



Department of Management Services
Purchasing Division
241 West South Street
Kalamazoo, MI 49007-4796
Phone: 269.337.8020
Fax: 269.337.8500
www.kalamazoocity.org
purchasing@kalamazoocity.org

INVITATION FOR BIDS (IFB)

The City of Kalamazoo, Michigan is soliciting sealed bids for:

Project Name: 2022 Rose Street Resurfacing

Bid Reference #: 91395-005.0

IFB ISSUE DATE: March 11, 2022

BID DUE/OPENING DATE: April 5, 2022 at 3:00 p.m. Local Time

Facsimile Bids Will Not Be Accepted.

MAILING ADDRESS & INSTRUCTIONS

Mail To:

Purchasing Division
241 W. South Street
Kalamazoo, MI 49007

Questions for this IFB should be directed to:

Department Contact: Tom Palumbo, PE,
Senior Civil Engineer at
palumbot@kalamazoocity.org
or (269) 337-8697

Include on the Envelope the Project Name and Bid Reference Number. All Envelopes Must Be Sealed.

You are invited to submit a bid for this project. Specifications, terms, conditions and instructions for submitting bids are contained herein. This Invitation for Bids with all pages, documents and attachments contained herein, or subsequently added to and made a part hereof, submitted as a fully and properly executed bid shall constitute the contract between the City and the successful bidder when approved and accepted on behalf of the City by an authorized official or agent of the City. Please review the bid document as soon as possible and note the **DEADLINE FOR QUESTIONS** in the Instructions to Bidders.

All bidders shall complete and return the Bid and Award page(s) and submit all information requested herein in order for a bid to be responsive. The bid document shall be returned in its entirety, in a properly identified and sealed envelope to the Purchasing Division at the above address. **BIDS MUST BE RECEIVED BEFORE THE DUE DATE - LATE BIDS WILL NOT BE CONSIDERED.** The City reserves the right to postpone the bid opening for its own convenience.

TABLE OF CONTENTS

Table of Contents

STATEMENT OF NO BID	5
SECTION I INSTRUCTIONS FOR BIDDERS	6
1. EXAMINATION OF BID DOCUMENT	6
2. PREPARATION OF BID	6
3. EXPLANATION TO BIDDERS	6
4. CASH DISCOUNTS	6
5. WITHDRAWAL OF BIDS	6
6. ALTERNATE BIDS	6
7. LATE BIDS	7
8. UNIT PRICES	7
SECTION II BID AND AWARD	8
CITY OF KALAMAZOO EX-OFFENDER POLICY CHECKLIST	11
CITY OF KALAMAZOO LOCAL PREFERENCE POLICY AND CERTIFICATION	12
SUB-CONTRACTING INFORMATION	14
REFERENCE QUESTIONNAIRE	15
COVID-19 ADDENDUM #2	17
SECTION III CITY OF KALAMAZOO INDEMNITY AND INSURANCE	18
SECTION IV SPECIAL REQUIREMENTS	20
1. BID BOND/GUARANTEE	20
2. WAIVERS OF LIEN	20
3. SUBCONTRACTORS	21
4. PREVAILING WAGES	21
SECTION V SPECIAL CONDITIONS	22
1. INTENT	22
2. SCOPE OF WORK	22
3. UNIT PRICING	22
4. TEMPORARY UTILITIES	22
5. PROGRESS SCHEDULE	22
6. LIQUIDATED DAMAGES	23
7. MAINTAINING TRAFFIC	23
8. COORDINATING	25
9. WORK HOURS	25
SECTION VI GENERAL CONDITIONS	26
1. PROJECT MANAGER’S STATUS	26

2. CONSTRUCTION SCHEDULE AND COORDINATION.....	26
3. PROTECTION OF WORK	26
4. PROTECTION OF PROPERTY	27
5. REMOVAL OF RUBBISH	27
6. BRICK SIDEWALK OR PAVEMENT REMOVAL	27
7. REMOVAL OF PERMANENT TRAFFIC SIGNS AND POSTS.....	27
8. PERMANENT TRAFFIC SIGN STAKING.....	27
9. LAWN SPRINKLER SYSTEMS.....	27
10. SALVAGING DRAINAGE STRUCTURE COVERS.....	27
11. REMOVING AND REPLACING CURB AND GUTTER.....	28
12. DRAINAGE INLET COVERS (K COVERS)	28
13. FLY ASH USE IN CONCRETE ITEMS.....	28
14. EXISTING WATER MAINS.....	28
15. GRADE INTERSECTIONS	28
16. UNDERGROUND UTILITIES	28
17. ADJUSTING MONUMENT BOXES	28
18. PAVEMENT REMOVAL QUANTITIES.....	28
19. COLD MILLING	28
20. SITE SECURITY	29
21. SITE ACCESS	29
22. MATERIALS INSPECTION AND RESPONSIBILITY	29
23. GUARANTEE.....	29
24. SAFETY	29
25. SPECIFICATIONS FOR CONSTRUCTION.....	29
26. QUANTITIES	29
27. PRICE.....	29
28. BASIS FOR PAYMENT.....	30
29. PAY ESTIMATES	30
30. PAYMENT TO CONTRACTOR	30
31. INSPECTION OF WORK	30
32. INSPECTION OF SITE	30
33. LAYING OUT OF WORK	31
34. SUPERVISION	31
35. TARDINESS	31
36. ADDITIONS	31
37. INSPECTION AND TESTING	31
38. QUESTIONS.....	31

SECTION VII TERMS AND CONDITIONS	32
1. AWARD OF CONTRACT	32
2. COMPLETE CONTRACT	32
3. SUBCONTRACTORS – NON-ASSIGNMENT	32
4. TAXES	32
5. INVOICING.....	32
6. PAYMENTS	33
7. CHANGES AND/OR CONTRACT MODIFICATIONS	33
8. LAWS, ORDINANCES, AND REGULATIONS	33
9. RIGHT TO AUDIT	33
10. HOLD HARMLESS.....	34
11. DEFAULT	34
12. TERMINATION OF CONTRACT.....	34
13. INDEPENDENT CONTRACTOR	35
14. PROJECT SUPERVISOR.....	35
15. MEETINGS	35
16. INSPECTION OF WORKSITE	36
17. CONTRACT PERIOD, EXTENSIONS, CANCELLATION	36
APPENDIX A NON-DISCRIMINATION CLAUSE FOR ALL CITY OF KALAMAZOO CONTRACTS	37
APPENDIX B PREVAILING WAGES	39
APPENDIX C ADDITIONAL INFORMATION	42
APPENDIX D SPECIAL PROVISIONS, STANDARD TRAFFIC PLANS	44

STATEMENT OF NO BID

NOTE: If you DO NOT intend to bid on this commodity or service, please complete and return this form immediately. Your response will assist us in evaluating all responses for this important project and to improve our bid solicitation process.

The Purchasing Division of the City of Kalamazoo wishes to keep its bidders list file up-to-date. If, for any reason you cannot supply the commodity/service noted in this bid solicitation, this form must be completed and returned to remain on the particular bid list for future projects of this type.

If you do not respond to this inquiry within the time set for the bid opening date and time noted, we will assume that you can no longer supply this commodity/service, and your name will be removed from this bid list.

_____ Specifications too "tight", i.e. geared toward one brand/ manufacturer only (explain below).
_____ Specifications are unclear (explain below).
_____ We are unable to meet specifications.
_____ Insufficient time to respond to the Invitation for Bid.
_____ Our schedule would not permit us to perform.
_____ We are unable to meet bond requirements.
_____ We are unable to meet insurance requirements.
_____ We do not offer this product or service.
_____ Remove us from your bidders list for this commodity or service.
_____ Other (specify below).

REMARKS: _____

SIGNED: _____ NAME: _____
(Type or Print)

TITLE: _____ DATE: _____

FIRM NAME: _____
(if any)

ADDRESS: _____
(Street address) (City) (State) (Zip)

PHONE: _____ FAX: _____

EMAIL: _____

SECTION I INSTRUCTIONS FOR BIDDERS

1. EXAMINATION OF BID DOCUMENT

Before submitting a bid, bidders shall carefully examine the specifications and shall fully inform themselves as to all existing conditions and limitations. The bidder shall indicate in the bid the sum to cover the cost of all items included on the bid form.

2. PREPARATION OF BID

The bid shall be legibly prepared in ink or typed. If a unit price or extension already entered by the bidder on the Bid and Award form is to be altered, it shall be crossed out and the new unit price or extension entered above or below and initialed by the bidder with ink. The bid shall be legally signed and the complete address of the bidder given thereon.

All bids shall be tightly sealed in an envelope plainly marked SEALED BID and identified by project name, bid opening date and time. Bids opened by mistake, due to improper identification, will be so documented and resealed. The Purchasing Division will maintain and guarantee confidentiality of the contents until the specified opening date and time. Bids submitted by Fax machine will not be accepted.

3. EXPLANATION TO BIDDERS

Any binding explanation desired by a bidder regarding the meaning or interpretation of the Invitation for Bid (IFB) and attachments must be requested in writing, **at least 5 business days before the bid opening** so a reply may reach all prospective bidders before the submission of bids. Any information given to a prospective bidder concerning the IFB will be furnished to all prospective bidders as an amendment or addendum to the IFB if such information would be prejudicial to uninformed bidders. Receipt of amendments or addenda by a bidder must be acknowledged in the bid by attachment, or by letter or fax received before the time set for opening of bids. Oral explanation or instructions given prior to the opening will not be binding.

4. CASH DISCOUNTS

Discount offered for payment of less than thirty (30) days will not be considered in evaluating bids for award. Offered discounts of less than thirty (30) days will be taken if payment is made within the discount period, even though not considered in evaluation of the bid.

5. WITHDRAWAL OF BIDS

Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the exact time set for receipt of bid. No bid may be withdrawn for at least ninety (90) days after bid opening.

6. ALTERNATE BIDS

bidders are cautioned that any alternate bid, unless specifically requested or any changes, insertions or omissions to the terms and conditions, specifications or any other requirement of this IFB may be considered non-responsive, and at the option of the City, result in rejection of the alternate bid.

7. LATE BIDS

Any bid received at the office designated herein after the exact time specified for receipt will not be considered. (Note: The City reserves the right to consider bids that have been determined by the City to be received late due to mishandling by the City after receipt of the bid and no award has been made).

8. UNIT PRICES

If there is a discrepancy between unit prices and their extension, unit prices shall prevail.

SECTION II BID AND AWARD

The undersigned having become thoroughly familiar with all of the bid/contract documents incorporated herein, the project site and the location conditions affecting the work, hereby proposes to perform everything required to be performed in strict conformity with the requirements of these documents, and to provide and furnish all the equipment, labor and materials necessary to complete, in a professional manner, the furnishing and installing of all of the following, meeting or exceeding the specifications as set forth herein for the prices as stated below.

2022 Rose Street Resurfacing

Item#	Item	Total Quantity	Unit	Unit Price	Total Price
1	Mobilization, Max \$40,000	1	LS		
2	Curb and Gutter, Rem	835	Ft		
3	Pavt, Rem	52	Syd		
4	Sidewalk, Rem	452	Syd		
5	Machine Grading, Modified	1	LS		
6	Full Depth Repair	35	Syd		
7	Erosion Control, Inlet Protection, Fabric Drop	48	Ea		
8	Erosion Control, Silt Fence	100	Ft		
9	Subbase, CIP	40	Cyd		
10	Sewer, CI E, 12 inch, Tr Det B1	27	Ft		
11	Dr Structure Cover, Adj, Modified	49	Ea		
12	Dr Structure Cover, Type B, Modified	2	Ea		
13	Dr Structure Cover, Type K, Modified	1	Ea		
14	Dr Structure Cover, Type KK, Modified	2	Ea		
15	Dr Structure, 24 inch dia	1	Ea		
16	Dr Structure, 48 inch dia	1	Ea		
17	Cold Milling HMA Surface	18364	Syd		
18	Hand Patching	38	Ton		
19	HMA Approach	30	Ton		
20	HMA, 5EML, Modified	1550	Ton		
21	Curb and Gutter, Conc, Det C4	647	Ft		
22	Driveway Opening, Conc, Det L	186	Ft		
23	Detectable Warning Surface	178	Ft		

**City of Kalamazoo – Invitation for Bids
2022 Rose Street Resurfacing**

**Page | 9
Bid Reference #: 91395-005.0**

24	Sidewalk, Conc, 4 inch	1624	Sft		
25	Sidewalk, Conc, 6 inch	100	Sft		
26	Curb Ramp, Conc, 6 inch	2279	Sft		
27	Post, Steel, 3 lb	160	Ft		
28	Sign, Type III, Rem	44	Ea		
29	Sign, Type IIIA	44	Sft		
30	Sign, Type IIIB	44	Sft		
31	Pavt Mrkg, Polyurea, 12 inch, Crosswalk	168	Ft		
32	Pavt Mrkg, Polyurea, 24 inch, Stop Bar	351	Ft		
33	Pavt Mrkg, Polyurea, Lt Turn Arrow Sym	15	Ea		
34	Pavt Mrkg, Polyurea, Only	9	Ea		
35	Pavt Mrkg, Polyurea, Thru Arrow Sym	1	Ea		
36	Pavt Mrkg, Waterborne, 4 inch, White	862	Ft		
37	Pavt Mrkg, Waterborne, 4 inch, Yellow	8466	Ft		
38	Pavt Mrkg, Waterborne, 6 inch, White	2082	Ft		
39	Rem Spec Mrkg	200	Sft		
40	Barricade, Type III, High Intensity, Lighted, Furn	2	Ea		
41	Barricade, Type III, High Intensity, Lighted, Oper	2	Ea		
42	Pedestrian Type II Barricade, Temp, Furn	15	Ea		
43	Pedestrian Type II Barricade, Temp, Oper	15	Ea		
44	Lighted Arrow, Type C, Furn	2	Ea		
45	Lighted Arrow, Type C, Oper	2	Ea		
46	Minor Traf Devices	1	LS		
47	Pavt Mrkg, Type R, 4 inch, Yellow, Temp	12540	Ft		
48	Plastic Drum, High Intensity, Furn	168	Ea		
49	Plastic Drum, High Intensity, Oper	168	Ea		
50	Sign, Type B, Temp, Prismatic, Furn	672	Sft		
51	Sign, Type B, Temp, Prismatic, Oper	46	Ea		
52	Maintaining Traffic	1	LS		
53	Slope Restoration, Modified	1	LS		
54	Gate Box, Reconst, Modified	25	Ea		
				Project Total	

Bidder shall provide all of the information as requested herein with their bid. Failure to do so and/or failure to provide post-bid requested information may be cause for rejecting the bid as non-responsive.

After receipt of Notice to Proceed, work shall start within ten (10) days of Notice to Proceed, unless otherwise agreed to by the Project Manager, and shall be completed by **September 16, 2022**.

Bidder/Contractor has examined and carefully studied the bidding documents and attachments, and acknowledges receipt of the following addenda:

Addendum No: _____

Date: _____

By my signature below, I certify that the firm bidding on this contract, when making hiring decisions, does not use a past criminal conviction as a bar to or preclude a person with a criminal conviction from being considered for employment with the bidding firm unless otherwise precluded by federal or state law. I further certify that I have read and agree to be bound by the provisions of the City's Non-Discrimination Clause found in Appendix A as updated by City Ordinance 1856.

Signed: _____ Name: _____

Title: _____

CITY OF KALAMAZOO EX-OFFENDER POLICY CHECKLIST

As part of the City's commitment to reducing unacceptable poverty, encouraging rehabilitation, reducing recidivism and strengthening families in Kalamazoo, the City has updated its Purchasing Policy to ensure that firms with whom the City does business share in this commitment by utilizing hiring practices that do not unfairly deny people with arrest and conviction records gainful employment. *(Important: This requirement also extends to any subcontractors the bidder intends to use to fulfill the contract for goods or services being sought from the City.)*

Part I: Proof that the bidder does not inquire about an individual's past arrest or criminal history on the bidder's employment application form

- ☐ Attach a copy of the current application for employment being used by the bidder

Part II: Certification that the bidder does not use an individual's past arrest or criminal history to unlawfully discriminate against them by checking one or more of the following:

- ☐ That pursuant to federal or state law bidder is precluded from hiring persons with certain criminal records from holding particular positions or engaging in certain occupations by providing a cite to the applicable statute or regulation; if checking this box, provide a citation to the applicable statute or rule upon which the bidder is relying: _____
- ☐ That bidder conducts criminal history background checks only as necessary, and only after making a conditional offer of employment; that any withdrawal of an offer of employment to an individual because of a past criminal history is job-related and consistent with business necessity after the individual has been provided an individualized assessment opportunity to review and challenge or supplement the history of past criminal conduct being relied upon by the bidder.
- ☐ That the use by bidder of criminal history background checks complies with the U.S. Equal Employment Opportunity Commission's Enforcement Guidance on the Consideration of Arrest and Conviction Records in Employment Decisions and that the bidder has not had a determination rendered against it in past 7 years that it discriminated against a person through the use of an individual's arrest or criminal history

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE.

Date

Signature

Printed Name

Position

CITY OF KALAMAZOO LOCAL PREFERENCE POLICY AND CERTIFICATION

The lowest responsive Kalamazoo County bidder whose bid is not low but falls within 2% of the lowest responsive bid is afforded the opportunity to become the successful bidder if it agrees to reduce its bid to match the lowest responsive bid. The City of Kalamazoo is the sole determiner whether a bidder is responsible, qualifies as a Kalamazoo County bidder, and if its bid is responsive to the City's specifications, terms and conditions.

If the lowest Kalamazoo County bidder chooses not to match the lowest bid, the next lowest responsive Kalamazoo County bidder whose bid falls within 2% of the lowest bid, is given the opportunity to match the lowest responsive bid.

To qualify as a Kalamazoo County bidder, the bidder must meet both the following criteria:

1. Have a physical presence in Kalamazoo County by maintaining a permanent office, factory or other facility in Kalamazoo County with employees working in Kalamazoo County.
2. Have paid real or personal property taxes related to said business to the City of Kalamazoo, County of Kalamazoo or other municipal corporation within Kalamazoo County in the previous tax year, except that a non-profit entity need not meet this requirement.

This local preference policy applies only to purchases for materials, supplies, capital outlay, and services for maintenance, repair or operation of City facilities that are over \$25,000. If more than 50% of the contract is sub-contracted to firms located outside of Kalamazoo County that bid does not qualify for the local preference policy outlined above. The local preference policy will not apply if prohibited by law. The Purchasing Agent has the authority to finally determine if the bidder qualifies as a Kalamazoo County bidder as set forth herein. The Purchasing Agent may take into account the permanency of the business in Kalamazoo, and whether the business appears to be claiming to be a Kalamazoo County business solely or primarily to qualify as a Kalamazoo County business under this Resolution, and any other material factors.

CERTIFICATION

If you qualify as a Kalamazoo County bidder and wish to be considered for the local preference provisions as provided above please certify that fact by providing the information requested below and attesting to its accuracy.

Firm Name: _____

Street Address of Business: _____

City, State, and Zip Code: _____

Number of employees working in Kalamazoo County: _____

Name the city or township to which business real and/or personal property taxes are paid or provide non-profit status: _____

The above information is accurate:

Signature: _____ Date: _____

Title: _____

Revised April 2008

SUB-CONTRACTING INFORMATION

Using the table below provide information regarding the sub-contractors that will be working to fulfill the requirements of this contract. Submit as complete a list as possible at the time of your bid. You will have two business days after the bid opening to update the list as needed. The information provided will be used for evaluating your bid and to assist in determining if you qualify as a Kalamazoo County Bidder.

INSTRUCTIONS:

Nature of Contract - State a brief description of the work or product that will be provided.

BIDDER – Provide the percentage of services or construction activity that will be provided by your firm.

Subcontractors:

- Provide the Name and Address for each subcontractor providing services or construction activities for this contract.
- Indicate with **YES** or **NO** under the “Local?” box if they qualify as a “Kalamazoo County bidder” (see local preference certification page)
- Provide the percentage for the dollar amount of the contract work they will be performing.

If there are not enough lines in the table below make additional copies as needed.

Nature of Contract:		
Subcontractor Name/Address	Local?	% Of Total Contract
BIDDER		

Does this List of Subcontractors need to be updated after the bid opening? **Yes** __ **No** __

REFERENCE QUESTIONNAIRE

Please answer the following questions completely.

1. Firm name: _____
2. Established: Year _____ Number of Employees: _____
3. Type of organization:
 - a. Individual: _____
 - b. Partnership: _____
 - c. Corporation: _____
 - d. Other: _____
4. Former firm name(s) if any, and year(s) in business:

5. Include at least 3 references of contracts for similar work performed over the last five (5) years. Include: owner, contact person and phone number and description of work performed.
 - a. Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____
 - b. Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____
 - c. Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____

I hereby certify that all of the information provided is true and answered to the best of my ability.

Signed: _____ Name: _____
(type or print)

Title: _____ Date: _____

I hereby state that all of the information I have provided is true, accurate and complete. I hereby state that I have the authority to submit this bid which will become a binding contract if accepted by the City of Kalamazoo. I hereby state that I have not communicated with nor otherwise colluded with any other bidder, nor have I made any agreement with nor offered/accepted anything of value to/from an official or employee of the City of Kalamazoo that would tend to destroy or hinder free competition.

The firm's identification information provided will be used by the City for purchase orders, payment and other contractual purposes. If the contractual relationship is with, or the payment made to, another firm please provide a complete explanation on your letterhead and attach to your bid. Please provide for accounts payable purposes:

Tax Identification Number (Federal ID): _____

Remittance Address: _____

Financial Contact Name: _____ Financial Contact Phone Number: _____

Financial Contact Email Address: _____

I hereby state that I have read, understand and agree to be bound by all terms and conditions of this bid document.

SIGNED: _____ NAME: _____
(Type or Print)

TITLE: _____ DATE: _____

FIRM NAME: _____
(if any)

ADDRESS: _____
(Street address) (City) (State) (Zip)

PHONE: _____ FAX: _____

EMAIL ADDRESS: _____

FOR CITY USE ONLY - DO NOT WRITE BELOW

NOTE: This blanket addendum is for informational purposes only and does not need to be acknowledged by bidders in their submission.

COVID-19 ADDENDUM #2

January 1, 2022

**TO: ALL Prospective Bidders
PROJECT: ALL Upcoming Projects**

The purpose of this addendum is to clarify and/or modify the sealed bid delivery and bid opening process for all upcoming projects. All work affected is subject to all applicable terms and conditions of the Bidding and Contract Documents.

1. UPDATE TO SEALED BID DELIVERY AND BID OPENING POLICY:

Effective immediately and continuing until further notice, the City of Kalamazoo will return to IN-PERSON bid openings following City Hall guidelines, including Mask Mandate.

BIDS MUST BE RECEIVED BEFORE THE DUE DATE AND TIME – LATE BIDS WILL NOT BE CONSIDERED.

Bidders can submit sealed bids in one of the following ways:

- **Mail your bid**, to be received before the bid due date and time indicated in the bid document, to the City of Kalamazoo at the following address:
City of Kalamazoo
Purchasing Division
241 West South Street
Kalamazoo, MI 49007
- **Deliver your bid to the Treasurer's Office Payment Drop Box** located in the northwest corner of City Hall before the bid due date and time indicated in the bid document.
- **Deliver your bid to City Hall In Person before** the bid due date and time indicated in the bid document.

All bids shall be tightly sealed in an envelope plainly marked SEALED BID and identified by project name, bid opening date and time. Bids opened by mistake, due to improper identification, will be so documented and resealed. The Purchasing Division will maintain and guarantee confidentiality of the contents until the specified opening date and time. Bids submitted by fax machine or email will not be accepted.

The Purchasing Division will post bid tabulations to the City of Kalamazoo website within 24 hours after the bid opening date and time at:
<https://www.kalamazoocity.org/bidopportunities>.

Questions regarding this sealed bid delivery and bid opening policy change related to the COVID-19 virus should be directed to the City of Kalamazoo at (269) 337-8020.

Sincerely,



Michelle Emig
Purchasing Division Manager

SECTION III CITY OF KALAMAZOO INDEMNITY AND INSURANCE

Contractor, or any of their subcontractors, shall not commence work under this contract until they have obtained the insurance required under this paragraph, and shall keep such insurance in force during the entire life of this contract. All coverage shall be with insurance companies licensed and admitted to do business in the State of Michigan and acceptable to the City of Kalamazoo within ten (10) days of the Notice of Award. The requirements below should not be interpreted to limit the liability of the Contractor. All deductibles and SIR's are the responsibility of the Contractor.

The Contractor shall procure and maintain the following insurance coverage:

Workers' Compensation Insurance including Employers' Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and aggregate. Coverage shall include the following extensions: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractors Coverage; (D) Broad Form General Liability Extensions or equivalent, if not already included and (E) XCU coverage if the nature of the contract requires XC or U work.

Automobile Liability in accordance with all applicable statutes of the State of Michigan, with limits of liability not less than \$1,000,000 per occurrence, combined single limit for Bodily Injury, and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.

Additional Insured: Commercial General Liability and Automobile Liability, as described above, shall include an endorsement stating that the following shall be *Additional Insureds*: The City of Kalamazoo, all elected and appointed officials, all employees and volunteers, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof. It is understood and agreed that by naming the City of Kalamazoo as additional insured, coverage afforded is considered to be primary and any other insurance the City of Kalamazoo may have in effect shall be considered secondary and/or excess.

To the fullest extent permitted by law the Contractor agrees to pay on behalf of, indemnify, and hold harmless the City of Kalamazoo, its elected and appointed officials, and employees against any claims, demands, suits, or loss, including all costs connected therewith, and for any damages which may be asserted, claimed, or recovered against or from the City of Kalamazoo, by reason of personal injury, including bodily injury or death and/or property damage, including loss of use thereof, caused in whole or part by any negligent act or omission by the Contractor, its employees, agents, or officers which arises out of, or is in any way connected or associated with, this contract.

INDEMNITY AND INSURANCE

Continued

Cancellation Notice: All policies, as described above, shall include an endorsement stating that it is understood and agreed that thirty (30) days, or ten (10) days for non-payment of premium, Advance Written Notice of Cancellation, Non-Renewal, Reduction, and/or Material Change shall be sent to: City of Kalamazoo, Purchasing Division, 241 W. South Street, Kalamazoo, MI 49007.

Proof of Insurance Coverage: The Contractor shall provide the City of Kalamazoo at the time that the contracts are returned by him/her for execution, or within 10 days of Notice of Award, whichever is earlier, a Certificate of Insurance as well as the required endorsements. In lieu of required endorsements, if applicable, a copy of the policy sections where coverage is provided for additional insured and cancellation notice would be acceptable. Copies or certified copies of all policies mentioned above shall be furnished, if so requested. If any of the above coverages expire during the term of this contract, the Contractor shall deliver renewal certificates and/or policies to City of Kalamazoo at least ten (10) days prior to the expiration date.

Scope of Coverage: The above requirements and conditions shall not be interpreted to limit the liability of the Contractor under this Contract, but shall be interpreted to provide the greatest benefit to the City and its officers and employees. The above listed coverages shall protect the Contractor, its employees, agents, representatives and subcontractors against claims arising out of the work performed. It shall be the Contractor's responsibility to provide similar insurance for each subcontractor or to provide evidence that each subcontractor carries such insurance in like amount prior to the time such subcontractor proceeds to perform under the contract.

SECTION IV SPECIAL REQUIREMENTS

1. BID BOND/GUARANTEE

The bid must be accompanied by a bid bond which shall not be less than five (5%) percent of the total amount of the bid. No bid will be considered unless it is accompanied by the required guarantee. The bid guarantee shall ensure the execution of the bid and award, and the furnishing of a performance bond and a labor and material bond (A and B below) by the successful bidder. (Contractors Note: A cashier's or certified check in lieu of a bid bond is **NOT** acceptable.)

A. PERFORMANCE BOND

A performance bond shall be furnished in the full amount of the contract ensuring the City of faithful performance of all the provisions of the contract, and the satisfactory performance of any equipment required hereunder. The bond shall also ensure the City against defective workmanship and/or materials.

B. LABOR AND MATERIAL (PAYMENT) BOND

A labor and material (payment) bond shall be furnished for the period covered by the contract, in the full amount of the contract for the protection of labor and material suppliers and sub-contractors.

Bonds shall be secured by a guaranty or a surety company listed in the latest issue of the U.S. Treasury, circular 570, and licensed to do business in the State of Michigan, and written in favor of the City of Kalamazoo. The amount of such bonds shall be within the maximum amount specified for such company in said circular 570. The bonds shall be accompanied by a power of attorney showing authority of the bonding agent to sign such bonds on behalf of the guaranty or surety company. The cost of the bonds shall be borne by the Contractor.

Failure of the Contractor to supply the required bonds within ten (10) days after Notice of Award, or within such extended period as the Purchasing Agent may agree to, shall constitute a default and the City of Kalamazoo may either award this contract to the next lowest bidder or re-advertise for bids and may charge against the Contractor for the difference between the amount of the bid and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid bond. If a more favorable bid is received by re-advertising, the defaulting bidder shall have no claim against the City of Kalamazoo for a refund.

2. WAIVERS OF LIEN

Upon completion of all work and request for final payment, the Contractor shall furnish a 100% waiver of lien from each supplier and sub-contractor covering all items of the work. Failure to supply waivers of lien for the entire job upon completion and final payment request will be considered grounds for withholding final payment.

3. SUBCONTRACTORS

- A. Contractors shall state on the Bid and Award page any and all subcontractors to be associated with their bid, including the type work to be performed. Any and all subcontractors shall be bound by all of the terms, conditions and requirements of the contract; however, the prime contractor shall be responsible for the performance of the total work requirements.
- B. The Contractor shall cooperate with the City of Kalamazoo in meeting its commitments and goals with regard to maximum utilization of minority and women business enterprise, and shall use its best efforts to ensure that minority and women business enterprises have maximum practicable opportunity to compete for subcontract work under this agreement.

4. PREVAILING WAGES

The successful bidder will be required to comply with Section 2-125 of the Code of Ordinances of the City of Kalamazoo regarding prevailing wages and Appendix B attached, incorporated herein by reference. Special note: This provision applies only to projects in excess of \$100,000 for City (\$2,000 federal) funded projects.

The City's requirements as it relates to prevailing wages includes a meeting with the City's Purchasing Division **prior** to work and payroll and work monitoring during the duration of the contract. Please contact Purchasing at (269) 337-8020 if you have any questions regarding Davis-Bacon provisions.

SECTION V SPECIAL CONDITIONS

1. INTENT

It is the intent of these plans and specifications to provide for a general contractor who shall provide all labor, materials, tools and equipment necessary to perform in a professional manner for the **2022 Rose Street Resurfacing** as described in the specifications and bid document.

2. SCOPE OF WORK

The scope of work for this project shall consist of one course HMA resurfacing for the project length, replacement of curb & gutter at various locations, and installation of ADA ramps at multiple intersections. May also include other miscellaneous items as depicted in the project documents.

All necessary traffic control, labor, materials, tools, equipment, and other items incidental to the work being performed shall be included in the Contractor's unit price for this contract. Such items will not be bid or paid for separately but shall be included in the overall unit price.

The bidder shall furnish all labor, supervision, supplies, tools, equipment, and other means necessary or proper for performing and completing the work. The bidder shall be responsible for the cleaning up of the job site and shall repair or restore all structures and property that may be damaged or disturbed during performance of the work to the satisfaction of the Public Services Department for the City of Kalamazoo. Drainage structure covers shall be salvaged and reused if in usable condition; otherwise, they shall be replaced. Where needed, all traffic control used for such operations as defined by the MMUTCD will be the responsibility of the bidder.

The bidder shall have all work completed by September 16, 2022.

3. UNIT PRICING

The unit price, including its pro rata share of overhead, multiplied by the quantity shown shall represent the total bid and shall be held firm for the life of this contract. Any bid not conforming to this requirement may be rejected as non-responsive.

4. TEMPORARY UTILITIES

- A. Temporary or construction water will NOT be available on the sites. The Contractor must provide for drinking water.
- B. Temporary toilets: To be supplied by the Contractor as may be necessary.

5. PROGRESS SCHEDULE

- 5.1 After receipt of notification by Contractor of Notice to Proceed **work shall start no earlier than July 11, 2022.**
- 5.2 **Project shall have a final completion date of September 16, 2022.**
- 5.3 Work of a similar nature may be added to this contract if agreed to by the City and the Contractor. In the event that work is added, the progress schedule for the existing work will remain unchanged. Any contract time added for additional work will be applied to that additional work only and cannot be added to items in the original contract. Any work done on the items in the original contract past the number of working days stated

- herein will be subject to liquidated damages regardless of any work that may be added at a later date.
- 5.4 The Contractor will be required to meet with the Public Services representatives to work out a detailed progress schedule. The schedule for this meeting will be within two weeks after contract award has been made.
 - 5.5 The named sub contractor(s) for all items shall also be present at the scheduled meeting and be required to sign the Progress Schedule to indicate their approval of the scheduled dates of work set forth in the Progress Schedule. If unable to attend the scheduled meeting, the sub-contractor shall, at a minimum, sign the Progress Schedule to indicate their approval of the dates of work. MDOT Form 1130 shall be used for schedule submission and signature of all parties.
 - 5.6 The Progress Schedule shall include, as a minimum, the starting and completion dates for major items, and where specified in the bid document the date the project is to be opened to traffic as well as the final project completion date specified in the bid document. The Progress Schedule shall be coordinated with all aspects of the work occurring at the site.
 - 5.7 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.
 - 5.8 The starting date and the contract time to the completion date for this project may be adjusted by Public Services without imposing liquidated damages upon the receipt of satisfactory documented evidence that unforeseen delayed delivery of critical materials will prevent the orderly prosecution of the work.
 - 5.9 Any request extension of the completion date and satisfactory documented evidence of unforeseen delays shall be submitted via MDOT Form 1100A – Extension of Contract Time.
 - 5.10 MDOT Standard Specifications for Construction Section 501.03.I.1, Weather Limitations, shall apply.

6. LIQUIDATED DAMAGES

Liquidated Damages will be assessed per Section 108.10C of the MDOT Standard Specifications for Construction.

7. MAINTAINING TRAFFIC

- 7.1 This work shall be in accordance with the requirements of Section 812 of the MDOT Standard Specifications for Construction, the Maintaining Traffic special provision, and as specified herein. The Contractor is advised that the current Michigan Manual of Uniform Traffic Control Devices (MMUTCD) is hereby established as governing all work in connection with traffic control devices, barricade lighting, etc. required on this project.
- 7.2 The Contractor shall furnish, erect, maintain and, upon completion of the work, remove all traffic control devices and barricade lights within the project and around the perimeter of the project for the safety and protection of through and local traffic. This includes, but is not limited to: Advance, regulatory and warning signs; barricades and channeling devices at intersecting streets on which traffic is to be maintained; barricades at the ends of the project and at right of way lines for intersecting streets which are to be closed with the first usable street on each side of the project. Traffic regulators, where required by the Engineer, are included.

- 7.3 Where the existing pavement or partial widths of new pavement are to be utilized for the maintenance of through and local traffic, channelizing devices will be required at 50' intervals or as directed by the Engineer for channeling and directing traffic through the construction area.
- 7.4 Through traffic shall be maintained utilizing sidewalk closures with detours and traffic shifts per MDOT traffic and safety details.
- 7.5 Protection of all pedestrian traffic shall be maintained at all times in accordance with the MMUTCD. Type II barricades and sidewalk detour signs shall be used in accordance with the MMUTCD at all intersections and ramps. Sidewalk detours shall direct pedestrians safely around closed sidewalk locations and shall be placed at the nearest pedestrian crossing locations still open to traffic.
- 7.6 Payment for furnishing and operating all temporary traffic control devices and traffic regulators shall be paid as pay items included in this contract and shall include all the temporary traffic control measures on all road segments.
- 7.7 Under Article 812.04.D "Operated Pay Items" the term 'Relocating' shall include the relocating of the item from any street covered by the contract to any other street covered by the contract.
- 7.8 No work shall be allowed on the following dates:
- | | |
|----------|----------------|
| 4/15/22 | Good Friday |
| 5/30/22 | Memorial Day |
| 6/19/22 | Juneteenth |
| 7/4/22 | Fourth of July |
| 9/5/22 | Labor Day |
| 11/11/22 | Veteran's Day |
| 11/24/22 | Thanksgiving |
| 12/25/22 | Christmas |
| 1/1/23 | New Year's Day |
- 7.9 Milled surfaces will not be allowed on travel lanes for longer than 72 hours unless approved by the Project Manager. Any traffic surface within the construction area containing a drop off at the edge of a pavement greater than two (2) inches shall not be allowed to be opened to the public without proper wedging of the edges according to the COK standard detail. Any areas not conforming to the road levelness and profile shall be signed appropriately in accordance with the MMUTCD and best management practices.
- 7.10 Once work is initiated that includes lane restrictions or detours, that work shall be continuous until complete. If work is suspended for more than three (3) continuous working days all lane restrictions and detours shall be removed at the Contractor's expense.

Special Restrictions: Access to frontage properties shall be maintained as much as practical. Emergency access shall be maintained at all times. The Contractor shall maintain two-way traffic with flag control as needed when the road is restricted to only one traffic lane.

8. COORDINATING

The Contractor's attention is called to Article 104.08 of the MDOT Standard Specifications for Construction entitled "Cooperation by Contractor" and the special provisions contained within this contract.

9. WORK HOURS

All work shall be done between the hours of 7 am to 7 pm (Monday – Saturday). Work done outside of these times will be at the discretion of the Project Manager.

No work shall be done on Sunday, unless otherwise approved by the Project Manager in writing.

The Contractor shall conduct their work in such a manner that no excavations are left open overnight. If this is not possible, the Contractor shall provide and install a temporary fence to protect the excavation, at the Contractor's expense.

SECTION VI GENERAL CONDITIONS

1. PROJECT MANAGER’S STATUS

The City Engineer (Engineer) or his/her duly authorized representative shall be the City’s Project Manager and shall have the duties and responsibilities as provided in the contract.

The Project Manager shall have the authority to reject any work or materials which do not conform to the contract and to decide questions or interpretations which may arise from the contract documents.

The Contractor shall immediately report to the Project Manager any questionable or obvious error or omission which may be apparent in the contract documents and shall not proceed with work until the Project Manager has resolved the error or omission.

2. CONSTRUCTION SCHEDULE AND COORDINATION

- 2.1 The Contractor shall supply the City with an agreeable construction schedule before commencing work on this contract. This schedule shall detail beginning and completion dates for each major component of the project.
- 2.2 The Contractor shall coordinate and cooperate with all other contractors who may be working on the site, to allow for the orderly progress of work being done.
- 2.3 The Contractor is required to keep the Project Manager fully informed of any proposed work which will tend to interfere with the existing operations at the site.
- 2.4 The Contractor shall schedule all work to accommodate the City's schedule. In the event the Contractor's schedule falls on weekends, nights or overtime work is required, no additional compensation will be allowed. All work shall be part of this contract without regard to when it is done.
- 2.5 The Contractor shall coordinate with other construction projects and contractors adjacent to the location of this project.
- 2.6 The Contractor shall notify, by door hanger/written flier (pre-approved by the Project Manager), affected residents and business of work and areas to be disturbed by construction at least 72 hours in advance. Work shall not commence until the affected residents/business have been notified and given advanced notice. The Contractor shall work to minimize impacts to those affected by the construction while still maintaining project schedule and objectives. For impacts to driveways or property access points that affect residents or businesses, resident/business shall be notified 24 hours in advance of the work taking place and coordinated with for parking and property access.

3. PROTECTION OF WORK

The Contractor shall maintain adequate protection of all his/her work from damage and shall protect all public and private abutting property from injury or loss arising in connection with this contract.

4. PROTECTION OF PROPERTY

- 4.1 The Contractor shall confine his/her equipment and operations to those areas of the work site necessary for the completion of the work, or as authorized by the Project Manager. The Contractor shall protect and preserve from damage any facilities, utilities or features including trees, shrubs and turf which are not required to be disturbed by the requirements of the work.
- 4.2 The Contractor shall be responsible to determine the location of and to protect from damage any utilities or other improvements.

5. REMOVAL OF RUBBISH

The Contractor shall daily remove all rubbish and accumulated materials due to his/her construction.

6. BRICK SIDEWALK OR PAVEMENT REMOVAL

When brick is removed from City of Kalamazoo sidewalk or pavement it shall be salvaged, unless otherwise stated in the contract. Brick to be salvaged shall be placed within the right-of-way (ROW) for pickup by the City. Brick shall not be placed or stored on any pavement, sidewalk, bike, or pedestrian areas but in ROW green space only; salvaged brick shall not be placed on private property without written approval given by the owner.

7. REMOVAL OF PERMANENT TRAFFIC SIGNS AND POSTS

The Contractor shall notify the Project Manager five (5) working days in advance of the time permanent signs must be removed to accommodate the construction. The Contractor shall remove and salvage any permanent signs that must be removed for construction.

8. PERMANENT TRAFFIC SIGN STAKING

The City shall stake the field locations for the new permanent traffic signs that the Contractor shall install under this contract. The Contractor shall call MISS DIG to arrange for staking prior to sign installation.

9. LAWN SPRINKLER SYSTEMS

- 9.1 Owners of known lawn sprinkler systems shall be notified by the contractor a minimum of 72 hours in advance of any work to be done that will affect those systems. Modifications to the systems are the responsibility of the owners and are not a part of this contract.
- 9.2 Owners of lawn sprinkler systems that were unknown to the contractor at the beginning of work and uncovered during the work for this contract, shall be notified as soon as possible and no later than 24 hours after discovery of the system. The Contractor shall coordinate with the owner for placement outside the immediate work area until modifications can take place. Modifications to the systems are the responsibility of the owners and are not a part of this contract.

10. SALVAGING DRAINAGE STRUCTURE COVERS

The City of Kalamazoo reserves the right to salvage any drainage structure covers or portions thereof which are to be removed as a result of work done under this contract. Any covers which are to be salvaged will be identified by the City. The contractor will set those items identified aside for pick up by City personnel.

11. REMOVING AND REPLACING CURB AND GUTTER

When the contract provides for streets to be milled and resurfaced, or when the existing base course is to remain in place, and replacement of curb and gutter is called for, milling or other surface removal operations will not take place until placement of the new curb and gutter, and adjacent concrete base course has been completed.

12. DRAINAGE INLET COVERS (K COVERS)

In compliance with the Clean Water Act, all inlet covers must have on their backs reminders against dumping waste into the drains.

13. FLY ASH USE IN CONCRETE ITEMS

The use of fly ash, as described in Section 901.07 of the MDOT Standard Specifications for Construction, shall not be allowed.

14. EXISTING WATER MAINS

The Contractor will be responsible for any damage to the existing water mains during the work required under this contract. This includes but is not limited to the construction of the proposed storm sewers, catch basins, leaching basins, leaching trenches, subgrade under drains, subgrade undercutting, full depth repairs, or other miscellaneous work.

15. GRADE INTERSECTIONS

All intersections are to be considered as complete units and their grades determined before construction is started.

16. UNDERGROUND UTILITIES

For protection of underground utilities, the Contractor shall dial Miss Dig at 1-800-482-7171 a minimum of 72 hours prior to excavating in the vicinity of utility lines. All “Miss Dig” participating members will thus be routinely notified. This does not relieve the Contractor of notifying utility owners who may not be part of the “Miss Dig” alert system.

17. ADJUSTING MONUMENT BOXES

It is the intent that all government corners on this project be preserved and that, where necessary, monument boxes be placed or adjusted whether shown or not.

18. PAVEMENT REMOVAL QUANTITIES

Pavement removal as called for in this proposal shall be at the discretion of the Project Manager. If, in his/her judgment, areas of pavement may be left in place or additional area added to provide the proper cross-section and base, adjustments can be made in the quantities.

19. COLD MILLING

In those locations where cold milling is called for and the existing curb is to remain in place, the cold milling item shall cover removal of all asphalt up to the face of the curb. Any materials which are left due to the inability of the cold milling machine to work immediately adjacent to the face of the curb will be removed to the depth indicated on the typical cross-section by other means approved by the Project Manager. Any extra work involved in removing said HMA material shall be considered incidental to the item of Cold Milling HMA Surface.

20. SITE SECURITY

The Contractor shall be responsible for job site security of all materials and tools provided by him/her and no claim for loss or damage will be considered by the City.

21. SITE ACCESS

The City will provide fair and reasonable access to the job site within the working schedules of both parties.

22. MATERIALS INSPECTION AND RESPONSIBILITY

- 22.1 The Project Manager shall have the right to inspect any materials to be used in carrying out the terms of the contract.
- 22.2 The City does not assume any responsibility for the contracted quality and standard of all materials, equipment, components or completed work furnished under this contract.
- 22.3 Any materials, equipment, components or completed work which does not comply with contract specifications, MDOT, or state codes may be rejected by the City, and shall be replaced by the Contractor at no cost to the City.
- 22.4 Any materials, equipment or components rejected shall be removed within a reasonable period of time from the premises of the City at the entire expense of the Contractor after written notice has been mailed by the City to the Contractor that such materials, equipment or components have been rejected.

23. GUARANTEE

The Contractor shall guarantee all of his/her work for a period of one (1) year following the date of final acceptance of the completed work and shall repair, replace or make good any materials or work which fail to function or perform or be found defective, without cost to the city.

24. SAFETY

The Contractor shall comply with all applicable OSHA and MIOSHA regulations.

25. SPECIFICATIONS FOR CONSTRUCTION

The items of work in this contract shall conform to the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, MDOT Supplemental Specifications, and/or the City of Kalamazoo Standard Specifications unless superseded by a Special Provision contained in this document.

26. QUANTITIES

The quantities shown on the Bid and Award pages are approximate only and may be subject to increase or decrease. No guarantee of maximum or minimum is given.

27. PRICE

The unit price, including its pro rata share of overhead, multiplied by the quantity shown shall represent the total bid and shall be held firm for the life of this contract. Any bid not conforming to this requirement may be rejected as non-responsive. Special attention of all bidders is called to this provision since if conditions make it necessary to revise the quantities, no limit will be fixed for such increased or decreased quantities, nor extra compensation allowed; provided the net monetary value of all such additive and subtractive changes in quantities of such items of work, i.e., difference in cost, shall not increase or decrease the original contract price by more than twenty five (25) percent. Some items of work might be increased beyond the 25% limitations as spelled out previously, upon mutual agreement.

28. BASIS FOR PAYMENT

Payment shall be based on the bid unit price for each work item and the approved constructed quantity for that work item. Due to potential differences in conditions between the plans and the field, final as built quantities may be different than contained in the bid document. The City does not guarantee quantities and will pay only for "as built" quantities approved by the Project Manager or his representative. Quantities in excess of those approved shall be at the Contractor's own expense, the City will not be responsible for excess quantities not approved. Should an item of work have to be redone, such as replacing new walk because the Contractor failed to adequately protect the wet concrete from rain or pedestrian or vehicular damage, such work shall be replaced at the Contractor's expense. Should changes in design result in the Project Manager directing the removal and reinstallation of already completed work prior to final completion and acceptance of the project, such removal and installation shall be paid for based on as-bid unit prices and the quantities removed and installed.

29. PAY ESTIMATES

The Contractor shall be responsible for the generation of invoices for payment. Payment will be generated by the City based upon an approved invoice. Frequency of payment shall be monthly unless agreed to otherwise by the Project Manager, with the invoiced period ending on the last day of the month. However, if a different frequency is approved by the Project Manager, it shall not exceed bi-weekly invoicing.

30. PAYMENT TO CONTRACTOR

The Project Manager will be responsible for approving all measured quantities of work. Once measured quantities are approved, the Contractor shall submit a pay invoice to the City of Kalamazoo Attn: Accounts Payable at 241 West South Street, Kalamazoo MI, 49007 or apinvoice@kalamazoo-city.org. The contractor is required to meet with the Project Manager to verify final constructed quantities within 60 days of project completion. In the event of a disagreement the Project Manager's measured quantities shall be considered final.

31. INSPECTION OF WORK

The City may maintain inspectors on the job who shall, at all times, have access to work.

32. INSPECTION OF SITE

Each bidder shall visit the site of the proposed work and fully acquaint himself/herself with the existing conditions relating to construction, labor, and shall fully inform himself/herself as to the facilities involved and the difficulties and restrictions attending the performance of this contract. The bidder shall thoroughly examine and become familiar with the drawings, specifications, and all other bid/contract documents. The Contractor, by the execution of this contract, shall in no way be relieved of any obligation under it due to his failure to receive or examine any form or legal instrument, or to visit the site and acquaint himself/herself with the conditions there existing. No allowance shall be made subsequently in this connection on behalf of the Contractor for any negligence of his/her part. For inspection call the Public Services Department, Engineering Division.

33. LAYING OUT OF WORK

Before submitting a bid, the Contractor shall verify all measurements and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of differences between actual dimensions and the measurements indicated on the drawings. Any difference that may be found shall be submitted to the City Engineer for consideration before proceeding.

34. SUPERVISION

The Contractor shall employ an experienced superintendent or foreperson on the job at all times.

35. TARDINESS

Construction delays resulting from tardiness on the part of the Contractor will be reviewed by the City in the event of any request for contract extension by the Contractor.

36. ADDITIONS

Any modification to the contract shall be subject to prior approval by the Purchasing Agent. City Commission approval may also be required.

Prices for additional work required are not requested in the itemized listing contained herein for the base project. Should additional work be authorized, compensation shall be made on the basis of price or prices to be mutually agreed upon. Such additional work shall not begin until a Change Order has been approved.

37. INSPECTION AND TESTING

The Contractor shall give the Project Manager timely notice of readiness of the work for all required inspections, tests or approvals, and shall cooperate with inspections and testing personnel to facilitate required inspections or tests.

38. QUESTIONS

Bidders shall address questions regarding the specifications to Tom Palumbo, P.E., Senior Civil Engineer at palumbot@kalamazoocity.org. (This does not relieve the requirements of Page 6, Item 3.) Questions regarding terms, conditions and other related bid requirements may be addressed to Craig Hull, Buyer, at (269) 337-8444.

SECTION VII TERMS AND CONDITIONS

1. AWARD OF CONTRACT

- 1.1 This contract will be awarded to that responsible bidder whose bid, conforming to this solicitation, will be most advantageous to the City, price and other factors considered. The City reserves the right to accept or reject any or all bids and waive informalities and minor irregularities in bids received. Other factors include, as an example but not limited to, delivery time, conformance to specifications, incidental costs such as demurrage and deposits, etc.
- 1.2 Notification of award will be in writing by the Purchasing Manager. Upon notification, the Contractor shall submit to the Purchasing Division all required insurance certificates (if required) and such other documentation as may be requested or required hereunder. Upon their receipt and subsequent approval by the City, the Purchasing Manager will forward to the Contractor a written NOTICE TO PROCEED. Work shall NOT be started until such NOTICE TO PROCEED is received by the Contractor.
- 1.3 Unilateral changes in bid prices by the bidder shall not be allowed. However, the City, at its sole option, reserves the right to negotiate with bidders in the event of, but not limited to:
 - 1) No bids received;
 - 2) A single bid being received; or
 - 3) Prices quoted are over budget and/or unreasonable.

2. COMPLETE CONTRACT

This bid document together with its addenda, amendments, attachments and modifications, when executed, becomes the complete contract between the parties hereto, and no verbal or oral promises or representations made in conjunction with the negotiation of this contract shall be binding on either party.

3. SUBCONTRACTORS – NON-ASSIGNMENT

- 3.1 Bidders shall state in writing any and all sub-contractors to be associated with this bid, including the type of work to be performed. The Contractor shall cooperate with the City of Kalamazoo in meeting its commitments and goals with regard to maximum utilization of minority and women-owned business enterprises.
- 3.2 The Contractor hereby agrees and understands that the contract resulting from this solicitation shall not be transferred, assigned or sublet without prior written consent of the City of Kalamazoo.

4. TAXES

The City of Kalamazoo is exempt from all federal excise tax and state sales and use taxes.

5. INVOICING

All original invoice(s) will be sent to the Financial Services Division, 241 W. South Street, Kalamazoo, MI 49007 or via email at apinvoice@kalamazoocity.org. The Finance Division processes payments after receipt of an original invoice from the Contractor and approval by the department. The City of Kalamazoo's policy is to pay invoice(s) within 30 days from the receipt of the original invoice, if the services or supplies are satisfactory and the proper paperwork and

procedures have been followed. **In order to guarantee payment to the vendor on a timely basis, the vendor needs to receive a purchase order number before supplying the City of Kalamazoo with goods or services.** All original, and copies of original invoice(s), will clearly state which purchase order they are being billed against.

The City of Kalamazoo is a government municipality and therefore is tax exempt from all sales tax.

The vendor is responsible for supplying the Finance Division with a copy of their W9 if they are providing a service to the City of Kalamazoo.

6. PAYMENTS

- 6.1 Upon issuance of certificates of Payment by the Architect/Engineer for labor and material incorporated in the work and the materials suitably stored at the site payment shall be made up to ninety (90%) percent of the value thereof.
- 6.2 When the cumulative total of payment is equal to fifty (50%) percent of the contract sum, subsequent payments will be made in the full amount for labor and material certified by the Architect/Engineer.
- 6.3 The amount retained shall be held until final acceptance of the work, receipt of all payrolls, releases, and waiver of liens.

7. CHANGES AND/OR CONTRACT MODIFICATIONS

- 7.1 The City reserves the right to increase or decrease quantities, service or requirements, or make any changes necessary at any time during the term of this contract, or any negotiated extension thereof. Price adjustments due to any of the foregoing changes shall be negotiated and mutually agreed upon by the Contractor and the City.
- 7.2 Changes of any nature after contract award which reflect an increase or decrease in requirements or costs shall not be permitted without prior approval by the Purchasing Agent. City Commission approval may also be required.
- 7.3 ANY CHANGES PERFORMED IN ADVANCE OF PURCHASING AGENT APPROVAL, MAY BE SUBJECT TO DENIAL AND NON-PAYMENT.

8. LAWS, ORDINANCES, AND REGULATIONS

- 8.1 The Contractor shall keep himself/herself fully informed of all local, state and federal laws, ordinances and regulations in any manner affecting those engaged or employed in the work and the equipment used. Contractor and/or employees shall, at all times, serve and comply with such laws, ordinances and regulations.
- 8.2 Any permits, licenses, certificates, or fees required for the performance of the work shall be obtained and paid for by the Contractor.
- 8.3 This contract shall be governed by the laws of the State of Michigan.

9. RIGHT TO AUDIT

The City or its designee shall be entitled to audit all of the Contractor's records, and shall be allowed to interview any of the Contractor's employees, throughout the term of this contract and for a period of three years after final payment or longer if required by law to the extent necessary to adequately permit evaluation and verification of:

- A. Contractor compliance with contract requirements,
- B. Compliance with provisions for pricing change orders, invoices or claims submitted by the Contractor or any of his payees.

10. HOLD HARMLESS

If the negligent acts or omissions of the Contractor/Vendor or its employees, agents or officers, cause injury to person or property, the Contractor/Vendor shall indemnify and save harmless the City of Kalamazoo, its agents, officials, and employees against all claims, judgments, losses, damages, demands, and payments of any kind to persons or property to the extent occasioned from any claim or demand arising therefrom.

11. DEFAULT

The City may at any time, by written notice to the Contractor, terminate this contract and the Contractor's right to proceed with the work, for just cause, which shall include, but is not limited to the following:

- A. Failure to provide insurance and bonds (when called for), in the exact amounts and within the time specified or any extension thereof.
- B. Failure to make delivery of the supplies, or to perform the services within the time specified herein, or any extension thereof.
- C. The unauthorized substitution of articles for those bid and specified.
- D. Failure to make progress if such failure endangers performance of the contract in accordance with its terms.
- E. Failure to perform in compliance with any provision of the contract.
- F. Standard of Performance
 - a. Contractor guarantees the performance of the commodities, goods or services rendered herein in accordance with the accepted standards of the industry or industries concerned herein, except that if this specification calls for higher standards, then such higher standards shall be provided.
 - b. Upon notice by the City of Contractor's failure to comply with such standards or to otherwise be in default of this contract in any manner following the Notice to Proceed, Contractor shall immediately remedy said defective performance in a manner acceptable to the City. Should Contractor fail to immediately correct said defective performance, said failure shall be considered a breach of this contract and grounds for termination of the same by the City.
 - c. In the event of any breach of this contract by Contractor, Contractor shall pay any cost to the City caused by said breach including but not limited to the replacement cost of such goods or services with another Contractor.
 - d. The City reserves the right to withhold any or all payments until any defects in performance have been satisfactorily corrected.
 - e. In the event the Contractor is in breach of this contract in any manner, and such breach has not been satisfactorily corrected, the City may bar the Contractor from being awarded any future City contracts.
- G. All remedies available to the City herein are cumulative and the election of one remedy by the City shall not be a waiver of any other remedy available to the City.

12. TERMINATION OF CONTRACT

The City may, at any time and without cause, suspend the work of this contract for a period of not more than ninety days after providing notice in writing to the Contractor. The Contractor shall be allowed an adjustment in the contract price or an extension of the contract times, or both, directly attributable to the suspension if Contractor makes an approved claim.

The City may, without prejudice to any other right or remedy of the City, and with or without cause, terminate the contract by giving seven days written notice to the Contractor. In such case the Contractor shall be paid, without duplication, for the following items:

- A. Completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such work;
- B. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the contract documents in connection with uncompleted work, plus fair and reasonable sums for overhead and profit on such expenses;
- C. All documented claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and
- D. Reasonable expenses directly attributable to termination.

The Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

13. INDEPENDENT CONTRACTOR

At all times, the Contractor, any of his/her employees, or his/her sub-contractors and their subsequent employees shall be considered independent contractors and not as City employees. The Contractor shall exercise all supervisory control and general control over all workers' duties, payment of wages to Contractor's employees and the right to hire, fire and discipline their employees and workers. As an independent contractor, payment under this contract shall not be subject to any withholding for tax, social security or other purposes, nor shall the Contractor or his/her employees be entitled to sick leave, pension benefit, vacation, medical benefits, life insurance or workers' unemployment compensation or the like.

14. PROJECT SUPERVISOR

The Contractor shall employ an individual to act as Project Supervisor. The Project Supervisor shall be available to the Contractor's workers and the Project Manager at all times by use of a mobile phone or other reliable means. The Project Supervisor shall prepare daily work plans for the employees, monitor employee performance, attendance and punctuality; and work closely with the City's Project Manager in assuring contract compliance.

15. MEETINGS

The Contractor and/or Project Supervisor shall be available to meet with the Department Head or Project Manager at a mutually agreeable time to discuss problems, issues or concerns relative to the contract. Either party may call a meeting at any time. When such a request for a meeting is made, the meeting date shall, in no case exceed five (5) working days after the request; and, if in the sole opinion of the Department Head, the severity of the circumstance warrants, no more than one (1) working day.

16. INSPECTION OF WORKSITE

Before submitting bids or quotes for work, the Contractor shall be responsible for examining the work site and satisfying himself/herself as to the existing conditions under which he/she will be obligated to operate, or that in any way affects the work under this contract. No allowance shall be made subsequently, in behalf of the Contractor, for any negligence on his/her part.

17. CONTRACT PERIOD, EXTENSIONS, CANCELLATION

- 17.1 The contract shall be in effect for the term stated in the specifications.
- 17.2 The City may opt to extend this contract upon mutual agreement of both parties. The number of extensions shall be limited to that stated in the specifications.
- 17.3 The City may, from time to time, find it necessary to continue this contract on a month-to-month basis only, not to exceed a six (6) month period. Such month-to-month extended periods shall be by mutual agreement of both parties, with all provisions of the original contract or any extension thereof remaining in full force and effect.
- 17.4 All contracts, extensions and cost increases are subject to availability of funds and the approval of the City Commission (if required).
- 17.5 The City reserves the right to cancel the contract due to non-appropriation of funds by the City with thirty (30) days written notice.
- 17.6 Either party may terminate the contract (or any extension thereof) without cause at the end of any twelve (12) month term by giving written notice of such intent at least 60 days prior to the end of said twelve (12) month term.
- 17.7 All notices are in effect commencing with the date of mailing. Written notices may be delivered in person or sent by First Class mail; faxed or emailed to the last known address.
- 17.8 If cancellation is for default of contract due to non-performance, the contract may be canceled at any time (see Item 11, DEFAULT).

APPENDIX A

NON-DISCRIMINATION CLAUSE FOR ALL CITY OF KALAMAZOO CONTRACTS

The Contractor agrees to comply with the Federal Civil Rights Act of 1964 as amended; the Federal Civil Rights Act of 1991 as amended; the Americans With Disabilities Act of 1990 as amended; the Elliott-Larson Civil Rights Act, Act. No. 453, Public Act of 1976 as amended; the Michigan Handicappers Civil Rights Act, Act No. 220, Public Act of 1976 as amended, City Ordinance 1856 and all other applicable Federal and State laws. The Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, age, height, weight, marital status, physical or mental disability, family status, sexual orientation or gender identity that is unrelated to the individual's ability to perform the duties of the particular job or position. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment advertising, layoff or termination; rates of pay or other forms of compensations; and selection for training, including apprenticeship.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, sex, age, height, weight, marital status, physical or mental disability family status, sexual orientation or gender identity that is unrelated to the individual's ability to perform the duties of the particular job or position.
3. If requested by the City, the Contractor shall furnish information regarding practices, policies and programs and employment statistics for the Contractor and subcontractors. The Contractor and subcontractors shall permit access to all books, records and accounts regarding employment practices by agents and representatives of the City duly charged with investigative duties to assure compliance with this clause.
4. Breach of the covenants herein may be regarded as a material breach of the contract or purchasing agreement as provided in the Elliott-Larsen Civil Rights Act and City Ordinance 1856.
5. The Contractor will include or incorporate by reference the provisions of the foregoing paragraphs 1 through 4 in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission* and will provide in every subcontract or purchase order that said provision will be binding upon each subcontractor or seller.
6. The Contractor will not preclude a person with a criminal conviction from being considered for employment unless otherwise precluded by federal or state law. (for contracts over \$25,000)

The Elliott-Larson Civil Rights Act, Sec. 202 of Act. No. 453 of 1976 reads in part as follows:

Sec. 202. (1) An employer shall not:

- (a) Fail or refuse to hire, or recruit, or discharge or otherwise discriminate against an individual with respect to employment, compensation, or a term condition or privilege of employment because of religion, race, color, national origin, age, sex, height, weight or marital status.
- (b) Limit, segregate or classify an employee or applicant for employment in a way which deprives or tends to deprive the employee or applicant of an employment opportunity or otherwise adversely affects the status of an employee or applicant because of religion, race, color, national origin, age, sex, height, weight or marital status.
- (c) Segregate, classify or otherwise discriminate against a person on the basis of sex with respect to a term, condition or privilege of employment, including a benefit plan or system.

* Except for contracts entered into with parties employing less than three employees.
1-2010

APPENDIX B

PREVAILING WAGES

Prevailing wages are applicable to this contract, therefore, rates will apply as follows:

(XX) Project is funded by City of Kalamazoo monies and is estimated to be in excess of \$100,000.00. The applicable prevailing wage rates are attached.

Specifications for projects in which the City of Kalamazoo is party for construction, alterations and/or repair including painting and decorating of public buildings or public works in or for the City of Kalamazoo and which requires or involves the employment of mechanics and/or laborers shall contain the following provisions stating the minimum wages to be paid the various classes of laborers and mechanics for the project. Prevailing wage rates determined by the U.S. Department of Labor under Davis Bacon and related acts will be used for City of Kalamazoo construction projects.

By the incorporation of prevailing wage rates within this specification, the City of Kalamazoo stipulates that:

- ✓ Contractor or his/her subcontractor shall pay all mechanics and laborers employed directly upon the site of the work, unconditionally and not less than once a week and without subsequent deduction or rebate on any account the full amount, accrued at the time of payment, computed at wage rates as incorporated herein regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and such laborers and mechanics;
- ✓ The scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of the work;
- ✓ The Prime Contractor and all subcontractors shall submit weekly certified payrolls documenting the hours worked and wages paid by work classification. NOTE: Contactor shall not include Social Security numbers of employees on certified payrolls.
- ✓ There may be withheld from the contractor's accrued payments the amount considered necessary by the City's Contracting Official to pay to laborers and mechanics employed by the contractor or any subcontractor on the work for the difference between the rates of wages required by the contract and the rates of wages received by such laborers and mechanics except those amounts properly deducted or refunded pursuant to the terms of the Davis-Bacon Act (USC, Title 40, Sec. 276a) and interpretations thereof.

Special Note: The City's requirements as it relates to prevailing wages includes a meeting with the City's Purchasing Agent prior to starting work and the submission of weekly certified payrolls by prime contractors and all subcontractors. The City will monitor certified payrolls, work progress, and conduct interviews with the mechanics and labors employed directly upon the site during the duration of the contract Please contact the Purchasing Department at (269) 337-8020 if you have any questions regarding prevailing wage provision.

The overtime pay to which a laborer or mechanic is entitled under this contract shall be that overtime pay to which he/she is entitled by any agreement made with the contractor or subcontractor or by any applicable provision of law; but in no event shall such amount be less than the prevailing wage in the Kalamazoo community for such overtime.

Revised 4-08



PREVAILING WAGE RATES

2022 Rose Street Resurfacing

Bid Reference #: 91395-005.0

**March
2022**

"General Decision Number: MI20220001 02/25/2022

Superseded General Decision Number: MI20210001

State: Michigan

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

Counties: Michigan Statewide.

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Modification Number	Publication Date
0	01/07/2022
1	01/21/2022
2	02/11/2022

3

02/25/2022

CARP0004-004 06/01/2019

REMAINDER OF STATE

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

CARP0004-005 06/01/2018

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

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

ELEC0017-005 06/01/2021

STATEWIDE

	Rates	Fringes
Line Construction		
Groundman/Driver.....	\$ 29.11	7.20+32%
Journeyman Signal Tech, Communications Tech, Tower		
Tech & Fiber Optic Splicers..	\$ 42.55	7.20+32%
Journeyman Specialist.....	\$ 48.93	7.20+32%
Operator A.....	\$ 35.96	7.20+32%
Operator B.....	\$ 33.57	7.20+32%

Classifications

Journeyman Specialist: Refers to a crew of only one person working alone.

Operator A: Shall be proficient in operating all power equipment including: Backhoe, Excavator, Directional Bore and Boom/Digger truck.

Operator B: Shall be proficient in operating any 2 of the above mentioned pieces of equipment listed under Operator A.

ENGI0324-003 06/01/2021

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

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
GROUP 1.....	\$ 48.02	24.85
GROUP 2.....	\$ 49.02	24.85
GROUP 3.....	\$ 46.52	24.85

GROUP 4.....	\$ 47.52	24.85
GROUP 5.....	\$ 45.02	24.85
GROUP 6.....	\$ 46.02	24.85
GROUP 7.....	\$ 44.75	24.85
GROUP 8.....	\$ 45.75	24.85
GROUP 9.....	\$ 44.30	24.85
GROUP 10.....	\$ 45.30	24.85
GROUP 11.....	\$ 43.57	24.85
GROUP 12.....	\$ 44.57	24.85
GROUP 13.....	\$ 43.21	24.85
GROUP 14.....	\$ 44.21	24.85
GROUP 15.....	\$ 42.57	24.85
GROUP 16.....	\$ 39.37	24.85
GROUP 17.....	\$ 24.89	12.00
GROUP 18.....	\$ 28.38	12.00

FOOTNOTE:

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

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GROUP 16: Forklift and 1 drum hoist

GROUP 17: Compressor or welder operator

GROUP 18: Oiler

 ENGI0324-004 06/01/2021

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

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

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
AREA 1		
GROUP 1.....	\$ 48.02	24.85
GROUP 2.....	\$ 44.75	24.85
GROUP 3.....	\$ 43.21	24.85
GROUP 4.....	\$ 39.37	24.85
GROUP 5.....	\$ 24.89	12.00
GROUP 6.....	\$ 28.38	12.00
AREA 2		
GROUP 1.....	\$ 48.02	24.85
GROUP 2.....	\$ 44.75	24.85
GROUP 3.....	\$ 43.21	24.85
GROUP 4.....	\$ 39.37	24.85
GROUP 5.....	\$ 24.89	12.00
GROUP 6.....	\$ 28.38	12.00

FOOTNOTES:

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

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

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

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

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

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

GROUP 4: Air Tugger (single drum), Material Hoist Pump 6" or over, Elevators, Brokk Concrete Breaker.

GROUP 5: Air Compressor, Welder, Generators, Conveyors

GROUP 6: Oiler and fire tender

ENGI0324-005 09/01/2021AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND,
ST. CLAIR, WASHTENAW AND WAYNE COUNTIESAREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA,
BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS,
CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD,
DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND
TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA,
IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT,
KWEENAW, LAKE, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE,
MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE,
MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW,
ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE,
ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST.
JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

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

AREA 1:

GROUP 1.....	\$ 37.63	24.85
GROUP 2.....	\$ 32.90	24.85
GROUP 3.....	\$ 32.17	24.85
GROUP 4.....	\$ 31.60	24.85
GROUP 5.....	\$ 23.15	12.05

AREA 2:

GROUP 1.....	\$ 35.92	24.85
GROUP 2.....	\$ 31.03	24.85
GROUP 3.....	\$ 30.53	24.85
GROUP 4.....	\$ 30.25	24.85
GROUP 5.....	\$ 23.15	12.05

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backfiller tamper; Backhoe; Batch plant operator
(concrete); Clamshell; Concrete paver (2 drums or larger);
Conveyor loader (Euclid type); Crane (crawler, truck type
or pile driving); Dozer; Dragline; Elevating grader;
Endloader; Gradall (and similar type machine); Grader;
Mechanic; Power shovel; Roller (asphalt); Scraper
(self-propelled or tractor drawn); Side boom tractor (type
D-4 or equivalent and larger); Slip form paver; Slope
paver; Trencher (over 8 ft. digging capacity); Well
drilling rig; Concrete pump with boom operator; Hydro
ExcavatorGROUP 2: Boom truck (power swing type boom); Crusher; Hoist;
Pump (1 or more - 6-in. discharge or larger - gas or
diesel- powered or powered by generator of 300 amperes or
more - inclusive of generator); Side boom tractor (smaller
than type D-4 or equivalent); Tractor (pneu-tired, other
than backhoe or front end loader); Trencher (8-ft. digging
capacity and smaller); Vac Truck and End dump operator;GROUP 3: Air compressors (600 cfm or larger); Air compressors
(2 or more-less than 600 cfm); Boom truck (non-swinging,
non- powered type boom); Concrete breaker (self-propelled

or truck mounted - includes compressor); Concrete paver (1 drum-1/2 yd. or larger); Elevator (other than passenger); Maintenance person; Pump (2 or more-4-in. up to 6-in. discharge-gas or diesel powered - excluding submersible pumps); Pumpcrete machine (and similar equipment); Wagon drill (multiple); Welding machine or generator (2 or more-300 amp. or larger - gas or diesel powered)

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

Group 5: Fire Person, Oiler

* ENGI0324-006 06/01/2021

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

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

GROUP 1.....	\$ 36.86	24.85
GROUP 2.....	\$ 30.13	24.85
GROUP 3.....	\$ 29.52	24.85
GROUP 4.....	\$ 29.40	24.85

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt plant operator; Crane operator (does not include work on bridge construction projects when the crane operator is erecting structural components); Dragline operator; Shovel operator; Locomotive operator; Paver operator (5 bags or more); Elevating grader operator; Pile driving operator; Roller operator (asphalt); Blade grader operator; Trenching machine operator (ladder or wheel type); Auto-grader; Slip form paver; Self-propelled or tractor-drawn scraper; Conveyor loader operator (Euclid type); Endloader operator (1 yd. capacity and over); Bulldozer; Hoisting engineer; Tractor operator; Finishing machine operator (asphalt); Mechanic; Pump operator (6-in. discharge or over, gas, diesel powered or generator of 300 amp. or larger); Shouldering or gravel distributing machine operator (self-propelled); Backhoe (with over 3/8 yd.

bucket); Side boom tractor (type D-4 or equivalent or larger); Tube finisher (slip form paving); Gradall (and similar type machine); Asphalt paver (self-propelled); Asphalt planer (self-propelled); Batch plant (concrete-central mix); Slurry machine (asphalt); Concrete pump (3 in. and over); Roto-mill; Swinging boom truck (over 12 ton capacity); Hydro demolisher (water blaster); Farm-type tractor with attached pan; Vacuum truck operator; Batch Plant (concrete dry batch); Concrete Saw Operator (40h.p. or over; Tractor Operator (farm type); Finishing Machine Operator (concrete); Grader Operator (self-propelled fine grade or form (concrete)).

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

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

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

 ENGI0324-007 05/01/2021

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

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
Compressor, welder and forklift.....	\$ 35.90	24.60
Crane operator, main boom & jib 120' or longer.....	\$ 42.37	24.60
Crane operator, main boom & jib 140' or longer.....	\$ 42.67	24.60
Crane operator, main boom & jib 220' or longer.....	\$ 43.26	24.60
Mechanic with truck and tools.....	\$ 41.50	24.60
Oiler and fireman.....	\$ 34.36	24.60
Regular operator.....	\$ 39.72	24.60

 ENGI0324-008 10/01/2020

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA,

IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Sewer Relining)		
GROUP 1.....	\$ 35.37	14.31
GROUP 2.....	\$ 33.33	14.31

SEWER RELINING CLASSIFICATIONS

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

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

ENGI0325-012 05/01/2021

	Rates	Fringes
Power equipment operators - gas distribution and duct installation work:		
GROUP 1.....	\$ 33.48	24.85
GROUP 2.....	\$ 31.45	24.85
GROUP 3.....	\$ 29.60	24.45

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

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

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

IRON0008-007 06/01/2021

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

	Rates	Fringes
Ironworker - pre-engineered metal building erector.....	\$ 23.70	6.95
IRONWORKER		
General contracts \$10,000,000 or greater.....	\$ 36.45	27.65
General contracts less than \$10,000,000.....	\$ 36.45	27.65

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

IRON0025-002 06/01/2021

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

	Rates	Fringes
Ironworker - pre-engineered metal building erector Alcona, Alpena, Arenac, Cheboygan, Clare, Clinton, Crawford, Gladwin, Gratiot, Huron, Ingham, Iosco, Isabella, Jackson, Lapeer, Livingston (west of Burkhardt Road), Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon, Sanilac, Shiawassee, Tuscola & Washtenaw (west of U.S. 23).	\$ 24.26	22.11
Bay, Genesee, Lapeer, Livingston (east of Burkhardt Road), Macomb, Midland, Oakland, Saginaw, St. Clair, The University of Michigan, Washtenaw (east of U.S. 23) & Wayne...	\$ 25.48	23.11
IRONWORKER		
Ornamental and Structural...	\$ 36.77	29.03
Reinforcing.....	\$ 32.99	30.76

IRON0055-005 07/01/2021

LENAWEE AND MONROE COUNTIES:

	Rates	Fringes
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IRONWORKER

Pre-engineered metal buildings.....	\$ 23.59	19.35
All other work.....	\$ 31.25	26.90

IRON0292-003 06/01/2020

BERRIEN AND CASS COUNTIES:

Rates	Fringes
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IRONWORKER (Including pre-engineered metal building erector).....	\$ 31.75	22.84
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IRON0340-001 06/19/2017

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

Rates	Fringes
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IRONWORKER (Including pre-engineered metal building erector).....	\$ 24.43	24.67
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LAB00005-006 10/01/2020

Rates	Fringes
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Laborers - hazardous waste abatement: (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE AND WEXFORD COUNTIES - Zone 10)

Levels A, B or C.....	\$ 17.45	12.75
class b.....	\$ 18.64	12.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....	\$ 16.45	12.75
class a.....	\$ 17.64	12.90

Zone 10

Laborers - hazardous waste abatement: (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES - Zone 11)

Levels A, B or C.....	\$ 23.58	12.90
Work performed in conjunction with site		

preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 22.58	12.90	
Laborers - hazardous waste abatement: (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (except the city of Portland); KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH AND VAN BUREN COUNTIES - Zone 9)		
Levels A, B or C.....\$ 21.80	12.90	
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 20.80	12.90	
Laborers - hazardous waste abatement: (ARENAC, BAY, CLARE, GLADWIN, GRATIOT, HURON, ISABELLA, MIDLAND, OGEMAW, ROSCOMMON, SAGINAW AND TUSCOLA COUNTIES - Zone 8)		
Levels A, B or C.....\$ 21.39	12.90	
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 20.80	12.90	
Laborers - hazardous waste abatement: (CLINTON, EATON AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); LIVINGSTON COUNTY (west of Oak Grove Rd., including the City of Howell) - Zone 6)		
Levels A, B or C.....\$ 25.64	12.90	
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 24.64	12.90	
Laborers - hazardous waste abatement: (GENESEE, LAPEER AND SHIAWASSEE COUNTIES - Zone 7)		
Levels A, B or C.....\$ 24.20	13.80	
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 23.20	13.80	
Laborers - hazardous waste abatement: (HILLSDALE, JACKSON AND LENAWEЕ COUNTIES - Zone 4)		
Levels A, B or C.....\$ 25.17	12.90	

Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 24.17	12.90	
Laborers - hazardous waste abatement: (LIVINGSTON COUNTY (east of Oak Grove Rd. and south of M-59, excluding the city of Howell); AND WASHTENAW COUNTY - Zone 3)		
Levels A, B or C.....\$ 29.93	14.20	
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 28.93	14.20	
Laborers - hazardous waste abatement: (MACOMB AND WAYNE COUNTIES - Zone 1)		
Levels A, B or C.....\$ 29.93	16.90	
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 28.93	16.90	
Laborers - hazardous waste abatement: (MONROE COUNTY - Zone 4)		
Levels A, B or C.....\$ 31.75	14.90	
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 31.75	14.90	
Laborers - hazardous waste abatement: (OAKLAND COUNTY and the Northeast portion of LIVINGSTON COUNTY bordered by Oak Grove Road on the West and M-59 on the South - Zone 2)		
Level A, B, C.....\$ 29.93	16.90	
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 28.93	16.90	
Laborers - hazardous waste abatement: (SANILAC AND ST. CLAIR COUNTIES - Zone 5)		
Levels A, B or C.....\$ 25.75	16.35	
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....\$ 24.75	16.35	

LAB00259-001 09/01/2021

AREA 1: MACOMB, OAKLAND AND WAYNE COUNTIES

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

Rates Fringes

Laborers - tunnel, shaft and caisson:

AREA 1		
GROUP 1.....	\$ 23.62	16.95
GROUP 2.....	\$ 23.73	19.95
GROUP 3.....	\$ 23.79	16.95
GROUP 4.....	\$ 23.97	16.95
GROUP 5.....	\$ 24.22	16.95
GROUP 6.....	\$ 24.55	16.95
GROUP 7.....	\$ 17.83	16.95
AREA 2		
GROUP 1.....	\$ 25.15	12.95
GROUP 2.....	\$ 25.24	12.95
GROUP 3.....	\$ 25.34	12.95
GROUP 4.....	\$ 25.50	12.95
GROUP 5.....	\$ 25.76	12.95
GROUP 6.....	\$ 26.07	12.95
GROUP 7.....	\$ 18.34	12.95

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

TUNNEL LABORER CLASSIFICATIONS

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

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

GROUP 3: Air tool operator (jackhammer, bush hammer and grinder), first bottom, second bottom, cage tender, car pusher, carrier, concrete, concrete form, concrete repair, cement invert laborer, cement finisher, concrete shoveler, conveyor, floor, gasoline and electric tool operator, gunite, grout operator, welder, heading dinky person, inside lock tender, pea gravel operator, pump, outside lock tender, scaffold, top signal person, switch person, track, tugger, utility person, vibrator, winch operator, pipe jacking, wagon drill and air track operator and concrete saw operator (under 40 h.p.)

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

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

GROUP 6: Dynamite and powder

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

LAB00334-001 09/01/2021

Rates Fringes

Laborers - open cut:

ZONE 1 - MACOMB, OAKLAND
AND WAYNE COUNTIES:

GROUP 1.....	\$ 23.47	16.95
GROUP 2.....	\$ 23.58	16.95
GROUP 3.....	\$ 23.63	16.95
GROUP 4.....	\$ 23.71	16.95
GROUP 5.....	\$ 23.77	16.95
GROUP 6.....	\$ 21.22	16.95
GROUP 7.....	\$ 17.84	16.95

ZONE 2 - LIVINGSTON COUNTY
(east of M-151 (Oak Grove
Rd.)); MONROE AND
WASHTENAW COUNTIES:

GROUP 1.....	\$ 24.80	12.95
GROUP 2.....	\$ 24.91	12.95
GROUP 3.....	\$ 25.03	12.95
GROUP 4.....	\$ 25.10	12.95
GROUP 5.....	\$ 25.25	12.95
GROUP 6.....	\$ 22.55	12.95
GROUP 7.....	\$ 19.19	12.95

ZONE 3 - CLINTON, EATON,
GENESEE, HILLSDALE AND
INGHAM COUNTIES; IONIA
COUNTY (City of Portland);
JACKSON, LAPEER AND
LENAWEE COUNTIES;
LIVINGSTON COUNTY (west of
M-151 Oak Grove Rd.);
SANILAC, ST. CLAIR AND
SHIAWASSEE COUNTIES:

GROUP 1.....	\$ 22.99	12.95
GROUP 2.....	\$ 23.13	12.95
GROUP 3.....	\$ 23.25	12.95
GROUP 4.....	\$ 23.30	12.95
GROUP 5.....	\$ 23.44	12.95
GROUP 6.....	\$ 20.74	12.95
GROUP 7.....	\$ 17.89	12.95

ZONE 4 - ALCONA, ALLEGAN,
ALPENA, ANTRIM, ARENAC,
BARRY, BAY, BENZIE,
BERRIEN, BRANCH,
CALHOUN, CASS, CHARLEVOIX,
CHEBOYGAN, CLARE,
CRAWFORD, EMMET,
GLADWIN, GRAND TRAVERSE,

GRATIOT AND HURON
 COUNTIES; IONIA COUNTY
 (EXCEPT THE CITY OF
 PORTLAND); IOSCO,
 ISABELLA, KALAMAZOO,
 KALKASKA, KENT,
 LAKE, LEELANAU, MANISTEE,
 MASON, MECOSTA, MIDLAND,
 MISSAUKEE, MONTCALM,
 MONTMORENCY, MUSKEGON,
 NEWAYGO, OCEANA, OGEMAW,
 OSCEOLA, OSCODA, OTSEGO,
 OTTAWA, PRESQUE ISLE,
 ROSCOMMON, SAGINAW, ST.
 JOSEPH, TUSCOLA, VAN BUREN
 AND WEXFORD COUNTIES:

GROUP 1.....	\$ 22.02	12.95
GROUP 2.....	\$ 22.15	12.95
GROUP 3.....	\$ 22.26	12.95
GROUP 4.....	\$ 22.33	12.95
GROUP 5.....	\$ 22.45	12.95
GROUP 6.....	\$ 19.67	12.95
GROUP 7.....	\$ 18.01	12.95

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

GROUP 1.....	\$ 22.24	12.95
GROUP 2.....	\$ 22.38	12.95
GROUP 3.....	\$ 22.51	12.95
GROUP 4.....	\$ 22.56	12.95
GROUP 5.....	\$ 22.61	12.95
GROUP 6.....	\$ 19.99	12.95
GROUP 7.....	\$ 18.10	12.95

SCOPE OF WORK:

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

OPEN CUT LABORER CLASSIFICATIONS

GROUP 1: Construction laborer

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

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

GROUP 4: Trench or excavating grade person

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

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

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

LAB00465-001 06/01/2021

LABORER: Highway, Bridge and Airport Construction

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

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

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

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

	Rates	Fringes
LABORER (AREA 1)		
GROUP 1.....	\$ 30.52	13.45
GROUP 2.....	\$ 30.65	13.45
GROUP 3.....	\$ 30.83	13.45
GROUP 4.....	\$ 30.91	13.45

GROUP 5.....	\$ 31.12	13.45
GROUP 6.....	\$ 31.42	13.45
LABORER (AREA 2)		
GROUP 1.....	\$ 26.92	12.90
GROUP 2.....	\$ 27.12	12.90
GROUP 3.....	\$ 27.36	12.90
GROUP 4.....	\$ 27.71	12.90
GROUP 5.....	\$ 27.58	12.90
GROUP 6.....	\$ 27.92	12.90
LABORER (AREA 3)		
GROUP 1.....	\$ 26.22	12.90
GROUP 2.....	\$ 26.43	12.90
GROUP 3.....	\$ 26.72	12.90
GROUP 4.....	\$ 27.16	12.90
GROUP 5.....	\$ 26.78	12.90
GROUP 6.....	\$ 27.21	12.90
LABORER (AREA 4)		
GROUP 1.....	\$ 26.22	12.90
GROUP 2.....	\$ 26.43	12.90
GROUP 3.....	\$ 26.72	12.90
GROUP 4.....	\$ 27.16	12.90
GROUP 5.....	\$ 26.78	12.90
GROUP 6.....	\$ 27.21	12.90

LABORER CLASSIFICATIONS

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

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

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

GROUP 4: Asphalt raker

GROUP 5: Pipe layers, oxy-gun

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

LAB01076-005 04/01/2021

MICHIGAN STATEWIDE

	Rates	Fringes
LABORER (DISTRIBUTION WORK)		
Zone 1.....	\$ 23.92	12.95
Zone 2.....	\$ 22.22	12.95
Zone 3.....	\$ 20.35	12.95
Zone 4.....	\$ 19.77	12.95
Zone 5.....	\$ 19.75	12.95

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

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

Zone 1 - Macomb, Oakland and Wayne

Zone 2 - Monroe and Washtenaw

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

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

Zone 5 - Remaining Counties in Michigan

PAIN0022-002 07/01/2008

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

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

FOOTNOTES: For all spray work and journeyman rigging for spray work, also blowing off, \$0.80 per hour additional (applies only to workers doing rigging for spray work on off the floor work. Does not include setting up or moving rigging on floor surfaces, nor does it apply to workers engaged in covering up or tending spray equipment. For all sandblasting and spray work performed on highway bridges, overpasses, tanks or steel, \$0.80 per hour additional. For all brushing, cleaning and other preparatory work (other than spraying or steeplejack work) at scaffold heights of

fifty (50) feet from the ground or higher, \$0.50 per hour additional. For all preparatorial work and painting performed on open steel under forty (40) feet when no scaffolding is involved, \$0.50 per hour additional. For all swing stage work-window jacks and window belts-exterior and interior, \$0.50 per hour additional. For all spray work and sandblaster work to a scaffold height of forty (40) feet above the floor level, \$0.80 per hour additional. For all preparatorial work and painting on all highway bridges or overpasses up to forty (40) feet in height, \$0.50 per hour additional. For all steeplejack work performed where the elevation is forty (40) feet or more, \$1.25 per hour additional.

PAIN0312-001 06/01/2018

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

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

PAIN0845-003 05/10/2018

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

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

PAIN0845-015 05/10/2018

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

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

PAIN0845-018 05/10/2018

ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); IONIA COUNTY (west of Hwy. M-66); KENT,

MECOSTA AND MONTCALM COUNTIES; NEWAYGO COUNTY (Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OSCEOLA COUNTY (south of Hwy. #10); OTTAWA COUNTY (Townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

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

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

PAIN1011-003 06/02/2021

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

	Rates	Fringes
PAINTER.....	\$ 26.71	14.38

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

PAIN1474-002 06/01/2010

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

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

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

PAIN1803-003 06/01/2019

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

	Rates	Fringes
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PAINTER

Work performed on water, bridges over water or moving traffic, radio and powerline towers, elevated tanks, steeples, smoke stacks over 40 ft. of falling heights, recovery of lead-based paints and any work associated with industrial plants, except maintenance of industrial plants.....	\$ 25.39	14.68
All other work, including maintenance of industrial plant.....	\$ 25.39	14.68

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

PLAS0514-001 06/01/2018

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

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

	Rates	Fringes
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CEMENT MASON/CONCRETE FINISHER

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

PLUM0190-003 05/01/2015

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE,

MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
--	-------	---------

Plumber/Pipefitter - gas
distribution pipeline:

Welding in conjunction
with gas distribution

pipeline work.....	\$ 33.03	20.19
All other work:.....	\$ 24.19	12.28

TEAM0007-004 06/01/2020

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

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

	Rates	Fringes
--	-------	---------

TRUCK DRIVER

AREA 1

Euclids, double bottoms and lowboys.....	\$ 28.05	.50 + a+b
Trucks under 8 cu. yds.....	\$ 27.80	.50 + a+b
Trucks, 8 cu. yds. and over.....	\$ 27.90	.50 + a+b

AREA 2

Euclids, double bottomms and lowboys.....	\$ 24.895	.50 + a+b
Euclids, double bottoms and lowboys.....	\$ 28.15	.50 + a+b
Trucks under 8 cu. yds.....	\$ 27.90	.50 + a+b
Trucks, 8 cu. yds. and over.....	\$ 28.00	.50 + a+b

Footnote:

a. \$47.70 per week
b. \$68.70 daily

TEAM0247-004 04/01/2013

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE,

MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, SAGINAW, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

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

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

FOOTNOTE:

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

SIGN INSTALLER CLASSIFICATIONS:

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

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

TEAM0247-010 04/01/2018

AREA 1: LAPEER AND SHIAWASSEE COUNTIES

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

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

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

SCOPE OF WORK: Excavation, site preparation, land balancing, grading, sewers, utilities and improvements; also including but not limited to, tunnels, underground piping, retention, oxidation, flocculation facilities, conduits, general

excavation and steel sheeting for underground construction. Underground construction work shall not include any structural modifications, alterations, additions and repairs to buildings or highway work, including roads, streets, bridge construction and parking lots or steel erection.

TRUCK DRIVER CLASSIFICATIONS

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

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

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

* SUMI2002-001 05/01/2002

	Rates	Fringes
Flag Person.....	\$ 10.10 **	0.00
LINE PROTECTOR (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)....	\$ 20.30	12.90
LINE PROTECTOR (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE).....	\$ 18.02	12.90
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1.....	\$ 27.07	12.90
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2.....	\$ 24.36	12.90
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1.....	\$ 24.02	12.90
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2.....	\$ 21.62	12.90

WORK CLASSIFICATIONS:

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

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

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

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

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$15.00) or 13658 (\$11.25). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

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

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

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed

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

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

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

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

Union Average Rate Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

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

- * an existing published wage determination
- * a survey underlying a wage determination

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

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

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

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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

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

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

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

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

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

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END OF GENERAL DECISIO"

**APPENDIX C
ADDITIONAL INFORMATION**



**THE CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION**

**Civil Site Plans
City of Kalamazoo Standard Plans**

2022 Rose Street Resurfacing

Bid Reference #: 91395-005.0

DRAWING LOCATION: 11-30-1910 (Rose St. Road Data) - FINAL DRAWINGS TO THE STREET - LAST SAVED BY: ASSIGNED ON: 1/12/2022

ROSE STREET PAVEMENT REPLACEMENT, ISSUED FOR 30% DESIGN, 7/30/21

City of Kalamazoo

ROSE STREET PAVEMENT REPLACEMENT

Lovell Street to Crosstown Parkway

Kalamazoo County, MICHIGAN

1/14/22

OWNER

City of Kalamazoo
415 E Stockbridge Ave.
Kalamazoo, MI 49001

PLANS PREPARED BY:



hurley & stewart, llc
2800 s. 11th street
kalamazoo, michigan 49009
269.552.4960 fax 269.552.4961
www.hurleystewart.com

UTILITY CONTACTS:

CONSUMERS ENERGY CO. MIKE SOKOLOV 2500 E. CORK STREET KALAMAZOO, MI 49001 269.337.2246	ELECTRIC
CONSUMERS ENERGY CO. KYLE OAK 2500 E. CORK STREET KALAMAZOO, MI 49001 269.337.2366	GAS
CITY OF KALAMAZOO STEVE SKALSKI/RYAN STOUGHTON 415 STOCKBRIDGE AVENUE KALAMAZOO, MI 49001 269.337.8002	WATER/SANITARY
CHARTER MARK BURKE 2919 MILLCORK ST. KALAMAZOO, MI 49001 269.384.4436	TELEPHONE/CABLE TV
COMCAST 1(800)391-3000	CABLE TV

CONTRACT FOR ROAD IMPROVEMENTS

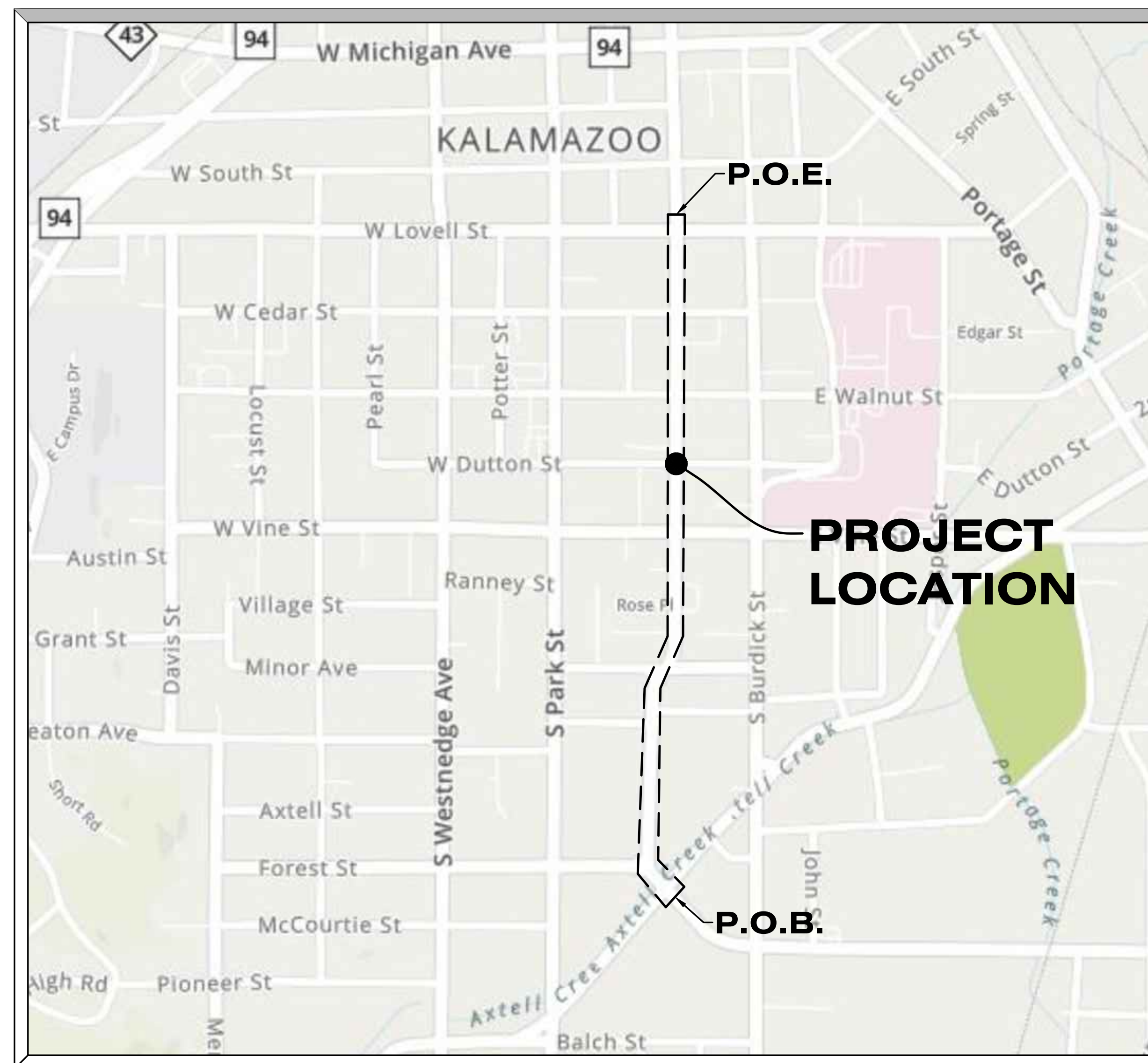
IMPROVEMENTS TO KALAMAZOO STREET, ENGINEERING DESIGN AND CONSTRUCTION SERVICES FOR AN ONE COURSE HMA RESURFACING FOR THE PROJECT LENGTH AND SIDE STREETS, SPOT REPLACEMENT OF CURB AND GUTTER AS NECESSARY, IMPROVEMENTS TO SIDEWALK RAMP.



CITY OF KALAMAZOO
EAST MAIN STREET
KALAMAZOO, MI 49001

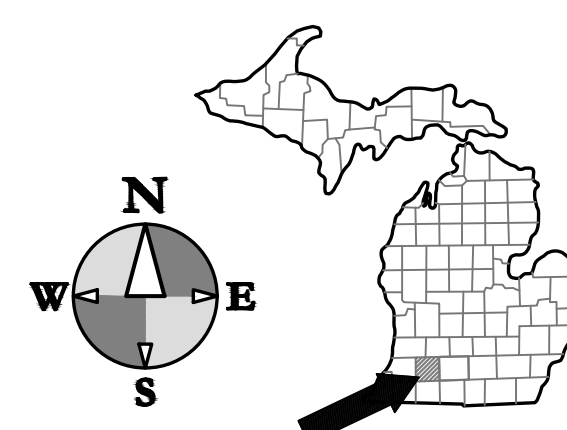
ANTHONY LADD ASSISTANT CITY ENGINEER
STREETS DIVISION

DATE



SITE LOCATION MAP

SCALE: 1" = 500'



DRAWING INDEX

SHT # DESCRIPTION

- 1 - TYPICAL NOTES AND SECTIONS
- 2 - REMOVAL PLAN POB - STA 26+50
- 3 - REMOVAL PLAN STA 26+50 - POE
- 4 - CONSTRUCTION PLAN POB - STA 26+50
- 5 - CONSTRUCTION PLAN STA 26+50 - POE
- 6 - RAMP GRADING
- 7 - RAMP GRADING



ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.

ISSUED FOR:
BIDS
1/14/22

PROJECT NOTES

1. VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO ORDERING CASTINGS AND CONSTRUCTION.
2. COORDINATE ALL TRAFFIC CONTROL WITH CITY OF KALAMAZOO.
3. PAYMENT FOR ALL WORK SHALL BE ACCORDING TO THE PAY ITEMS INDICATED. ANY WORK REQUIRED ON THE DRAWINGS BUT OTHERWISE NOT SPECIFICALLY COVERED BY A PAY ITEM SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
5. ALL GRANULAR FILL UNDER THE INFLUENCE OF THE ROADWAY AND PROCESSED ROAD GRAVEL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
6. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
7. FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

REMOVAL NOTES

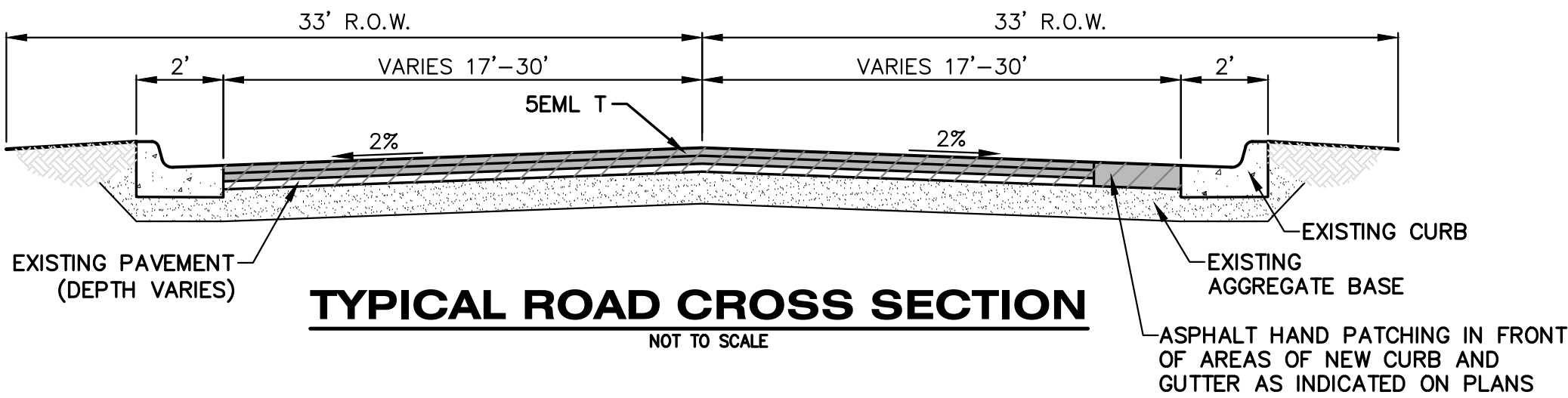
1. REVIEW ALL THE REMOVALS AND PROTECTION WITH OWNER PRIOR TO COMMENCING CONSTRUCTION.
2. ALL REMOVALS SHALL BE TAKEN OFF-SITE AND DISPOSED OF. NO STOCKPILE OR BURNING OF DEBRIS IS ALLOWED.
3. ALL REMOVALS SHALL BE TO THE LIMITS INDICATED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNAUTHORIZED REMOVALS AND SUBSEQUENT REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.

GRADING - SESC NOTES

1. ALL WORK WILL COMPLY WITH THE PROVISIONS OF THE SOIL EROSION AND SEDIMENTATION CONTROL ACT (PA 347 OF 1972 AS AMENDED) ADMINISTERED BY THE CITY OF KALAMAZOO.
2. AVOID UNNECESSARY DISTURBING OR REMOVING EXISTING VEGETATED TOPSOIL OR EARTH COVER. THESE AREAS ACT AS SEDIMENT FILTERS.
3. ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL SITE IS ESTABLISHED.
4. CONTRACTOR TO INSTALL INLET PROTECTION AT ALL STORM SEWER STRUCTURES DURING CONSTRUCTION.
5. NO SITE WORK SHALL BEGIN UNTIL SESC MEASURES ARE INSTALLED.
6. THE CONTRACTOR SHALL SERVE AS THE CERTIFIED STORM WATER OPERATOR FOR THE PROJECT AND SHALL PROVIDE COPIES OF ALL INSPECTION REPORTS AND RECOMMENDATIONS TO THE ENGINEER.
7. CLEAN ADJACENT ROADWAYS WHEN NECESSARY.
8. WATER SITE WHEN NECESSARY TO PREVENT AIR BORNE SEDIMENT TRANSFER.
9. MATCH EXISTING GRADES AROUND PERIMETER WITH SLOPES AS SHOWN.
10. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT GRADES AT EDGE OF METAL (EOM) UNLESS OTHERWISE NOTED.

UTILITY NOTES

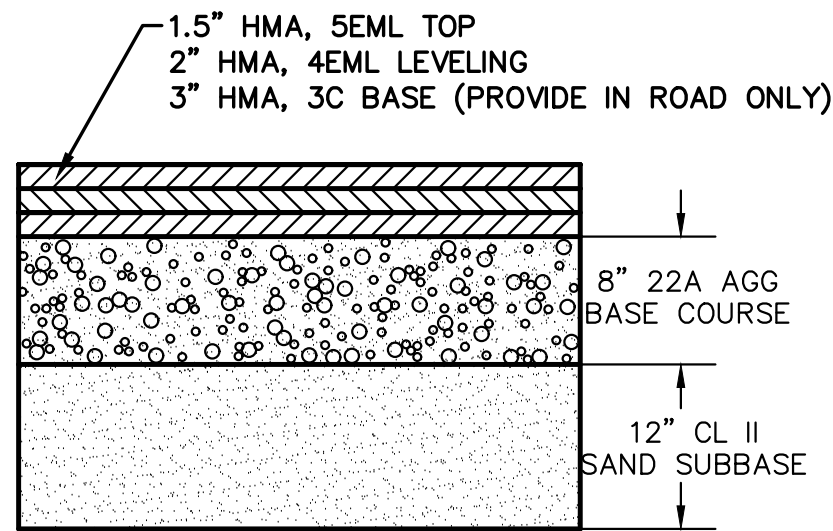
1. ALL STRUCTURE CASTINGS TO BE EAST JORDAN IRON WORKS OR APPROVED EQUAL. SEE STRUCTURE TABLE FOR SPECIFIC CASTING AT EACH STRUCTURE.
2. STORM SEWERS PER MDOT AND THE CITY OF KALAMAZOO STANDARD SPECIFICATIONS FOR CONSTRUCTION.
3. THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
4. REMOVE SEDIMENT FROM ALL STRUCTURES ONCE PAVING IS COMPLETE AND REMOVE SILT SACKS.



HMA APPLICATION ESTIMATE

IDENT NO.	ITEM	RATE PER SYD	PERFORMANCE GRADE	REMARKS
5E1 T	HMA, 5EML	165 LB	PG 64-28	TOP COURSE
4E1 L	HMA, 4EML	220 LB	PG 64-28	LEVELING COURSE
	* BOND COAT	0.05-0.15 GAL		FULL COVERAGE

* FOR INFORMATION ONLY

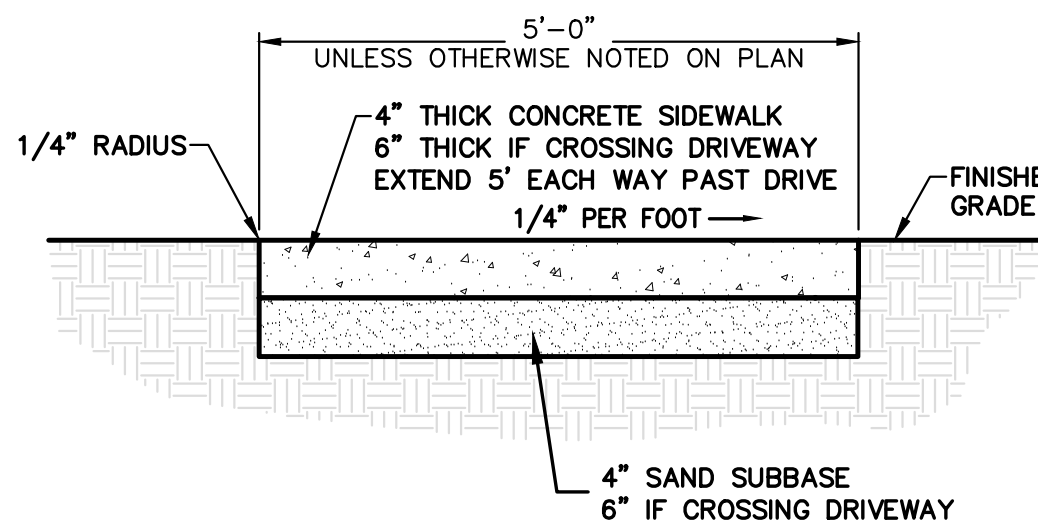
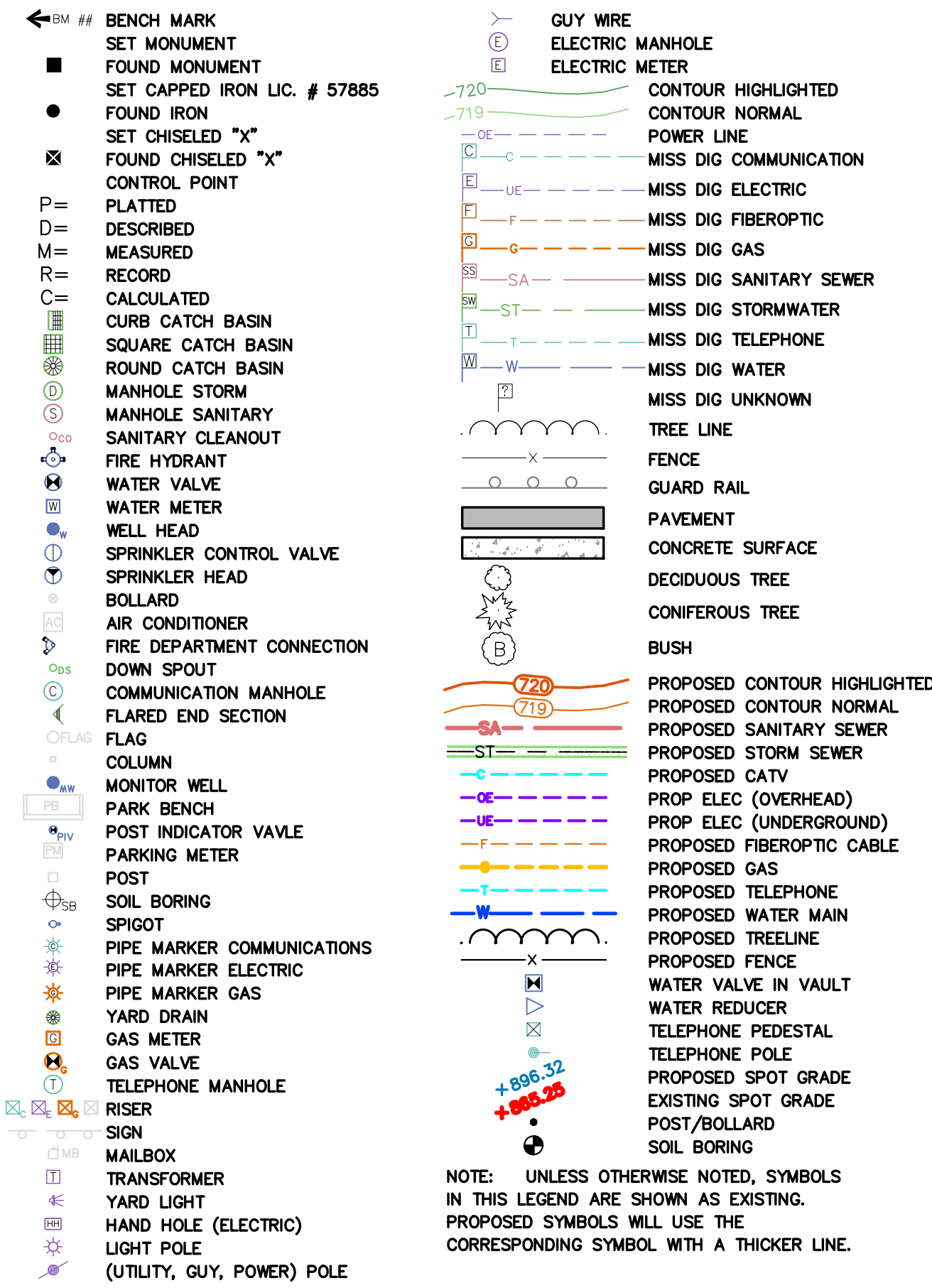


ALL MATERIALS COMPACTED IN PLACE ON PREPARED SUBGRADE

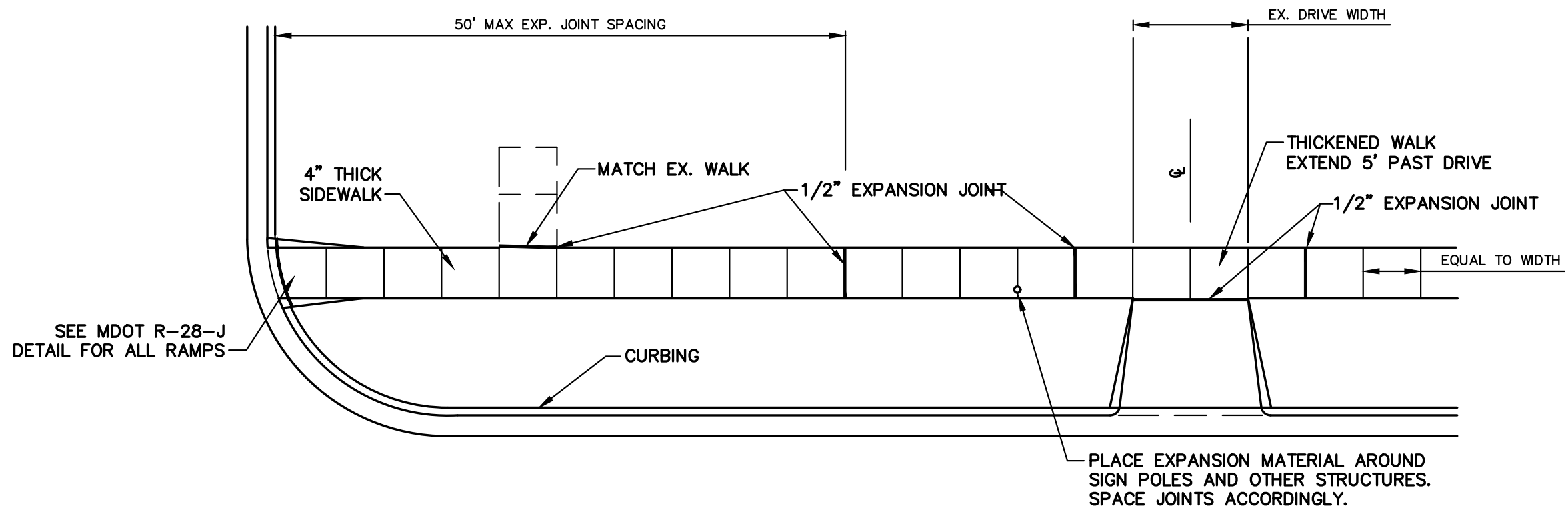
FULL DEPTH REPAIR PAVEMENT SECTION

NOT TO SCALE

LEGEND



SIDEWALK SECTION



TYPICAL SIDEWALK JOINT LAYOUT

CONCRETE SIDEWALK DETAILS

NO SCALE

TYPICAL NOTES AND SECTIONS
ROSE STREET PAVEMENT REPLACEMENT
CITY OF KALAMAZOO

Sheet Title:
Project:
Client:

1/14/22
Sheet

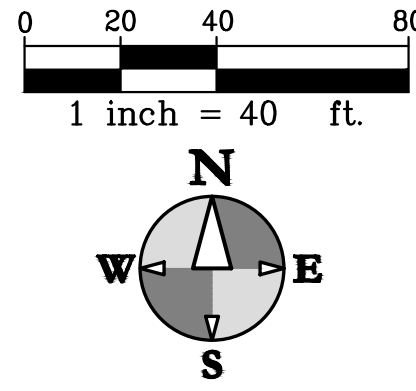
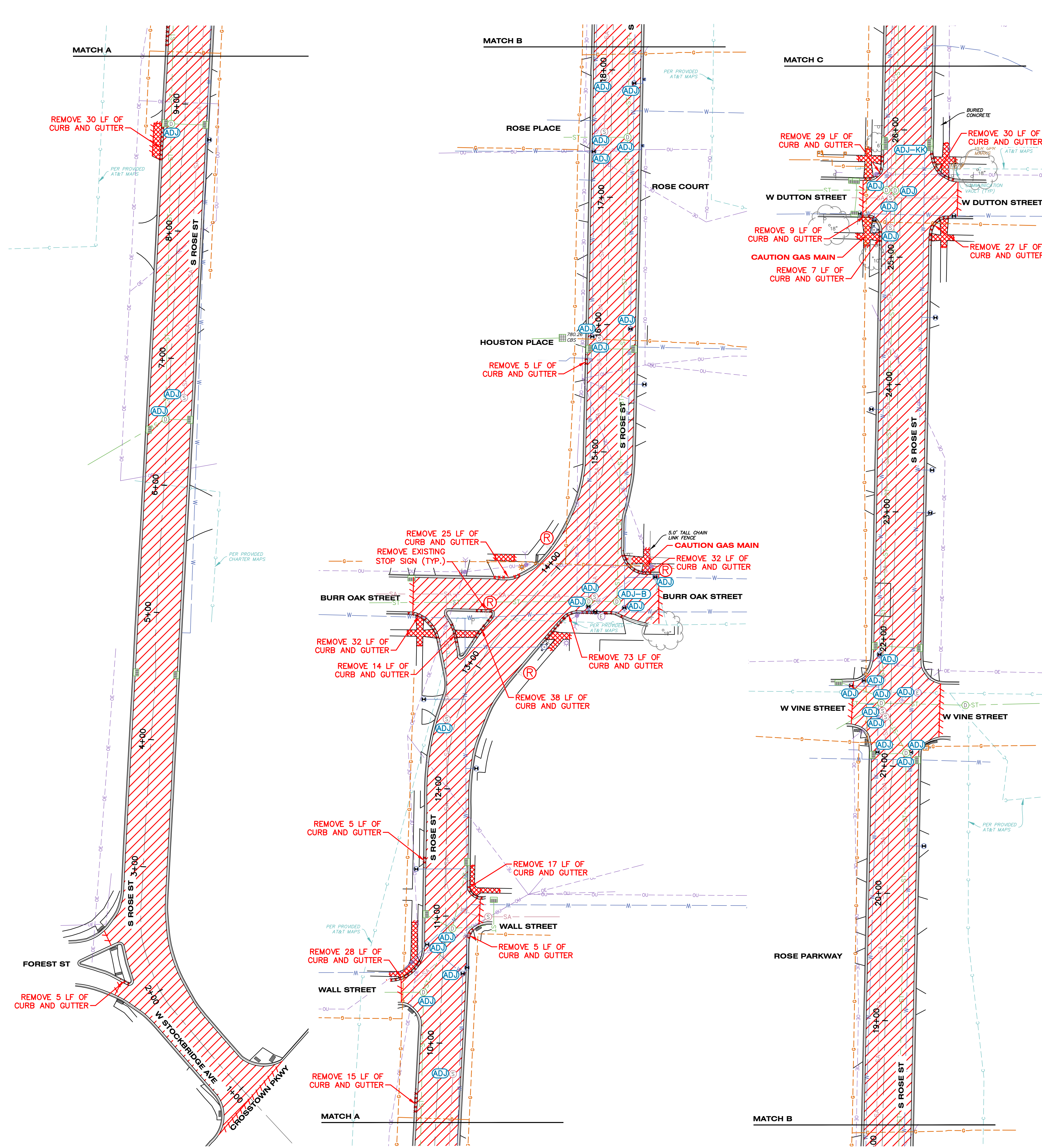
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Job No.:	20-131D	P.M.:AP	Draft:	ACS	QA/QC:	1/14/22
ISSUED FOR/REVISIONS:						
1	30% DESIGN					7/30/21
2	90% DESIGN					12/6/21
3	BIDS					1/14/22
4						

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DRAWING LOCATION: H:\20-131D (Rose St. Road Det) \FINAL DRAWINGS\3 Removal Plan POB - STA 26+50.dwg LAST SAVED BY: ASSIGNED ON: 1/13/2022



- REMOVALS LEGEND**
- XXXXXX CURB REMOVAL
 - //// SAWCUT
 - XXXX PAVEMENT/SIDEWALK REMOVAL
 - 1.5" PAVEMENT MILLING
 - (R) TREE REMOVAL
 - (S) REMOVE
 - (P) SALVAGE
 - (P) PROTECT
 - BM BENCHMARK
 - (ADJ-X) ADJUST COVER. CASTING TYPE FOLLOWS DASH.
- BENCHMARKS**
- ELEVATIONS OF THIS SURVEY ARE BASED ON NAVD 88 AS DERIVED FROM GPS
- BM 1 EL = 785.29
CUT BOX IN WEST SIDE OF CONCRETE POLE BASE ON SOUTHWEST CORNER OF THE S ROSE STREET AND W SOUTH STREET INTERSECTION.
- BM 2 EL = 787.11
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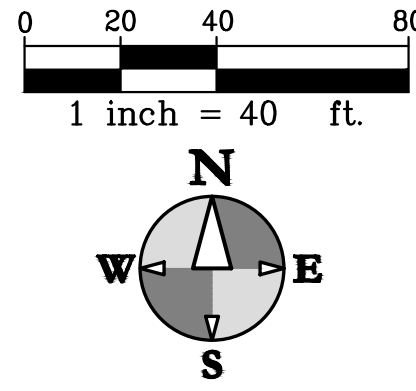
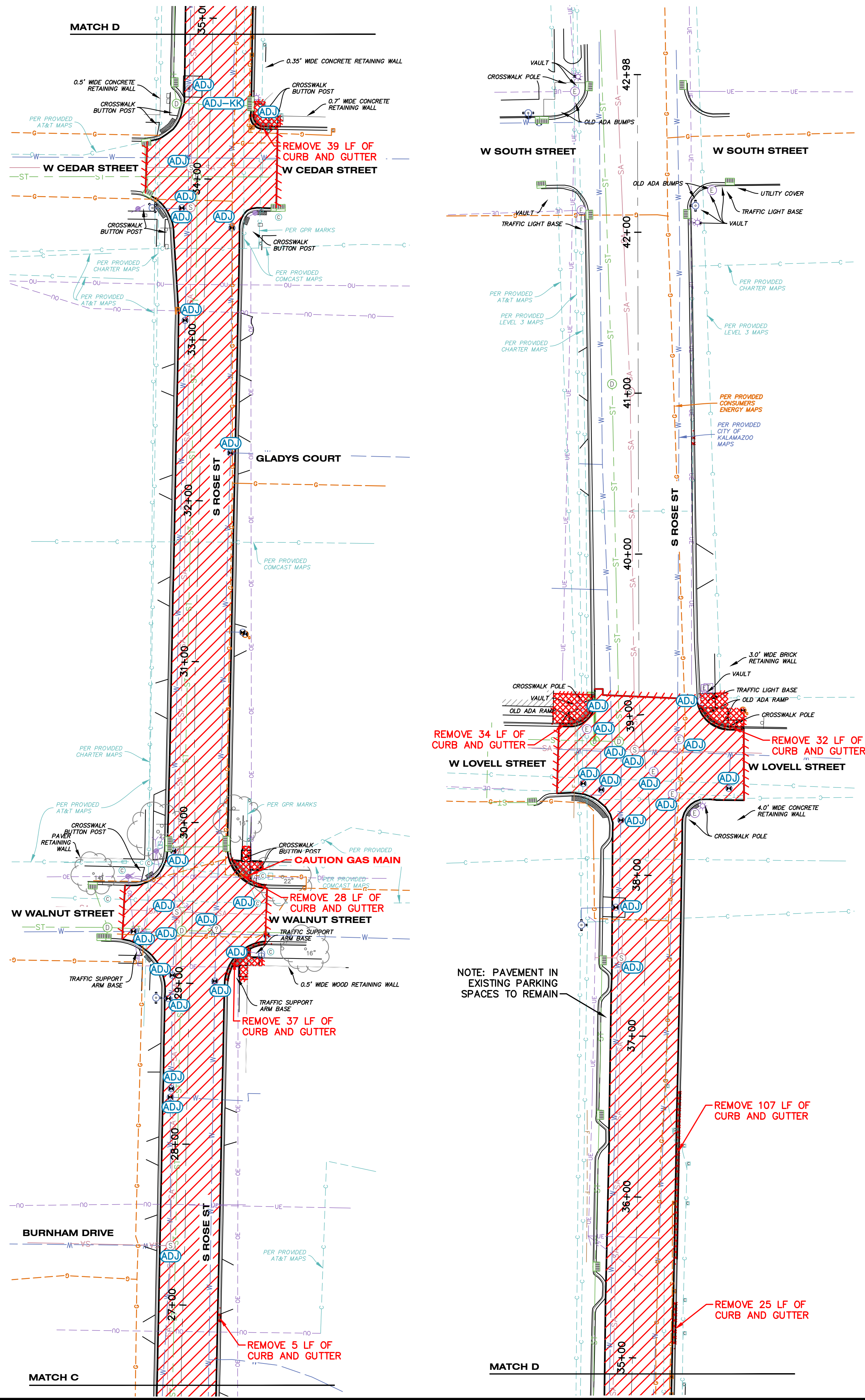
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REMOVAL PLAN POB - STA 26+50
ROSE STREET PAVEMENT REPLACEMENT
CITY OF KALAMAZOO

Sheet Title:
Project:
Client:

1/14/22
Sheet
2

DRAWING LOCATION: H:\20-131D - Rose St - Road Map\1 - FINAL DRAWINGS\3 - Removal Plan STA 26+50 - POE.dwg LAST SAVER BY: ASSIGNED ON: 1/13/2022



- REMOVALS LEGEND**
- CURB REMOVAL
 - SAWCUT
 - PAVEMENT/SIDEWALK REMOVAL
 - 1.5" PAVEMENT MILLING
 - TREE REMOVAL
 - REMOVE
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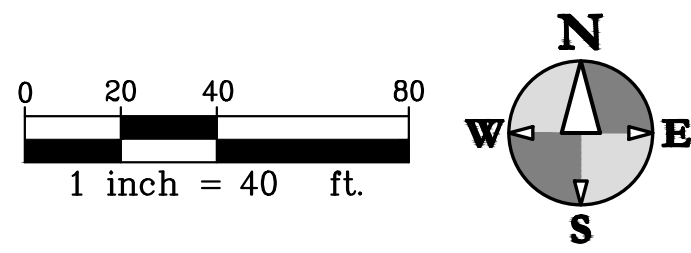
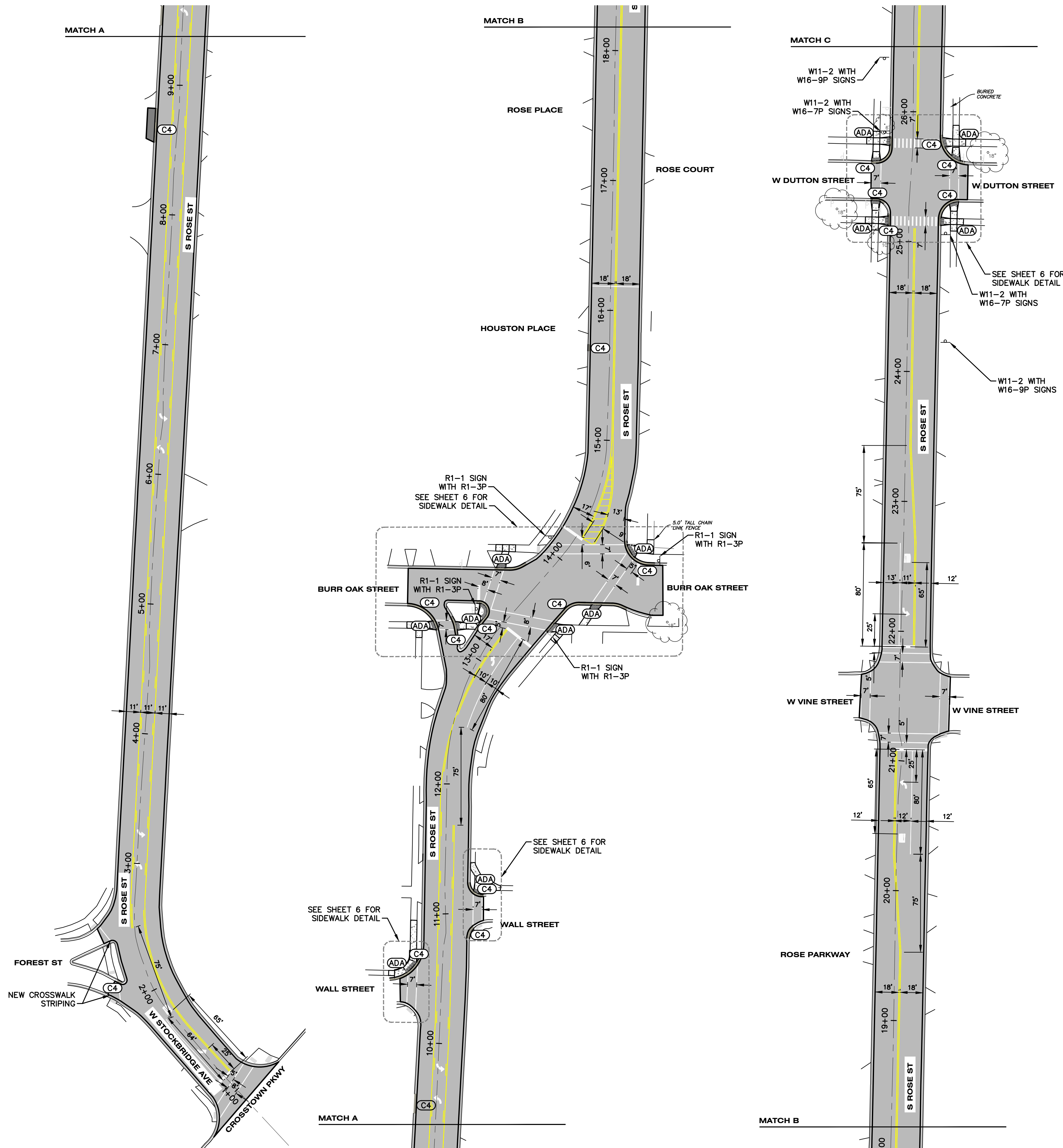
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Job No. 20-131D - Rose St - Road Map	Drft: ACS	QA/QC: 1/14/22
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1 30% DESIGN	12/6/21	
2 90% DESIGN	1/14/22	
3 BDS		
4		

REMOVAL PLAN STA 26+50 - POE
ROSE STREET PAVEMENT REPLACEMENT
CITY OF KALAMAZOO

Sheet Title:
Project:
Client:

DRAWING LOCATION: H:\20-131D (Rose St, Rose St) - FINAL DRAWING\14 Construction Plan POB - STA 26+50.dwg LAST SAVED BY: ASSIGNED ON: 1/13/2022



- LEGEND**
- RESURFACE EXISTING HMA
 - MATCH EXISTING PAVEMENT ELEVATION
 - FULL DEPTH HMA
 - MATCH EXISTING PAVEMENT ELEVATION
 - C4 CONCRETE CURB AND GUTTER
 - CS CONCRETE SURFACE
 - ADA ADA RAMP (SEE DETAIL)

BENCHMARKS
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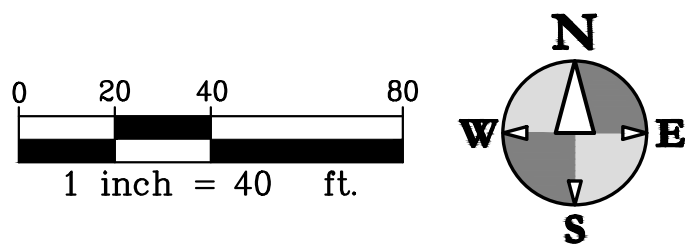
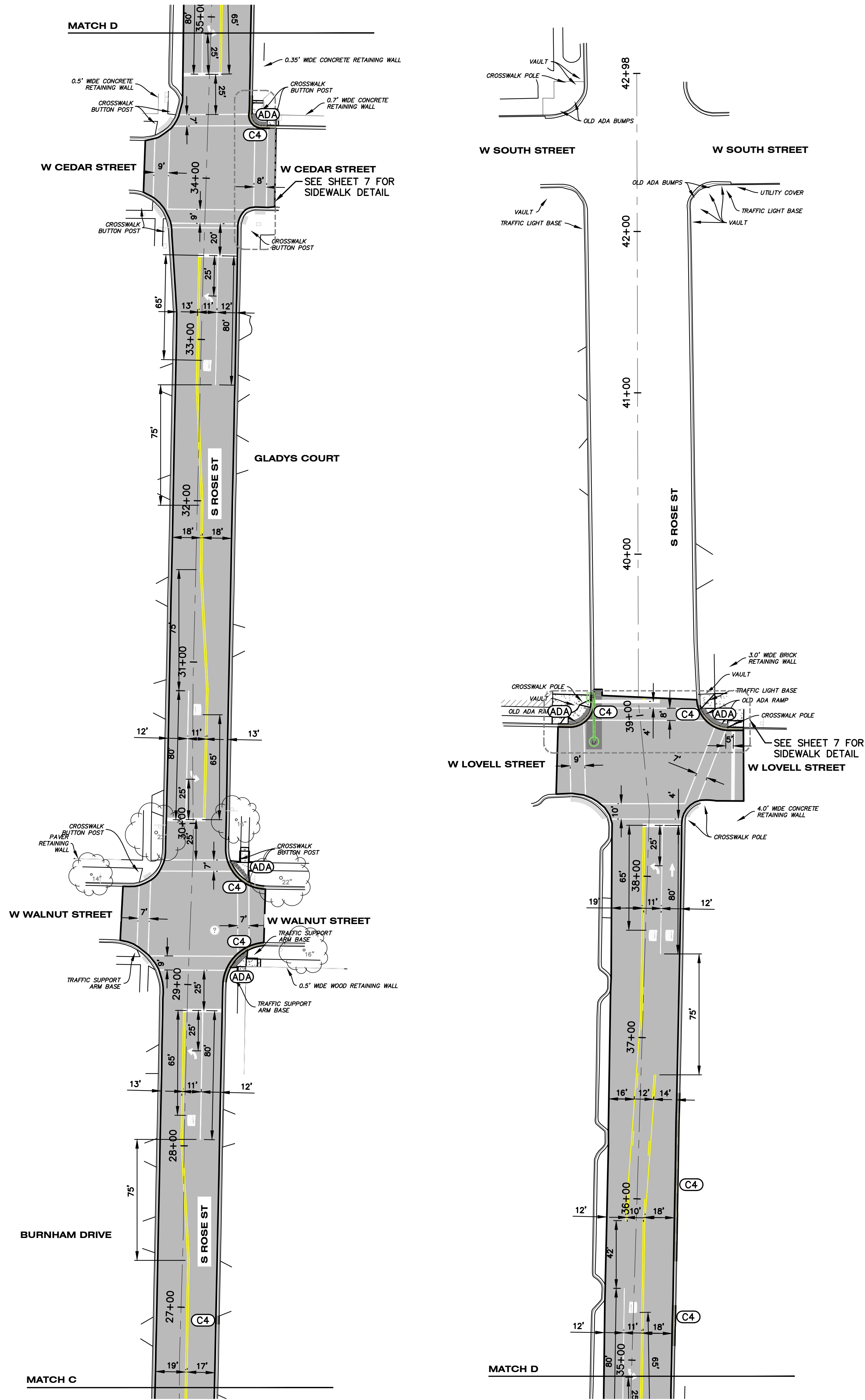
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Job No. 20-131D	P.M.A.P.	Drft: MM	QA/QC: 1/14/22
ISSUED FOR/REVISIONS:			
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2	90% DESIGN	12/6/21	
3	BIDS	1/14/22	
4			

CONSTRUCTION PLAN POB - STA 26+50
ROSE STREET PAVEMENT REPLACEMENT
CITY OF KALAMAZOO

Sheet Title:
Project:
Client:

DRAWING LOCATION: AL-20-131D (Rose St. Road Data) - FINAL DRAWING'S Construction Plan STA 26+50 - POE LAST SAVED BY: USERPRED ON 1/6/2022



- LEGEND**
- RESURFACE EXISTING HMA
MATCH EXISTING PAVEMENT ELEVATION
 - FULL DEPTH HMA
MATCH EXISTING PAVEMENT ELEVATION
 - C4 C4 CONCRETE CURB AND GUTTER
 - C5 CONCRETE SURFACE
 - ADA ADA RAMP (SEE DETAIL)

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Job No.	20-131D	P.M.	AP	Draft	MM	QA/QC	1/14/22
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4							







CONSTRUCTION PLAN STA 26+50 - POE
ROSE STREET PAVEMENT REPLACEMENT
CITY OF KALAMAZOO

Sheet Title:
Project:
Client:

1/14/22
Sheet

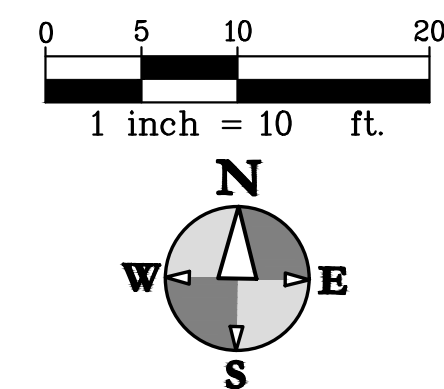
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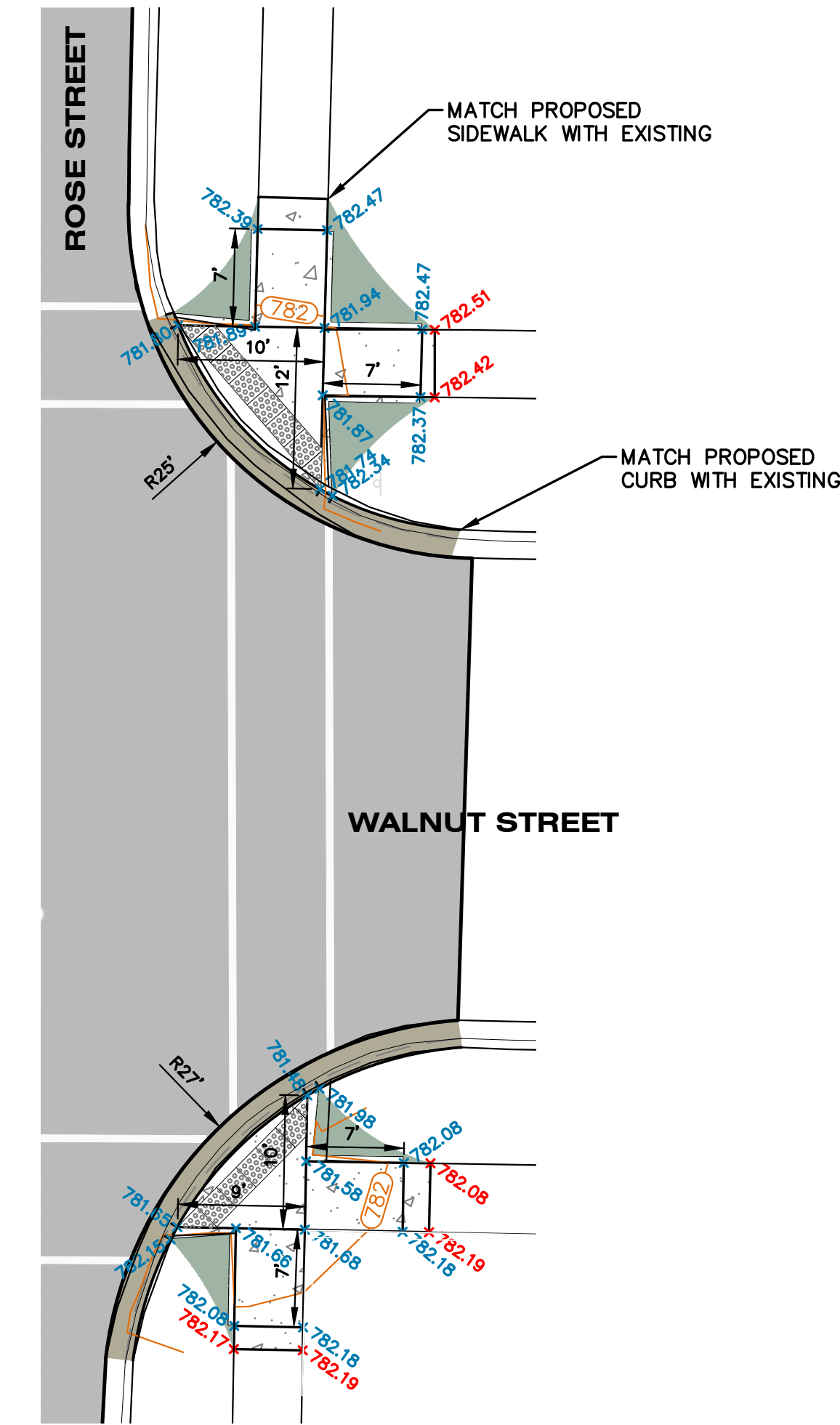


- ## GRADING PLAN LEGEND
- | | |
|---|---|
|  | PROPOSED CONTOUR 5-FT |
|  | PROPOSED CONTOUR NORMAL |
|  | PROPOSED SPOT GRADE |
|  | PROPOSED SPOT GRADES: TOP AND BOTTOM OF CURB/WALL |
|  | EXISTING SPOT GRADE |
|  | SLOPE RESTORATION |

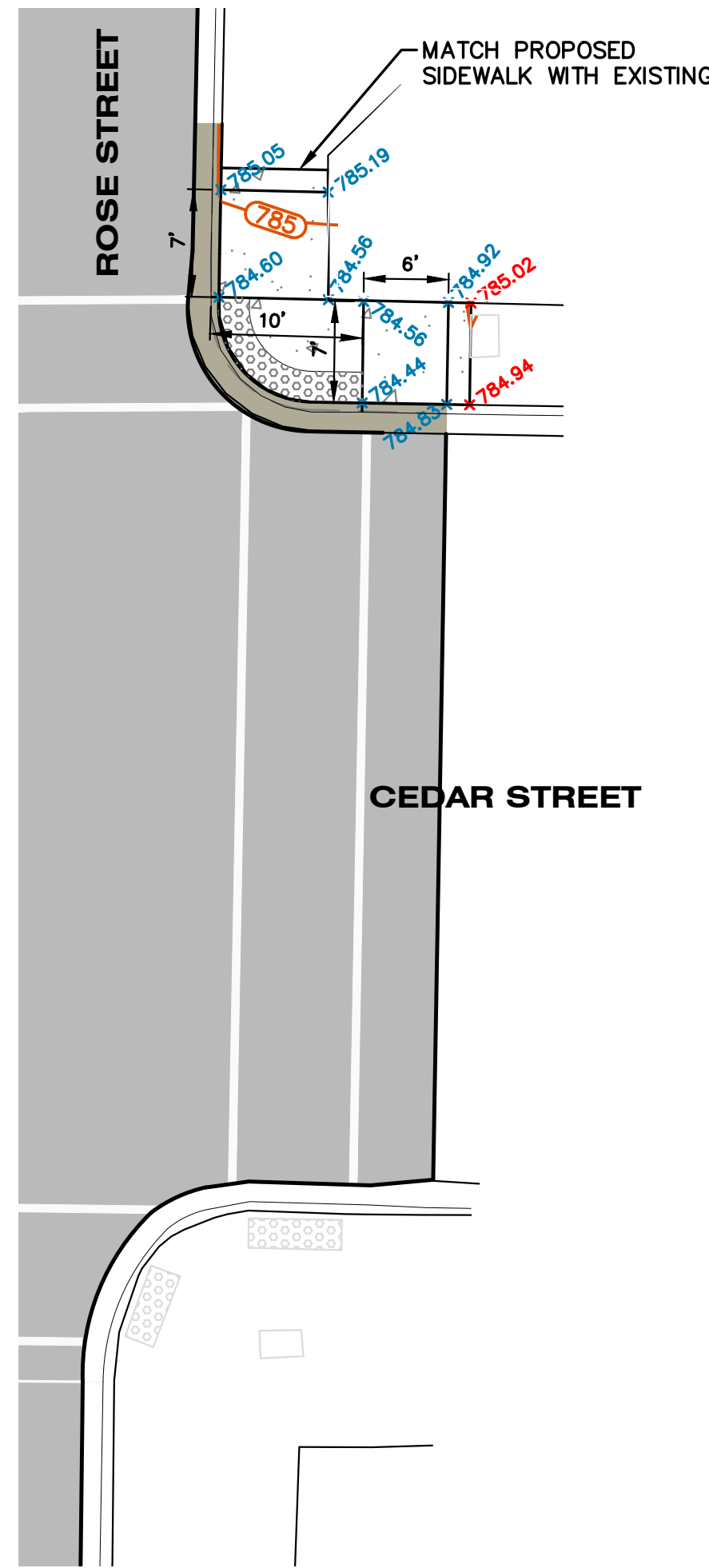
NOTES

1. ALL LANDINGS WILL BE PAID FOR AS RAMPS. ALL RAMPS AND LANDINGS SHALL INCLUDE MONOLITHIC CURB REQUIRED TO MEET EXISTING GRADES ADJACENT TO PROPOSED RAMP.
2. ALL GRADES AND SLOPES ARE BASED ON EXISTING CONDITIONS. IF DIFFERING CONDITIONS ARE FOUND THE CONTRACTOR SHALL ADJUST REMOVAL LIMITS, GRADES, SLOPES AND PROPOSED RAMP LIMITS AS NECESSARY TO COMPLY WITH ALL ADA REQUIREMENTS.

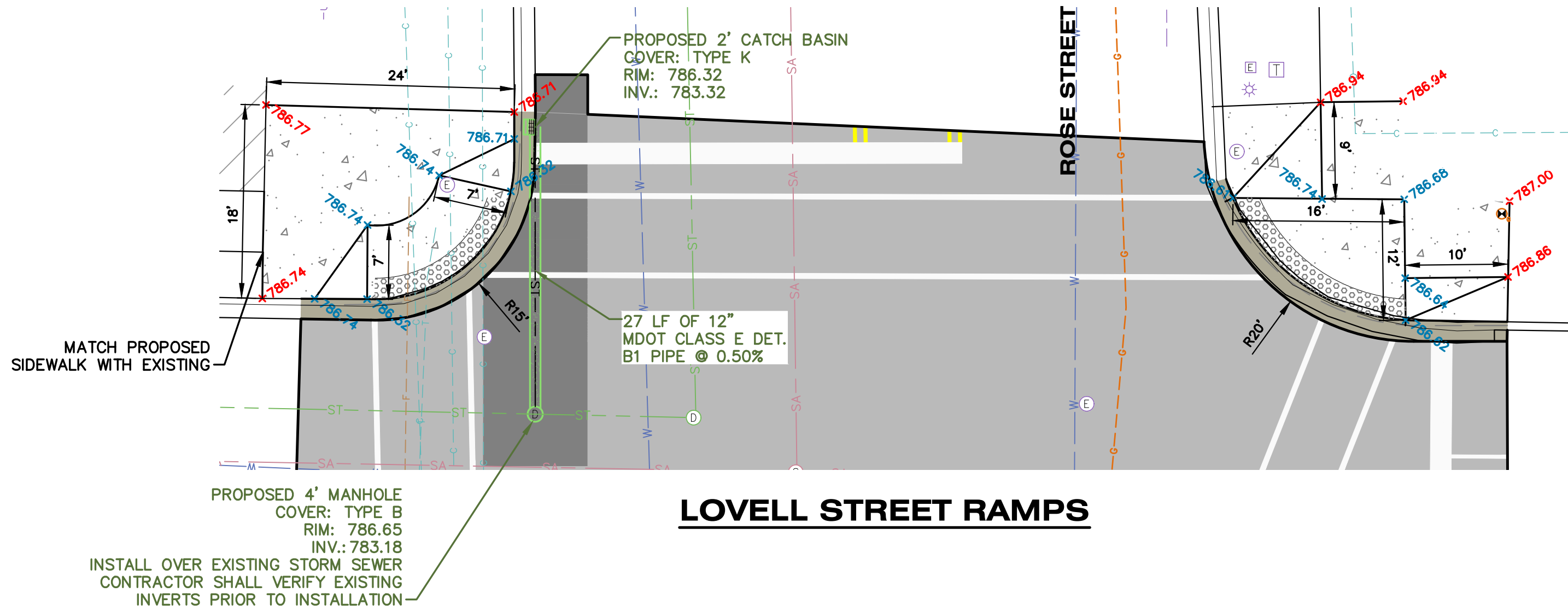




WALNUT STREET RAMPS



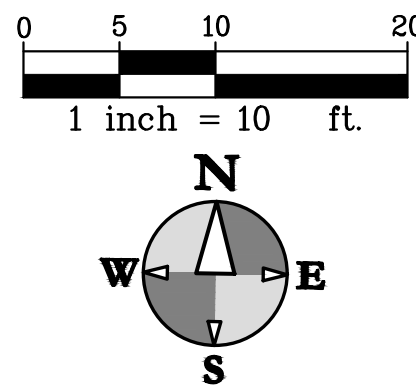
CEDAR STREET RAMPS



LOVELL STREET RAMPS

GRADING PLAN LEGEND	
	PROPOSED CONTOUR 5-FT
	PROPOSED CONTOUR NORMAL
	PROPOSED SPOT GRADE
	PROPOSED SPOT GRADES: TOP AND BOTTOM OF CURB/WALL
	EXISTING SPOT GRADE
	SLOPE RESTORATION

- NOTES**
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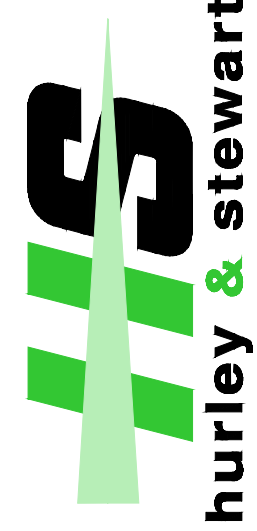
RAMP GRADING
ROSE STREET PAVEMENT REPLACEMENT
CITY OF KALAMAZOO

Sheet Title:
Project:
Client:

1/14/22
Sheet

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APPENDIX D
SPECIAL PROVISIONS, STANDARD TRAFFIC PLANS



THE CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION

SPECIAL PROVISIONS
STANDARD TRAFFIC PLANS

2022 Rose Street Resurfacing

Bid Reference #: 91395-005.0

Specifications For



S. Rose St. Pavement Replacement

2022

Prepared by



SPECIAL PROVISION
FOR
MACHINE GRADING

H&S:AGS

1 of 1

03/01/2022

a. Description. This work consists of all excavation and grading operations required to develop the proposed cross section of the new sidewalk connections as shown on the plans. Compact the subbase and aggregate base in accordance with section 301 and 302 of the 2012 Standard Specifications for Construction.

Machine Grading will consist of the following:

1. Identify any areas of unsuitable material with project manager and verify limits with geotechnical engineer.
2. Compaction of the subgrade to not less than 95 percent of the maximum unit weight.
3. Shaping and compacting any disturbed subbase to standard specifications for subbase.
4. Hauling, disposal of all excess materials in accordance with subsection 205.03 of the Standard Specifications for Construction.
5. Removal of all miscellaneous items identified for removal, unless noted otherwise.

b. Materials. All material used in the construction of parking lot aggregate base and subbase must meet the requirements of Section 902.

c. Construction. Construction shall be in accordance with section 301 and 302.

d. Measurement and Payment. The completed work, including all labor and equipment to complete grading as indicated on the drawings and this special provision will be included in the contractor's bid for the project.

Pay Item

Pay Unit

Machine Grading, Modified.....Lump Sum

CITY OF KALAMAZOO
SPECIAL PROVISION
FOR
HMA APPLICATION ESTIMATE

H&S: AGS

1 of 1

01/05/2022

a. Description. This work shall be done in accordance with Division 5 of the 2012 MDOT Standard Specifications for Construction except as herein specified. The Local Agency representative will perform density testing.

b. Materials. The HMA application estimate is as follows:

1. HMA, 3C (base) shall have a yield of 330 pounds per square yard
2. HMA, 4EML (leveling) shall have a yield of 220 pounds per square yard
3. HMA, 5EML, (top) shall have a yield of 165 pounds per square yard

Asphalt binder shall be PG 64-28 for HMA, 3C.

Asphalt binder shall be PG 64-28 for HMA, 4EML.

Asphalt binder shall be PG 64-28 for HMA, 5EML.

Target air voids shall be designed for 4.0% and field regressed to 3.0% for all HMA mixes.

Aggregate Wear Index for the HMA, 5EML (Top) shall be 260 minimum. HMA Bond Coat shall be type SS – 1h and be applied at the rate of 0.05 to 0.10 gal/syd per Manufacturer's recommendation.

Hand Patching shall be HMA, 3C, PG 64-28 and HMA, 4EML, PG 64-28 or other mix as approved by the Engineer in writing before placement.

RAP shall not exceed Tier 1 limits as specified in the MDOT Special Provision for Recycled Hot Mix Asphalt Mixture on Local Agency Projects included in this proposal.

c. 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, (<u>type</u>), Modified.....	Ton

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
FULL DEPTH REPAIR

H&S:EMB

1 of 1

01/28/21

a. Description. This work consists of pavement, aggregate base, and subbase removal and replacement. Complete this work after cold milling at locations where existing pavement is determined to be unsuitable to pave over as directed by the engineer. Work shall be in accordance with typical cross sections, as shown on the plans.

b. Materials. Provide all required materials in accordance with the Standard Specifications for Construction.

c. Construction. The work of full depth repair includes, but is not limited to, the following:

1. Pavement sawcutting and removal.
2. Aggregate base and subbase removal.
3. Placement of 12" sand subbase, 12" aggregate base with proper compaction.
4. Pavement of 3" HMA, 3C Base Course. The leveling course and top course will be paid for under separate pay items.

d. Measurement & 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
Full Depth Repair	Square Yard

Full Depth Repair includes all labor, equipment and materials necessary to complete the work as described.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
TYPE III BARRICADES

DES:DBP

1 of 1

APPR:MWB:CRB:08-07-15

FHWA:APPR:08-23-15

Delete the first sentence for the second paragraph in subsection 812.03.D.8 on page 606 of the Standard Specifications for Construction, and replace with the following:

Light Type III barricades with two, Type C or Type D warning lights, fastened to the uprights above the top rail, provided these warning lights each weigh 3.3 pounds or less.

Delete the following pay items from the list in subsection 812.04 on page 622 of the Standard Specifications for Construction.

Barricade, Type III, High Intensity, Furn.....	Each
Barricade, Type III, High Intensity, Oper.....	Each
Barricade, Type III, High Intensity, Double Sided, Furn	Each
Barricade, Type III, High Intensity, Double Sided, Oper.....	Each

Renumber the existing subsection 812.04.A.5 on page 624 of the Standard Specifications for Construction, as follows:

4. The manufacturer's invoiced cost for damaged equipment included in a lump sum pay item for maintaining traffic.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
TEMPORARY PEDESTRIAN TYPE II BARRICADE

OFS:RAL

1 of 2

APPR:CAL:CT:08-02-16

a. Description. This work consists of furnishing, installing, maintaining, relocating, and removing a temporary pedestrian Type II barricade section as identified in the proposal or on the plans. Use temporary pedestrian Type II barricades to close non-motorized facilities including sidewalks, bicycle paths, pedestrian paths, and shared use paths that are not part of the roadway. One pedestrian Type II barricade is defined as a barricade section at least 43 inches wide, including all supports, ballast, and hardware.

b. Materials. Provide a temporary pedestrian Type II barricade that meets the requirements of *National Cooperative Highway Research Program Report 350 (NCHRP 350)* or *Manual for Assessing Safety Hardware (MASH)*, in addition to meeting the following requirements:

1. Provide barricade sections at least 43 inches wide, designed to interconnect to ensure a continuous *Americans with Disabilities Act (ADA)* compliant tactile barrier. Ensure the connection includes provisions to accommodate non-linear alignment as well as variations in elevation at the installation area.

2. Ensure the top surface of the barricade is designed to function as a hand-trailing edge, and has a height between 32 and 38 inches. Ensure the lower edge of the barricade is no more than 2 inches above the surface of the non-motorized facility. Ensure the top edge of the bottom rail of the barricade is a minimum of 8 inches above the surface of the non-motorized facility. The barricade may have a solid continuous face. Finally, all features on the front face of the barricade (the face in contact with pedestrians) must share a common vertical plane.

3. Equip both sides of the barricade with bands of alternating 6-inch wide orange and white vertical stripes of reflective sheeting. Two bands of sheeting 6 inches tall and a minimum of 36 inches long containing at least two orange and two white stripes each are required. One band placed near the top and one near the bottom if the barricade section has a solid face. If the barricade consists of two rails, affix one band of sheeting to each rail. Ensure the stripes of reflective sheeting are aligned vertically. Ensure this sheeting meets or exceeds the requirements of *ASTM D 4956* Type IV sheeting.

c. Construction. Construct the temporary pedestrian Type II barricade in accordance with the manufacturer's recommendations, Michigan Manual on Uniform Traffic Control Devices (MMUTCD), the plans, and the following requirements:

1. Install the barricade as shown on the plans and as directed by the Engineer. Interconnect all barricade sections using hinge components if necessary to ensure a continuous detectable edge for the entire installation. Ensure the barricade is ballasted according to the manufacturer's recommendations to ensure stability during wind events and contact with pedestrians.

2. When the barricade is installed near motor vehicle traffic, ensure reflective sheeting is visible to motorists.

3. When pedestrian Type II barricades are used to close a non-motorized facility, ensure a sufficient number of barricade sections are used to block the entire width of the facility. The barricade may extend outside the edge of the non-motorized facility but must not be less than the full width of the facility.

4. If sections of multiple colored barriers are used (i.e. safety orange and white) install the sections such that the colors alternate to increase conspicuity.

5. Ensure pedestrian Type II barricades are not used to close a motor vehicle facility. Ensure these barricades are not used to guide pedestrian traffic on a motor vehicle facility in the presence of active traffic. This prohibition includes bicycle/shared use lanes or shoulders in the presence of active traffic.

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

Pedestrian Type II Barricade, TempEach

Pedestrian Type II Barricade, Temp, includes all labor, equipment, and materials to furnish, install, maintain, relocate, and remove one barricade section that is at least 43 inches wide. Additional payment will not be made if wider sections are provided. This includes all rails, supports, ballast, hinge points, reflective sheeting, and miscellaneous hardware needed to install and maintain a barricade section.

CITY OF KALAMAZOO
SPECIAL PROVISION
FOR
SLOPE RESTORATION, MODIFIED

H&S:TAS

1 of 1

02/01/2021

a. Description. This work consists of preparing all areas disturbed during construction for slope restoration by the contractor or as directed by the Engineer, and applying topsoil, fertilizer, seed, and mulch with mulch anchor, mulch blanket or high velocity mulch blanket to those areas.

b. Materials. All materials shall conform with Sections 816 and 917 of the MDOT Standard Specifications for Construction, current edition unless modified by this special provision or as directed by the engineer. All seeding shall use Class "A" Mixture in accordance with Section 816.03.

c. Construction. Construction methods shall be in accordance with Section 816.03 of the MDOT Standard Specifications for Construction current edition.

Mulch Blanket and High Velocity Mulch Blanket shall be placed in large disturbed areas with a 1-on-4 slope or greater as directed by the Engineer.

If an area washes out after this work has been properly completed and approved by the Engineer, Contractor shall make the required restorations and corrections to prevent future washouts and replace the topsoil, fertilizer, seed and mulch. This replacement will be paid for as additional work using the applicable contract items.

If weeds are determined by the Engineer to cover more than ten percent of the total area of slope restoration, the Contractor shall provide weed control in accordance to subsection 816.03.J of the MDOT Standard Specifications for Construction, current edition. Weed control shall be at the Contractor's expense with no additional charges to the project for materials, labor or equipment.

d. Measurement and Payment. The completed work as described will be paid for at the contract unit price for the following contract item (pay item):

Pay Item	Pay Unit
Slope Restoration, Modified.....	Lump Sum

Slope Restoration, Modified shall be placed in all disturbed areas. All materials, labor and equipment required to install **Slope Restoration, Modified** which includes Topsoil Surface, Furnished or Salvaged; Fertilizer, Chemical Nutrient, Class A; Seeding Mixture; Mulch and Mulch Anchoring; Mulch Blanket and High Velocity Mulch Blanket will not be paid for separately but shall be included in the contract unit price bid for **Slope Restoration, Modified**.

SPECIAL PROVISION
FOR
DETECTABLE WARNING SURFACE, MODIFIED

H&S:AGS

1 of 1

3/01/2022

a. Description. This work consists of constructing sidewalk ramp detectable warning surfaces in accordance with City of Kalamazoo standards, MDOT, and Americans with Disabilities Act (ADA).

b. Materials. All materials shall conform with Section 803.02 of the Michigan Department of Transportation 2012 Standard Specifications for Construction with the exception of the following:

Detectable warning plates color shall be: Colonial Red

c. Construction. All construction shall conform with Section 803.03 of the Michigan Department of Transportation 2012 Standard Specifications for Construction and Special Detail R-28 Series. Install detectable warning surface plates in accordance with manufacturer's instructions.

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
Detectable Warning Surface, Modified.....	Foot

The Engineer will measure **Detectable Warning Surface, Modified** in place by length along the center of the 24 inches wide detectable warning material at required locations.

CITY OF KALAMAZOO
SPECIAL PROVISION
FOR
GATE BOX, RECONSTRUCT, MODIFIED

H&S:AGS

1 of 1

1/13/2022

a. Description. This work consists of furnishing and placing a gate box centered, plumbed, and adjusted to the required pavement grade over the existing gate valve.

b. Materials. Provide materials in accordance with the following:

Gate Box shall be an adjustable length screw type for 5-foot depth of cover. The Gate box shall be a malleable iron casting conforming to Subsection 908.03 of the Michigan Department of Transportation (MDOT) *Standard Specifications for Construction*. This valve box shall be either a two or three-piece screw type and the cover shall be inscribed with the word "water."

Valve box shall be EJ 8550 Series (two piece) or EJ 8560 Series (three piece), or Bingham & Taylor 4905 size no. 22, or approved equal.

Gate Valve Box extensions shall be cast iron and manufactured by EJ of Bingham & Taylor, capable of being mounted directly to the gate valve box.

Concrete shall be MDOT Grade P-NC concrete with no fly ash and coarse aggregate 6AA meeting the requirements of Section 601.

Masonry units shall meet the requirement of Section 913.

Granular Material Class II shall meet the requirements of Section 902.

c. Construction Methods. Remove pavement around the existing gate box and remove gate box in accordance with Section 204. Salvage existing gate box and place in a secure location for pick up and notify the Engineer when all gate boxes are ready for pick up. Place four (4) evenly spaced masonry units around gate valve ensuring the gate box rests on the masonry units and not the gate valve. Install gate box level and plumb. Backfill in accordance with Subsection 204.03 ensuring the gate box does not shift during backfilling. Adjust cover to final grade and place concrete uniformly around the gate box flush with the top of the pavement surface.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the flowing pay item:

Pay Item	Pay Unit
Gate Box, Reconstruct, Modified.....	Each

The unit price for Gate Box, Reconstruct, Modified includes all labor, equipment, and materials to remove the existing pavement and backfill, supply and install the gate box, backfill and compact, and place the concrete collar.

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

DR STRUCTURE COVER, ADJ, CASE 1, MODIFIED

COK

Page 1 of 2

3/8/2022

a. Description. This work consists of removing and replacing existing City of Kalamazoo owned manhole structure covers during HMA surface operations with City of Kalamazoo standard covers. This operation uses the Mr. Manhole™, Manhole Leveling System, or equivalent. Section references are to the current version of the MDOT Standard Specifications for Construction.

b. Materials. Provide materials in accordance with the following:

Cover and Casting: Supply the City of Kalamazoo standard design cover and casting for Sanitary and Storm sewer meeting the requirements of Section 908.

Concrete: Use Grade P-NC concrete meeting the requirements of Section 1006.

Mortar Type R-2: Use mortar meeting the requirement of Section 1005.

HMA: Use HMA mixtures as specified in the special provisions

c. Construction Methods. Remove existing pavement around the drainage structure using the Mr. Manhole™ or equivalent system. Remove the existing drainage structure in a manner to avoid roadway materials from entering the manhole structure. Salvage existing manhole covers and castings if in good condition; otherwise replace the casting and cover. If pickup is needed, notify the Engineer when manhole cover and casting are ready for pickup. Place a steel plate over the manhole structure and fill in the resulting void with the HMA mixture or material approved by the Engineer. Record the location of each structure and use a locating system or GPS record of each structure for finding it following final paving.

Prior to paving, ensure that locations of structures are confirmed & recorded, and any markers or caps used are in place to easily identify and find each structure after final paving. Upon completion of final paving, cut out and remove the pavement around the structure using the Mr. Manhole™ or equivalent system. Avoid roadway materials from entering the manhole structure. Remove the plate and locator cap. Set the new structure cover in a full bed of mortar or using custom adjusting rings built for this purpose. Adjust in accordance with manufacturer's instructions, MDOT Standard Specifications, and best practices. Set the structure cover level with the roadway (nominal offset = 0", maximum offset = +/- 1/8"). Fill in resulting void with concrete meeting the requirements of Section 1006. Assume ownership of excess removed materials and dispose of according to subsection 205.03P.

Any material entering the Sewer system must be removed promptly. If the contractor neglects to remove the material within 7 days for storm or 24 hours for sanitary after receiving written notification from the Engineer, the Engineer may proceed with the removal. The Engineer will deduct the cost of the removal from the monies that are or may become due to the contractor.

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:

Contract Item (Pay Item)	Unit
Dr Structure Cover, Adj, Case 1, Modified	Each

The unit price for Dr Structure Cover, Adj, Case 1, Modified includes all labor, equipment, and materials to remove the existing pavement, supply and install the new cover and casting, and place the concrete collar.

CITY OF KALAMAZOO
SPECIAL PROVISION
FOR
**MAINTAINING TRAFFIC
PERMANENT PAVEMENT MARKINGS**

H&S:AGS

1 of 8

3/08/2022

Route: S. Rose St. from Lovell St. to Crosstown Parkway in the City of Kalamazoo.
Location: Kalamazoo County
Description: The scope of work includes HMA milling and repaving, and new pavement markings, concrete curb and gutter replacement, and installation of new ADA ramps.

GENERAL

Maintain traffic according to subsections 104.07, 104.10, and sections 812 and 922 of the *2012 Standard Specifications for Construction*, including any Supplemental Specifications, and as specified herein. All traffic control devices and their usage shall conform to the 2009 Edition of the *Michigan Manual of Uniform Traffic Control Devices (MMUTCD)*.

Notify the Project Engineer, City of Kalamazoo Manager, and City officials a minimum of 72 business hours prior to the implementation of any detours, road closures, or lane closures and major traffic shifts.

During work hours, equipment, material and company vehicles may be parked or stored within the right-of-way as directed by the Engineer. All equipment, material and company vehicles to be parked or stored overnight shall be within the Construction Influence Area (CIA) project limits or a in a legal parking space.

Coordinate operations with Contractors performing work on other projects within or adjacent to the CIA, to avoid conflicts in the maintenance of traffic, construction staging, and to provide for the orderly progress of contract work.

Changes and/or adjustments to the maintaining traffic plans and standards may be applied as determined by the Engineer.

CONSTRUCTION INFLUENCE AREA (CIA)

The CIA includes the area within the right-of-way of S. Rose St., from Lovell Street to Crosstown Parkway, including the rights-of-way of any intersecting roads adjacent to the work zone up to the spring points.

TRAFFIC RESTRICTIONS – GENERAL

The Contractor shall maintain traffic according to this maintaining traffic special provision, signing typical, and the notes therein, except as noted below:

Lane closures will be permitted on S. Rose St. as indicated on the maintaining traffic plans and shall be a minimum of 12 feet in width unless otherwise indicated or approved by the Engineer.

Perform work during daytime hours only. Allow night work only at the discretion of the Engineer. Any additional cost for maintaining traffic will be borne by the Contractor.

Maintain a minimum of 1 lane of traffic in each direction at all times on S. Rose St. (and all intersecting roads).

Within the project limits, all sidewalks and bike paths shall be left in place if no work is impacting the existing sidewalk. All sidewalks and bike paths shall be replaced and opened within four working days once removed for construction. During construction, reasonable access shall be maintained for pedestrians.

During construction, reasonable access shall be maintained to all business and residential drives at all times.

Access for construction vehicles between the travel lanes and work areas shall be restricted to specific locations as approved by the Engineer.

When lane closures are in place, the Contractor shall completely cover or remove existing conflicting warning, regulatory, and guide signs according to Section 812.03 of the *Standard Specifications for Construction, 2012 edition*. Any signs damaged during this project shall be replaced in-kind at the Contractor's expense.

Traffic regulators may be used for short periods of time to facilitate traffic shifts between stages. This work shall be in accordance with Section 812.03 of the *2012 Standard Specifications for Construction*. Since the use of traffic regulators are only intended for installing appropriate traffic control devices and switching traffic operations between stages, payment is considered to be included in the payment for Minor Traffic Devices.

Maintain two-way traffic at all times on S. Rose St. using a lane closure, traffic regulator or lane shift. Place the arrow panel, signs and channelizing taper for the traffic regulation operation at locations shown on staging plans and as approved by the Engineer for adequate visibility by oncoming traffic. Lane shifts may be required for specific tasks and may be used with permission of the Engineer. Use temporary tape as directed by the Engineer to channelize traffic.

Do not utilize more than one traffic regulation operation in each direction at one time on S. Rose St.

Use traffic regulation as shown in the staging plans for cross-street and S. Rose St. traffic while performing work at signalized intersections. Use additional traffic regulators at unsignalized intersections and driveways as the Engineer directs. All costs associated with traffic regulation is considered to be included in the payment for Maintaining Traffic.

Continue work that is initiated that includes any lane restrictions until completed. A lack of work activity for more than one week requires the removal and replacement of lane restrictions with all the costs borne by the Contractor.

Provide access for pedestrians at all times as shown on staging plans.

Restrict access for construction vehicles between traveled lanes and work areas to specific locations. The number of access points and their locations requires the approval of the Engineer.

Restrict access to S. Rose St. from side roads for short durations at specific locations as the Engineer directs. Where an intersection is closed or partially closed, allow the adjacent side streets one block to the North and South to remain open to traffic. No more than two adjacent minor side streets are allowed to be closed at any one time.

Restore undercuts or excavations immediately adjacent to active traffic lanes to no less than a one-on-four slope at the end of each working period unless otherwise approved by the Engineer. Require and provide fencing to protect open trenches during non-working hours as part of the trenching item utilized.

Provide transverse and longitudinal HMA tapers at all grade changes caused by cold-milling and overlays. Maintain traffic on the unmilled surface, unless otherwise approved by the Engineer.

STAGE CONSTRUCTION

Base the traffic control required by this Special Provision for work on S. Rose St. and adjacent roadways on the suggested sequence of operations contained in the staging plans. Use an alternate traffic control plan, subject to review and approval by the Engineer. Require the following brief description of traffic control detailed on the plans during each construction stage.

Stage 1: Center Lane (Mill/Pave center turn lane)

Road Width of 36 Feet

Place northbound traffic in the first 10' from the curb line of the northbound lane. Place southbound traffic in the first 10' from the curb line of the southbound lane. Maintain one lane in each direction of traffic. Plastic drums shall be placed in accordance with MDOT Maintaining Traffic Typical 130-CLT-1(CLT).

Maintain pedestrian and vehicular access from all side streets during this stage.

Cold mill 12' of the center turn lane in the proposed section, temporarily lower manholes and valve boxes. Milling width will vary at intersections where the curb line widens.

Perform full depth repairs as directed by the Engineer.

Pave 12' top course of the center turn lane. Adjust manholes castings after paving top course.

See Maintaining Traffic Typical Cross Sections for S. Rose St. staging.

Road Width of 42 Feet

Place northbound traffic in the first 10' from the curb line of the northbound lane. Place southbound traffic in the first 10' from the curb line of the southbound lane. Maintain one lane in each direction of traffic. Plastic drums shall be placed in accordance with MDOT Maintaining Traffic Typical 130-CLT-1(CLT).

Maintain pedestrian and vehicular access from all side streets during this stage.

Cold mill 18' of the center turn lane in the proposed section, temporarily lower manholes and valve boxes. Milling width will vary at intersections where the curb line widens.

Perform full depth repairs as directed by the Engineer.

Pave 18' top course on center turn lane and inside north and south lanes. Adjust manholes castings after paving top course.

See Maintaining Traffic Typical Cross Sections for S. Rose. St staging.

Stage 2: Northbound Lane (Mill/Pave northbound lane)

Road Width of 36 Feet

Place traffic in the westerly 20' of the proposed normal section. Maintain one 10' lane in each direction of traffic. Temporary lane markings shall be placed in the southbound lane to separate traffic. Plastic drums shall also be placed along the edge of the work zone in accordance with MDOT Maintaining Traffic Typical 136-CLT-SHIFT-(R&L).

Maintain pedestrian and vehicular access from all side streets during this stage.

Cold mill 12' of the northbound lane in the proposed section, temporarily lower manholes and valve boxes. Milling width will vary at intersections where the curb line widens.

Perform full depth repairs as directed by the Engineer.

Pave 12' top course on the northbound lane. Adjust manholes castings after paving top course.

See Maintaining Traffic Typical Cross Sections for S. Rose St. staging.

Road Width of 42 Feet

Place traffic in the westerly 22' of the proposed normal section. Maintain one 10' lane in each direction of traffic. Plastic drums shall be placed in the southbound lane to separate traffic. Plastic drums shall also be placed along the edge of the work zone in accordance with MDOT Maintaining Traffic Typical 136-CLT-SHIFT-(R&L).

Maintain pedestrian and vehicular access from all side streets during this stage.

Cold mill 12' of the northbound lane in the proposed section, temporarily lower manholes and valve boxes. Milling width will vary at intersections where the curb line widens.

Perform full depth repairs as directed by the Engineer.

Pave 12' top course on the northbound lane. Adjust manholes castings after paving top course.

See Maintaining Traffic Typical Cross Sections for S. Rose St. staging.

Stage 3: Southbound Lane (Mill/Pave proposed southbound)***Road Width of 36***

Place traffic in the easterly 24' of the proposed normal section. Maintain one 10' lane in each direction of traffic. Temporary lane markings shall be placed in the northbound lane to separate traffic. Plastic drums shall also be placed along the edge of the work zone in accordance with MDOT Maintaining Traffic Typical 136-CLT-SHIFT-(R&L).

Maintain pedestrian and vehicular access from all side streets during this stage.

Cold mill 12' of the southbound lane in the proposed section, temporarily lower manholes and valve boxes. Milling width will vary at intersections where the curb line widens.

Perform full depth repairs as directed by the Engineer.

Pave 12' top course on the southbound lane. Adjust manholes castings after paving top course.

See Maintaining Traffic Typical Cross Sections for S. Rose St. staging.

Road Width of 42 Feet

Place traffic in the easterly 22' of the proposed normal section. Maintain one lane in each direction of traffic. Plastic drums shall be placed in the southbound lane to separate traffic. Plastic drums shall be placed in accordance with MDOT Maintaining Traffic Typical 136-CLT-SHIFT-(R&L).

Maintain pedestrian and vehicular access from all side streets during this stage.

Cold mill 12' of the southbound lane in the proposed section, temporarily lower manholes and valve boxes. Milling width will vary at intersections where the curb line widens.

Perform full depth repairs as directed by the Engineer.

Pave 12' top course on the southbound lane. Adjust manholes castings after paving top course.

See Maintaining Traffic Typical Cross Sections for S. Rose St. staging.

CHANNELIZING DEVICES

All channelizing devices used on this project shall be Plastic Drums, Fluorescent.

All channelizing devices shall be supplied from MDOT's approved list. The use of 42" channelizing devices may be allowed as directed by the Engineer.

Channelizing device spacing shall conform to the distances specified in the maintaining traffic typical and/or stage construction plans, unless otherwise directed by the Engineer.

All channelizing devices used on this project will have sufficient ballast to prevent the barrel from moving or tipping. If moving or tipping of plastic drums occurs as the result of wind generated by traffic or occurring naturally, the Contractor will be required to place additional ballast on the

plastic drum at no additional cost to the City.

Lighted Arrows, Type C, shall be used when closing a traffic lane or where lighted arrow panels are called for on the attached typical. The lighted arrow panel for the lane closures shall be located at the beginning of the taper or as close as possible to the beginning of the taper where physical limitation exists.

TRAFFIC CONTROL DEVICES

All traffic control devices shall conform to the 2009 Edition of the *Michigan Manual of Uniform Traffic Control Devices* (MMUTCD), and the Traffic and Safety Standard Plan WZD-125 series, including any supplemental specifications and revisions.

All traffic control devices used on this project shall be like-new at the time of initial deployment. These devices shall meet the acceptable criteria in ATSSA's quality guidelines for *Work Zone Traffic Control Devices* for the remaining life of this project.

All traffic control devices moved to facilitate the Contractor's operation shall be reset by the end of the work day. The Contractor shall routinely maintain all traffic control devices. Routine maintenance includes, but is not limited to, maintaining proper placement, replacing damaged devices and cleaning. The Contractor shall be responsible for reviewing the adequacy and maintenance of all traffic control devices at least once per day every day for the duration of this project. Replacement and repair of the devices shall be restricted to daylight hours. Weekly Service Reports will need to be submitted to the Engineer for review and payment.

Temporary Signs

Place temporary sign spacing and taper lengths as shown on attached 130-CLT-1(CLT), Typical 136-CLT-SHIFT-(R&L).

Place ground driven sign supports as shown on attached Traffic and Safety Standard Plan Special Detail WZD-100-A. Refer to Traffic and Safety Standard Plan WZD-125-E for portable supports.

Place signing for the beginning and ending of the work zone as shown on attached 130-CLT-1(CLT), Typical 136-CLT-SHIFT-(R&L).

Place signing for lane closures as shown on attached 130-CLT-1(CLT), Typical 136-CLT-SHIFT-(R&L), and as shown in the staging sequence and plans.

Mount all temporary signs at a five-foot minimum bottom height in uncurbed areas and seven-foot minimum bottom height in curbed or pedestrian areas.

Consider distances shown between construction warning, regulatory and guide signs shown on the Typicals as approximate. Signs may require field adjustment, as the Engineer directs.

Fabricate all temporary signs with legends and symbols flush to the signs face and do not extend beyond the sign borders or edges.

Mount all temporary signs that will be in place for more than 14 days on driven posts. Refer to Traffic and Safety Standard Plan WZD-125-E when installing temporary diamond signs

with portable supports. Note that the Type A Warning Light is required.

When a portable construction sign is no longer applicable, remove it or lay it down on its non-reflective side with its feet off.

Use Type C Lighted Arrows (min 48 inch x 98 inch) to merge traffic and secure by elevating the tires above the ground, or use wheel chocks or sandbags.

The Federal Highway Administration (FHWA) requires all signs to be NCHRP 350 crashworthy. For design and configuration refer to their website:

<https://safety.fhwa.dot.gov>

All diamond shaped signs shall be 48" x 48", unless otherwise noted.

All construction signs used on this project shall be fabricated with Prismatic Retroreflective Sheeting in accordance with the Special Provision for Prismatic Retroreflective Sheeting on Construction Signs and Designated Devices.

Temporary warning, regulatory, and guide signs on portable supports that are not required for a particular work operation, shall be removed or laid down with the legs off as directed by the Engineer. These signs shall not occupy the shoulder of the roadway when laid down nor shall they be placed against attenuators. This work shall be included in the cost of "Sign, Type __, Temp, Prismatic, Oper".

All temporary signs shall be installed on driven posts per attached Maintaining Traffic Typical WZD-100A. All other temporary signs may be installed on portable supports with the approval of the Engineer.

Standard Details Used
101-GEN SPACING CHARTS
102-GEN NOTES
103-GEN-SIGN
104-GEN-AB
130-CLT-1(CLT)
136-CLT-SHIFT-(R&L)
WZD-100-A
WZD-125-E

Permanent Pavement Markings

Permanent pavement markings shall be constructed in accordance with Section 811 of the Michigan Department of Transportation *2012 Standard Specifications for Construction*, including any Supplemental Specifications, the most current version of the MDOT Pavement Marking Typical Plans-900 series, and any special provisions in this proposal. Permanent pavement markings shall consist of the following:

Pavt Mrkg, Polyurea, 12 inch, Crosswalk
Pavt Mrkg, Polyurea, 24 inch, Stop Bar
Pavt Mrkg, Polyurea, Lt Turn Arrow Sym
Pavt Mrkg, Polyurea, Only

Pavt Mrkg, Polyurea, Thru Arrow Sym
Pavt Mrkg, Waterborne, 4 inch, White
Pavt Mrkg, Waterborne, 4 inch, Yellow
Pavt Mrkg, Waterborne, 6 inch, White

All permanent pavement markings that are removed for traffic control or obliterated outside the project limits during construction operations shall be replaced with Waterborne for lane and edge lines and Polyurea material for special markings.

Final pavement markings shall be installed prior to opening the road to traffic.

Traffic Signals

Coordinate removal or modification of existing traffic signals and installation of temporary or permanent signals with the Engineer and the City of Kalamazoo.

The City shall complete the work necessary for modification of the existing traffic signals required during each construction stage prior to the start of that stage.

The City shall cover any signal indications or overhead signing in conflict with traffic movements.

Pedestrian indicators may not be out in more than one direction at any time.

MEASUREMENT AND PAYMENT

The estimate of quantities for maintaining traffic on this project is based on the suggested sequence of operations. Payment shall be in accordance with Sub-Section 812.04 of the 2012 *Standard Specifications for Construction* and any supplemental specifications, unless otherwise specified.

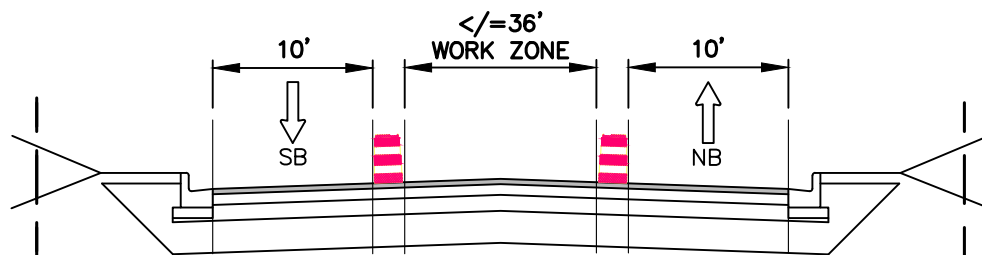
Payment for quantities used to maintain traffic will be based on the maximum number of units required by the Engineer at any one time for the entire project and have been estimated based on the attached typical and the plans. Reuse or relocation of traffic control units to other areas of the same project will not constitute additional quantities and will not be paid separately.

Any additional quantities for traffic control devices not included in the estimate and utilized for the Contractor's convenience shall be considered incidental to the Maintaining Traffic, LS pay item.

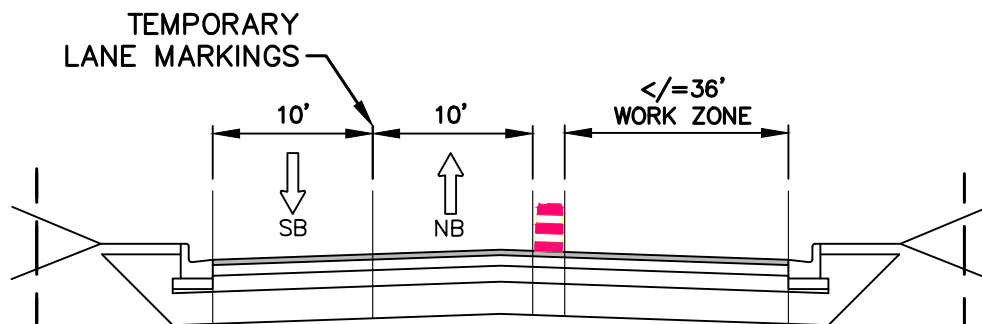
Pay Item

Pay Unit

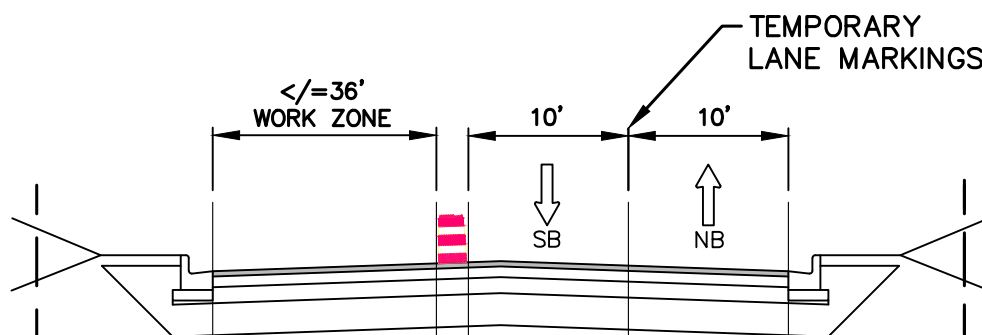
Maintaining Traffic.....Lump Sum



CENTER TURN LANE
STAGE 1



NORTHBOUND LANE
STAGE 2



SOUTHBOUND LANE
STAGE 3



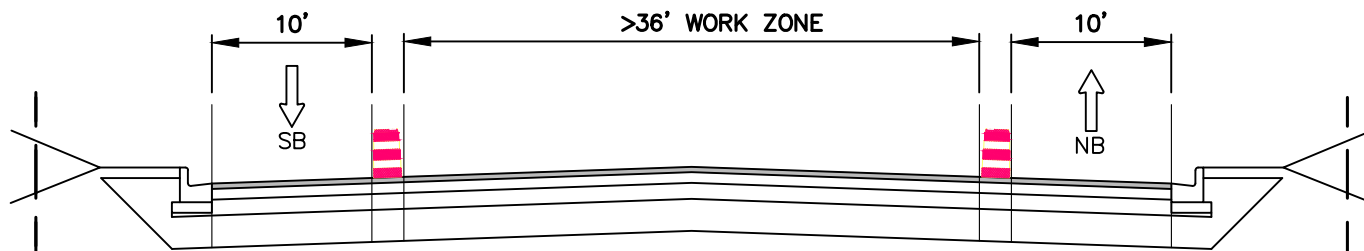
hurley & stewart, llc
2800 south 11th street
kalamazoo, michigan 49009
269.552.4960 fax 269.552.4961
www.hurleystewart.com

Job No.: 20-131D
Date: 12/6/21
Scale: N/A
P.M.: ARP
Dft: AGS
QA/QC: 12/6/21

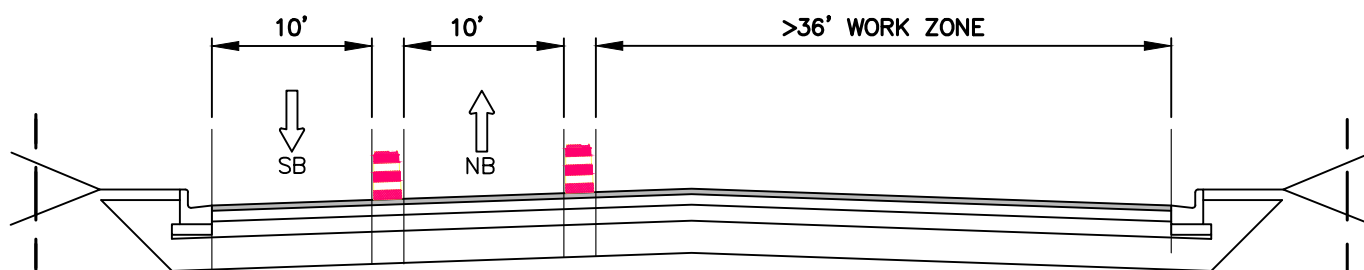
Title: MAINTAINING TRAFFIC TYPICAL CROSS SECTIONS
Project: S. ROSE ST. PAVEMENT REPLACEMENT
Client: CITY OF KALAMAZOO

Drawing No.

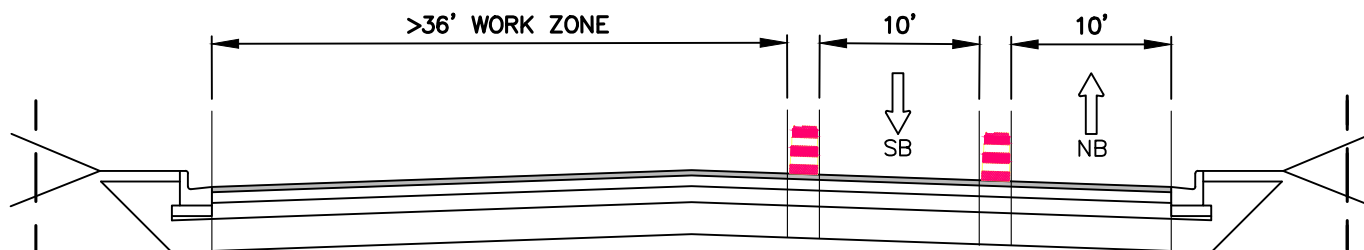
1



CENTER TURN LANE
STAGE 1



NORTHBOUND LANE
STAGE 2



SOUTHBOUND LANE
STAGE 3



hurley & stewart, llc
2800 south 11th street
kalamazoo, michigan 49009
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Job No.: 20-131D
Date: 12/6/21
Scale: N/A
P.M.: ARP
Dft: AGS
QA/QC: 12/6/21

Title: **MAINTAINING TRAFFIC TYPICAL CROSS SECTIONS**
Project: **S. ROSE ST. PAVEMENT REPLACEMENT**
Client: **CITY OF KALAMAZOO**

Drawing No.

2

DISTANCE BETWEEN TRAFFIC SIGNS, "D"

"D" DISTANCES	POSTED SPEED LIMIT, MPH (PRIOR TO WORK AREA)										
	25	30	35	40	45	50	55	60	65	70	75
D (FEET)	250	300	350	400	450	500	550	600	650	700	750

GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE, "B"


"B" LENGTHS	SPEED*, MPH (PRIOR TO WORK AREA)											
	20	25	30	35	40	45	50	55	60	65	70	75
B (FEET)	33	50	83	132	181	230	279	329	411	476	542	625

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

MINIMUM MERGING TAPER LENGTH, "L" (FEET)

OFFSET (FEET)	POSTED SPEED LIMIT, MPH (PRIOR TO WORK AREA)										
	25	30	35	40	45	50	55	60	65	70	75
1	11	15	21	27	45	50	55	60	65	70	75
2	21	30	41	54	90	100	110	120	130	140	150
3	32	45	62	80	135	150	165	180	195	210	225
4	42	60	82	107	180	200	220	240	260	280	300
5	53	75	103	134	225	250	275	300	325	350	375
6	63	90	123	160	270	300	330	360	390	420	450
7	73	105	143	187	315	350	385	420	455	490	525
8	84	120	164	214	360	400	440	480	520	560	600
9	94	135	184	240	405	450	495	540	585	630	675
10	105	150	205	267	450	500	550	600	650	700	750
11	115	165	225	294	495	550	605	660	715	770	825
12	125	180	245	320	540	600	660	720	780	840	900
13	136	195	266	347	585	650	715	780	845	910	975
14	146	210	286	374	630	700	770	840	910	980	1050
15	157	225	307	400	675	750	825	900	975	1050	1125

NOT TO SCALE

 Michigan Department of Transportation	NOT TO SCALE	WORK ZONE TRAFFIC CONTROL TYPICAL	TYPICAL NUMBERING KEY, "B", "D" AND "L" TABLES CHANNELIZING DEVICE SPACING, SIGN BORDER KEY, AND ROLL-AHEAD SPACING	DATE: NOV 2020
		NO: 101-GEN-SPACING-CHARTS		SHEET: 1 OF 3

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

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

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

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

TYPES OF TAPERS

UPSTREAM TAPERS

MERGING TAPER
SHIFTING TAPER
SHOULDER TAPER
2 TO 1 LANE ROAD TAPER

TAPER LENGTH

L - MINIMUM
1/2 L - MINIMUM
1/3 L - MINIMUM
100' - MAXIMUM

DOWNSTREAM TAPERS

(USE IS RECOMMENDED)

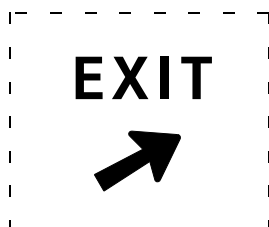
100' (PER LANE)

MAXIMUM SPACING FOR CHANNELIZING DEVICES

WORK ZONE SPEED LIMIT	DRUM AND 42" DEVICE SPACING (FT)		NIGHTTIME 42" DEVICE SPACING (FT)	
	TAPER	TANGENT	TAPER	TANGENT
< 45 MPH	1 x SPEED LIMIT	2 x SPEED LIMIT	25 FEET	50 FEET
≥ 45 MPH	50 FEET	100 FEET	25 FEET	50 FEET

SIGN OUTLINE KEY

DASHED OUTLINES INDICATE A SIGN THAT EXISTS ON SITE, AND NEEDS TO BE COVERED.



SOLID OUTLINES INDICATE A SIGN THAT IS TO BE PLACED ON THE PROJECT



NOT TO SCALE



NOT TO SCALE

WORK ZONE TRAFFIC CONTROL TYPICAL

NO: 101-GEN-
SPACING-CHARTS

FILE: 101-GEN-SPACING-CHARTS.dgn

TYPICAL NUMBERING KEY

"B", "D" AND "L" TABLES
CHANNELIZING DEVICE SPACING
SIGN BORDER KEY AND ROLL-AHEAD SPACING

DATE:
NOV 2020

SHEET:

2 OF 3

GUIDELINES FOR ROLL-AHEAD DISTANCES FOR TMA VEHICLES – TEST LEVEL 2

WEIGHT OF TMA VEHICLE	PREVAILING SPEED (POSTED SPEED PRIOR TO WORK ZONE)	ROLL-AHEAD DISTANCE* (DISTANCE FROM FRONT OF TMA VEHICLE TO WORK AREA)
5.5 TONS (STATIONARY)	40 MPH OR LESS	25 FT

* ROLL-AHEAD DISTANCES ARE CALCULATED USING A 4,410 POUND IMPACT VEHICLE WEIGHT.

GUIDELINES FOR ROLL-AHEAD DISTANCES FOR TMA VEHICLES – TEST LEVEL 3

WEIGHT OF TMA VEHICLE	PREVAILING SPEED (POSTED SPEED PRIOR TO WORK ZONE)	ROLL-AHEAD DISTANCE* (DISTANCE FROM FRONT OF TMA VEHICLE TO WORK AREA)
5 TONS (MOBILE)	45 MPH	100 FT
	50-55 MPH	150 FT
	60-75 MPH	175 FT
12 TONS (STATIONARY)	45 MPH	25 FT
	50-55 MPH	25 FT
	60-75 MPH	50 FT

* ROLL-AHEAD DISTANCES ARE CALCULATED USING A 10,000 POUND IMPACT VEHICLE WEIGHT.

THE FOLLOWING NOTES APPLY IF CALLED FOR ON THE TRAFFIC CONTROL TYPICAL

GENERAL NOTES

- G1: SEE GEN-SPACING-CHARTS FOR COMMON VALUES INCLUDING:
D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
ROLL AHEAD DISTANCE
- G2: DISTANCE BETWEEN SIGNS, "D", THE VALUES FOR WHICH ARE SHOWN IN TYPICAL GEN-KEY ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- G3: ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING MUST MEET NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 (NCHRP 350) TEST LEVEL 3, OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) TL-3 AS WELL AS THE CURRENT EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDOT WILL BE ALLOWED.
- G4: DO NOT STORE EQUIPMENT, MATERIALS OR PERFORM WORK IN ESTABLISHED BUFFER AREAS.
- G5: ALL EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH EITHER PROPOSED CHANGES IN TRAFFIC PATTERNS OR PROPOSED TEMPORARY TRAFFIC MARKINGS SHALL BE REMOVED BEFORE ANY CHANGE IS MADE IN THE TRAFFIC PATTERN. EXCEPTION WILL BE MADE FOR TRAFFIC PATTERNS FOR WORK LESS THAN THREE DAYS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.

SIGN NOTES

- S1: ALL NON-APPLICABLE SIGNING WITHIN THE CIA MUST BE MODIFIED TO FIT CONDITIONS, COVERED, OR REMOVED. FOR GUIDANCE SEE THE WORK ZONE SAFETY AND MOBILITY MANUAL, SECTIONS 6.01.09 AND 6.01.10.
- S2: R5-18b SIGNS ARE ONLY REQUIRED ON FREEWAY PROJECTS WITH A DURATION OF 15 DAYS OR LONGER OR NON-FREEWAY PROJECTS WITH A DURATION OF 90 DAYS OR LONGER. TO APPLY THIS TYPICAL WITHOUT R5-18b SIGNS, REMOVE THE SIGNS AND CONSOLIDATE THE SEQUENCE AS APPROPRIATE.
- S3: R5-18c IS ONLY REQUIRED IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. OMIT THIS SIGN IN SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE.
- S4: ADDITIONAL SIGNING AND/OR ELONGATED SIGNING SEQUENCES SHOULD BE USED WHEN TRAFFIC VOLUMES ARE SIGNIFICANT ENOUGH TO CREATE BACKUPS BEYOND THE W20-5 SIGNS.
- S5: PLACE ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE WORK ZONE SPEED AFTER EACH MAJOR CROSSROAD THAT INTERSECTS THE WORK ZONE, OR AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT. PLACE ADDITIONAL SPEED LIMIT SIGNS AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS ARE MORE THAN 2 MILES APART. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, PLACE ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED BEYOND THE LIMITS OF THE WORK AREA AS INDICATED. IF PERMANENT SIGNS DISPLAYING THE CORRECT SPEED LIMIT ARE POSTED, OMIT ALL W3-5b AND R2-1 SIGNS AND REDUCE SPACING ACCORDINGLY.
- S6: FABRICATE SPECIAL SIGNS IN ACCORDANCE WITH CURRENT SIGNING DESIGN STANDARDS.
- S7: PLACE ADDITIONAL R8-3 SIGNS AT A MAXIMUM 500' SPACING THROUGHOUT THE WORK ZONE.
- S8: WHEN SPEED LIMIT SIGNS CANNOT BE PLACED SIDE BY SIDE AS SHOWN, PLACE THEM "D" DISTANCE APART.
- S9: STOP SIGNS NOT REQUIRED IF SIGNALS ARE ON 4-WAY FLASHING RED. STOP AHEAD SIGNS ARE NOT REQUIRED IF THERE IS ADEQUATE VISIBILITY OF THE STOP SIGN OR IF SIGNALS ARE BEING USED TO CONTROL TRAFFIC.
- S10: PLACE REDUCED SPEED ZONE AHEAD SIGN (W3-5b) HERE WHEN USING A SPEED REDUCTION IN THIS DIRECTION.

TRAFFIC REGULATOR NOTES

- TR1: TRAFFIC REGULATORS MUST FOLLOW ALL THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS, THE CURRENT VERSIONS OF THE TRAFFIC REGULATOR'S INSTRUCTION MANUAL AND THE VIDEO "HOW TO SAFELY REGULATE TRAFFIC IN MICHIGAN". THE MAXIMUM DISTANCE BETWEEN THE TRAFFIC REGULATORS IS DETERMINED BY THE ROADWAY ADT, GEOMETRICS, AND AS DIRECTED BY THE ENGINEER.
- TR2: PROVIDE APPROPRIATE BALLOON LIGHTING TO SUFFICIENTLY ILLUMINATE TRAFFIC REGULATOR'S STATIONS WHEN TRAFFIC REGULATING IS ALLOWED DURING THE HOURS OF DARKNESS.

TEMPORARY TRAFFIC CONTROL DEVICE NOTES

- TCD1: THE MAXIMUM DISTANCE IN FEET BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD NOT EXCEED 1.0 TIMES THE WORK ZONE SPEED LIMIT IN MPH FOR ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT LESS THAN 45 MPH AND SHOULD NOT EXCEED 50 FEET ON ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT OF 45 MPH OR GREATER. THE SPACING FOR 42 INCH CHANNELIZING DEVICE TAPERS ARE NOT TO EXCEED 25 FEET AT NIGHT.
- TCD2: THE MAXIMUM DISTANCE IN FEET BETWEEN CHANNELIZING DEVICES IN A TANGENT SHOULD NOT EXCEED TWICE THE WORK ZONE SPEED LIMIT IN MPH FOR ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT LESS THAN 45 MPH AND SHOULD NOT EXCEED 100 FEET ON ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT OF 45 MPH OR GREATER. THE SPACING FOR 42 INCH CHANNELIZING DEVICE TANGENTS ARE NOT TO EXCEED 50 FEET AT NIGHT.
- TCD3: TYPE III BARRICADES MUST BE LIGHTED FOR OVERNIGHT CLOSURES.
- TCD4: WHEN THE HAUL ROAD IS NOT IN USE, PLACE LIGHTED TYPE III BARRICADES WITH "ROAD CLOSED" EXTENDING COMPLETELY ACROSS THE HAUL ROAD.
- TCD5: USE VERTICAL PANELS IN LIEU OF THE TYPE B HIGH INTENSITY LIGHT SHOWN IN THE STANDARD PLAN FOR TEMPORARY CONCRETE BARRIER (R-53, AND R-126) WHEN USED WITH A TEMPORARY SIGNAL SYSTEM.
- TCD6: PLACE LIGHTED ARROW PANELS AS CLOSE TO THE BEGINNING OF TAPERS AS PRACTICAL, BUT NOT IN A MANNER THAT WILL OBSCURE OR CONFUSE APPROACHING MOTORISTS WHEN PHYSICAL LIMITATIONS RESTRICT PLACEMENT. IN CURBED SECTIONS, IF ARROW BOARD CANNOT BE PLACED BEHIND CURB, PLACE ARROW BOARD IN THE CLOSED LANE AS CLOSE TO THE BEGINNING OF TAPER AS POSSIBLE.
- TCD7: ADDITIONAL TYPE III BARRICADES MAY BE REQUIRED TO COMPLETELY CLOSE OFF ROAD FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT.
- TCD8: WHERE THE SHIFTED SECTION IS SHORTER THAN 600 FEET, A DOUBLE REVERSE CURVE SIGN (W24-1) CAN BE USED INSTEAD OF THE FIRST REVERSE CURVE SIGN, AND THE SECOND REVERSE CURVE SIGN CAN BE OMITTED.
- TCD9: RUMBLE STRIPS ARE TO BE PLACED AS SPECIFIED IN THE CONTRACT. IF NOT SPECIFIED IN THE CONTRACT, PLACE RUMBLE STRIPS AS SHOWN, AND IN ACCORDANCE WITH THE RUMBLE STRIP MANUFACTURER'S RECOMMENDATIONS. AN ARRAY OF RUMBLE STRIPS CONTAINS THREE RUMBLE STRIPS. PLACE THE RUMBLE STRIPS IN THE ARRAY AT A CONSISTENT DISTANCE, BETWEEN 10' AND 20' APART.
- TCD10: SEE THE WORK ZONE SAFETY AND MOBILITY MANUAL, PORTABLE CHANGEABLE MESSAGE SIGN GUIDELINES FOR RECOMMENDED AND CORRECT PCMS MESSAGING. STAGGER PCMS THAT ARE ON OPPOSING SIDES OF THE ROAD 1000 FEET FROM EACH OTHER.

RAMP NOTES

- RMP1: WHEN CONDITIONS ALLOW, E5-1 SIGNS MUST BE REMOVED OR COVERED AND CHANNELIZING DEVICES MUST BE POSITIONED TO ENABLE RAMP TRAFFIC TO DIVERGE IN A FREE MANNER
- RMP2: STOP AND YIELD CONDITIONS SHOULD BE AVOIDED WHENEVER PRACTICAL. WHEN CONDITIONS WARRANT, R1-1 SIGNS MAY BE USED IN PLACE OF R1-2 SIGNS. WHEN R-1 SIGNS ARE USED, W3-1 SIGNS MUST BE USED IN PLACE OF W3-2 SIGNS. CONSIDERATION SHOULD BE GIVEN TO CLOSING THE RAMP TO COMPLETE WORK TO ALLOW AN ADEQUATE MERGE DISTANCE. WORK SHOULD BE EXPEDITED TO AVOID THE STOP AND/OR YIELD CONDITIONS.



NOT TO SCALE

WORK ZONE TRAFFIC CONTROL TYPICAL

NO:

102-GEN-NOTES

TRAFFIC CONTROL TYPICALS
NOTE SHEET

DATE:
NOV 2020

SHEET:

1 OF 2

FILE: 102-GEN-NOTES.dgn

THE FOLLOWING NOTES APPLY IF CALLED FOR ON THE TRAFFIC CONTROL TYPICAL

SIGNAL NOTES

- SIG1: EXISTING SIGNAL MUST BE EITHER 4-WAY FLASHING RED, BAGGED, OR TURNED OFF.
- SIG2: SIGNAL IS IN OPERATION.
- SIG3: DELINEATE THE WORK ZONE AREA WITH 28 INCH CONES FOR DAYTIME WORK, OR 42 INCH CHANNELIZING DEVICES FOR NIGHTTIME WORK.
- SIG4: THE CONTRACTOR MUST HAVE A DESIGNATED SPOTTER IF THE AERIAL BUCKET TRUCK IS LOCATED OVER ACTIVE TRAVEL LANES.
- SIG5: THE LOWEST POINT OF THE BUCKET MAY NOT TRAVEL BELOW 14 FOOT VERTICAL CLEARANCE. THE CONTRACTOR MUST UTILIZE AN ALTERNATE SET UP, OR PLACE THE INTERSECTION IN A 4 WAY STOP IF THE 14 FOOT VERTICAL CLEARANCE IS COMPROMIZED. USE TRAFFIC REGULATORS TO CONTROL TRAFFIC THROUGH THE INTERSECTION WHEN TRAFFIC IS PLACED IN A 4 WAY STOP.
- SIG6: DELINEATE THE TRUCK WITH CHANNELIZING DEVICES. THE POSITION OF THE TRUCK MAY BE MOVED TO FACILITATE WORK.

MAINTENANCE AND SURVEYING NOTES

- MS1: WHENEVER STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE SHADOW VEHICLES SHOULD MAINTAIN THE RECOMENDED DISTANCE FROM THE WORK AREA AND PROCEED AT THE SAME SPEED. THE SHADOW VEHICLE SHOULD SLOW DOWN AND TRAVEL AT A FARTHER DISTANCE TO PROVIDE ADEQUATE SIGHT DISTANCE IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES.
- MS2: WORKERS OUTSIDE OF VEHICLES MUST ONLY WORK WITHIN 150' OF WORK VEHICLES WITH AN ACTIVATED BEACON, BETWEEN THE "BEGIN WORK CONVOY" SIGN AND THE "END WORK CONVOY" SIGN, OR BETWEEN THE "WORK ZONE BEGINS" AND "END ROAD WORK" SIGN.
- MS3: WORK OR SHADOW VEHICLES WITH OR WITHOUT A TMA MAY BE USED TO SEPARATE THE WORK SPACE FROM TRAFFIC. IF USED, THE VEHICLES SHOULD BE PARKED ACCORDING TO THE ROLL AHEAD DISTANCE TABLES.
- MS4: WORK AND SHADOW VEHICLES SHALL BE APPROPRIATELY EQUIPPED WITH AN ACTIVATED AMBER BEACON.
- MS5: WHEN WORKERS ARE OUTSIDE THEIR VEHICLES IN AN EXISTING LANE WHILE A MOBILE OPERATION IS OCCURRING DURING THE NIGHTTIME HOURS, CHANNELIZING DEVICES TO DELINEATE OPEN OR CLOSED LANES AT 50 FT SPACING MUST BE USED. AN EXAMPLE OF AN OPERATION (BUT NOT LIMITED TO) IS THE LAYOUT OF CONCRETE PATCHES.
- MS6: W21-6 AND W20-1 SIGNS MAY BE SUBSTITUTED AS DETERMINED BY THE TYPE OF WORK TAKING PLACE AS PER THE ENGINEER.



NOT TO SCALE

WORK ZONE TRAFFIC CONTROL TYPICAL

NO:

102-GEN-NOTES

TRAFFIC CONTROL TYPICALS
NOTE SHEET

DATE:
NOV 2020

SHEET:

2 OF 2

SIGN NUMBER KEY



E5-1f
48" x 48"
60" x 48"



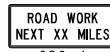
E5-2
48" x 36"



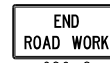
E5-2a
48" x 36"



E5-3
48" x 36"



G20-1
60" x 24"



G20-2
48" x 24"



G20-4
36" x 18"



I-6a
24" x 24"



M1-1
18" x 18"



M1-1
22.5" x 18"



M1-2
18" x 18"



M1-2
22.5" x 18"



M1-3
18" x 18"



M1-3
22.5" x 18"



M1-4
18" x 18"



M1-4
22.5" x 18"



M1-5
11.2" x 18"



M1-5a
18" x 18"
24" x 24"



M1-6
18" x 18"
24" x 24"



M3-1
18" x 9"



M3-2
18" x 9"



M3-3
18" x 9"



M3-4
18" x 9"



M4-1
18" x 9"



M4-1a
18" x 9"



M4-2
18" x 9"



M4-3
18" x 9"



M4-4
18" x 9"



M4-5
18" x 9"



M4-6
18" x 9"



M4-7
18" x 9"



M4-7a
18" x 9"



M4-8
12" x 6"
18" x 9"
24" x 12"
30" x 15"



M4-8a
24" x 18"



M4-8b
24" x 12"



M4-9L
30" x 24"
48" x 36"
60" x 48"



M4-9R
30" x 24"
48" x 36"
60" x 48"



M4-9U
30" x 24"
48" x 36"
60" x 48"



M4-9UL
30" x 30"
48" x 42"



M4-9UR
30" x 30"
48" x 42"



M4-9dL
12" x 18"



M4-9dR
12" x 18"



M4-9e
12" x 18"



M4-9f
12" x 18"



M4-9gL
12" x 18"



M4-9gR
12" x 18"



M4-9h
12" x 24"



M4-9i
12" x 18"



M4-10L
48" x 18"



M4-10R
48" x 18"



M4-11a



M6-1L
18" x 12"



M6-1R
18" x 12"



M6-2L
18" x 12"



M6-2R
18" x 12"



M6-3
18" x 12"



M6-4
18" x 12"



M6-5
18" x 12"



M6-6L
18" x 12"



M6-6R
18" x 12"



M6-7L
18" x 12"



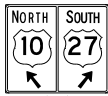
M6-7R
18" x 12"



M8-1gL
36" x 66"



M8-1gR
36" x 66"



M8-2d
60" x 48"






































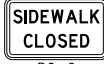



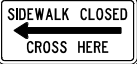
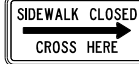





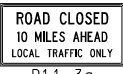
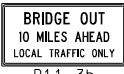
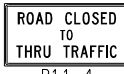



















OM-3L
12" x 24"

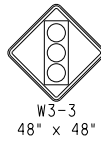


OM-3R
12" x 24"

SIGN NUMBER KEY

 R1-1 30" x 30" (6.25 ft+2) 36" x 36" (9 ft+2)	 R1-2 36" x 36" x 36" (4 ft+2) 48" x 48" x 48" (7 ft+2)	 R1-2aP 24" x 18" 36" x 30" 48" x 36"	 R2-1 48" x 60"	 R2-1a 48" x 60"	 R3-1 24" x 24"	 R3-2 24" x 24"	 R3-3 24" x 24"	
 R3-4 24" x 24"	 R3-5L 36" x 48"	 R3-5R 36" x 48"	 R3-5a 36" x 48"	 R3-6L 42" x 48"	 R3-6R 42" x 48"	 R3-7L 36" x 36"	 R3-7R 36" x 36"	
 R3-8c 36" x 30"	 R3-8d 36" x 30"	 R4-1 24" x 30" 36" x 48"	 R4-2 24" x 30"	 R4-7 24" x 30"	 R4-8 24" x 30"	 R4-9 24" x 30"	 R5-1 30" x 30"	
 R5-1a 36" x 24"	 R5-18b 48" x 60"	 R5-18c 48" x 48"	 R5-18d 78" x 12"		 R5-18e 72" x 12"		 R5-18f 48" x 60"	 R5-18g 30" x 42"
 R6-1L 36" x 12"	 R6-1R 36" x 12"	 R6-2L 24" x 30"	 R6-2R 24" x 30"	 R8-3 24" x 24"	 R9-8 36" x 18"	 R9-9 30" x 18"	 R9-10 24" x 12" 48" x 24"	
 R9-11L 24" x 12" 48" x 36"	 R9-11R 24" x 12" 48" x 36"	 R9-11aL 24" x 12" 48" x 24"	 R9-11aR 24" x 12" 48" x 24"	 R10-6b 36" x 54"	 R11-2 48" x 30"	 R11-2a 48" x 30"	 R11-2b 48" x 30"	
 R11-2c 60" x 30"			 R11-3a 60" x 30"		 R11-3b 60" x 30"		 R11-4 60" x 30"	
 W1-1L 48" x 48"	 W1-1R 48" x 48"	 W1-2L 48" x 48"	 W1-2R 48" x 48"	 W1-2bL 48" x 48"	 W1-2bR 48" x 48"	 W1-3L 48" x 48"	 W1-3R 48" x 48"	
 W1-4L 48" x 48"	 W1-4R 48" x 48"	 W1-4bL 48" x 48"	 W1-4bR 48" x 48"	 W1-4cL 48" x 48"	 W1-4cR 48" x 48"	 W24-1L 48" x 48"	 W24-1R 48" x 48"	
						 W24-1cP 24" x 18"		

SIGN NUMBER KEY



SIGN NUMBER KEY



W12-1
48" x 48"



W11-24
48" x 48"



W12-2
48" x 48"



W13-1P
18" x 18"
24" x 24"



W13-2
36" x 48"



W13-4P
24" x 24"



W13-6
24" x 42"
36" x 60"



W13-6a
24" x 42"
36" x 60"



W13-7
24" x 42"
36" x 60"



W13-7a
24" x 42"
36" x 60"



W14-3
48" x 36"



W16-2P
24" x 18"



W16-4aP
24" x 18"



W16-12P
24" x 18"



W16-13P
24" x 18"



W20-1
48" x 48"



W20-1a
48" x 48"



W20-b
48" x 48"



W20-1c
48" x 48"



W20-1d
48" x 48"



W20-2
48" x 48"



W20-3
48" x 48"



W20-3a
48" x 48"



W20-3b
48" x 48"



W20-4
48" x 48"



W20-4c
48" x 48"



W20-5C
48" x 48"



W20-5L
48" x 48"



W20-5L1
48" x 48"



W20-5L2
48" x 48"



W20-5L3
48" x 48"



W20-5R
48" x 48"



W20-5R1
48" x 48"



W20-5R2
48" x 48"



W20-5R3
48" x 48"



W20-5aL2
48" x 48"



W20-5aL3
48" x 48"



W20-5aR2
48" x 48"



W20-5aR3
48" x 48"



W20-6
48" x 48"



W20-7a
48" x 48"



W20-8
24" x 18"



W20-9
54" x 48"



W20-10
48" x 30"



W20-11
12" x 18"



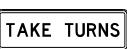
W20-12P
SIZE VARIES



W20-14L
48" x 48"



W20-14R
48" x 48"



W20-14P
36" x 12"
48" x 12"



W20-14b
36" x 12"
48" x 12"



W20-15
48" x 48"



W20-15a
48" x 48"



W20-16
48" x 48"



W20-17
48" x 48"



W21-1
48" x 48"



W21-2
48" x 48"



W21-2
48" x 48"



W21-3
48" x 48"



W21-4
36" x 18"



W21-5
48" x 48"



W21-5aL
48" x 48"



W21-5aR
48" x 48"



W21-5bL
48" x 48"



W21-5bR
48" x 48"



W21-6
48" x 48"



W21-7
48" x 48"



W21-8
48" x 48"



W22-1
48" x 48"



W22-2
42" x 36"



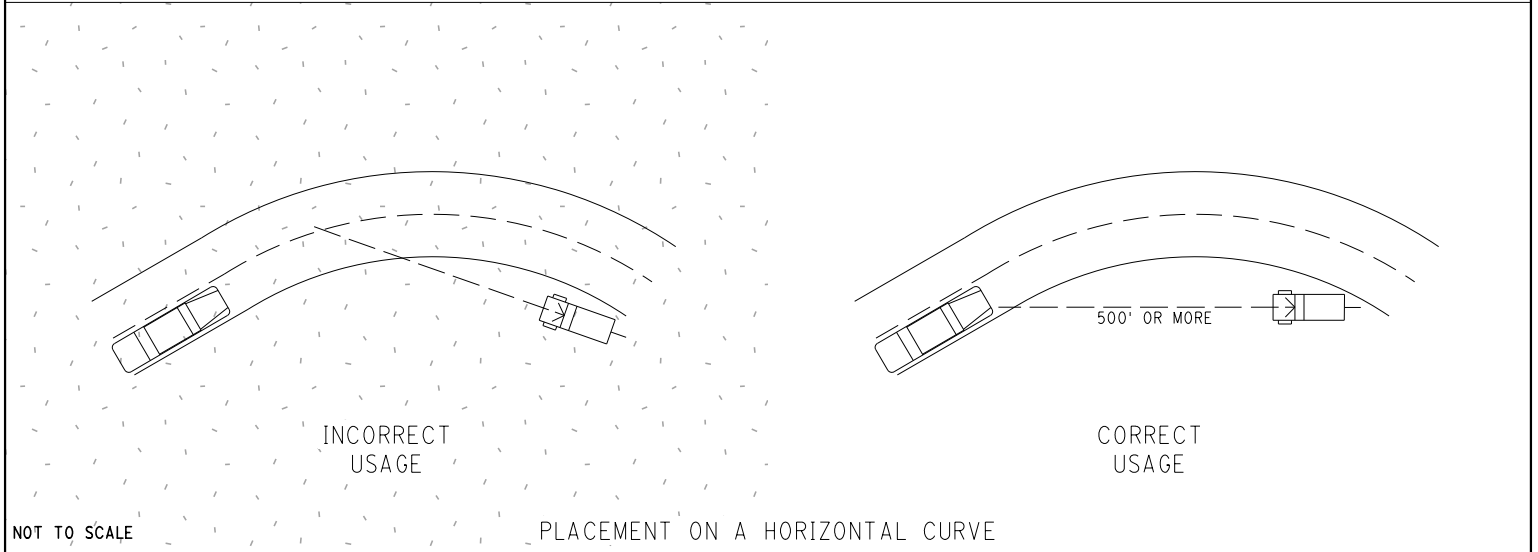
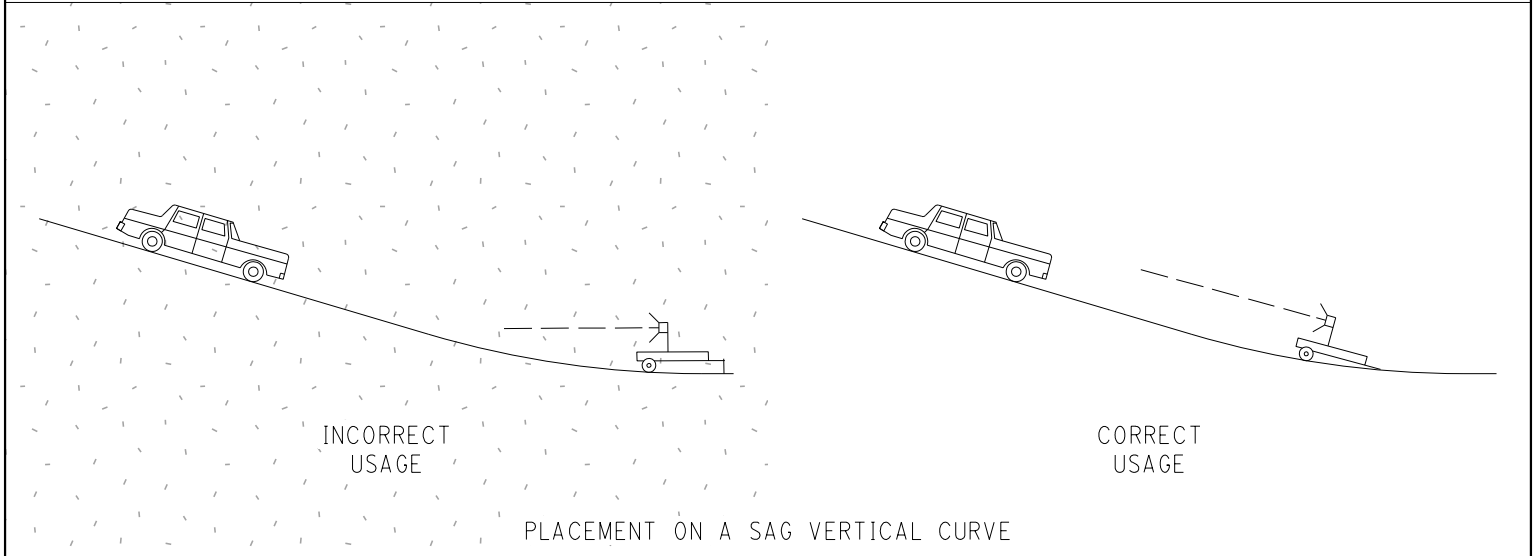
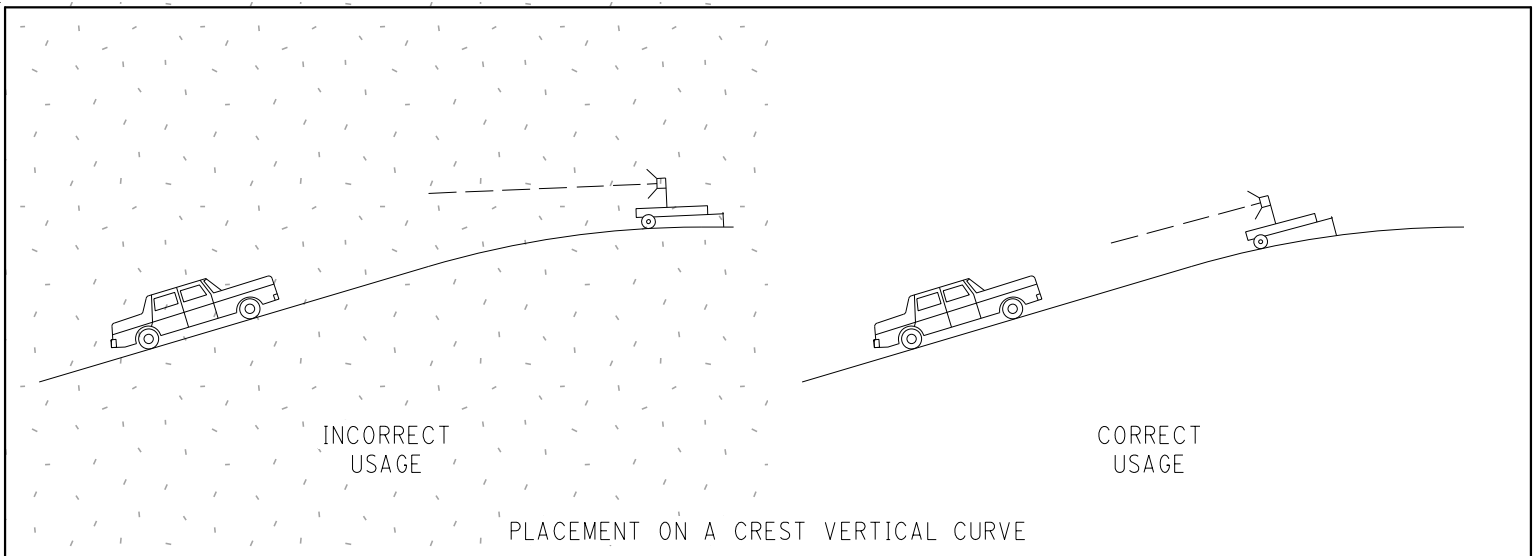
W22-3
36" x 30"
42" x 36"



W23-1
48" x 24"



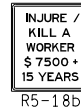
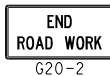
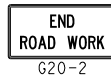
W23-2
48" x 48"



NOTE:

ENSURE THE ARROW REMAINS CLEARLY LEGIBLE AT DISTANCES FROM 2,500 FEET TO 200 FEET, FROM ALL TRAFFIC LANES AND ROADWAY ENTRANCES. DO NOT PLACE THE LIGHTED ARROW ON A HORIZONTAL OR VERTICAL CURVE THAT MIGHT INTERFERE WITH THIS LEGIBILITY REQUIREMENT.

	NOT TO SCALE	WORK ZONE TRAFFIC CONTROL TYPICAL	USE OF ARROW BOARD ON HILL OR CURVE AND WORK ZONE LAYOUT	DATE: NOV 2020
		NO: 104-GEN-AB		SHEET: 1 OF 1



KEY

- ... CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL (CAUTION MODE)
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- PLACE SIGN AS INDICATED IN NOTE S2

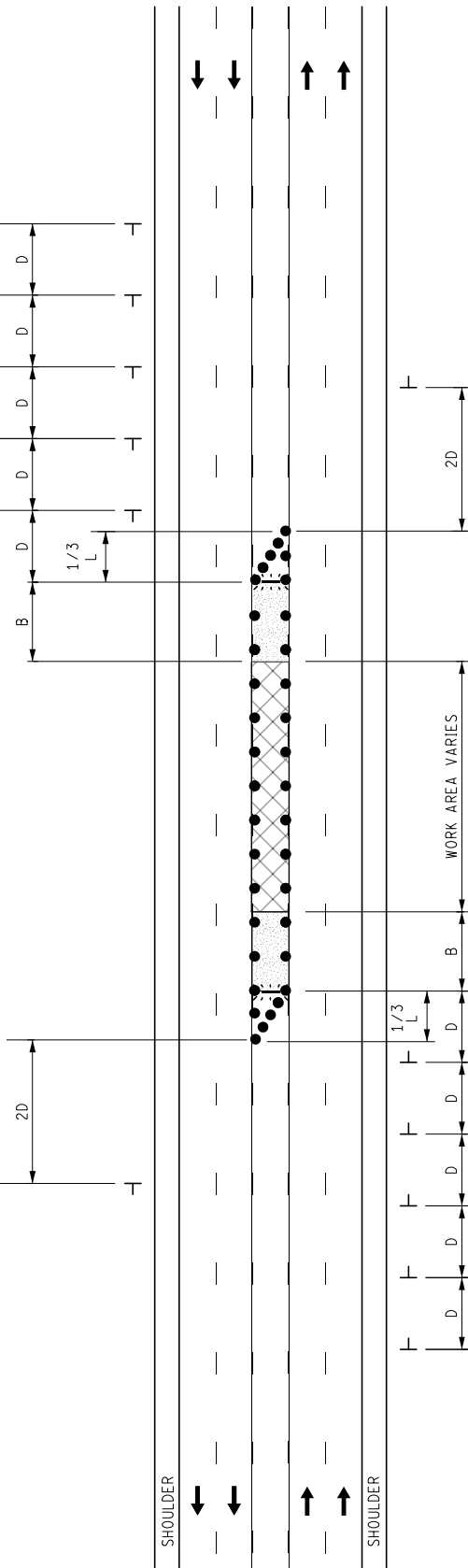
STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4
 SIGNING: S1, S2, S3, S5
 DEVICES: TCD1, TCD2, TCD6

NOTES

THIS SEQUENCE SHOULD ONLY BE USED WHEN WORKERS ARE NOT PRESENT, E.G., FOR CURING CONCRETE OVERNIGHT, ETC. WHEN WORK IS BEING CONDUCTED IN THE CENTER LANE, AN ADJACENT LANE (IN ONE OR BOTH DIRECTIONS) SHOULD ALSO BE CLOSED UTILIZING THE APPROPRIATE TYPICAL SIGNING SEQUENCE



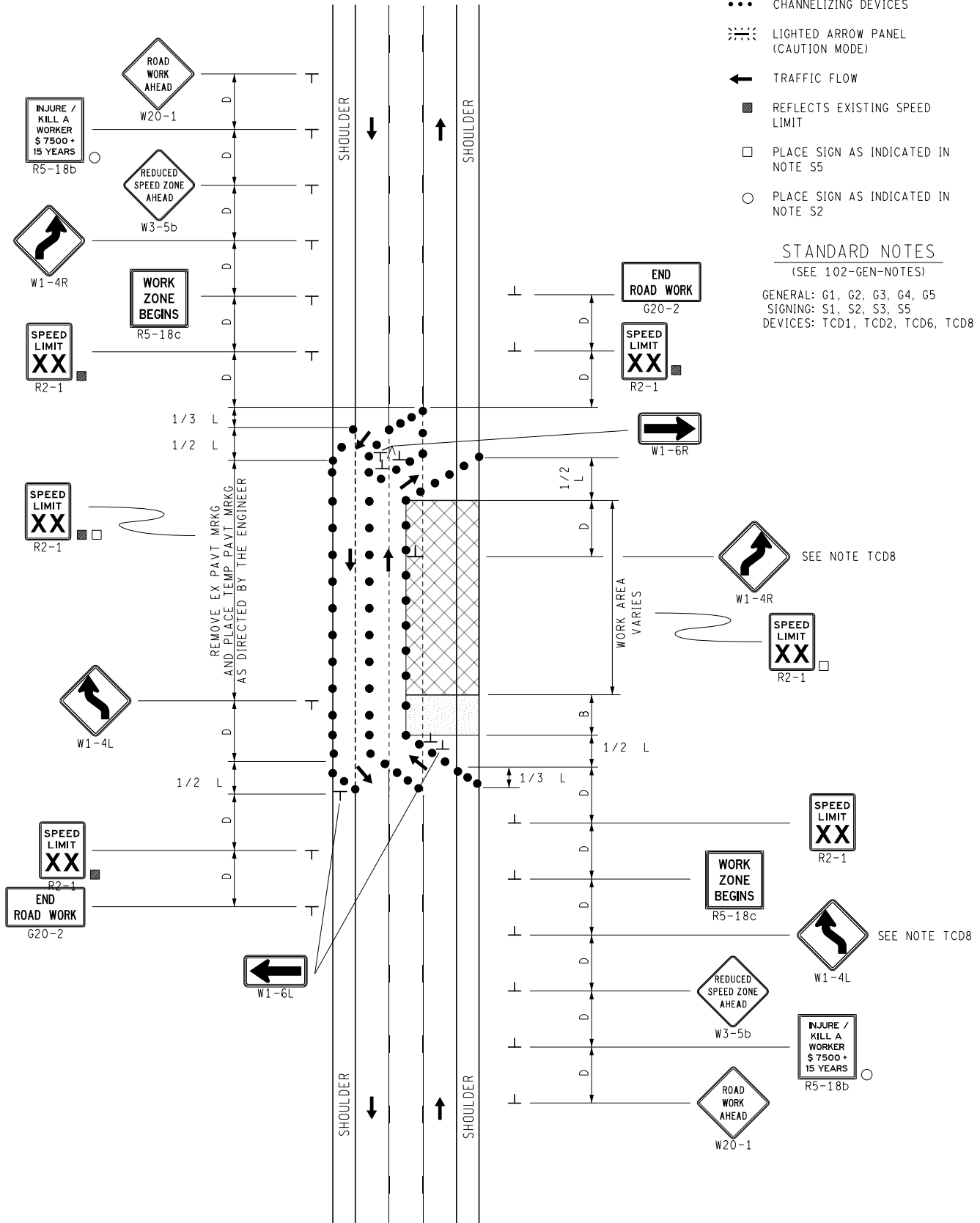
KEY

- ... CHANNELIZING DEVICES
- ⚡ LIGHTED ARROW PANEL (CAUTION MODE)
- ← TRAFFIC FLOW
- REFLECTS EXISTING SPEED LIMIT
- PLACE SIGN AS INDICATED IN NOTE S5
- PLACE SIGN AS INDICATED IN NOTE S2

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4, G5
SIGNING: S1, S2, S3, S5
DEVICES: TCD1, TCD2, TCD6, TCD8



SIGN MATERIAL SELECTION TABLE

SIGN SIZE	SIGN MATERIAL TYPE		
	TYPE I	TYPE II	TYPE III
$\leq 36" \times 36"$		X	X
$> 36" \times 36" \leq 96"$ TO WIDE		X	
$> 96"$ WIDE TO $144"$ WIDE	X	X	
$> 144"$ WIDE	X		


TYPE I ALUMINUM EXTRUSION
 TYPE II PLYWOOD
 TYPE III ALUMINUM SHEET

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

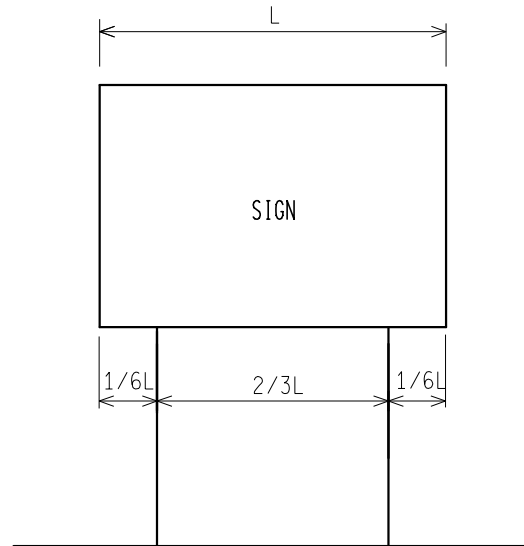
POST SIZE REQUIREMENTS TABLE

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

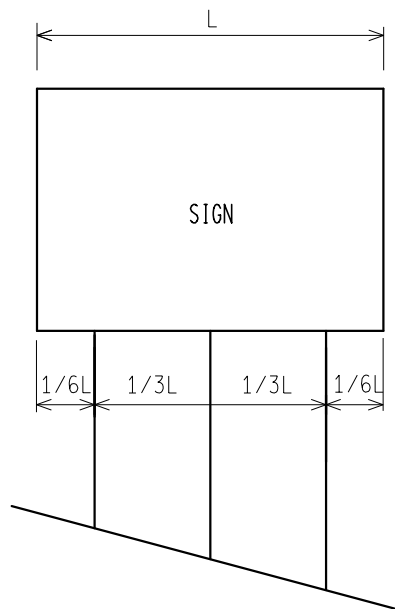
*SIGNS 4 FEET AND GREATER IN WIDTH REQUIRE 2 POSTS.
 SIGNS GREATER THAN 8 FEET IN WIDTH REQUIRE 2 OR 3 WOOD
 POSTS DEPENDING ON AREA OF SIGN.
 A MAXIMUM OF 2 POSTS WITHIN A 7' PATH IS PERMITTED.

 PREPARED BY DESIGN DIVISION	DEPARTMENT DIRECTOR Kirk T. Steudle	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR <h3 style="margin: 0;">GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS</h3>		
	APPROVED BY: _____ DIRECTOR, BUREAU OF FIELD SERVICES			
	APPROVED BY: _____ DIRECTOR, BUREAU OF DEVELOPMENT	F.H.W.A. APPROVAL	11/2/2017 PLAN DATE	WZD-100-A SHEET 1 OF 11

2 POST SIGN SUPPORT SPACING



3 POST SIGN SUPPORT SPACING



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

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

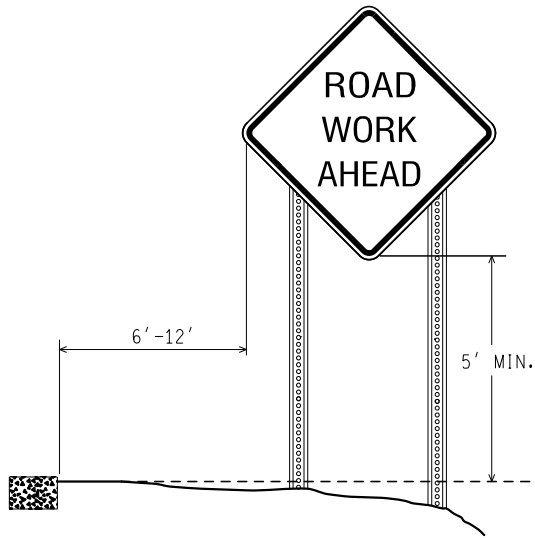
F.H.W.A. APPROVAL

11/2/2017
PLAN DATE

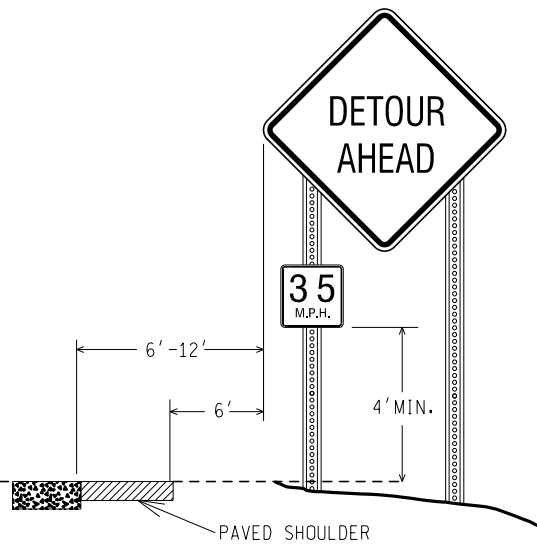
WZD-100-A

SHEET
2 OF 11

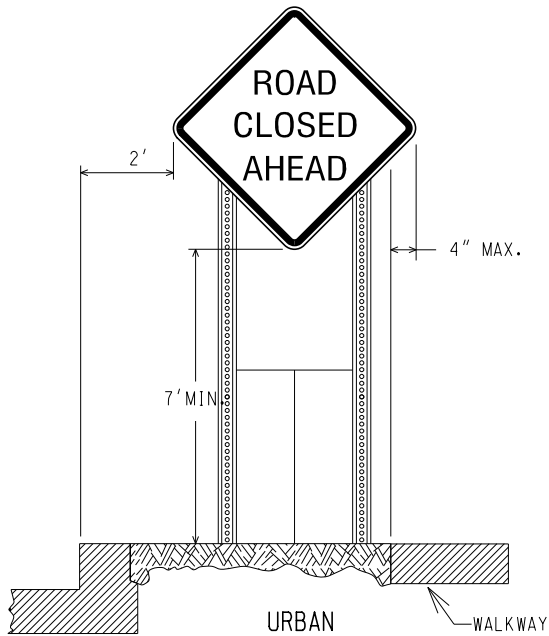
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RURAL

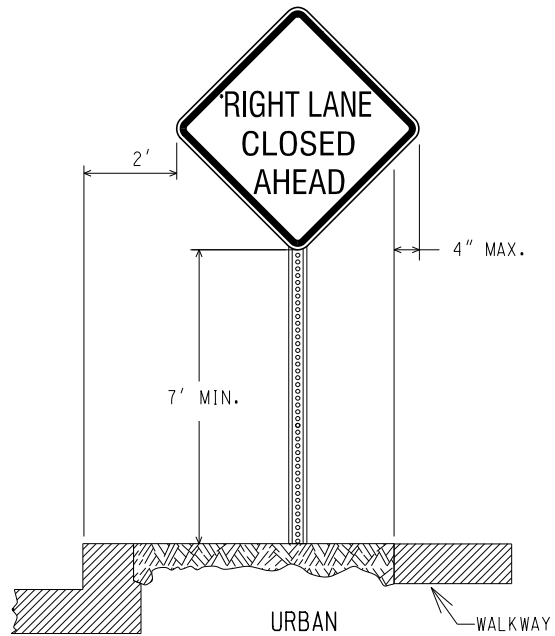


RURAL WITH ADVISORY
SPEED PLATE



URBAN

(CURBED AREAS OR WHERE
WALKWAYS ARE PRESENT)



URBAN

(CURBED AREAS OR WHERE
WALKWAYS ARE PRESENT)

BOTTOM HEIGHT AND OFFSET

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

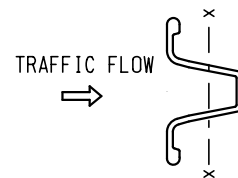
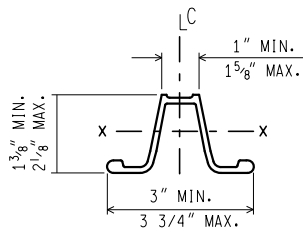
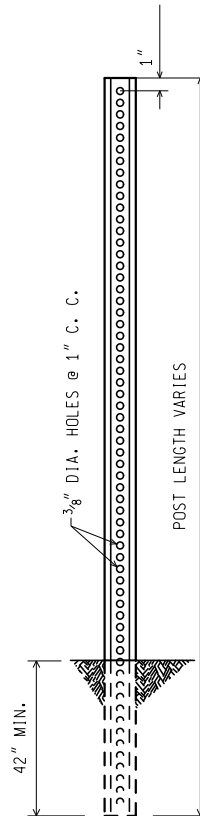
F.H.W.A. APPROVAL

11/2/2017
PLAN DATE

WZD-100-A

SHEET
3 OF 11

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

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

MOUNT SIGN ON OPEN FACE OF
 U - CHANNEL STEEL POST

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
 BUREAU OF DEVELOPMENT STANDARD PLAN

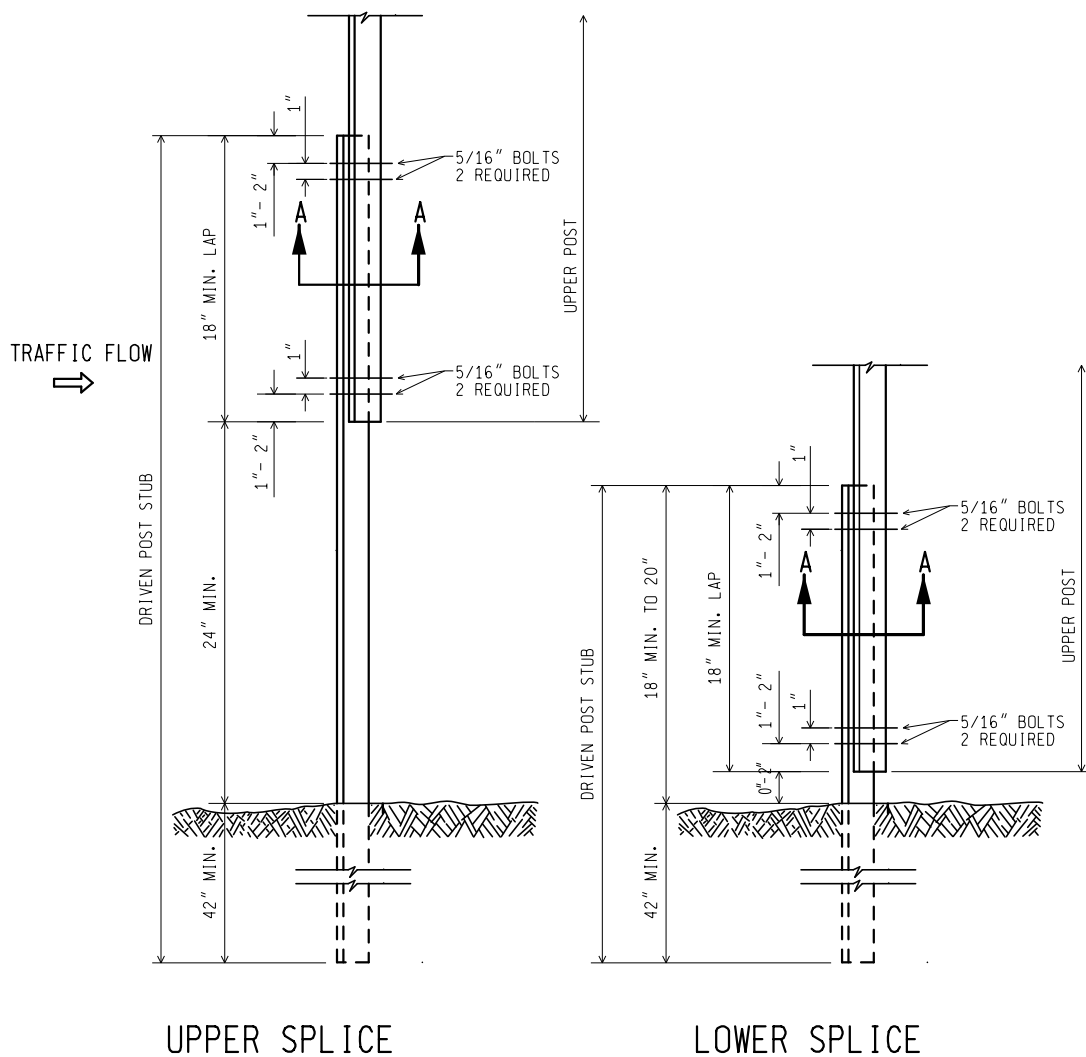
F.H.W.A. APPROVAL

11/2/2017
 PLAN DATE

WZD-100-A

SHEET
 4 OF 11

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

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

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

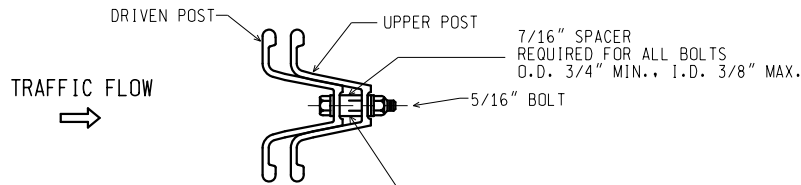
F.H.W.A. APPROVAL

11/2/2017
PLAN DATE

WZD-100-A

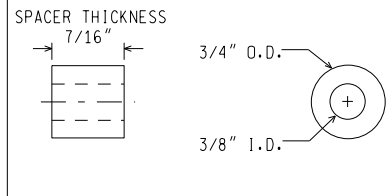
SHEET
5 OF 11

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SECTION A-A

SPACER DETAIL



NOTES:

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

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

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

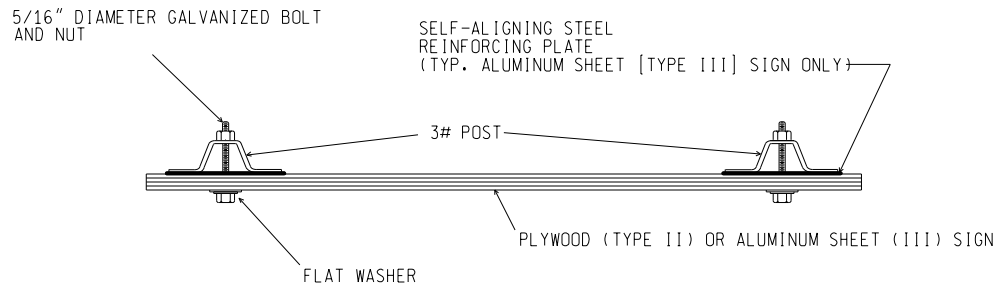
F.H.W.A. APPROVAL

11/2/2017
PLAN DATE

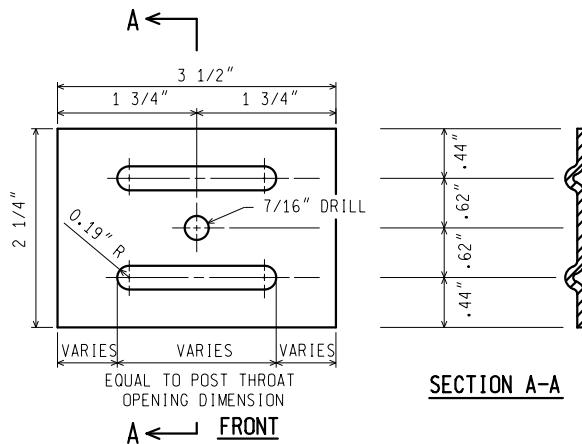
WZD-100-A

SHEET
6 OF 11

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SIGN TO 3 lb. POST CONNECTION



NOTES: (FOR STEEL SIGN REINF' PLATE)

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

SECTION A-A

STEEL SIGN REINFORCING PLATE REQUIRED FOR TYPE III SIGNS ONLY

3 lb. U - CHANNEL STEEL POST SIGN CONNECTION

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

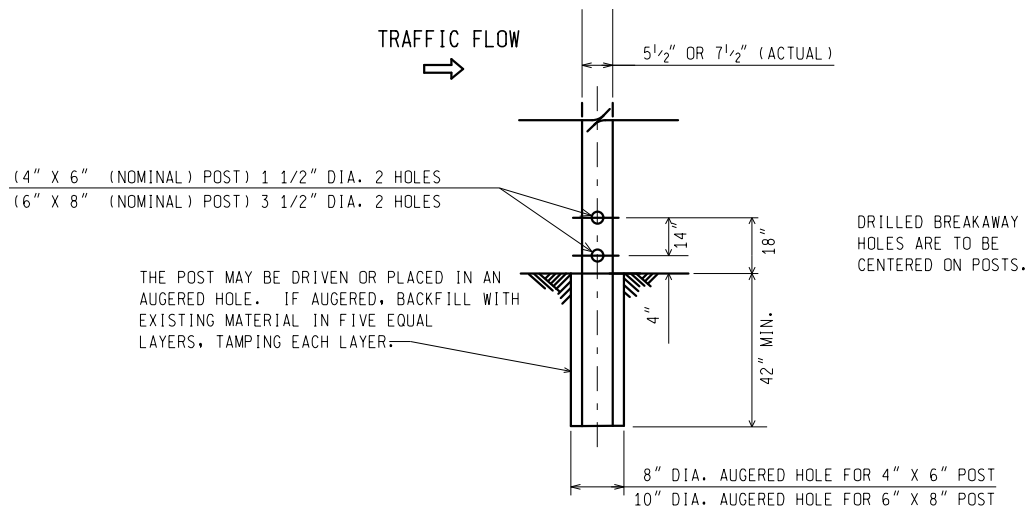
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PLAN DATE

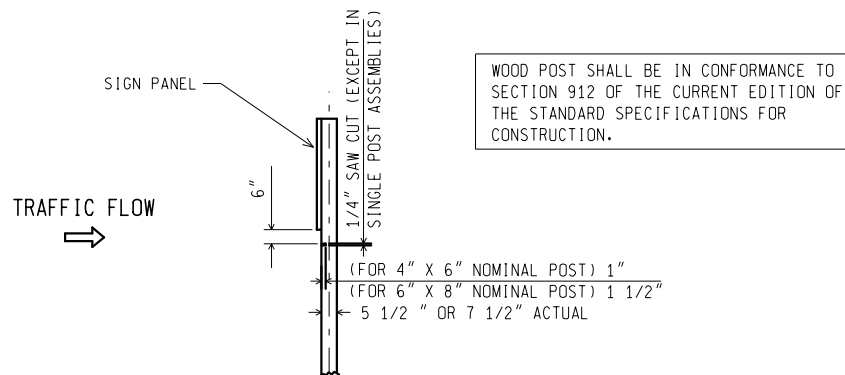
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SHEET
7 OF 11

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WOOD POST BREAKAWAY HOLES/ DIRECT EMBEDMENT DETAILS



SAW CUT DETAIL (MULTIPLE POST INSTALLATIONS)

WOOD POST DETAILS

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

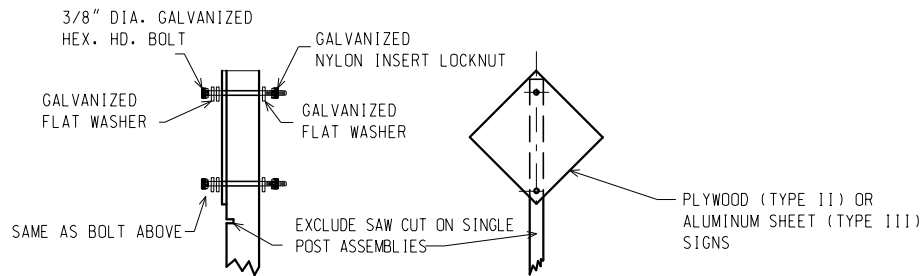
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11/2/2017
PLAN DATE

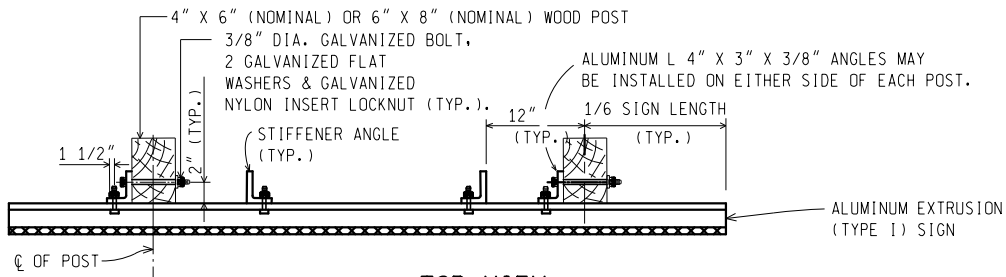
WZD-100-A

SHEET
8 OF 11

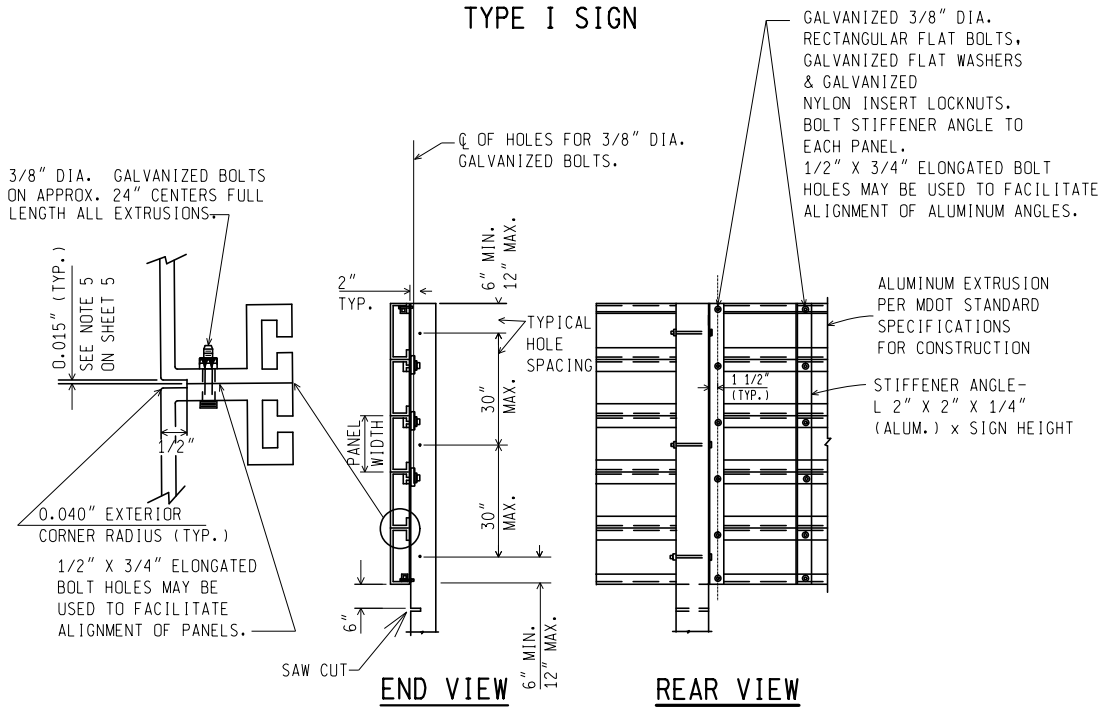
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TYPE II AND TYPE III SIGNS



TOP VIEW TYPE I SIGN



END VIEW

REAR VIEW

TYPE I SIGN - ERECTION DETAILS

WOOD POST CONNECTIONS

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

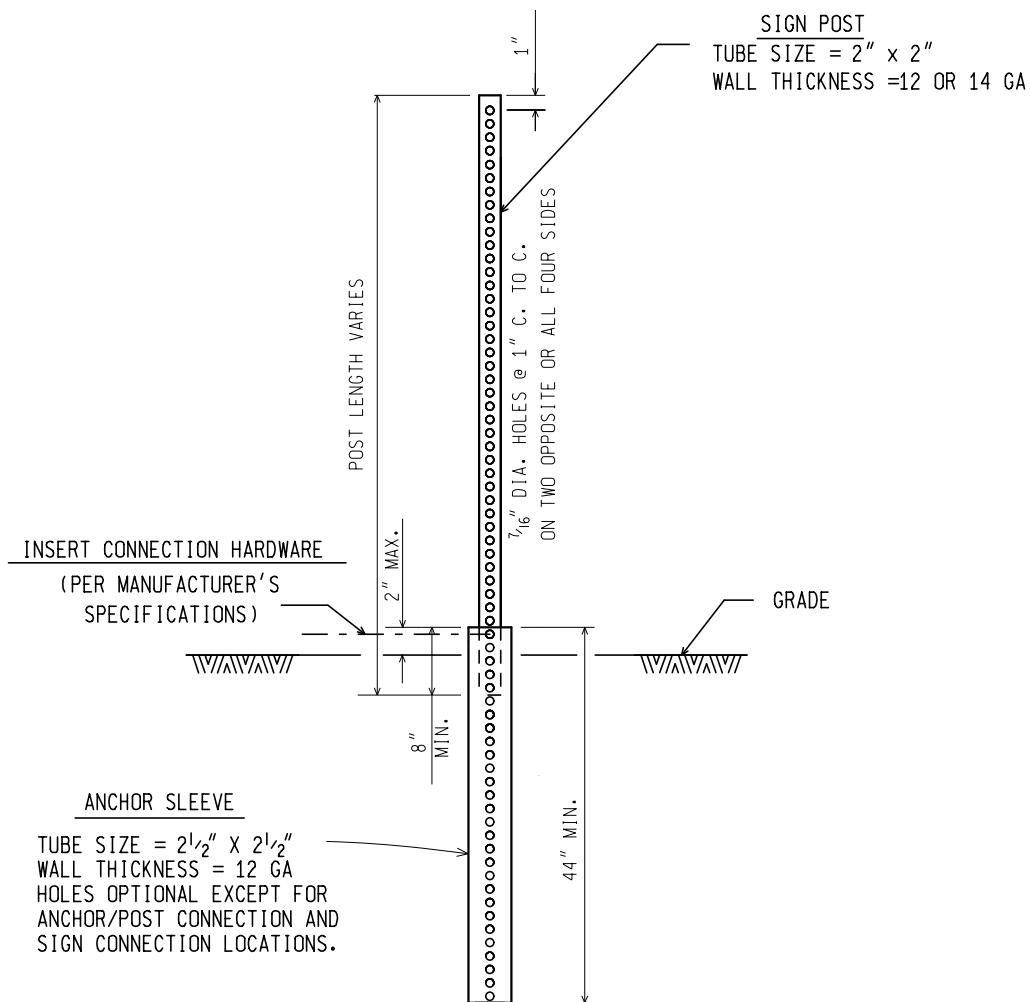
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SHEET
9 OF 11

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SQUARE TUBULAR STEEL POST

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

F.H.W.A. APPROVAL

11/2/2017
PLAN DATE

WZD-100-A

SHEET
10 OF 11

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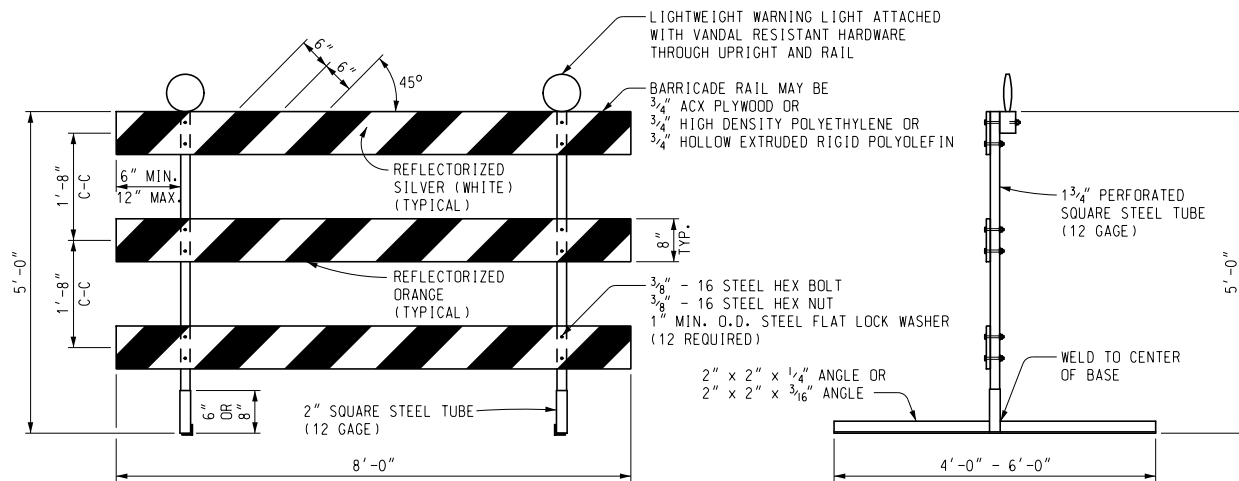
GENERAL NOTES:

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

NOT TO SCALE

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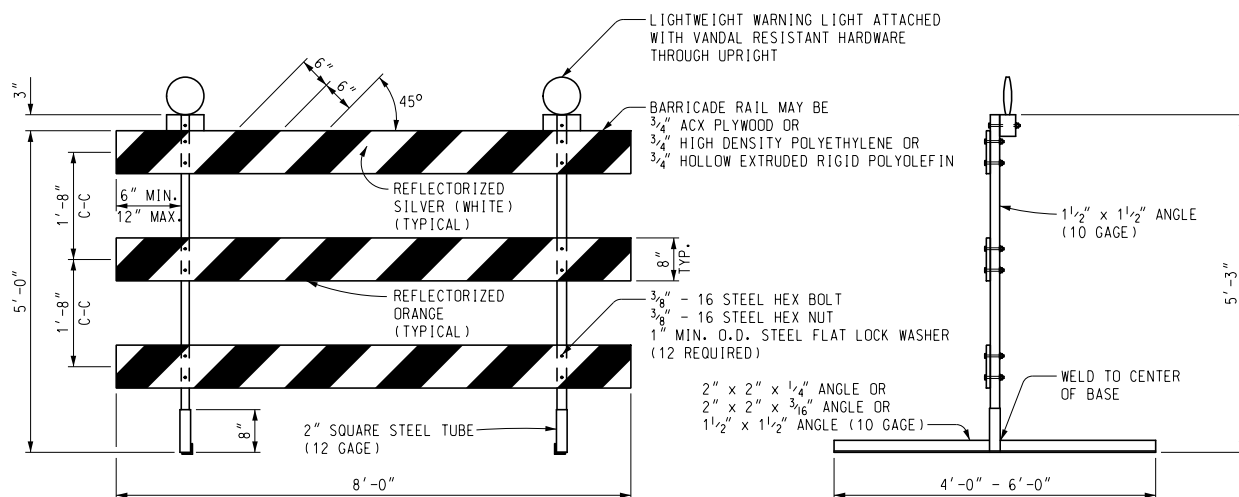
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FRONT ELEVATION

SIDE VIEW

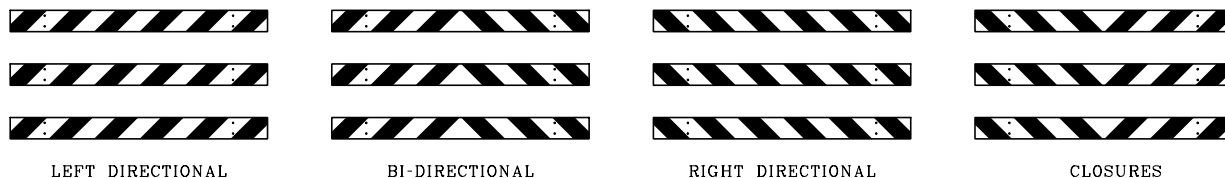
PERFORATED SQUARE STEEL TUBE OPTION



FRONT ELEVATION

SIDE VIEW

ANGLE IRON OPTION



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
DESIGN DIVISION

DRAWN BY: ECH

CHECKED BY: MWB

DEPARTMENT DIRECTOR
Kirk T. Steudle

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

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

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

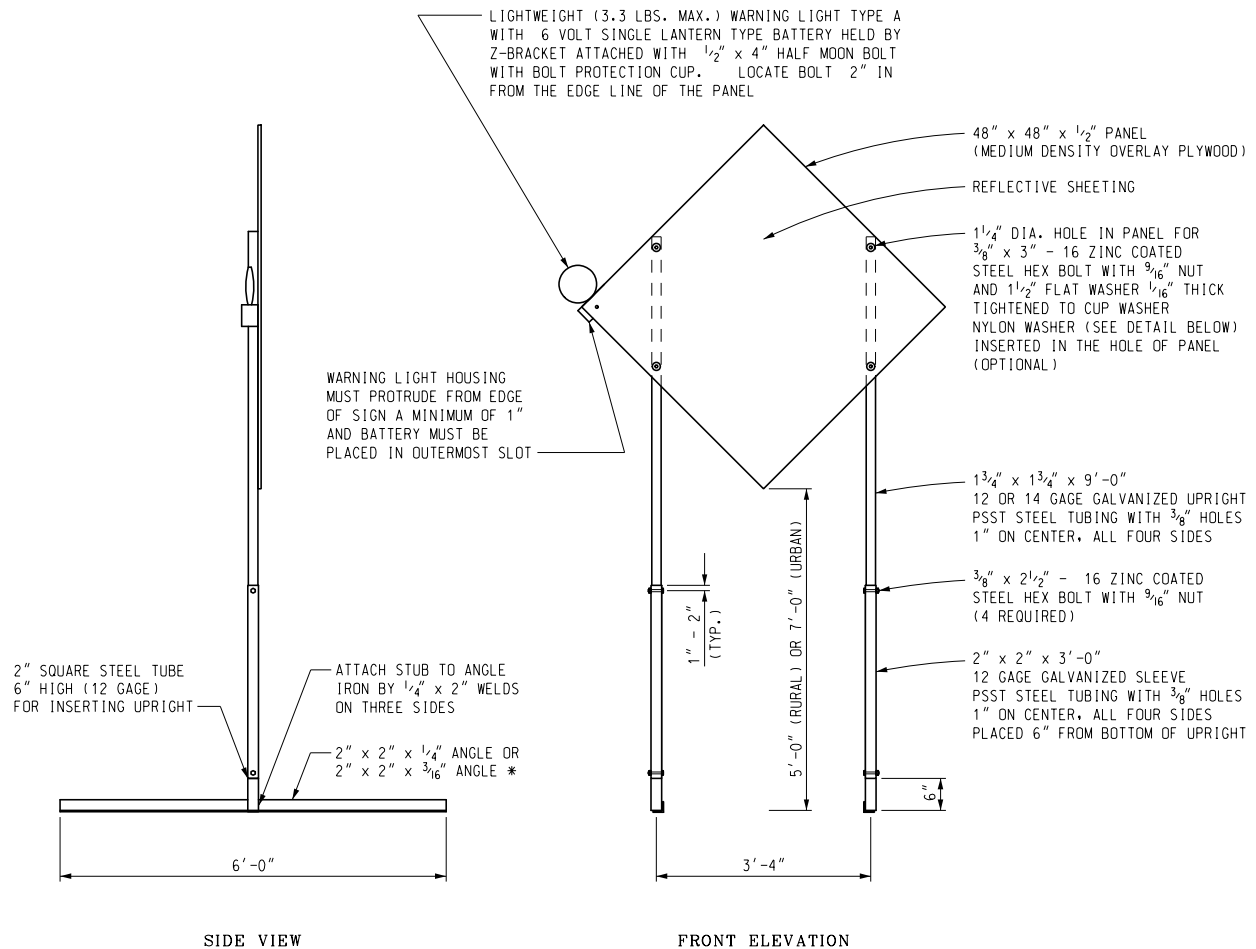
Temporary Traffic Control Devices

F.H.W.A. APPROVAL

1/18/11
PLAN DATE

WZD-125-E

SHEET
1 OF 3

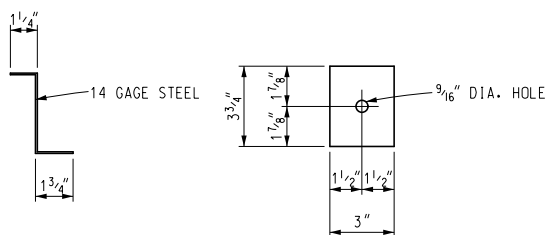


TEMPORARY SIGN SUPPORT

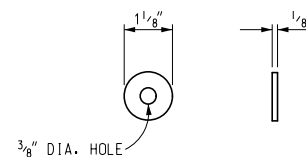
(WARNING LIGHT PLACED ON SIDE CLOSEST TO TRAFFIC)

* 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 DEVELOPMENT STANDARD PLAN

SPECIAL DETAIL
F.H.W.A. APPROVAL

1/18/11
PLAN DATE

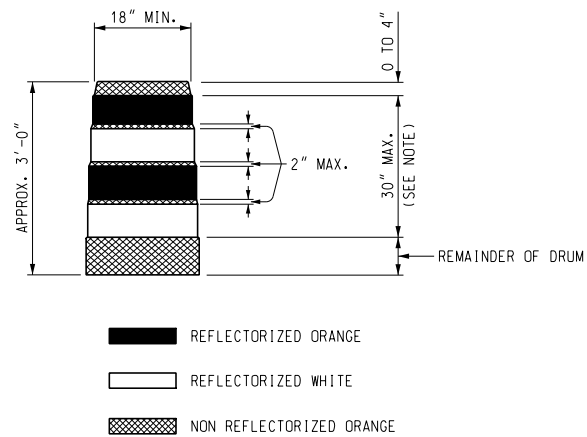
WZD-125-E

SHEET
2 OF 3

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

SYMBOLS TO BE USED ON PLANS



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

PLASTIC DRUM

- NOTES:
- 2" PERFORATED SQUARE STEEL TUBES MAY BE USED TO FABRICATE THE HORIZONTAL BASE OF THE TYPE III BARRICADE.
- WARNING LIGHTS SHALL BE PLACED ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND ALL OTHER PROVISIONS IN THE CONTRACT ON TYPE III BARRICADES.
- SEE ROAD STANDARD PLANS R-113-SERIES FOR TEMPORARY CROSSOVERS FOR DIVIDED ROADWAY, AND R-126-SERIES FOR TYPICAL LOCATION AND SPACING OF PLASTIC DRUMS FOR PLACEMENT OF TEMPORARY CONCRETE BARRIER.
- SIGNS, BARRICADES, AND PLASTIC DRUMS SHALL BE FACED WITH PRESSURE-SENSITIVE REFLECTIVE SHEETING ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- SANDBAGS SHALL BE USED WHEN SUPPLEMENTAL WEIGHTS ARE REQUIRED TO ACHIEVE STABILITY OF THE BARRICADE. THE SANDBAGS SHALL BE PLACED SO THEY WILL NOT COVER OR OBSTRUCT ANY REFLECTIVE PORTION OF THE TRAFFIC CONTROL DEVICE.

NOT TO SCALE