SIDEWALK GRADE ACROSS DRIVE, NOT TO EXCEED 2.0 PERCENT CROSS SLOPE UP FROM FACE OF SIDEWALK.

*IF CURB CUTS EXCEEDS 25', PRIOR APPROVAL IS NEEDED.

IF STAMPED CONCRETE OR BRICK PAVERS ARE INSTALLED, THE PROPERTY OWNER ASSUMES ALL LIABILITY FOR MAINTENANCE. THE CITY WILL NOT REPLACE OR REPAIR STAMPED CONCRETE OR BRICK PAVERS WITH SAME DUE TO WATER MAIN BREAKS OR OTHER UTILITY WORK.

Rev: 7/25/16



CITY OF LIVONIA

Department of Public Works - Engineering Division
33000 Civic Center Drive
Livonia, Michigan 48154
(734) 466-2570 Office, (734) 466-2195 Fax

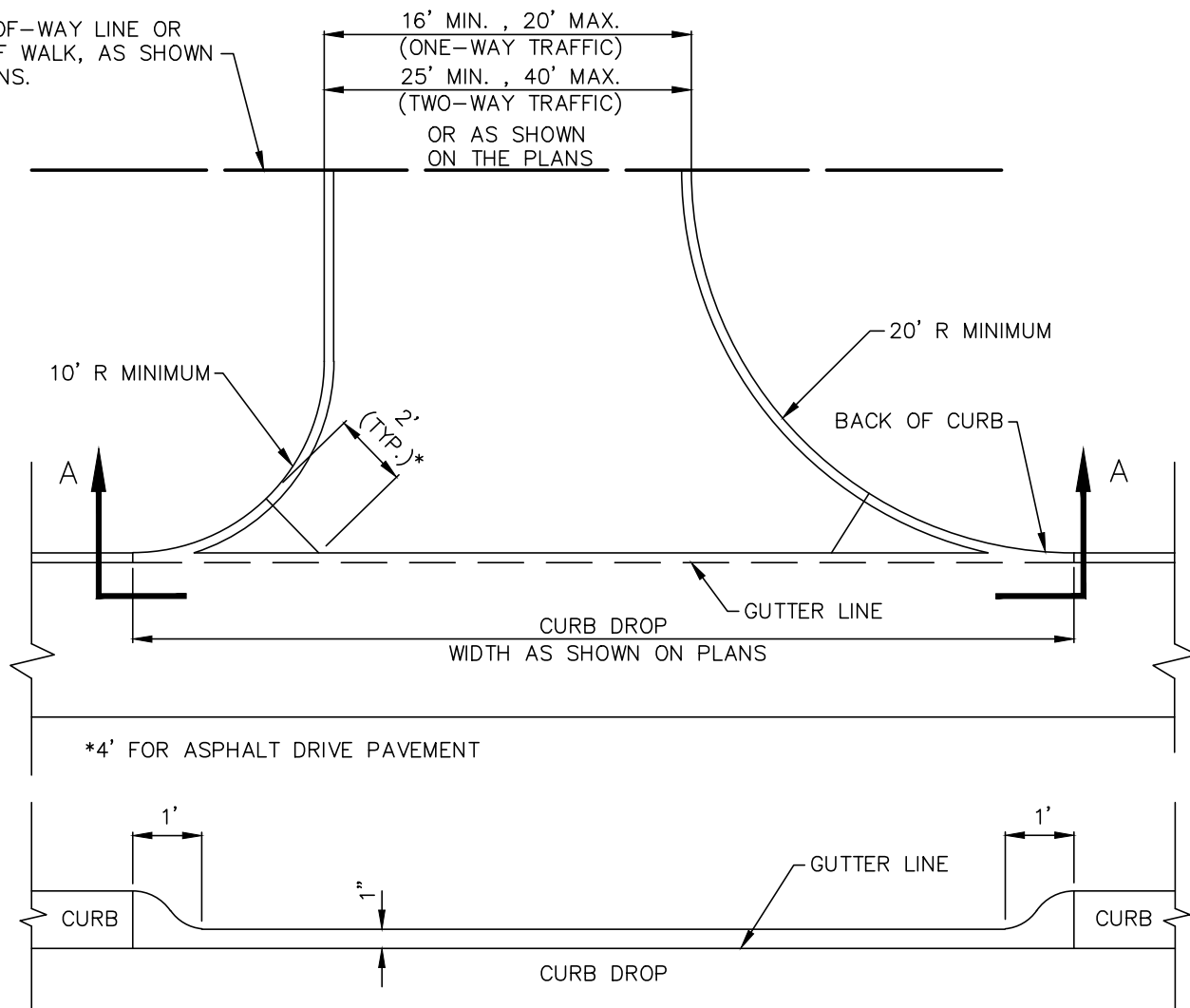
Residential Driveway Approach Standard Detail

DATE: 03/02/12 JOB NO.:

SCALE: N/A

SHEET 1 OF 1

RIGHT-OF-WAY LINE OR
FACE OF WALK, AS SHOWN
ON PLANS.



SECTION A-A

NOT TO SCALE

NOTES:

CONSTRUCT THE DRIVE APPROACH WITH 8" NON-REINFORCED CONCRETE ON 6" OF 21AA AGGREGATE BASE COURSE COMPACTED IN PLACE (CIP) OR 6" HMA LEVELING ON 9" OF 21AA AGGREGATE BASE COURSE (CIP)

CURBS SHALL BE CONSTRUCTED WITH HEIGHT VARYING FROM 6" AT BACK OF CURB TO 0" HEIGHT AT FACE OF SIDEWALK OR RIGHT-OF-WAY LINE. AT ALL CONCRETE DRIVES, PLACE A 1" EXPANSION JOINT AT BACK OF CURB AND 1/2" EXPANSION JOINT AT FACE OF SIDEWALK OR RIGHT-OF-WAY LINE.

MAINTAIN NORMAL SIDEWALK GRADE ACROSS DRIVE, 2% SLOPE UP FROM FACE OF SIDEWALK.

INBOUND OR OUTBOUND RADIUS SHALL BE REDUCED TO 5' FOR ONE-WAY TRAFFIC DRIVE APPROACH.

DRIVE APPROACH SHALL NOT ENCROACH ACROSS PROPERTY LINE EXTENDED WITHOUT WRITTEN APPROVAL FROM THE ADJOINING PROPERTY OWNER.



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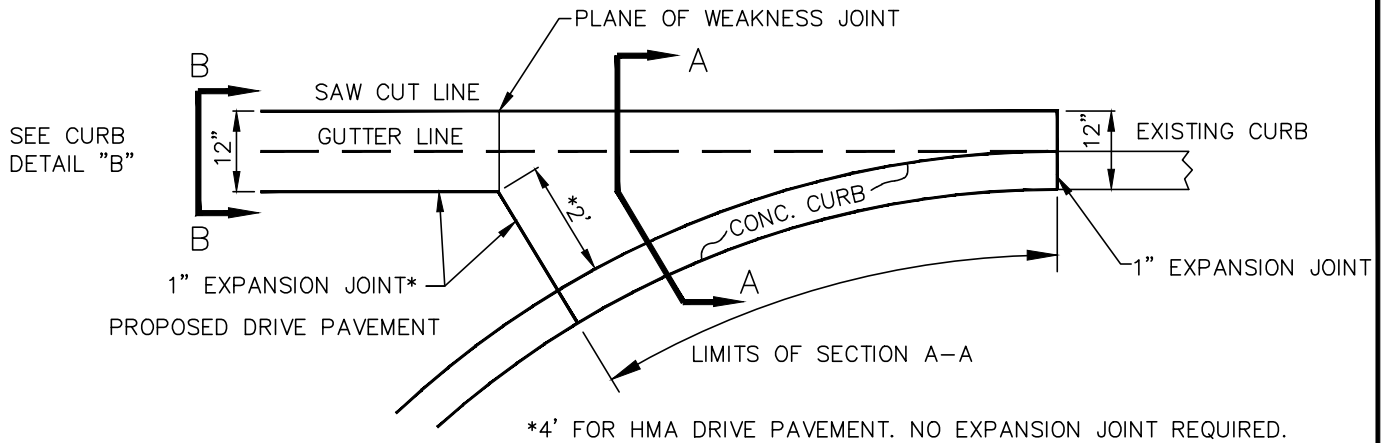
COMMERCIAL DRIVE APPROACH STANDARD DETAIL

DATE: 04/29/09

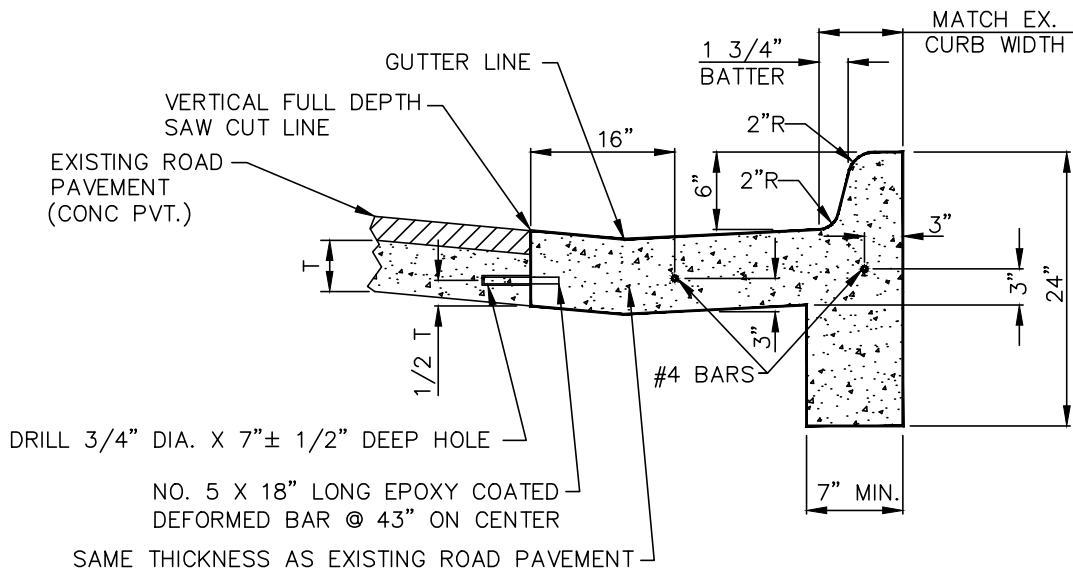
JOB NO.: D-6

SCALE: N/A

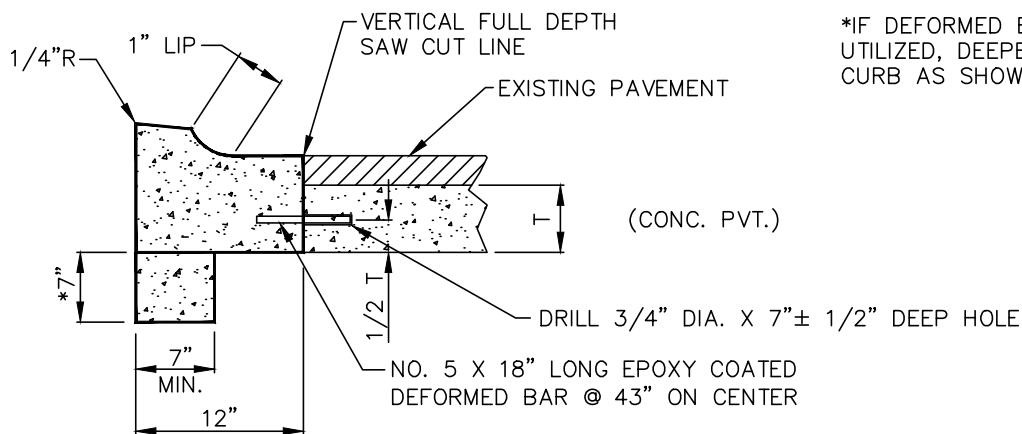
SHEET 1 OF 2



CURB RETURN JOINING EXISTING PAVEMENT



SECTION "A-A"



SECTION "B-B"

CURB DETAIL "B" (CURB REPLACEMENT W/ DROP)

*IF DEFORMED BARS CANNOT BE UTILIZED, DEEPEN MONOLITHIC CURB AS SHOWN



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Livonia, Michigan 48154
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COMMERCIAL DRIVE APPROACH
STANDARD DETAIL

DATE: 04/29/09

JOB NO.: D-6

SCALE: N/A



SHEET 2 OF 2



WrapidSeal™

Manhole Encapsulation System

Canusa-CPS is a leading manufacturer of specialty pipeline coatings which, for over 30 years, have been used for sealing and corrosion protection of pipeline joints and other substrates. Canusa high performance products are manufactured to the highest quality standards and are available in a number of configurations to accommodate your specific project applications.

Product Description

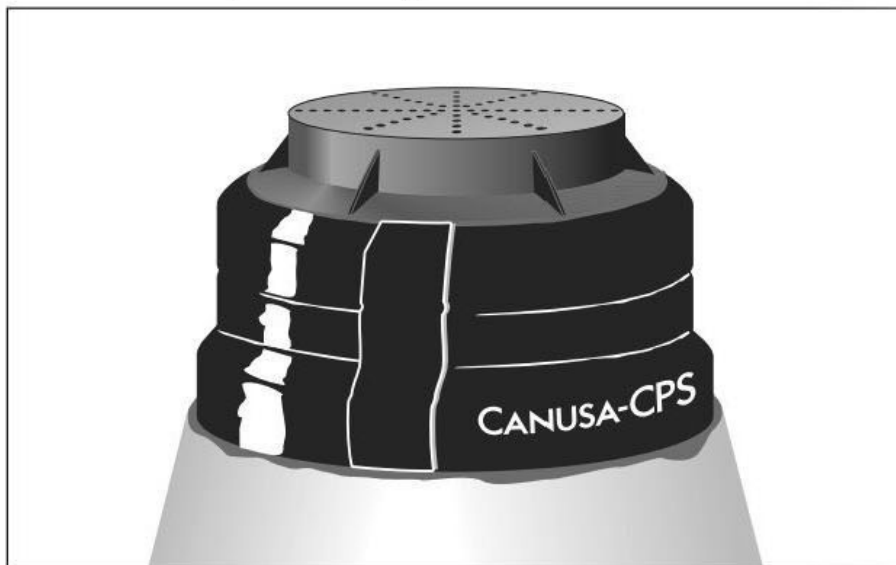
WrapidSeal™ is a wrap around heat shrinkable sheet that has been specifically designed for protection of buried and exposed manhole structures. WrapidSeal™ is supplied in bulk rolls of varying widths and consists of a crosslinked polyolefin backing, coated with a protective heat activated adhesive. A separate closure is used to create a complete sleeve with the adhesive effectively bonding to the substrate, providing corrosion protection and adhesion for the impermeable backing.

Features & Benefits

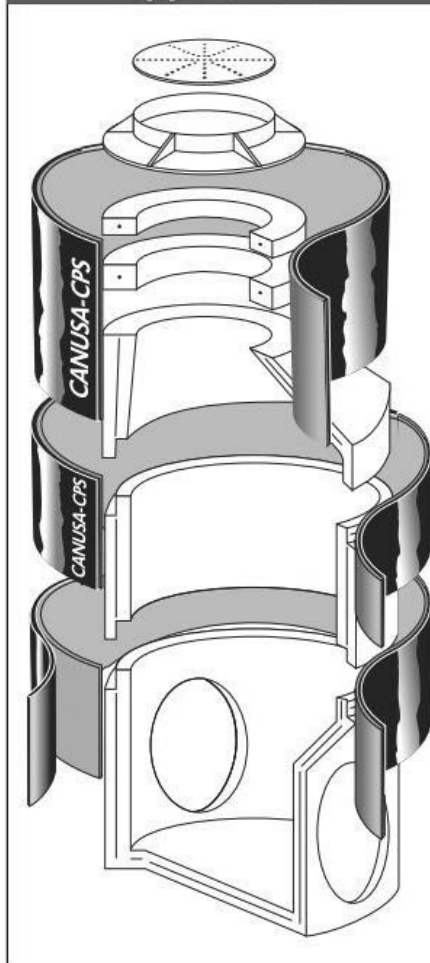
- Heat activated, high shrink membrane
Torch applied, shrinks to fit profile.
- High tensile & elongation
Accommodates movement
- Excellent abrasion resistance
Tough product, resists soil stress
- Bulk roll
Fits any size manhole
- Complete coverage
Reduces ground water infiltration.
- Provides corrosion protection
Extends service life.

Long Term Protection

Once installed, the system creates a barrier to water infiltration and effectively protects the manhole support structure and frame from ground moisture, preventing corrosion and freeze-thaw damage. In below grade vaults or concrete lines, WrapidSeal™ is used to minimize water infiltration, reducing dewatering costs and loads on waste water treatment facilities.



Applications



Applications



Manhole Encapsulation



Water Pipelines



Repair & Rehab



Step-Down Joints

Configurations



High Shrink



Multi-Sleeve Kit

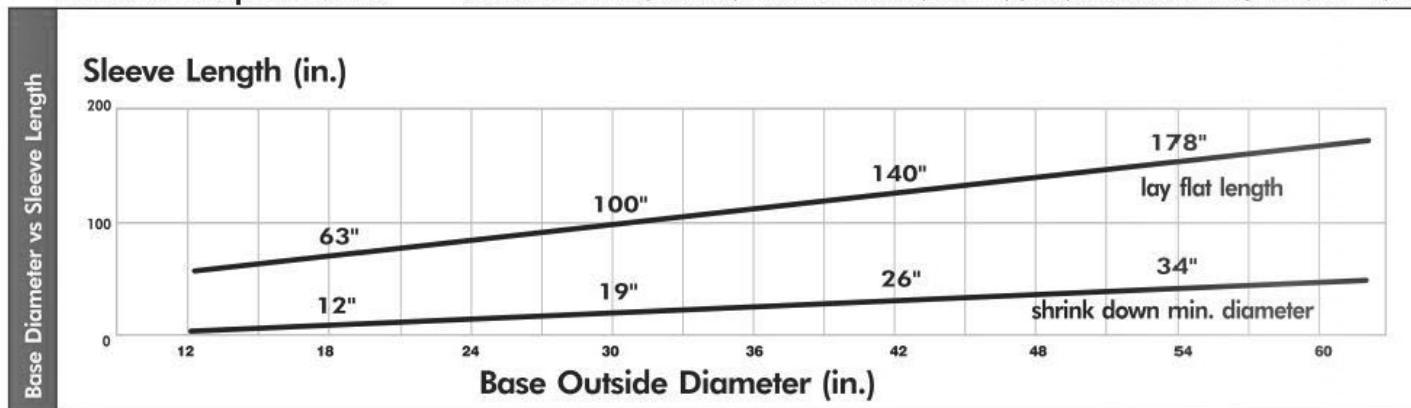
Pipe Sizes



300-1500+ (12-60"+)

Material Requirements

Size the sleeve such that it wraps around the perimeter of the manhole base plus 150mm (6") overlap. See the table below for length of WrapidSeal™ required.



Typical Product Properties

	Test Standard	Unit	Results
Adhesive	Softening Point	ASTM E28 °C (°F)	100 (212)
	Lap Shear Strength	DIN 30 672 N/cm² (psi)	8 (12)
Backing	Tensile Strength	ASTM D638 MPa (psi)	20 (2900)
	Elongation	ASTM D638 %	600
	Hardness	ASTM D2240 Shore D	46
	Abrasion Resistance	ASTM D1044 mg	45
Sleeve	Peel Strength	ASTM D1000 N/cm (pli)	15 (9)
	Water Absorption	ASTM D570 %	0.05
	Low Temp. Flexibility	ASTM D2671D °C (°F)	-40 (-40)

Ordering Information & Product Dimensions

WrapidSeal™ is supplied in 12" or 18" widths in 50' long bulk rolls. Closure seals and primer are ordered separately.

Specify the width of WrapidSeal™ required and the number or length and size of closure seals.

Distribution

Master Distributor in the United States:
CCI Pipeline Services
 Houston, Texas
www.WrapidSeal.com
 e-mail: sales@wrapidseal.com
 tel: (281) 350-2100

Applications

Below or Above Grade	- Prevents Water Infiltration - Accommodates Ground Movement - Protects Against Degradation	Cast Iron Frame & Cover
		Grade Rings
Below Grade		Cone Section
		Pre-Cast Riser
		Pre-Cast Base
		Sewer Line



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 Fax: +1 (281) 367-4304

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 England RH10 9QT
 Tel: +44 (1293) 541254
 Fax: +44 (1293) 541777

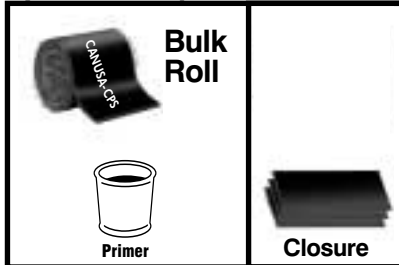
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CANUSA-CPS
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 408867
 Tel: +65-6749-8918
 Fax: +65-6749-8919

WrapidSeal™

Heat Shrinkable Manhole Encapsulation System

System Components



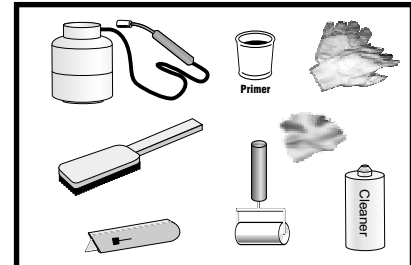
WrapidSeal is typically shipped in bulk rolls. Closures are shipped pre-cut. The adhesive is protected from contamination by an inner liner. Primer is sold separately.

Storage & Safety Guidelines

To ensure maximum performance, store Canusa products in a dry, ventilated area. Keep products sealed in original cartons and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements. Avoid prolonged storage at temperatures above 95°F (35°C) or below -4°F (-20°C). Product installation should be done in accordance with local health and safety regulations.

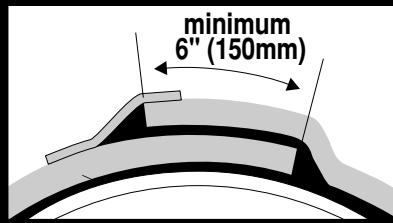
These installation instructions are intended as a guide for standard products. Consult your Canusa representative for specific projects or unique applications.

Equipment List



Propane tank, hose, torch & regulator. Appropriate tools for surface abrasion. Knife, roller, rags & approved cleaner. Wire brush, paint brush or paint roller, tape measure, and marker. Standard safety equipment; gloves, goggles, hard hat, etc.

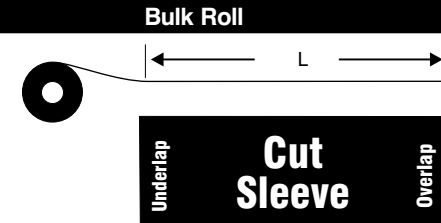
Product Preparation Guidelines



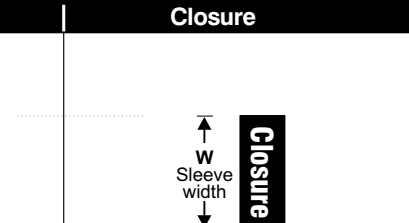
minimum
6" (150mm)

Sleeve Length = Manhole Circumference + 6" (150mm)

Bulk Roll



Closure



As a guideline, cut the required lengths of Sleeve material (L) and Closure material (W) from the bulk roll as follows

L = Manhole structure circumference + overlap dimension

W = Sleeve Width

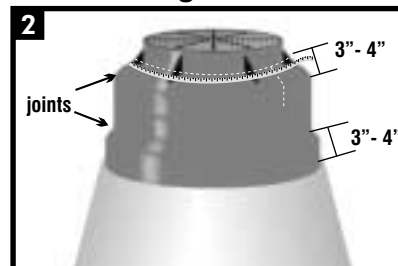
Ensure that the sleeve and closure are not damaged or contaminated.

Surface Preparation



Ensure all surfaces which the sleeve will be applied to are clean, dry and free of foreign objects and sharp edges.

Sleeve Sizing



WrapidSeal™ should be sized to extend 3" - 4" above and below the upper and lower joints of the cone section, grade rings and frame. As a guide, make a series of marks around the manhole where the bottom of the sleeve will be. Determine the layflat length of the sleeve by measuring the circumference of the manhole structure at the marks and add the overlap dimension, (6" minimum).

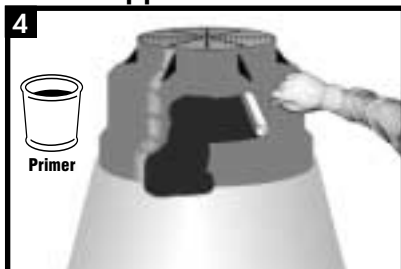
Pre-Heat



Using the torch, warm the surface to drive off any moisture.

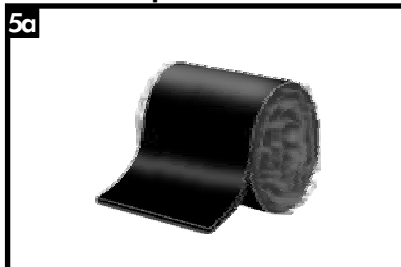
WrapidSeal™

Primer Application



Apply WrapidSeal™ Primer to the application surfaces, (i.e. steel, concrete, fiberglass etc.) Wait until the primer is slightly tacky to touch before proceeding. This will take 5-15 minutes depending on temperature and humidity conditions.

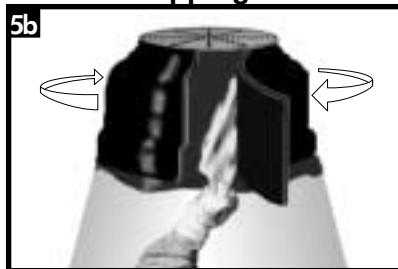
Sleeve Preparation



Roll up the cut sleeve ensuring that the release liner is still on the adhesive backing

Caution: Do not allow exposed adhesive to fold over on itself.

Sleeve Wrapping



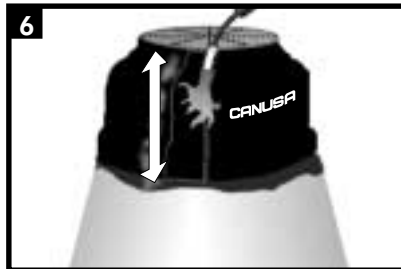
Remove ~6" of the release liner from the sleeve. Using the perimeter marks as a guide, begin wrapping the sleeve around the manhole while gradually removing the release liner.

Sleeve Overlap



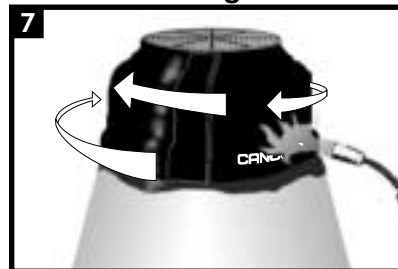
At the overlap, ensure that the top and bottom edges of the sleeve are uniformly aligned.

Closure Installation



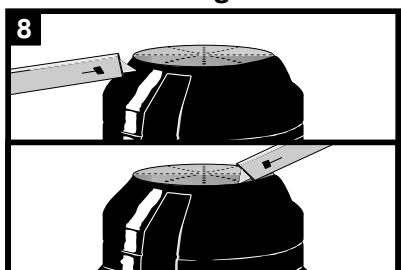
Place the closure seal on a flat surface (adhesive side up) and apply gentle heat to activate the adhesive. Center the closure vertically over the overlap and apply a small amount of heat to the face of the closure. Using a gloved hand pat the closure down and, alternating with heat and pressure. Continue until the closure is fully bonded.

Sleeve Shrinking



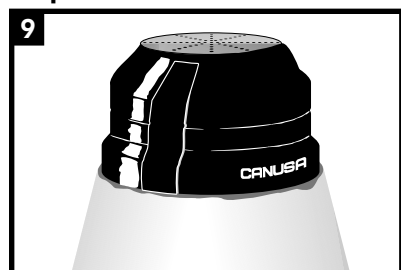
Using a moderate to high flame, begin heating the sleeve from the bottom edge. Apply heat circumferentially around the structure. Continue heating upward as the sleeve shrinks. Use a gloved hand or roller to smooth wrinkles and push out trapped air.

Sleeve Finishing



After shrinking, WrapidSeal™ will be draped over the manhole frame gussets. Using a knife, cut the sleeve around the gussets. Apply gentle heat and press the sleeve onto the steel frame. Trim excess material protruding above the steel manhole frame and cover.

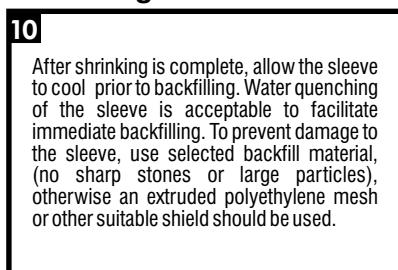
Inspection



Visually inspect the installed sleeve for the following:

- Sleeve is in full contact with the cone section and manhole frame
- Adhesive flows beyond the sleeve edges
- No cracks or holes in the sleeve backing

Backfilling Guidelines



After shrinking is complete, allow the sleeve to cool prior to backfilling. Water quenching of the sleeve is acceptable to facilitate immediate backfilling. To prevent damage to the sleeve, use selected backfill material, (no sharp stones or large particles), otherwise an extruded polyethylene mesh or other suitable shield should be used.

Please contact manufacturer's representative when considering use of WrapidSeal™ on above grade structural applications.

Master Distributor in the United States:
CCI Pipeline Services
Houston, Texas
www.WrapidSeal.com
e-mail: sales@wrapidseal.com
tel: (281) 350-2100



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Canusa warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the installation guide when used in compliance with Canusa's written instructions. Since many installation factors are beyond our control, the user shall determine the suitability of the products for the intended use and assume all risks and liabilities in connection therewith. Canusa's liability is stated in the standard terms and conditions of sale. Canusa makes no other warranty either expressed or implied. All information contained in this installation guide is to be used as a guide and is subject to change without notice. This installation guide supersedes all previous installation guides on this product. E&OE

Printed on recycled paper. ♻️ Recyclable. IG-WSE-rev011

www.canusacps.com

SPECIAL PROVISION FOR MAINTAINING TRAFFIC

GENERAL ITEMS

The Contractor shall maintain traffic throughout the project in accordance to Section 812 of the 2012 Standard Specifications for Construction, including any Supplemental Specifications, Standard Details, and as specified here.

The Contractor shall notify the Engineer a minimum of 72 business hours prior to implementation of any detours, road closures, lane closures, or major traffic shifts.

The Contractor shall coordinate its operations with Contractors performing work on other projects within or adjacent to the Construction Influence Area or adjoining areas to avoid conflicts in the maintenance of traffic, construction signing, and to provide for the orderly progress of contract work.

The City of Livonia maintenance crews and/or Contract Maintenance Agencies may perform maintenance work within or adjacent to the Construction Influence Area. The Maintenance Division of the City of Livonia and /or Contract Maintenance Agency will coordinate their operations with the Engineering department to minimize the interference to the Contractor. No additional payment will be made to the contractor for the joint use of the traffic control items.

No work shall be performed on Memorial Day, July 4th, or Labor Day holiday periods as defined by the Engineer.

No work shall be performed on Sundays, unless otherwise approved by the City's Engineer.

All lane closures shall originate from the same side of the roadway. No conflicting lane closures shall be permitted. The contractor shall not be permitted to switch from the right lane to the left lane and vice-versa unless specifically detailed within the specifications. Note: minimum traveled lane width shall be no less than 10 feet.

Traffic control devices included in the Form of Proposal for this contractor are to be paid specifically for the maintenance of vehicular traffic required for this project. Any barricades required to monitor or keep pedestrian traffic from encroaching curing sidewalk shall be incidental to the placement of 4", 6", or 8" concrete sidewalk.

TRAFFIC CONTRAOL DEVICES

General:

All traffic control devices and their usage shall conform to the Michigan Manual of Uniform Traffic Control Devices (MMUTCD) 2020 version, the 2020 Michigan Department of Transportation Standard Specifications for Construction, and as specified herein.

During construction, access to all businesses and residential drives shall be maintained, unless otherwise noted for a specific drive on the plans. The Contractor may close driveways where a business has multiple access points.

SPECIAL PROVISION FOR MAINTAINING TRAFFIC

The Contractor shall place W20-1 signs (ROAD WORK AHEAD) on all crossroads within the project limits.

Temporary signs, which are to remain in place for 30 days or more shall be installed on permanent posts mounts as directed by the Engineer. All other signs may be installed on portable supports.

When signs or traffic signal heads for this project are to be covered, they shall be covered in accordance with Section 812.03 of the 2020 Standard Specifications for Construction and applicable details therein except as noted above.

All traffic control devices moved to facilitate a Contractors operation shall be replaced at the end of the workday. The Contractor shall routinely maintain the traffic control devices including, but not limited to proper placement, weighted with sandbags, cleaning for reflectivity, and replacing damaged devices. The contractor shall be responsible for protecting the work area and shall supply the necessary traffic control devices apart from those called for on the plans to delineate the work area from adjacent property. The contractor shall store materials and equipment in allocation approved by the Engineer.

The contractor will replace any damaged signs, barrels, and or barricades as directed by the Engineer.

Temporary Signs:

All diamond shaped warning signs shall be 48"x48" mounted at 7' minimum bottom height unless otherwise specified in the details.

All construction signs that are to be left in place overnight shall be fluorescent orange prismatic sheeting per ASTM D 4956 Type VI sign material per section 922 of the 2020 MDOT Standard Specifications for Construction, as directed by the Engineer.

All signs placed shall be of good quality as determined by the Engineer. Signs determined by the Engineer to be defective or of poor quality shall be removed and replaced by the Contractor.

Failure to remove and replace defective or poor-quality signs shall result in stoppage of work.

Channelizing Devices:

Channelizing devices shall be plastic drums with high intensity sheeting and be of good quality.

Barricades determined by the Engineer to be defective or of poor quality shall be removed and replaced by the Contractor. No intermixing of different types of channelizing devices will be allowed.

Channelizing devices shall be placed in accordance with the details included in these specifications and the MMUTCD.

Plastic drum spacing shall be as follows: 50 ft on tangents, 25 ft on tapers, and 10 ft on radii, where tighter controls is required and as directed by the Engineer.

**SPECIAL PROVISION FOR
MAINTAINING TRAFFIC**

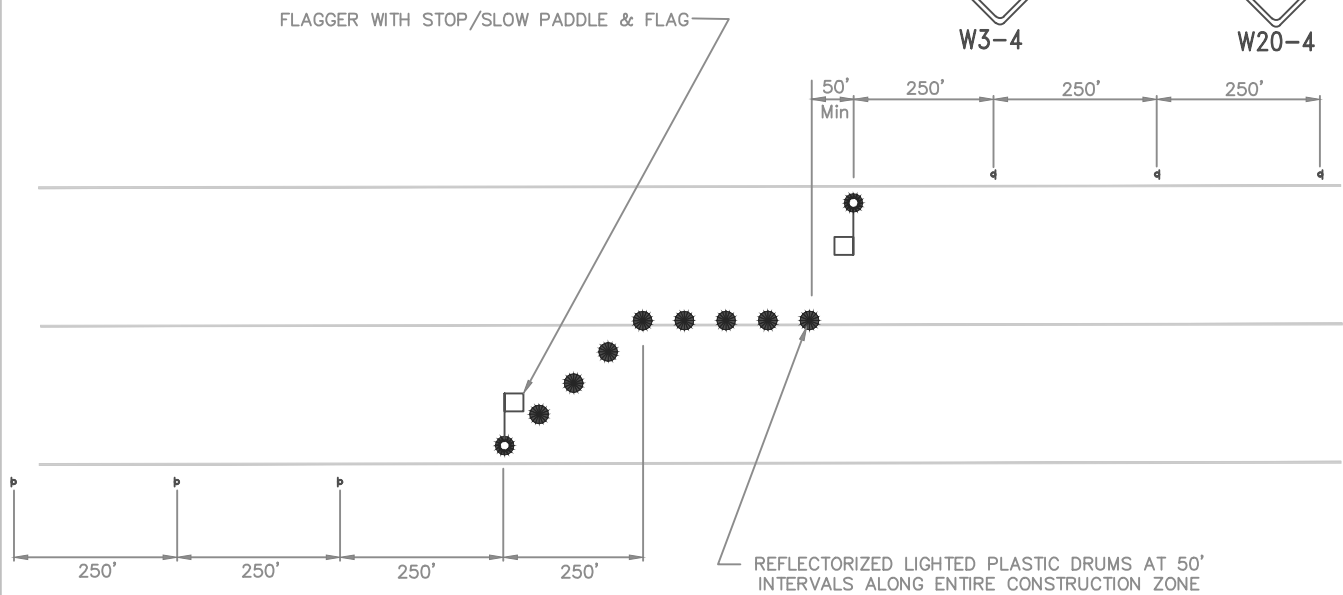
Type III barricades shall be double sided and be of good quality as determined by the Engineer. Barricades determined by the Engineer to be defective or of poor quality shall be removed and replaced by the Contractor. Failure to remove and replace defective or poor-quality channelizing devices shall result in stoppage of work.

MEASUREMENT AND PAYMENT

Payment for traffic control devices shall be according to section 812.04 of the 2020 MDOT Standard Specifications for Construction unless otherwise specified.

Contract Item (Pay Item):	Pay Unit:
Lighted Arrow, Type C, Furn.	ea.
Lighted Arrow, Type C, Oper.	ea.
Plastic Drum, High Intensity, Furn.	ea.
Plastic Drum, High Intensity, Oper.	ea.
Barricade Type III High Intensity Double Sided, Furn.	ea.
Barricade Type III High Intensity Double Sided, Oper.	ea.
Sign Cover	ea.
Sign, Type B, Temp, Prismatic, Furn.	s.f.
Sign, Type B, Temp, Prismatic, Oper.	s.f.

If the Engineer requests additional signing not shown on the typical traffic control details, and detour route for full closure, the additional work will be included in the pay item Sign Type B Temp, Prismatic, Furn, and Sign Type B, Temp, Oper.



ONE LANE ROAD AHEAD
W20-4

BE PREPARED TO STOP
W3-4

W20-7A

1. WHERE FLAGGERS ARE NOT IN VISUAL CONTACT, RADIOS WILL BE REQUIRED.
2. ALL TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. (M.M.U.T.C.D.)
3. THIS LANE CLOSURE ON RESIDENTIAL TYPE STREETS MAY OCCUR ONLY BETWEEN THE HOURS OF 8AM TO 5PM.

REV. 3/27/17 R.G.

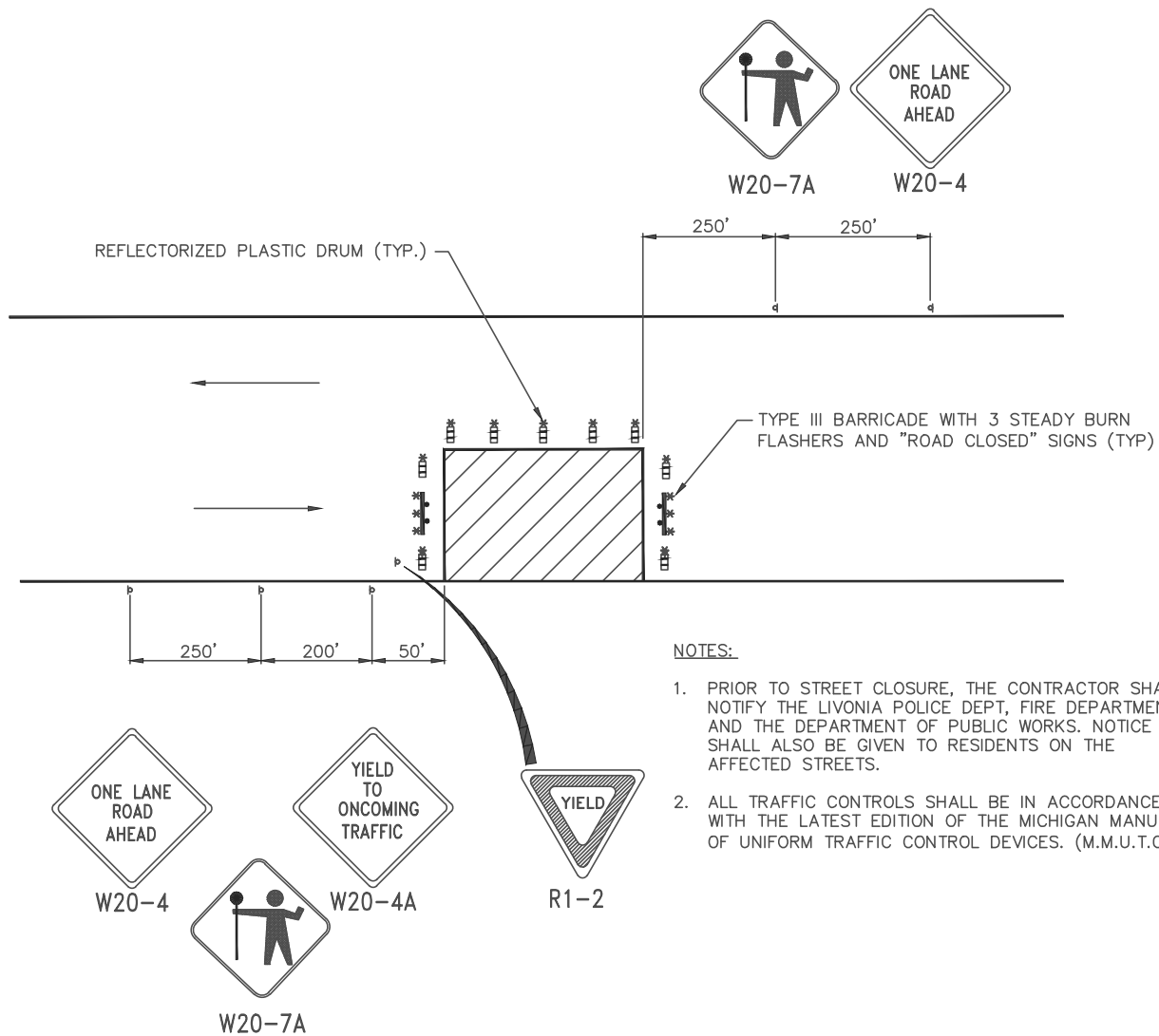


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SHEET 1 OF 1



TYPICAL CONSTRUCTION TRAFFIC CONTROLS FOR
CLOSURE OF ONE LANE OF A RESIDENTIAL STREET
AT SPOT LOCATIONS



REV. 1/27/16 R.G.



CITY OF LIVONIA

Department of Public Works – Engineering Division
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TEMPORARY TRAFFIC CONTROL SIGNAGE
STANDARD DETAIL

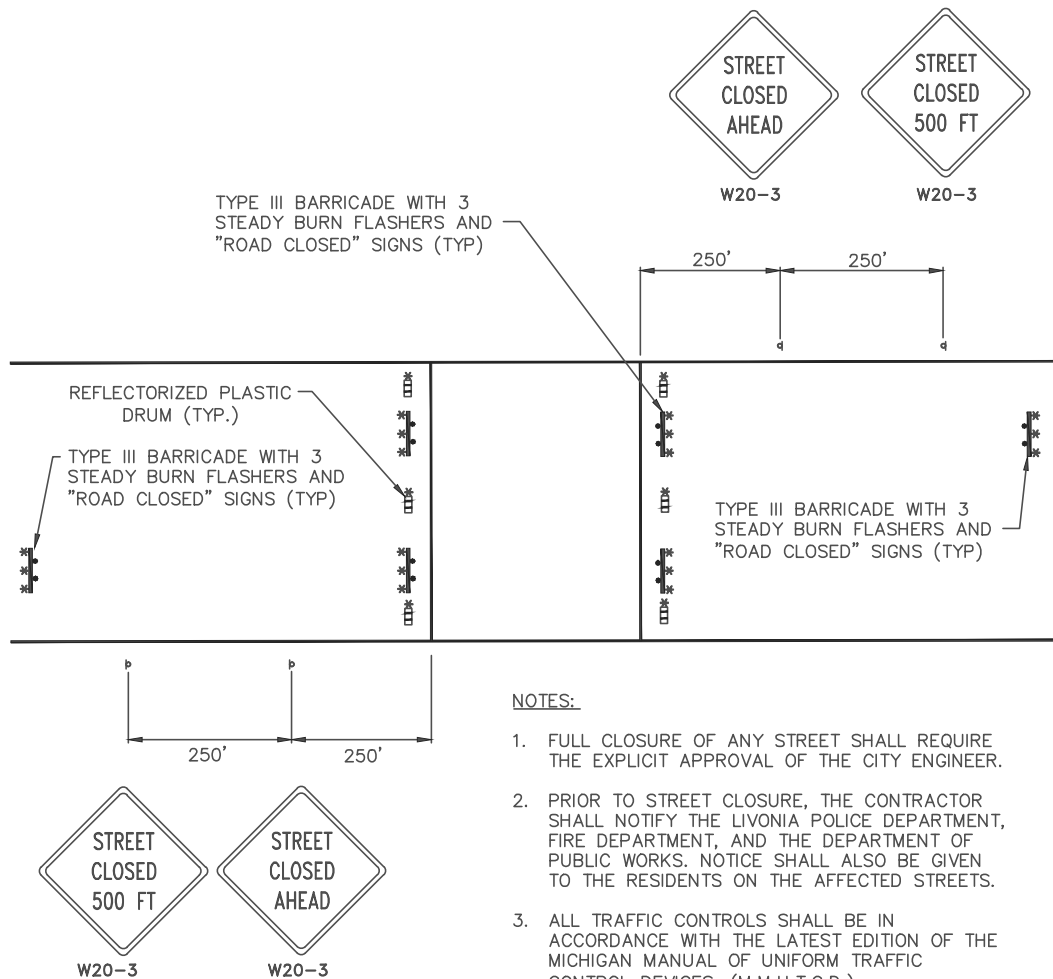
DATE: 5/11/10 JOB NO.: TC-2

SCALE: N/A



SHEET 1 OF 1

TYPICAL CONSTRUCTION TRAFFIC CONTROLS FOR FULL CLOSURE OF A RESIDENTIAL STREET



REV. 1/27/16 R.G.



CITY OF LIVONIA

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33000 Civic Center Drive
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TEMPORARY TRAFFIC CONTROL SIGNAGE STANDARD DETAIL

DATE: 5/11/10 JOB NO.: TC-3

SCALE: N/A



SHEET 1 OF 1



W 20-1

NOTES:

FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS.

1. A LIGHTED ARROW PANEL MAY BE SUBSTITUTED FOR THE TYPE III BARRICADE AND LARGE ARROW SIGN.
 2. TAPER FORMULA
 - a. $L = S \times W$ FOR SPEEDS OF 45 OR MORE
 - b. $L = WS^2 / 60$ FOR SPEEDS OF 40 OR LESS
- WHERE:
 L=MINIMUM TAPER LENGTH
 S=NUMERIC VALUE OF POSTED SPEED LIMIT PRIOR TO WORK, OR 85 PERCENTILE SPEED
 W=WIDTH OF OFFSET
4. "SPEED LIMIT 45" SIGNS SHOULD BE USED IN THE ADVANCE SIGNING WHEN NECESSARY.
 5. THE MAXIMUM SPACING BETWEEN CHANNELING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT.

KEY



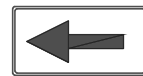
CHANNELING DEVICES



TYPE III BARRICADES OR LIGHTED ARROW PANEL

END
CONSTRUCTION

G 20-2
(OPTIONAL)



W 1-6 OR
LIGHTED ARROW PANEL



W 4-2



W 20-5



W 20-1

*DRAWING TAKEN FROM MICHIGAN
MANUAL OF UNIFORM TRAFFIC
CONTROL DEVICES MANUAL

SUGGESTED APPLICATION OF TRAFFIC CONTROL DEVICES WHERE
CONSTRUCTION OR MAINTENANCE ACTIVITIES OCCUPY A LANE
OF A MULTI-LANE TWO-WAY ROADWAY.

REV. 11/2/16 R.G.



CITY OF LIVONIA

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(734) 466-2570 Office, (734) 466-2195 Fax

TEMPORARY TRAFFIC CONTROL SIGNAGE STANDARD DETAIL

DATE: 5/11/10

JOB NO.: TC-4

SCALE: N/A



SHEET 1 OF 1



W 20-1

NOTES:

1. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS.
 2. TAPER FORMULA
 - a. $L = S \times W$ FOR SPEEDS OF 45 OR MORE
 - b. $L = WS^2 / 60$ FOR SPEEDS OF 40 OR LESS
- WHERE:
 L=MINIMUM TAPER LENGTH
 S=NUMERIC VALUE OF POSTED SPEED LIMIT PRIOR TO WORK, OR 85 PERCENTILE SPEED
 W=WIDTH OF OFFSET
4. "SPEED LIMIT 45" SIGNS SHOULD BE USED IN THE ADVANCE SIGNING WHEN NECESSARY.
 5. THE MAXIMUM SPACING BETWEEN CHANNELING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT.

KEY



CHANNELING DEVICES



TYPE III BARRICADES OR LIGHTED ARROW PANEL

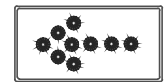
*DRAWING TAKEN FROM MICHIGAN
MANUAL OF UNIFORM TRAFFIC
CONTROL DEVICES MANUAL

SUGGESTED APPLICATION OF TRAFFIC CONTROL DEVICES WHERE
CONSTRUCTION OR MAINTENANCE ACTIVITIES OCCUPY A LANE
OF A MULTI-LANE TWO-WAY ROADWAY.

END
CONSTRUCTION

G 20-2
(OPTIONAL)

500'



LIGHTED ARROW PANEL

L

500'



W 4-2

500'



W 20-5

500'



W 20-1



CITY OF LIVONIA

Department of Public Works – Engineering Division
33000 Civic Center Drive
Livonia, Michigan 48154
(734) 466-2570 Office, (734) 466-2195 Fax

TEMPORARY TRAFFIC CONTROL SIGNAGE
STANDARD DETAIL

DATE: 5/11/10

JOB NO.: TC-4L

SCALE: N/A



SHEET 1 OF 1

REV. 11/2/16 R.G.

WAYNE COUNTY RULES, SPECIFICATIONS & PROCEDURES FOR CONSTRUCTION PERMITS

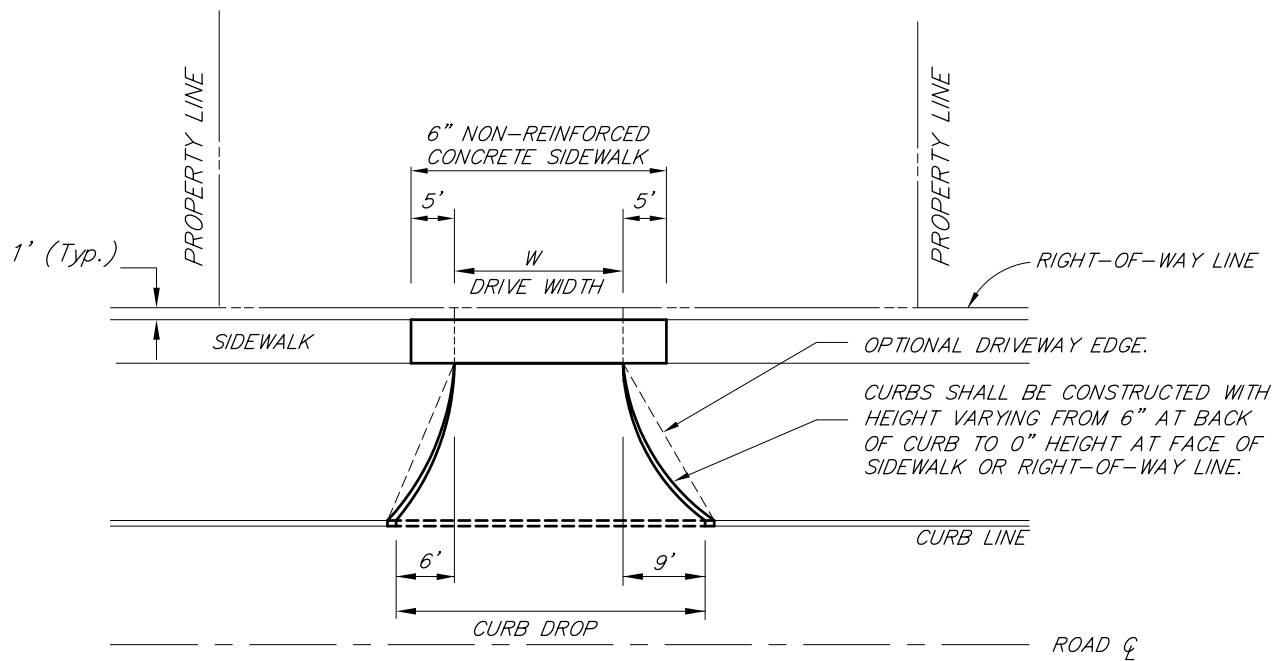


**DEPARTMENT OF PUBLIC SERVICES
Engineering Division – Permit Office
33809 Michigan Avenue
Wayne Michigan 48184
(734) 595-6504 Phone
(734) 595-6356 Fax**

WAYNE COUNTY STANDARD PLANS FOR PERMIT CONSTRUCTION INDEX

Standard Number	Description	# Sheets	Revision Date
DRIVEWAYS			
D-1	RESIDENTIAL DRIVEWAY ON PRIMARY PAVED CURBED ROAD	1	08/01/2007
D-2	RESIDENTIAL DRIVEWAY ON PRIMARY PAVED UNCURBED ROAD	1	08/01/2007
D-3	RESIDENTIAL DRIVEWAY ON LOCAL PAVED CURBED ROAD	1	08/01/2007
D-4	RESIDENTIAL DRIVEWAY ON LOCAL PAVED UNCURBED ROAD	1	08/01/2007
D-5	RESIDENTIAL DRIVEWAY ON GRAVEL ROAD	1	08/01/2007
D-6	COMMERCIAL DRIVEWAY APPROACH	2	08/01/2007
D-7	CURB DETAIL A, B & C, CONCRETE CURB CAP, INTRGRAL CURB AND WALK	3	08/01/2007
PRIMARY AND LOCAL ROADS			
P-1	PRIMARY ROAD CLASS "A" CROSS-SECTION	1	08/01/2007
P-2	TYPICAL CONCRETE TAPER	1	08/01/2007
P-3	CLASS "B" PRIMARY ROAD FOR 66' RIGHT-OF-WAY	1	08/01/2007
P-4	CLASS "B" PRIMARY ROAD FOR 120' RIGHT-OF-WAY	1	08/01/2007
P-5	JOINT LAYOUT	6	08/01/2007
L-1	HOT MIX ASPHALT (HMA) LOCAL ROAD W/CURB& GUTTER ON NEW AGGREGATE BASE, OPEN SHOULDER, SPECIAL ASSESSMENT DISTRICT (SAD)	1	08/01/2007
L-2	TYPICAL SAD HMA LOCAL ROAD OVER EXISTING AGGREGATE OPEN SHOULDER	1	08/01/2007
RESIDENTIAL SUBDIVISION			
RS-1	GENERAL NOTES	1	08/01/2007
RS-2	PAVEMENT JOINTS	7	08/01/2007
RS-3	CURB & GUTTER DETAILS	3	08/01/2007
RS-4	END HEADER & CONCRETE ROUTING DETAILS		08/01/2007
RS-5	CONCRETE SIDEWALK		08/01/2007
RS-6	STREET NAME SIGNS		08/01/2007
RS-7	TYPICAL CUL-DE-SAC		08/01/2007
RS-8	TYPICAL EYEBROWS	2	08/01/2007
RS-9	PLAN CONVENTIONS	3	08/01/2007
RS-10	TYPICAL ROUGH GRADING FILL SECTION		08/01/2007
RS-11	TYPICAL APPROACH & JOINT LAYOUT AT PRIMARY ROAD		08/01/2007
RS-12	STREET RETURN ON GRAVEL ROAD		08/01/2007
RS-13	TYPICAL 27' AND 31' CONCRETE PAVEMENT CROSS-SECTION	2	08/01/2007
RS-14	TYPICAL PLAIN CONCRETE PAVEMENT JOINT LAYOUT		08/01/2007
RS-15	TYPICAL SUBDIVISION LAYOUT		08/01/2007
RS-16	TYPICAL PLAN AND PROFILE		08/01/2007
RS-17	TYPICAL 39' CONCRETE PAVEMENT CROSS-SECTION		08/01/2007
RS-18	TYPICAL APPROACH AND JOINT LAYOUT OF RESIDENTIAL 1/4 SECTION LINE OR COLLECTOR ROAD TO PRIMARY ROAD		08/01/2007
RS-19	HOT MIX ASPHLAT (HMA) PAVEMENT SECTIONS	4	08/01/2007
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RS-21	MASTER PLAN UTILITY LOCATIONS	1	08/01/2007
RS-22	TYPICAL CROSS-SECTION EXISTING GRAVEL ROAD RESTORATION WITH OPEN DITCHES	1	08/01/2007
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IS-1	TYPICAL INDUSTRIAL STREET CROSS-SECTION	1	08/01/2007
IS-2	TYPICAL INDUSTRIAL STREET CUL-DE-SAC	1	08/01/2007
IS-3	TYPICAL INDUSTRIAL STREET RETURN AND JOINT LAYOUT AT PRIMARY ROAD	1	08/01/2007
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S-1	GENERAL NOTES – STORM DRAINAGE	2	08/01/2007
S-2	MANHOLE A	1	08/01/2007
S-3	MANHOLE B	1	08/01/2007
S-4	MANHOLE C	1	08/01/2007
S-5	MANHOLE D	1	08/01/2007
S-6	CATCH BASIN A	1	08/01/2007
S-7	INLET A	1	08/01/2007
S-8	PRECAST MANHOLE A	1	08/01/2007
S-9	PRECAST MANHOLE B	1	08/01/2007
S-10	PRECAST INLET A	1	08/01/2007
S-11	CONNECTION TO EXISTING SEWER 42 INCH AND LARGER	1	08/01/2007
S-12	SEWER TRENCH A & B	1	08/01/2007
S-13	SEWER TRENCH D CULVERT INSTALLATION	1	08/01/2007
S-14	UNDERDRAIN	2	08/01/2007
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S-16	FRAME AND COVER S	1	08/01/2007
S-17	CONCRETE CRADLE, CAST IRON TRAP	1	08/01/2007
S-18	ADJUSTING SANITARY STRUCTURE, DETAIL 1	1	08/01/2007
S-19	ADJUSTING SANITARY STRUCTURE, DETAIL 2	1	08/01/2007
PAVEMENT REMOVAL AND REPAIR PATCHING			
PR-1	PAVEMENT REPAIR PATCHING - CLASS "A" ROAD (UNDER 20 YEARS OLD)	2	07/01/2008
PR-2	PAVEMENT REPAIR PATCHING - CLASS "A" ROAD (OVER 20 YEARS OLD)	2	07/01/2008
PR-3	PAVEMENT REPAIR PATCHING - LOCAL ROAD (UNDER 10 YEARS OLD)	2	07/01/2008
PR-4	PAVEMENT REPAIR PATCHING - LOCAL ROAD (OVER 10 YEARS OLD)	2	07/01/2008
PR-5	NOTES FOR PAVEMENT REMOVAL AND REPAIR PATCHING	1	07/01/2008
AUXILLARY LANE WARRANTS AND TYPICALS			
AL-1	WARRANT FOR LEFT TURN PASSING LANE (TWO LANE HIGHWAY)	1	07/01/2008
AL-2	TYPICAL LEFT TURN PASSING LANE	1	07/01/2008
AL-3	WARRANT FOR LEFT TURN PASSING LANE (FOUR LANE HIGHWAY)	1	07/01/2008
AL-4	WARRANT FOR RIGHT TURN DECELERATION LANE	1	07/01/2008
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M-4	CHECK DAM, TEMPORARY	2	07/01/2008
M-5	RIPRAP	1	07/01/2008
M-6	PAVEMENT INFLUENCE AND TRENCH BACKFILL	1	07/01/2008
FR-1	PRECAST FLOW RESTRICTOR STRUCTURE	1	07/01/2008
FR-2	PRECAST FLOW RESTRICTOR STRUCTURE	1	07/01/2008
CD-1	TEMPORARY ACCESS DRIVE	2	07/01/2008
TA-1	T-TURN AROUND AND TURN AROUND PADS	2	07/01/2008



NOTES:

CURB DROP SHALL BE HORIZONTAL SAW CUT AT 1" ABOVE GUTTER LINE. REFER TO SHEET D-7 FOR CURB CUT DETAILS.

CONSTRUCT DRIVE APPROACH WITH 6" NON-REINFORCED CONCRETE ON SUITABLE BASE OR 2" HOT MIXED ASPHALT (HMA) ON 6" AGGREGATE BASE OR 6" HMA (MIN. TWO LIFTS) ON SUITABLE BASE.

DRIVE WIDTH (W) MAY VARY FROM 10' MINIMUM TO 20' MAXIMUM. ALL PROPOSED DRIVE WIDTHS ARE SUBJECT TO THE APPROVAL OF WAYNE COUNTY ENGINEER.

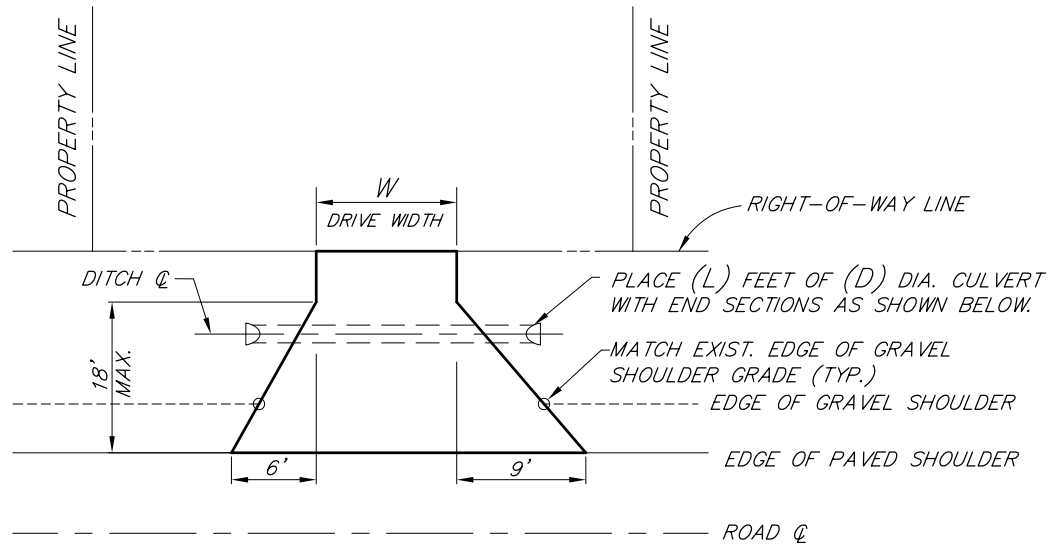
AT ALL CONCRETE DRIVES, PLACE A 1" EXPANSION JOINT AT BACK OF CURB AND 1/2" EXPANSION JOINT AT FACE OF SIDEWALK OR RIGHT-OF-WAY LINE. MAINTAIN NORMAL SIDEWALK GRADE ACROSS DRIVE, 2.0% SLOPE UP FROM FACE OF SIDEWALK.

DRIVE APPROACH SHALL NOT ENCRoACH ACROSS PROPERTY LINE EXTENDED WITHOUT WRITTEN APPROVAL FROM THE ADJOINING PROPERTY OWNER.

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

REVISION DATE: 08/01/07		
DIRECTOR OF ENGINEERING	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS RESIDENTIAL DRIVE ON PRIMARY CURBED ROAD	SCALE NOT TO SCALE
DIVISION PERMIT ENGINEER		D-1
		SHEET 1 OF 1

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICES.



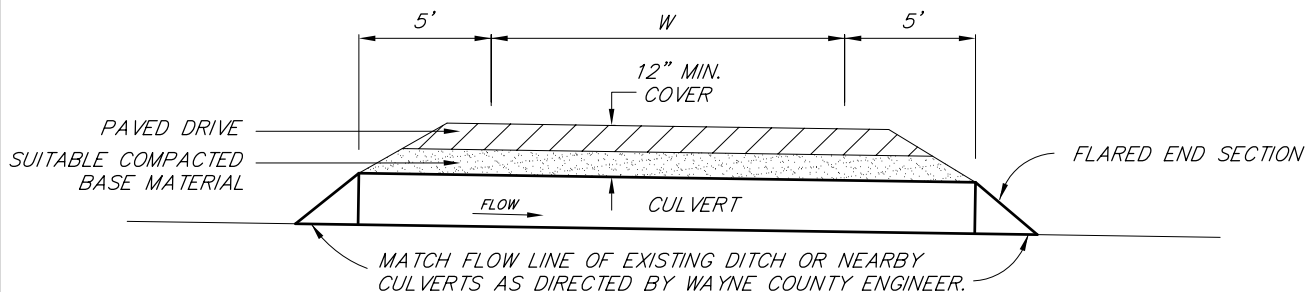
APPROACH DETAIL

NOT TO SCALE

L = CULVERT LENGTH (EXCLUDING END SECTIONS).

= $W + 10'$

D = CULVERT DIAMETER, 12" MIN.



CULVERT PROFILE

NOT TO SCALE

NOTES:

DRIVE WIDTH (W) MAY VARY FROM 10' MINIMUM TO 20' MAXIMUM. ALL PROPOSED DRIVE WIDTHS ARE SUBJECT TO THE APPROVAL OF WAYNE COUNTY ENGINEER.

CULVERT SHALL BE GALVANIZED CORRUGATED STEEL PIPE OR REINFORCED CONCRETE PIPE.

CONSTRUCT DRIVE APPROACH WITH 6" NON-REINFORCED CONCRETE ON SUITABLE BASE OR 2" HOT MIXED ASPHALT (HMA) ON 6" AGGREGATE BASE OR 6" HMA (MIN. TWO LIFTS) ON SUITABLE BASE.

DRIVE APPROACH AND CULVERT SHALL NOT ENCROACH ACROSS PROPERTY LINE EXTENDED WITHOUT WRITTEN APPROVAL FROM THE ADJOINING PROPERTY OWNER.

REVISION DATE: 08/01/07

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

DIRECTOR OF ENGINEERING

DIVISION PERMIT ENGINEER

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

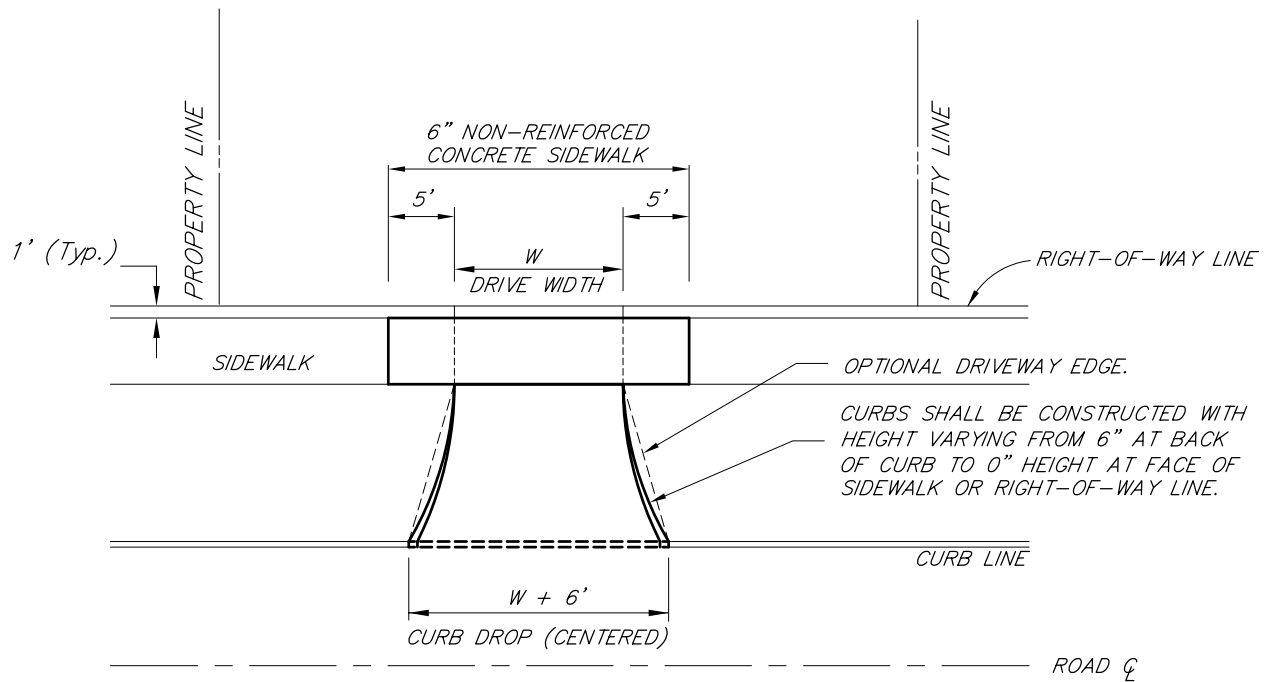
RESIDENTIAL DRIVE ON PRIMARY PAVED UNCURBED ROAD

SCALE
NOT TO SCALE

D-2

SHEET
1 OF 1

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NOTES:

CURB DROP SHALL BE HORIZONTAL SAW CUT AT 1" ABOVE GUTTER LINE. REFER TO SHEET D-7 FOR CURB CUT DETAILS.

CONSTRUCT DRIVE APPROACH WITH 6" NON-REINFORCED CONCRETE ON SUITABLE BASE OR 2" HOT MIXED ASPHALT (HMA) ON 6" AGGREGATE BASE OR 6" HMA (MIN. TWO LIFTS) ON SUITABLE BASE.

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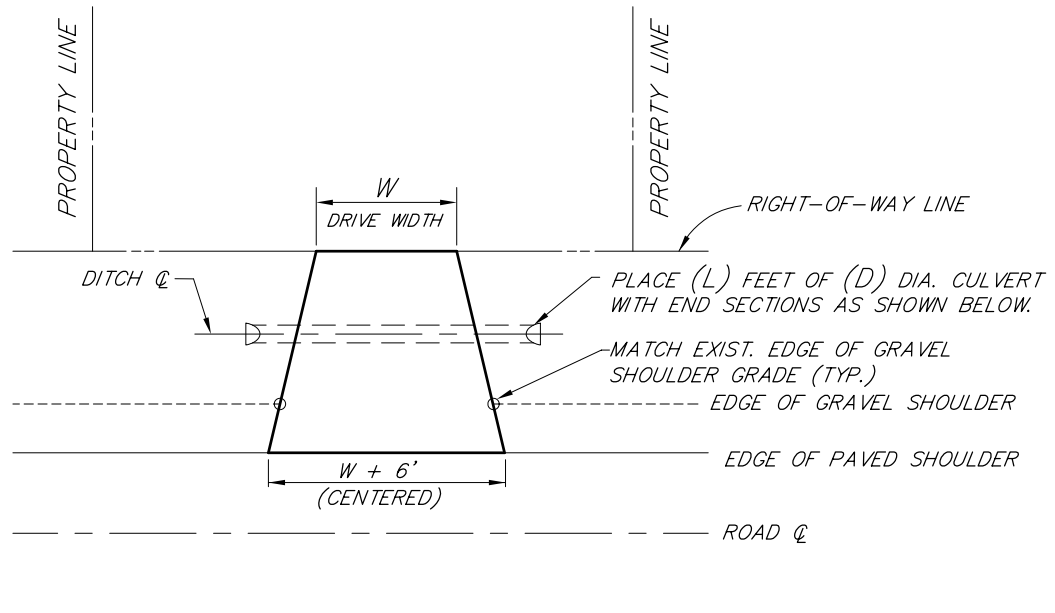
AT ALL CONCRETE DRIVES, PLACE A 1" EXPANSION JOINT AT BACK OF CURB AND 1/2" EXPANSION JOINT AT FACE OF SIDEWALK OR RIGHT-OF-WAY LINE. MAINTAIN NORMAL SIDEWALK GRADE ACROSS DRIVE, 2.0% SLOPE UP FROM FACE OF SIDEWALK.

DRIVE APPROACH SHALL NOT ENCROACH ACROSS PROPERTY LINE EXTENDED WITHOUT WRITTEN APPROVAL FROM THE ADJOINING PROPERTY OWNER.

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

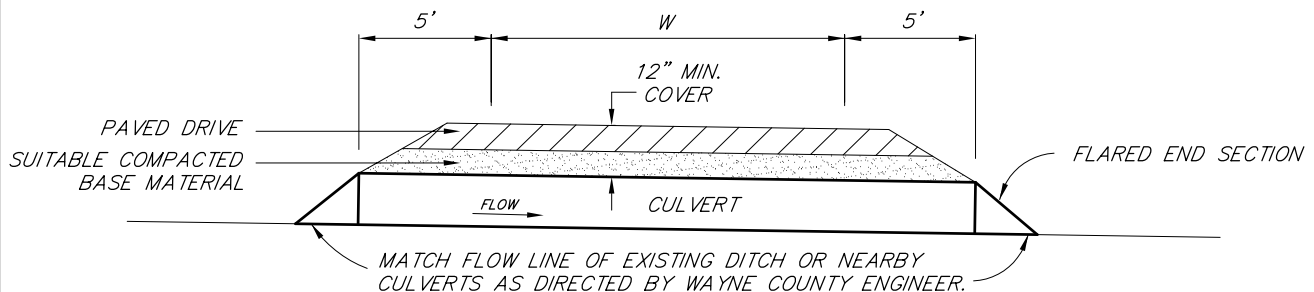
REVISION DATE: 08/01/07		WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.	
DIRECTOR OF ENGINEERING DIVISION PERMIT ENGINEER		WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS	
		RESIDENTIAL DRIVE ON LOCAL PAVED CURBED ROAD	
		SCALE NOT TO SCALE D-3 SHEET 1 OF 1	

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APPROACH DETAIL
NOT TO SCALE

L = CULVERT LENGTH (EXCLUDING END SECTIONS).
 $= W + 10'$
 D = CULVERT DIAMETER, 12" MIN.



CULVERT PROFILE
NOT TO SCALE

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CULVERT SHALL BE GALVANIZED CORRUGATED STEEL PIPE OR REINFORCED CONCRETE PIPE.

CONSTRUCT DRIVE APPROACH WITH 6" NON-REINFORCED CONCRETE ON SUITABLE BASE OR 2" HOT MIXED ASPHALT (HMA) ON 6" AGGREGATE BASE OR 6" HMA (MIN. TWO LIFTS) ON SUITABLE BASE.

DRIVE APPROACH AND CULVERT SHALL NOT ENCROACH ACROSS PROPERTY LINE EXTENDED WITHOUT WRITTEN APPROVAL FROM THE ADJOINING PROPERTY OWNER.

REVISION DATE: 08/01/07

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

DIRECTOR OF ENGINEERING

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

SCALE
NOT TO SCALE

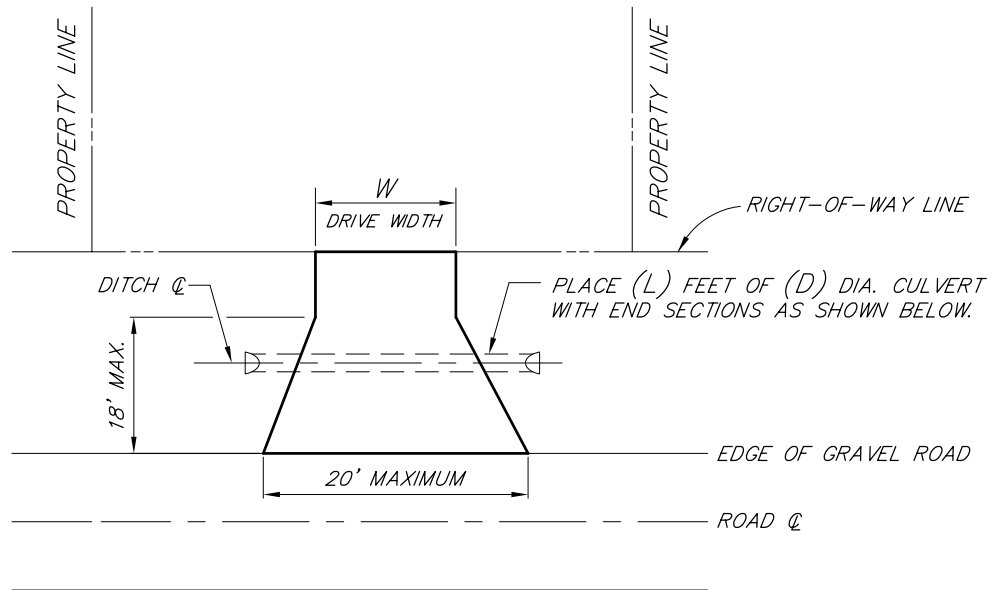
D-4

DIVISION PERMIT ENGINEER

RESIDENTIAL DRIVE ON LOCAL PAVED UNCURBED ROAD

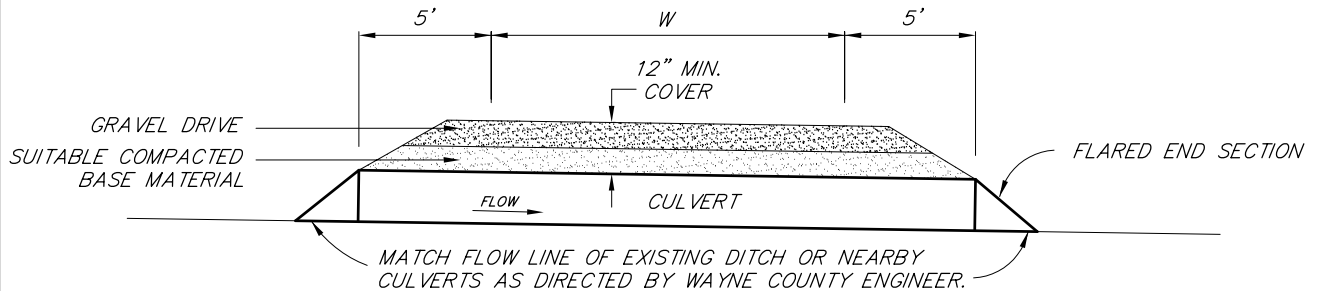
SHEET
1 OF 1

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICES.



APPROACH DETAIL
NOT TO SCALE

L = CULVERT LENGTH (EXCLUDING END SECTIONS).
= W + 10'
D = CULVERT DIAMETER, 12" MIN.



CULVERT PROFILE
NOT TO SCALE

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DRIVE WIDTH (W) MAY VARY FROM 10' MINIMUM TO 20' MAXIMUM. ALL PROPOSED DRIVE WIDTHS ARE SUBJECT TO THE APPROVAL OF WAYNE COUNTY ENGINEER.

CULVERT SHALL BE GALVANIZED CORRUGATED STEEL PIPE OR REINFORCED CONCRETE PIPE.

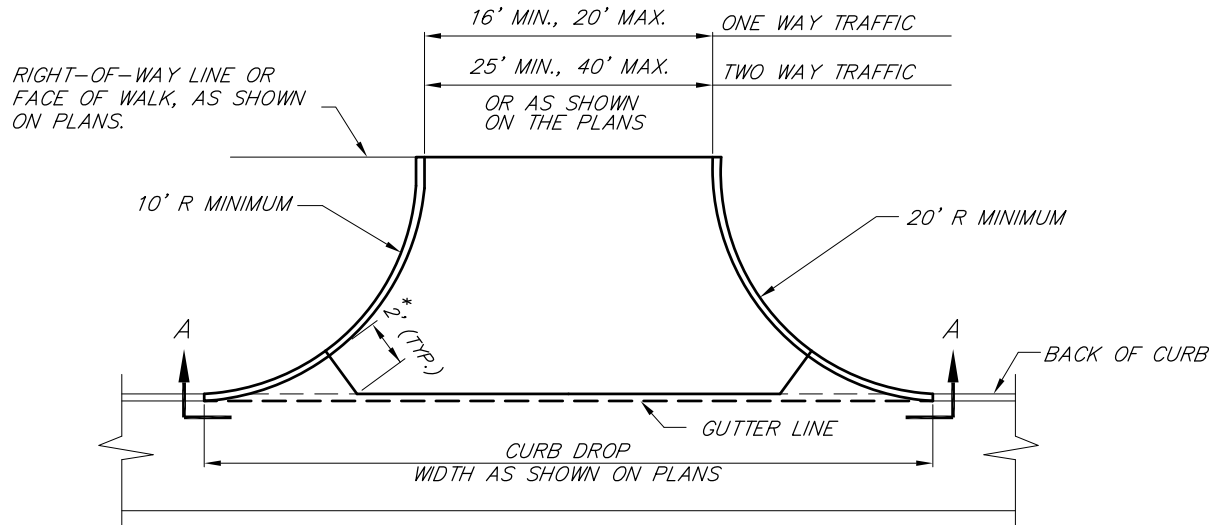
CONSTRUCT DRIVE APPROACH WITH 6" OF COMPACTED 21AA AGGREGATE FROM THE RIGHT-OF-WAY LINE TO THE EDGE OF GRAVEL ROAD.

DRIVE APPROACH AND CULVERT SHALL NOT ENCROACH ACROSS PROPERTY LINE EXTENDED WITHOUT WRITTEN APPROVAL FROM THE ADJOINING PROPERTY OWNER.

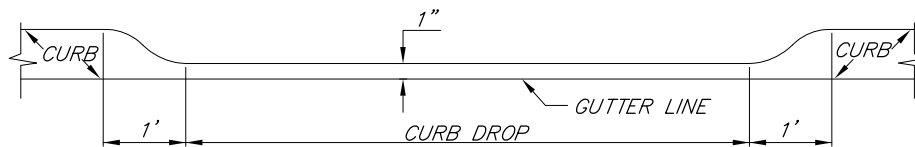
WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS RESIDENTIAL DRIVE ON GRAVEL ROAD	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING		D-5
DIVISION PERMIT ENGINEER		SHEET 1 OF 1

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* 4' FOR ASPHALT DRIVE PAVEMENT



SECTION A-A

NOT TO SCALE

NOTES:

CONSTRUCT THE DRIVE APPROACH WITH 8" NON-REINFORCED CONCRETE ON 6" OF 21AA AGGREGATE BASE COURSE COMPACTED IN PLACE (CIP) OR 6" HMA LEVELING ON 9" OF 21AA AGGREGATE BASE COURSE (CIP).

CURBS SHALL BE CONSTRUCTED WITH HEIGHT VARYING FROM 6" AT BACK OF CURB TO 0" HEIGHT AT FACE OF SIDEWALK OR RIGHT-OF-WAY LINE.

AT ALL CONCRETE DRIVES, PLACE A 1" EXPANSION JOINT AT BACK OF CURB AND 1/2" EXPANSION JOINT AT FACE OF SIDEWALK OR RIGHT-OF-WAY LINE. MAINTAIN NORMAL SIDEWALK GRADE ACROSS DRIVE, 2% SLOPE UP FROM FACE OF SIDEWALK.

INBOUND OR OUTBOUND RADIUS SHALL BE REDUCED TO 5' FOR ONE-WAY TRAFFIC DRIVE APPROACH.

DRIVE APPROACH SHALL NOT ENCROACH ACROSS PROPERTY LINE EXTENDED WITHOUT WRITTEN APPROVAL FROM THE ADJOINING PROPERTY OWNER.

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1
AND D-6 SHEET 2-2.

REVISION DATE: 08/01/07

DIRECTOR OF ENGINEERING

DIVISION PERMIT ENGINEER

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

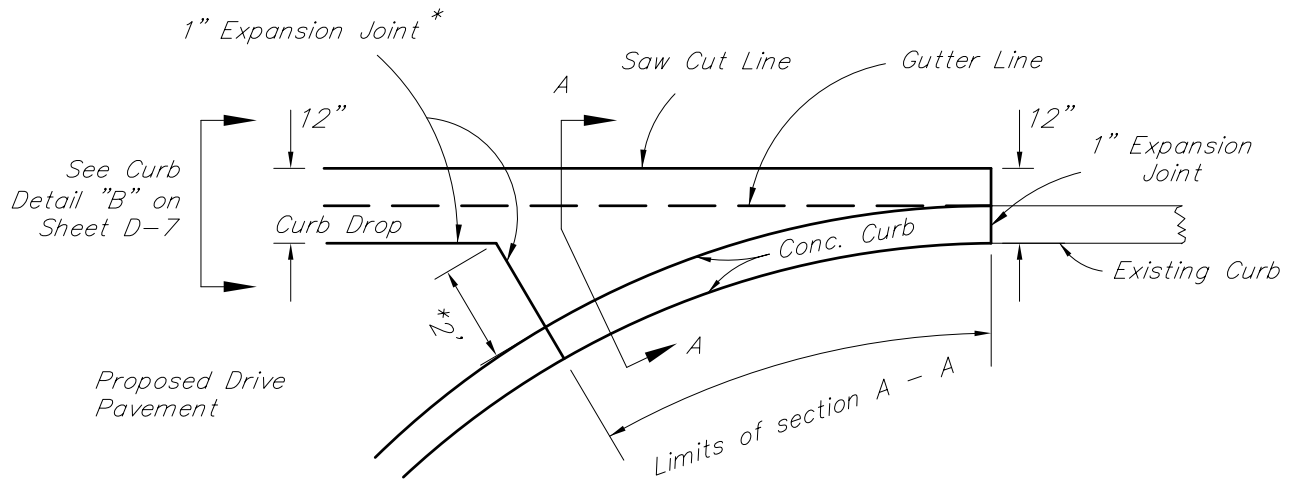
COMMERCIAL DRIVE APPROACH

SCALE
NOT TO SCALE

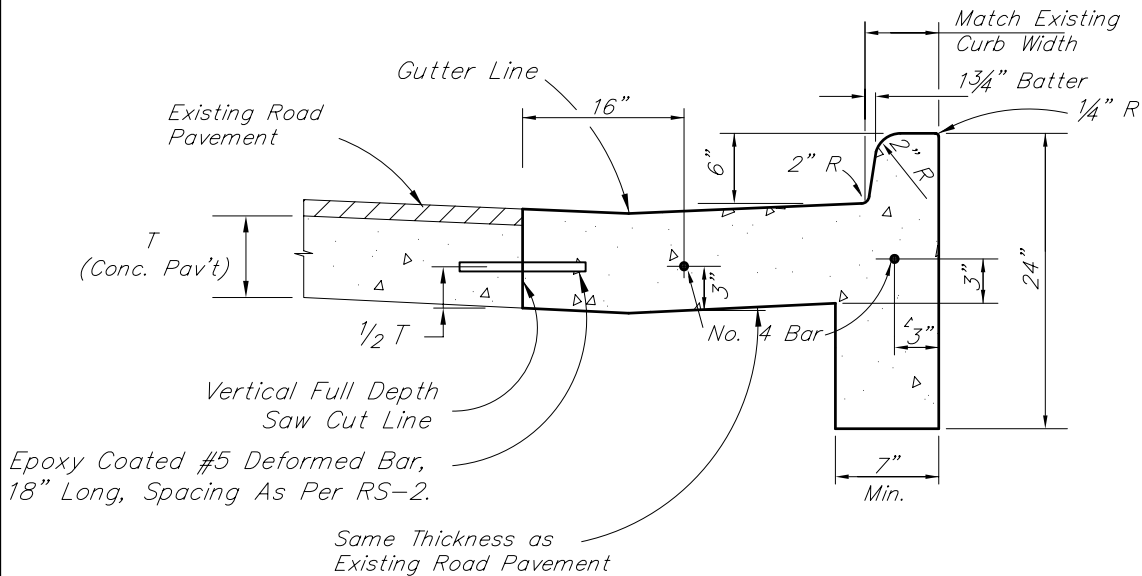
D-6

SHEET
1 OF 2

CURB RETURN JOINING EXISTING PAVEMENT



* 4' for HMA Drive Pavement. No Expansion Joint Required.



Section "A - A"

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

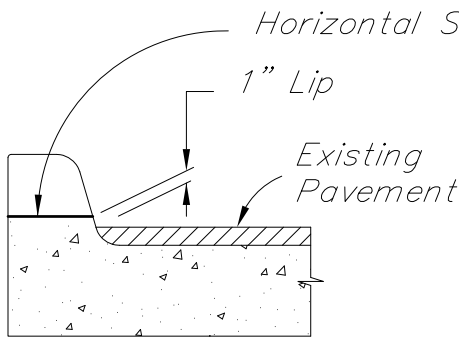
REVISION DATE: 08/01/07		SCALE NOT TO SCALE	
DIRECTOR OF ENGINEERING		D-6	
DIVISION PERMIT ENGINEER		SHEET 2 OF 2	

WORK THIS SHEET WITH THE GENERAL NOTES ON AS-1.

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS
COMMERCIAL DRIVE APPROACH

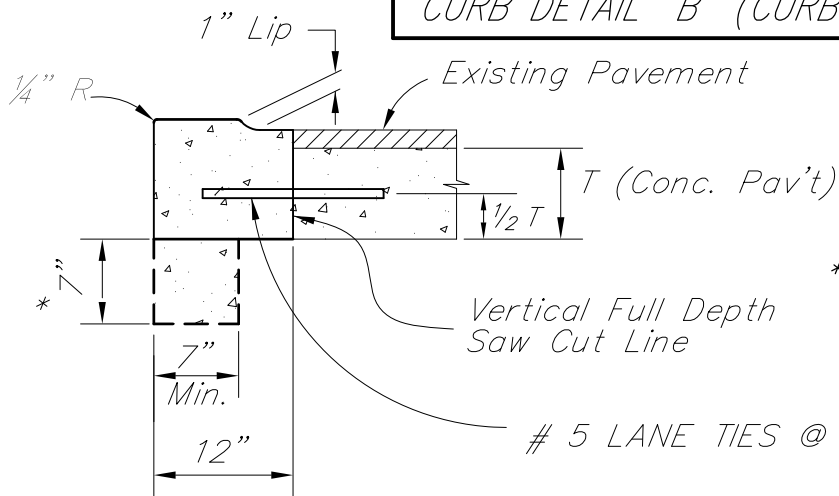
NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICES.

CURB DETAIL "A" (CURB CUT)



CURB DROP SHALL BE HORIZONTAL SAW CUT AT 1" ABOVE GUTTER LINE. IF THE CURB HAS NOT BEEN HORIZONTALLY CUT SATISFACTORILY, THE CURB CUT WILL HAVE TO BE REMOVED BY SAW CUTTING VERTICALLY AND REPLACED AS PER CURB DETAIL "B".

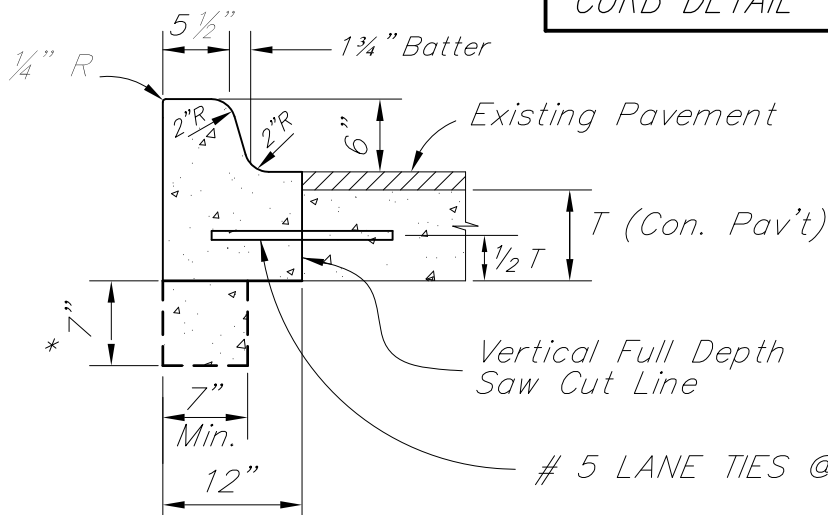
CURB DETAIL "B" (CURB REPLACEMENT W/ DROP)



* IF LANE TIES CAN NOT BE UTILIZED, DEEPEN MONOLITHIC CURB AS SHOWN.

5 LANE TIES @ 41" on Center

CURB DETAIL "C" (CURB REPLACEMENT)



* IF LANE TIES CAN NOT BE UTILIZED, DEEPEN MONOLITHIC CURB AS SHOWN.

5 LANE TIES @ 41" on Center

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

REVISION DATE: 08/01/07

DIRECTOR OF ENGINEERING

DIVISION PERMIT ENGINEER

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

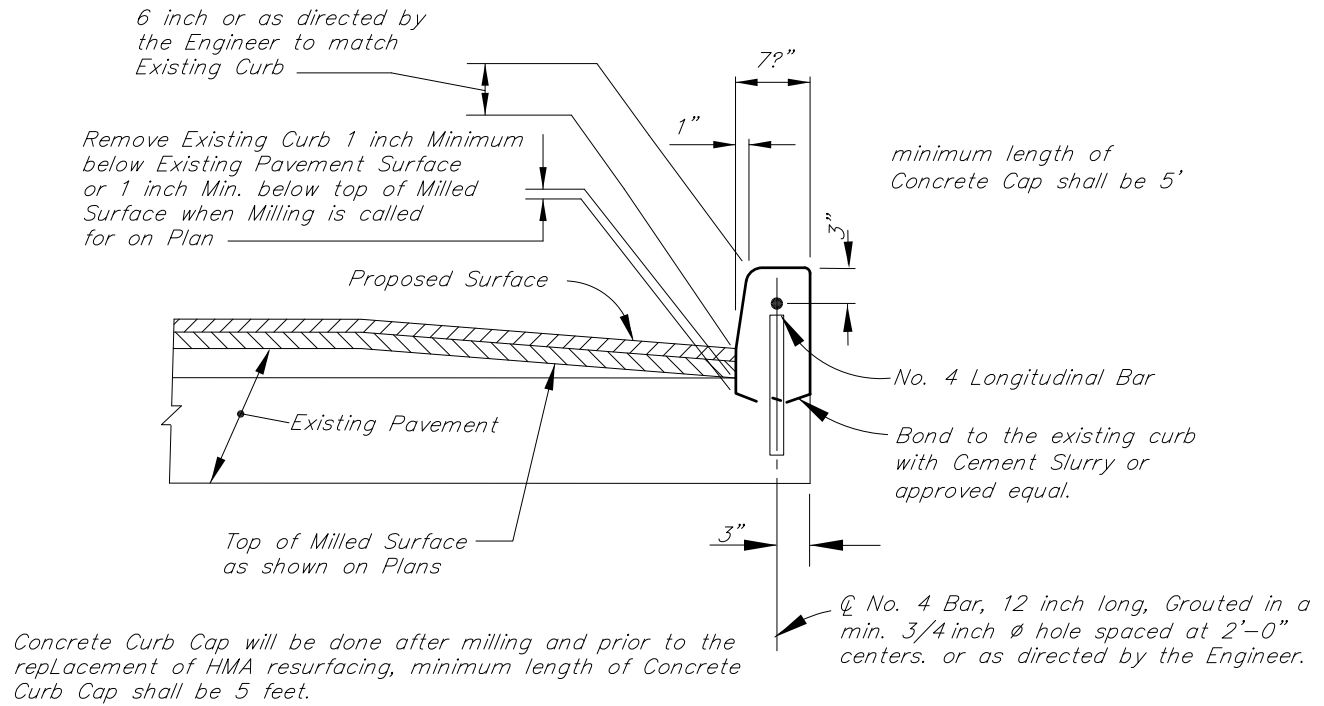
CURB DETAIL A , B , C

SCALE
NOT TO SCALE

D-7

SHEET
1 OF 3

CONCRETE CURB CAP



REVISION DATE:

DIRECTOR OF ENGINEERING

DIVISION PERMIT ENGINEER

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

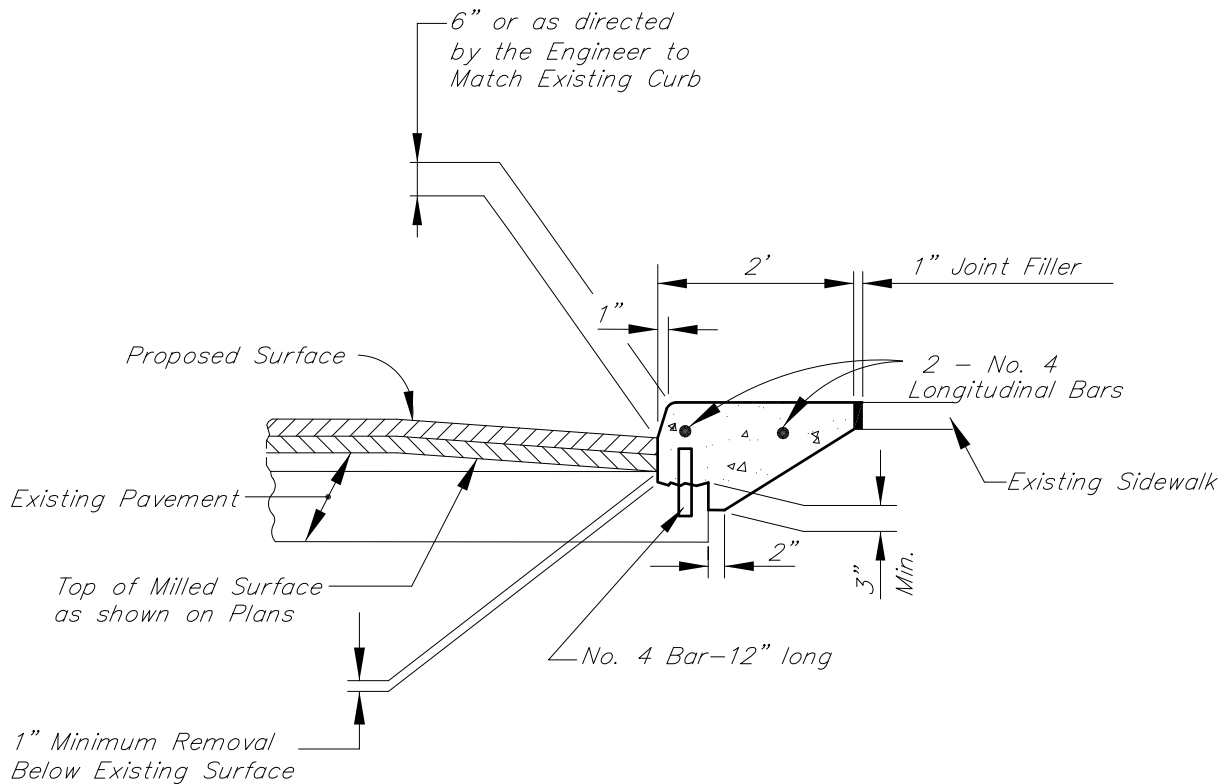
CONCRETE CURB CAP

SCALE
NOT TO SCALE

D-7

SHEET
2 OF 3

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Note:

Remove existing curb to a minimum of 1 inch below existing pavement surface. If an existing longitudinal sidewalk joint is more than 3'-6" from the curb face, the sidewalk shall be sawed for the Integral Concrete Curb Cap & Walk section. If an existing longitudinal sidewalk joint is closer than 3'-6" from the curb face, the sidewalk shall be removed and replaced outside the Integral Concrete Curb Cap & Walk section. Sidewalk removal and replacement shall be in accordance with the Specifications.

Integral Concrete Curb Cap & Walk (Patching) is curb and walk less than 25 feet in continuous length. Minimum length of patches will be 5 feet.

REVISION DATE: 07/02/2008

DIRECTOR OF ENGINEERING

DIVISION PERMIT ENGINEER

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

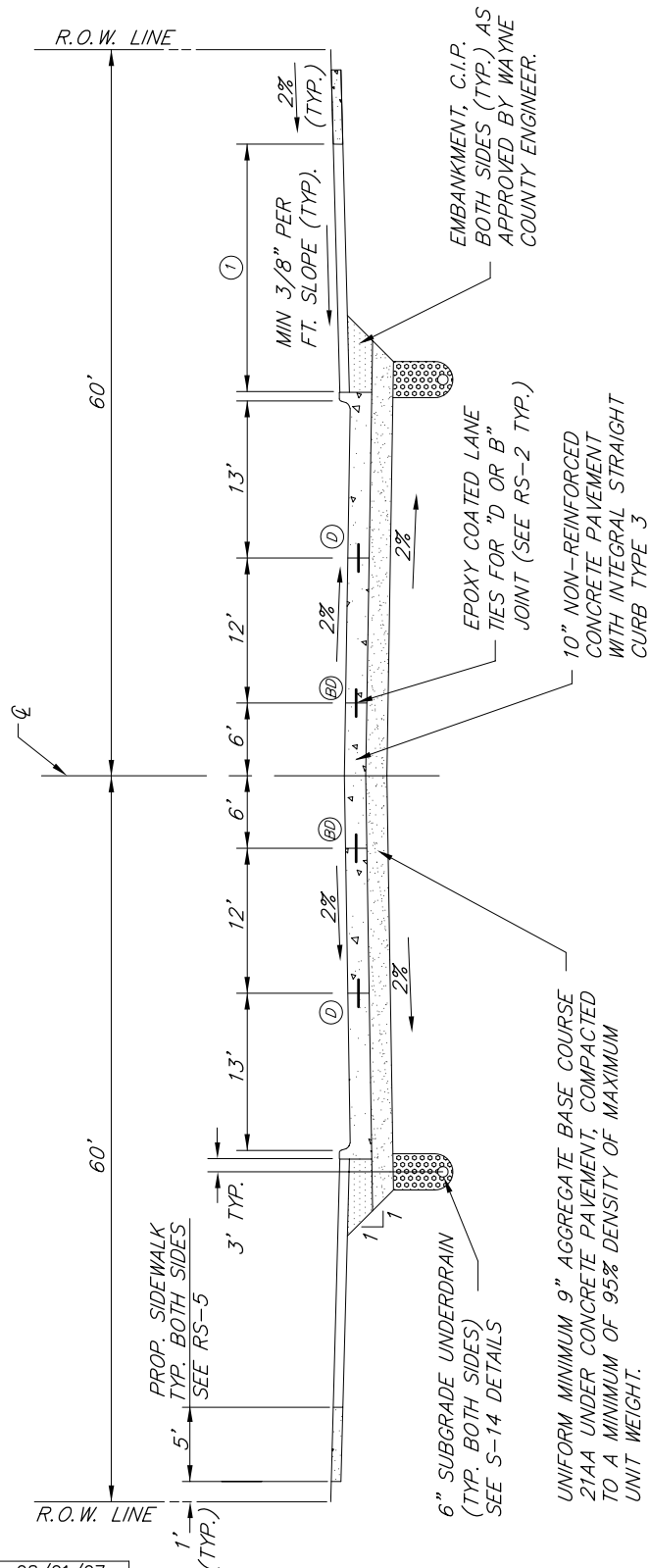
INTEGRAL CONCRETE CURB CAP & WALK

SCALE
NOT TO SCALE

D-7

SHEET
3 OF 3

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① PLACE TOPSOIL SURFACE FURNISHED 2" AND SODDING AS DIRECTED BY WAYNE COUNTY ENGINEER. (TYPICAL BOTH SIDES).

NOTES:

IN ALL CASES BEFORE PLACEMENT OF ANY EMBANKMENT AND/OR AFTER THE INITIAL ROUGH GRADING, THE SOIL/SUBGRADE WILL BE INSPECTED BY WAYNE COUNTY TESTING LABORATORY AND CORRECTIVE MEASURES MAY REQUIRE ANY OR ALL OF THE FOLLOWING: SUBGRADE UNDERCUTTING, BACKFILL WITH SUITABLE EMBANKMENTS, 21AA AGGREGATE BACKFILL. GEOTEXTILE STABILIZATION FABRIC AS DIRECTED BY WAYNE COUNTY ENGINEER.

AREAS BETWEEN THE BACK OF CURB AND RIGHT-OF-WAY LINE IN UNDEVELOPED AREAS MAY BE RESTORED WITH 3" TOPSOIL, THM SEED MIX AND MULCH.

FOR JOINT DETAILS SEE RS-2

CONCRETE MIX SHALL BE GRADE P1 UNLESS OTHERWISE DIRECTED BY THE WAYNE COUNTY ENGINEER.

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

REVISION DATE: 08/01/07

DIRECTOR OF ENGINEERING

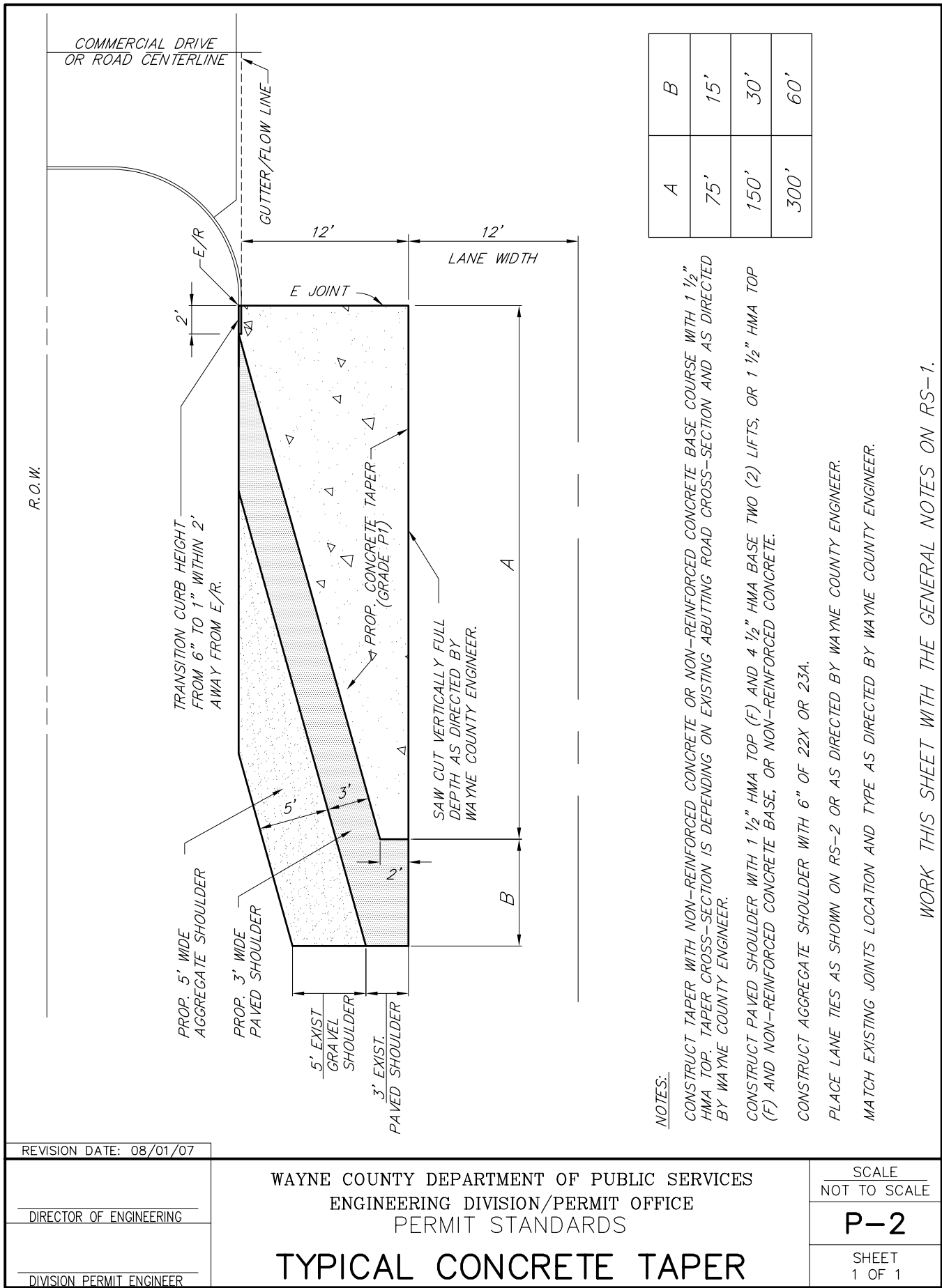
DIVISION PERMIT ENGINEER

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS PRIMARY ROAD CLASS "A" CROSS-SECTION

SCALE
NOT TO SCALE

P-1

SHEET
1 OF 1



NOTES:

- CONSTRUCT TAPER WITH NON-REINFORCED CONCRETE OR NON-REINFORCED CONCRETE BASE COURSE WITH 1 1/2" HMA TOP. TAPER CROSS-SECTION IS DEPENDING ON EXISTING ABUTTING ROAD CROSS-SECTION AND AS DIRECTED BY WAYNE COUNTY ENGINEER.
- CONSTRUCT PAVED SHOULDER WITH 1 1/2" HMA TOP (F) AND 4 1/2" HMA BASE TWO (2) LIFTS, OR 1 1/2" HMA TOP (F) AND NON-REINFORCED CONCRETE BASE, OR NON-REINFORCED CONCRETE.
- CONSTRUCT AGGREGATE SHOULDER WITH 6" OF 22X OR 23A.
- PLACE LANE TIES AS SHOWN ON RS-2 OR AS DIRECTED BY WAYNE COUNTY ENGINEER.
- MATCH EXISTING JOINTS LOCATION AND TYPE AS DIRECTED BY WAYNE COUNTY ENGINEER.

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

REVISION DATE: 08/01/07

DIRECTOR OF ENGINEERING

DIVISION PERMIT ENGINEER

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES

ENGINEERING DIVISION/PERMIT OFFICE

PERMIT STANDARDS

TYPICAL CONCRETE TAPER

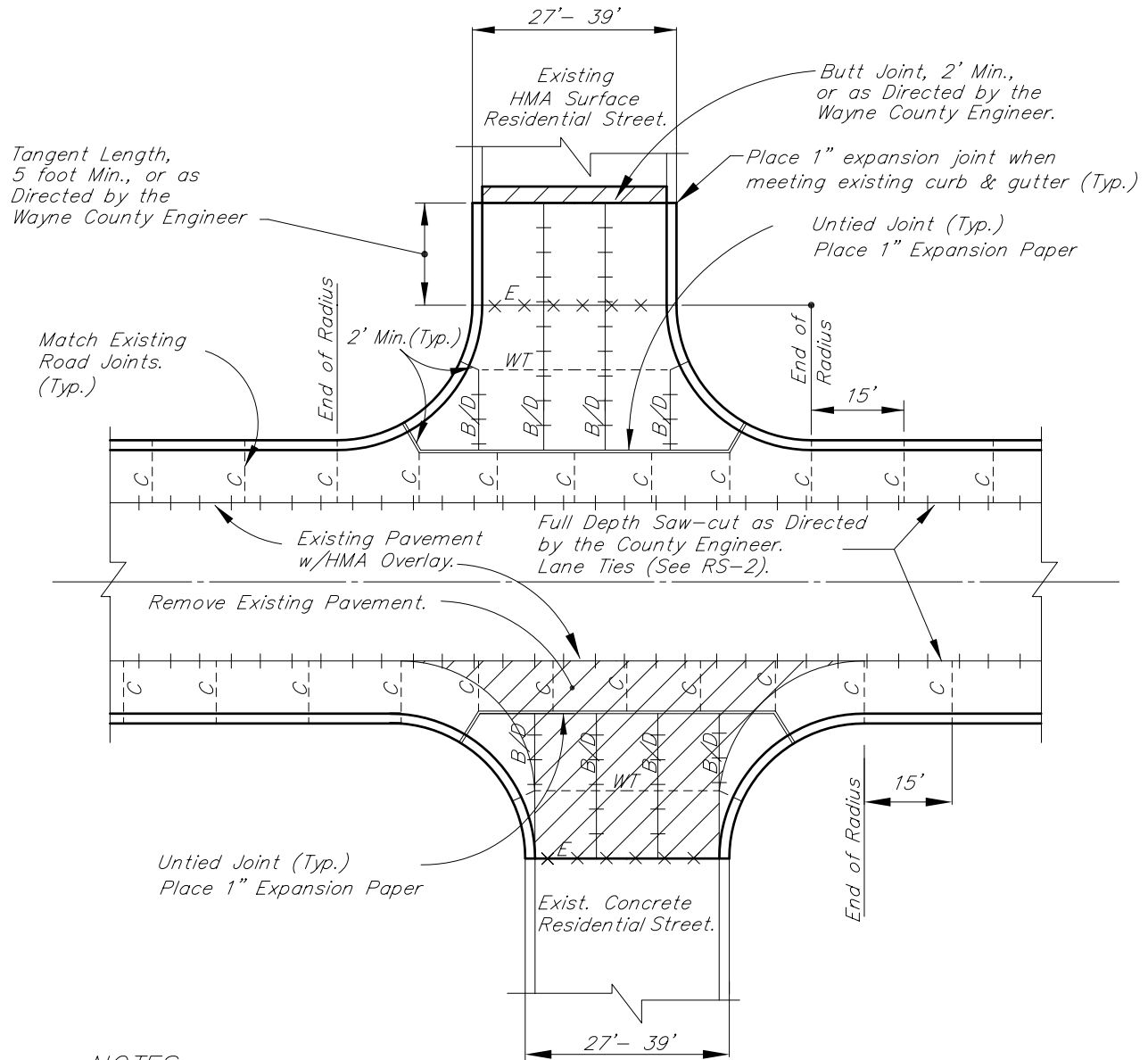
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P-2

SHEET
1 OF 1

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PRIMARY ROAD – NON-REINFORCED CONCRETE BASE COURSE WIDENING AT RESIDENTIAL STREET



NOTES:

- ① Maximum Spacing of C Joints is 15'.
- ② Longitudinal Joints shown on proposed residential street returns shall coincide with spacing and locations on existing residential streets.
- ③ Work This Sheet with RS-13 and RS-17 for Joint Spacing and Pavement Details.

REVISION DATE: 08/01/07

Work this Sheet with the General Notes on RS-1

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WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
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PERMIT STANDARDS

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P-5

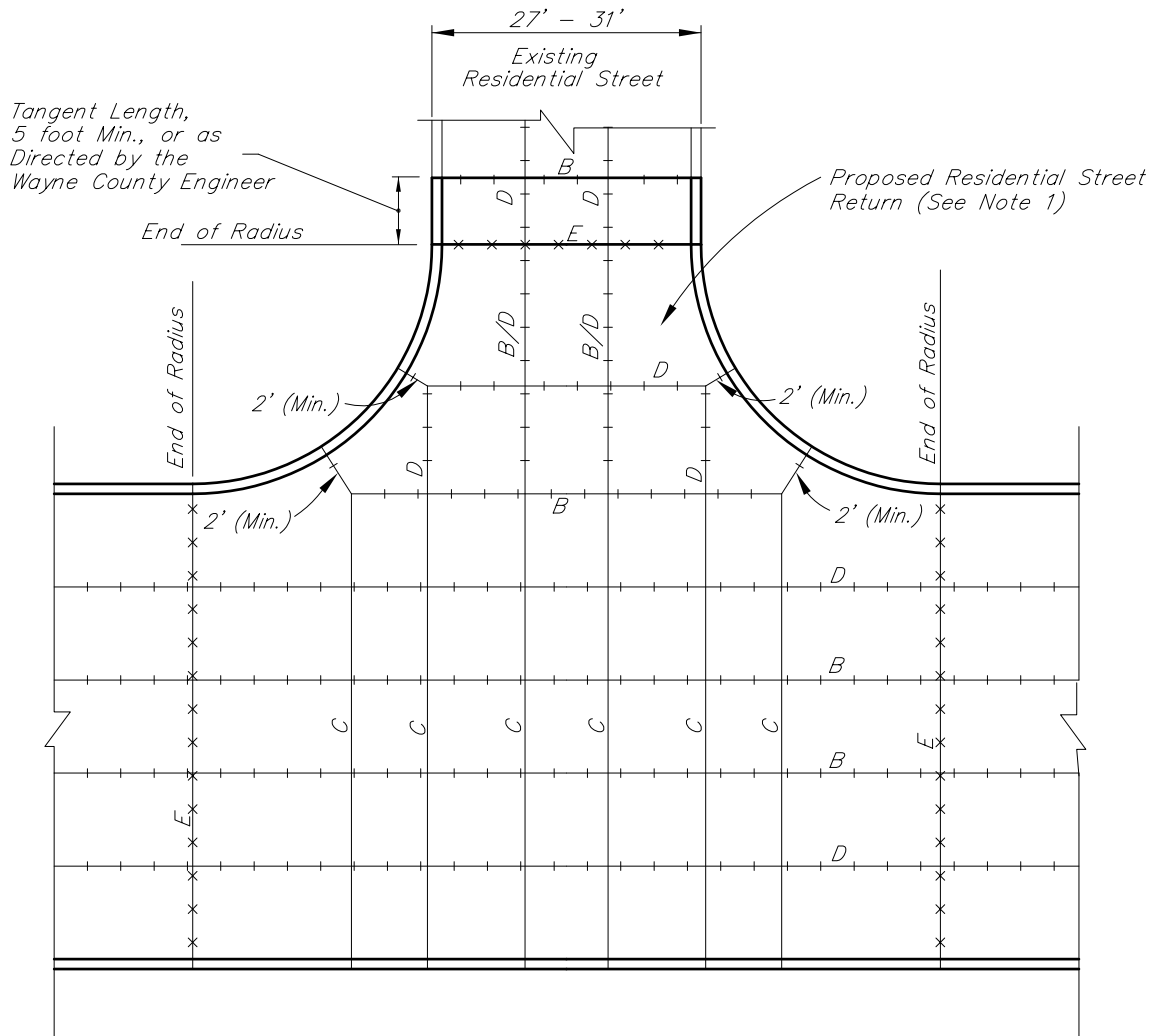
DIVISION PERMIT ENGINEER

JOINT LAYOUT

SHEET
1 OF 6

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PRIMARY ROAD – NON-REINFORCED CONCRETE PAVEMENT AT RESIDENTIAL STREET (27' – 31')



NOTES:

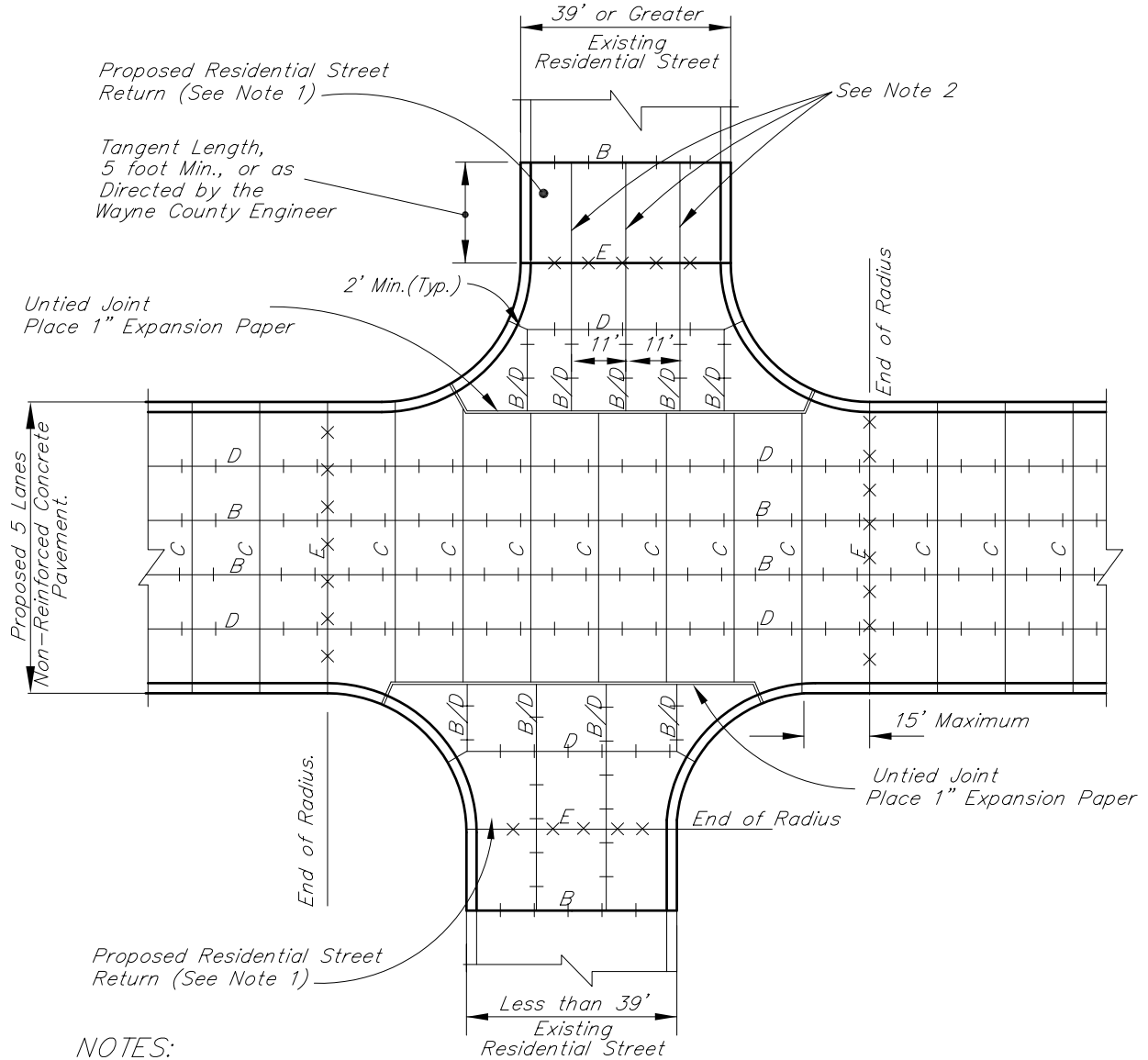
- ① Residential Street returns shall be constructed with non-reinforced concrete pavement.
- ② Longitudinal Joints shown on proposed residential street returns shall coincide with spacing and locations on existing residential streets.
- ③ Work This Sheet with RS-13 for Joint Spacing and Pavement Details.

Work this Sheet with the General Notes on RS-1

REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS JOINT LAYOUT	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING		P-5
DIVISION PERMIT ENGINEER		SHEET 2 OF 6

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PRIMARY ROAD – NON-REINFORCED CONCRETE PAVEMENT AT RESIDENTIAL STREET (31' & OVER)



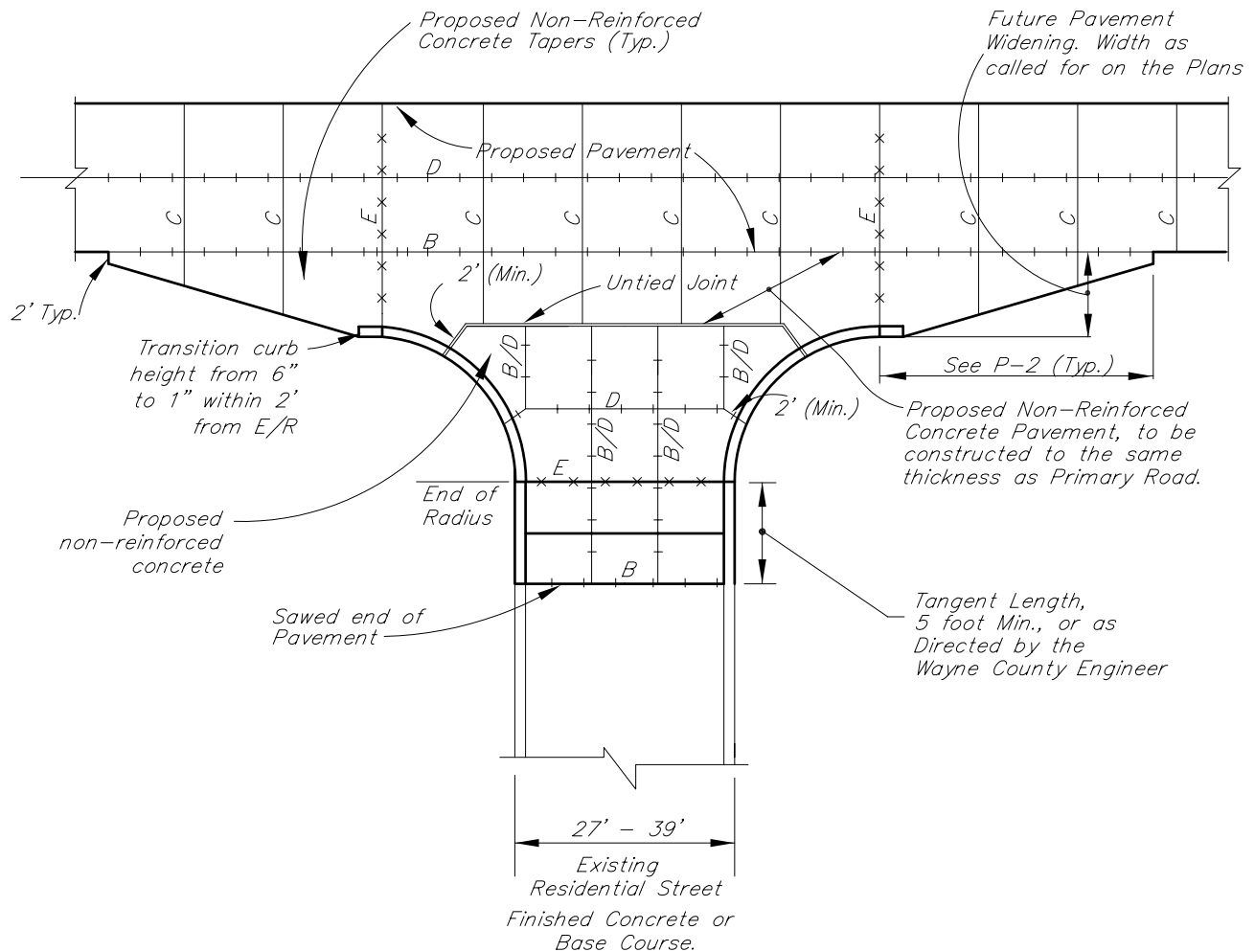
- ① Residential Street return shall be constructed with non-reinforced concrete pavement.
- ② Longitudinal Joints shown on proposed residential street returns shall coincide with spacing and locations on existing residential streets.
- ③ C Joints between E Joints shall be equally spaced and shall not have a spacing greater than 15'.
- ④ Work This Sheet with RS-13 and RS-17 for Joint Spacing and Pavement Details.

Work this Sheet with the General Notes on RS-1

REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS JOINT LAYOUT	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING		P-5
DIVISION PERMIT ENGINEER		SHEET 3 OF 6

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PRIMARY ROAD – NON-REINFORCED CONCRETE PAVEMENT WITH FUTURE PAVEMENT WIDENING AT RESIDENTIAL STREET



NOTES:

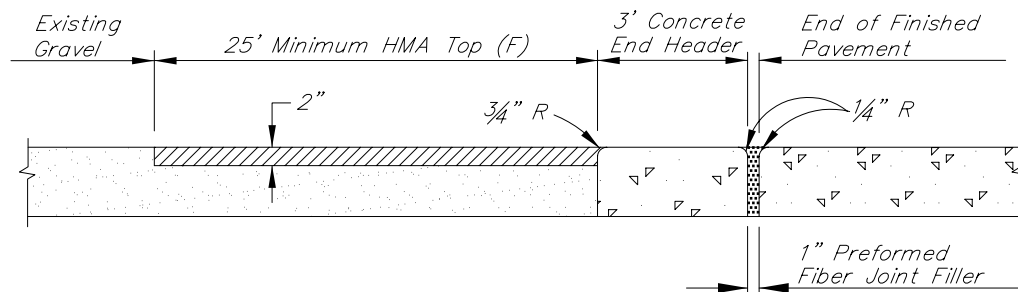
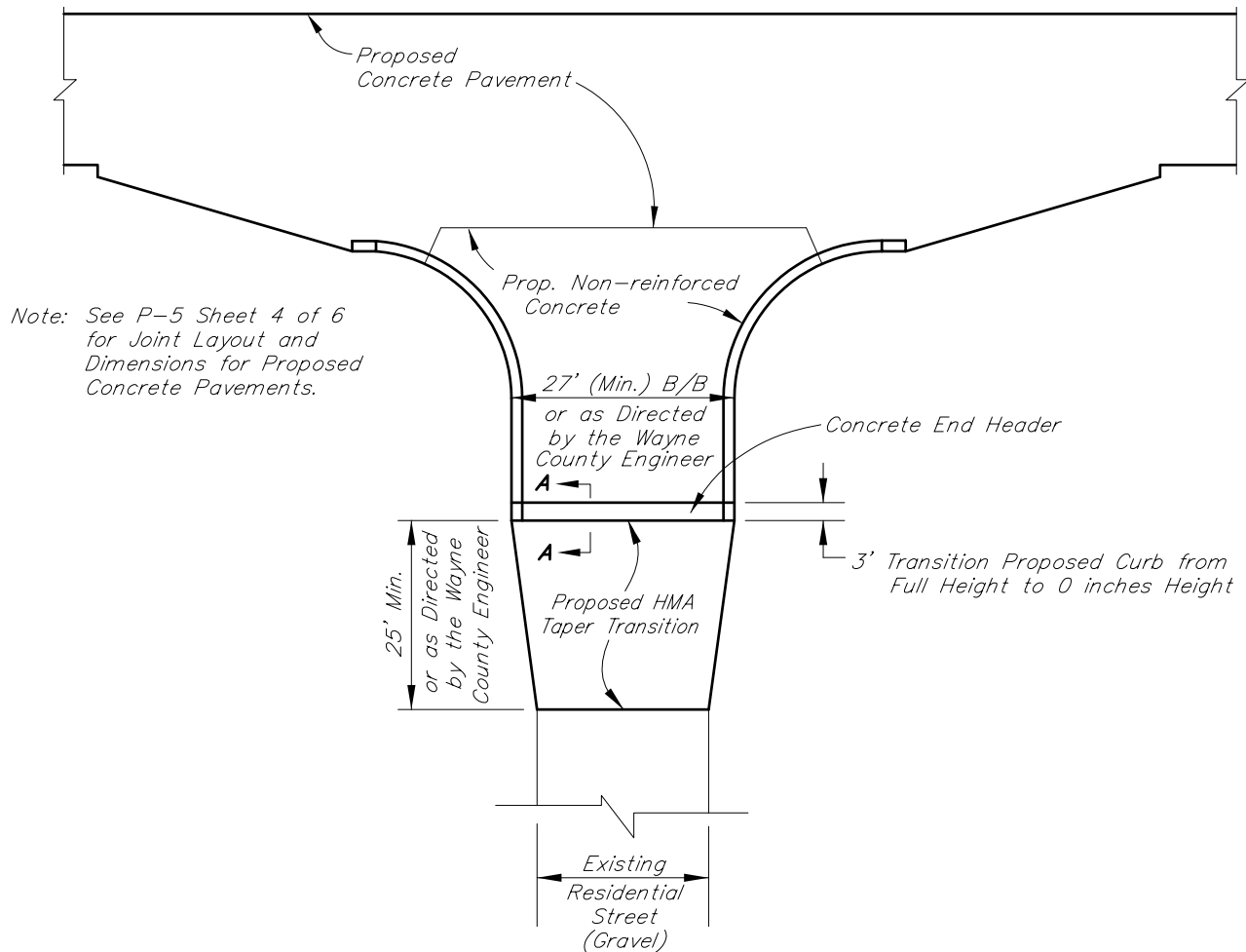
- ① Residential Street returns shall be constructed with non-reinforced concrete pavement.
- ② Longitudinal Joints shown on Proposed Residential Street Returns shall coincide with spacing and locations on Existing Residential Streets.
- ③ C Joints between E Joints shall be equally spaced and shall not have a spacing greater than 15'.
- ④ Work This Sheet with RS-13 and RS-17 for Joint Spacing and Pavement Details.

Work this Sheet with the General Notes on RS-1

REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS JOINT LAYOUT	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING		P-5
DIVISION PERMIT ENGINEER		SHEET 4 OF 6

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PRIMARY ROAD WITH FUTURE WIDENING AT RESIDENTIAL STREET (GRAVEL)



SECTION A-A

Concrete End Headers Shall be Placed at the Ends of all Pavements Abutting Gravel Roads

REVISION DATE: 08/01/07

Work this Sheet with the General Notes on RS-1

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ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

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P-5

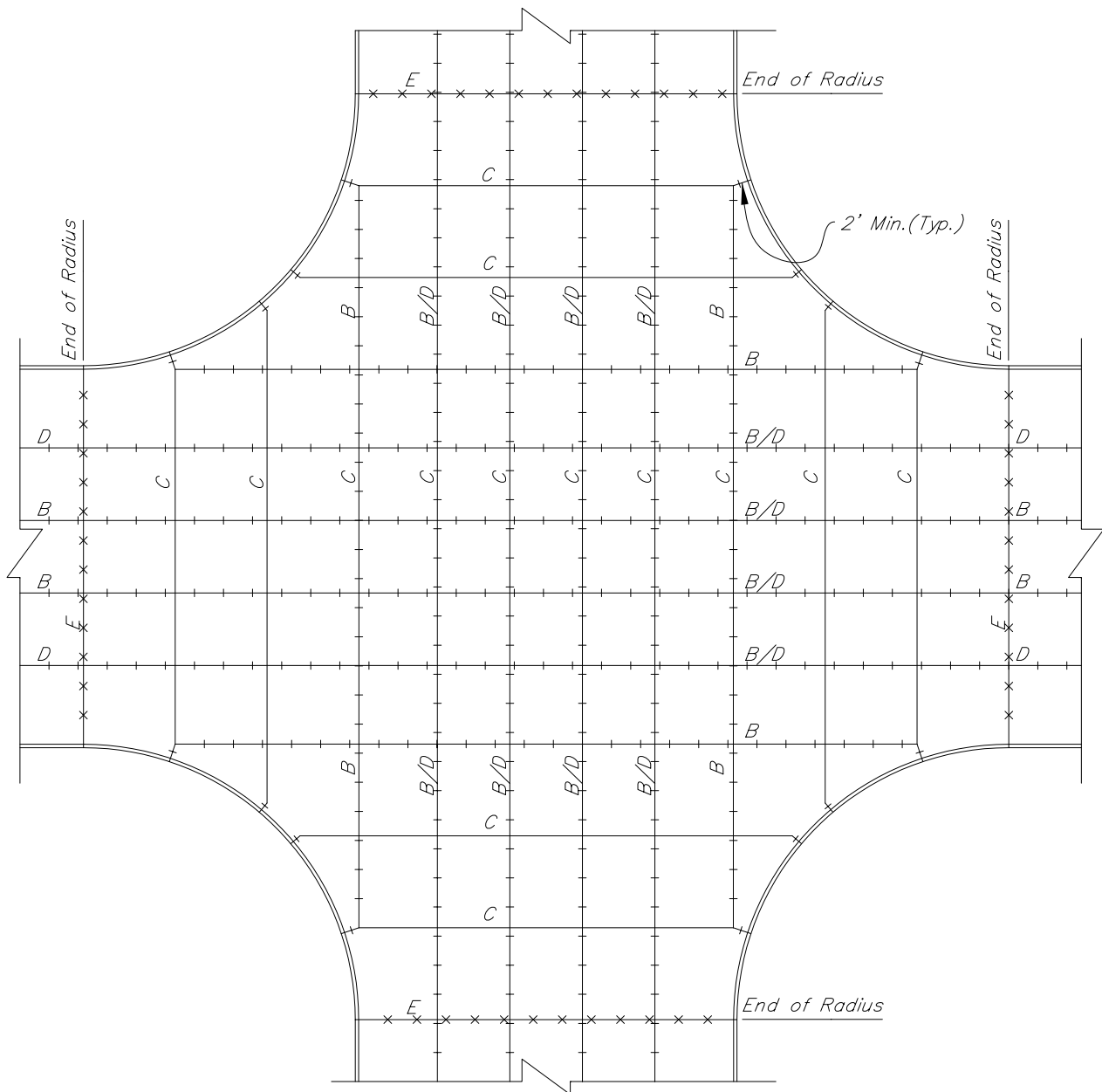
DIVISION PERMIT ENGINEER

JOINT LAYOUT

SHEET
5 OF 6

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PRIMARY/PRIMARY INTERSECTION NON-REINFORCED CONCRETE



- ① Doweled Joints shall be placed in the direction of the predominant truck movements and as shown on the Plans.

REVISION DATE: 08/01/07

Work this Sheet with the General Notes on RS-1

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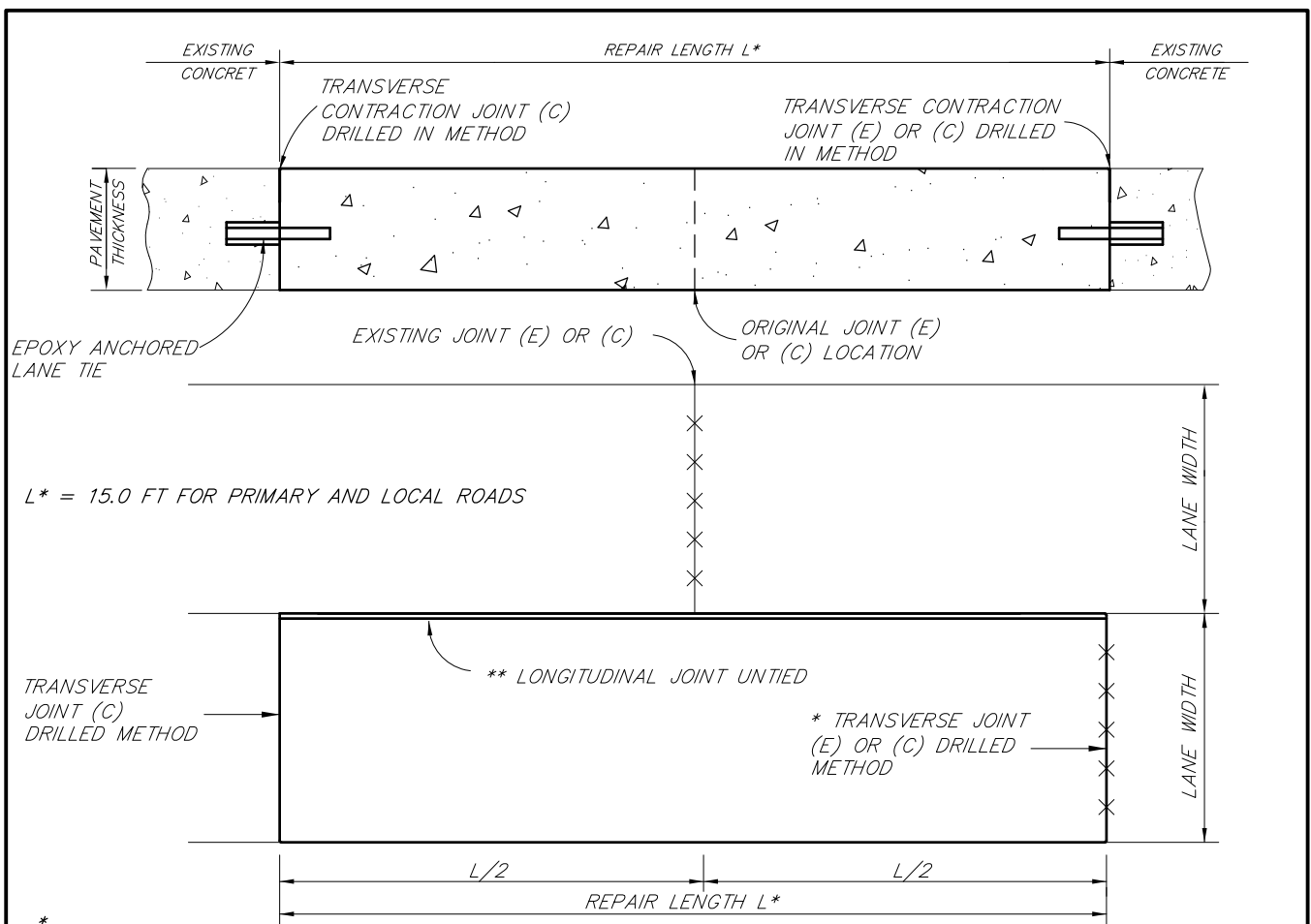
P-5

DIVISION PERMIT ENGINEER

JOINT LAYOUT

SHEET
6 OF 6

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* Joint (C) shall be installed at this location. unless the original joint was an expansion, then a joint (E) should be installed.

* * When constructing a longitudinal untied joint, apply a heavy coat of white curing compound along the existing pavements vertical edge to provide a bond breaker. If vertical edge is not smooth from saw cutting, additional surface grinding may be required.

Pavement removal shall be in accordance with 2003 MDOT Standard Specifications for Construction.

This detail is for finished concrete pavement repairs on class "A" roads and industrial subdivisions.

Pavement thickness shall match the existing pavement thickness with a minimum section of (9) nine inches of non-reinforced concrete.

See Wayne County permit standard RS-2 for pavement joint details.

If concrete pavement has been resurfaced with HMA, see standard detail PR-2.

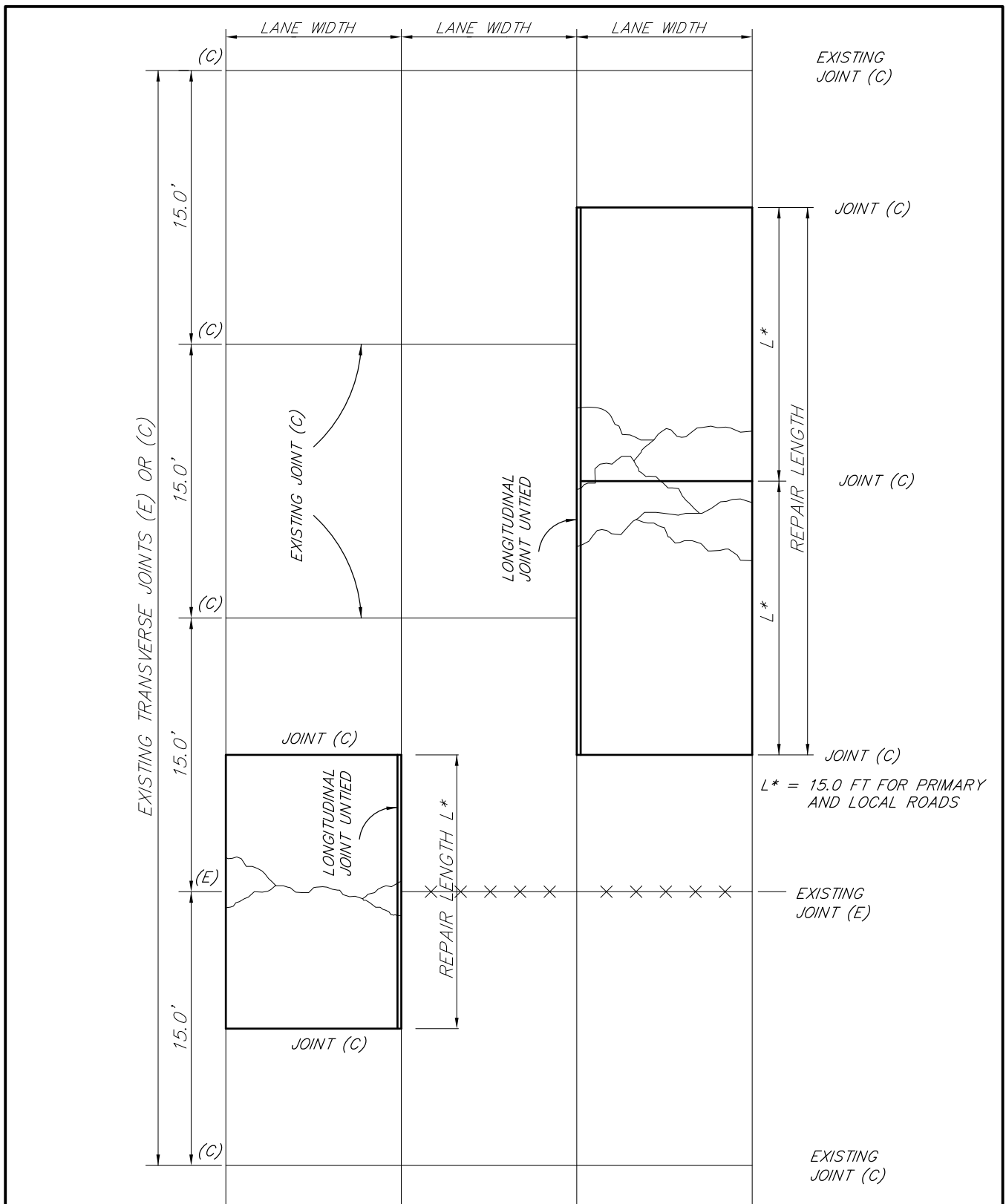
For finished concrete pavement on class "A" County roads and industrial subdivisions less than 20 years old, minimum patch size shall be full width of lane (including the curb and gutter) with a minimum length of 15.0 feet with no less than 6 feet remaining to any pavement joints, cracks, or edge of pavement.

Saw cut must extend completely through the pavement section. Any over-cuts except at the outside corners of the pavement patch area will be required to be removed (this will increase the size of the patch).

All sawed over-cuts located at the outside corners of the patch location shall be cleaned and sealed with hot poured rubber asphalt.

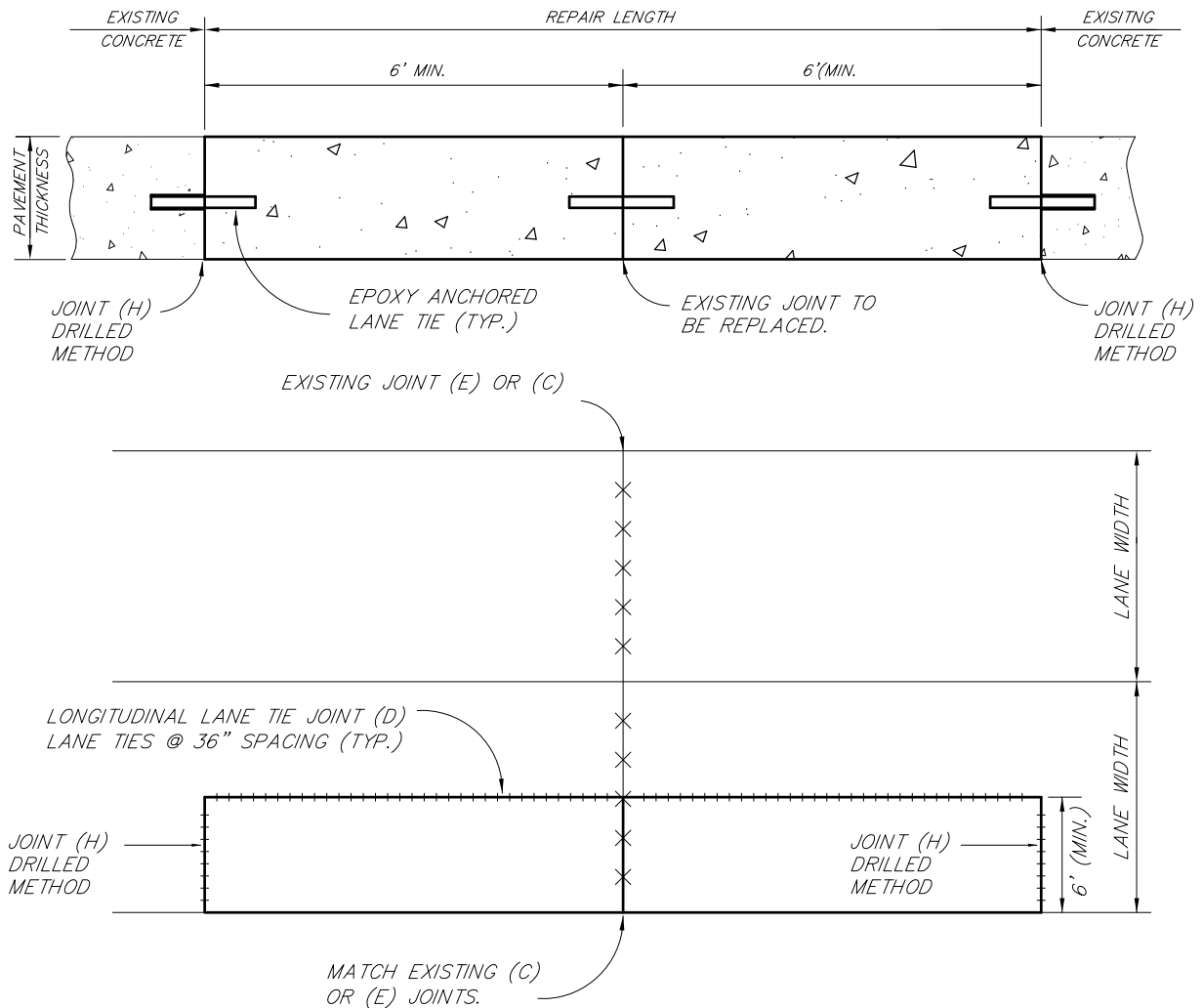
REVISION DATE:	CLASS "A" ROAD UNDER 20 YEARS OLD.	
DIRECTOR OF ENGINEERING	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS PAVEMENT REMOVAL AND REPAIR (PATCHING) CLASS "A" ROAD UNDER 20 YEARS OLD	SCALE NOT TO SCALE
DIVISION PERMIT ENGINEER		PR-1 SHEET 1 OF 2

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REVISION DATE:	CLASS "A" ROAD UNDER 20 YEARS OLD.	
DIRECTOR OF ENGINEERING	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS	SCALE NOT TO SCALE
DIVISION PERMIT ENGINEER	PAVEMENT REMOVAL AND REPAIR (PATCHING)	PR-1
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Pavement removal shall be in accordance with 2003 MDOT Standard Specifications for Construction.

This detail is for pavement repair on finished concrete pavement and concrete base course, on over 20 years old class "A" roads and industrial subdivisions.

Pavement thickness shall match the existing pavement thickness with a minimum section of 1 1/2" HMA Top (F) and 9" of non-reinforced concrete. (Note : If existing pavement section is 4" of HMA on 9" of concrete, The replacement section will be 1 1/2" HMA Top (F) on 11 1/2" of non-reinforced concrete).

See Wayne County permit standard RS-2 for pavement joint details.

The minimum patch size shall be 6' x 6' with no less than 6 feet remaining to any pavement joints, cracks, edge of pavement, or curb.

(Note: If the distance between the face of curb and the pavement joint is less than 6 feet, the curb shall be removed and replaced).

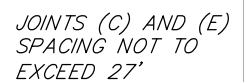
Saw cut must extend completely through the pavement section. Any over-cuts except at the outside corners of the pavement patch area will be required to be removed (this will increase the size of the patch).

All sawed over-cuts located at the outside corners of the patch location shall be cleaned and sealed with hot poured rubber asphalt.

CLASS "A" ROAD OVER 20 YEARS OLD.

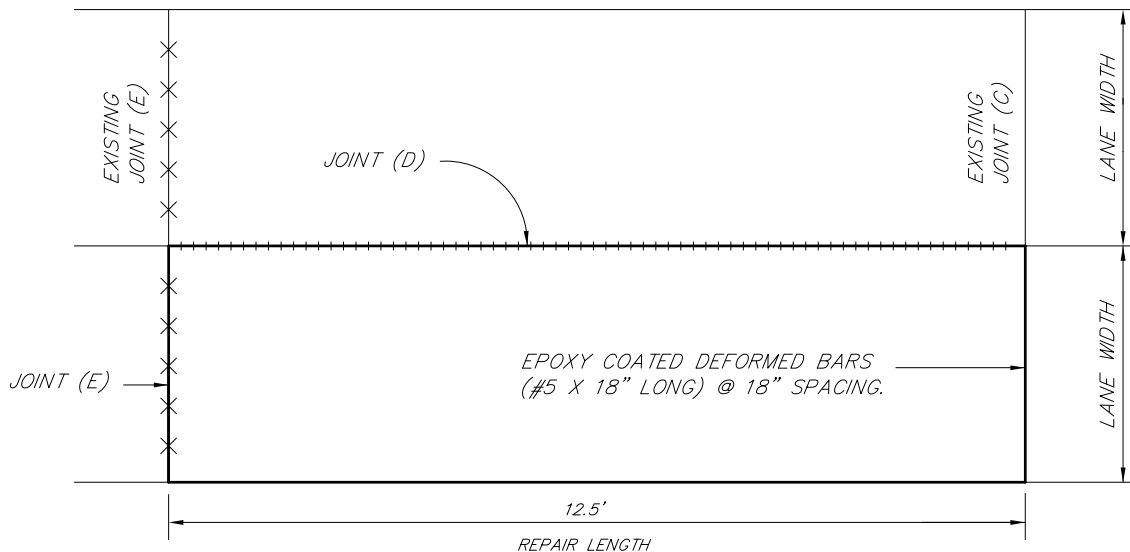
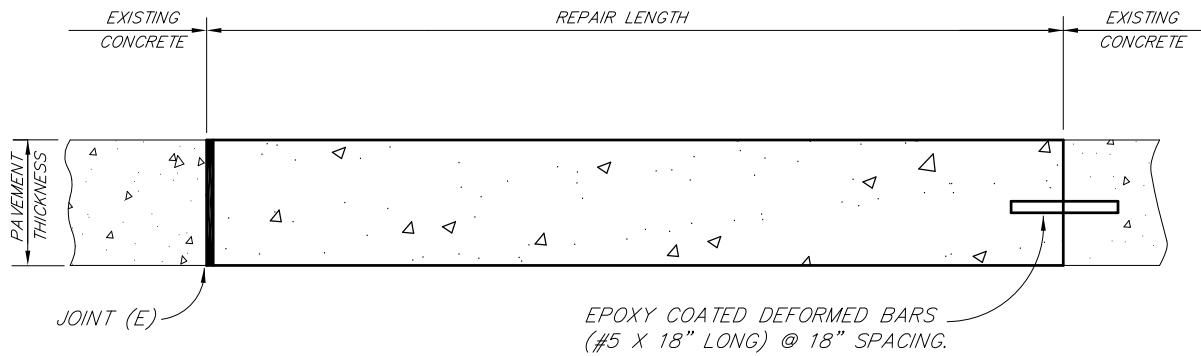
REVISION DATE:		
DIRECTOR OF ENGINEERING	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS	
DIVISION PERMIT ENGINEER	PAVEMENT REMOVAL AND REPAIR (PATCHING)	
		SCALE NOT TO SCALE
		PR-2
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SHEET
2 OF 2

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Pavement removal shall be in accordance with 2003 MDOT Standard Specifications for Construction.

This detail is for finished concrete pavement repair on local roads (typically constructed with 7" non-reinforced pavement) when pavement is under 10 years old.

Pavement thickness shall match the existing pavement thickness with a minimum section of 7" non-reinforced concrete.

See Wayne County permit standard RS-2 for pavement joint details.

If concrete pavement has been resurfaced with HMA, see standard detail PR-5.

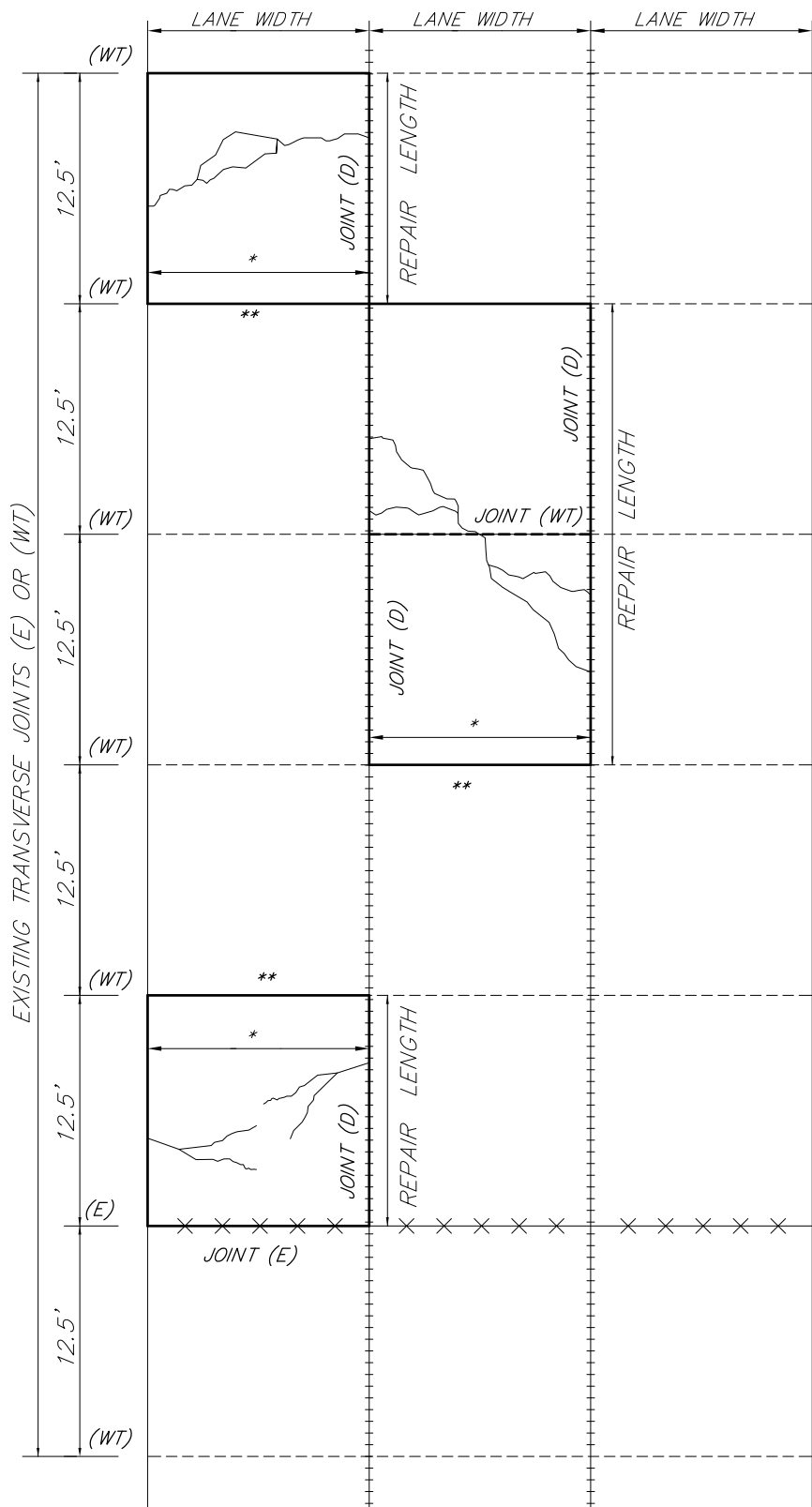
The minimum patch size shall be one entire slab (from joint to joint including curb and gutter section).

Saw cut must extend completely through the pavement section. Any over-cuts except at the outside corners of the pavement patch area will be required to be removed (this will increase the size of the patch).

All sawed over-cuts located at the outside corners of the patch location shall be cleaned and sealed with hot poured rubber asphalt.

REVISION DATE:	LOCAL 7" NON-REINFORCED ROAD UNDER 10 YEARS OLD.	
DIRECTOR OF ENGINEERING	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS PAVEMENT REMOVAL AND REPAIR (PATCHING)	SCALE NOT TO SCALE
DIVISION PERMIT ENGINEER		PR-3
		SHEET 1 OF 2

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- * REMOVAL SHALL BE ENTIRE WIDTH OF CONCRETE SLAB (FROM JOINT TO JOINT OR JOINT TO BACK OF CURB).
- ** TRANSVERSE JOINTS SHALL BE CONSTRUCTED WITH EPOXY COATED DEFORMED BARS (#5 X 18" LONG) @ 18" SPACING.

REVISION DATE:

LOCAL 7" NON-REINFORCED ROAD UNDER 10 YEARS OLD.

DIRECTOR OF ENGINEERING

DIVISION PERMIT ENGINEER

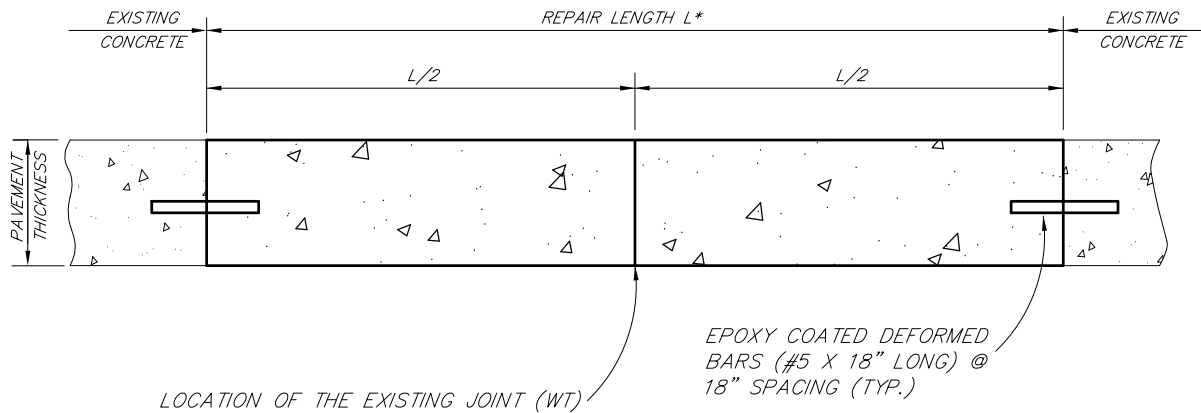
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
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 PERMIT STANDARDS
PAVEMENT REMOVAL AND REPAIR (PATCHING)

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PR-3

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$L^* = 12.5 \text{ FT FOR RESIDENTIAL SUBDIVISION}$

Pavement removal shall be in accordance with 2003 MDOT Standard Specifications For Construction.

This detail is for finished concrete pavement repair on local roads (typically constructed with 7" non-reinforced pavement) when pavement is over 10 years old.

Pavement thickness shall match the existing pavement thickness with a minimum section of 7" non-reinforced concrete.

See Wayne County permit standard RS-2 for pavement joint details.

The minimum patch size shall be 6' x 6' with no less than 6' remaining to any pavement joints, cracks, edge of pavement, or to the face of curb.

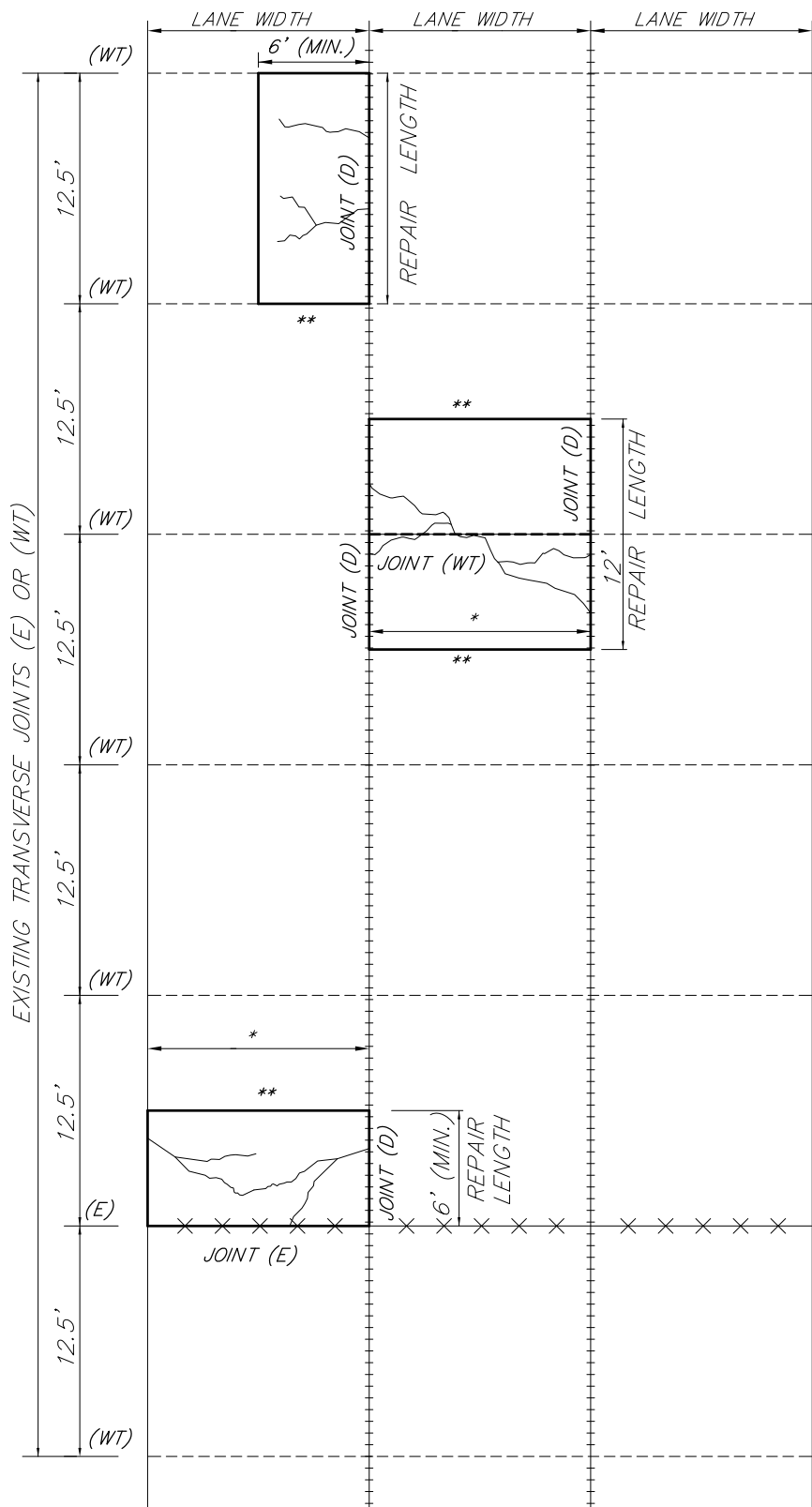
(Note: If the distance between the face of curb and the pavement joint is less than 6 feet, the curb shall be removed and replaced).

Saw cut must extend completely through the pavement section. Any over-cuts expected at the outside corners of the pavement patch area will be required to be removed (this will increase the size of the patch).

All sawed over-cuts located at the outside corners of the patch location shall be cleaned and sealed with hot poured rubber asphalt.

REVISION DATE:	LOCAL 7" NON-REINFORCED ROAD OVER 10 YEARS OLD.	
DIRECTOR OF ENGINEERING	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS	SCALE NOT TO SCALE
DIVISION PERMIT ENGINEER	PAVEMENT REMOVAL AND REPAIR (PATCHING)	PR-4
		SHEET 1 OF 2

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- * REMOVAL SHALL BE ENTIRE WIDTH OF CONCRETE SLAB (FROM JOINT TO JOINT OR JOINT TO BACK OF CURB).
- ** TRANSVERSE JOINTS LOCATED AT END OF PATCH SHALL BE CONSTRUCTED WITH EPOXY COATED DEFORMED LANE BARS (#5 X 18" LONG) @ 18" SPACING.

REVISION DATE:

LOCAL 7" NON-REINFORCED ROAD OVER 10 YEARS OLD.

DIRECTOR OF ENGINEERING

DIVISION PERMIT ENGINEER

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PERMIT STANDARDS

PAVEMENT REMOVAL AND REPAIR (PATCHING)

SCALE
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PR-4

SHEET
2 OF 2

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HMA PAVEMENT REPAIR

The minimum HMA Base Course repair patch size shall be 6' x 6' with no less than 6' remain to any other joints, crack, or edge of pavement.

Saw cuts must extend completely through the pavement section. Any over-cuts except for at the outside corners of patch will be required to be removed. (this will increase the size of the patch).

All over-cuts located at the outside corners of the patch shall be cleaned and sealed.

Unless otherwise approved, all full depth HMA repairs will be replaced with non-reinforced concrete base course with 1 1/2" HMA Top (F).

The required thickness of the non-reinforced concrete base course shall be 1 1/2" less than the existing pavement section with minimum thickness of 8".

Example 1: Existing pavement is 6" HMA. the repair will be 1 1/2" HMA Top (F) on 8" non-reinforced concrete.

Example 2: Existing pavement is 10 1/2" HMA. The repair will be 1 1/2" HMA Top (F) on 9" non-reinforced concrete.

Non-reinforced concrete base course repairs shall have transverse plane of weakness joints (WT) installed at 15' maximum or 6' minimum spacing.

The minimum HMA surface course repair on pavement under 10 years old shall be one lane wide and the length shall match the base repair limits. On pavement over 10 years old, the size will match the base repair.

When additional HMA surface course is to be removed , it shall be done using the cold milling method.

When replacing HMA pavement cores, slightly undermine existing HMA base along the outside diameter of the cores and fill the undermined area and core hole with H.E. concrete.

REVISION DATE:	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS PAVEMENT REMOVAL AND REPAIR (PATCHING)	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING		PR-5
DIVISION PERMIT ENGINEER		SHEET 1 OF 1

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1. All materials and workmanship shall be in accordance with Wayne County Specifications which are defined as the current Michigan Department of Transportation (MDOT) Standard Specifications for Construction as modified by Wayne County Special Provisions.
2. Paving Standard Plan Details may be shown with wire fabric reinforcement. Use of reinforcement shall be required as called for on the plans.
3. A Transverse End of Pour Joint, Symbol (H), shall be constructed when there is an interruption in concrete paving for more than 1/2 hour. Transverse End of Pour Joint, Symbol (H), shall be constructed in accordance with current MDOT Standard Plan, R-39 series (Reinforced Concrete Pavement) and R-39P series (Plain Concrete Pavement). This note applies to both concrete base and finished concrete pavement.
4. When it is anticipated that construction traffic will be using the pavement, endings will be protected by means of a temporary concrete header as shown on RS-4.
5. The Expansion Joint Foam Rod shall be a solid round heat resistant Polyurethane foam capable of withstanding the temperature of the sealant. Density of the foam shall be 2-4 Lb/Cft.
6. Wire Fabric Reinforcement shall lay flat when delivered to the work area. The use of spreader bars will be required for lifting bundles of reinforcement.
7. Where the lane width of the pavement differs from wire fabric reinforcement standards, special sheets of the required width may be used or standard sheets may be cut to the required size or split sheets may be added to standard sheets to obtain the required size. Side laps shall not be less than the spacing of the longitudinal wires.
8. The ends of the Wire Fabric Reinforcement sheets shall be fastened in at least two places at each lap to prevent horizontal and vertical displacement.
9. When Concrete Pavement Repairs are longer than 20 feet, Transverse Plane of Weakness Joints (WT) shall be placed in-line with existing transverse joints, working cracks, or at 15 feet maximum and 6 feet minimum spacings.
10. Existing concrete pavements with HMA surface requiring saw-cutting for removal shall have the saw cuts extend completely thru the concrete pavement. Sawed over-cuts occurring in adjacent slab, gutter or shoulder, which will remain in place, shall be sealed.

REVISION DATE: 08/01/07

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ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

GENERAL NOTES

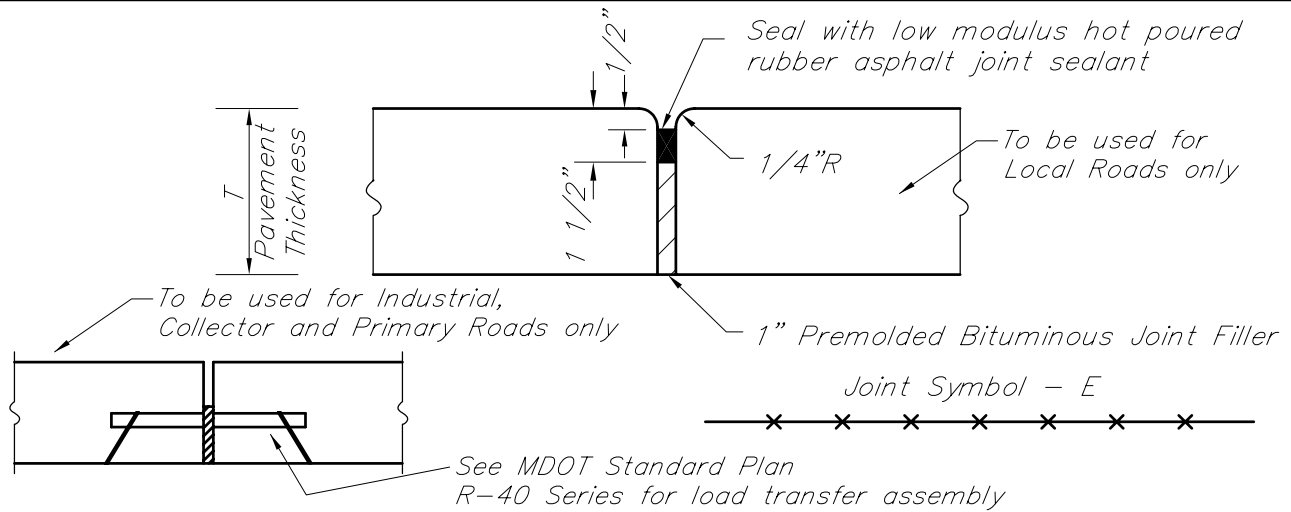
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RS-1

SHEET
1 OF 1

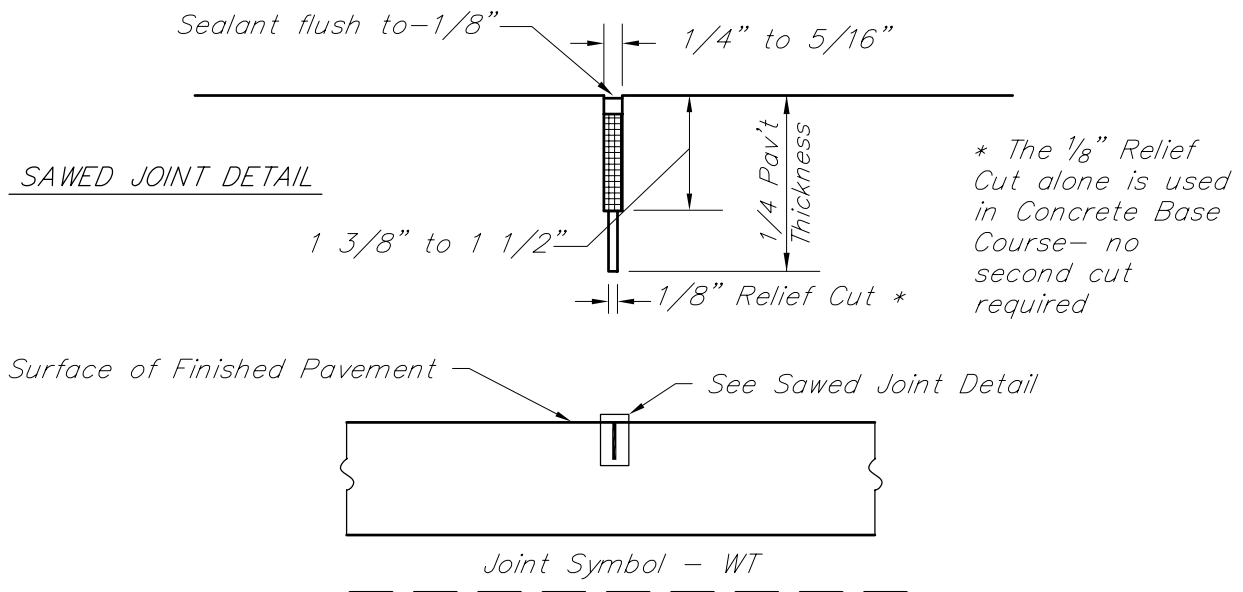
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TRANSVERSE EXPANSION JOINT (E)



Expansion Joints shall be placed at the ends of radii at street intersections, at end connections with structures or existing pavements; and as shown on sheets RS-6 and RS-7 for Cul-de-sac and Eyebrow. Maximum spacing of 300 feet shall be maintained.

TRANSVERSE PLANE OF WEAKNESS JOINT (WT)



Transverse Plane of Weakness Joints shall be constructed immediately after the finishing operation has been completed. The Transverse Plane of Weakness Joints shall be placed at 12.5 foot intervals between transverse expansion joints.

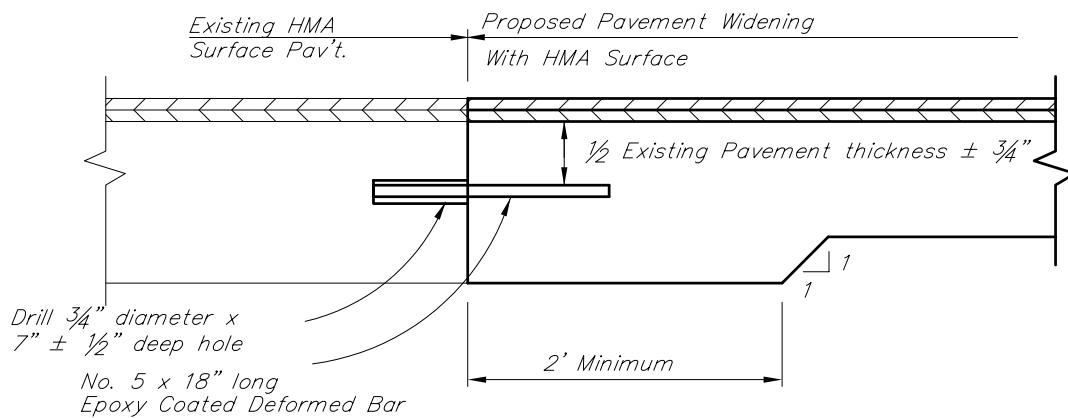
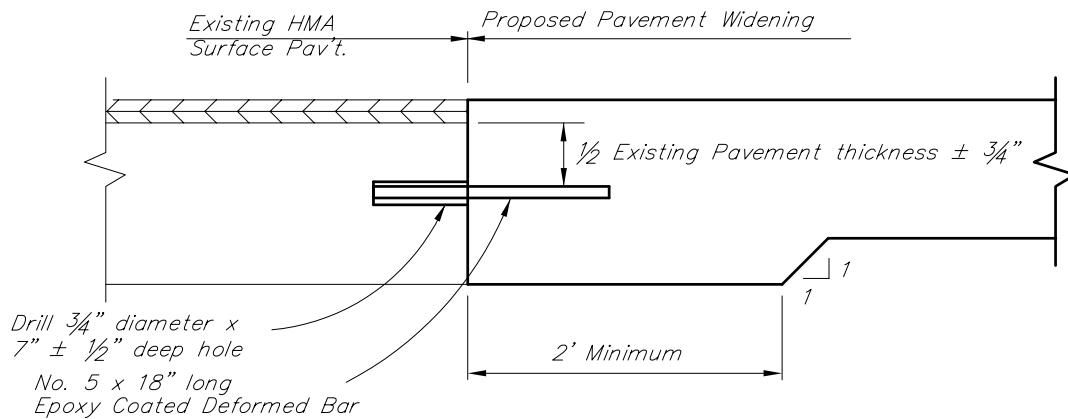
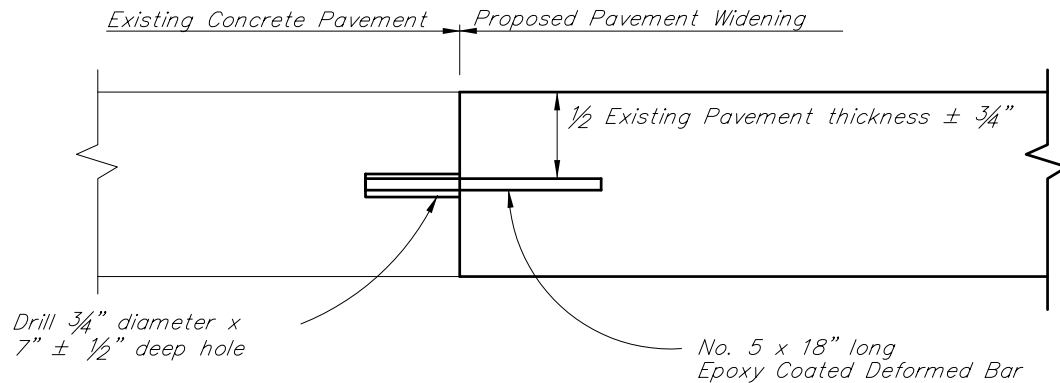
Transverse Plane of Weakness Joints shall be sealed with low modulus hot-poured rubber-asphalt type joint sealing compound except for in Concrete Base Course.

Work This Sheet with the General Notes on RS-1

REVISION DATE: 08/01/07	Work This Sheet with the General Notes on RS-1	
DIRECTOR OF ENGINEERING	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS	SCALE NOT TO SCALE
DIVISION PERMIT ENGINEER	PAVEMENT JOINTS	RS-2 SHEET 1 OF 7

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LONGITUDINAL EPOXY-ANCHORED LANE-TIES



Epoxy-Anchored Lane-Tie Spacing Shall be in Accordance with RS-2 Sheet 5 of 7.

REVISION DATE: 08/01/07

Work This Sheet with the General Notes on RS-1

DIRECTOR OF ENGINEERING

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

SCALE
NOT TO SCALE

RS-2

DIVISION PERMIT ENGINEER

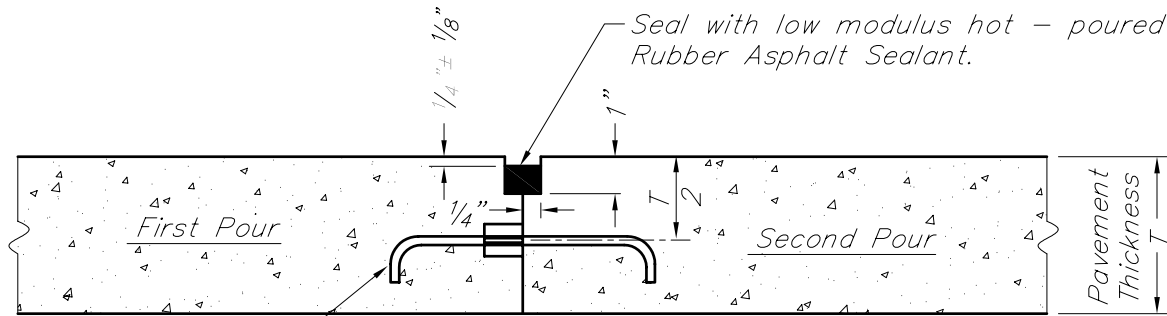
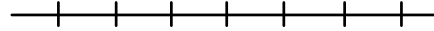
PAVEMENT JOINTS

SHEET
2 OF 7

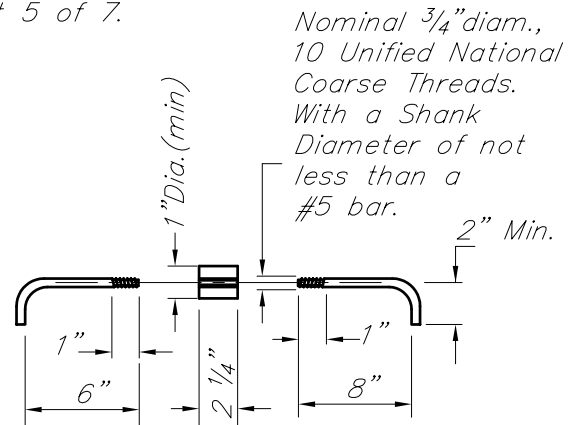
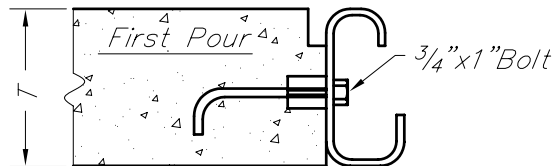
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LONGITUDINAL FORMED BULKHEAD CONSTRUCTION JOINT WITH HOOK-BOLT ASSEMBLY (B)

Joint Symbol - B



Hook Bolt Spacing will be in Accordance with the Lane Tie Spacing on RS-2 Sheet 5 of 7.



HOOK BOLT DETAIL

In part width formed construction provide first-half of Hook Bolt Assembly. The threaded hole in the hook bolt coupling shall be filled with a rust preventive oil and plugged with a plastic or neoprene plug. The plug shall be of proper dimension to completely seal the hole and shall not project more than $\frac{3}{8}$ " after insertion.

On future widenings remove seal from first half of Hook Bolt and provide second-half Assembly.

REVISION DATE: 08/01/07

Work This Sheet with the General Notes on RS-1

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WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

PAVEMENT JOINTS

SCALE
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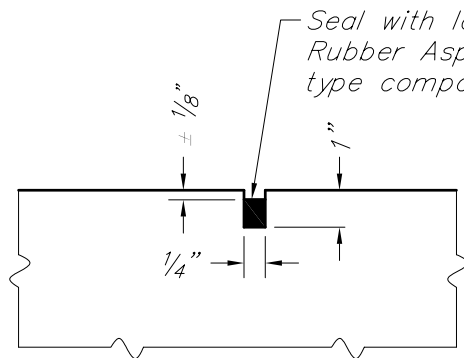
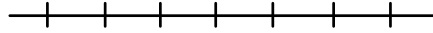
RS-2

SHEET
3 OF 7

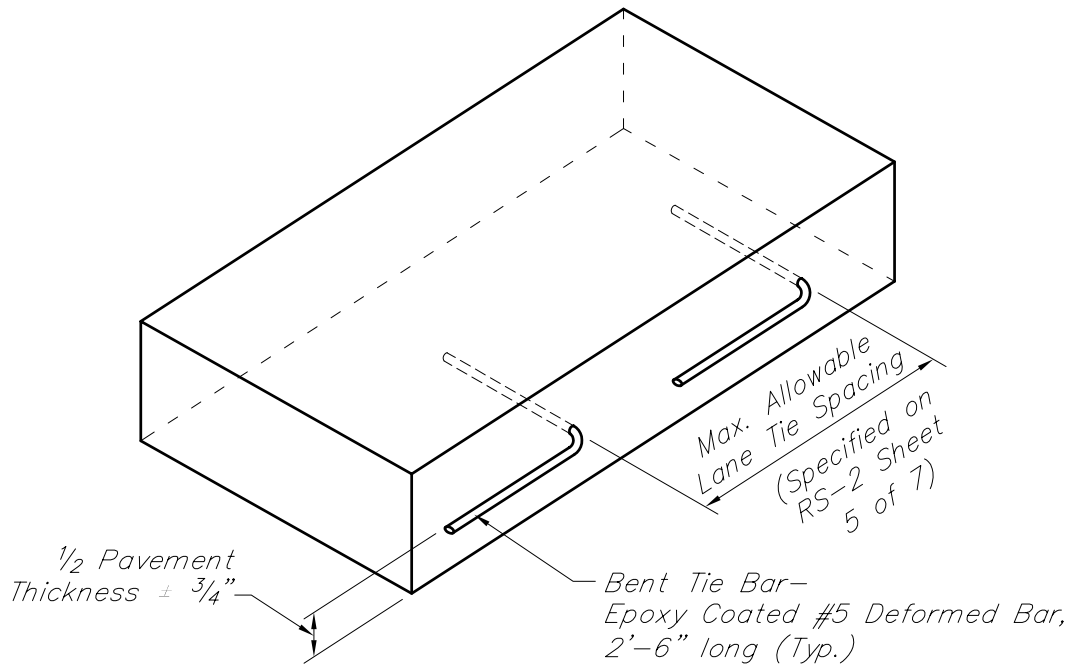
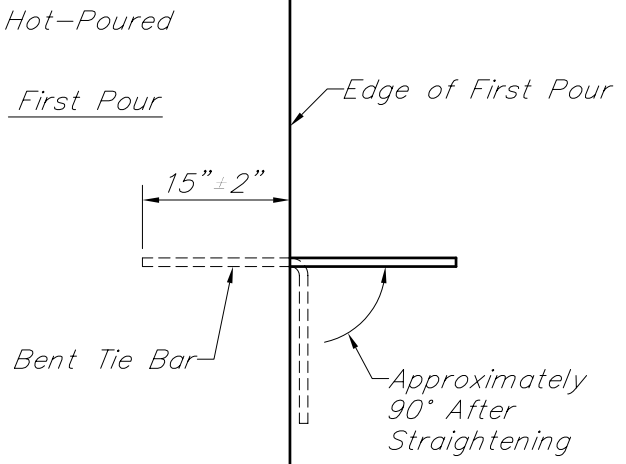
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LONGITUDINAL FORMED BULKHEAD CONSTRUCTION JOINT WITH LANE TIES (B)

Joint Symbol – B



SAWED JOINT SEALED WITH
HOT-POURED RUBBER ASPHALT



All Symbol B Joints Shall be Sawed and Sealed Except Joints Without Lane Ties and Joints Adjacent to Vertical Faces Which Would Prohibit Sawing.

REVISION DATE: 08/01/07

Work This Sheet with the General Notes on RS-1

DIRECTOR OF ENGINEERING

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WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

PAVEMENT JOINTS

SCALE
NOT TO SCALE

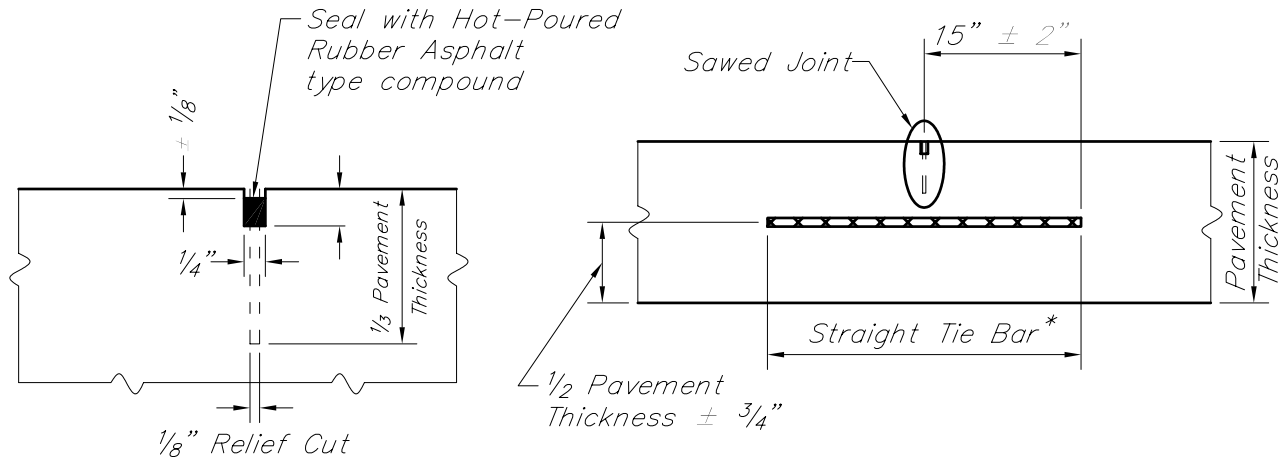
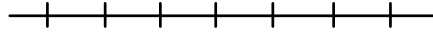
RS-2

SHEET
4 OF 7

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LONGITUDINAL LANE TIE JOINT (D)

Joint Symbol - D



SAWED JOINT SEALED WITH
HOT-POURED RUBBER ASPHALT

* Epoxy Coated #5 Deformed Bar
30" Long (See below for Max.
Allowable Lane Tie Spacing)

All Symbol D Tie Bars Shall be Placed at the Proper Spacing Longitudinally,
and Transversely at 90° with the Joint.

MAXIMUM ALLOWABLE LANE TIE SPACING

MAX. ALLOWABLE LANE TIE SPACING SYMBOLS B AND D		TOTAL DISTANCE OF TIED JOINT FROM NEAREST FREE EDGE **
B Grade 40	D Grade 60	
2'-10"	3'-7"	12' or less
1'-11"	2'-7"	over 12' through 17'
1'-5"	1'-11"	over 17' through 24'
1'-2"	1'-9"	over 24' through 28'
1'-2"	1'-4"	over 28' through 36'
1'-1"	1'-1"	36' or greater ***

** Includes any Tied Combination
of Lane Width, Valley Gutter,
Curb & Gutter, or Shoulder.

*** For Widths Greater than 48' use
#6 Deformed Bars at 1'-2"
Spacing.

REVISION DATE: 08/01/07

Work This Sheet with the General Notes on RS-1

DIRECTOR OF ENGINEERING

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WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

PAVEMENT JOINTS

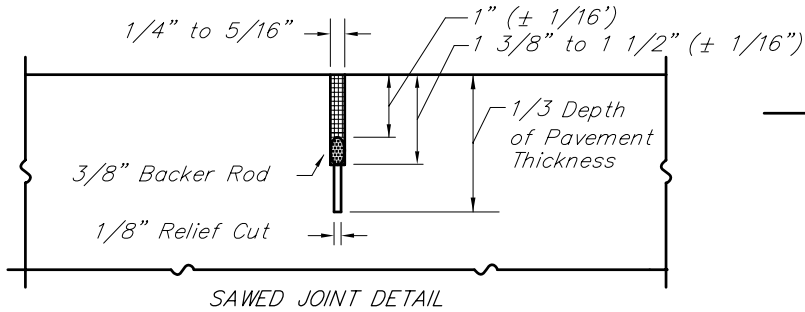
SCALE
NOT TO SCALE

RS-2

SHEET
5 OF 7

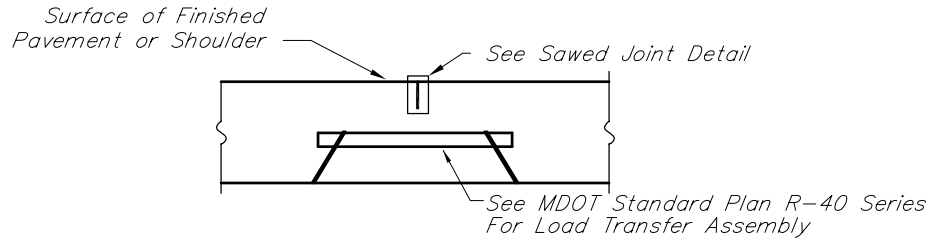
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TRANSVERSE CONTRACTION JOINT (C)

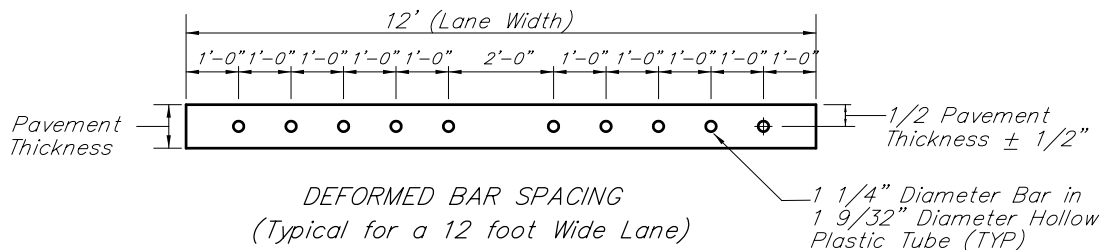
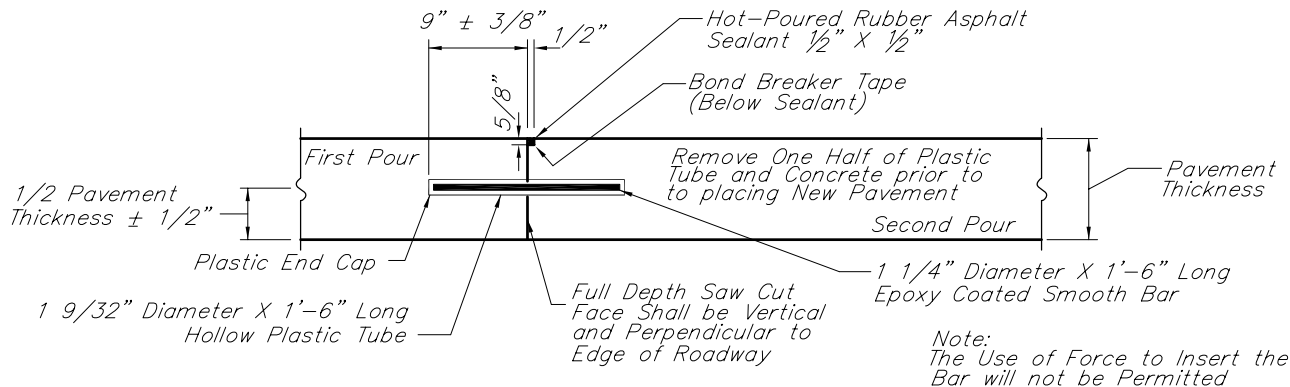


Joint Symbol - C

Sawed Joint Sealed with Low Modulus Hot-Poured Rubber Asphalt Type Joint Sealing Compound.



TRANSVERSE END OF POUR JOINT (H) PLASTIC TUBE METHOD



REVISION DATE: 08/01/07

Work This Sheet with the General Notes on RS-1

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

SCALE
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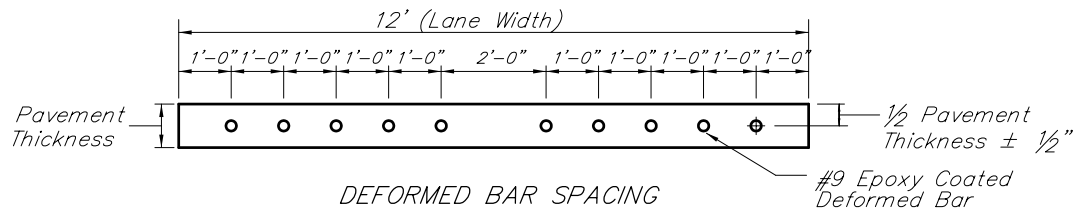
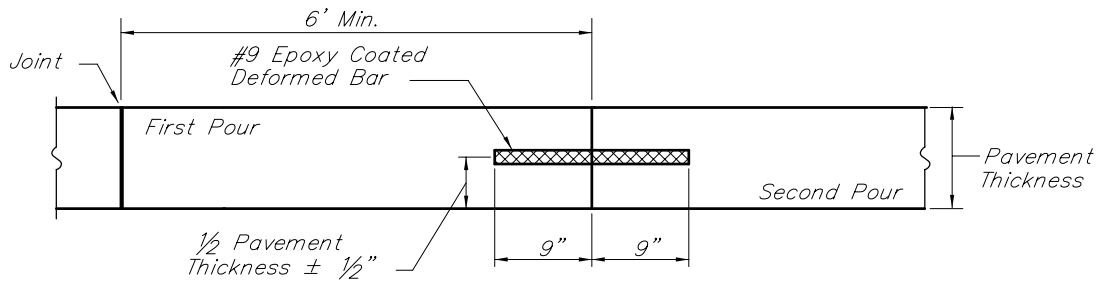
RS-2

SHEET
6 OF 7

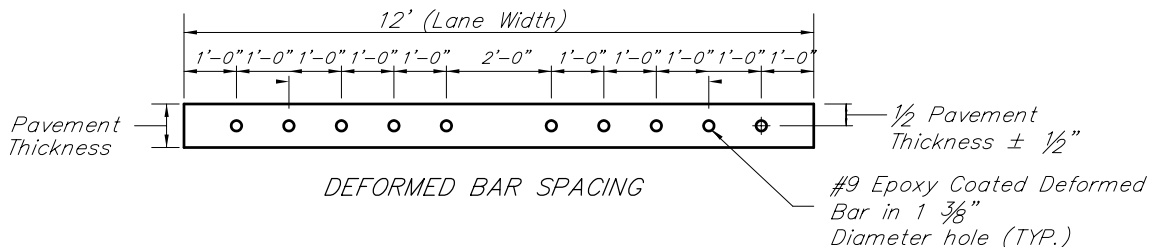
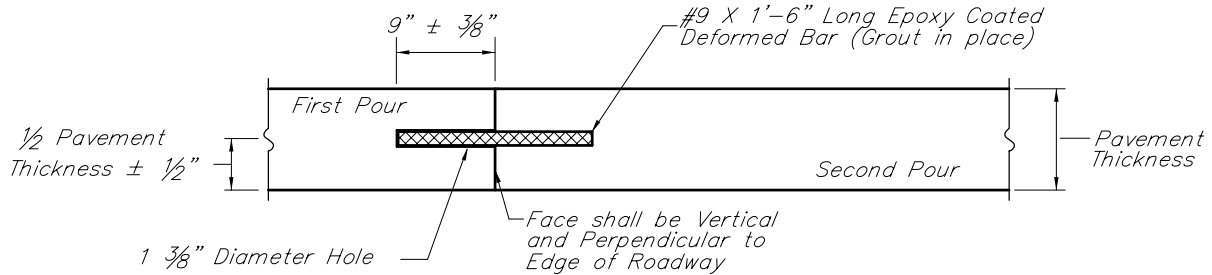
PAVEMENT JOINTS

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TRANSVERSE END OF POUR JOINT (H) SPLIT HEADER METHOD



TRANSVERSE END OF POUR JOINT (H) DRILLED IN METHOD



Note:

The Hole Spacing may be Adjusted 1" Horizontally, Raised 1/2", or Lowered 1" from the Above Locations to Avoid Drilling into the Reinforcement.

REVISION DATE: 08/01/07

Work This Sheet with the General Notes on RS-1

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

PAVEMENT JOINTS

SCALE
NOT TO SCALE

RS-2

SHEET
7 OF 7

DIRECTOR OF ENGINEERING

DIVISION PERMIT ENGINEER

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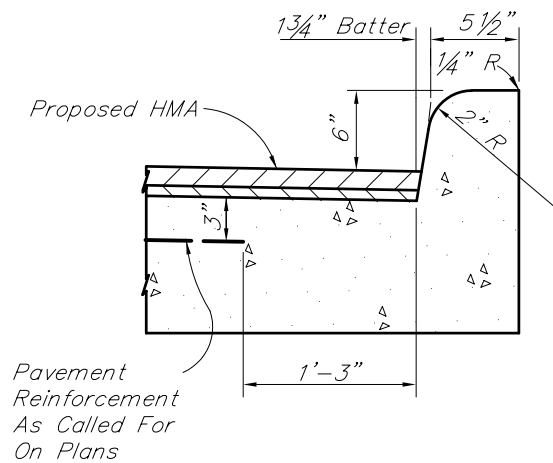
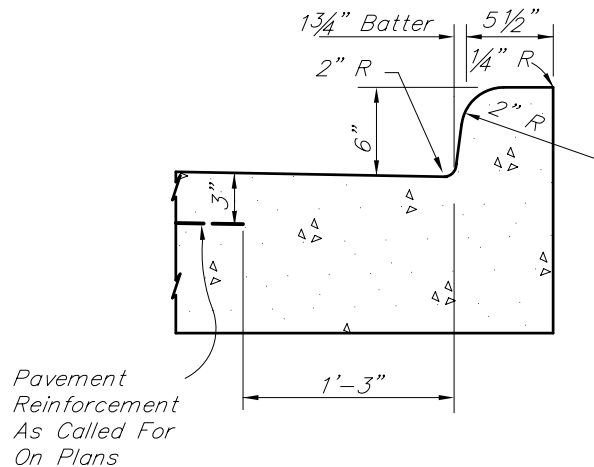
All transverse joints in the concrete pavement shall extend entirely through the integral curb and be of the same kind and thickness as provided for the pavement.

The joint material shall be pre-cut so as to conform to the geometric shape and cross sectional area of the curb, and shall be placed in contact with the filler material in the pavement.

Integral curbs, which are placed as part of a concrete base course pavement shall have transverse plane of weakness joints, formed by placing a pre-molded bituminous filler $\frac{1}{4}$ inch thick, entirely through the curb, in exact alignment with all joints in the base course pavement. The joint material shall be pre-cut so as to conform to the geometric shape and cross sectional area of the curb.

The edges of all transverse joints in the integral curb shall be rounded with an approved finishing tool having a radius of $\frac{1}{4}$ inch.

INTEGRAL STRAIGHT CURB



CONCRETE PAVEMENT

TYPE 3

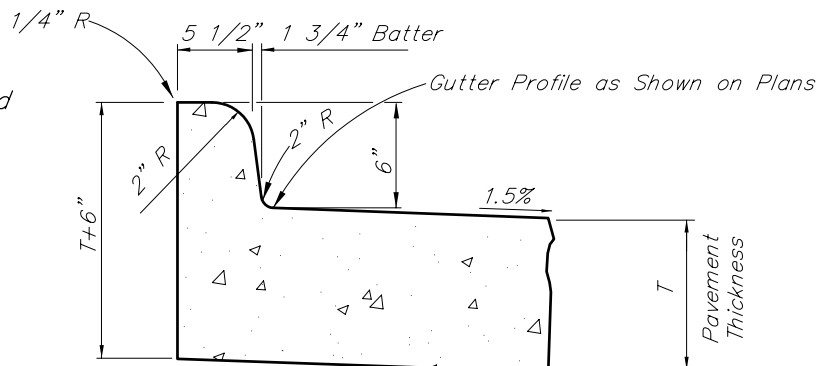
CONCRETE BASE COURSE

TYPE 4

INTEGRAL STRAIGHT CURB W/REVERSE GUTTER PAN

Note:

Reverse Gutter Pan to be used on Island within Cul-De-Sacs and Eyebrows as indicated on Intersection details.



REVISION DATE: 08/01/07

Work This Sheet with the General Notes on RS-1

DIRECTOR OF ENGINEERING

DIVISION PERMIT ENGINEER

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

CURB AND CURB & GUTTER DETAILS

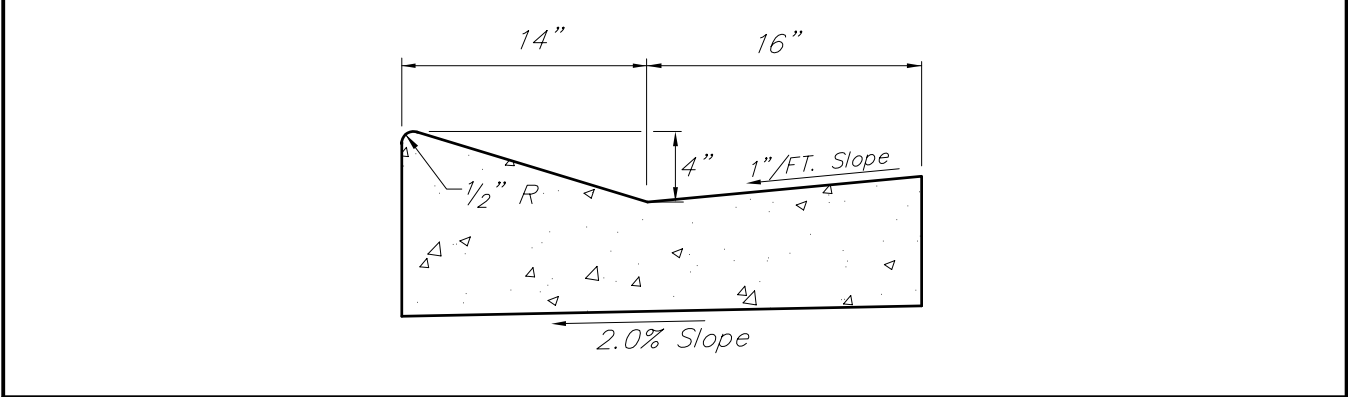
SCALE
NOT TO SCALE

RS-3

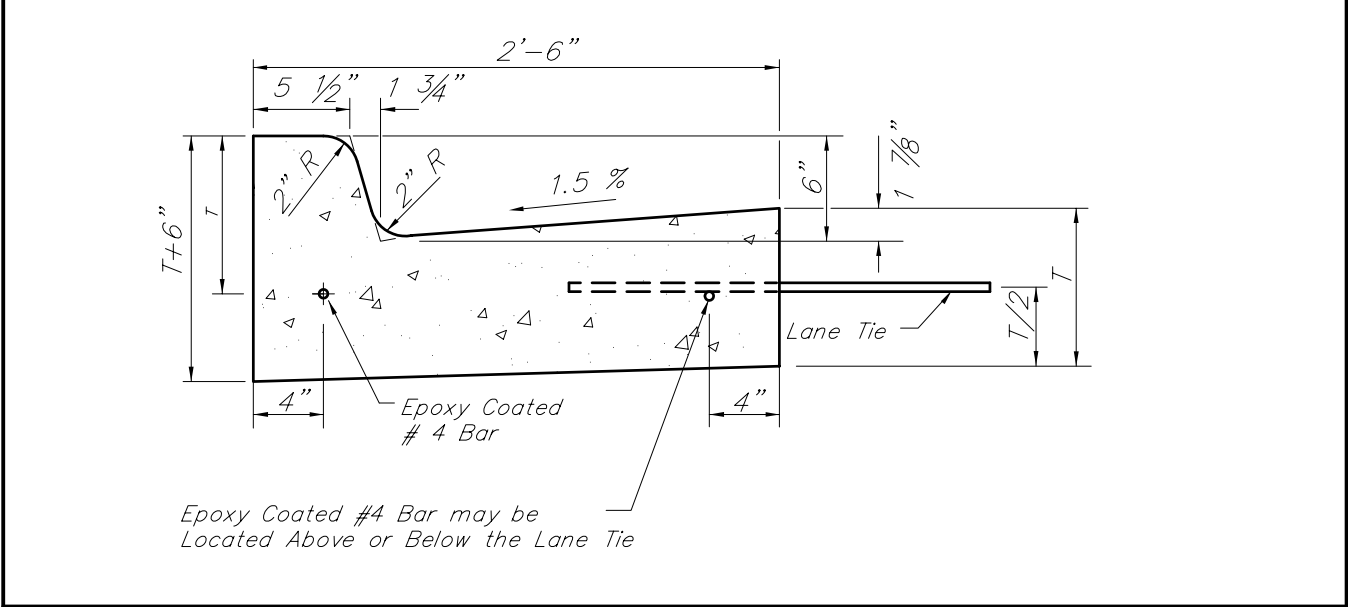
SHEET
1 OF 3

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MOUNTABLE CURB AND GUTTER



STRAIGHT CURB AND GUTTER



PLANE OF WEAKNESS JOINTS SHALL BE PLACED BETWEEN EXPANSION JOINTS AT APPROXIMATELY 10' INTERVALS.

MATCH CONCRETE PAVEMENT JOINTS NOT TO EXCEED 25' SPACINGS.

OMIT LANE TIES WHEN PLACING CURB NEXT TO HMA PAVEMENT.

REVISION DATE: 08/01/07 *WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1*

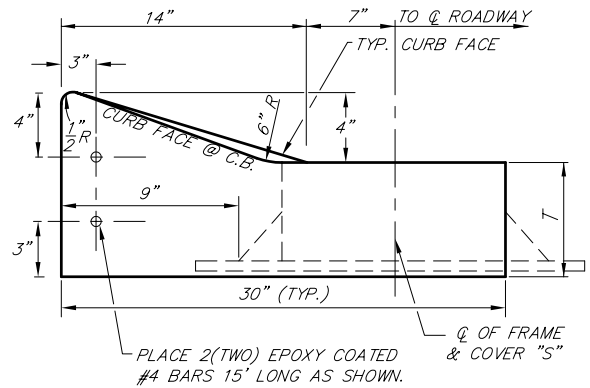
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WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS
CURB AND CURB & GUTTER DETAILS

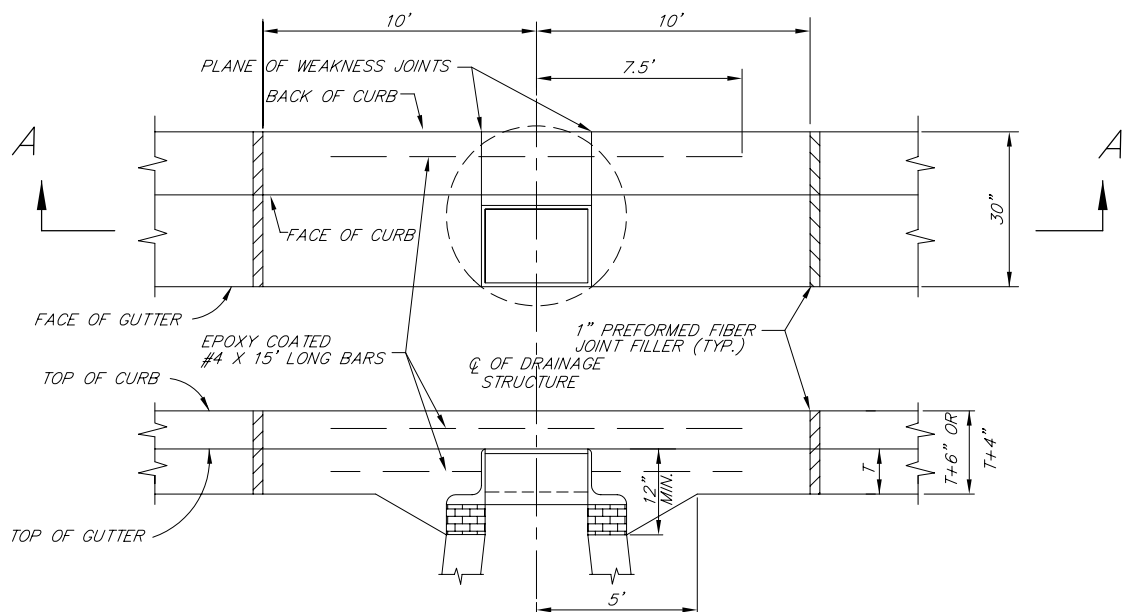
RS-3

SHEET
2 OF 3

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MOUNTABLE CURB & GUTTER



SECTION A - A

WORK THIS SHEET WITH "S" SERIES STANDARDS.

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

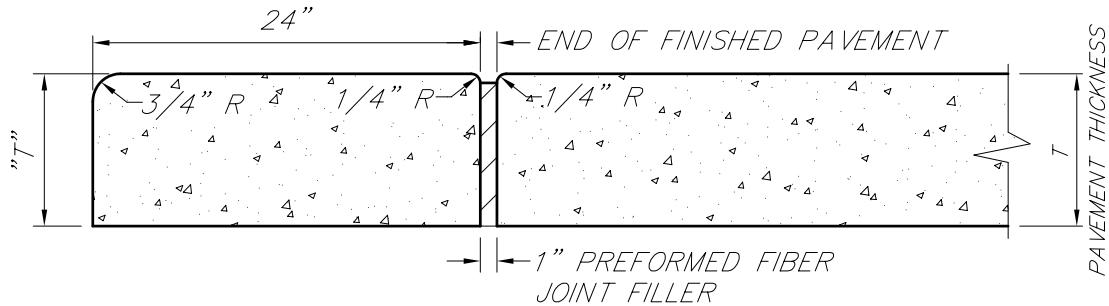
CURB AND CURB & GUTTER DETAILS

RS-3

SHEET
3 OF 3

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END HEADER DETAIL



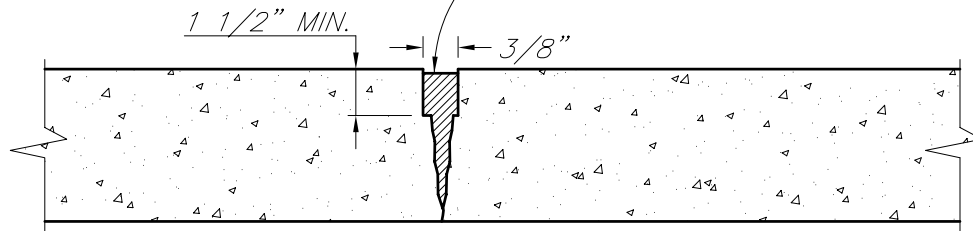
GRADE P1 CONCRETE
(3500 PSI-28 DAY
COMPRESSIVE STRENGTH)

CONCRETE END HEADERS
SHALL BE PLACED AT THE
ENDS OF ALL PAVEMENTS.

CONCRETE ROUTING

ROUTED JOINT TO BE CLEANED
BY A COMPRESSED AIR METHOD.

CONCRETE ROUTING
FILL WITH HOT POURED
RUBBER TO WITHIN 1/8"
OF THE PAVEMENT SURFACE.



THIS DETAIL SHALL ONLY BE UTILIZED AS DETERMINED BY THE
WAYNE COUNTY ENGINEER IN LIEU OF PAVEMENT REMOVAL.

REVISION DATE: 08/01/07

WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1

DIRECTOR OF ENGINEERING

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

SCALE
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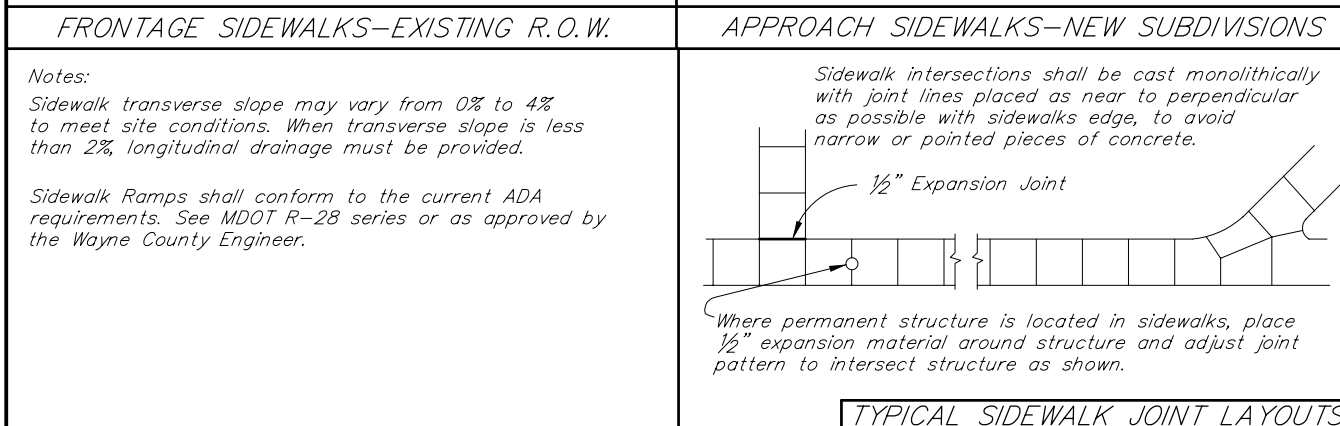
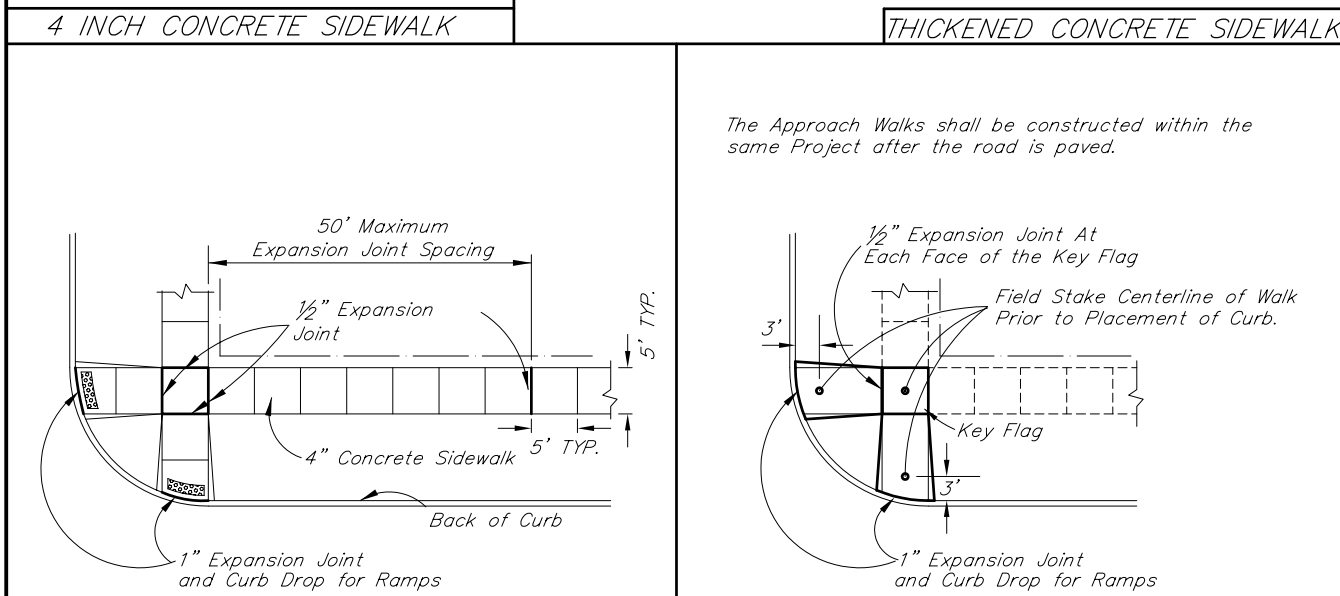
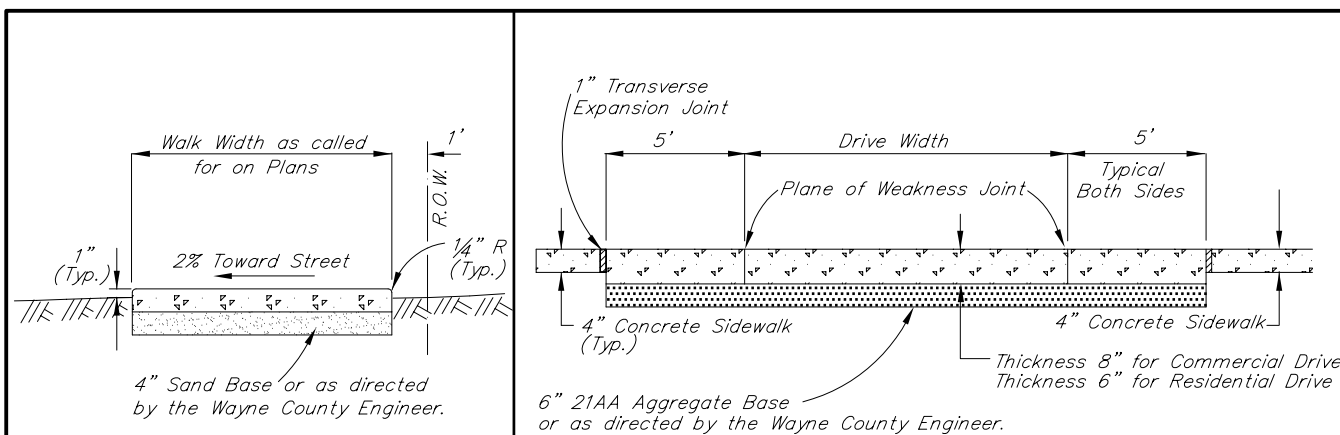
RS-4

DIVISION PERMIT ENGINEER

END HEADER & CONCRETE ROUTING DETAILS

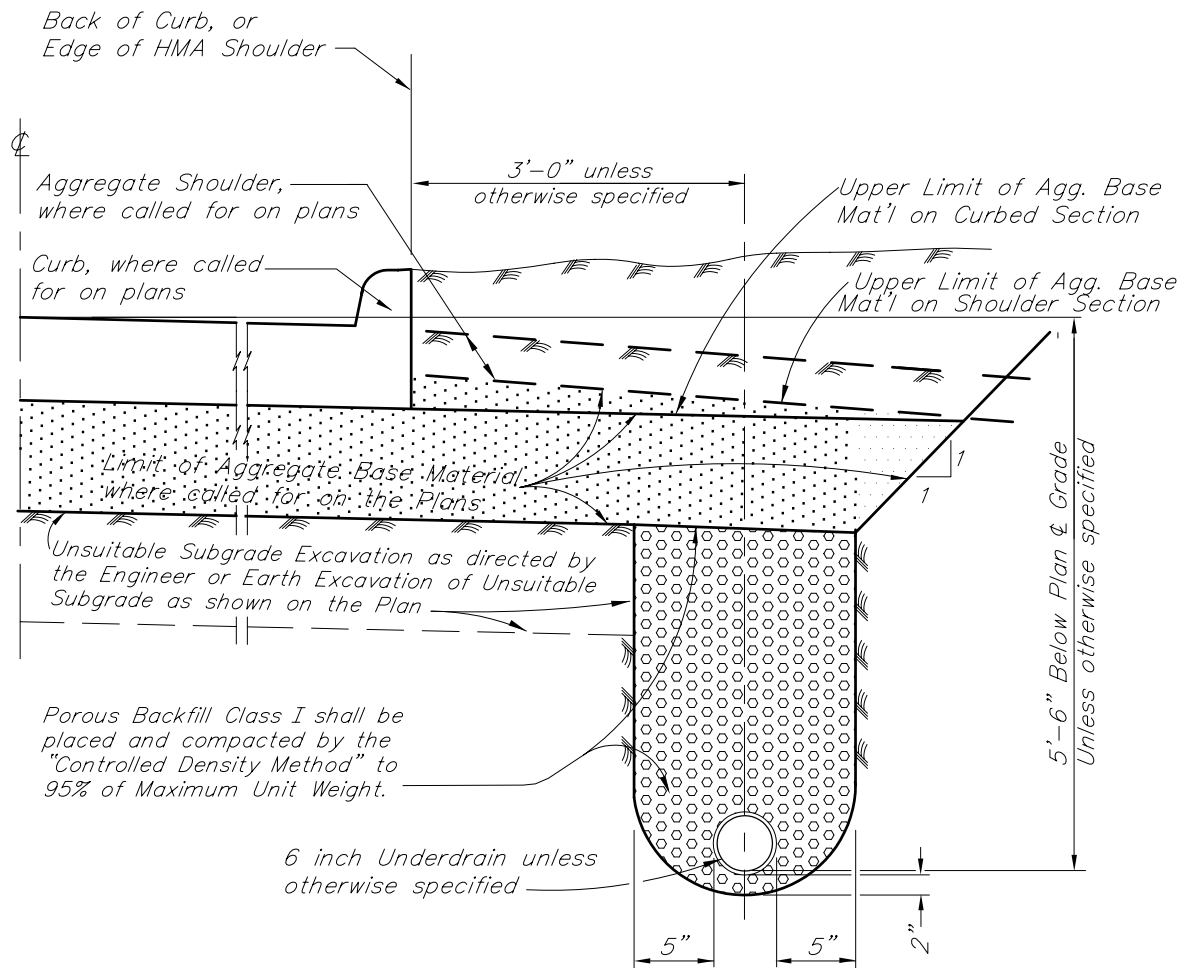
SHEET
1 OF 1

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DIRECTOR OF ENGINEERING			WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS		
DIVISION PERMIT ENGINEER			SCALE NOT TO SCALE		
CONCRETE SIDEWALK			RS-5		
			SHEET 1 OF 1		

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Subgrade Undercutting will not include the area of the Subgrade Underdrain Trench

Replacement of Underdrain backfill in areas of Subgrade Undercutting is included in the undercut backfill. When Porous Material for backfill of Subgrade Undercutting is used, it will be allowed over the Underdrain Trench.

REVISION DATE: 08/01/07

Work this Sheet with the General Notes on Standard Plan S-1

DIRECTOR OF ENGINEERING

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS

SCALE
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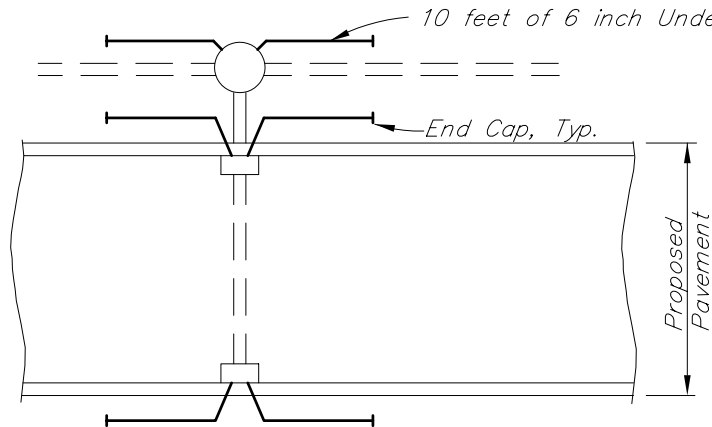
S-14

DIVISION PERMIT ENGINEER

UNDERDRAIN

SHEET
1 OF 2

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This detail is to be used at all drainage structures where Subgrade Underdrain is not specified on the plans.

Provide 10 feet of 6 inch Underdrain parallel to the edge of the pavement in each direction at each drainage structure. The invert of the underdrain is to be at the mid-point of the outlet sewer (minimum) or 5.5 feet below the top of pavement centerline elevation, max.

REVISION DATE: 08/01/07	Work this Sheet with the General Notes on Standard Plan S-1	
DIRECTOR OF ENGINEERING	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE PERMIT STANDARDS UNDERDRAIN	SCALE NOT TO SCALE
DIVISION PERMIT ENGINEER		S-14
		SHEET 2 OF 2

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PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____
_____ as Principal and

_____ as Surety or Sureties, are held and firmly bound unto the CITY OF LIVONIA, Wayne County, Michigan, in the sum of _____
_____ (\$ _____) for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION of the foregoing obligation is such that, whereas the said _____

_____ did on the _____ day of _____, 20_____, by articles of that date, enter into a Contract with the said CITY OF LIVONIA for the construction of the **2026 Sidewalk Program – Contract #26-G.**

NOW THEREFORE, if the said _____ shall well and faithfully do and perform all things agreed to be done and performed by said Contract, according to the terms thereof, then this obligation shall be void, but otherwise, it shall remain in full force and effect.

PROVIDED, that any alterations which may be made in the terms of the Contract or in the work to be done under it, or the granting by the said CITY OF LIVONIA of any extension of time for the performance of the Contract or any other forbearance on either the part of said CITY OF LIVONIA or the Principal, to the other, shall not in any way release the Principal and Surety or Sureties, or either, or any of them, their heirs, executors, administrators, successors, or assigns, from their liability hereunder, notice to the Surety or Sureties of any such alteration, extension of forbearance being hereby waived.

WITNESS, our hands and seals, this _____ day of _____, 20_____

Signed, sealed and delivered in the _____

Presence of: _____ By _____

_____ By _____

LABOR AND MATERIALS BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____

_____ as Principal and

as Surety or Sureties, are held and firmly bound unto the CITY OF LIVONIA, Wayne County,
Michigan, in the sum of _____

_____ (\$ _____) for the payment of which,

well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors,
administrators, successors and assigns.

THE CONDITION of the foregoing obligation is such that, whereas the said _____

_____ did on the _____ day of _____, 20____, by articles of that date, enter into a

Contract with the said CITY OF LIVONIA for the construction of the **2026 Sidewalk Program -**

Contract #26-G and the payment for all labor and materials used therein.

NOW THEREFORE, if the said _____

shall pay for all labor and materials used in the fulfillment of said Contract, and shall pay for
subcontractors doing work thereon, and shall indemnify and save harmless the said CITY OF
LIVONIA from and against all damages by reason of liens for labor or materials furnished thereof,
then this obligation shall be void, but otherwise it shall remain in full force and effect.

PROVIDED, that any alterations which may be made in the terms of the Contract or in the work to
be done under it, or the granting by the said CITY OF LIVONIA of any extension of time for the
performance of the Contract or any other forbearance on either the part of said CITY OF LIVONIA
or the Principal, to the other, shall not in any way release the Principal and Surety or Sureties, or
either, or any of them, their heirs, executors, administrators, successors, or assigns, from their
liability hereunder, notice to the Surety or Sureties of any such alteration, extension of
forbearance being hereby waived.

WITNESS, our hands and seals, this _____ day of _____, 20_____

Signed, sealed and delivered in the _____

Presence of: _____ By _____

_____ By _____

MAINTENANCE AND GUARANTEE BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____

_____ as Principal and

_____ as Surety or Sureties, are held and firmly bound unto the CITY OF LIVONIA, Wayne County, Michigan, in the sum of _____

_____ (\$ _____) for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION of the foregoing obligation is such that, whereas the Principal did on the _____ day of _____, 20____, by articles of that date, enter into a Contract with the said CITY OF LIVONIA for the construction of the **2026 Sidewalk Program –**

Contract #26-G and, as a condition precedent to receiving final payment on said Contract, to execute the Bond herein described.

NOW THEREFORE, the Principal guarantees that for a period of one (1) year from the date of the final estimate he will, without cost to the City, keep in good order and repair any defect in the work done under said Contract by his employees, agents, subcontractors, or material suppliers, that may develop during said time due to improper materials, defective equipment, workmanship or arrangements, and that he will likewise restore to good condition any work disturbed while correcting such defects, excepting only such part or parts of said work which may have been disturbed without his consent or approval after acceptance thereof by the CITY; and that whenever directed to do so by the CITY, through written notice served personally or by mail upon the Principal at _____

_____ or upon the Surety or Sureties at _____

_____ he will proceed at once to make the repairs specified, and in case of failure to do so, within one (1) week from the date of service of said notice or such additional time as may be fixed therein, the CITY shall have the right to purchase such materials and employ such labor and equipment as may be necessary; to undertake, do and make such repairs, and to be reimbursed by the

MAINTENANCE AND GUARANTEE BOND

Principal, Surety or Sureties for the full expense thereof. If it is necessary to make any repair or set a barricade at once to protect life and property, the CITY may take such action immediately, without notice to the Principal, Surety or Sureties. The CITY shall not be obliged to obtain the lowest bids for doing the work, or any part thereof, but the sums actually therefore shall be reimbursed by either the Principal, Surety or Sureties. In this connection, the judgment of the CITY shall be final and conclusive. If the Principal, for a period of one (1) year from the date of the final payment, shall keep the work done under the aforesaid Contract in good order and repair, excepting only such part or parts of said work which may have been disturbed without his consent or approval after acceptance there by the CITY, and shall, whenever given notice as herein provided, immediately proceed to make specified repairs, or, in default thereof, shall reimburse the CITY for expenses incurred in making such repairs, and shall fully indemnify, defend and save the CITY harmless from all suits and actions for damages of every name and description brought or claimed against it, for or on account of any injury or damage to person or property received or sustained by any party or parties, by or from any of the acts or omissions or through the negligence of the Principal's employees, agents, subcontractors or material suppliers in the performance of the work required by said Contract, and from any and all claims arising under the Workman's Compensation Act of the State of Michigan, as amended, then the above obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this _____ day of _____, A.D. 20____.

Signed, Sealed and Delivered in the Presence of:

	(L.S.)
	(L.S.)
	(L.S.)

CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period _____
to _____, A.D. 20_____, performed any work, furnished any
material, sustained any loss, damage or delay for any reason, including soil conditions
encountered or created, or otherwise done anything for which I shall ask, demand, sue for, or
claim compensation from the City of Livonia, the Owner, or its agents, in addition to the regular
items set forth in the contract numbered _____, and dated
_____, A.D., 20_____,
for the _____
executed between myself and the City of Livonia, and in the Change Orders for work issued by
the City of Livonia in writing as provided thereunder, except as I hereby make claim for
additional compensation and/or extension of time, as set forth on the itemized statement
attached hereto.

There is/is not (circle one) an itemized statement attached.

The Contractor further certifies that all his indebtedness for labor and material incorporated in
the work covered by this estimate has been fully paid and/or satisfactory arrangements with
material supplies have been made.

Contractor: _____

By: _____

Title: _____

Date: _____

CONTRACTOR'S AFFIDAVIT

STATE OF MICHIGAN

COUNTY OF _____

The undersigned Contractor, _____,
hereby represents that on _____ he (it) was awarded a Contract by
the City of Livonia, Wayne County, Michigan, to _____

_____ in accordance with the terms and conditions of the _____,
_____ and the undersigned further represents that
the subject work has now been accomplished and the said Contract has now been completed.

The undersigned hereby warrants and certifies that all of his (its) indebtedness arising by
reason of the said Contract has been fully paid or satisfactorily secured; and that all claims from
subcontractors and others for labor and material used in accomplishing the said project, as well
as all other claims arising from the performance of said Contract, have been fully paid or
satisfactorily settled. The undersigned further agrees that, if any such claim should hereafter
arise, he (it) shall assume responsibility from the same immediately upon request to do so by
the said City of Livonia.

The undersigned, for a valuable consideration, the receipt of which is hereby acknowledged,
does waive, release, and relinquish any and all claims of right of lien which he (it) now has or
may hereafter acquire upon the subject premises for labor and material used in accomplishing
said project owned by the said City of Livonia.

This affidavit is freely and voluntarily given with full knowledge of the fact, on this this
_____ day of _____, 20_____.

Subscribed and sworn to before me on this
_____ day of _____,
20_____.

My Commission Expires: _____

Contractor: _____

By: _____

Notary Public _____ County, MI

Title: _____

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
CONTRACT

THIS CONTRACT, entered into this _____ day of _____,
A.D. 20_____, between the CITY OF LIVONIA, hereinafter referred to as the Owner, party of
the first part, and

Rotondo Construction Corp.

hereinafter referred to as the Contractor, party of the second part.

WITNESSETH, that the said Contractor, for the consideration mentioned in the various
items set forth below, by these presents does agree that he will furnish all labor, materials,
machinery, tools, and equipment and do all things necessary for and incidental to the

2026 Sidewalk Replacement Program

(Contract #26-G)

together with appurtenances thereto, as set forth in certain Notice to Bidders, Proposal, General
Conditions, Specifications, Bonds, Plans, Drawings, and the following documents, all of which
are attached hereto and made a part of this agreement:

None

IN CONSIDERATION WHEREOF, said Owner does agree to pay to said Contractor the
not to exceed sum of _____
_____ (\$_____) based upon the amounts and sum listed in the
Form of Proposal; which is subject, however, to adjustment by reason of any change in, addition
to or deduction from the work, as provided in the General Conditions.

For the faithful performance of all and singular terms and stipulations contained in this
agreement, said parties respectively bind themselves, their heirs, executors, administrators,
successors, and assigns.

2026 SIDEWALK PROGRAM
CITY OF LIVONIA, MICHIGAN
CONTRACT 26-G
CONTRACT

IN WITNESS HEREOF, said parties have this day hereunto set their hands and seals, in triplicate.

Witnesses for City:

CITY OF LIVONIA, OWNER

Maureen Miller Brosnan
Mayor

Lori L. Miller
City Clerk

Witnesses for Contractor:

Rotondo Construction Corp.

By: _____

Print Name and Title

APPROVED:

Donald R. Rohraff
Director of Public Works

Todd J. Zilincik, P.E.
City Engineer

Director of Finance

APPROVED AS TO FORM:

Department of Law

November 18, 2024, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is approved for submission by the Mayor, the Council does hereby authorize the Mayor and City Clerk to execute a contract extension, for and on behalf of the City of Livonia, with Engineered Comfort Systems, Inc., 12480 Allen Road., Taylor, MI 48180, pursuant to Council resolution 304-24, adopted on September 9, 2024, to include the Livonia Police Department Headquarters HVAC chiller installation, in an amount not to exceed \$156,243.50, and waives the building inspection fees associated therewith; FURTHER, the Council does hereby authorize an appropriation and expenditure in an amount not to exceed \$156,243.50 from Account No: 401-000-976-000 (Capital Projects) for this purpose; FURTHER, the Council does hereby authorize such action without competitive bidding for the reasons indicated in the aforesaid communication, and such action is taken in accordance with Section 3.04.140.E.3 of the Livonia Code of Ordinances, as amended; and the City Engineer is hereby authorized to approve minor adjustments in the work as it becomes necessary but this authorization does not entitle the City Engineer to authorize any increase in the not to exceed amount or to contract with other parties; and the City Clerk is hereby requested to do all other things necessary or incidental to the full performance of this resolution.

#95-25 RESOLVED, that having considered a communication from the City Engineer, dated February 24, 2025, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is approved for submission by the Mayor, the Council does hereby authorize and accept the quote of Joe Rotondo Construction Corp., 38807 Ann Arbor Road, Suite 2, Livonia, Michigan 48150 ("Rotondo"), for performing all work required in connection with the 2025 Sidewalk Repair Program (Contract 25-G) by extending their Contract 24-G unit prices for contract 25-G, and determines as follows:

1. Livonia Code of Ordinances, as amended, since no advantage to the To waive the formal bidding process under Section 3.04.140.E.3 of the City would result from competitive bidding;
2. To extend Contract 24-G unit prices for Contract 25-G, 2025 Sidewalk Repair Program in an amount not to exceed \$1,054,347.50 to Joe Rotondo Construction Corp., 38807 Ann Arbor Road, Suite 2, Livonia, MI 48150, on the basis of the bid unit prices from 2024, Contract 24-G, with the exception of revised unit prices for bid items 1, 2, and 3 (concrete sidewalk of various thickness of 4, 6 or 8-inches and agreed upon inspector days of

110 based on quantities) said amount to be adjusted based upon the quantities of work actually completed;

3. To authorize a payment not-to-exceed \$30,000.00 to Precision Concrete Inc., 1896 Goldeneye Drive, Holland, MI 49424 for the saw-cutting portion of the contract;

4. To authorize an advance in an amount not to exceed \$272,782.25 (single lot assessments portion of the program) from the Road, Sidewalk and Tree Fund with the provision that this fund be reimbursed from that portion of the project, which is to be financed by special assessment at such time as funds are subsequently received for the payment of bills as assessments by affected property owners;

5. To authorize an expenditure from budgeted funds in an amount not to exceed \$10,000.00 from Account No. 202-451-977-010 (Major Road – Dist. Sidewalk Cost) and \$97,000.00 from Account No. 203-451-977-010 (Local Road - Dist. Sidewalk Cost) to cover the costs related to the construction or reconstruction of handicap ramps at major and local roads;

6. To authorize an expenditure in an amount not to exceed \$60,000.00 from the Unexpended Fund Balance of the Water and Sewer Fund for sidewalk work adjacent to and including water and sewer structure repairs;

7. To authorize an expenditure in an amount not to exceed \$750,000.00 to repair sidewalks heaved by tree roots from budgeted funds in the Road, Sidewalk and Tree Fund (Account No. 204-447-977-010 Distributed Sidewalk Cost) for the 2025 Sidewalk Repairs;

8. To authorize the City Engineer to approve minor adjustments in the work, as it becomes necessary but this authorization does not entitle the City Engineer to authorize any increase in the not to exceed amount or to contract with other parties; and

9. To authorize the Mayor and City Clerk to execute a contract for and on behalf of the City of Livonia with the aforesaid bidder and to do all other things necessary or incidental to the full performance of this resolution.

#96-25 RESOLVED, that having considered the report and recommendation of the Assistant City Engineer, dated February 28, 2025, submitted pursuant to Council Resolution 220-24, adopted on June 17, 2024, which bears the signatures of the Director of Public Works, the Director of Finance and the City Attorney, and is



LETTER TO THE LIVONIA CITY COUNCIL

8.

Council Office
January 15, 2026

MEETING DATE

R012626

PRESENTED BY

AGENDA ITEM

REQUEST TO REFER THE SUBJECT MATTER OF CONDUCTING COUNCIL MEETINGS VIA ZOOM TO COMMITTEE OF THE WHOLE: Council Vice President Patrick Brockway, re: to allow Council meetings to be conducted in person in conjunction with a virtual option.

BACKGROUND DETAILS

At the Study Meeting of January 14, 2026, Council Vice President, Patrick Brockway offered the request to put the subject matter of conducting Council meetings via Zoom in Committee of the Whole.

PREFERRED COUNCIL RECOMMENDATION/RESOLUTION (Please complete this field. Attachments are not to be used in lieu of the recommendation)

To approve request as submitted for the sake of discussion.

ATTACHMENTS

None

APPROVED BY



LETTER TO THE LIVONIA CITY COUNCIL

9.

Parks and Recreation January 9, 2026

MEETING DATE

January 26, 2026 Regular

PRESENTED BY

Ted Davis, CPRP, Superintendent of Parks and Recreation

AGENDA ITEM

ACCEPTANCE OF DONATIONS: Department of Parks and Recreation, re: cash and gifts from various contributors to be used for the purposes as designated by donors.

BACKGROUND DETAILS

The Department of Parks and Recreation has received the attached donations. In accordance with IRC Sec. 170(c)(1), the City of Livonia is in receipt of these donations and will use them exclusively for public purposes. The City of Livonia has not furnished any benefits or provided services to be valued in consideration of these gifts.

PREFERRED COUNCIL RECOMMENDATION/RESOLUTION (Please complete this field. Attachments are not to be used in lieu of the recommendation)

We respectfully request that the Livonia City Council accept these donations.

SPECIFIC NAME OF PRODUCT AND NUMBER TO BE PURCHASED (if more than one)

N/A

CONTRACT: Amount and/or purchase price and length of contract (with dates if applicable)

N/A

DETAILED WORK BEING PERFORMED

N/A

FISCAL CONSIDERATIONS (Amount requested and Account(s) used. If applicable, Grant Funding information)

The Department further requests that Council does hereby credit \$1,995 to 211-000-674-216, \$7,940 to 270-000-674-010 and \$40,000 to 208-000-674-010.

ACCEPTANCE OF BID (Please detail the following: Why accepted, why not lowest bidder, company name, contact person, full address)

N/A

REASON TO WAIVE BID PROCESS (Emergency, Professional services, No advantage to City and why, Consortium package, etc): N/A

ATTACHMENTS

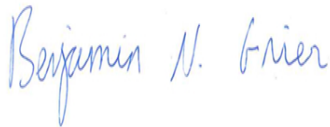
1. Acceptance of Donations 2025 List

APPROVED BY



Ted Davis, CPRP, Superintendent of Parks and Recreation

Date: January 09, 2026



Benjamin N. Grier, JD, CPA, Finance Director

Date: January 09, 2026



Maureen Miller Brosnan, Mayor

Date: January 12, 2026

Parks and Recreation Donations 2025

Donor	Cash Donations	Reason
Dennis & Evelyn Goudreau	\$50	Tax Prep
Gail Lovrince	\$25	Tax Prep
Eugene Prellwitz	\$25	Tax Prep
Seniors over Sixty	\$100	Donation
Livonia Anniversary Committee	\$1,000	Grant/Donation
Eileen Blough	\$100	Memorial
Livonia Travel Club	\$600	Donation
Anonymous	\$20	Donation
Ralph Brown	\$75	BINGO Donation
Anonymous	\$6,808	Night of Lights
Anonymous	\$75	Donation
Rich Nemith	\$40	In memory of Joan Ettinger
Edward Dombrowski 31850 N. Vista Dr, Livonia	\$15	Barn
Elmwood Questers	\$300	Donation
Sauk Trail #573 Questers	\$200	Donation
Anonymous	\$67	Sunday Tour Donations
Global Education-Stevenson H.S., 33500 Six Mile, Livonia	\$435	Towards ramp for Newburg School
Coach's Corner 36000 Seven Mile, Livonia	\$3,500	Team Sponsorships
Boy Scout Troup #326	\$700	Ben Celani Park
Dave MacFarland MacFarland & Company Home Sales 39500 Orchard Hill Pl Suite #100 Novi, MI 48375	\$1,500	Livonia AIR Programs
Livonia Community Foundation 33300 Five Mile Road, Suite 105, Livonia, MI	\$2,000	Holiday Parade
Livonia Arts Commission 15100 Hubbard Livonia, MI 48154	\$1,050	Kid's concerts
Livonia Arts Commission 15100 Hubbard Livonia, MI 48154	\$5,500	Shelden Park Bench
Livonia Arts Commission 15100 Hubbard Livonia, MI 48154	\$2,000	AIR Event
Livonia Arts Commission 15100 Hubbard Livonia, MI 48154	\$750	Night of Lights Magician
TrinityElite Sports Performance 13245 Newburgh, Livonia	\$20,000	100 Days to Health

Christian Financial Credit Union, 33036 W. Seven Mile, Livonia, MI	\$1,500	Big Picnic
Christian Financial Credit Union, 33036 W. Seven Mile, Livonia, MI	\$1,500	Turkey Trot
Donor	In Kind Donations	Reason
The Flag Shop 11665 Levan Rd., Livonia, MI	1 Ogio Sling Backpack 2 American Flags, Carhartt lunch cooler, 2 Stanley tumblers	Turkey Trot
Thomas's Dining & Catering 33971 Plymouth Rd, Livonia, MI	\$80 in Gift Certificates	Turkey Trot
George's Senate Coney Island, 39430 Dun Rovin Drive, Northville, MI	\$100 in Gift Certificates	Turkey Trot
Las Palapas 33308 Plymouth Rd, Livonia	\$120 in Gift Certificates	Turkey Trot
Leda's Coney Island, 29469 Five Mile Rd, Livonia	\$100 in Gift Certificates	Turkey Trot
Annie's Family Restaurant, 33427 Plymouth Rd, Livonia, MI	\$90 in Gift Certificates	Turkey Trot
Play It Again Sports, 31224 Five Mile Rd, Livonia, MI	\$50 Gift Card	Turkey Trot
Aqua Nails, 21017 Farmington Rd, Farmington, MI	\$50 Gift Certificate	Turkey Trot
Looney Baker, 13931 Farmington Rd, Livonia, MI	3 Dozen Donuts	Turkey Trot
Merri Bowl/Bowlero Lanes 30950 Five Mile Rd, Livonia, MI	10 Free Hours of Bowling + Shoes	Turkey Trot
Jacob Matthews Jewelers, 6673 North Canton Center Rd, Canton Township, MI	\$25 Gift Card	Turkey Trot
Busch's Livonia 37083 Six Mile Rd Livonia, MI 48152	Coffee, Water, Donuts, Bananas, approx. \$1,000	Egg Hunt, Turkey Trot, Tree Lighting
Kyle Dove 1412 South Berry, Westland	2 custom archery target stands	Archery Range
The WAY Church 8900 Middlebelt Livonia, MI 48150	Volunteers, toys, baskets, giveaways,	Holiday parade, Lunch with Santa, Haunted Barn
Busch's Livonia 37083 Six Mile Rd Livonia, MI 48152	Coffee, Water, Donuts, Bananas, approx. \$1,000	Egg Hunt, Tree Lighting
Little Caesar's Pizza 15574 Middlebelt, Livonia	18 Pizzas	Candy-Go-Round

Red Robin 37701 Six Mile, Livonia	20 free kids hamburger meals, lunch for 30 employees	Stuff a Pet, Employee lunch
Livonia Rotary Club 37637 Five Mile, Livonia	Volunteers, candy	Egg Hunt
Simply Chiropractic 23023 Orchard Lake, Farmington	Gift baskets, snacks	Puzzle event, dances