



PROPOSAL

FOR

2022 Roadway Improvements Crushing and HMA Overlay

CHARTER TOWNSHIP OF MERIDIAN INGHAM COUNTY, MICHIGAN

BID OPENING:

July 19, 2022 @ 11:00 A.M.

OWNER:

Charter Township of Meridian
Okemos, Michigan

ENGINEER:

THE MANNIK & SMITH GROUP, INC.
2193 Association Drive, Suite 200
Okemos, MI 48864

MSG PROJECT NO. M4150014

ADVERTISEMENT FOR BIDS

Bids Due: Tuesday, July 19, 2022 at 11:00 a.m.

Project Title: **CHARTER TOWNSHIP OF MERIDIAN 2022 ROADWAY IMPROVEMENTS – CRUSHING AND HMA OVERLAY**

Project Location: Various local streets within the Charter Township of Meridian
Charter Township of Meridian
Ingham County, Michigan

Owner: Charter Township of Meridian
5151 Marsh Road
Okemos, MI 48864

Engineer: The Mannik & Smith Group, Inc.
2193 Association Drive, Suite 200
Okemos, MI 48864

1. Charter Township of Meridian will receive sealed bids for the 2022 Roadway Improvements projects. **The Bids will be received at the Charter Township of Meridian Municipal Building, 5151 Marsh Road, Okemos, Michigan 48864, until 11:00 a.m. local time, Tuesday, July 19, 2022.**

Work will consist of a variety of road improvements including crushing, shaping, cold milling, HMA paving, storm sewer improvements, and restoration on approximately 1 mile of local roads in the Charter Township of Meridian, Ingham County, Michigan as noted in the Bid Documents and Supplemental Specifications.

2. Bids will be publicly opened and read aloud at **11:00 a.m. Tuesday, July 19, 2022** at the Charter Township of Meridian Municipal Building, 5151 Marsh Road, Okemos, MI 48864.
3. Bids will be based on the total bid utilizing Unit Bid Prices.
4. Bid security in the form of a Bid Bond, Cashier's Check, or Certified Check in an amount equal to 5% of the bid amount, and payable to Charter Township of Meridian will be required of all Bidders.
5. Performance Bond and Lien Bond, equal to the amount of the Contract, will be required of the bidder awarded the Contract.
6. No bid may be withdrawn for a period of 60 days after the opening of bids.
7. The Owner reserves the right to reject any or all bids and to waive any informality or irregularity in any bid.

Issued by
Charter Township of Meridian

Charter Township of Meridian 2022 Roadway Improvements – Crushing and HMA Overlay

TO: Charter Township of Meridian

FOR: Work will consist of a variety of road improvements including crushing, shaping, cold milling, HMA paving, storm sewer improvements, and restoration on approximately 1 mile of local roads in the Charter Township of Meridian, Ingham County, Michigan as noted in the Bid Documents and Supplemental Specifications.

Ladies and Gentlemen:

The undersigned bidder hereby affirms that:

1. The proposal is in all respects fair and without any collusion or fraud.
2. The undersigned have examined the site of the proposed project and have made a personal investigation and estimate of quantities.
3. The undersigned will contract to furnish all labor, equipment, tools and material necessary for the complete construction of the above described project at the unit prices stated on the attached bid forms and to complete the work in the time specified to the satisfaction of Charter Township of Meridian.

Company: _____

Address: _____

City, State, ZIP: _____

Telephone: _____

By: _____

Title: _____

Email: _____

Date: _____

NOTE: If the bidder is a co-partnership, each member must sign the proposal.

Corporations must execute the proposal by duly authorized officers in accordance with Articles of Incorporation.

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**INSTRUCTIONS TO BIDDERS
and
GENERAL CONDITIONS**

The Michigan Department of Transportation 2020 Standard Specifications for Construction are incorporated as part of these bidding documents and shall govern except as provided in the Invitation to Bid, Instructions to Bidders and General Conditions, Proposal, Contract, Supplemental Specifications, Special Provisions and Plans. References to the Department in the Michigan Department of Transportation 2020 Standard Specifications for Construction shall for this project mean Charter Township of Meridian, hereinafter referred to as "Owner," unless otherwise specified.

OWNER

The Owner of the project is Charter Township of Meridian.

ENGINEER

The Engineer is the individual assigned by Charter Township of Meridian to be in charge of the project. The individual assigned as the Engineer shall be an employee of The Mannik & Smith Group, Inc.

BIDDER

The Bidder is one who submits a signed bid with the required documentation directly to the Owner at the time and place specified.

BID FORMS

Sealed proposals must be submitted on the bid forms furnished by the Owner. **The proposal shall be submitted in its entirety with no modifications or changes except as authorized by an addendum and with no pages removed.** Unit prices as listed will govern in determining the correct total of the bid. All proposals must be filled out in ink or typewritten and shall be legibly signed, giving the complete name and address of the Bidder. **Three (3) sealed copies shall be submitted by the Bidder.**

All bids must be in sealed envelopes and clearly marked ***Charter Township of Meridian 2022 Roadway Improvements – Crushing and HMA Overlay.***

PROJECT INTENT

It is the intent of the Charter Township of Meridian to rehabilitate and resurface selected roadways. This involves cold milling the existing asphalt from the road as specified in the log of project, and overlay with new asphalt as shown on the typical sections. Additionally, the intent of the project is to deliver a portion of the millings to locations specified by the Township.

BIDDER'S SURETY

The proposal must be accompanied by a cashier's check, certified check, or a bid bond made payable to Charter Township of Meridian, in the sum of five percent (5%) of the amount of the bid. Upon awarding and signing of a contract, or in the event of bid rejection, such bid surety will be returned to the Bidder. Bids may be held for a period of sixty (60) days.

INTERPRETATION AND ADDENDA

All questions about the meaning or intent of the Contract Documents are to be directed to the Engineer. Interpretation or clarification considered necessary by the Engineer to such questions will be issued by Addenda, e-mailed all parties recorded by the Engineer as having received the Bidding Documents. Questions received less than seven days prior to the date for opening the bids may not be answered. Only questions answered by formal written Addenda are binding. Oral and other interpretations or clarifications will be without legal effect.

OPENING OF BIDS

Bids will be received at no later than 11:00 A.M., local time prevailing, on July 19, 2022
Charter Township of Meridian Municipal Building
Attention: Dan Opsommer, Deputy Township Manager/Director of Public Works & Engineering
5151 Marsh Road
Okemos, MI 48864

Proposals received at other locations or delivered after the due date and time will not be accepted and will be returned to the proposer.

REJECTION OF BIDS

The Owner reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, nonresponsive, unbalanced, or conditional bids and to reject the bid of any Bidder if the Owner believes that it would not be in the best interest of the project to make an award to that Bidder, whether because the bid is not responsive or if the Bidder is unqualified or of doubtful financial ability or fails to meet any pertinent standards or criteria established by the Owner. The Owner also reserves the right to waive all informalities in any bid should it be deemed in the best interest of the Owner to do so. Discrepancies between the multiplication of units of work and the unit prices will be resolved in favor of the unit price. Discrepancies between the indicated sum of any column of figures and the correct sum will be resolved in favor of the correct sum. Discrepancies between words and figure will be resolved in favor of words.

CONTRACT EXECUTION

The Bidder to whom the contract is awarded shall, **within five (5) calendar days** after notice of award, enter into a written contract with the Owner and furnish bonds and proof of insurance as hereinafter specified. Failure to execute the contract or furnish satisfactory bonds and proof of insurance will be considered cause for annulment of award and forfeiture of the Bidder's surety. Following the execution of the contract, the Bidder shall become known as the Contractor.

PERFORMANCE AND LIEN BONDS

The successful Bidder to whom the contract is awarded shall furnish two (2) surety bonds as follows:

Performance Bond – To Charter Township of Meridian, 5151 Marsh Road, Okemos, MI 48864 for the faithful fulfillment of the terms of the contract in the amount of one-hundred (100) percent of the contract amount.

Payment Bond – To Charter Township of Meridian, 5151 Marsh Road, Okemos, MI 48864 for the payment of all labor and materials used in the work in the amount of one-hundred (100) percent of the contract amount.

MAINTENANCE BOND

See Special Provision for Warranty Work Requirements for Hot Mix Asphalt Pavements.

INCREASED OR DECREASED QUANTITIES

The Owner reserves the right to increase or decrease quantities from those originally estimated and such changes will be paid for at the unit price bid so long as the total contract amount is not changed more than ten (10) percent. Changes in excess of that amount will be individually negotiated.

TIME OF COMPLETION

All work shall be completed **by November 4, 2022**. All work shall be conducted during normal daytime hours unless otherwise approved by the Engineer. Normal daytime hours are considered to be Monday through Saturday from 7 a.m. to 7 p.m. No work shall be conducted during holiday periods, as defined in subsection 101.03 of the Michigan Department of Transportation 2020 Standard Specifications for Construction. Extension of time requests must be made in accordance with section 108.09.

FAILURE TO COMPLETE ON TIME

Liquidated damages will be assessed according to Section 108.10 for each calendar day in which the project remains incomplete beyond the contract completion date, except that all references to seasonal limitations will not apply. Liquidated damages will continue to be assessed each calendar day after the contract project completion date until all work on the project is completed, even if those days extend beyond any seasonal limitations.

PAYMENTS TO CONTRACTOR

Payments will be made to the Contractor on the 30th day of each month based on work completed. The Owner will make a partial payment to the Contractor on the basis of an estimate, prepared by the Engineer, of the work performed on the project during the preceding period less a five (5) percent retainer.

FINAL INSPECTION, ACCEPTANCE AND FINAL PAYMENT

The Engineer will make a final inspection of all work included in the contract, and notify the Contractor of defects to be remedied prior to final acceptance. The Contractor is required to provide unconditional waivers of lien from all sub-contractors and suppliers before preparing a final estimate. Upon satisfactory completion of the work by the Contractor, a final estimate will be prepared. Payment for all work completed and accepted, less previous payments, will be made within thirty (30) days of final acceptance.

DISPUTES

The Engineer's written decision on any question arising under the contract between the Owner and Contractor shall be final and binding upon both the Owner and the Contractor in the absence of fraud, bad faith, or abuse of discretion.

ARBITRATION

All claims, disputes and other matters in question between the Owner and the Contractor arising out of, or relating to, the Contract Documents or the breach thereof (except for claims which have been waived by the making or acceptance of final payment) will be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining subject to the limitations of this section. This agreement so to arbitrate and any other agreement or consent to arbitrate entered into in accordance herewith will be specifically enforceable under the prevailing laws of any court having jurisdiction.

No demand for arbitration of any claim, dispute or other matter that is required to be referred to Engineer initially for decision will be made until the earlier of (a) the date on which Engineer has rendered a decision or (b) the tenth day after the parties have presented their evidence to Engineer if a written decision has not been rendered by Engineer before that date. No demand for arbitration of any such claim, dispute or other matter will be made later than thirty (30) days after the date on which Engineer has rendered a written decision in respect thereof; and the failure to demand arbitration within said thirty (30) days' period shall result in Engineer's decision being final and binding upon Owner and Contractor. If Engineer renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence but will not supersede the arbitration proceedings, except where the decision is acceptable to the parties concerned. No demand for arbitration of any written decision of Engineer will be made later than ten (10) days after the party making such demand has delivered written notice of intention to appeal.

Notice of the demand for arbitration will be filed in writing with the other party to the Agreement and with the American Arbitration Association, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the thirty (30) day or ten (10) day period specified above as applicable, and in all other cases within a reasonable time after the claim, dispute or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

No arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder or in any other manner any other person or entity who is not a party of this contract unless:

- a) the inclusion of such other person or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration;
- b) such other person or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings, and;
- c) the written consent of the other person or entity sought to be included and of Owner and Contractor has been obtained for such inclusion, which consent shall make specific reference to this paragraph; but no such consent shall constitute consent to arbitration of any dispute not specifically described in such consent or to arbitration with any party not specifically identified in such consent.

Notwithstanding the above paragraph, if a claim, dispute or other matter in question between Owner and Contractor involves the Work of a Subcontractor, either Owner or Contractor may join such Subcontractor as

a party to the arbitration between Owner and Contractor hereunder. Contractor shall include in all subcontracts a specific provision whereby the Subcontractor consents to being joined in arbitration between Owner and Contractor involving the Work of such Subcontractor. Nothing in this paragraph nor in the provision of such subcontract consenting to joinder shall create any claim, right or cause of action in favor of Subcontractor and against Owner or Owner's Consultants that does not otherwise exist.

The award rendered by the arbitrators will be final, judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal.

PROGRESS SCHEDULE

In no case shall any work be commenced prior to the receipt of a Notice of Award.

The low bidder for the work covered by this proposal will be required to meet with the Owner and Engineer to review the Contractor's proposed schedule. The date and time for this meeting will be set within (1) week after the low bidder is determined. The Engineer will arrange the time and place for the meeting.

An approved progress schedule shall be submitted in accordance with section 108.05 prior to starting work.

TAXES

The Contractor shall include, and will be deemed to have included, in its base bid and contract price all applicable Michigan Sales and Use taxes which have been enacted into law as of the date the bid is submitted.

OWNER'S RESPONSIBILITY

The Owner shall not supervise, direct or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with laws and regulations applicable to the furnishing or performance of the work unless otherwise specified in the Special Provisions. Owner will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

INDEMNIFICATION, DAMAGE LIABILITY AND INSURANCE

The Contractor, and any and all of his/her subcontractors, shall not commence work under this contract until he/she has obtained the insurance required under this paragraph and any subsequent contract. All coverage's shall be with insurance companies licensed and admitted to do business in the State of Michigan. All coverage's shall be with insurance carriers acceptable to the County of Ingham and rated A+ (Superior) or A or A- (Excellent) by the A.M. Best Company (www.ambest.com).

- a) Worker's Compensation Insurance: The Contractor shall procure and maintain during the life of this contract, Workers' Compensation Insurance, including Employers Liability Coverage, in accordance with all applicable Statutes of the State of Michigan.
- b) Commercial General Liability Insurance: The Contractor shall procure and maintain during the life of this contract, Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and/or aggregate combined single limit for Personal Injury, Bodily Injury and Property Damage. 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; (E) Deletion of all Explosion, Collapse, and Underground (XCU) Exclusions, if applicable; (F) Per contract aggregate.
- c) Motor Vehicle Liability Insurance: The Contractor shall procure and maintain during the life of this contract, Motor Vehicle Liability Insurance, including applicable No-Fault coverage's, with limits of liability of 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.
- d) Professional Liability/Errors and Omissions Insurance: The Contractor shall procure and maintain during the life of this contract, Professional Liability insurance in an amount not less than \$1,000,000 per occurrence and aggregate. If this policy is Claims Made Form, then the Contractor shall be required to keep the policy in force, or purchase "tail" coverage, for a minimum of three (3) years after the termination of this contract.

e) Additional Insured: Commercial General Liability and Vehicle Liability, as described above, shall include an endorsement stating the following shall be "Additional Insured's: The County of Ingham, including all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities and their board members, including employees, and volunteers thereof. The coverage shall be primary to the Additional Insured's, and not contributing with any other insurance or similar protection available to the Additional Insured's, whether other available coverage is primary, contributing or excess." The appropriate boxes must be check under the "Addl Insr" heading on the Certificate of Insurance.

f) Cancellation Notice: All insurances described above shall include an endorsement stating the following: "It is understood and agreed that thirty (30) days advanced written notice of cancellation, non-renewal, reduction and/or material change shall be sent to: Ingham County Purchasing Department, P.O. Box 319, Mason, Michigan 48854."

g) Proof of Insurance: The Contractor shall provide the County of Ingham at the time the contracts are returned by him/her for execution, two (2) copies of the aforementioned Certificates of Insurance and/ Policies, acceptable to the County. If so requested, certified copies of all policies will be furnished. The Contractor shall provide the County evidence that all subcontractors are included under the contractor's policy.

If any of the above coverage's expires during the term of this contract, the Contractor shall deliver renewal certificates and/or policies to the County of Ingham at least ten (10) days prior to the expiration date.

Indemnification, damage liability, and insurance shall be in accordance with subsection 107.10 of the Michigan Department of Transportation 2020 Standard Specifications for Construction and the attached special provision.

All insurance policies and binders shall include the following endorsements, verbatim:

"ADDITIONAL INSURED: Charter Township of Meridian and its officers, agents and employees, Ingham County and its officers, agents and employees, and The Mannik & Smith Group, Inc. and its officers, agents and employees.

"Provide written notice ten (10) days prior to cancellation, expiration, termination or reduction in coverage for nonpayment of the premium and written notice thirty (30) days prior to the cancellation, expiration, termination or reduction in coverage for all other reasons."

IRAN ECONOMIC SANCTIONS ACT

The Contractor shall comply with the Iran Economic Sanctions Act, Act 517 of 2012, including the certification required as per Section 129.313(2). This certification shall be enclosed with the sealed bid.

SPECIFICATIONS

All work not otherwise specified shall be done in accordance with the Michigan Department of Transportation 2020 Standard Specifications for Construction. Within these specifications all references to the Michigan Department of Transportation shall mean the Owner.

SPECIAL PROVISIONS, NOTES AND DETAILS, AND SUPPLEMENTAL SPECIFICATIONS

- Technical Specifications
- The most recent version of the Errata to the 2020 Standard Specifications (available online at <https://mdotjboss.state.mi.us/SpecProv/specBookHome.htm>)

The above documents are enclosed for reference or available online, as noted.

COMMUNICATIONS

Any questions regarding this bid shall be directed to the person listed below:

Name: Corey Vincent
Phone: 517.262.7258
Email: cvincent@manniksmithgroup.com

PREVAILING WAGE

The Contractor shall provide proof of prevailing wages as determined by using the wage guidelines promulgated by the U.S. Secretary of Labor pursuant to the Davis-Bacon Act. Certified payrolls shall be submitted to the Township and the Engineer for verification.

The Prevailing Wage rates for construction projects are included in the bid packets.

MAINTENANCE OF TRAFFIC

The Contractor is responsible for obtaining a work within the ROW permit. The Contractor shall maintain traffic as directed by the Engineer and in compliance with the ROW permit required by Ingham County Road Department. As a minimum, the Contractor shall be expected to provide a "Road Work Ahead" sign at each entrance into the work area. "Bump" signs shall also be placed at transitions. Additional traffic devices shall be provided as needed to meet the requirements of the Ingham County Road Department and the Special Provision for Maintaining Traffic.

UNIT PRICE CONTRACT
Charter Township of Meridian 2022 Roadway Improvements – Crushing and HMA Overlay

TO: Charter Township of Meridian

The undersigned, having full knowledge of the site, proposal, plans and specifications for the **Charter Township of Meridian 2022 Roadway Improvements – Crushing and HMA Overlay** including Bidders' Addenda _____, and the conditions of these Contract Documents, hereby agrees to furnish all services, labor, materials, tools, equipment, transportation, and incidentals necessary to perform the entire Work; to complete the contract by the date specified in the Instructions to Bidders and General Provisions, according to the Proposal, Plans and Specifications, and to accept in full, compensation for all work necessary to complete the project at the unit prices named below:

<i>Unit Price Work</i>					
Item Code	Item Description	Approx. Quantity	Unit	Unit Price	Bid Amount
1500001	Mobilization	1	LSUM	\$	\$
2030001	Culv, Rem, Less than 24 inch	45	Ea	\$	\$
2030005	Culv, End, Rem, Less than 24 inch	7	Ea	\$	\$
2030011	Dr Structure, Rem	5	Ea	\$	\$
2030015	Sewer, Rem, Less than 24 inch	640	Ft	\$	\$
2040020	Curb and Gutter, Rem	480	Ft	\$	\$
2040055	Sidewalk, Rem	820	Sft	\$	\$
2047011	Driveway Approach, Rem, Modified	1505	Syd	\$	\$
2050006	Ditch Cleanout	50	Sta	\$	\$
2050016	Excavation, Earth	10	Cyd	\$	\$
2050041	Subgrade Undercutting, Type II	50	Cyd	\$	\$
2080020	Erosion Control, Inlet Protection, Fabric Drop	25	Ea	\$	\$
2080036	Erosion Control, Silt Fence	220	Ft	\$	\$
3020010	Aggregate Base, 4 inch	60	Syd	\$	\$
3020016	Aggregate Base, 6 inch	50	Syd	\$	\$
3020050	Aggregate Base, Conditioning	3085	Syd	\$	\$
3050002	HMA Base Crushing and Shaping	11100	Syd	\$	\$
3070001	Approach, CI 1	5206	Ton	\$	\$
3070126	Shoulder, CI II, 4 inch	2407	Syd	\$	\$
3070200	Trenching	108	Sta	\$	\$
4010573	Culv, CI E, Conc, 12 inch	96	Ft	\$	\$
4010607	Culv, CI F, 12 inch	1270	Ft	\$	\$
4020004	Sewer, CI A, 12 inch, Tr Det A	690	Ft	\$	\$
4020030	Sewer, CL A, 6 inch, Tr Det B	240	Ft	\$	\$
4020600	Sewer, CL E, 12 inch, Tr Det B	80	Ft	\$	\$
4021201	Sewer Tap, 6 inch	8	Ea	\$	\$
4030005	Dr Structure Cover, Adj, Case 1	6	Ea	\$	\$
4030006	Dr Structure Cover, Adj, Case 2	2	Ea	\$	\$
4030010	Dr Structure Cover, Type B	4	Ea	\$	\$
4030040	Dr Structure Cover, Type G	5	Ea	\$	\$

<i>Unit Price Work</i>					
Item Code	Item Description	Approx. Quantity	Unit	Unit Price	Bid Amount
4030200	Dr Structure, 24 inch dia	3	Ea	\$	\$
4030210	Dr Structure, 48 inch dia	4	Ea	\$	\$
4030390	Dr Structure, Temp Lowering	17	Ea	\$	\$
4030750	Sanitary Structure Cover	16	Ea	\$	\$
4037001	Sanitary Structure, Adj, Add Depth	4	Ft	\$	\$
4037010	Sanitary Structure Chimney Seal, External	260	Sft	\$	\$
4037050	Sanitary Structure Cover, Adj, Case 1	13	Ea	\$	\$
4037050	Sanitary Structure Cover, Adj, Case 2	7	Ea	\$	\$
5010002	Cold Milling HMA Surface	1580	Syd	\$	\$
5010008	Pavt For Butt Joints, Rem	1600	Syd	\$	\$
5010033	HMA, 13A	1810	Ton	\$	\$
5010034	HMA, 36A	1090	Ton	\$	\$
5010061	HMA Approach	90	Ton	\$	\$
8010005	Driveway, Nonreinf Conc, 6 inch	5700	Syd	\$	\$
8020038	Curb and Gutter, Conc, Det F4	430	Ft	\$	\$
8030010	Detectable Warning Surface	90	Ft	\$	\$
8030030	Curb Ramp Opening, Conc	50	Ft	\$	\$
8030044	Sidewalk, Conc, 4 inch	750	Sft	\$	\$
8032001	Curb Ramp, Conc, 4 inch	580	Sft	\$	\$
8070095	Post, Mailbox	76	Ea	\$	\$
8127051	Traffic Control	1	Lsum	\$	\$
8167011	Slope Restoration, Modified	6375	Syd	\$	\$
8230391	Gate Box, Adj, Temp, Case 1	5	Ea	\$	\$
8230431	Gate Box, Adj, Case 1	5	Ea	\$	\$
8230432	Gate box, Adj, Case 2	1	Ea	\$	\$
8240001	Contractor Staking	1	Lsum	\$	\$

Contractor Signature: _____

Printed Name and Title: _____

Quantities are not guaranteed. Final payment will be based on actual quantities.

Bidder agrees that the work will be completed and ready for final payment in accordance with the General Conditions. All work on the **Charter Township of Meridian 2022 Roadway Improvements – Crushing and HMA Overlay** to be completed by **November 4, 2022** and as detailed in the Time of Completion section above.

Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the work on time.

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

Required Bid Security in the form of either:

Certified Check or a Bidder's Bond in the amount of:

_____ Dollars (\$ _____)

Communications concerning this Bid shall be addressed to the Bidder's representative.

Name of Representative: _____

Address: _____

City, State, ZIP: _____

Telephone Number: _____

Fax Number: _____

E-Mail Address: _____

The terms used in this Bid, which are defined in Division 1 of the Michigan Department of Transportation 2020 Standard Specifications of the Construction, have the meanings assigned to them in the Standard Specifications for Construction.

SUBMITTED on: _____, 2022.

If Bidder is:

An Individual

By: _____ (SEAL)
Individual's Name

Doing Business As: _____

Business Address: _____

Phone No.: _____

A Partnership

By: _____ (SEAL)
Firm Name

General Partner

Business Address: _____

Phone No.: _____

A Corporation

By: _____ (Corporate SEAL)
Corporate Seal

State of Incorporation

By: _____
Name of Person Authorized to Sign

Title

Business Address: _____

Phone No.: _____

A Joint Venture

By: _____
Name

Business Address: _____

Phone No.: _____

By: _____
Name

Business Address: _____

Phone No.: _____

(Each joint venture must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

PROJECT OVERVIEW

Work will consist of a variety of road improvements including crushing, shaping, cold milling, HMA paving, storm sewer improvements, and restoration on approximately 1 mile of local roads in the Charter Township of Meridian, Ingham County, Michigan as specified in this bid proposal. The details of work to be performed on the roads are found in the plans in Appendix B.

Storm inlets shall be protected with the specified SESC measures prior to base material being exposed. SESC measures shall be maintained in accordance with MDOT specifications and shall be promptly removed after permanent surfacing and seeding have been established. This work will be paid for as Erosion Control, Inlet Protection, Fabric Drop.

Contractor shall verify location of existing storm sewer at Bayshore Dr. and Cornell Rd. prior to performing storm sewer work. See plans in Appendix B.

HMA paving shall take place within ten (10) calendar days of any pavement removal work including cold milling or crushing operation.

Slope restoration shall begin within five (5) calendar days of ground disturbance and within ten (10) calendar days of the completion of paving and shoulder placement operations to minimize disturbances to the residents.

PROGRESS CLAUSE

Charter Township of Meridian 2022 Roadway Improvements – Crushing and HMA Overlay

After receiving Notice of Award, start work within ten (10) days, or on or before the date designated as the starting date in the approved Detailed Progress Schedule (MDOT Form 1130). In no case shall any work be commenced prior to receipt of formal notice of award by the Engineer and the Detailed Progress Schedule has been approved.

Lane closures or detours will not be permitted without prior written authorization.

All work shall be completed on or before **November 4, 2022**.

The low bidder for the work covered by this proposal will be required to submit a Progress Schedule to the Engineer within five (5) calendar days of confirmation of the low bid.

The Progress Schedule shall include, as a minimum, the controlling work items for the completion of the project and the planned dates (or work day for a work day project) that these work items will be controlling operations. As specified in the bidding proposal, the project completion date and any other controlling dates specified in the proposal shall also be included in the Project Schedule.

HMA paving shall take place within ten (10) calendar days of any cold milling, crushing, or pavement removal operation.

The Project Engineer will arrange the time and place for the preconstruction meeting, if needed. The named subcontractor(s) for designated and/or specialty items included in the proposal shall be included with the Progress Schedule if such items materially affect the work schedule.

The Contractor shall be expected to mobilize sufficient labor and equipment to complete the project within the specified time frames. This includes concurrent crews working at different locations as needed based on the Contractor's progress and schedule.

Liquidated Damages will be assessed according to Section 108.10. Extension(s) of time will not be granted for:

1. Increases in contract quantities or extra work, unless it can be shown that such increases or extras affect the critical item(s) of work.
2. Labor disputes, unless it can be shown that such disputes are industry wide, and that the delay affects the critical item(s) of work.
3. Delays resulting from work stoppages ordered by the Department for Contractor non-compliance.
4. Delays in delivery of critical materials unless the delay can be shown to be industry wide and the delay affects the critical item(s) of work.

**NOTICE TO BIDDERS
UTILITY COORDINATION CLAUSE**

The Contractor shall cooperate and coordinate construction activities with the owners of utilities as stated in section 104.08 of the 2020 MDOT Standard Specifications for Construction. In addition, for the protection of underground utilities, the Contractor shall follow the requirements in Section 107.12 of the 2020 MDOT Standard Specifications for Construction. Contractor delay claims resulting from a utility, will be determined based upon Section 109.05 of the 2020 MDOT Standard Specifications for Construction.

For protection of underground utilities in conformance with Public Act 174, the Contractor shall dial 1-800-482-7171 or 811 a minimum of three (3) full working days, excluding Saturdays, Sundays and holidays, prior to beginning each excavation in areas where public utilities have not been previously located. Members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be a part of the "MISS dig" alert system.

PUBLIC UTILITIES

The following Public Utilities have facilities located within the Right-of-Way:

Communications

AT&T
Darnell Taylor
(517) 337-3509
dt5439@att.com

Electric

CMS Energy
Dan Smith
(517) 374-2259
DANIEL.SMITH@cmsenergy.com

Gas

CMS Energy
Adam Bertram
(517) 614-8570
Adam.Bertram@cmsenergy.com

Water & Sewer

Charter Township of Meridian - DPW
Jay Graham
(517) 853-4464
graham@meridian.mi.us

Storm Sewer

Ingham County Drain Commission
Dave Solberg
(517) 676-8361
DSolberg@ingham.org

Consumers Energy (gas) will be performing work on the following roads that may occur during the project's scheduled timeframe:

Main & Associated Service Work

- Huron Hill Dr. (Ottawa Dr. to Nakoma (Dr.))

Service Only Work

- Crest St. (Marsh Rd. to Royal Oak Dr.)
- Carlton St. (Lake Dr. to Haslett Rd.)
- Raphael Rd. (Amber Dr. to End)
- Amber Dr. (Raphael Rd. to Whistler Dr.)
- Blue Haven Dr. (Linden St. to Raphael Rd.)
- Timberlane St. (Linden St. to End)
- Linden St. (Timberlane St. to End)

The Contractor is hereby notified of preceding and concurrent work in the project area. Consumers Energy will be performing underground electrical work within the construction influence area (CIA). Where either contractor has traffic control in the project area, the Contractor shall coordinate installation of traffic control devices shown on the plans with those devices to avoid a gap in time or space between the two sets of traffic control. The Contractor shall conduct his operations in such a way as to avoid interfering with work by others and shall coordinate with others as required. This coordination will not be paid for separately but shall be included in the appropriate items of work identified in the Proposal.

MICHIGAN LOCAL AGENCY
SPECIAL PROVISION
FOR
WARRANTY WORK REQUIREMENTS FOR HOT MIX ASPHALT PAVEMENTS

CRA/MML	1 of 3	09/04/2018
MDOT		09/18/2018
FHWA		11/01/2018

a. Description. This special provision is for use with MICHIGAN LOCAL ROAD AGENCY SPECIAL PROVISION FOR HOT MIX ASPHALT and CONCRETE PAVEMENT WARRANTY for Local Agency projects constructing a Hot Mix Asphalt (HMA) pavement that will be warranted against defects in workmanship and materials.

Follow Section 501 of the current MDOT Standard Specifications for Construction to determine initial acceptance of a warranted project.

b. Definitions of the Work Types as defined in this specification

Long Term Warranty - This includes **New Construction / Reconstruction** and HMA placement on an approved aggregate base where the subbase and drainage have been analyzed and determined that the planned improvements meet design life requirements.

Medium Term Warranty– This includes **Rehabilitation** and when HMA is placed on an aggregate base, subbase, and/or drainage situation, which was not analyzed to assure that the existing materials and/or planned improvements meet the pavement’s design life requirements and the project did not include or improve the base, sub-base and/or drainage. This includes crush-shape-pave projects and other similar 3R work.

Short Term Warranty– This is for **Overlays** when HMA is placed on existing HMA, concrete or composite pavement.

c. Terms of the Warranty

Limits of Warranted Work - Warranted work includes all HMA placed in driving lanes in the project limits, unless otherwise indicated on project documents.

Warranty Term – A timeframe which begins at the Acceptance Date of Warranted Work of a completed HMA project. Multi-phased projects may have multiple “Acceptance Dates of Warranted Work.” Warranty term length is specified in Table 1

Warranty Bond - The Contractor shall furnish a single term bond worth 5% of the total contract or \$1,000,000 whichever is less, secured in the name of the road owner and/or the agency in charge of the project. The effective starting date of the warranty bond will be the Acceptance Date of Warranted Work. The warranty bond will be released at the end of the warranty period or upon satisfactory completion of all warranty work; whichever is later.

Warranty Requirements - Table 1 lists maximum allowable defect thresholds for each condition per 1/10-mile lane segments and the maximum allowable number of defective segments for each condition parameter. If the Contractor has exceeded any warranty requirement, even in non-contiguous segments, the Engineer will request warranty fixes.

Each Driving lane will be assessed separately. Any warranty work required of the Contractor to correct deficiencies for any condition, will be full-width across the entire driving lane.

d. Quality Control/Quality Assurance (QA/QC) - The Contractor is responsible for project quality and must provide QC testing procedures and results to the Engineer.

The Engineer will perform Quality Assurance (QA) testing, as a spot-check to determine Initial Acceptance or assess penalties if specifications are not met. QA testing does not relieve the Contractor of QC responsibilities.

e. Corrective Actions. Table 2 lists recommended corrective actions to outline typical acceptable treatments for the various condition parameters. The Agency will accept the listed corrective action if the action addresses the cause of the condition parameter. The Contractor may use an alternative action subject to Engineer's approval.

Table 1: Warranty Requirements

Condition Parameter	LONG TERM WARRANTY (INCLUDES NEW CONSTRUCTION / RECONSTRUCTION)		MEDIUM TERM WARRANTY (INCLUDES REHABILITATION CRUSH & SHAPE & PAVE)		SHORT TERM WARRANTY (INCLUDES SINGLE COURSE & MULTIPLE COURSE OVERLAY)	
	Threshold Limits Per Segment (Segment Length = 528 feet = 1/10 mile)	Max. Defective Segments Per Driving Lane Mile	Threshold Limits Per Segment (Segment Length = 528 feet = 1/10 mile)	Ma Defective Segments Per Driving Lane Mile	Threshold Limits Per Segment (Segment Length = 528 feet = 1/10 mile)	Max. Defective Segments Per Driving Lane Mile (c)
Warranty period	5 years		3 years		1 year	
Transverse Cracking	3(b)	1	3(b)	2 (d)	3(a,b,d)	3 (a,d)
Open Joints & Long. cracking	10% of Segment length	1	25% of Segment length	2 (d)	25% of Segment length(a,d)	3 (a,d)
De-bonding	5% of Segment length	1	5% of Segment length	1	5% of Segment length	1
Raveling	8% of Segment length	1	8% of Segment length	1	8% of Segment length	1
Flushing	5% of Segment length	1	5% of Segment length	1	5% of Segment length	1
Rutting (d, e, f)	Ave. rut depth = 3/8 inch	1 (e)	Ave. rut depth = 3/8 inch	1 (e)	Ave. rut depth = 3/8 inch	1 (e)
Alligator or Block cracking (g)	Any amount	0 (none allowed)	Any amount	0 (none allowed)	Any amount	0 (none allowed)

- a. For a single course overlay, or multiple course overlays less than 2" thick, transverse and longitudinal cracking will not be warranty conditions.
- b. For segments less than 1/10 mile in length, divide the segment length in feet by 528. Then multiply the threshold limit shown in the table by this fractional number. Round the result to the nearest whole number for the new threshold limit. In no case can the threshold limit be less than 1.

The maximum allowable number of defective segments per condition for a specific driving lane is determined by multiplying the length of the specific driving lane in miles by the maximum allowable defective segments per mile as shown in the table for that condition. Round all fractional values n to the nearest whole number. In no case can the max. segments per driving lane limit be less than 1.

- c. The Engineer shall waive this requirement if it is determined the cracks are reflective cracks from the surface being overlaid.
- d. Rut-depth threshold applies to each wheel path individually.
- e. For single course overlays constructed on existing rutted pavement without first milling, wedging or otherwise fixing the existing ruts $> 1/2$ inch, the Engineer shall waive this requirement.
- f. The Engineer will evaluate for rutting throughout the warranty period. If rutting is found in a 1/10-mile segment, the rutting will be measured in that segment at the POB and every 132 feet thereafter.

The Engineer will take rut measurements with a straight, rigid device at least 7 feet long that does not deflect from its own weight, or a wire that remains taut when extended 7 feet. The Engineer will place across the pavement, perpendicular to travel with at least one bearing point on either side of a rut. The straightedge is properly located when sliding it along its axis does not change these contact points. The Engineer will measure rut depth at the greatest distance from the bottom of the straightedge to the bottom of the paved rut.

- g. Any amount of alligator and/or block cracking is unacceptable, and must be removed and replaced as directed by the Engineer.

Table 2: Suggested Corrective Actions

Condition Parameter	Recommended Action
Transverse cracking	Seal, or cut/seal (per Engineer direction)
Longitudinal cracking	Seal, or cut/seal (per Engineer direction)
De-bonding	Mill, resurface affected courses
Raveling	Mill, resurface affected courses
Flushing	Mill, resurface affected courses
Rutting	Microsurface or mill/resurface (a)
Alligator or block cracking	Remove and replace (b)
Note: The actual fix approved by the Engineer may differ from these suggestions.	
a. The Engineer's recommended action depends on rut depth.	
b. Removal and replacement will be required for any areas exhibiting alligator or block cracking to the extent and depth of the cracking.	

CHARTER TOWNSHIP OF MERIDIAN

SPECIAL PROVISION
FOR
HMA APPLICATION ESTIMATE

MERIDIAN TWP:MSG

1 of 1

3-04-2022

a. Description. – Perform this work according to Division 5 of the Michigan Department of Transportation 2020 Standard Specifications for Construction and applicable supplemental specifications and special provisions, and as specified herein.

b. Materials. - Furnish and place HMA Bond Coat material per Section 501.02, at an application rate of 0.05 to 0.15 gallons per square yard to assure uniform, complete coverage as directed by the Engineer. Furnish all HMA mixtures using asphalt cement binder meeting requirements for Performance Grade PG 58-28. Regress air voids for mainline top course HMA mixtures to 3 percent. Do not exceed 17% Recycled Asphalt Pavement (RAP) binder by weight (Tier I RAP mixes). Furnish all HMA mixtures used for top course with aggregate having 260 minimum aggregate wear index (AWI).

i. HMA in Pavement Removal Sections. Furnish and place HMA, 36A mixture for top course at a yield of 165 lbs per square yard. Furnish and place HMA, 13A mixture for leveling course at a yield of 275 lbs per square yard according to the typical cross sections and as directed.

ii. Performance Grade: PG 58-28

MICHIGAN DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
MARSHALL HOT MIX ASPHALT MIXTURE

CFS:JWB

1 of 2

APPR:EHR:CJB:09-25-06
FHWA:APPR:06-06-11

a. Description. Furnish hot mix asphalt (HMA) mixture, designed using Marshall Mixture Design Methods, in accordance with the standard specifications except as modified by this special provision.

b. Mix Design. Submit the mix design for evaluation in accordance with the Department's HMA Production Manual. Use a 50 blow Marshall hammer when compacting mixtures for developing Marshall mix designs.

c. Recycled Mixtures. Substituting reclaimed asphalt pavement (RAP) for a portion of the new material required to produce HMA mixture is allowed provided that the mixture is designed and produced to meet all criteria specified herein, unless otherwise prohibited. RAP materials must be in accordance with the standard specifications.

d. Materials. Table 1 provides the mix design criteria and volumetric properties. Table 2 provides the required aggregate properties. Use aggregates of the highest quality available to meet the minimum specifications. Use the mixture designation number shown in the contract item name when determining mix design properties from Tables 1 and 2.

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

Pay Item	Pay Unit
HMA, (type)	Ton

Table 1: Mix Design Criteria and Volumetric Properties

	Mixture No.				
	2C	3C	4C	13A	36A
Target Air Void, % (a)	3.00	4.00	4.00	3.00	3.00
VMA (min) (b)	11.00	13.00	14.00	14.00	15.00
VFA	65-78	65-78	65-78	65-78	65-78
Fines to Binder Ratio (max) (c)	1.2	1.2	1.2	1.2	1.2
Flow (0.01 inch)	8 -16	8 -16	8 -16	8 -16	8 -16
Stability (min), lbs	1200	1200	1200	900	900
<p>a. Lower target air voids by 1.00% if used in a separate shoulder paving operation. Consider reducing air void targets to 3.00% for lower traffic volume roadways when designing 13A and 36A mixtures for local agency use.</p> <p>b. VMA calculated using Gsb of the combined aggregates.</p> <p>c. Ratio of the weight of aggregate passing the No. 200 sieve to total asphalt binder content by weight; including fines and binder contributed by RAP.</p>					

Table 2: Aggregate Properties

	Mixture No.				
	2C	3C	4C	13A	36A
	Percent Passing Indicated Sieve or Property Limit				
1½ inch	100				
1 inch	91-100	100			
¾ inch	90 max.	91-100	100	100	
½ inch	78 max.	90 max.	91-100	75-95	100
⅜ inch	70 max.	77 max.	90 max.	60-90	92-100
No. 4	52 max.	57 max.	67 max.	45-80	65-90
No. 8	15-40	15-45	15-52	30-65	55-75
No. 16	30 max.	33 max.	37 max.	20-50	
No. 30	22 max.	25 max.	27 max.	15-40	25-45
No. 50	17 max.	19 max.	20 max.	10-25	
No. 100	15 max.	15 max.	15 max.	5-15	
No. 200	3-6	3-6	3-6	3-6	3-10
Crushed (min), % (MTM 117)	90	90	90	25	60
Soft Particle (max), % (a)	12.0	12.0	8.0	8.0	8.0
Angularity Index (min) (b)	4.0	4.0	4.0	2.5	3.0
L.A. Abrasion (max), % loss (c)	40	40	40	40	40
Sand Ratio (max) (d)	-	-	-	50	50
<p>a. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 8.0 percent for aggregates used in top course. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 12.0 percent for aggregates used in base and leveling courses.</p> <p>b. The fine aggregate angularity of blended aggregates, determined by MTM 118, must meet the minimum requirement. In mixtures containing RAP, the required minimum fine aggregate angularity must be met by the virgin material. NAA fine aggregate angularity must be reported for information only and must include the fine material contributed by RAP if present in the mixture.</p> <p>c. Los Angeles abrasion maximum loss must be met for the composite mixture, however, each individual aggregate must be less than 50</p> <p>d. Sand ratio for 13A and 36A no more than 50% of the material passing the No. 4 sieve is allowed to pass the No. 30 Sieve.</p>					

INGHAM COUNTY ROAD DEPARTMENT

SPECIAL PROVISION
FOR
SANITARY STRUCTURES – MERIDIAN

ICRD:KRJ

1 of 1

03-25-2020

a. Description. Perform this work according to the plans, the Michigan Department of Transportation 2020 Standard Specifications for Construction, and as specified herein.

b. Materials. For project locations in Meridian Township, furnish East Jordan Iron Works 1045W manhole frame(s). Furnish East Jordan Iron Works 1040 cover(s) with a watertight rubber gasket and bearing the words "SANITARY", "MERIDIAN TOWNSHIP", and the Township logo.

c. Construction Methods. Temporarily lower and adjust sanitary structures according to the plans, Section 403, and as directed by the Engineer except as described herein.

Remove deteriorated portions of drainage structure. Reconstruct removed portions of sanitary structures using precast units. Use blocks only where approved by the Engineer. Reconstruct chimneys only with pre-cast concrete adjusting rings to the elevations indicated on the plans or as directed by the Engineer. One-inch (1") butyl rope shall be placed continuously around the perimeter between all adjusting rings, below the bottom ring, and above the top ring. Use at least 2 adjusting rings beneath the casting. Apply a ½ inch thick plaster coat of mortar to all inner and outer surfaces of adjusted areas as directed.

Structures shall be cleaned of debris and construction materials prior to final acceptance and payment.

d. Measurement and Payment. The completed work for **Sanitary Structure, Adj, Add Depth**, will be measured and paid for by the vertical foot, according to Section 403. Payment includes all material, equipment, and labor to complete this work as specified herein. When this work is performed, the *work for temporary lowering will not be paid for separately*. When the work for **Sanitary Structure, Adj, Add Depth** is not performed, temporary lowering of sanitary structures will be paid for separately as *Dr Structure, Temp Lowering*, according to Section 403.

The completed work for **Sanitary Structure Cover** and **Sanitary Structure Adj, Case_____** will be measured and paid by the unit each and includes all material, equipment, and labor to complete this work as specified herein.

Pay Item

Sanitary Structure, Adj, Add Depth
Sanitary Structure Adj, Case___
Sanitary Structure Cover

Pay Unit

Foot
Each
Each

INGHAM COUNTY ROAD DEPARTMENT

SPECIAL PROVISION
FOR
SANITARY STRUCTURE, CHIMNEY SEAL, EXTERNAL

ICRD:DJT

1 of 1

03-31-2016

a. Description. This work consists of installing woven polypropylene infiltration sealing tape on sanitary structure chimney and casting joints according to the requirements of Section 403 of the 2012 Michigan Department of Transportation Standard Specifications for Construction, and as specified herein.

b. Materials. Furnish a wraparound sealing product designed for external use on manhole structure meeting the following criteria:

Adhesive	ASTM Test	Test Results
Softening Point	ASTM E-28	116°C (240°F)
Dielectric Strength	ASTM D-1000	350 volts/mil
Tape		
Tensile Strength	ASTM D-1000	75 lbs./inch width
Elongation	ASTM D-1000	40%
Puncture Resistance	ASTM E 164	200 lbs.
Water Absorption	ASTM D-570	0.05%
Penetration Resistance	ASTM G-9	PASS
Fungal Resistance	ASTM G-21	Growth-None

c. Installation. Install the seal over the entire chimney area, overlapping at least four (4) inches of the manhole cone, and at least two (2) inches of the manhole casting. Install the product according to the Manufacturer's specifications. Furnish product data sheet including certification of the specified properties to the Engineer prior to installation. The Contractor shall clear all debris from the operation out of the manhole.

d. Measurement and Payment. The complete work for **Sanitary Structure, Chimney Seal, External**, will be measured by area in square feet (perimeter x vertical depth) of the external manhole chimney surface. Payment for **Sanitary Structure, Chimney Seal, External** will be at the contract unit price includes all material, equipment, and labor to complete this item.

<u>Pay Item</u>	<u>Pay Unit</u>
Sanitary Structure, Chimney Seal, External	Square Foot

CHARTER TOWNSHIP OF MERIDIAN
SPECIAL
PROVISION FOR
DRIVEWAY APPROACH, REM, MODIFIED

MERIDIAN TWP:MSG

1 of 1

02-25-2022

a. Description. The pay item “Driveway Approach, Rem, Modified” includes all labor, equipment, and materials required to saw cut and remove an existing driveway approach and place a base course of HMA. This base course will be temporary for beyond 2 feet for driveways that are not of HMA construction. This base course is referred to as a temporary breaker to maintain driveway access. This breaker shall be removed prior to placing concrete at concrete driveway. All labor, materials, and costs associated with the placement and removal are included in this item.

b. Construction Methods. Limits of the removal will be marked by the Engineer prior to the commencement of work. The contractor will saw cut the existing approach to its full depth at both edge of pavement and at the limits and remove and dispose of all material. Care will be taken to avoid damaging the remaining existing driveway. Damaged sections caused by the contractor’s operations will be removed and replaced by the contractor at no cost to the agency. The approach area will be excavated to a depth consistent with the detail sheet. Should unsuitable soils be encountered, an additional 4 inches of material shall be excavated and replaced with suitable aggregate. The area will then be compacted to a minimum of 98% of maximum density. Unless specified otherwise by the Engineer, a lift of HMA base material will then be placed flush with the existing road surface to a point 2 inches lower than the top of the existing adjacent driveway as shown on the detail sheet. The HMA base material shall be placed by the end of the next workingday.

c. Measurement & Payment. “Driveway Approach, Rem, Modified” will be measured in square yards, based on the area of driveway approach that is removed.

Pay Item
Driveway Approach, Rem, Modified

Pay Unit
Syd

CHARTER TOWNSHIP OF MERIDIAN

SPECIAL PROVISION
FOR
SLOPE RESTORATION, MODIFIED

MERIDIAN TWP:MSG

1 of 2

2-27-20

a. Description. This work consists of preparing areas designated for slope restoration as shown on the plans or as directed by the Engineer and applying topsoil, fertilizer, seed, and bonded fiber matrix (BFM) mulch. Ensure turf establishment is in accordance with section 816 of the Standard Specifications for Construction and Standard Plan R-100 Series, except as modified herein or otherwise directed by the Engineer.

b. Materials. Provide the materials and use the application rates specified in sections 816 and 917 of the Standard Specifications for Construction unless modified by this special provision, the BFM manufacturer's guidelines or otherwise directed by the Engineer. Use the following materials on this project:

1. Seeding mixture shall meet the requirements of a THM mix.
2. Fertilizer, Chemical Nutrient, Class A.
3. Topsoil Surface, Furn, 4 inch or Topsoil Surface, Salv, 4 inch is required in all areas designated on the plans as Slope Restoration, Modified. Remove any stones greater than 1 inch in diameter and all other debris from the topsoil.
4. Bonded Fiber Matrix. Provide a product from the list below or an approved equal.
 - Soil Guard manufactured by Mat, Inc.;
 - HydroStraw BFM manufactured by HydroStraw, LLC; HydraMax manufactured by North American Green;
 - Bindex BFM manufactured by American Excelsior Company; ProMatrix EFM manufactured by Profile Products, LLC.

If multiple grades of the selected product are available, use the grade appropriate for the application as approved by the Engineer.

Approved equal BFMs must consist of long strand, virgin wood fibers (90 percent by weight) bound together by a pre-blended, high strength polymer adhesive (10 percent by weight). The virgin wood fibers will be thermally refined from clean whole wood chips. Ensure the organic binders are a high viscosity colloidal polysaccharide tackifier with activating agents to render the resulting matrix insoluble upon drying.

c. Construction Methods. The Contactor shall restore disturbed areas as described in Subsection 816.03 of the MDOT's 2012 Standard Specifications for Construction. Begin this work as soon as possible after final grading of the areas designated for slope restoration but no later than the maximum time frames allowed by subsection 208.03 of the Standard Specifications for Construction. Materials shall be placed at rates specified in Section 816 of MDOT's 2012 Standard Specifications for Construction.

Shape, compact and assure all areas to be seeded are weed free prior to placing topsoil. Place topsoil to the minimum depth indicated herein to meet proposed finished grade. Topsoil shall be placed along the edge in such a manner that it is flush with the new shoulder and is feathered down to match with the existing ground. In the event that sufficient suitable topsoil is not salvaged from the grading operation, the Contractor shall furnish the additional topsoil required as part of "Slope Restoration, Modified". The application rates for other items covered under "Slope Restoration, Modified" shall meet or exceed the rates called for in Section 816 of the MDOT's 2012 Standard Specifications for Construction.

Ensure topsoil is weed and weed seed free and friable prior to placing seed. Remove any stones greater than 1 inch in diameter and other debris. Apply seed mixture and fertilizer to prepared soil surface. If using hydroseeding equipment, incorporate the seed into the friable topsoil using the handgun/reel and spray directly into the seed bed. If using other methods of seed application, incorporate the seed into the top 1/2 inch of topsoil.

Mix the BFM and organic binders thoroughly at a rate of 40 pounds for each 100 gallons of water or as otherwise recommended by the manufacturer. Hydraulically apply the BFM slurry in successive layers, from two or more directions, to fully cover 100 percent of the soil surface. Ensure the minimum application rate is at least 3000 pounds of BFM for each acre or otherwise apply in accordance with the manufacturer's recommendations as appropriate depending on site conditions.

Do not apply on saturated soils or immediately before, during or after rainfall.

If an area washes out after this work has been properly completed and approved by the Engineer, make the required corrections using mulch blankets in accordance with Section 816 to prevent future washouts. This replacement will be paid for as additional work using the same pay item.

If an area washes out for reasons attributable to the Contractor's operation or failure to take proper precautions, replacement will be at the Contractor's expense.

The Engineer will inspect the seeded turf to ensure the end product is well established, in a vigorous growing condition, and contains the species called for in the seeding mixture.

If the seeded turf is not well established at the end of the first growing season, the Contractor will be required to reseed as detailed herein until the turf is well established and approved by the Engineer.

If weeds are determined by the Engineer to cover more than 10 percent of the total area of slope restoration, provide weed control in accordance with subsection 816.03.J of the Standard Specifications for Construction. Weed control will be at no cost to the contract.

d. Measurement and Payment. "Slope Restoration, Modified" will be measured and paid for based on the area restored.

<u>Pay Item</u>	<u>Unit</u>
Slope Restoration, Modified	Syd

Payment for "Slope Restoration, Modified" will be made based on the following schedule: Upon completion of the work, payment will be based on 50% of the contract unit price. After the grass germinates and the Engineer is satisfied that the amount and area of the grass germination should reasonably provide a well-established turf, the remaining balance of the contract unit price will be paid.

CHARTER TOWNSHIP OF MERIDIAN

SPECIAL PROVISION
FOR
MAINTAINING TRAFFIC

MERIDIAN TWP:MSG

1 of 1

2-27-22

a. General. Local traffic shall be maintained at all times during construction in accordance with Sections 104.07C, 104.11, 812, and 922 of the Michigan Department of Transportation 2020 Standard Specifications for Construction, the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), and as specified herein.

b. Construction Influence Area. The Construction Influence Area (CIA) shall consist of the project right-of-way five hundred (500) feet in all directions at all intersecting roads. In addition, the CIA shall include the limits of all construction signing.

c. Traffic Control Devices & Restrictions. All traffic control devices and their usage must conform to Part 6 of the MMUTCD. The Contractor must review, adjust, and maintain all traffic control devices on a daily basis or as directed by the Engineer. The Contractor must notify the Engineer at least 24 hours in advance of erecting construction zone signing.

A minimum of one lane traffic shall be maintained at all times in order to allow access to businesses and driveways. Access to all businesses and residences must be maintained at all times and work must be coordinated with the Engineer. Type III Barricades shall be used for road closures to through traffic and shall be coordinated in advance.

At a minimum, each area under construction shall have a W20-1 (48" x 48") "Road Work Ahead" sign at each entrance. W8-1 (48" x 48") "Bump" signs shall be placed on each side of areas left with a 2-inch or greater grade difference for more than 24-hours.

The Contractor must maintain all traffic control devices and is responsible for reviewing the adequacy and condition of all traffic control devices at least once per day for the duration of the project. Replacement and repair of traffic control devices as necessary will be restricted to daylight hours. Any signs damaged as a result of the Contractor's operations must be replaced by the Contractor at their expense.

Signing for all traffic control operations shall be in accordance with the Michigan Department of Transportation maintaining traffic typical drawings and the MMUTCD.

Signs and devices shall be promptly removed

d. Measurement and Payment. All work and materials pertaining to traffic maintenance will be paid for at the contract unit price for the following pay items. This includes all signs, barricades, cones, drums, flaggers, furnishing items and operating is included in this pay item

Pay Item
Traffic Control

Pay Unit
LSUM

Partial Payment Schedule

Milestone	Total Percent of Unit Price Paid
First Use	50%
50% Percent of Original Contract Earned	75%
Final Removal	100%

APPENDIX A

Payment and Performance Bonds

Payment Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place
of Business):

OWNER (Name and Address): **Charter Township of Meridian**

CONTRACT: **Charter Township of Meridian 2022 Roadway Improvements - Crushing and HMA Overlay**

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____ (Corp. Seal)

Company: _____ (Corp. Seal)

Signature: _____

Signature: _____

Name and Title:

Name and Title:

EJCDC No. 1910-28-B (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER to pay for labor, materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference.

2. With respect to the OWNER, this obligation shall be null and void if the CONTRACTOR:

- 2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and
- 2.2. Defends, indemnifies and holds harmless the OWNER from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract, provided the OWNER has promptly notified the CONTRACTOR and the Surety (at the addresses described in paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the CONTRACTOR and the Surety, and provided there is no OWNER Default.

3. With respect to Claimants, this obligation shall be null and void if the CONTRACTOR promptly makes payment, directly or indirectly, for all sums due.

4. The Surety shall have no obligation to Claimants under this Bond until:

- 4.1. Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the Surety (at the addresses described in paragraph 12) and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
- 4.2. Claimants who do not have a direct contract with the CONTRACTOR:
 1. Have furnished written notice to the CONTRACTOR and sent a copy, or notice thereof, to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
 2. Have either received a rejection in whole or in part from the CONTRACTOR, or not received within 30 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR had indicated the claim will be paid directly or indirectly; and
 3. Not having been paid within the above 30 days, have sent a written notice to the Surety and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.

5. If a notice required by paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety, that is sufficient compliance.

6. When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

- 6.1. Send an answer to the Claimant, with a copy to the OWNER, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
- 6.2. Pay or arrange for payment of any undisputed amounts.

7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8. Amounts owed by the OWNER to the CONTRACTOR under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond, subject to the OWNER's priority to use the funds for the completion of the Work.

9. The Surety shall not be liable to the OWNER, Claimants or others for obligations of the CONTRACTOR that are unrelated to the Contract. The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by paragraph 4.1 or paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the OWNER or the CONTRACTOR, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. DEFINITIONS

15.1. Claimant: An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor of the CONTRACTOR to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the CONTRACTOR and the CONTRACTOR's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

15.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

15.3. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY--Name, Address and Telephone)

AGENCY OR BROKER:

OWNER'S REPRESENTATIVE (Engineer or other party):

Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):
Place

SURETY (Name and Address of Principal
of Business):

OWNER (Name and Address): **Charter Township of Meridian**

CONTRACT: **Charter Township of Meridian 2022 Roadway Improvements - Crushing and HMA Overlay**

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent or representative.

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

EJCDC No. 1910-28-A (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Contract, which is incorporated herein by reference.

2. If the CONTRACTOR performs the Contract, the Surety and the CONTRACTOR have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.

3. If there is no OWNER Default, the Surety's obligation under this Bond shall arise after:

3.1. The OWNER has notified the CONTRACTOR and the Surety at the addresses described in paragraph 10 below, that the OWNER is considering declaring a CONTRACTOR Default and has requested and attempted to arrange a conference with the CONTRACTOR and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Contract. If the OWNER, the CONTRACTOR and the Surety agree, the CONTRACTOR shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the OWNER's right, if any, subsequently to declare a CONTRACTOR Default; and

3.2. The OWNER has declared a CONTRACTOR Default and formally terminated the CONTRACTOR's right to complete the Contract. Such CONTRACTOR Default shall not be declared earlier than twenty days after the CONTRACTOR and the Surety have received notice as provided in paragraph 3.1; and

3.3. The OWNER has agreed to pay the Balance of the Contract Price to:

3.3.1. The Surety in accordance with the terms of the Contract;

3.3.2. Another contractor selected pursuant to paragraph 4.3 to perform the Contract.

4. When the OWNER has satisfied the conditions of paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1. Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Contract; or

4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or

4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default; or

4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances;

4.4.1. After investigation, determine the amount for which it may be liable to the OWNER and, as soon as practicable after the amount is determined, tender payment therefor to the OWNER; or

4.4.2. Deny liability in whole or in part and notify the OWNER citing reasons therefor.

5. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the OWNER to the Surety demanding that the Surety perform its obligations under this Bond, and the OWNER shall be entitled to enforce any remedy available to the OWNER. If the Surety proceeds as provided in paragraph 4.4, and the OWNER refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the OWNER shall be entitled to enforce any remedy available to the OWNER.

6. After the OWNER has terminated the CONTRACTOR's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Contract. To a limit of the amount of this Bond, but subject to commitment by the OWNER of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:

6.1. The responsibilities of the CONTRACTOR for correction of defective Work and completion of the Contract;

6.2. Additional legal, design professional and delay costs resulting from the CONTRACTOR's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and

6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the CONTRACTOR.

7. The Surety shall not be liable to the OWNER or others for obligations of the CONTRACTOR that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs, executors, administrators, or successors.

8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after CONTRACTOR Default or within two years after the CONTRACTOR ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

12.1. Balance of the Contract Price: The total amount payable by the OWNER to the CONTRACTOR under the Contract after all proper adjustments have been made, including allowance to the CONTRACTOR of any amounts received or to be received by the OWNER in settlement of insurance or other Claims for damages to which the CONTRACTOR is entitled, reduced by all valid and proper payments made to or on behalf of the CONTRACTOR under the Contract.

12.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

12.3. CONTRACTOR Default: Failure of the CONTRACTOR, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.

12.4. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

APPENDIX B

Plans

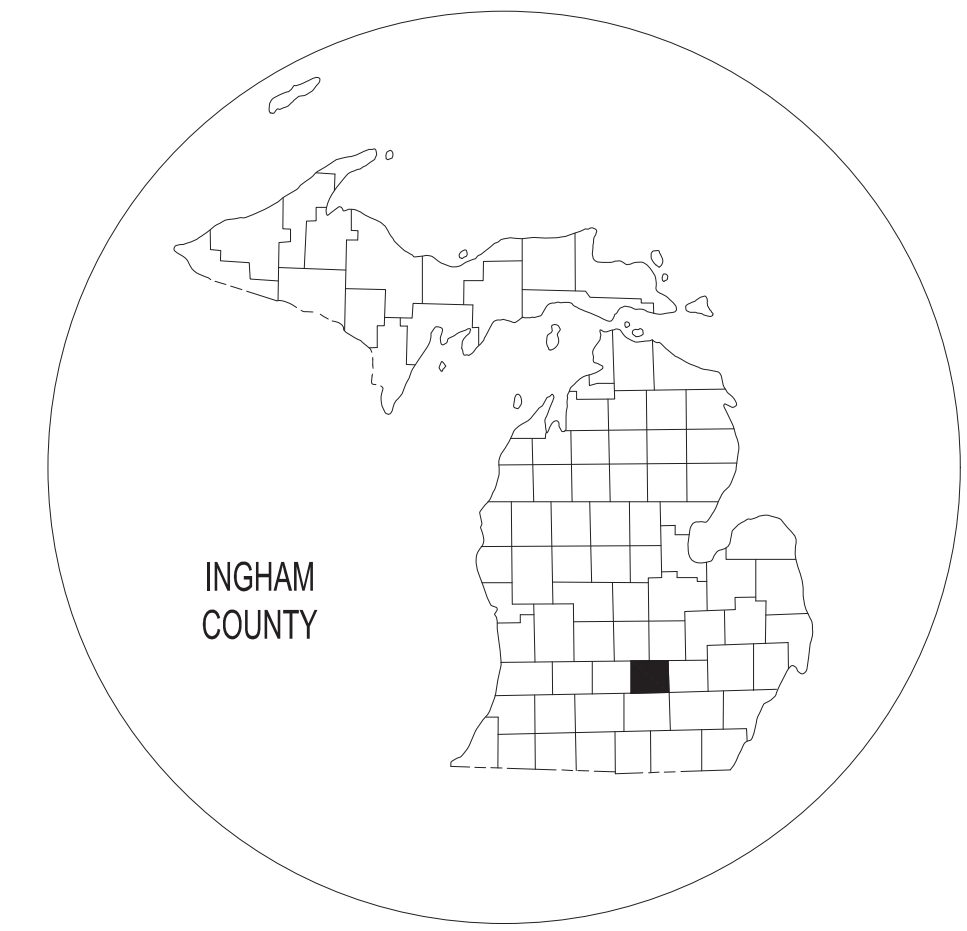
SPECIFICATIONS

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

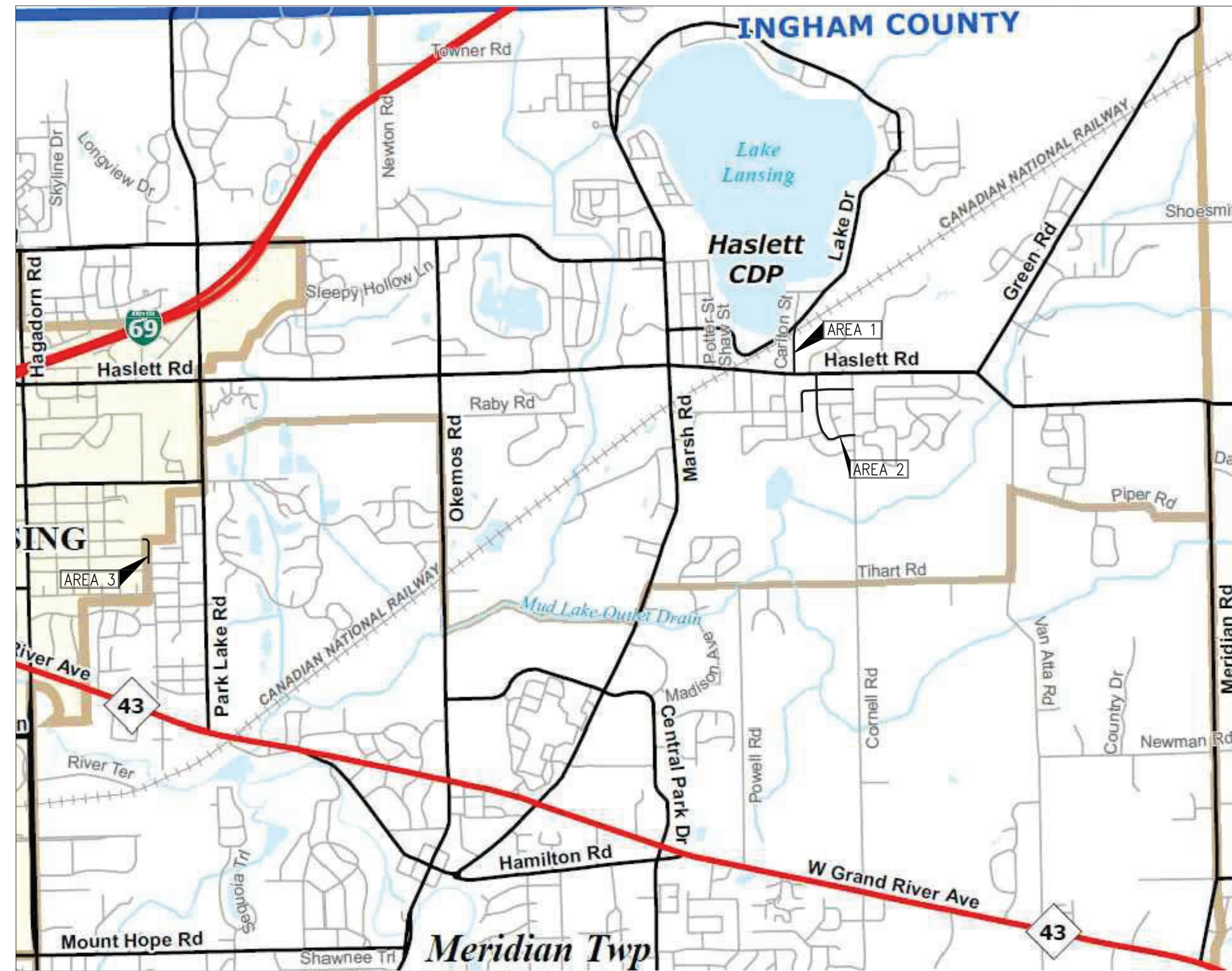
MDOT STANDARD PLANS

- R-1-G DRAINAGE STRUCTURES
- R-7-F COVER B
- R-12-E COVER G
- R-83-C UTILITY TRENCHES
- R-28-J CURB RAMP AND DETECTABLE WARNING DETAILS
- R-30-G CONCRETE CURB AND CONCRETE CURB & GUTTER

2022 ROADWAY IMPROVEMENTS HMA BASE CRUSHING AND SHAPING FOR CHARTER TOWNSHIP OF MERIDIAN INGHAM COUNTY MICHIGAN



COUNTY KEY



AREA 1:
CARLTON STREET

AREA 2:
BUCKINGHAM ROAD
BAYSHORE ROAD
HALLENDALE ROAD

AREA 3:
TIMBERLANE STREET

UTILITY CONTACTS:

WATER
MERIDIAN TOWNSHIP
DEPARTMENT OF PUBLIC WORKS & ENGINEERING
5151 MARSH ROAD
OKEMOS, MI 48864
CONTACT: JAY GRAHAM
517-853-4440

SANITARY SEWER
MERIDIAN TOWNSHIP
DEPARTMENT OF PUBLIC WORKS & ENGINEERING
5151 MARSH ROAD
OKEMOS, MI 48864
CONTACT: JAY GRAHAM
517-853-4440

COMMUNICATIONS:
AT&T
337 ABBOTT ROAD
EAST LANSING, MI 48823
CONTACT: DARNELL TAYLOR
517-337-3509
DJ5474@US.ATT.COM

GAS
CONSUMERS ENERGY
1955 PARNELL ROAD
JACKSON, MI 49201
CONTACT: ADAM BETRAM
517-374-2375

ELECTRIC
CONSUMERS ENERGY
530 W WILLOW ROAD
LANSING, MI 48906
CONTACT: DAN SMITH
517-374-2259

STORM SEWER
INGHAM COUNTY DRAIN COMMISSION
707 BUHL ST
MASON, MI 48854
CONTACT: DAVE SOLBERG
517-676-8361
DSOLBERG@INGHAM.ORG

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NO.	DATE	BY	DESCRIPTION
REV. 1	6-29-2022	ASML	REVISED PER TYP AND ICRD COMMENTS

2193 ASSOCIATION DRIVE, SUITE 2000
OKEMOS, MI 48864
TEL: 517.316.9232
FAX: 517.316.9233

PROJECT NO.: 03102022
M4150014
DRAWN BY: KHW
CHECKED BY: CAV

Mannik Smith GROUP
www.MannikSmithGroup.com



PREPARED FOR:
2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS
MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN

APPROVALS

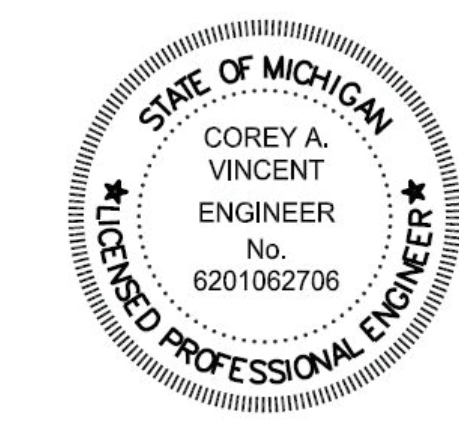
APPROVED: _____
INGHAM COUNTY ROAD DEPARTMENT

APPROVED: _____
CHARTER TOWNSHIP OF MERIDIAN

APPROVED: *Corey A. Vincent*
REGISTERED PROFESSIONAL ENGINEER



2193 ASSOCIATION DRIVE
SUITE 2000
OKEMOS, MI 48864
TEL: (517) 316-9292
FAX: (517) 316-9233



TITLE SHEET

1	16
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GENERAL NOTES:

SPECIFICATIONS: ALL WORK AND MATERIALS, UNLESS OTHERWISE STATED IN THESE PLANS, SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THESE PLANS.

STANDARD DRAWINGS: ALL STANDARD DRAWINGS AND ITEMS LISTED IN THE PLANS, UNLESS OTHERWISE STATED ARE FOR THE MDOT STANDARD ROAD PLANS.

CONFLICT NOTES: IN CASES WHERE THERE IS A CONFLICT BETWEEN STANDARDS, DETAILS OR NOTES, THE MORE RESTRICTIVE SHALL TAKE PRECEDENCE OR AS DETERMINED BY THE INGHAM COUNTY ROAD COMMISSION OR APPROPRIATE JURISDICTIONAL AGENCY.

EXISTING UTILITIES: THE LOCATION OF ALL PUBLIC UTILITIES AS SHOWN ON THESE PLANS ARE OBTAINED FROM THE BEST AVAILABLE DATA. ICRC AND MANNIK & SMITH GROUP, INC. ARE NOT RESPONSIBLE FOR ANY OMISSIONS OR VARIATIONS FROM THE LOCATIONS FROM THE LOCATIONS SHOWN. THE VERIFICATION OF THE ACTUAL LOCATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

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

UTILITY OWNERSHIP: THE FOLLOWING IS A LIST OF UTILITY COMPANIES KNOWN TO BE IN THE VICINITY OF THIS PROJECT.

UTILITY CONTACTS:

WATER
 MERIDIAN TOWNSHIP
 DEPARTMENT OF PUBLIC WORKS & ENGINEERING
 5151 MARSH ROAD
 OKEMOS, MI 48864
 CONTACT: JAY GRAHAM
 517-853-4440

GAS
 CONSUMERS ENERGY
 1955 PARNELL ROAD
 JACKSON, MI 49201
 CONTACT: ADAM BETRAM
 517-374-2375

SANITARY SEWER
 MERIDIAN TOWNSHIP
 DEPARTMENT OF PUBLIC WORKS & ENGINEERING
 5151 MARSH ROAD
 OKEMOS, MI 48864
 CONTACT: JAY GRAHAM
 517-853-4440

ELECTRIC
 CONSUMERS ENERGY
 530 W WILLOW ROAD
 LANSING, MI 48906
 CONTACT: DAN SMITH
 517-374-2259

COMMUNICATIONS:

AT&T
 337 ABBOTT ROAD
 EAST LANSING, MI 48823
 CONTACT: DARNELL TAYLOR
 517-337-3509
 DJ5474@US.ATT.COM

STORM SEWER
 INGHAM COUNTY DRAIN COMMISSION
 707 BUHL ST
 MASON, MI 48854
 CONTACT: DAVE SOLBERG
 517-676-8361
 DSOLBERG@INGHAM.ORG

CONSTRUCTION SCHEDULE: THE CONTRACTOR MUST SUBMIT A CONSTRUCTION SCHEDULE TO THE OWNER BEFORE OR AT THE RECONSTRUCTION MEETING. THIS SCHEDULE WILL SHOW THE SEQUENCE OF CONSTRUCTION AND COMPLETION DATES FOR MAJOR ITEMS OF WORK. THE PROJECT CONSTRUCTION SCHEDULE MUST BE UPDATED PERIODICALLY AS PROGRESS CONTINUES IN ACCORDANCE WITH PROVISIONS IN THE CONTRACT DOCUMENTS. BI-WEEKLY PROGRESS MEETINGS MAY BE REQUIRED IF DETERMINED NECESSARY.

CONSTRUCTION STAKES: IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND PRESERVE THE CONSTRUCTION STAKES AND TO VERIFY THEIR CORRECTNESS PRIOR TO LAYING PIPE OR CONSTRUCTING CURB OR PAVEMENT. THE FIRST SET OF STAKES WILL BE PAID FOR BY THE OWNER. REPLACEMENT OF STAKES BY THE OWNER'S ENGINEER WILL BE AT THE EXPENSE OF THE CONTRACTOR.

THE CONTRACTOR SHALL PROVIDE AT LEAST 72 HOURS (3 WORKING DAYS) NOTICE TO THE OWNER'S ENGINEER FOR THE PLACEMENT OF CONSTRUCTION STAKES.

SURVEY POINTS: ANY PROPERTY CORNERS, MONUMENTS, OR RIGHT-OF-WAY MARKERS DISTURBED BY ACTIVITIES OF THE CONTRACTOR SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.

STORAGE OF MATERIALS: CONSTRUCTION EQUIPMENT AND MATERIALS MUST BE STORED IN A MANNER SO AS TO POSE NO THREAT TO WORKERS, ADJACENT PROPERTY OWNERS, OR PUBLIC USE OF THE ROADWAY. NO MATERIALS OR EQUIPMENT SHALL BE STORED OUTSIDE THE WORK LIMITS WITHOUT VERIFIED WRITTEN PERMISSION OF THE OWNER OF THE PROPERTY.

FENCING & LANDSCAPING IN RIGHT-OF-WAY: WHERE PRIVATE FENCES AND/OR LANDSCAPE PLANTINGS ARE LOCATED WITHIN THE WORK AREA, THE PROPERTY OWNER SHALL BE NOTIFIED (IN WRITING WITH A COPY SENT TO THE ENGINEER) BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF ANY WORK THAT WILL AFFECT ANY FENCING AND/OR LANDSCAPING. THE PROPERTY OWNER MUST BE GIVEN THE OPTION OF REMOVING THESE ITEMS THEMSELVES. IF THE PROPERTY OWNER FAILS TO REMOVE THESE ITEMS PRIOR TO THE CONTRACTOR BEGINNING WORK, THE CONTRACTOR SHALL CAREFULLY SALVAGE THE FENCING AND/OR LANDSCAPE ITEMS AND STOCKPILE THEM ON THE PROPERTY FOR THE PROPERTY OWNER. ANY OTHER MODIFICATION TO THE FENCING AND/OR LANDSCAPING IS THE RESPONSIBILITY OF THE OWNER AND IS NOT PART OF THE CONTRACT. THIS WORK IS INCLUDED IN OTHER ITEMS OF THE PROJECT.

LAWN SPRINKLER SYSTEMS: OWNERS OF EXISTING LAWN SPRINKLER SYSTEMS SHALL BE NOTIFIED (IN WRITING WITH A COPY SENT TO THE ENGINEER) BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF ANY WORK THAT WILL AFFECT THOSE SYSTEMS. IF THE PROPERTY OWNER FAILS TO RELOCATE THE LAWN SPRINKLER SYSTEMS PRIOR TO THE CONTRACTOR BEGINNING WORK AND THE CONTRACTOR CUTS THE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR SHALL CAREFULLY SALVAGE THE SPRINKLER ITEMS AND STOCKPILE THEM ON THE PROPERTY FOR THE PROPERTY OWNER. ANY OTHER MODIFICATION TO THE SPRINKLER SYSTEM IS THE RESPONSIBILITY OF THE OWNER AND IS NOT PART OF THE CONTRACT. THIS WORK IS INCLUDED IN OTHER ITEMS OF THE PROJECT.

SUBGRADE UNDERCUT: SUBGRADE UNDERCUT TYPE II IS TO BE USED AS DIRECTED BY THE ENGINEER TO STABILIZE AREAS AS NEEDED. UNDERCUT AREAS WILL BE EXCAVATED AND BACKFILLED PER 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. AGGREGATE BASE, 6 INCH WILL BE PLACED AND COMPACTED ON UNDERCUT AREAS AS DIRECTED PRIOR TO PAVING RECYCLED AGGREGATE MEETING SP GRADATION MAY BE UTILIZED FOR UNDERCUT BACKFILL AND AGGREGATE BASE.

AGGREGATE BASE CONDITIONING: AGGREGATE BASE CONDITIONING IS TO BE USED TO CONDITION THE BASE OF EXISTING DRIVEWAY APPROACHES AS DIRECTED. BASE CONDITIONING REQUIRED FOR ROADWAY WORK IS INCLUDED IN ROADWAY WORK PAY ITEMS PER 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

TRENCHING: TRENCHING SHALL BE USED TO GRADE AND/OR EXCAVATE SHOULDERS TO THE DIMENSIONS SPECIFIED OR SHOWN ON THE TYPICAL CROSS-SECTION AND AS SPECIFIED IN SECTION 307 OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION. GRADE THE EDGE OF SHOULDERS TO REMOVE GRASS AND OTHER VEGETATION FROM THE EDGE OF THE EXISTING ROADBED TO PREVENT CONTAMINATION OF THE EXISTING SHOULDER MATERIAL PRIOR TO HMA BASE CRUSHING AND SHAPING. SPREAD GRADED ORGANIC MATERIAL PRIOR TO HMA BASE CRUSHING AND SHAPING. SPREAD GRADED ORGANIC MATERIAL DOWN SLOPE AND UP/DOWN STATION AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE. DISPOSE OF EXCESS UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER. OMIT TRENCHING ACROSS PAVED APPROACHES AND

CURBED AREAS. REMOVE EXCESS SPOILS AND REMOVE OR SHRED CLODS OF SOD AS DIRECTED BY THE ENGINEER, LEAVING SUFFICIENT TOPSOIL TO ROLL BACK UP TO THE NEW PAVEMENT/SHOULDER EDGE AS REQUIRED FOR RESTORATION.

SHOULDER MATERIAL: SHOULDER CL II, 4 INCH SHALL BE USED AS DIRECTED BY THE ENGINEER. SHOULDER AREA MAY BE RESTORED WITH SLOPE RESTORATION, MODIFIED IN AREAS WITH MAINTAINED LAWNS AS DIRECTED BY ENGINEER.

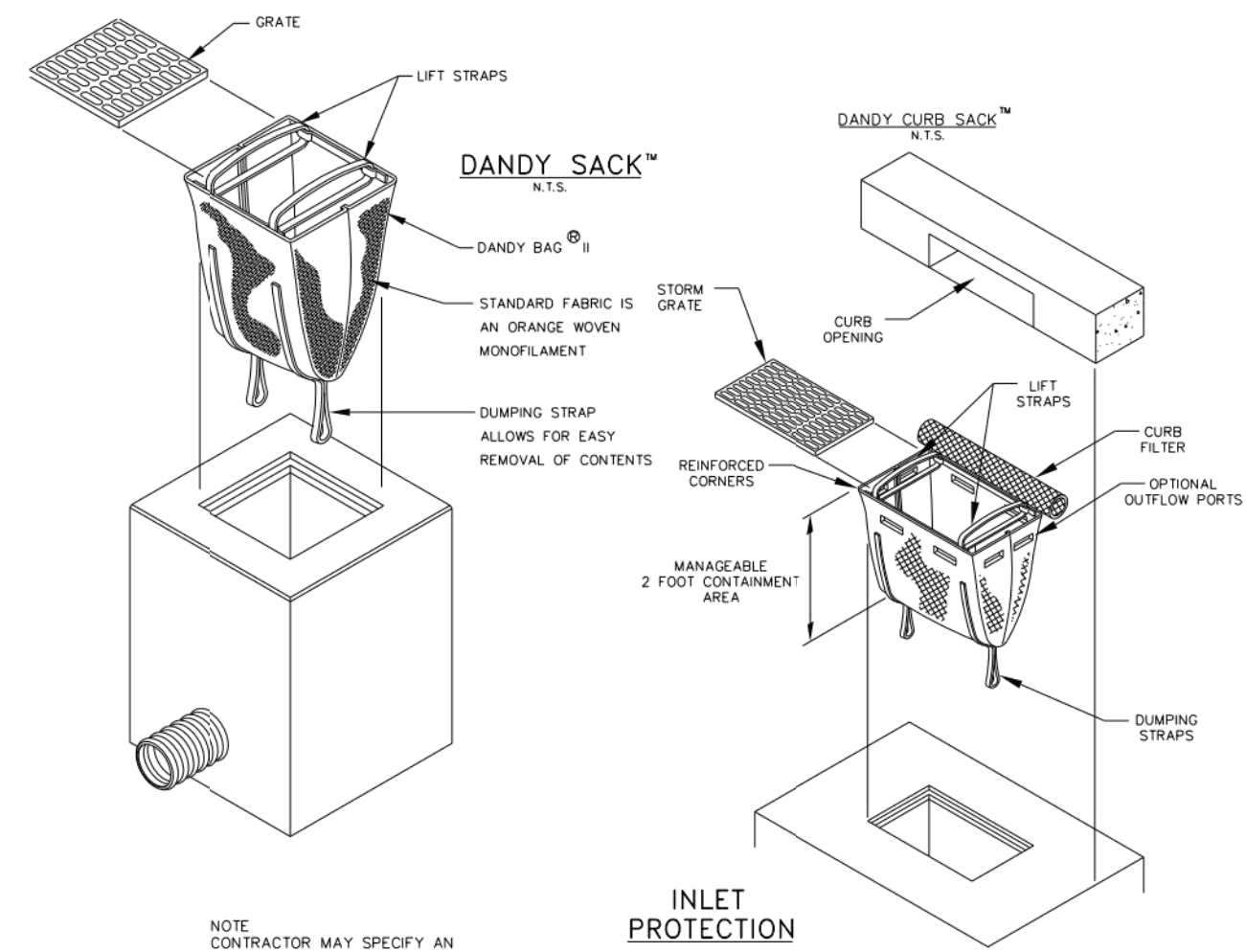
MAILBOXES: ALL MAILBOXES SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. POSTAL SERVICE MAY NOT BE INTERRUPTED. MAILBOXES WITH GRADING LIMITS OR THAT OTHERWISE INTERFERE WITH CONSTRUCTION METHODS WILL BE RELOCATED AS DIRECTED ACCORDING TO STANDARD SPECIFICATIONS, EXCEPT THAT POST REPLACEMENT WILL REMAIN AT THE DISCRETION OF THE PROPERTY OWNER AND THE ENGINEER.

DRIVEWAYS: THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE PROPERTY OWNERS FROM THE ROAD AT ALL TIMES BY PROVIDING TEMPORARY GRAVEL DRIVE APPROACHES. COSTS FOR ANY GRAVEL REQUIRED FOR TEMPORARY APPROACHES SHALL BE INCLUDED INCIDENTAL TO OTHER PAY ITEMS.

ALL DRIVEWAYS THAT ARE CONCRETE OR BRICK ARE TO RECEIVE A PERMANENT 2-FOOT HMA TAB TO MEET ICRC STANDARDS.

EXISTING SIGNS: THE CONTRACTOR SHALL MAINTAIN ALL EXISTING WARNING, REGULATORY AND/OR GUIDE SIGNS DURING CONSTRUCTION IN ACCORDANCE WITH APPLICABLE MDOT SPECIFICATIONS TO BE PAID AS PART OF "MINOR TRAF DEVICES." ANY TEMPORARY REMOVAL AND/OR RELOCATION DUE TO THE PROPOSED WORK SHALL BE PERFORMED WITHOUT DAMAGE TO THE SIGNS, SIGN COMPONENTS, OR POSTS DURING ALL PHASES OF CONSTRUCTION.

RESTORATION: SLOPE RESTORATION, MODIFIED SHALL BE PERFORMED AS NECESSARY AND WHERE INDICATED BY THE ENGINEER. SLOPE RESTORATION SHALL BEGIN WITHIN SEVEN (7) CALENDAR DAYS OF THE COMPLETION OF PAVING AND SHOULDER PLACEMENT OPERATIONS TO MINIMIZE DISTURBANCES TO THE RESIDENTS.



NOTE: CONTRACTOR MAY SPECIFY AN ALTERNATE INLET PROTECTION BMP. CONTRACTOR MUST OBTAIN ENGINEERING APPROVAL PRIOR TO IMPLEMENTATION.

INLET PROTECTION

DANDY BAG® II
 INSTALLATION AND MAINTENANCE GUIDELINES

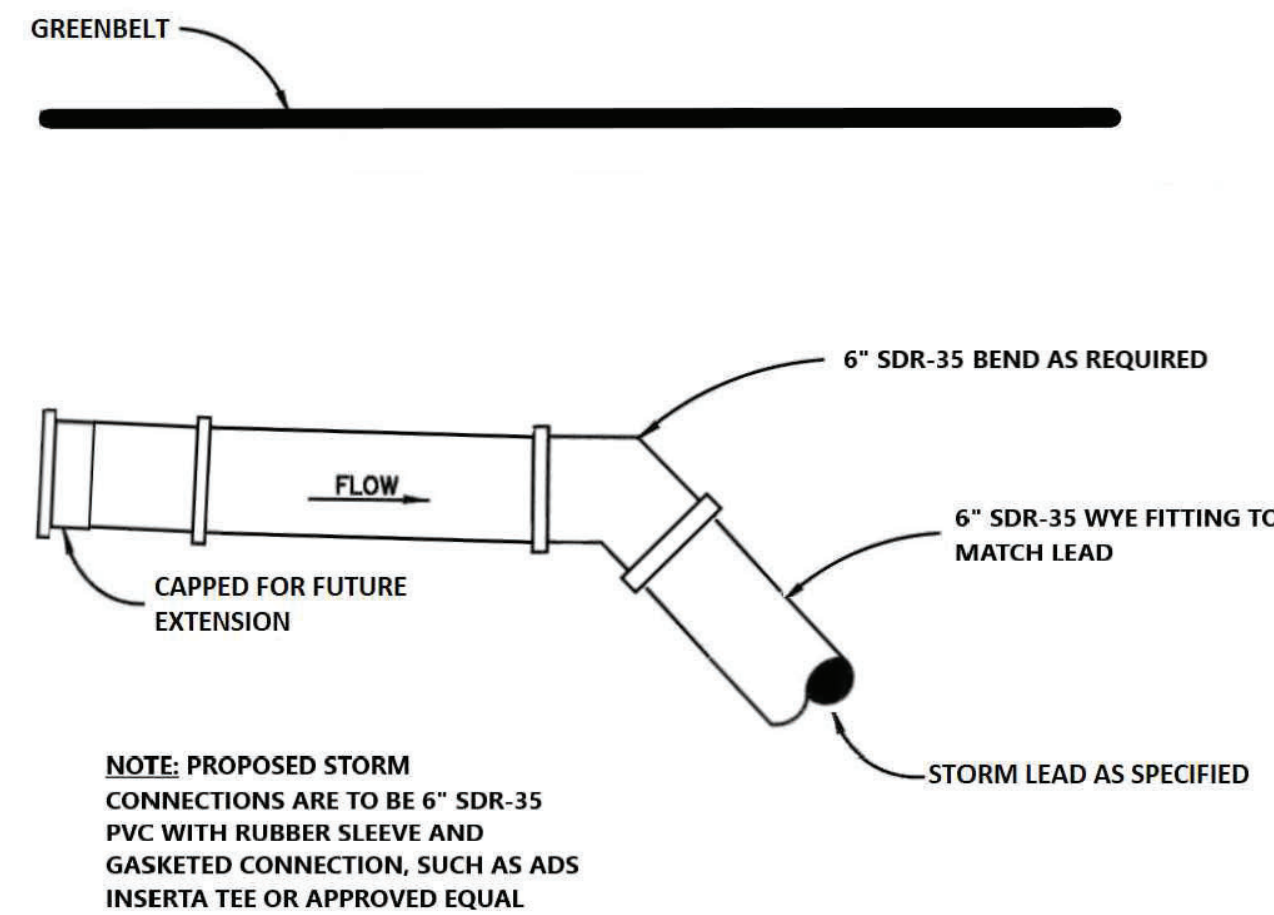
INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS: PLACE ABSORBENT PILLOW IN UNIT. STAND THE GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY BAG® II SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE DANDY BAG® II. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS: REPLACE ABSORBENT WHEN NEAR SATURATION.

NOTE: DANDY PROVIDES PROTECTION FOR ALL TYPES OF INLETS. REFER TO THE DANDY WEBSITE (WWW.DANDYPRODUCTS.COM) FOR ORDERING AND ADDITIONAL INFORMATION.



EROSION CONTROL, INLET PROTECTION, FABRIC DROP



SERVICE CONNECTION

Crush and Shape Quantities			
Pay Item Code	Description	Unit	Quantity
1500001	Mobilization	Lsum	1
2030001	Culv, Rem, Less than 24 inch	Ea	45
2030005	Culv, End, Rem, Less than 24 inch	Ea	7
2030011	Dr Structure, Rem	Ea	5
2030015	Sewer, Rem, Less than 24 inch	Ft	640
2040020	Curb and Gutter, Rem	Ft	480
2040055	Sidewalk, Rem	Sft	820
2047011	Driveway Approach, Rem, Modified	Syd	1505
2050006	Ditch Cleanout	Sta	50
2050016	Excavation, Earth	Cyd	10
2050041	Subgrade Undercutting, Type II	Cyd	50
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	25
2080036	Erosion Control, Silt Fence	Ft	220
3020010	Aggregate Base, 4 inch	Syd	60
3020016	Aggregate Base, 6 inch	Syd	50
3020050	Aggregate Base, Conditioning	Syd	3085
3050002	HMA Base Crushing and Shaping	Syd	11100
3070001	Approach, Cl 1	Ton	5206
3070126	Shoulder, Cl II, 4 inch	Syd	2407
3070120	Trenching	Sta	108
4010573	Culv, Cl E, Conc, 12 inch	Ft	96
4010607	Culv, Cl F, 12 inch	Ft	1270
4020004	Sewer, Cl A, 12 inch, Tr Det A	Ft	690
4020030	Sewer, Cl A, 6 inch, Tr Det B	Ft	240
4020600	Sewer, Cl E, 12 inch, Tr Det B	Ft	80
4021201	Sewer Tap, 6 inch	Ea	8
4030005	Dr Structure Cover, Adj, Case 1	Ea	6
4030006	Dr Structure Cover, Adj, Case 2	Ea	2
4030010	Dr Structure Cover, Type B	Ea	4
4030040	Dr Structure Cover, Type G	Ea	5
4030200	Dr Structure, 24 inch dia	Ea	3
4030210	Dr Structure, 48 inch dia	Ea	4
4030390	Dr Structure, Temp Lowering	Ea	17
4030750	Sanitary Structure Cover	Ea	16
4037001	Sanitary Structure, Adj, Add Depth	Ft	4
4037010	Sanitary Structure Chimney Seal, External	Sft	260
4037050	Sanitary Structure Cover, Adj, Case 1	Ea	13
4037050	Sanitary Structure Cover, Adj, Case 2	Ea	7
5010002	Cold Milling HMA Surface	Syd	1580
5010008	Pav For Butt Joints, Rem	Syd	1600
5010033	HMA, 13A	Ton	1810
5010034	HMA, 36A	Ton	1090
5010061	HMA Approach	Ton	90
8010005	Driveway, Nonreinf Conc, 6 inch	Syd	5700
8020038	Curb and Gutter, Conc, Det F4	Ft	430
8030010	Detectable Warning Surface	Ft	90
8030030	Curb Ramp Opening, Conc	Ft	50
8030044	Sidewalk, Conc, 4 inch	Sft	750
8032001	Curb Ramp, Conc, 4 inch	Sft	580
8070095	Post, Mailbox	Ea	76
8127051	Traffic Control	Lsum	1
8167011	Slope Restoration, Modified	Syd	6375
8230391	Gate Box, Adj, Temp, Case 1	Ea	5
8230431	Gate Box, Adj, Case 1	Ea	5

LEGEND

- ⊗ CATCH BASIN
- ⊕ STORM MANHOLE
- ⊕ SANITARY MANHOLE
- ⊕ WATER VALVE
- ⊕ FIRE HYDRANT
- ⊕ GAS VALVE
- PROPERTY CORNER
- ⊕ MAILBOX
- ⊕ TREE
- ⊕ UTILITY POLE
- ⊕ LIGHT POLE
- ⊕ SIGN
- ⊕ TREE LINE
- PR. CULVERT
- GAS EX. GAS LINE
- Storm Storm EX. STORM SEWER
- EX. CULVERT
- SAN SAN EX. SANITARY SEWER
- w w EX. WATER MAIN
- ROW
- EX. FENCE LINE
- PROPOSED ASPHALT
- PROPOSED STONE SHOULDER
- SLOPE RESTORATION LIMIT
- > > > PROPOSED DITCH LINE

DESCRIPTION: REUSED PER. TRIP AND ICRC COMMENTS

NO. REV. 1

DATE: 6-29-2022

BY: JASML

2103 ASSOCIATION DR #200 OKEMOS, MI 48864 TEL: 517.316.9232 FAX: 517.316.9233

PROJECT DATE: 03/10/2022

PROJECT NO.: M4150014

DRAWN BY: KHW

CHECKED BY: CAV

TECHNICAL SKILL: CREATIVE SPIRIT.

Mannik Smith GROUP
 www.MannikSmithGroup.com

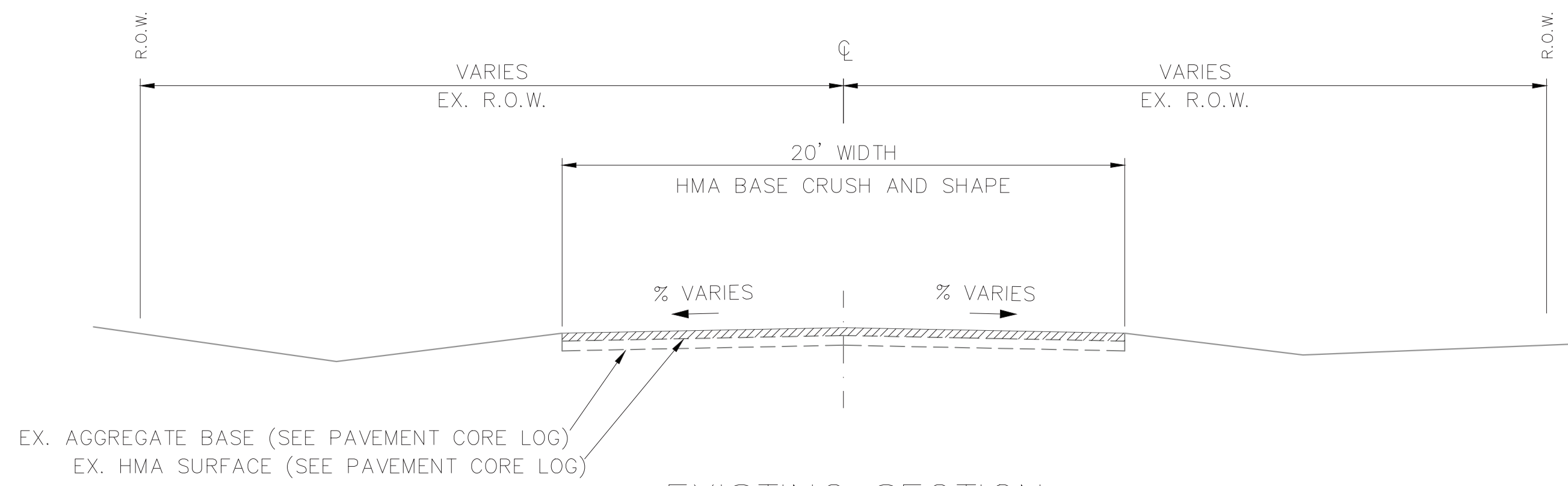
PREPARED FOR: 2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS

MEIRIDAN TOWNSHIP INGHAM COUNTY, MICHIGAN

5151 MARSH ROAD OKEMOS, MI 48864

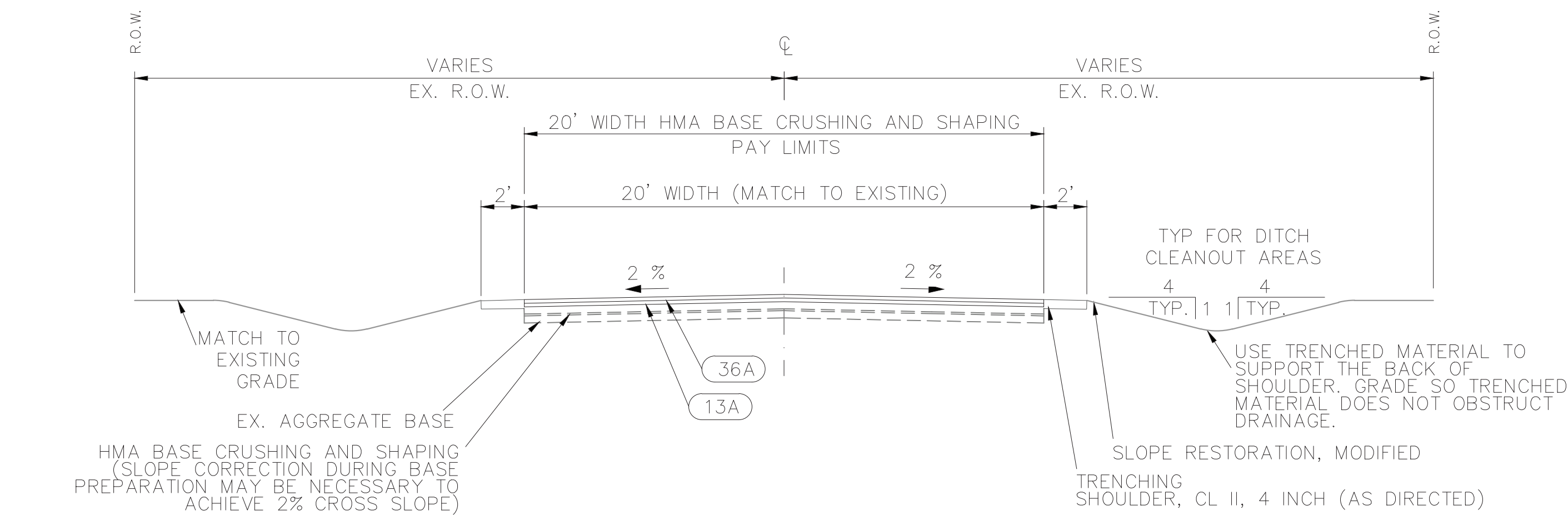
GENERAL NOTES & QUANTITIES

2 16



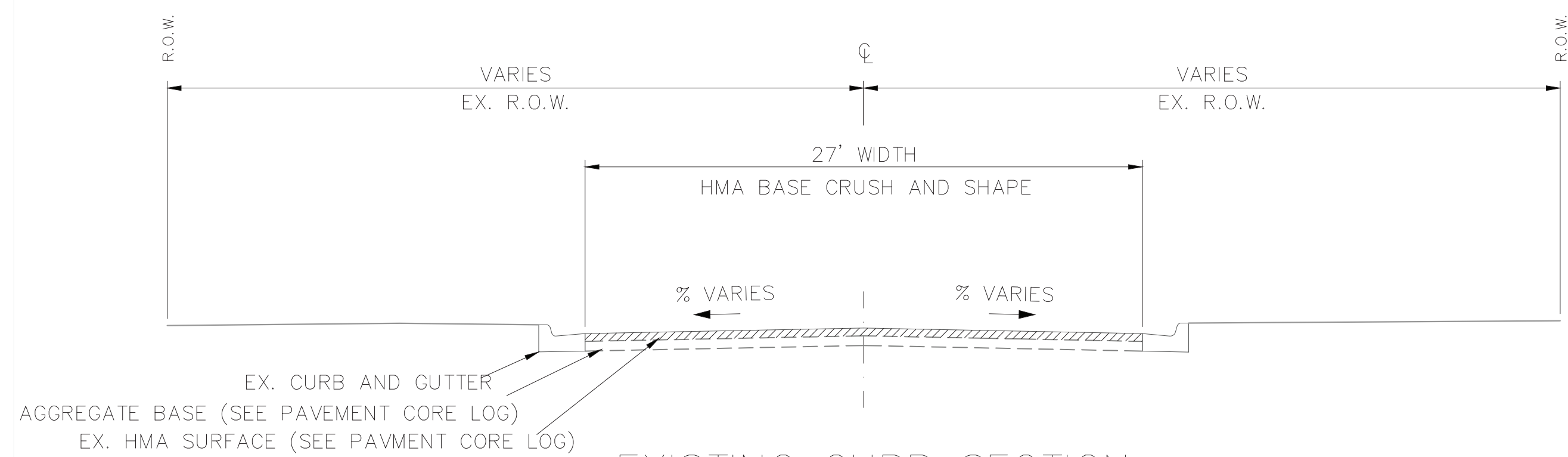
EXISTING SECTION

APPLIES TO STATION:
 STA. 0+52 TO STA. 21+08 (BUCKINGHAM ROAD)
 STA. 80+78 TO STA. 85+00 (HALLENDALE ROAD)
 STA. 85+00 TO STA. 96+20 (BAYSHORE DRIVE)
 STA. 0+42 TO STA. 8+71 (CARLTON STREET)
 STA. 8+62 TO STA. 12+55 (TIMBERLANE STREET)



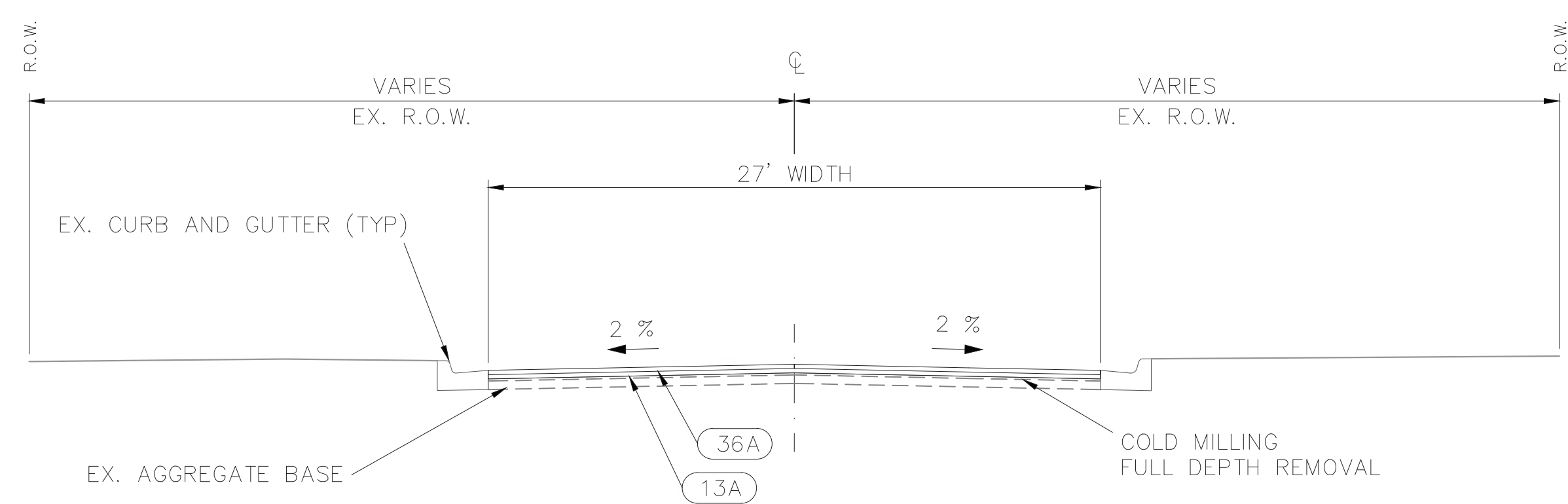
PROPOSED SECTION

APPLIES TO STATION:
 STA. 0+52 TO STA. 21+08 (BUCKINGHAM ROAD)
 STA. 80+78 TO STA. 85+00 (HALLENDALE ROAD)
 STA. 85+00 TO STA. 96+20 (BAYSHORE DRIVE)
 STA. 8+62 TO STA. 12+55 (TIMBERLANE STREET)



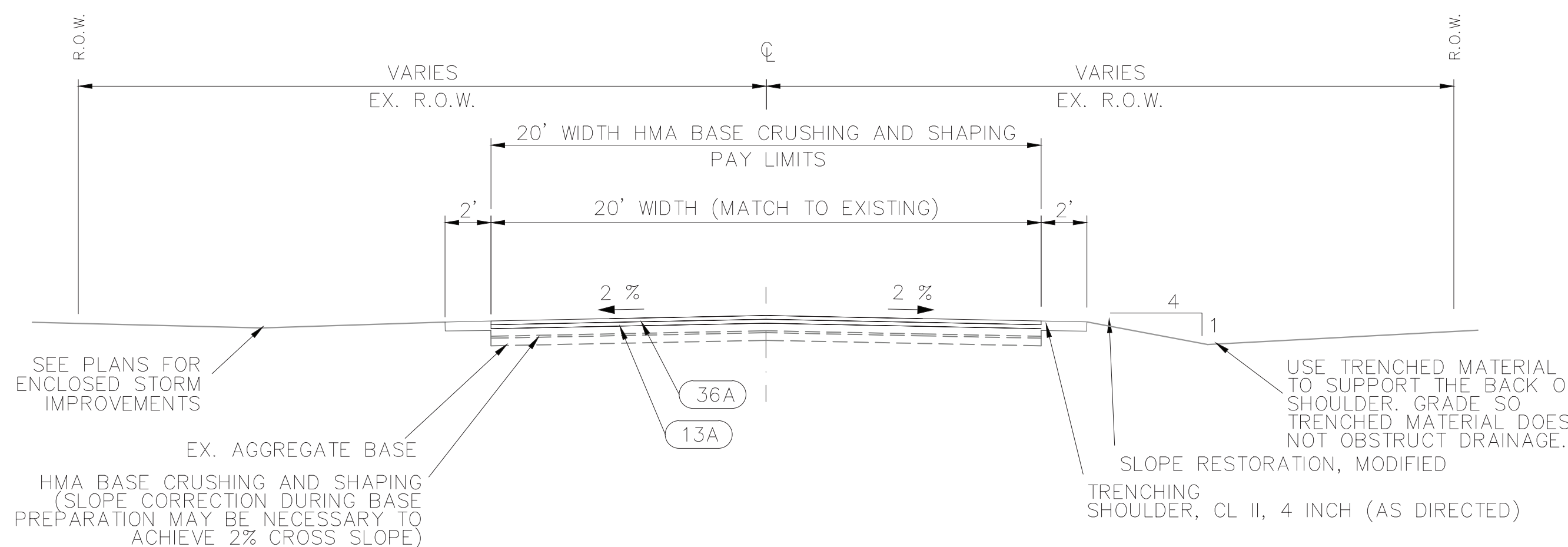
EXISTING CURB SECTION

APPLIES TO STATION:
 STA. 6+70 TO STA. 8+62 (TIMBERLANE STREET)



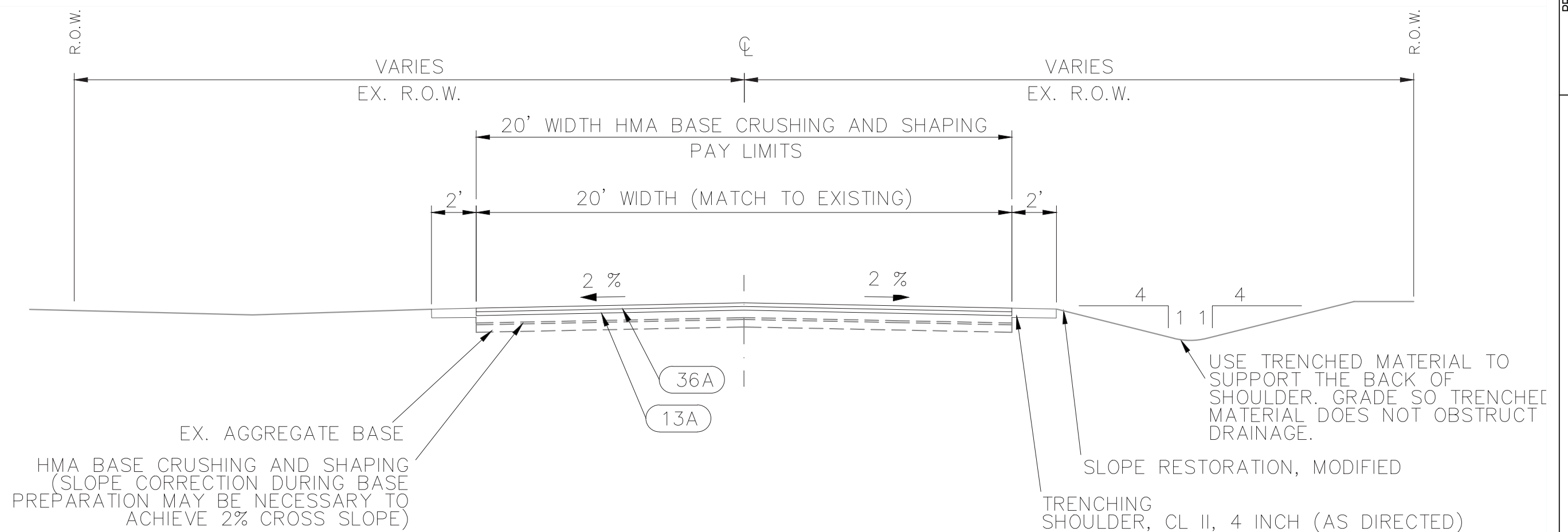
PROPOSED CURB SECTION

APPLIES TO STATION:
 STA. 6+70 TO STA. 8+62 (TIMBERLANE STREET)



PROPOSED SECTION

APPLIES TO STATION:
 STA. 0+42 TO STA. 5+25 (CARLTON STREET)



PROPOSED SECTION

APPLIES TO STATION:
 STA. 5+25 TO STA. 8+71 (CARLTON STREET)

HMA APPLICATION ESTIMATE

IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
36A	HMA, 36A	165	PG 58-28	TOP COURSE (AWI=260 MIN., TARGET AIR VOIDS 3.0%)
13A	HMA, 13A	275	PG 58-28	LEVELING COURSE
	BOND COAT	0.05-0.15 GAL		SS-AH (FOR INFORMATION ONLY)

*FOR INFORMATION ONLY

NO.	DATE	BY	DESCRIPTION
2103	6-29-2022	ASML	REUSED PER. TYP. AND ICRD COMMENTS
REV. 1			

2103 ASSOCIATION DR. #2000
 OKEMOS, MI 48864
 TEL: 517.316.9232
 FAX: 517.316.9233

PROJECT NO.: M450012
 DRAWN BY: KHW
 CHECKED BY: CAC

Mannik Smith GROUP
 www.MannikSmithGroup.com

PREPARED FOR:

MERIDIAN TOWNSHIP
 EST. 1848

5151 MARSH ROAD
 OKEMOS, MI 48864

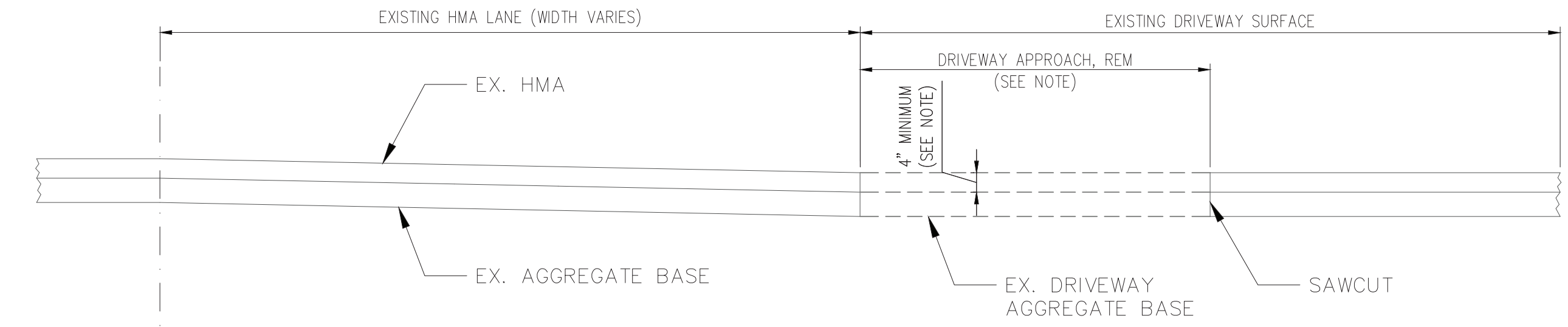
2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN

BUCKINGHAM ROAD APPROACH TABLE						
Station	Address	Side	Material	Width At EOP (FT)	Width at Point of Restoration (FT)	Distance From CL to Match Point (FT)
20+54	1260 Buckingham Road	LT	HMA	28.5	16.7	24
20+03	1261 Buckingham Road	RT	HMA	25.9	21.8	20
19+59	1266 Buckingham Road	LT	HMA	18.3	11.6	21.9
19+51	1271 Buckingham Road	RT	Conc	18.3	15.8	20
19+00	5566 Coral Way	LT	HMA	29.4	18.9	21.8
18+57	1279 Buckingham Road	RT	Conc	26.8	21.0	29.6
17+60	1287 Buckingham Road	RT	HMA	14.0	10.3	20
16+86	1301 Buckingham Road	RT	AGG	17.9	10.1	20
15+88	1307 Buckingham Road	RT	Conc	17.7	16.1	24.9
15+95	1308 Buckingham Road	LT	Conc	20.0	16.2	20
15+55	1313 Buckingham Road	RT	HMA	17.2	12.2	20
14+86	1317 Buckingham Road	RT	Conc	22.6	20.2	19.9
13+66	1316 Buckingham Road	LT	HMA	37.5	34.1	20.1
12+91	5582 Buckingham Road	LT	HMA	37.0	31.4	20.3
11+90	5583 Buckingham Road	RT	Conc	25.1	21.9	22.3
11+44	5591 Buckingham Road	RT	AGG	15.0	10.6	21.3
11+28	5590 Buckingham Road	LT	AGG	21.8	11.8	19.4
10+71	5597 Buckingham Road	RT	HMA	19.7	9.9	20.2
10+43	5598 Buckingham Road	LT	AGG	17.0	10.1	20
10+02	5603 Buckingham Road	RT	HMA	22.5	16.4	19.9
9+56	5606 Buckingham Road	LT	HMA	21.2	10.2	20.2
9+28	5611 Buckingham Road	RT	AGG	17.7	10.2	19.8
8+66	5612 Buckingham Road	LT	Conc	23.3	17.9	20.2
8+41	5619 Buckingham Road	RT	AGG	18.7	12.3	20.1
8+14	5622 Buckingham Road	LT	Conc	24.9	21.4	19.8
7+66	5627 Buckingham Road	RT	HMA	20.1	11.8	19.9
6+64	5635 Buckingham Road	RT	HMA	18.4	10.8	19.8
5+42	5643 Buckingham Road	RT	Conc	20.4	15.7	19.7
5+10	5648 Buckingham Road	LT	HMA	23.5	16.6	20.3
87+22	5671 Buckingham Road	LT	HMA	23.8	17.1	23.2
2+57	5670 Buckingham Road	LT	HMA	21.1	13.8	20
1+42	5683 Buckingham Road	RT	Conc	29.9	23.7	20
1+42	5684 Buckingham Road	LT	Conc	19.1	15.9	20

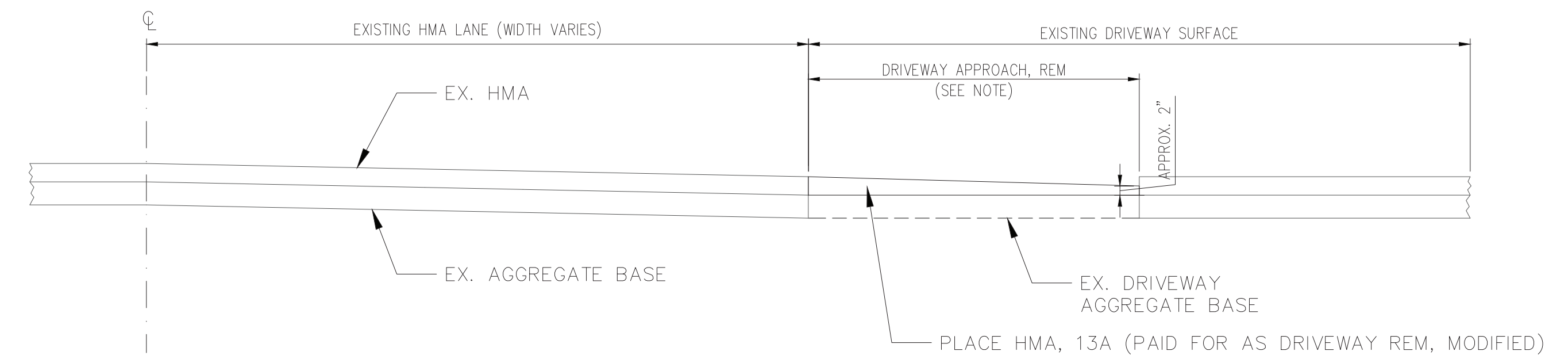
HALLENDALE ROAD APPROACH TABLE						
Station	Address	Side	Material	Width At EOP (FT)	Width at Point of Restoration (FT)	Distance From CL to Match Point (FT)
81+66	5626 Hallendale Road	RT	Conc	19.4	14.5	22.2
81+75	5629 Hallendale Road	LT	HMA	31.5	23.0	26
82+48	5636 Hallendale Road	RT	Conc	17.2	10.3	21.1
82+52	5637 Hallendale Road	LT	HMA	21.4	14.4	20.4
83+26	5647 Hallendale Road	LT	Conc	13.0	9.9	20
83+34	5642 Hallendale Road	RT	HMA	25.5	17.1	25.8
83+98	5655 Hallendale Road	LT	HMA	20.6	10.3	24.1

CARLTON STREET APPROACH TABLE						
Station	Address	Side	Material	Width At EOP (FT)	Width At Point of Restoration (FT)	Distance From CL to Match Point (FT)
1+57	1380 Haslett Road	LT	AGG	13.5	10.0	18.4
1+81	5717 Carlton Street	LT	Conc	14.8	10.5	18.1
1+93	1370 Haslett Road	RT	AGG	13.1	10.0	20.5
2+12		RT	AGG	16.6	12.9	18.7
3+04	5729 Carlton Road	LT	HMA	16.2	10.6	20.5
3+19	1340 Haslett Road	RT	HMA	53.1	32.3	19.9
3+90	5737 Carlton Road	LT	AGG	23.1	18.7	20.2
4+54	5740 Carlton Road	RT	Conc	27.2	24.5	20.8
4+67	5743 Carlton Road	LT	AGG	18.7	15.6	25.1
5+76	5746 Carlton Road	RT	Conc	21.3	18.0	23.8
5+84	5757 Carlton Road	LT	AGG	13	10.5	26.6
6+00	5758 Carlton Road	RT	HMA	14	10.2	24.5
7+11	5762 Carlton Road	RT	AGG	14.7	11.8	27.2
7+57	5766 Carlton Road	RT	Conc	18.8	12.7	25.6

BAYSHORE DRIVE APPROACH TABLE						
Station	Address	Side	Material	Width At EOP (FT)	Width at Point of Restoration (FT)	Distance From CL to Match Point (FT)
83+94	1357 Bayshore Drive	RT	Conc	34.1	28.3	23.5
84+84	1364 Bayshore Drive	LT	HMA	39.7	24.4	20.3
85+33	1358 Bayshore Drive	LT	AGG	26.6	20.7	21.9
86+33	1348 Bayshore Drive	LT	AGG	20.2	15.3	24.1
86+66	1347 Bayshore Drive	RT	Conc	23.6	13.0	20.4
4+73	1341 Bayshore Drive	RT	Conc	17.6	14.5	19.6
89+27	1319 Bayshore Drive	RT	Conc	18.5	14.1	20.6
89+63	1314 Bayshore Drive	LT	Conc	17.9	11.6	24.1
89+74	1311 Bayshore Drive	RT	HMA	22.7	14.7	20
90+56	1303 Bayshore Drive	RT	HMA	20.7	13.0	20
90+73	1306 Bayshore Drive	LT	HMA	16.8	8.2	24.1
91+19	1298 Bayshore Drive	LT	AGG	17.7	11.6	19.8
91+70	1295 Bayshore Drive	RT	HMA	17.9	11.1	19.9
92+30	1285 Bayshore Drive	RT	Conc	14.3	9.6	19.9
92+33	1292 Bayshore Drive	LT	Conc	28.1	25.1	20.2
93+21	1284 Bayshore Drive	LT	HMA	18.6	11.0	20
93+21	1277 Bayshore Drive	RT	HMA	21.9	10.9	23.2
93+60	1276 Bayshore Drive	LT	Conc	24.4	12.1	20
93+89	1271 Bayshore Drive	RT	HMA	18.2	12.1	22.7
94+72	1268 Bayshore Drive	LT	HMA	15.6	11.1	26.1
95+19	1262 Bayshore Drive	LT	AGG	17.0	8.2	27.8





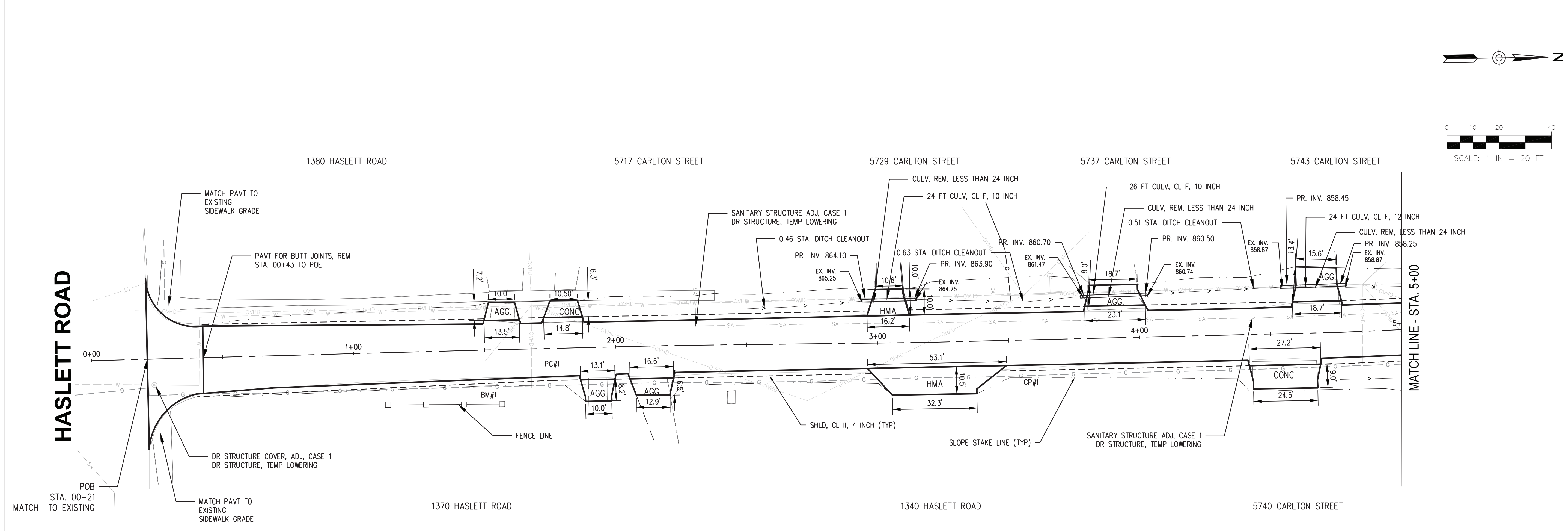
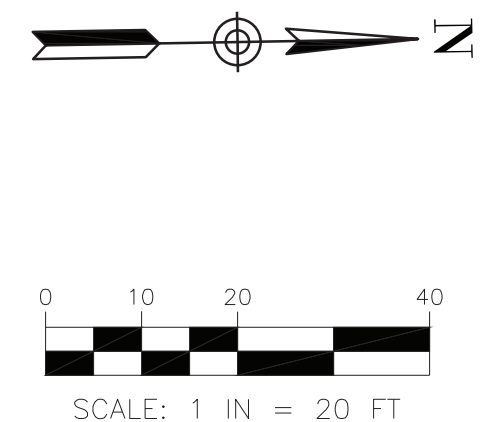
DRIVEWAY APPROACH REM. MODIFIED - EXISTING REMOVAL



DRIVEWAY APPROACH REM, MODIFIED - TEMPORARY BREAKER

NOTE: ALL DRIVEWAYS THAT ARE NOTED FOR RECONSTRUCTION SHALL RECEIVE A 2' HMA TAB EXTENDING FOR THE EDGE OF THE ROAD PAID FOR HMA, 13A AS PART OF THE MAINLINE PAVING. THE DRIVEWAY WILL BE REPLACED IN KIND OR AS NOTED IN THE PLAN BEYOND THE 2'.

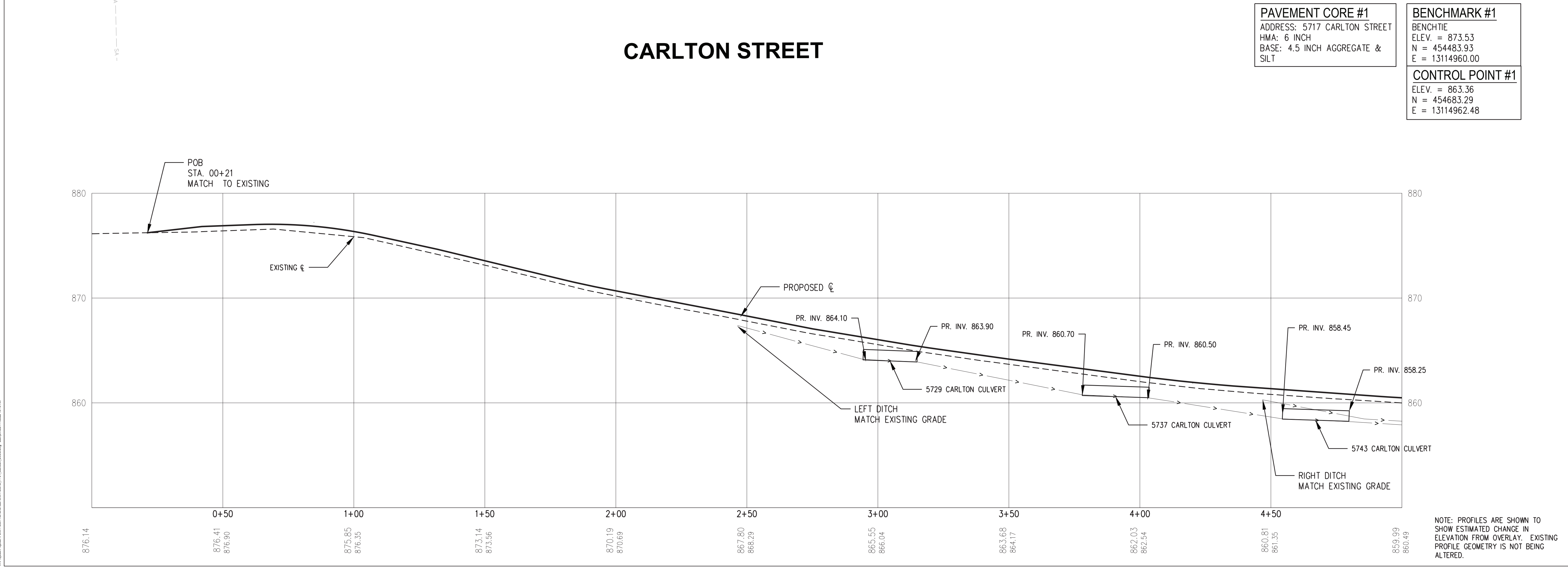
NO.	REV. 1	DATE	6-25-2022	BY	ASML	DESCRIPTION	REUSED PER. TYP. AND ICRD COMMENTS	
	2103		ASSOCIATION DR. #2000		OKEMOS, MI 48864		TEL: 517.316.9232	FAX: 517.316.9233
				<p>2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS</p> <p>DETAIL SHEET</p>				
4		14						



PAVEMENT CORE #1
 ADDRESS: 5717 CARLTON STREET
 HMA: 6 INCH
 BASE: 4.5 INCH AGGREGATE & SILT

BENCHMARK #1
 BENCHTIE
 ELEV. = 873.53
 N = 454483.93
 E = 13114960.00

CONTROL POINT #1
 ELEV. = 863.36
 N = 454683.29
 E = 13114962.48



NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

NO.	DATE	BY	DESCRIPTION
1	6-29-2022		REVISIONS
2			
3			
4			
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11			
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17			
18			
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20			

2103 ASSOCIATION DR. #200
 OKEMOS, MI 48864
 TEL: 517.316.9232
 FAX: 517.316.9233

PROJECT DATE: 4/13/2022
 PROJECT NO.: M4190014
 DRAWN BY: KHW
 CHECKED BY: CAV

Mannik Smith GROUP
 www.MannikSmithGroup.com

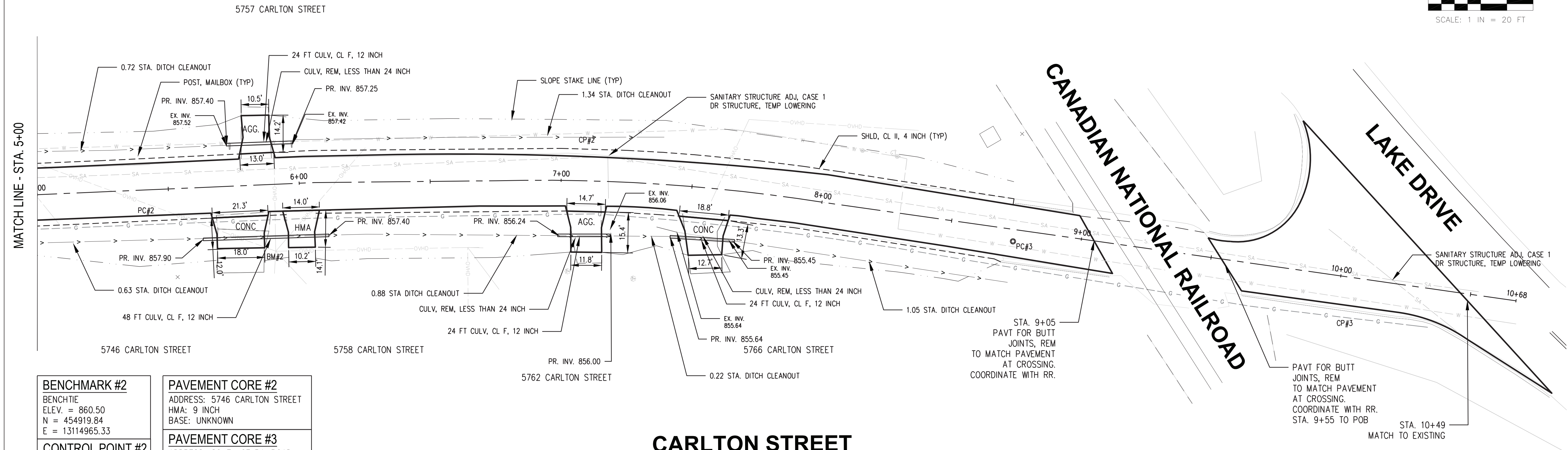
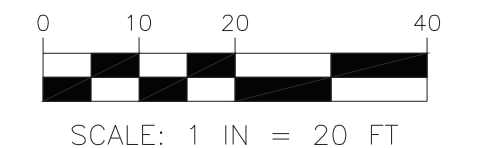
PREPARED FOR:

MERIDIAN TOWNSHIP
 EST. 1848
 5151 MARSH ROAD
 OKEMOS, MI

2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN

CARLTON STREET PLAN & PROFILE STA. 0+00 TO STA. 5+00

5 16

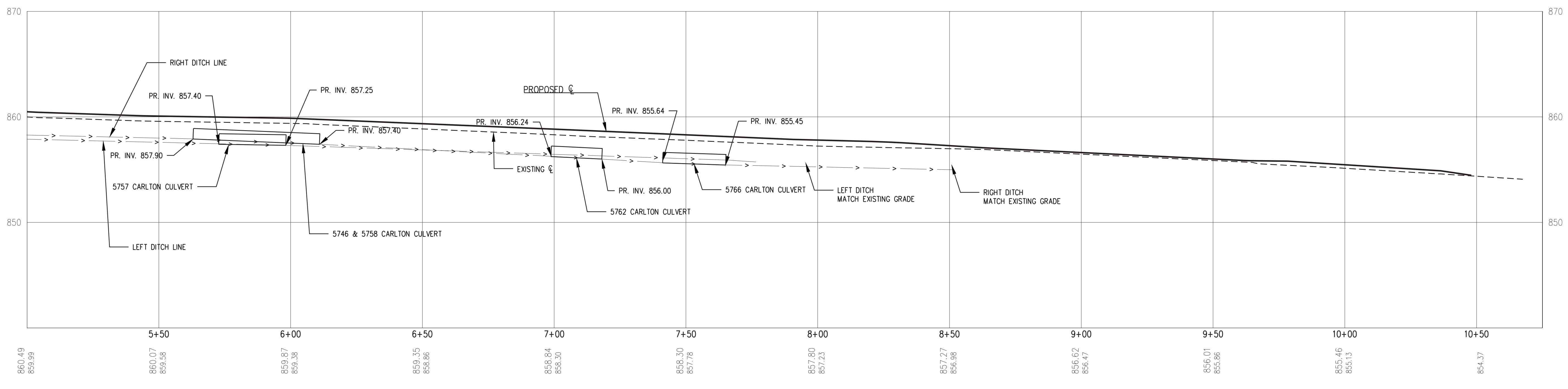


BENCHMARK #2
BENCHTIE
ELEV. = 860.50
N = 454919.84
E = 13114965.33
CONTROL POINT #2
ELEV. = 857.51
N = 455033.71
E = 13114925.90
CONTROL POINT #3
ELEV. = 854.81
N = 455324.29
E = 13114998.10

PAVEMENT CORE #2
ADDRESS: 5746 CARLTON STREET
HMA: 9 INCH
BASE: UNKNOWN
PAVEMENT CORE #3
ADDRESS: SOUTH OF RAILROAD
HMA: 5 INCH
BASE: 3 INCH AGGREGATE & SAND

CARLTON STREET

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.



NO.	DATE	BY	DESCRIPTION
REV. 1	6-29-2022	ASML	REVISED PER TYP AND ICRD COMMENTS

2103 ASSOCIATION DR. #200
OKEMOS, MI 48864
TEL: 517.316.9232
FAX: 517.316.9233

PROJECT NO.: 11230200
M419014
DRAWN BY: KHW
CHECKED BY: CAV

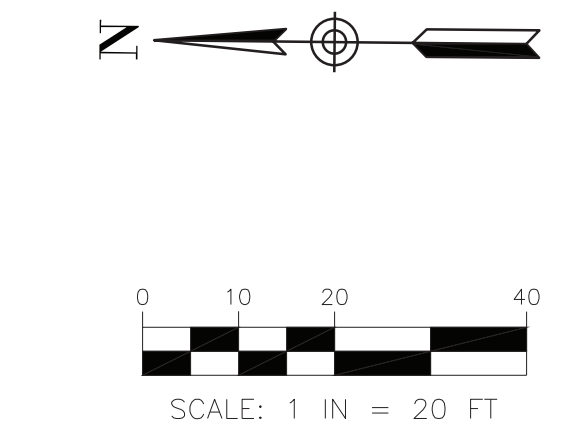
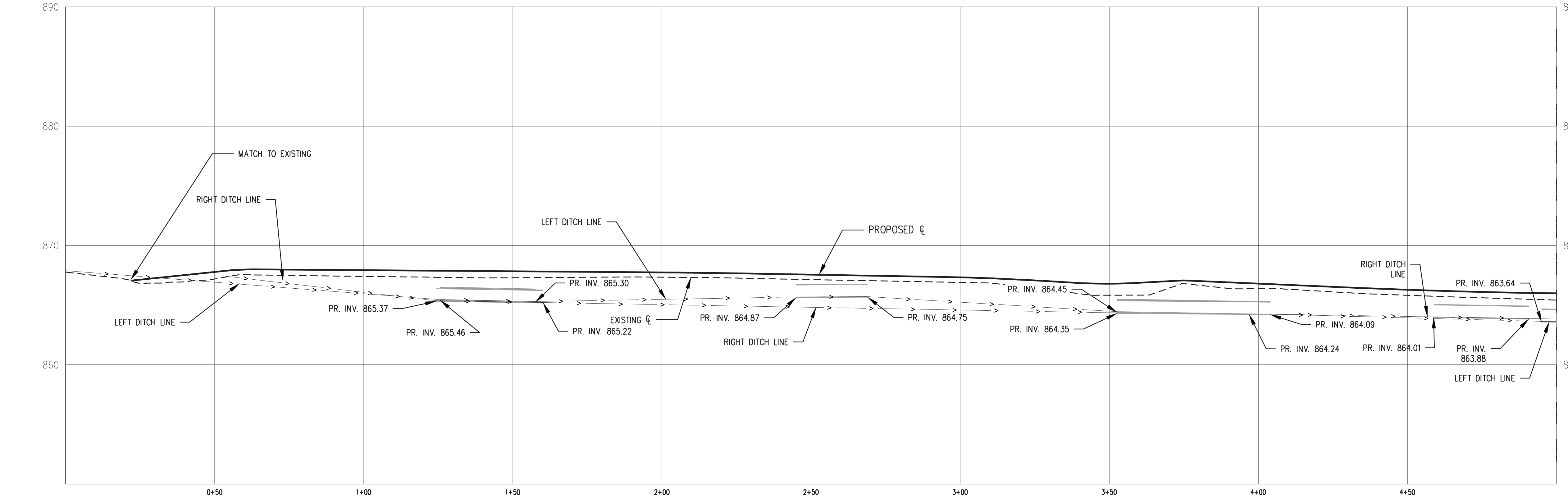
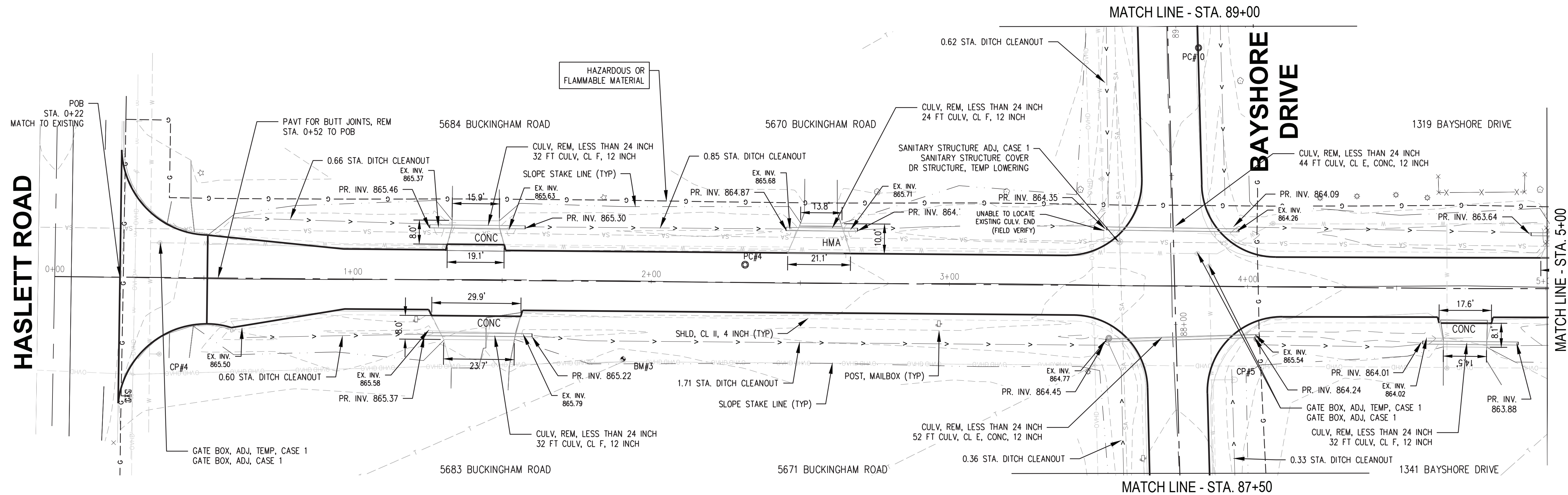
Mannik Smith Group
www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD
OKEMOS, MI

2022 CHARTER TOWNSHIP
OF MERIDIAN
ROADWAY IMPROVEMENTS
MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN

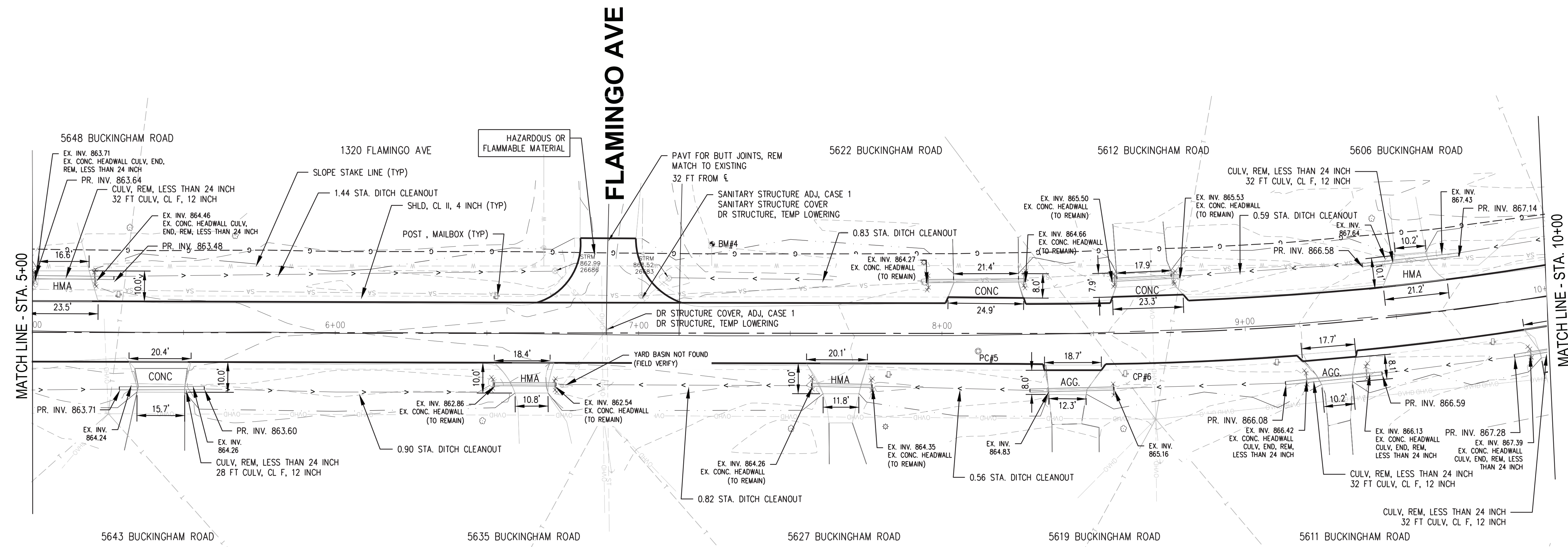
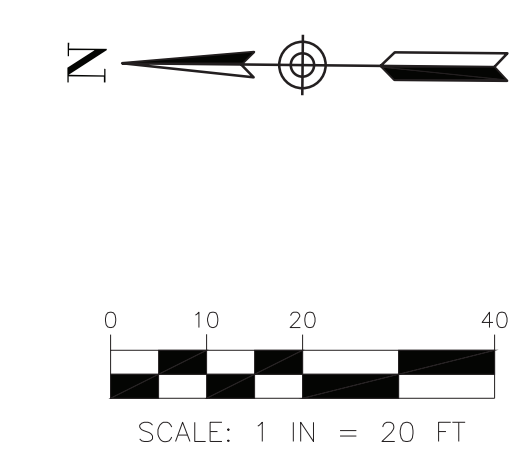
CARLTON STREET
PLAN & PROFILE
STA. 5+00 TO STA. 10+49



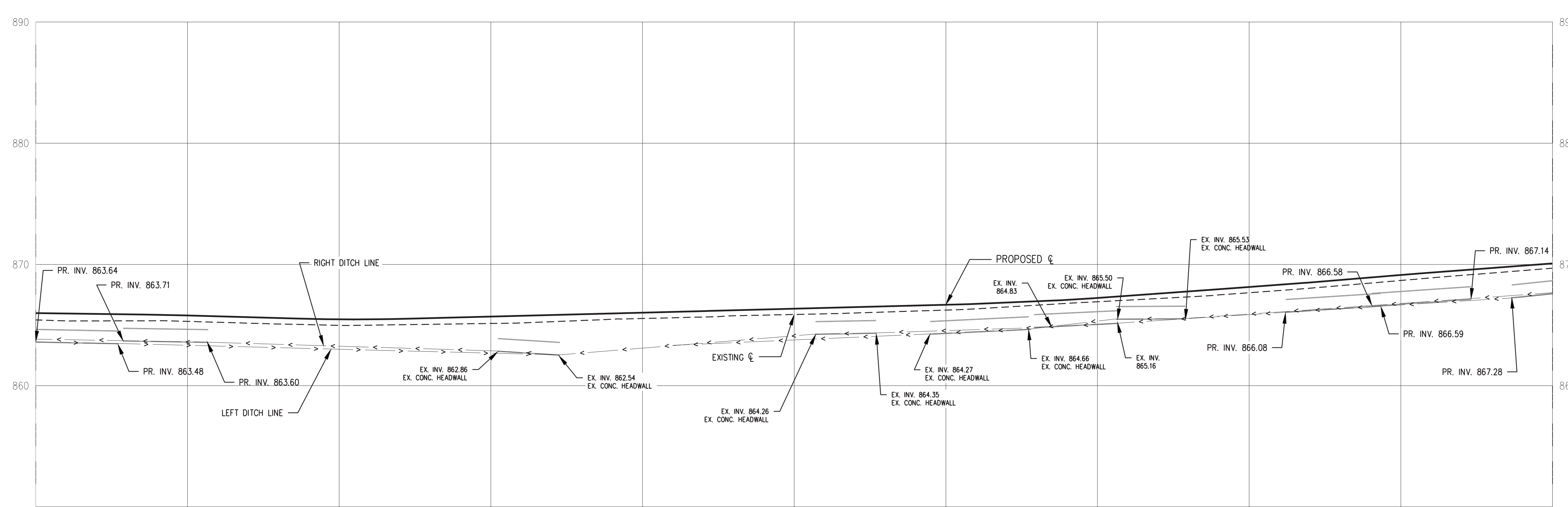
BENCHMARK #3 BENCHTIE ELEV. = 867.87 N = 454135.07 E = 13115414.02
CONTROL POINT #4 ELEV. = 867.59 N = 454291.68 E = 13115410.84
CONTROL POINT #5 ELEV. = 866.07 N = 453933.77 E = 13115411.97
PAVEMENT CORE #4 ADDRESS: 5670 BUCKINGHAM ROAD HMA: 2.5 INCH BASE: UNKNOWN
PAVEMENT CORE #10 ADDRESS: 1358 BAYSHORE DRIVE HMA: 4 INCH BASE: UNKNOWN

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

NO.	REV.	DATE	BY	DESCRIPTION
1	1	6-29-2022	ASAL	REVISED PER TYP AND ICD COMMENTS
2193 ASSOCIATION DR. #200 OKEMOS, MI 48864 TEL: 517.316.9232 FAX: 517.316.9233				
PROJECT DATE: 11/23/2020 PROJECT NO.: M4150014 DRAWN BY: KHW CHECKED BY: CAV				
 TECHNICAL SKILL. CREATIVE SPIRIT.				
 EST. 1848 MERIDIAN TOWNSHIP 5151 MARSH ROAD OKEMOS, MI 48864				
2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN				
BUCKINGHAM ROAD PLAN & PROFILE STA. 0+00 TO STA. 5+00				
7				
				16



BUCKINGHAM ROAD



NOTE:
STORM MANHOLE, CATCH BASINS, AND STORM SEWER CONNECTIONS LOCATED AT THE INTERSECTION OF FLAMINGO AVENUE WERE DRAWN FROM RECORD PLANS. THE CONTRACTOR SHALL LOCATE EXISTING STRUCTURES PRIOR TO THE START OF CONSTRUCTION TO DETERMINE THE CONDITION OF EXISTING INFRASTRUCTURE AND REPLACE IF NECESSARY.

BENCHMARK #4
SW BOLT HYDRANT FLANGE
ELEV. = 867.72
N = 453601.61
E = 13115472.33

CONTROL POINT #6
ELEV. = 866.09
N = 453461.45
E = 13115428.66

PAVEMENT CORE #5
ADDRESS: 5746 CARLTON STREET
HMA: 6.25 INCH
BASE: 9 INCH CLAY

NO.	DATE	BY	DESCRIPTION
1	6-29-2022	ASML	REVISED PER TYP AND ICR COMMENTS
2			
3			
4			
5			
6			
7			
8			
9			
10			

2193 ASSOCIATION DR #200
OKEMOS, MI 48864
TEL: 517.316.9232
FAX: 517.316.9233

PROJECT DATE: 11/23/2020
PROJECT NO.: M4150014
DRAWN BY: KHW
CHECKED BY: CAV

Mannik Smith Group
www.MannikSmithGroup.com

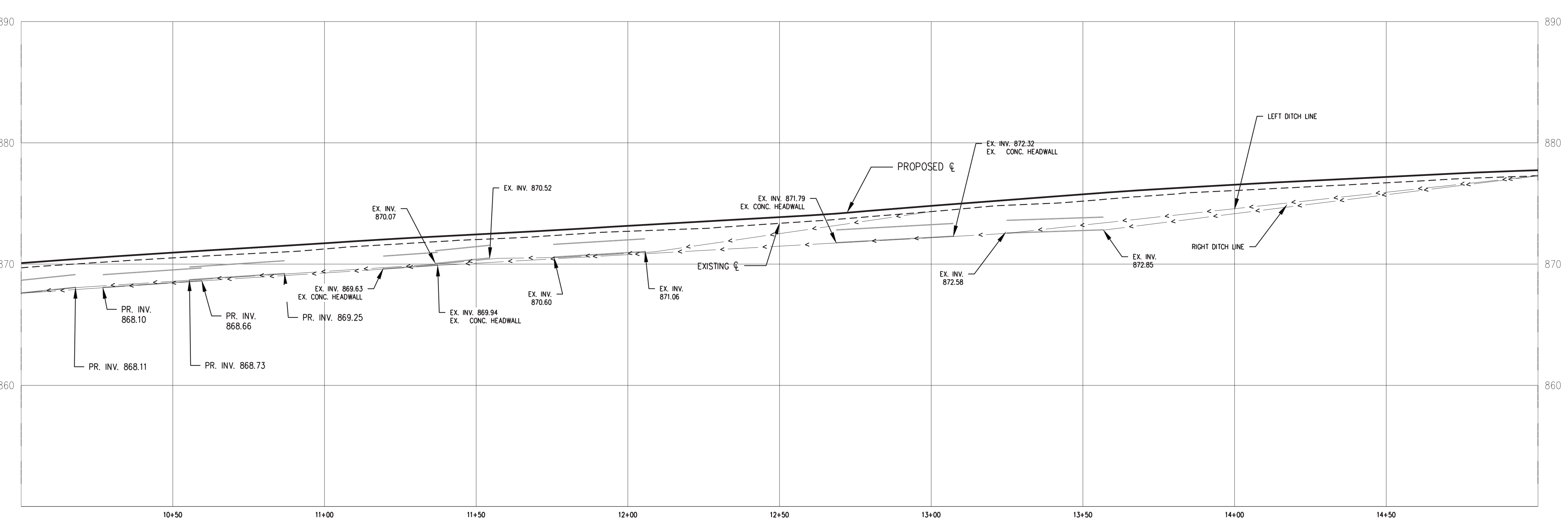
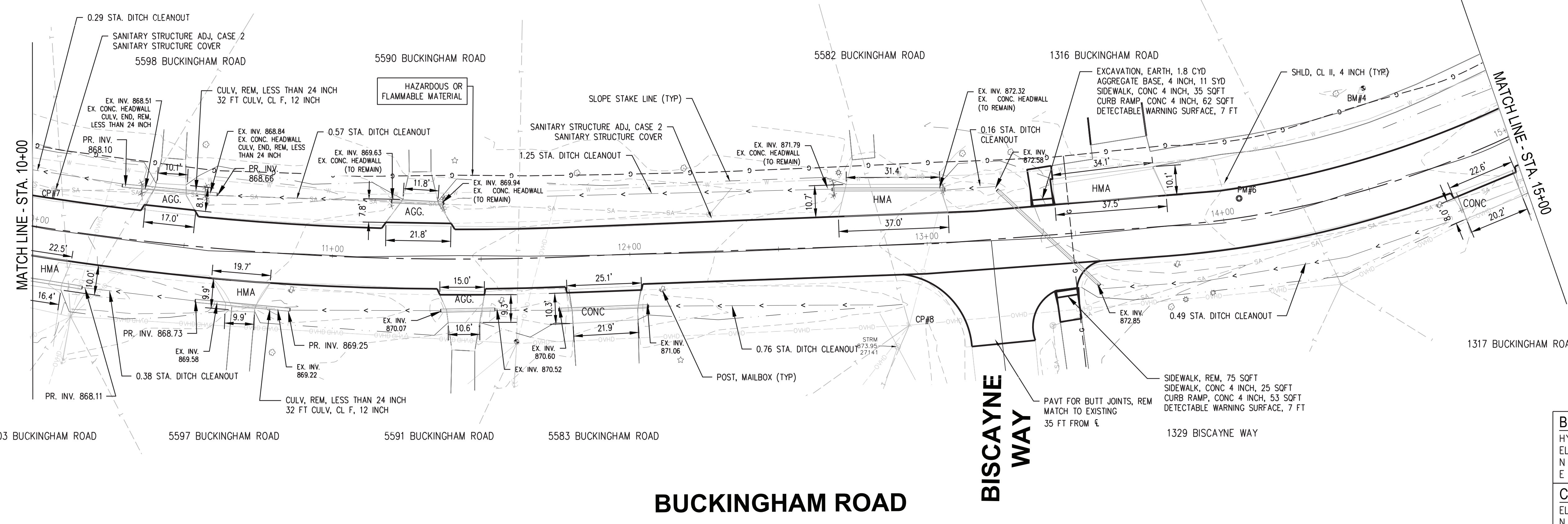
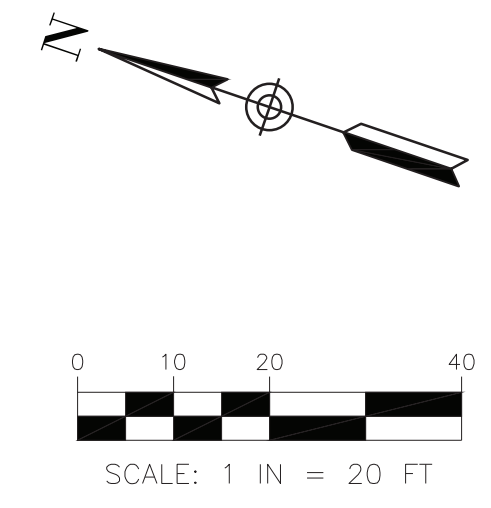
PREPARED FOR:

5151 MARSH ROAD
OKEMOS, MI

2022 CHARTER TOWNSHIP
OF MERIDIAN
ROADWAY IMPROVEMENTS
MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN

BUCKINGHAM ROAD
PLAN & PROFILE
STA. 5+00 TO STA. 10+00

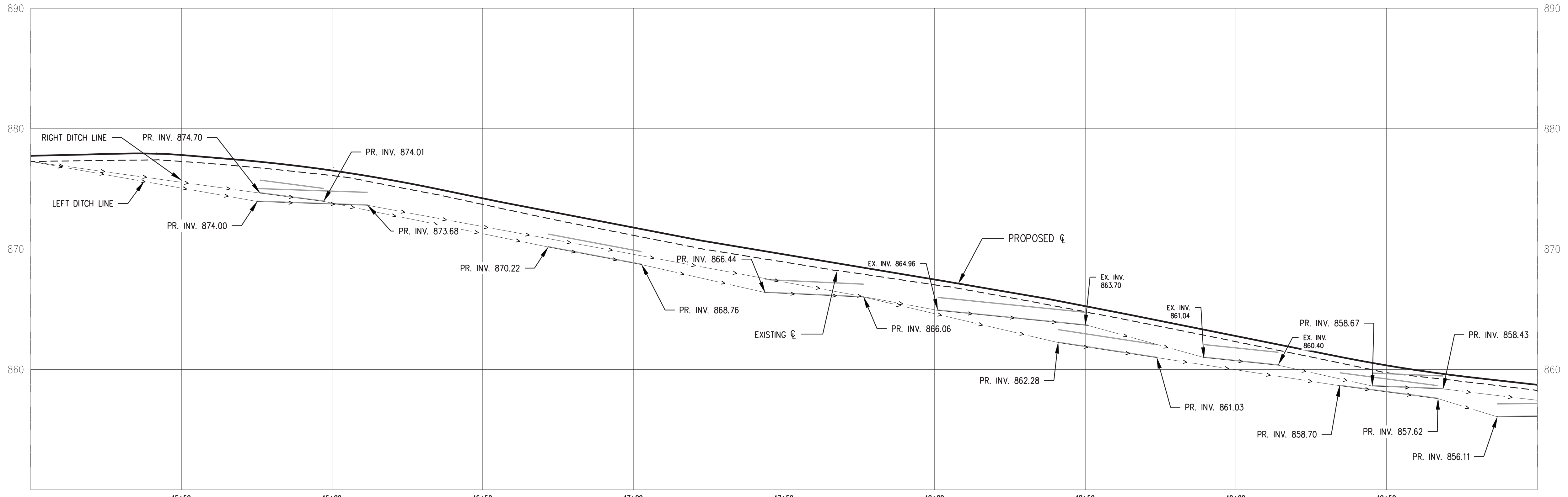
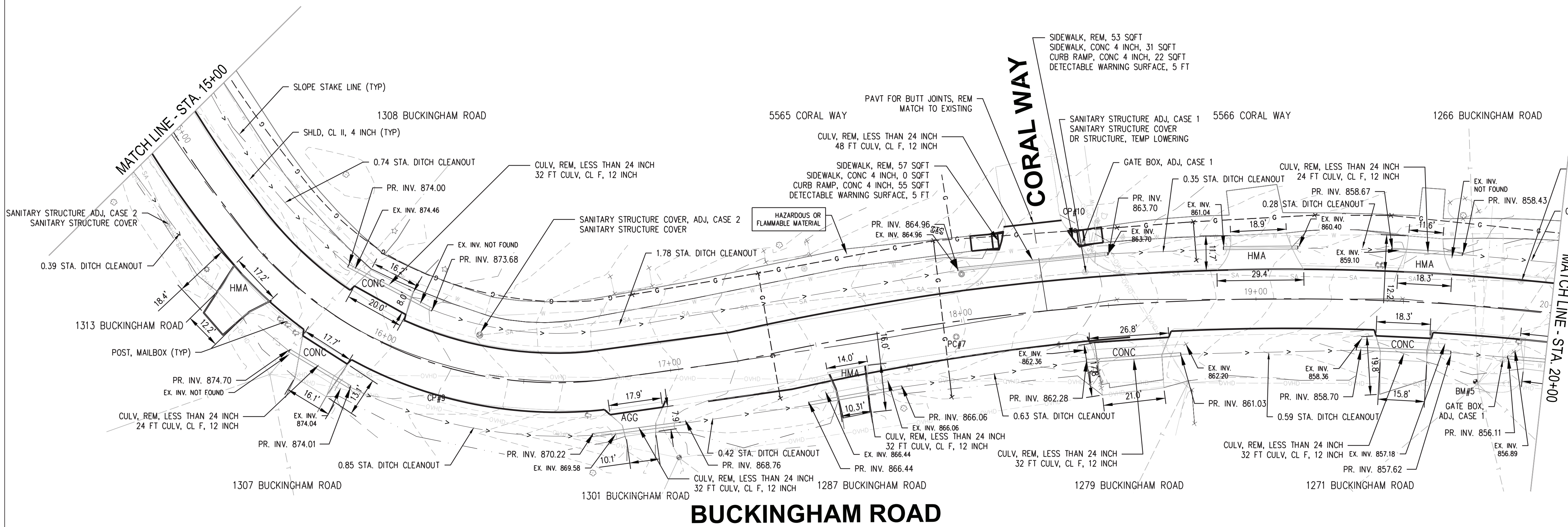
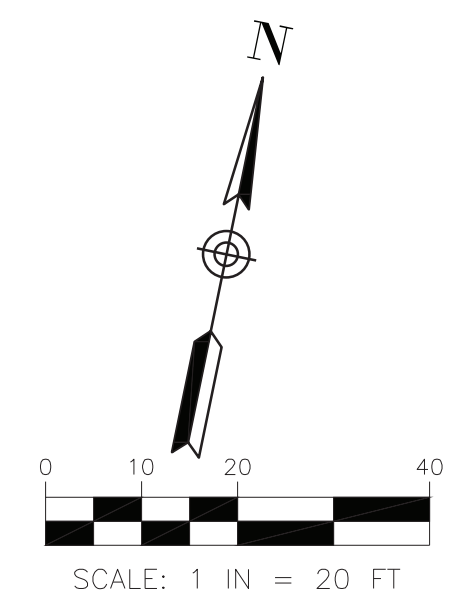
NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.



BENCHMARK #4
HYD. FLANGE BOLT ELEV. = 877.80 N = 452919.70 E = 13115645.87
CONTROL POINT #7
ELEV. = 868.80 N = 453325.01 E = 13115471.78
CONTROL POINT #8
ELEV. = 873.38 N = 453038.24 E = 13115524.19
PAVEMENT CORE #6
ADDRESS: 1316 BUCKINGHAM ROAD HMA: 3 INCH BASE: UNKNOWN

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

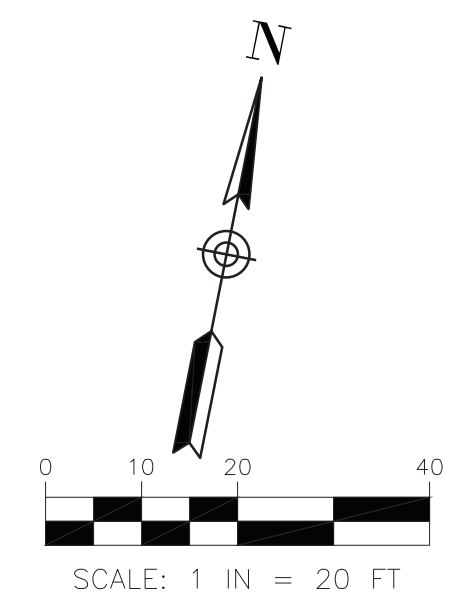
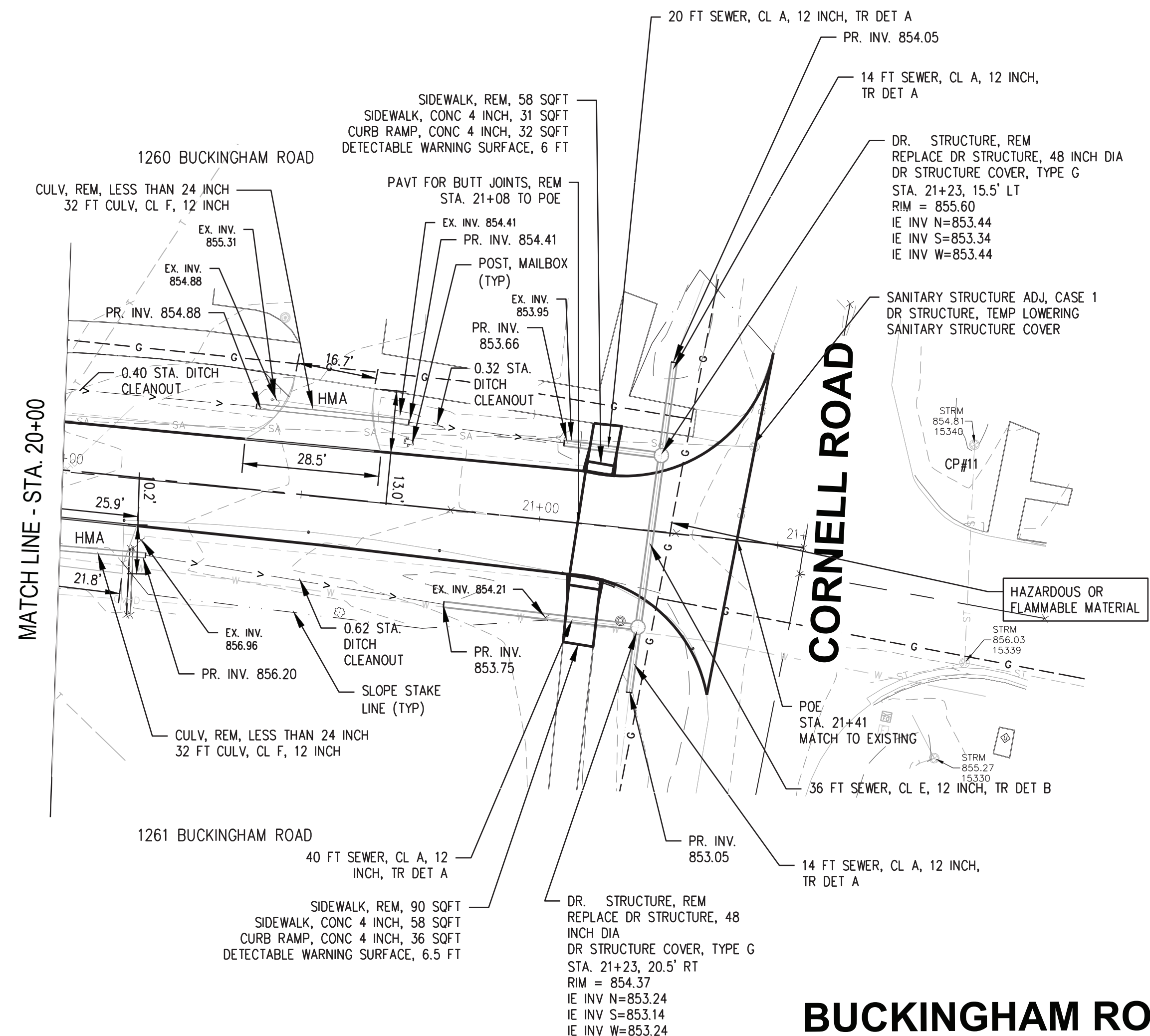
NO.	REV. 1	DATE	6-29-2022	BY	ASML	DESCRIPTION	REVISED PER TYP AND ICRD COMMENTS
2193 ASSOCIATION DR. #200 OKEMOS, MI 48864 TEL: 517.316.9232 FAX: 517.316.9233							
PROJECT NO.: 1123020 PROJECT NAME: M4150014 DRAWN BY: KHW CHECKED BY: CAV							
2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN							
BUCKINGHAM ROAD PLAN & PROFILE STA. 10+00 TO STA. 15+00							
9							16



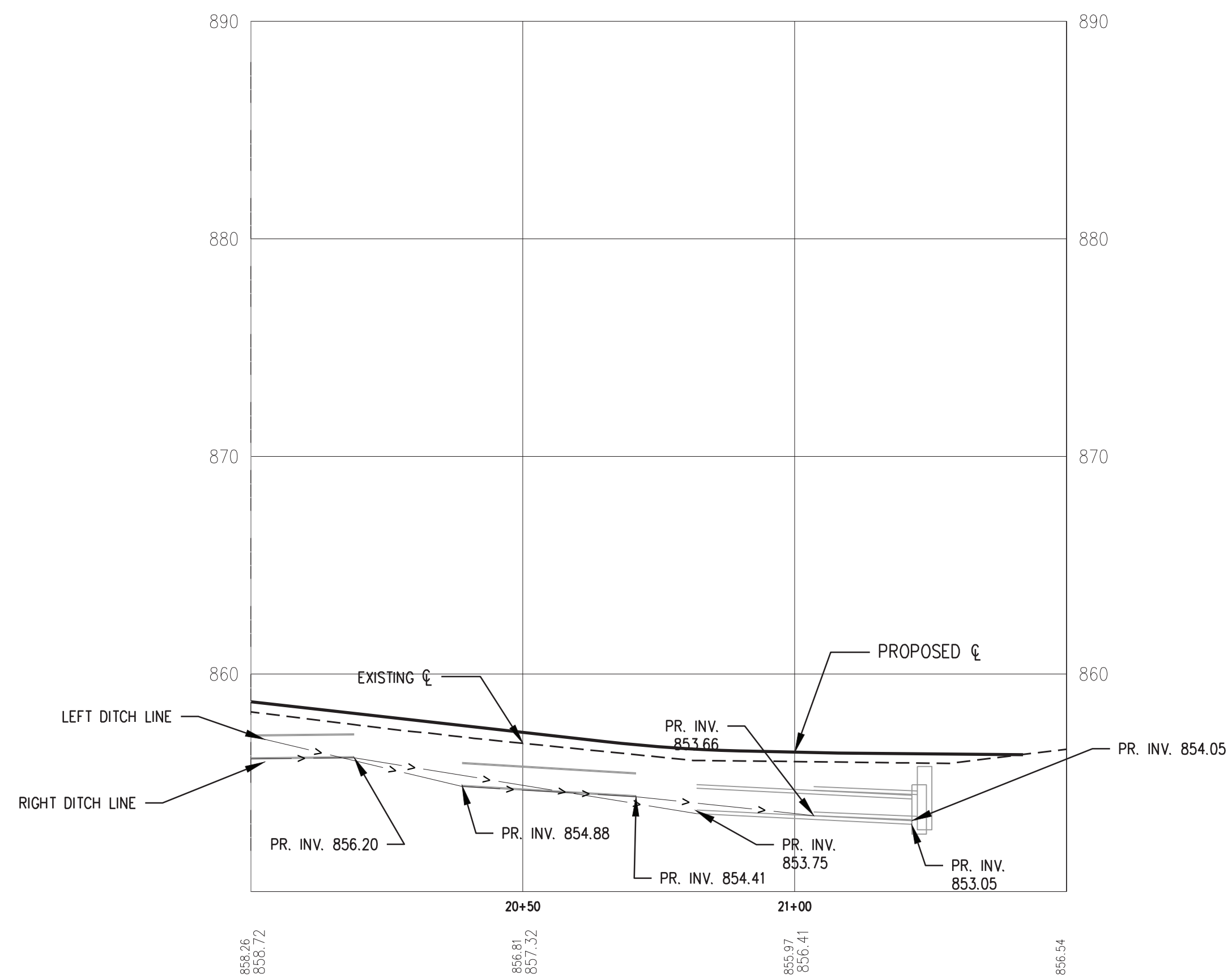
BENCHMARK #5
BENCHTIE
ELEV. = 860.31
N = 452872.39
E = 131146093.90
CONTROL POINT #9
ELEV. = 874.52
N = 452794.91
E = 13115749.16
CONTROL POINT #10
ELEV. = 865.64
N = 452899.78
E = 13115952.92
PAVEMENT CORE #7
ADDRESS: 1279 BUCKINGHAM DRIVE
HMA: 2 INCH
BASE: 8 INCH SAND & AGGREGATE

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

NO.	REV.	DATE	BY	DESCRIPTION
1	1	6-29-2022	ASHUL	REVISED PER TYP AND ICRD COMMENTS
2103 ASSOCIATION DR. #200 OKEMOS, MI 48864 TEL: 517.316.9232 FAX: 517.316.9233				
PROJECT NO.: 11232020 DRAWN BY: KHW CHECKED BY: CAV				
2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN				
BUCKINGHAM ROAD PLAN & PROFILE STA. 15+00 TO STA. 20+00				
10				16



CONTROL POINT #11
ELEV. = 857.00
N = 452930.19
E = 13116297.44



NO.	DATE	BY	DESCRIPTION
REV. 1	6-29-2022	ASML	REVISED PER TYP AND ICD COMMENTS

2103 ASSOCIATION DR #200 OKEMOS, MI 48864 TEL: 517.316.9232 FAX: 517.316.9233	PROJECT NO.: M419014	DRAWN BY: KHW	CHECKED BY: CAV
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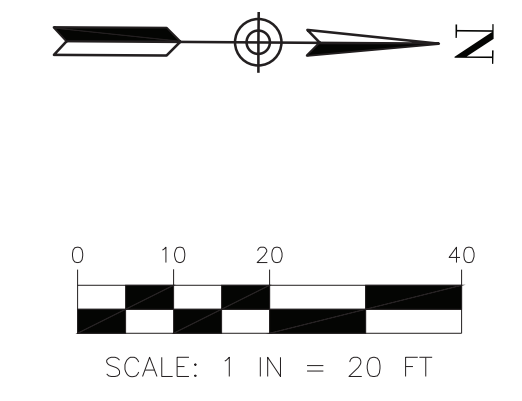
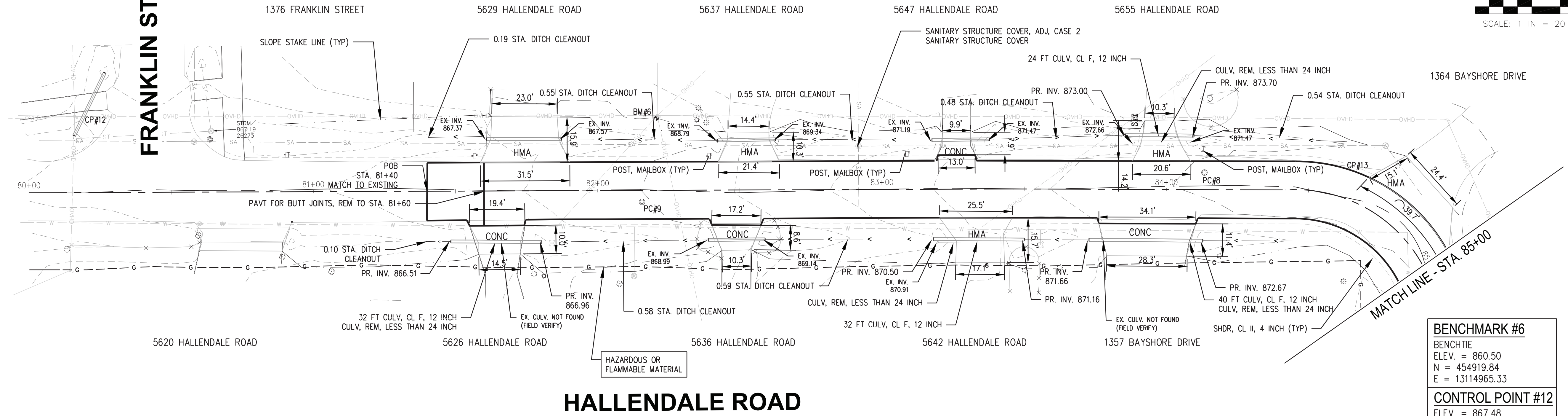


2022 CHARTER TOWNSHIP
OF MERIDIAN
ROADWAY IMPROVEMENTS
MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN

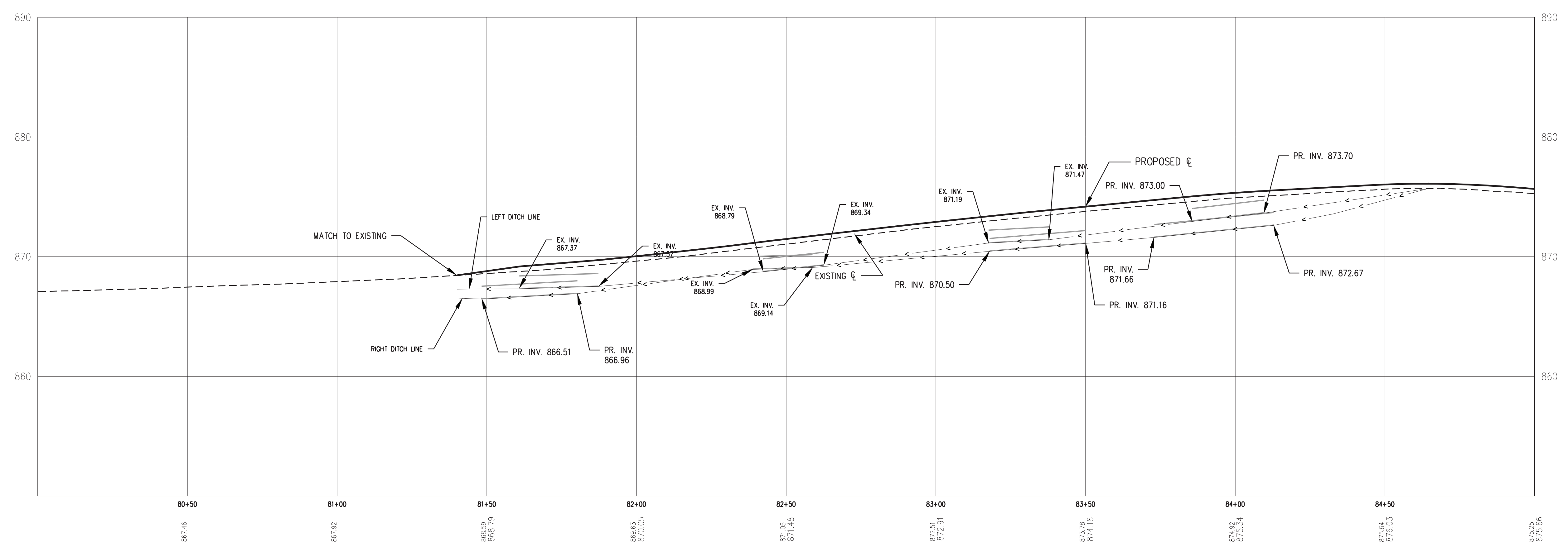
BUCKINGHAM ROAD
PLAN & PROFILE
STA. 20+00 TO STA. 21+41

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

FRANKLIN STREET



HALLENDALE ROAD



BENCHMARK #6
 BENCHTIE
 ELEV. = 860.50
 N = 454919.84
 E = 13114965.33

CONTROL POINT #12
 ELEV. = 867.48
 N = 453462.90
 E = 13115082.87

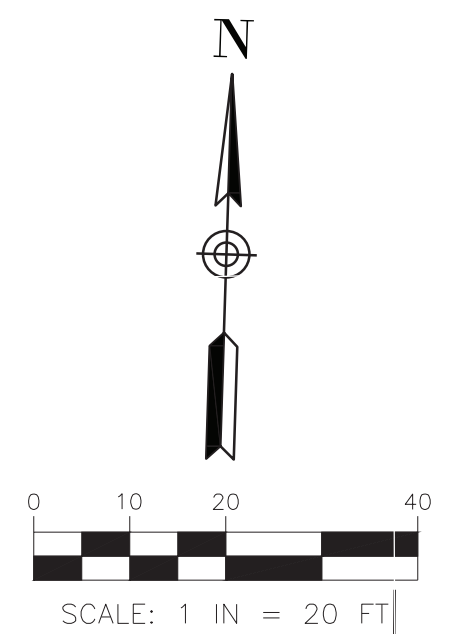
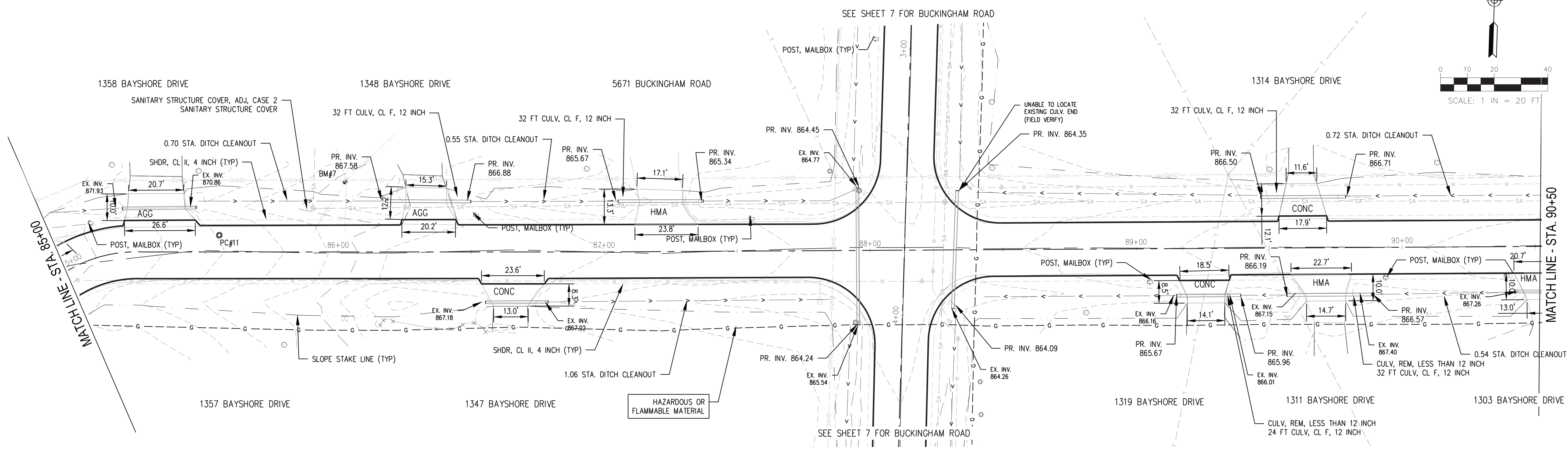
CONTROL POINT #13
 ELEV. = 875.19
 N = 453913.85
 E = 13115090.71

PAVEMENT CORE #8
 ADDRESS: 5636 HALLENDALE ROAD
 HMA: 2 INCH
 BASE: UNKNOWN

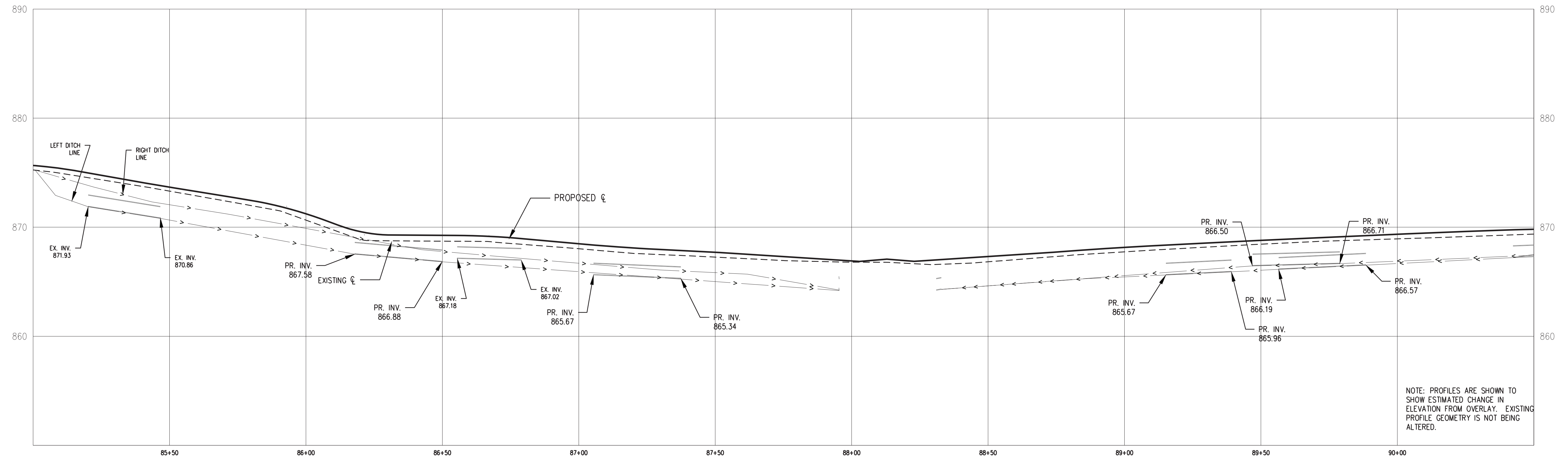
PAVEMENT CORE #9
 ADDRESS: 5655 HALLENDALE ROAD
 HMA: 4 INCH
 BASE: 6 INCH AGGREGATE, SAND & CLAY

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.



NO.	REV. 1	DATE	6-29-2022	BY	ASHL	DESCRIPTION	REUSED PER TYP AND ICR COMMENTS
2103 ASSOCIATION DR. #200 OKEMOS, MI 48864 TEL: 517.316.9232 FAX: 517.316.9233							
PROJECT DATE: 11/23/2020				PROJECT NO.: M4150014			
DRAWN BY: KHW				CHECKED BY: CAW			
 TECHNICAL SKILL. CREATIVE SPIRIT.							
 EST. 1848 MERIDIAN TOWNSHIP 5151 MARSH ROAD OKEMOS, MI 48864							
PREPARED FOR: 2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN							
HALLENDALE ROAD PLAN & PROFILE STA. 80+58 TO STA. 85+00							
12							16

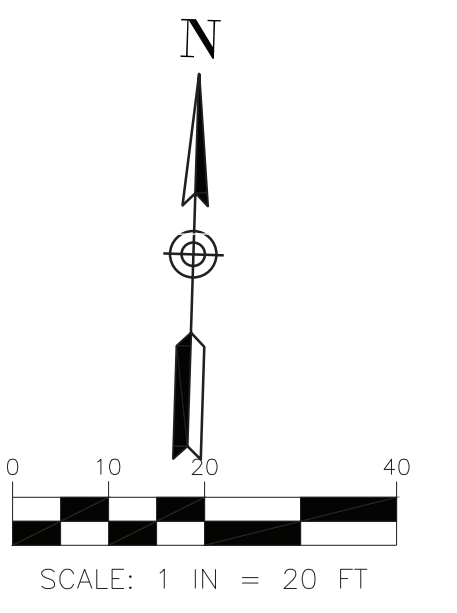
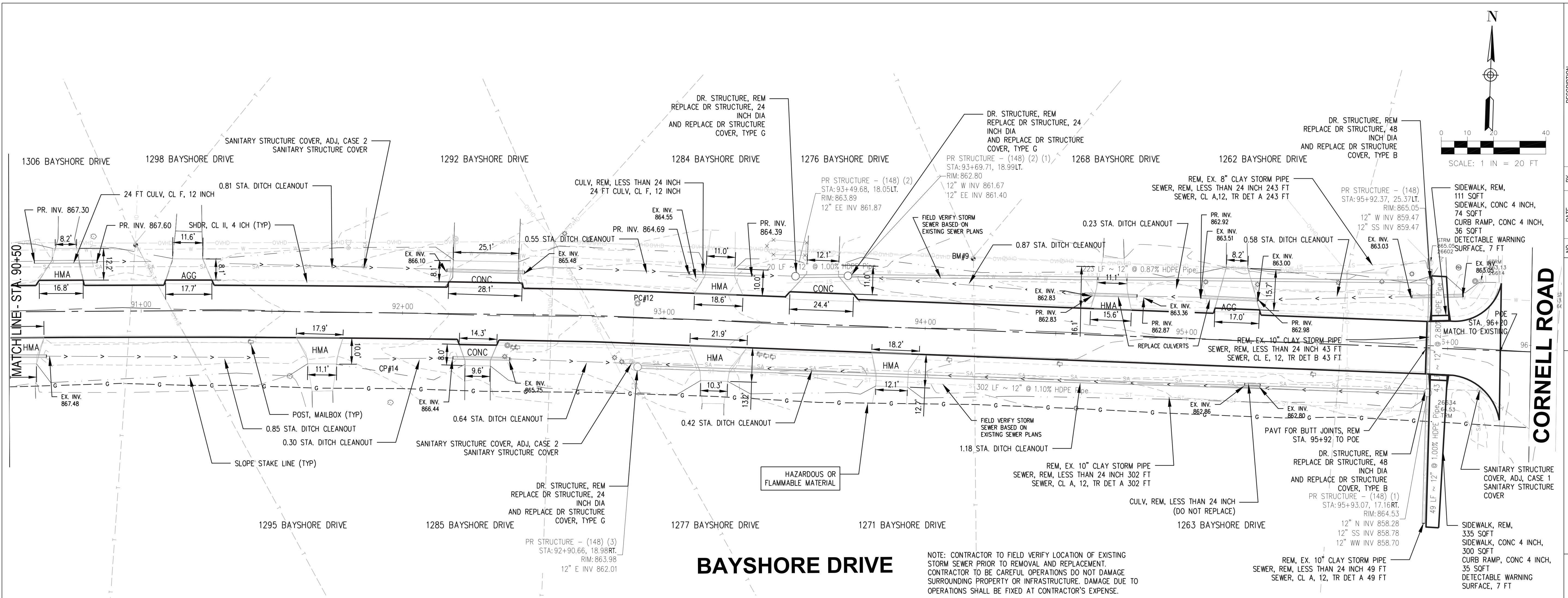


BAYSHORE DRIVE



NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

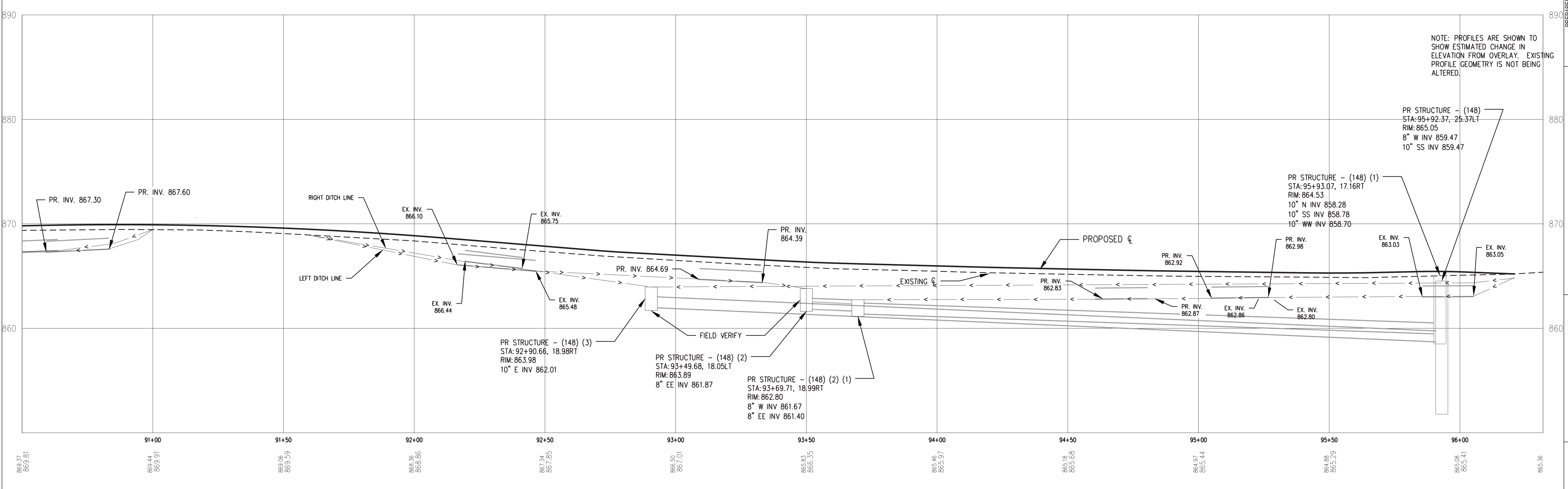
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REV. 1	6-29-2022	ASML	REVISED PER TYP AND ICRD COMMENTS
2193 ASSOCIATION DR. #200 OKEMOS, MI 48864 TEL: 517.316.9232 FAX: 517.316.9233			
PROJECT NO.: M4190014		PROJECT DATE: 11/23/2020	
DRAWN BY: KHW		CHECKED BY: CAV	
 www.MannikSmithGroup.com			
 EST. 1848 MERIDIAN TOWNSHIP			
PREPARED FOR: 2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MEIRIDAN TOWNSHIP INGHAM COUNTY, MICHIGAN			
BAYSHORE DRIVE PLAN & PROFILE STA. 85+00 TO STA. 91+00			
13			
			16



BAYSHORE DRIVE

CORNELL ROAD

NOTE: CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING STORM SEWER PRIOR TO REMOVAL AND REPLACEMENT. CONTRACTOR TO BE CAREFUL OPERATIONS DO NOT DAMAGE SURROUNDING PROPERTY OR INFRASTRUCTURE. DAMAGE DUE TO OPERATIONS SHALL BE FIXED AT CONTRACTOR'S EXPENSE.



NO.	DATE	BY	DESCRIPTION
1	6-29-2022	ASHUL	REVISED PER TYP AND ICD COMMENTS

2103 ASSOCIATION DR. #200
 OKEMOS, MI 48864
 TEL: 517.316.9232
 FAX: 517.316.9233

PROJECT DATE: 1/12/2020
 PROJECT NO.: M4150014
 DRAWN BY: KHW
 CHECKED BY: CAV

Mannik Smith GROUP
 CREATIVE SPIRIT.
 www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD
 OKEMOS, MI 48864

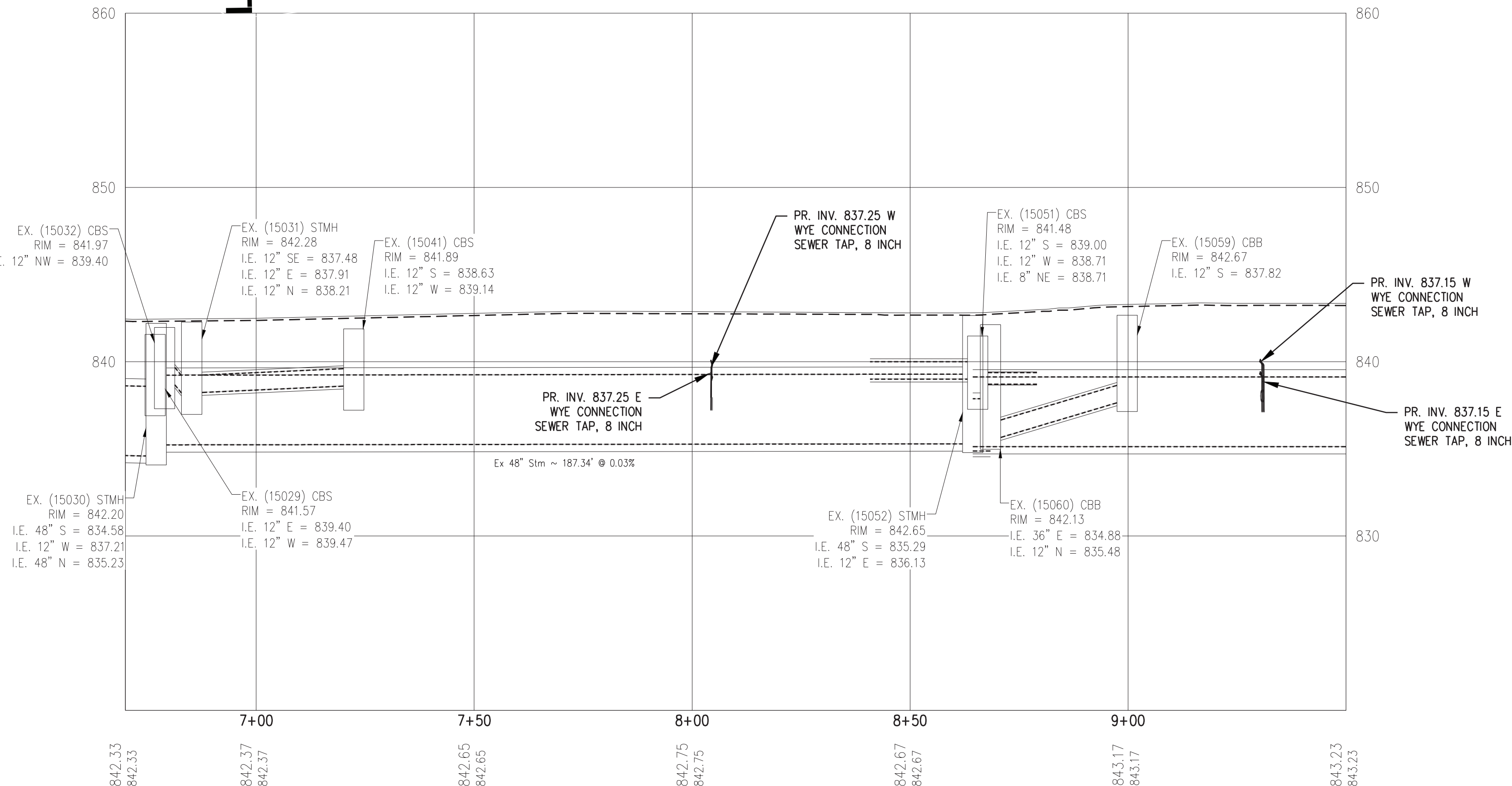
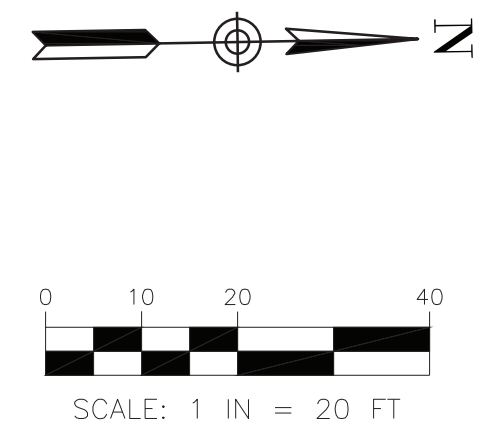
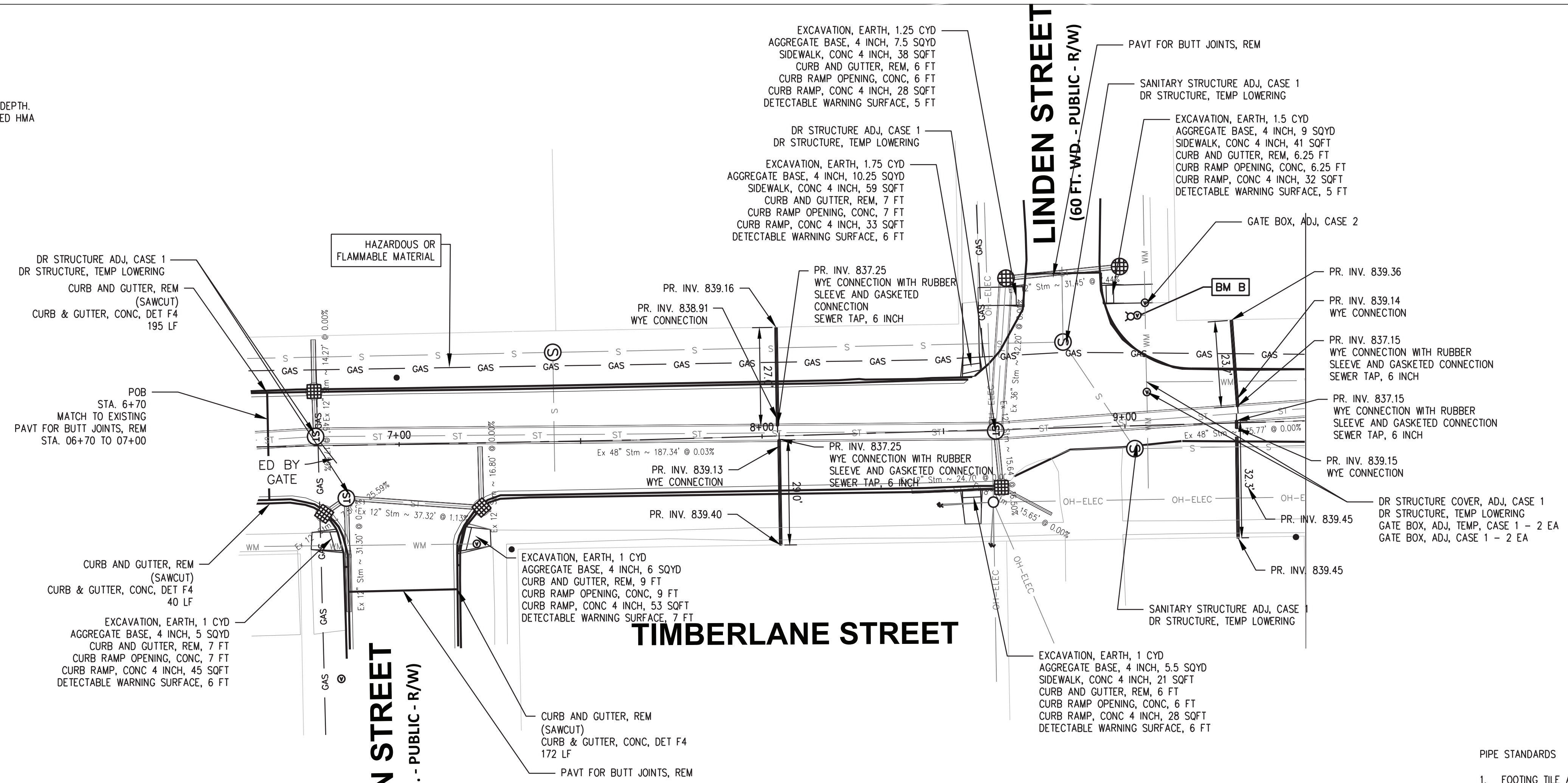
**2022 CHARTER TOWNSHIP
 OF MERIDIAN
 ROADWAY IMPROVEMENTS**

MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN

**BAYSHORE DRIVE
 PLAN & PROFILE
 STA. 91+00 TO STA.
 96+20**

NOTE:

TIMBERLANE STREET IS TO BE COLD MILLED TO FULL DEPTH. EXISTING DRIVEWAYS ARE TO BE FLUSH WITH PROPOSED HMA SECTION.



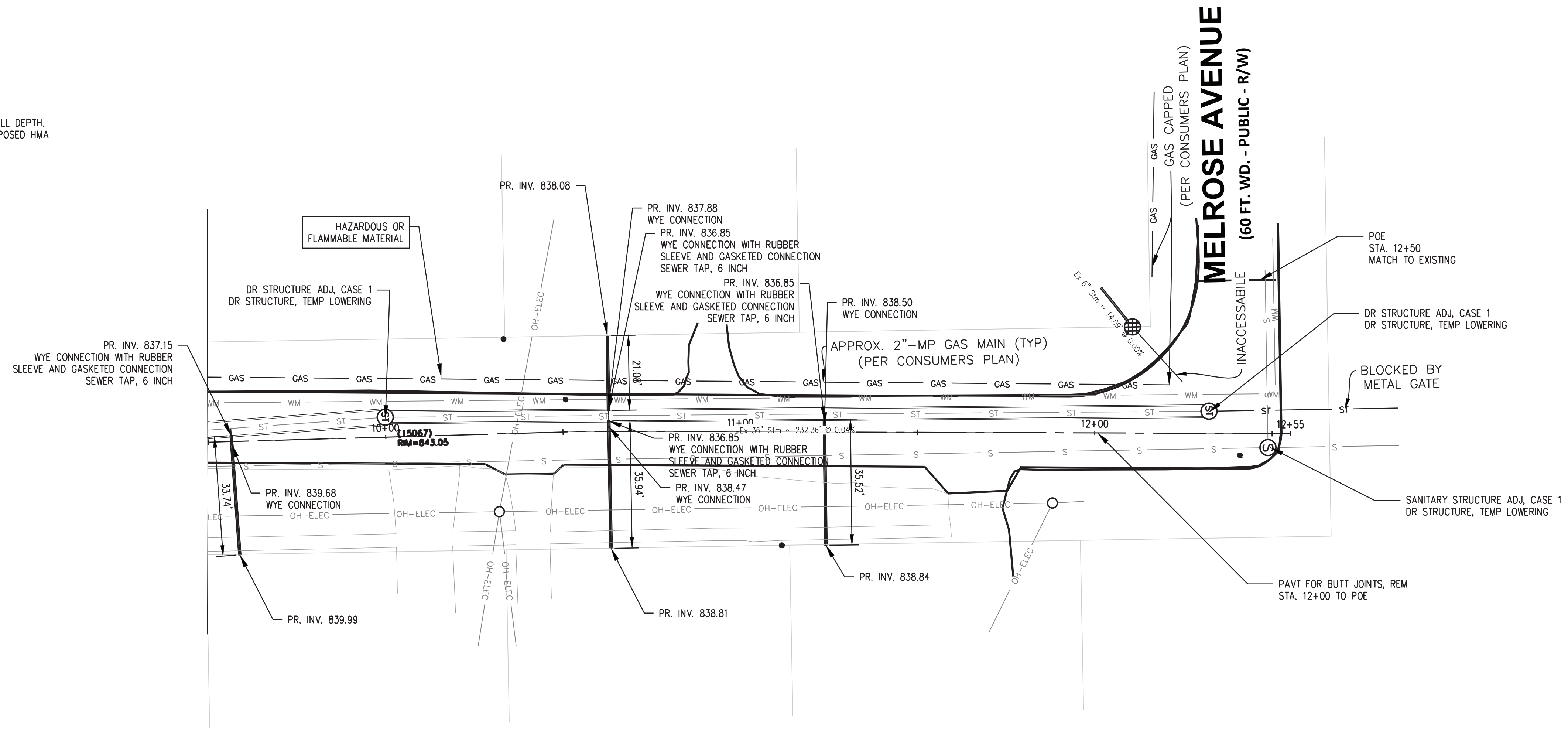
PIPE STANDARDS

1. FOOTING TILE AND/OR SUMP PUMP LEADS ARE REQUIRED FOR EACH PROPOSED LOT SERVED BY AN ENCLOSED COUNTY DRAIN AND SHALL BE SHOWN TO LOT LINES ON THE PLANS. LEADS SHALL BE CONSTRUCTED OF EITHER SDR-35 (ASTM 3034) OR PVC SCHEDULE-40 (ASTM D1785), UNLESS INSTALLATION IS LESS THAN THREE (3) FEET IN WHICH CASE SDR-26 (ASTM D3034/F-1336) SHALL BE REQUIRED. LEADS MAY BE CONNECTED TO CATCH BASINS OR MANHOLES, WHERE AVAILABLE. ALL OTHER LEADS MUST BE CONNECTED TO THE NEAREST AVAILABLE STORM LINE.
 - a. ALL COLLECTOR LINES ARE TO BE SERVED BY A MANHOLE AT EACH END.
 - b. LEADS DISCHARGING DIRECTLY INTO A PIPE MUST CONNECT THROUGH A WYE OR TEE SUPPLIED BY THE PIPE MANUFACTURER, OR THROUGH AN APPROVED FITTING OR BOOT.
 - c. LEADS SHALL NOT PROTRUDE INTO THE INTERIOR OF THE RECIPIENT PIPE.
 - d. FULL TIME INSPECTION IS REQUIRED ON STORM LEAD INSTALLATION FOR ALL PIPES THAT WILL BE DEDICATED AS PUBLIC DRAINS.
 - e. LOT LEADS SHALL BE PROPERLY CAPPED ON THE UPSTREAM END AND MARKED WITH AN 8" LENGTH OF 4" BY 4" POST PAINTED GREEN.

<p>NO. REV. 1</p>	<p>DATE 6-29-2022</p>	<p>BY ASML</p>	<p>DESCRIPTION REVISED PER TYP AND MICRO COMMENTS</p>
<p>2193 ASSOCIATION DR #200 OKEMOS, MI 48864 TEL: 517.316.9232 FAX: 517.316.9233</p>			
<p>PROJECT NO. M450014 DRAWN BY: KHW CHECKED BY: CAV</p>			
<p>www.MannikSmithGroup.com</p>			
<p>5151 MARSH ROAD OKEMOS, MI</p>			
<p>2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN</p>			
<p>TIMBERLANE STREET PLAN & PROFILE STA. 6+00 TO STA. 9+50</p>			
15	16		

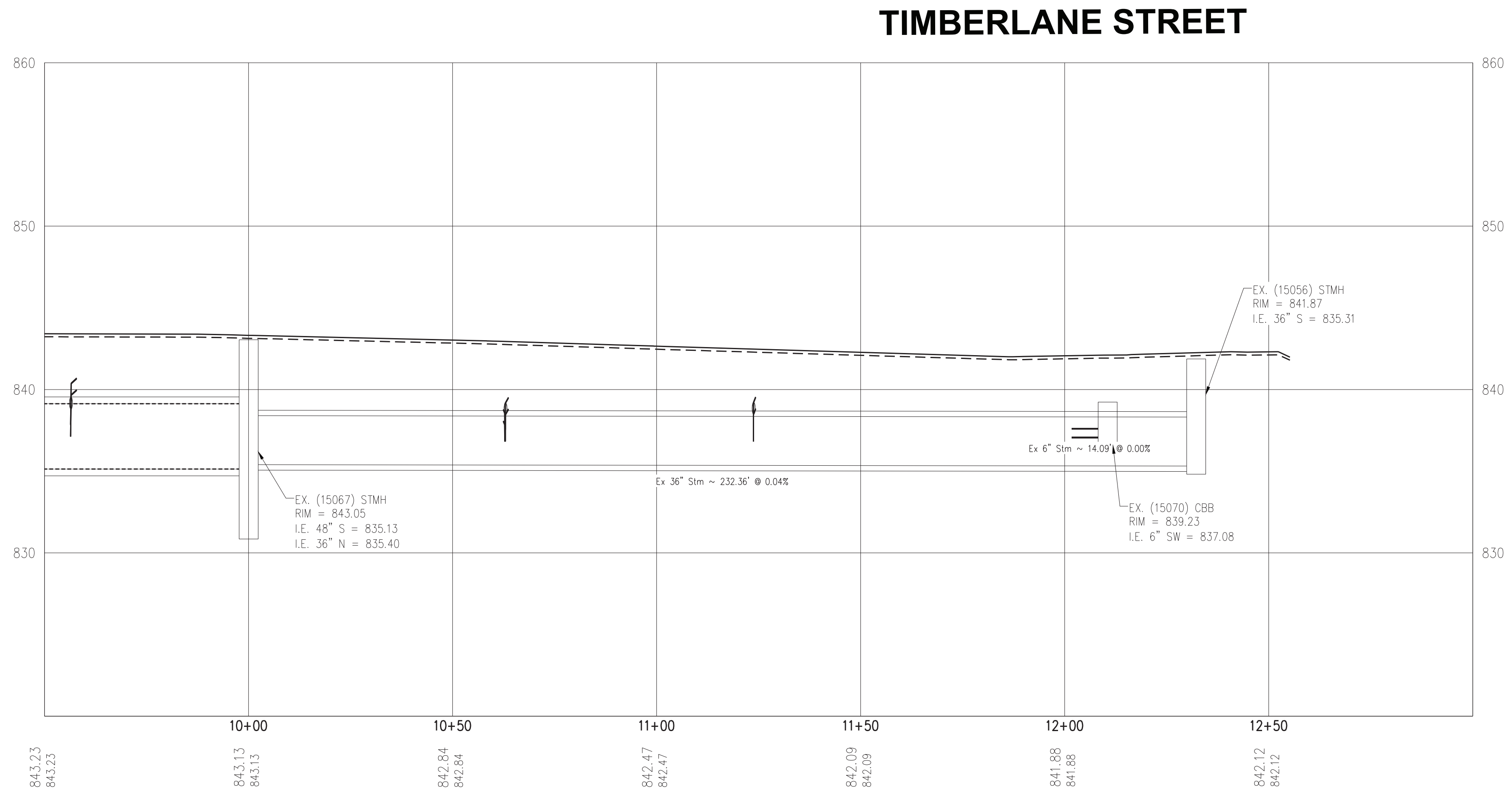
NOTE:

TIMBERLANE STREET IS TO BE COLD MILLED TO FULL DEPTH.
EXISTING DRIVEWAYS ARE TO BE FLUSH WITH PROPOSED HMA SECTION.

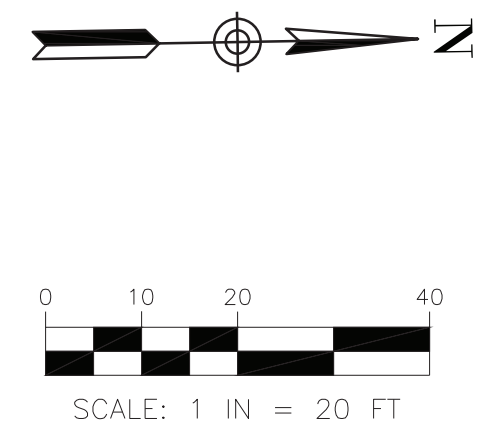


PIPE STANDARDS

1. FOOTING TILE AND/OR SUMP PUMP LEADS ARE REQUIRED FOR EACH PROPOSED LOT SERVED BY AN ENCLOSED COUNTY DRAIN AND SHALL BE SHOWN TO LOT LINES ON THE PLANS. LEADS SHALL BE CONSTRUCTED OF EITHER SDR-35 (ASTM 3034) OR PVC SCHEDULE-40 (ASTM D1785), UNLESS INSTALLATION IS LESS THAN THREE (3) FEET IN WHICH CASE SDR-26 (ASTM D3034/F-1336) SHALL BE REQUIRED. LEADS MAY BE CONNECTED TO CATCH BASINS OR MANHOLES, WHERE AVAILABLE. ALL OTHER LEADS MUST BE CONNECTED TO THE NEAREST AVAILABLE STORM LINE.
 - a. ALL COLLECTOR LINES ARE TO BE SERVED BY A MANHOLE AT EACH END.
 - b. LEADS DISCHARGING DIRECTLY INTO A PIPE MUST CONNECT THROUGH A WYE OR TEE SUPPLIED BY THE PIPE MANUFACTURER, OR THROUGH AN APPROVED FITTING OR BOOT.
 - c. LEADS SHALL NOT PROTRUDE INTO THE INTERIOR OF THE RECIPIENT PIPE.
 - d. FULL TIME INSPECTION IS REQUIRED ON STORM LEAD INSTALLATION FOR ALL PIPES THAT WILL BE DEDICATED AS PUBLIC DRAINS.
 - e. LOT LEADS SHALL BE PROPERLY CAPPED ON THE UPSTREAM END AND MARKED WITH AN 8' LENGTH OF 4" BY 4" POST PAINTED GREEN.



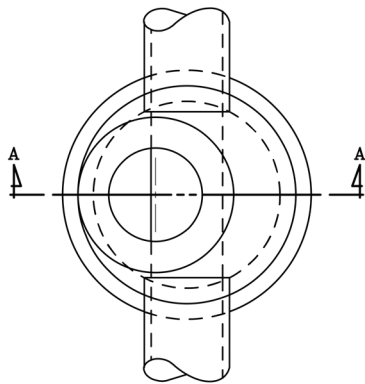
TIMBERLANE STREET



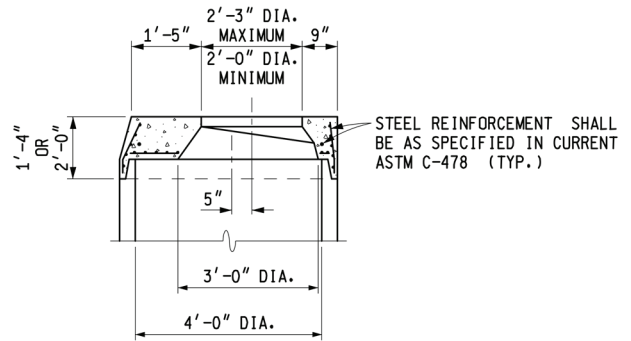
NO.	REV. 1	DATE	6-29-2022	BY	ASML	DESCRIPTION	REVISED PER TYP AND ICRD COMMENTS
2103 ASSOCIATION DR #200		OKEMOS, MI 48864		PROJECT NO.		M4150014	
TEL: 517.316.9232		FAX: 517.316.9233		DRAWN BY:		KHV	
PROJECT DATE:		4/13/2022		CHECKED BY:		CAV	
www.MannikSmithGroup.com		MERIDIAN TOWNSHIP		2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS		TIMBERLANE STREET PLAN & PROFILE STA. 9+50 TO STA. 13+00	
5151 MARSH ROAD OKEMOS, MI 48864		INGHAM COUNTY, MICHIGAN		16		16	

APPENDIX C

MDOT Standard Plans

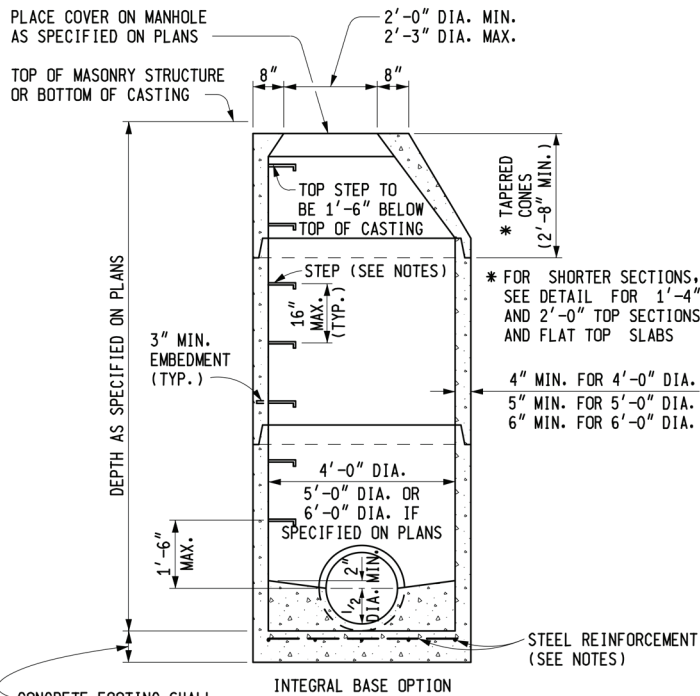


PLAN VIEW

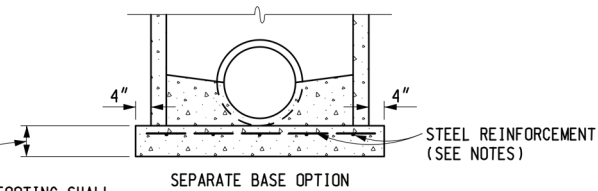


DETAIL FOR
1'-4" & 2'-0" TOP SECTIONS

SHAPE MAY VARY FROM DETAIL SHOWN BUT MUST COMPLY WITH ASTM C-478 AND JOINTS SHALL BE COMPATIBLE WITH THE RISER



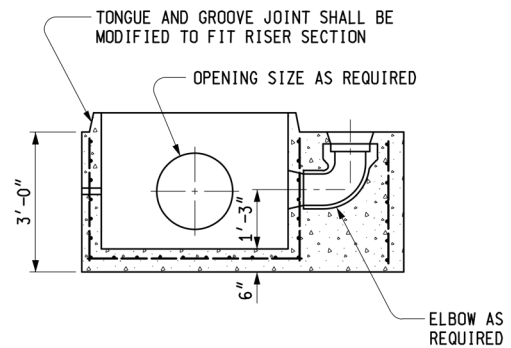
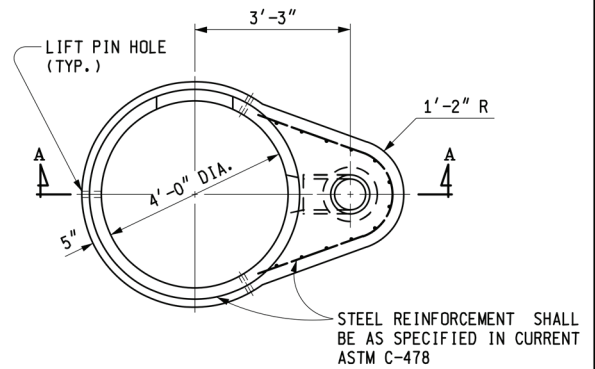
CONCRETE FOOTING SHALL BE 8" THICK FOR DEPTHS TO 25'-0" AND 1'-0" THICK FOR DEPTHS OVER 25'-0"



CONCRETE FOOTING SHALL BE 8" THICK FOR DEPTHS TO 25'-0" AND 1'-0" THICK FOR DEPTHS OVER 25'-0"

SECTION A - A
TYPICAL MANHOLE

PRECAST REINFORCED CONCRETE SHOWN
OTHER OPTIONS INCLUDE CONCRETE BLOCK, BRICK, OR CAST-IN-PLACE WALL SECTIONS
SEE TYPICAL WALL SECTIONS FOR WALL THICKNESS



SECTION A - A

TYPICAL PRECAST REINFORCED
BOTTOM SECTION FOR DROP MANHOLE



PREPARED BY
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Paul C. Ajegba

APPROVED BY: Gregg Brunner, P.E. Gregg Brunner
Sep 19 2019 2:17 PM
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Bradley C. Wiefelich Bradley C. Wiefelich
Sep 19 2019 11:22 AM
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

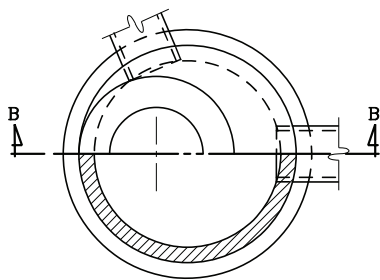
DRAINAGE STRUCTURES

5-18-2020
F.H.W.A. APPROVAL

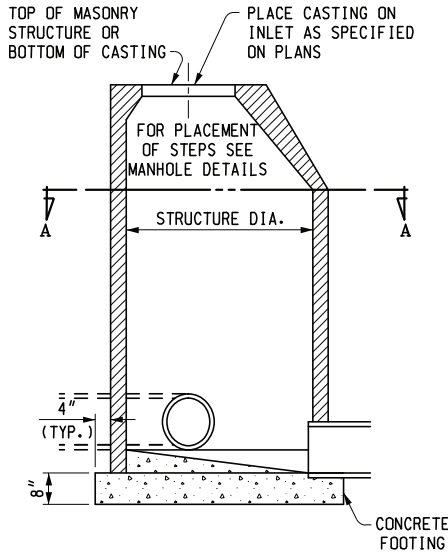
9-19-2019
PLAN DATE

R-1-G

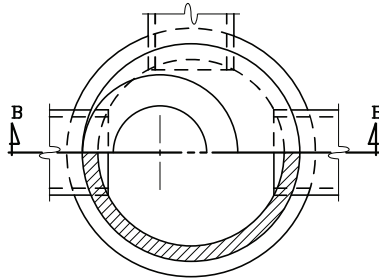
SHEET
1 OF 9



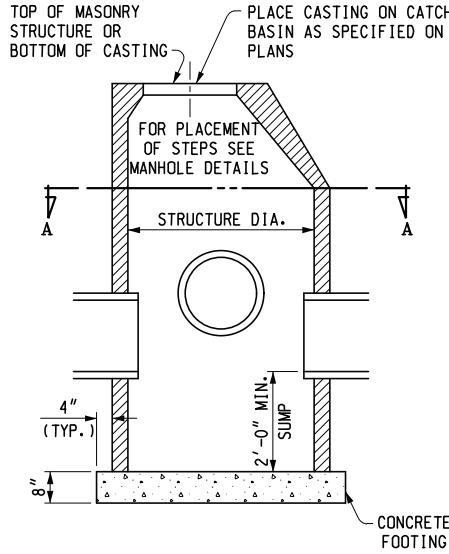
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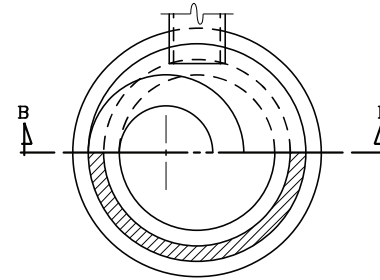
SEE MANHOLE DETAILS FOR SIZE AND BASE OPTIONS
SECTION B - B
INLET



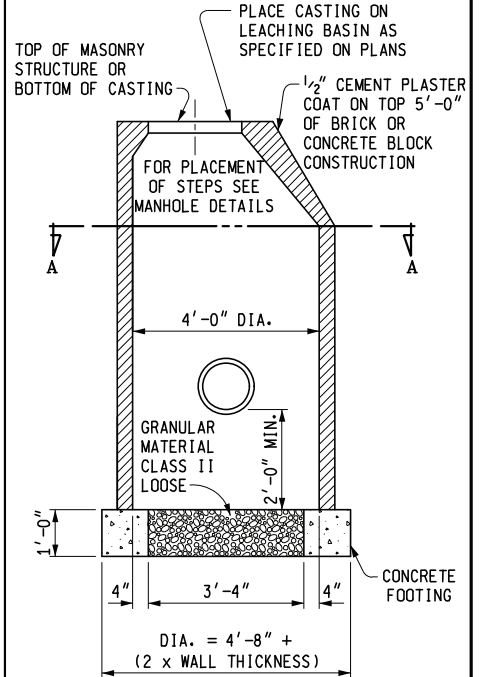
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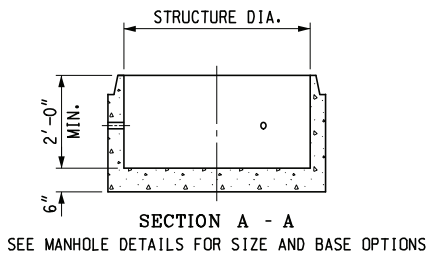
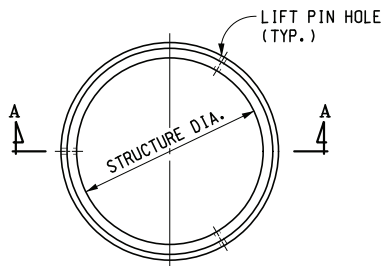
SEE MANHOLE DETAILS FOR SIZE AND BASE OPTIONS
SECTION B - B
CATCH BASIN



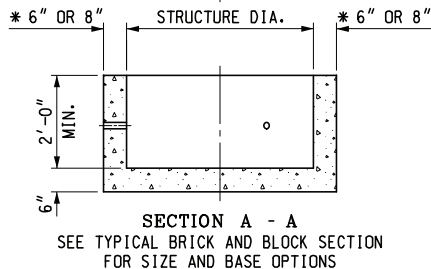
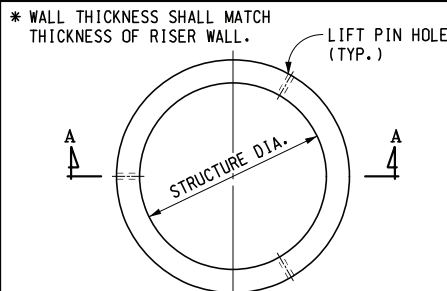
HALF SECTION A - A



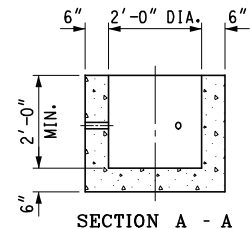
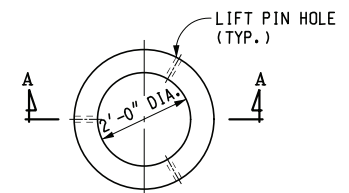
SEE MANHOLE DETAILS FOR BASE OPTIONS
SECTION B - B
LEACHING BASIN



SECTION A - A
SEE MANHOLE DETAILS FOR SIZE AND BASE OPTIONS
PRECAST SUMP FOR PRECAST RISERS



SECTION A - A
SEE TYPICAL BRICK AND BLOCK SECTION FOR SIZE AND BASE OPTIONS
PRECAST SUMP FOR BRICK OR BLOCK CONSTRUCTION



SECTION A - A
PRECAST SUMP FOR 2'-0" DIA. STRUCTURES

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

DRAINAGE STRUCTURES

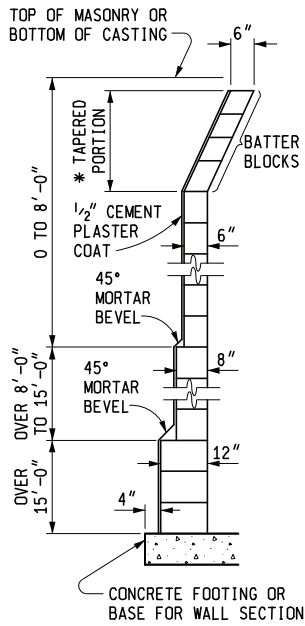
5-18-2020
F.H.W.A. APPROVAL

9-19-2019
PLAN DATE

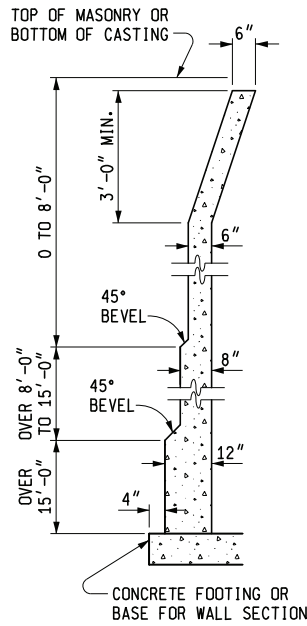
R-1-G

SHEET
2 OF 9

* 4 BLOCK MIN. FOR 4'-0" DIA. STRUCTURE
 6 BLOCK MIN. FOR 5'-0" DIA. STRUCTURE
 6 BLOCK MIN. FOR 6'-0" DIA. STRUCTURE

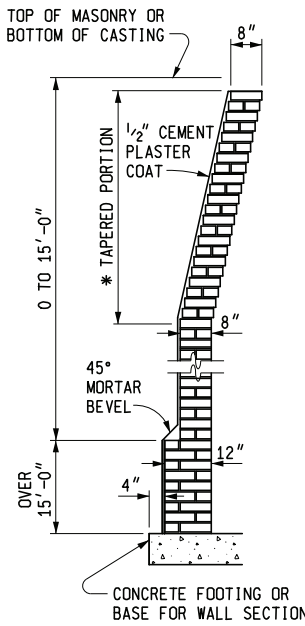


TYPICAL CONCRETE BLOCK WALL SECTION

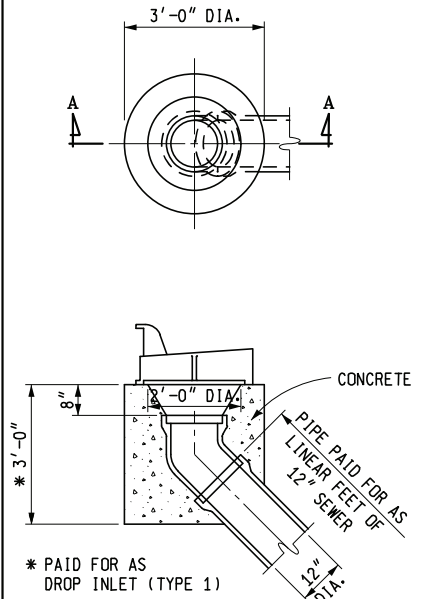


TYPICAL CAST-IN-PLACE CONCRETE WALL SECTION

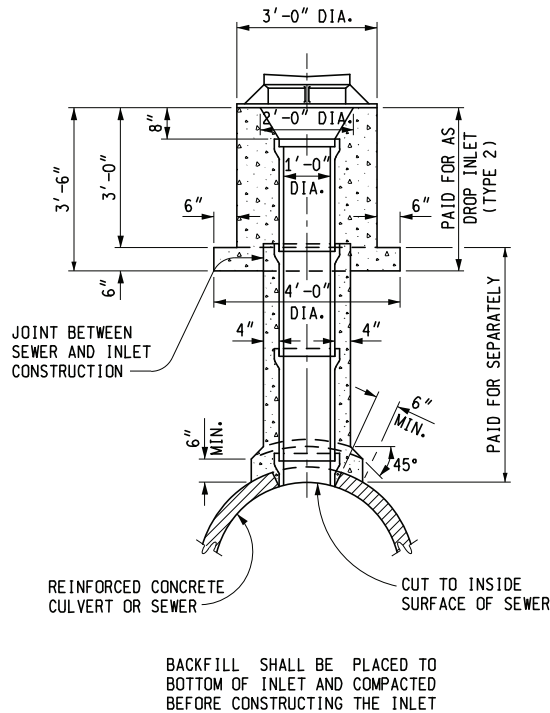
* 5'-0" MIN. FOR 4'-0" DIA. STRUCTURE
 6'-0" MIN. FOR 5'-0" DIA. STRUCTURE
 6'-0" MIN. FOR 6'-0" DIA. STRUCTURE



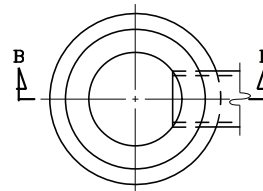
TYPICAL BRICK WALL SECTION



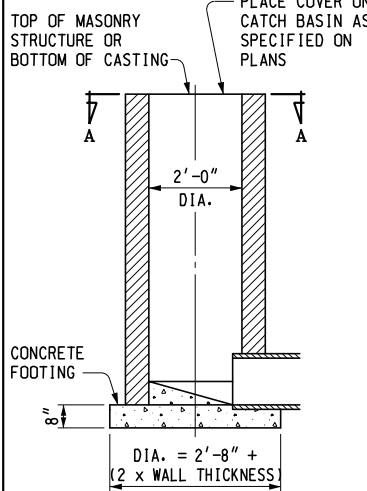
SECTION A - A
 DROP INLET (TYPE 1)



DROP INLET (TYPE 2)

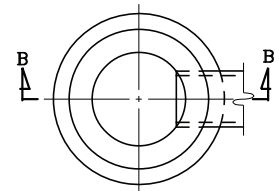


SECTION A - A

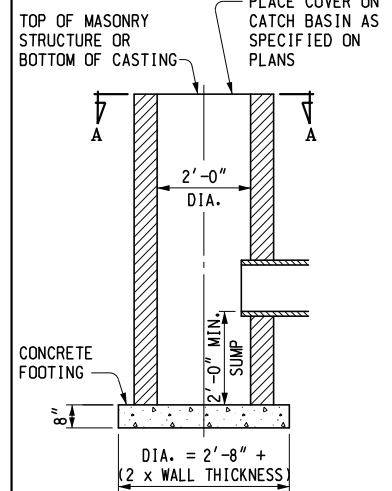


SECTION B - B

INLET



SECTION A - A



SECTION B - B

CATCH BASIN

MICHIGAN DEPARTMENT OF TRANSPORTATION
 BUREAU OF DEVELOPMENT STANDARD PLAN FOR

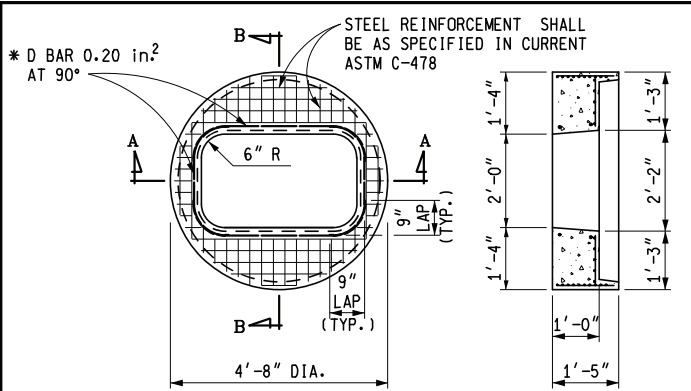
DRAINAGE STRUCTURES

5-18-2020
 F.H.W.A. APPROVAL

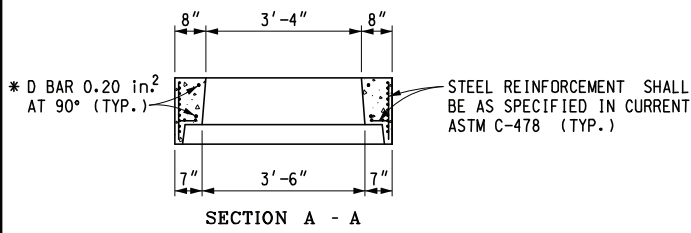
9-19-2019
 PLAN DATE

R-1-G

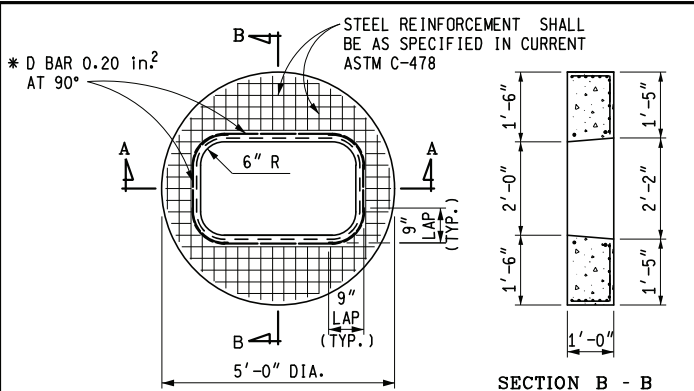
SHEET
 3 OF 9



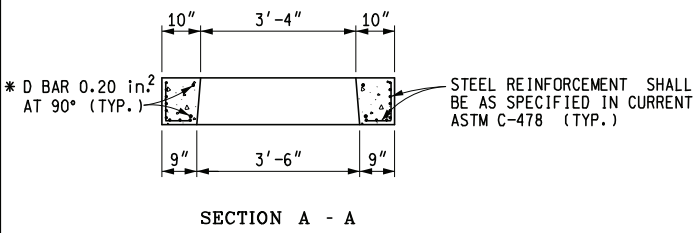
* D BARS MAY BE BENT AT A SMALLER RADIUS RATHER THAN PARALLELING THE RADIUS IN THE DRAIN OPENING



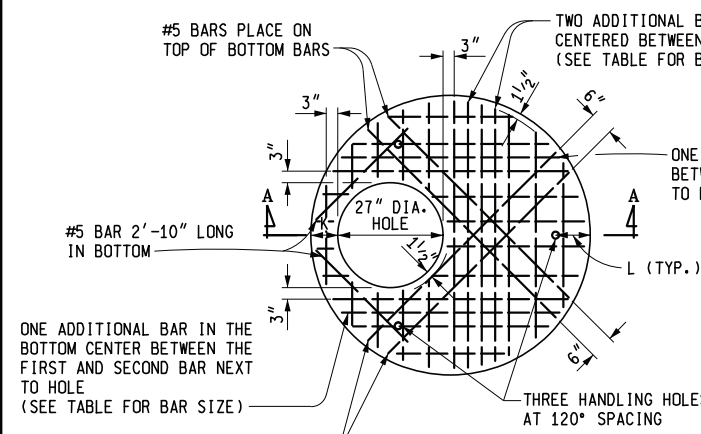
PRECAST FLAT SLAB TOP FOR PRECAST CONCRETE STRUCTURE, 2' x 4' CASTING



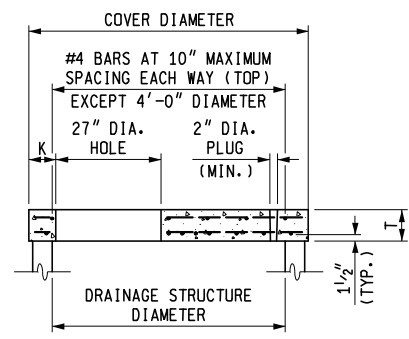
* D BARS MAY BE BENT AT A SMALLER RADIUS RATHER THAN PARALLELING THE RADIUS IN THE DRAIN OPENING



PRECAST FLAT SLAB TOP FOR MASONRY STRUCTURE, 2' x 4' CASTING



PLAN (SHOWING BOTTOM LAYER OF REINFORCEMENT)



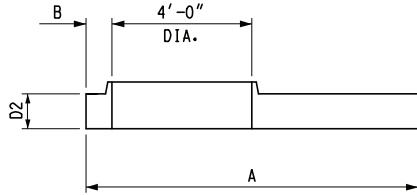
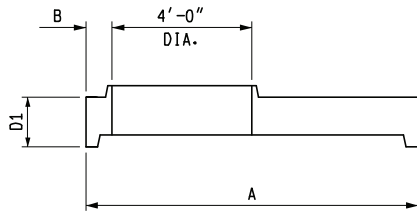
SECTION A - A
PRECAST REINFORCED CONCRETE FLAT SLAB TOP

TABLE OF DIMENSIONS					
STRUCTURE DIAMETER	COVER DIAMETER	T	K	L	BAR MAXIMUM SPACING (BOTTOM EACH WAY)
* 4'-0"	58"	6"	6"	8"	#5 AT 6"
5'-0"	72"	8"	7"	9"	#5 AT 7"
6'-0"	86"	8"	8"	10"	#5 AT 6"
7'-0"	101 1/2"	12"	8 3/4"	11"	#5 AT 5"
8'-0"	114"	12"	9"	11"	#6 AT 6"
9'-0"	128"	12"	10"	12"	#5 AT 6"
10'-0"	140"	12"	10"	13"	#5 AT 6"

* ONLY BOTTOM LAYERS OF STEEL NECESSARY

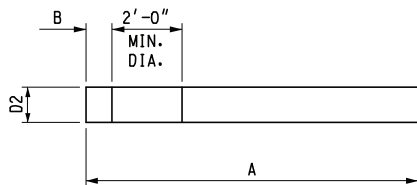
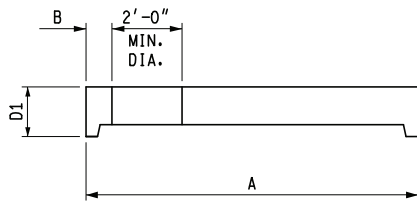
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

DRAINAGE STRUCTURES



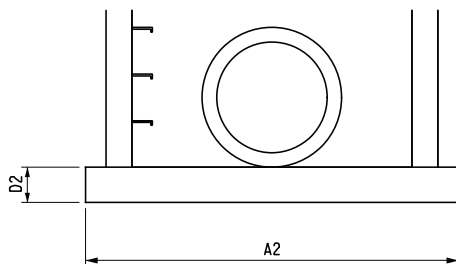
PRECAST REDUCER CAP

REDUCER CAP DIMENSIONS				
STRUCTURE DIAMETER	CAP DIAMETER "A"	B	CAP DEPTH "D1"	CAP DEPTH "D2"
7'-0"	101 1/2"	8 3/4"	1'-5"	12"
8'-0"	114"	9"	1'-5"	12"
9'-0"	128"	10"	1'-5"	12"
10'-0"	140"	10"	1'-6"	12"



PRECAST FLAT SLAB TOP

FLAT SLAB TOP DIMENSIONS				
STRUCTURE DIAMETER	COVER DIAMETER "A"	B	COVER DEPTH "D1"	COVER DEPTH "D2"
7'-0"	101 1/2"	8 3/4"	1'-5"	12"
8'-0"	114"	9"	1'-5"	12"
9'-0"	128"	10"	1'-5"	12"
10'-0"	140"	10"	1'-6"	12"



SEPARATE BASE OPTION

BASE AND RISER DIMENSIONS					
STRUCTURE DIAMETER	BASE DIAMETER "A1"	BASE DIAMETER "A2"	MIN. WALL THICKNESS "T"	BASE DEPTH "D1"	BASE DEPTH "D2"
7'-0"	101 1/2"	108"	7"	8"	12"
8'-0"	114"	128"	8"	8"	12"
9'-0"	128"	140"	9"	8"	12"
10'-0"	140"	154"	10"	8"	12"

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

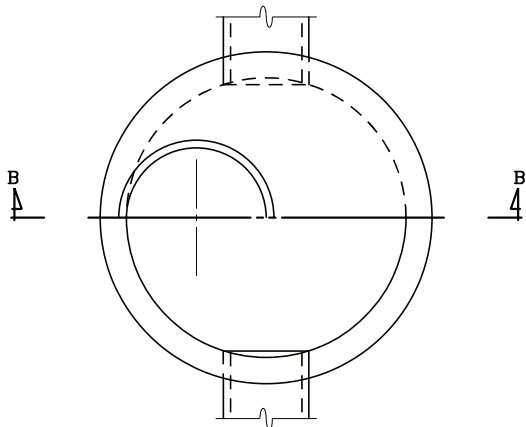
DRAINAGE STRUCTURES

5-18-2020
F.H.W.A. APPROVAL

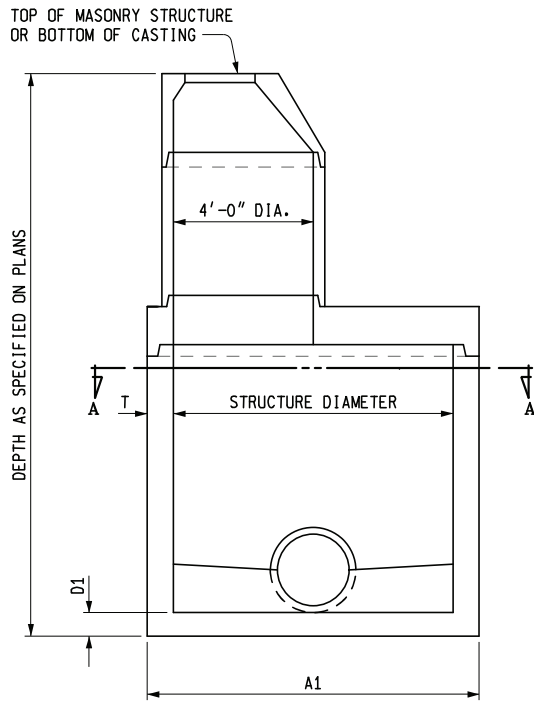
9-19-2019
PLAN DATE

R-1-G

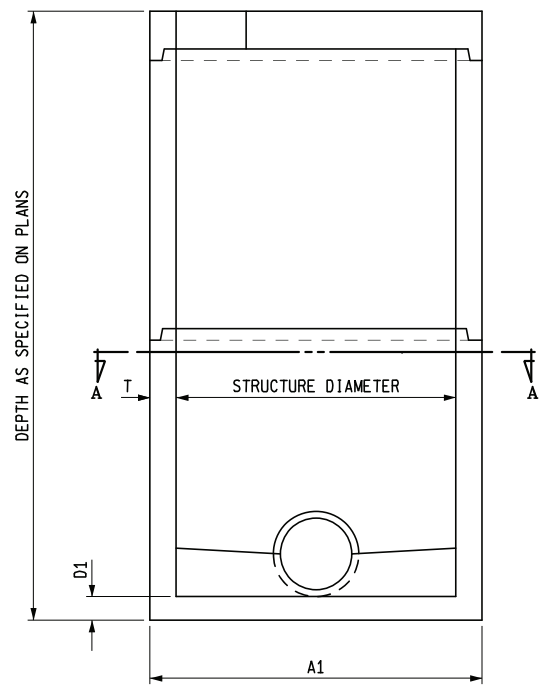
SHEET
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HALF SECTION A - A



SECTION B - B
SHOWING REDUCER CAP



SECTION B - B
SHOWING FLAT SLAB TOP

PRECAST MANHOLE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

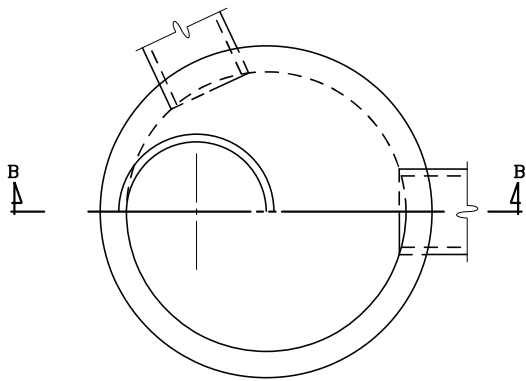
DRAINAGE STRUCTURES

5-18-2020
F.H.W.A. APPROVAL

9-19-2019
PLAN DATE

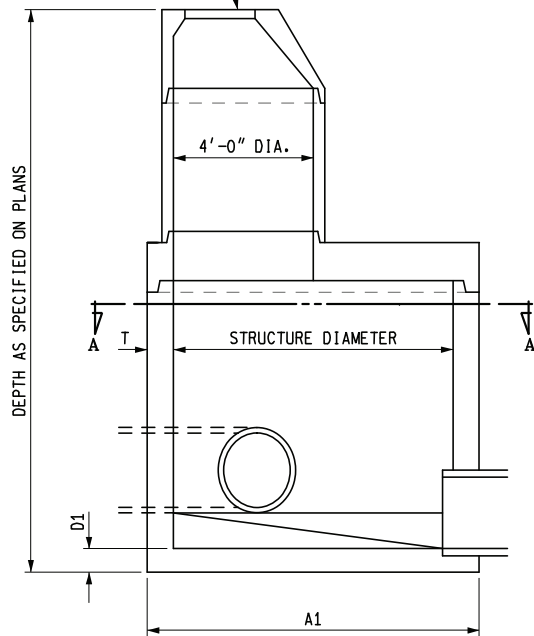
R-1-G

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6 OF 9

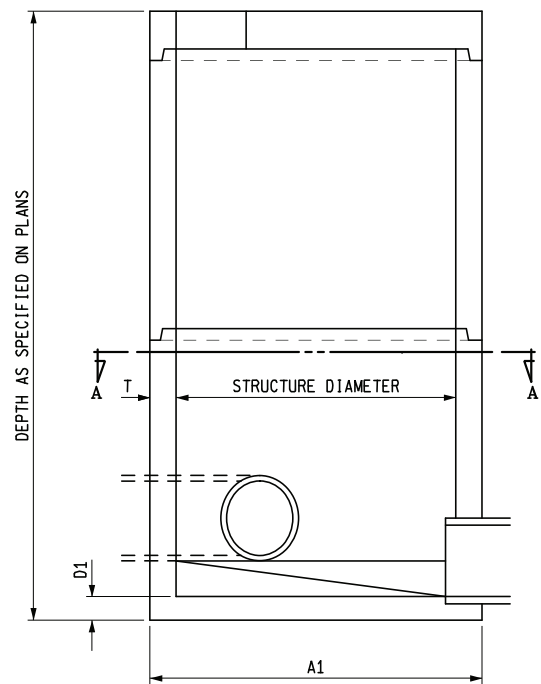


HALF SECTION A - A

TOP OF MASONRY STRUCTURE
OR BOTTOM OF CASTING



SECTION B - B
SHOWING REDUCER CAP



SECTION B - B
SHOWING FLAT SLAB TOP

PRECAST INLET

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

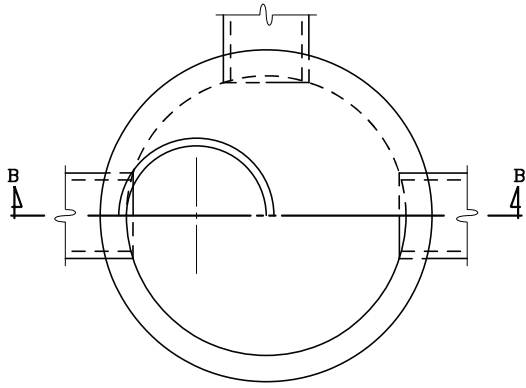
DRAINAGE STRUCTURES

5-18-2020
F.H.W.A. APPROVAL

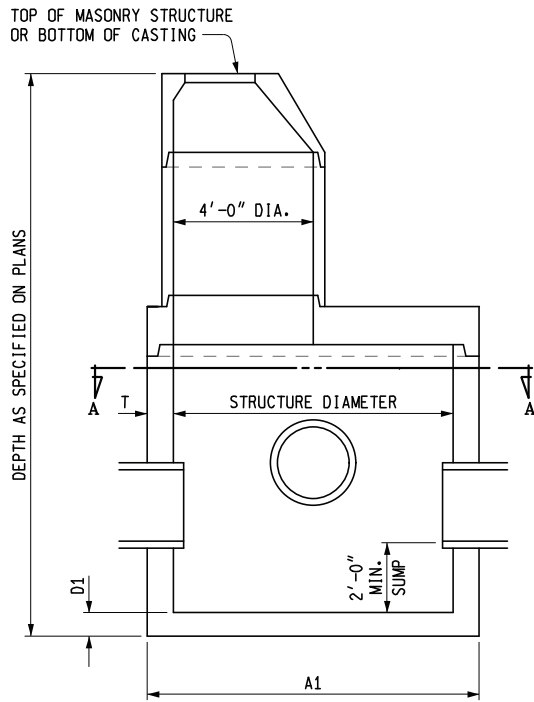
9-19-2019
PLAN DATE

R-1-G

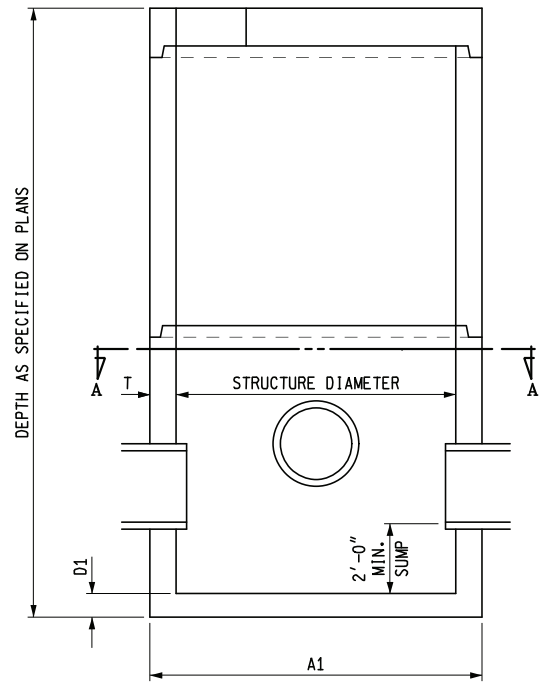
SHEET
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HALF SECTION A - A



SECTION B - B
SHOWING REDUCER CAP



SECTION B - B
SHOWING FLAT SLAB TOP

PRECAST CATCH BASIN

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

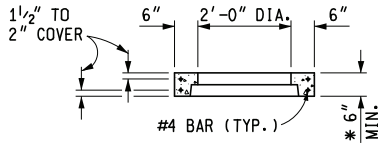
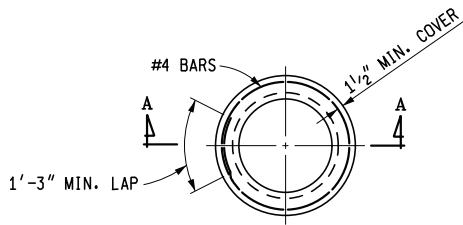
DRAINAGE STRUCTURES

5-18-2020
F.H.W.A. APPROVAL

9-19-2019
PLAN DATE

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SHEET
8 OF 9



SECTION A - A

* WHEN RISER TONGUE LENGTH IS GREATER THAN 3", USE 2 TIMES THE TONGUE LENGTH.

NOTE: PRECAST RISER SHALL FULLY ENGAGE THE TONGUE OF THE RISER PIPE.

PRECAST RISER RING (FOR 2'-0" DIAMETER STRUCTURE)

NOTES:

THE DRAINAGE STRUCTURE COVERS ALLOWED FOR USE ON THESE DRAINAGE STRUCTURES ARE SPECIFIED IN SUBSEQUENT STANDARD PLANS AND ARE INTERCHANGEABLE ON ANY STRUCTURE.

THE TOPS OF MASONRY STRUCTURES SHALL BE SUFFICIENTLY LOW TO PERMIT PROPER ADJUSTMENT OF COVER TO GRADE USING MORTAR OR BRICK AS DIRECTED BY THE ENGINEER.

PREMIUM JOINTS ARE REQUIRED ON ALL SANITARY MANHOLES. SEE ASTM DESIGNATION C-923.

GRANULAR MATERIAL CLASS III SHALL BE USED IN BACKFILLING AROUND ALL STRUCTURES THAT FALL WITHIN THE 1:1 INFLUENCE LINES FROM THE EDGE OF PAVEMENT OR BACK OF CURB.

STEPS FOR DRAINAGE STRUCTURES SHALL BE OF AN APPROVED DESIGN AND MADE FROM CAST IRON, ALUMINUM, OR PLASTIC COATED STEEL. RUNGS SHALL BE A MINIMUM OF 10" IN CLEAR LENGTH, DESIGNED TO PREVENT THE FOOT FROM SLIPPING OFF THE END. THE MINIMUM HORIZONTAL PULL OUT LOAD SHALL BE 400 LBS. THE MINIMUM VERTICAL LOAD SHALL BE 800 LBS.

THE BELL SHALL BE REMOVED FOR THE FIRST LENGTH OF OUTLET PIPE PROJECTING THROUGH THE WALL OF THE MANHOLE.

PRECAST CONCRETE SECTIONS, SUMPS, BASE SECTIONS, AND FLAT TOP SLABS SHALL BE BUILT ACCORDING TO CURRENT ASTM C-478 AND ACCORDING TO DETAILS SPECIFIED ON THIS PLAN. PRECAST REINFORCED CONCRETE FLAT TOP SLAB SHALL BE MARKED TO SHOW LOCATION OF REINFORCEMENT. THE WALLS OF THE PRECAST UNITS MAY HAVE A SLIGHT TAPER TO ALLOW FOR FORM REMOVAL. PRECAST CONCRETE 2'-0" DIAMETER DRAINAGE STRUCTURES SHALL HAVE A MINIMUM 3" WALL THICKNESS WITH A 6" MINIMUM BEARING SURFACE ON TOP. SEE PRECAST RISER RING FOR 2'-0" DIAMETER STRUCTURE.

THE MAXIMUM INSIDE DIAMETER OF PIPES ENTERING OR LEAVING PRECAST DRAINAGE STRUCTURES SHALL BE 2'-0" LESS THAN THE INSIDE DIAMETER OF THE DRAINAGE STRUCTURE. A PIPE LEAVING A 2'-0" DIAMETER DRAINAGE STRUCTURE IS ALLOWED TO HAVE 1'-0" INSIDE DIAMETER OR LESS.

THE NUMBER OF PIPE OPENINGS IN A RISER SHALL BE DETERMINED BY THE DESIGNER. SPACING BETWEEN OPENINGS SHALL BE 1'-0" MINIMUM. OPENINGS MAY BE CONSTRUCTED BY CASTING OR SCRIBING IN PRECAST STRUCTURES DURING FABRICATION OR BY CORING THE CURED CONCRETE.

PRECAST CONCRETE FOOTINGS OR BASES SHALL BE REINFORCED WITH #4 BARS SPACED AT 1'-0" BOTH WAYS OR WITH TWO LAYERS OF WELDED WIRE FABRIC OF EQUIVALENT CROSS SECTIONAL AREA LAID AT RIGHT ANGLES AND WIRED TOGETHER. REINFORCEMENT SHALL BE PLACED IN TOP OF FOOTING AND SHALL BE MARKED.

PRECAST CONCRETE FOOTINGS SHALL BE SUPPORTED BY A COMPACTED 6" GRANULAR SUBBASE.

THE MINIMUM WALL THICKNESS FOR ALL 2'-0", 4'-0", 5'-0", AND 6'-0" DRAINAGE STRUCTURES USING CONCRETE BLOCK, BRICK, OR CAST-IN-PLACE CONCRETE SHALL BE AS SPECIFIED IN TYPICAL WALL SECTIONS.

THE CONICAL SECTION OF MANHOLES OR CATCH BASINS CONSTRUCTED OF BLOCK OR BRICK SHALL BE SHROUDED WITH GEOTEXTILE FABRIC TO A MINIMUM DEPTH OF 5'-0" OR THROUGH THE FROST ZONE. ENOUGH GEOTEXTILE MATERIAL SHALL BE LEFT ON THE TOP (8" OR MORE) TO ROLL OVER THE TOP OF THE CONE.

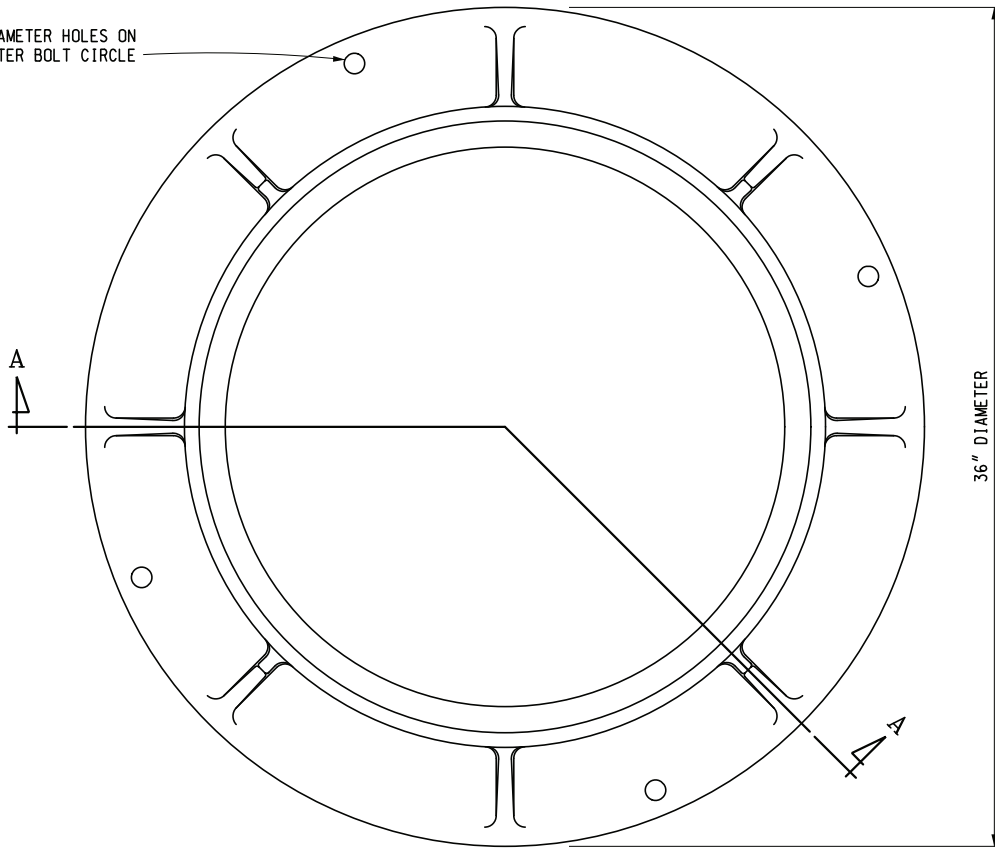
PREFORMED HIGH DENSITY POLYSTYRENE FILLER PIECES MAY BE USED TO CHANNEL FLOW IN THE BOTTOM OF MANHOLES PROVIDED THEY HAVE AT LEAST 2" OF CONCRETE COVER. THE USE OF THIS MATERIAL FOR CHANNEL FLOW IS RESTRICTED TO MANHOLES WHERE THE BOTTOM SECTION IS NOT SUBJECT TO FREEZING. THE USE OF THIS MATERIAL MUST BE APPROVED BY THE ENGINEER.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

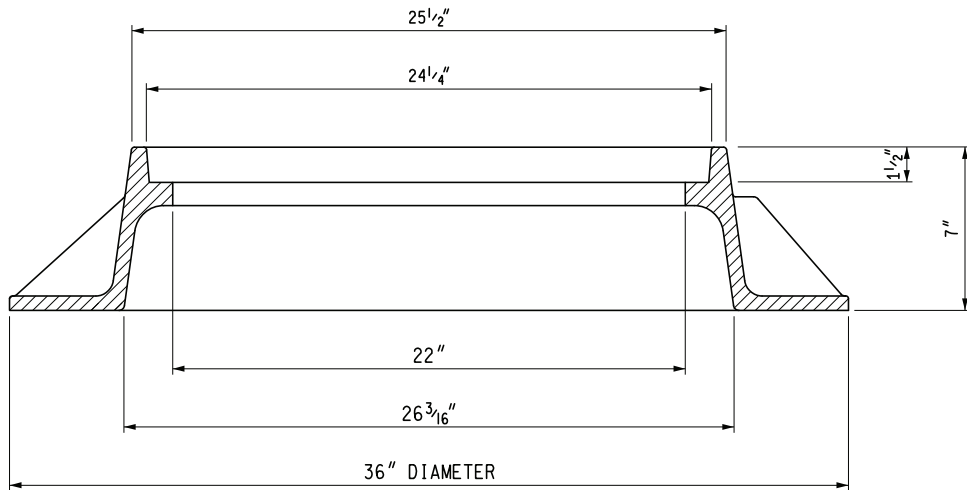
DRAINAGE STRUCTURES

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FOUR $\frac{7}{8}$ " DIAMETER HOLES ON
 $33\frac{3}{4}$ " DIAMETER BOLT CIRCLE



TOP VIEW OF FRAME



SECTION A - A



PREPARED
 BY
 DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
 Kirk T. Steudle

APPROVED BY: *Randy V. Pfeiffer*
 DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: *Mark A. Van Pelt*
 DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

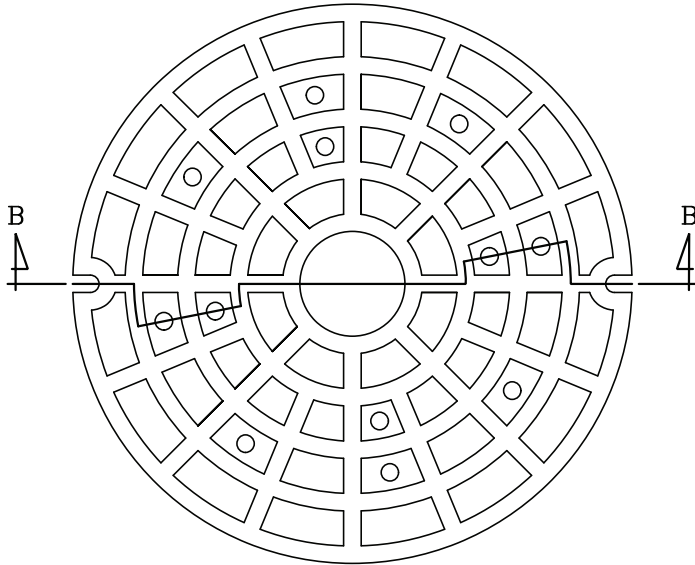
COVER B
 FOR USE ON MANHOLES

9-30-2014
 F.H.W.A. APPROVAL

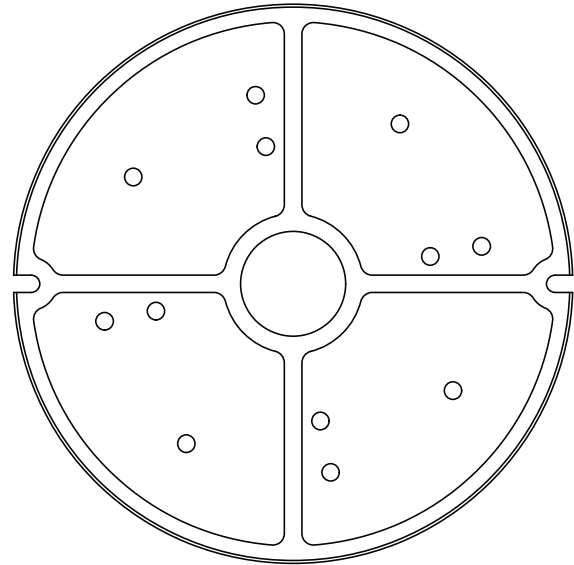
3-7-2014
 PLAN DATE

R-7-F

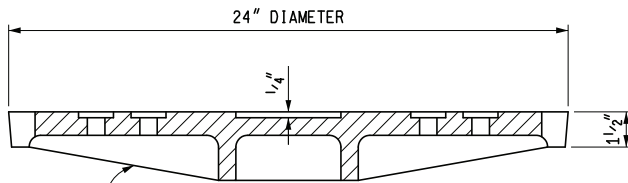
SHEET
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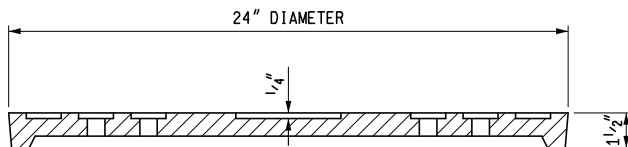
TOP VIEW OF COVER



BOTTOM VIEW OF COVER



ALTERNATE PROFILES PERMITTED
SECTION B - B



SECTION B - B
ALTERNATE PROFILE EXAMPLE

NOTES:

THE CASTINGS SHALL MEET THE REQUIREMENTS OF THE CURRENT STANDARD SPECIFICATION FOR GRAY IRON CASTINGS.

ALL CASTINGS SHALL BE CLEANED BY CURRENT APPROVED BLASTING METHODS.

THE SEATING FACE OF THE LID AND THE SEAT FOR THE SAME ON THE FRAME SHALL BE GROUND OR MACHINED SO THAT THE LID WILL HAVE AN EVEN BEARING ON ITS SEAT TO PREVENT ROCKING OR TILTING.

THE CASTINGS SHALL BE FREE OF POURING FAULTS, BLOW HOLES, CRACKS AND OTHER IMPERFECTIONS. THEY SHALL BE SOUND, TRUE TO FORM AND THICKNESS, CLEAN AND NEATLY FINISHED, AND SHALL BE COATED WITH COAL TAR PITCH VARNISH.

THIS COVER IS DESIGNED TO FIT ON ANY MANHOLE OR ON ANY EXISTING SIMILAR STRUCTURE WHEN SO DESIGNATED ON THE PLANS.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

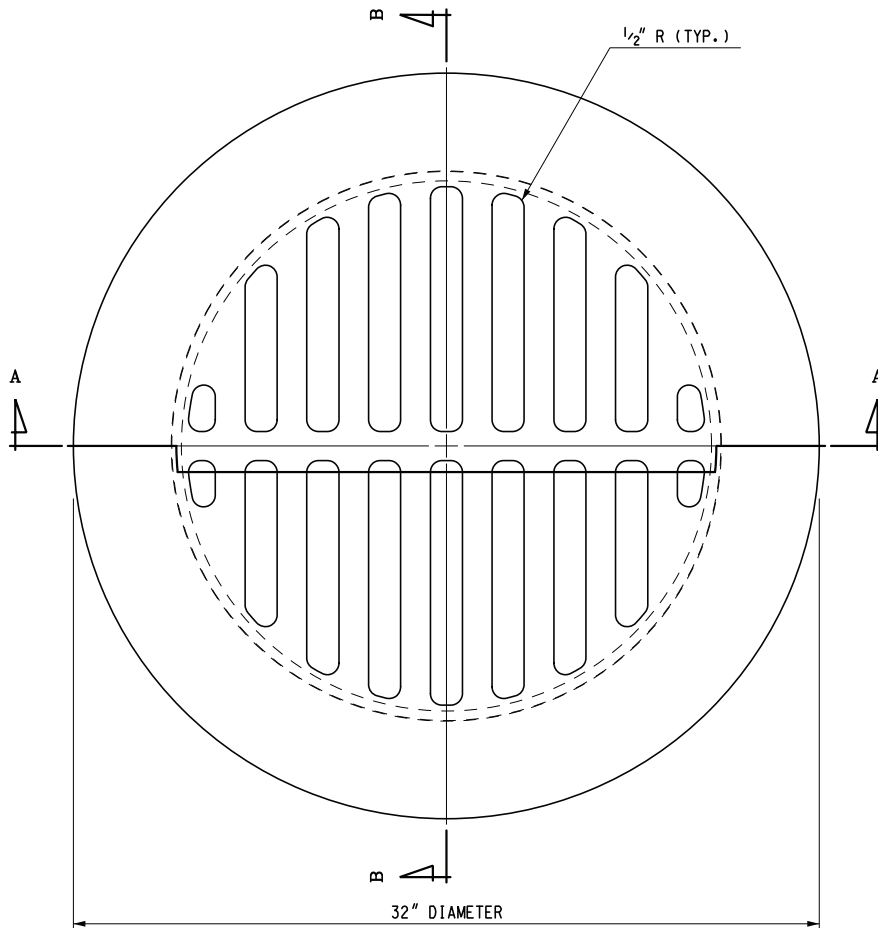
COVER B
FOR USE ON MANHOLES

9-30-2014
F.H.W.A. APPROVAL

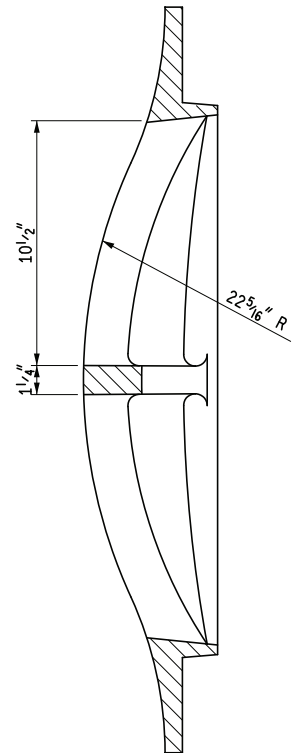
3-7-2014
PLAN DATE

R-7-F

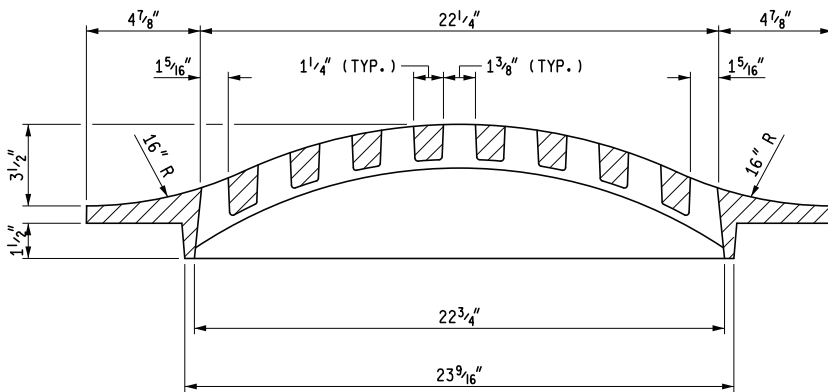
SHEET
2 OF 2



PLAN VIEW



SECTION B - B



SECTION A - A

NOTES:

THE CASTINGS SHALL MEET THE REQUIREMENTS OF THE CURRENT STANDARD SPECIFICATION FOR GRAY IRON CASTINGS.

ALL CASTINGS SHALL BE CLEANED BY CURRENT APPROVED BLASTING METHODS.

THE CASTINGS SHALL BE FREE OF POURING FAULTS, BLOW HOLES, CRACKS AND OTHER IMPERFECTIONS. THEY SHALL BE SOUND, TRUE TO FORM AND THICKNESS, CLEAN AND NEATLY FINISHED, AND SHALL BE COATED WITH COAL TAR PITCH VARNISH.

THE CASTING SHALL BE SET IN SOFT MORTAR BED TO THE ELEVATION SPECIFIED ON THE PLANS AND IN SUCH A MANNER AS TO PROVIDE A FIRM AND UNIFORM BEARING ON THE MASONRY WALL.

THIS COVER IS DESIGNED TO FIT ON ANY INLET, CATCH BASIN OR ON ANY EXISTING SIMILAR STRUCTURE WHEN SO DESIGNATED ON THE PLANS.



PREPARED BY
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Kirk T. Stuedle

APPROVED BY: *Randy V. Puffel*
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: *Mark A. Van Pelt*
DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

COVER G
FOR USE IN DITCHES AND AREAS
SUBJECT TO MINOR TRAFFIC

9-30-2014
F.H.W.A. APPROVAL

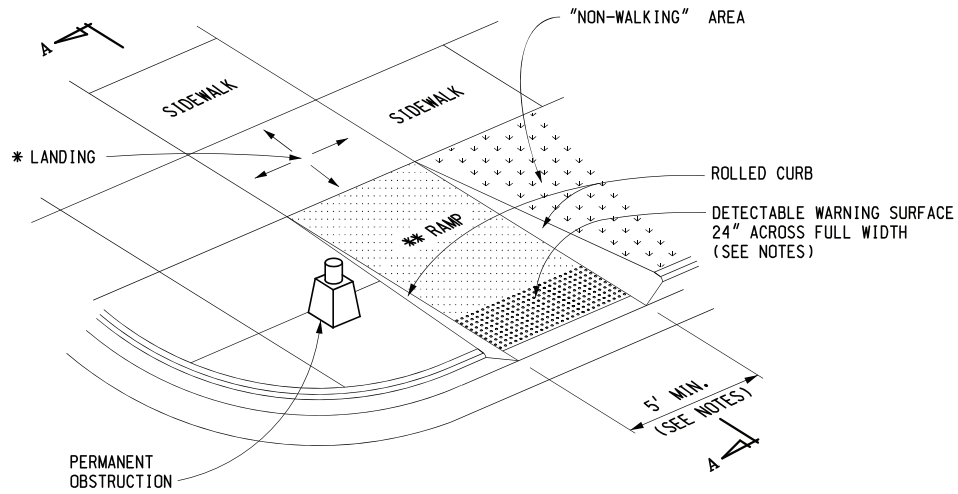
3-13-2014
PLAN DATE

R-12-E

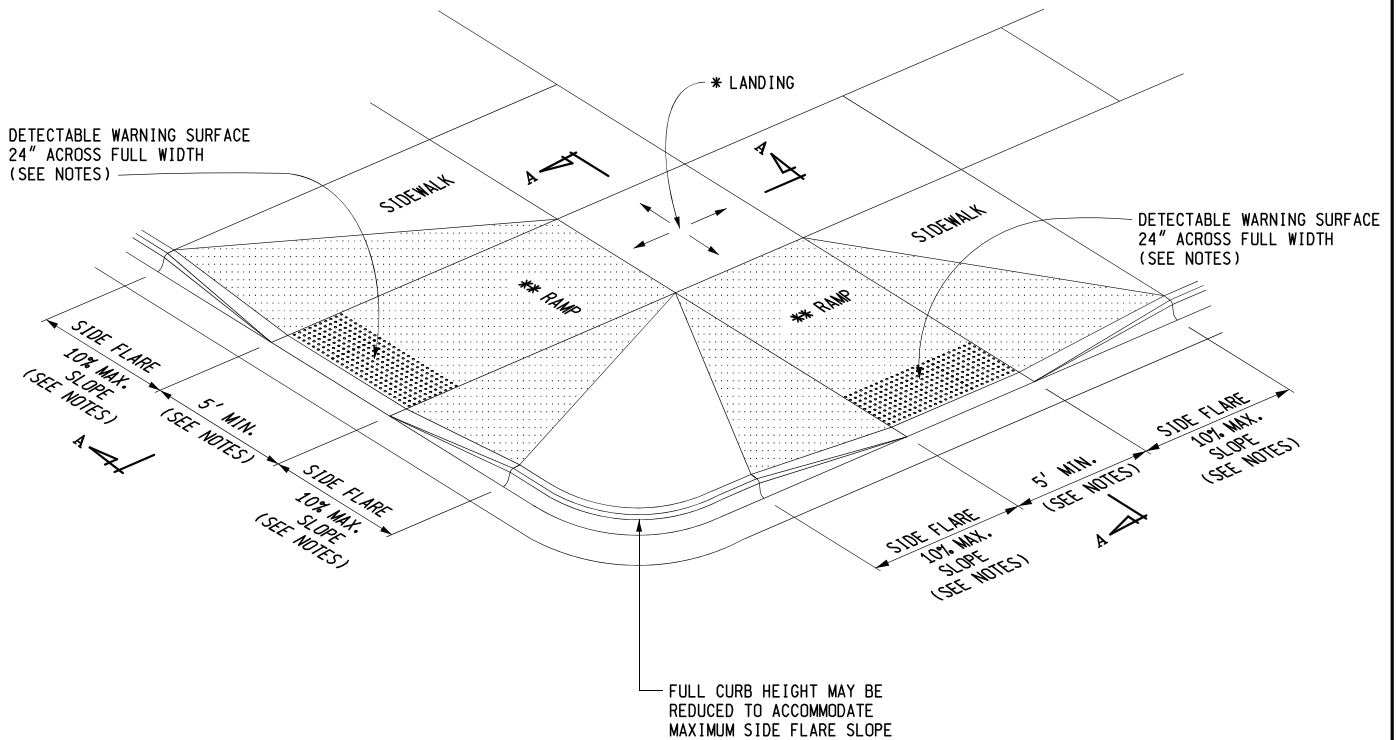
SHEET
1 OF 1

* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



CURB RAMP TYPE R
(ROLLED SIDES)



CURB RAMP TYPE F
(FLARED SIDES, TWO RAMPS SHOWN)



PREPARED BY
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Paul C. Ajegba

APPROVED BY: Gregg Brunner, P.E. Gregg Brunner
Oct 14 2021 12:32 PM
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Bradley C. Wiefelrich Bradley C. Wiefelrich
Oct 14 2021 11:01 AM
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**CURB RAMP AND
DETECTABLE WARNING DETAILS**

4-7-2022
F.H.W.A. APPROVAL

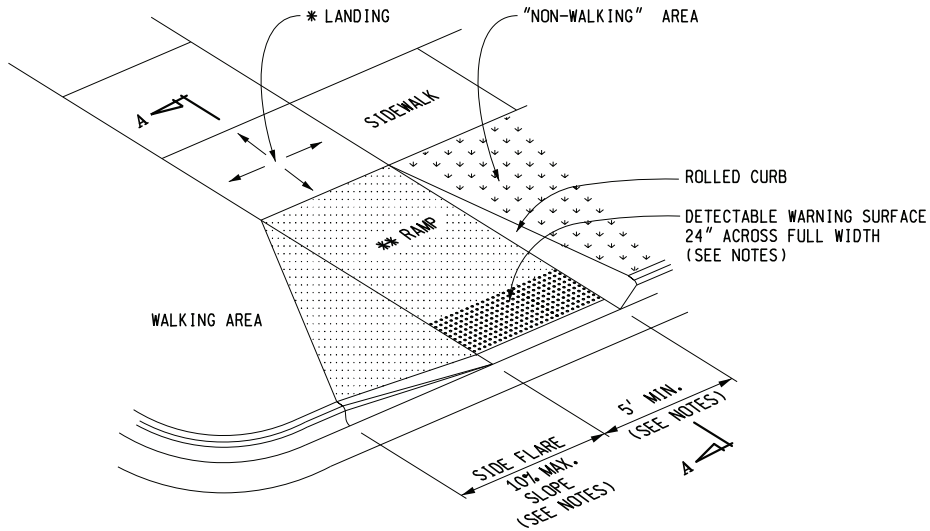
5-8-2020
PLAN DATE

R-28-J

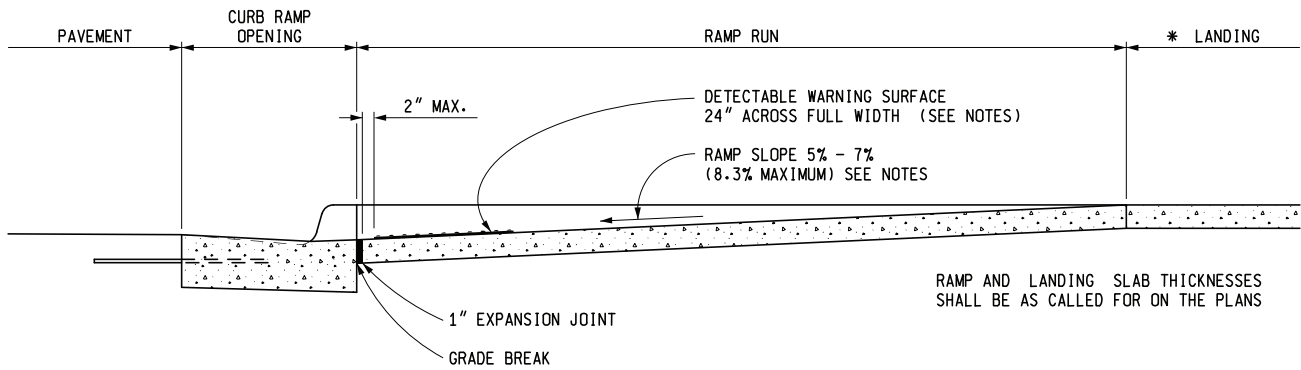
SHEET
1 OF 7

* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



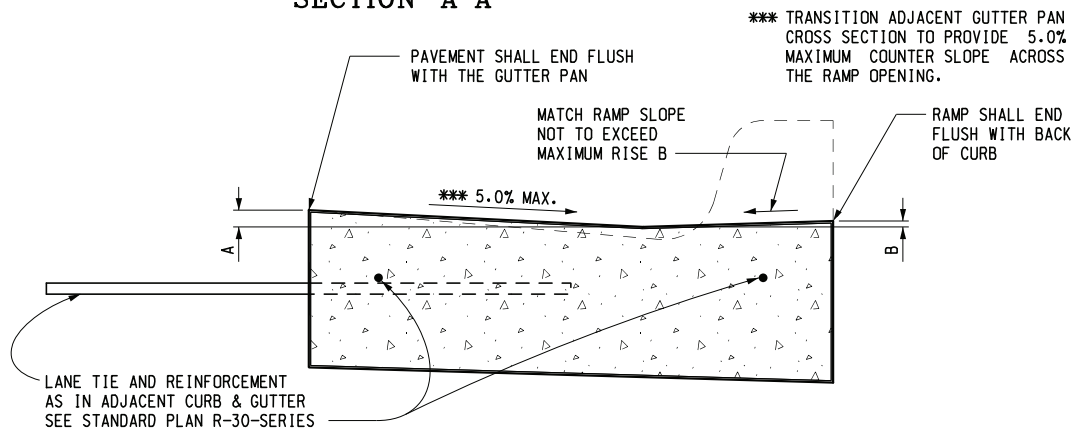
CURB RAMP TYPE RF
(ROLLED / FLARED SIDES)



SECTION A-A

CURB TYPE	MAXIMUM RISE (INCHES)	
	A	B
B1	3/4	1
B2	3/4	1
B3	3/4	1
D1	3/4	1
D2	3/4	1
D3	3/4	1
C1	1/2	1/2
C2	1/2	1/2
C3	3/4	1/2
C4	3/4	1/2
C5	1	1/2
C6	1	1/2
F1	1/2	1/2
F2	1/2	1/2
F3	3/4	1/2
F4	3/4	1/2
F5	1	1/2
F6	1	1/2

FOR CURB TYPES SEE STANDARD PLAN R-30-SERIES

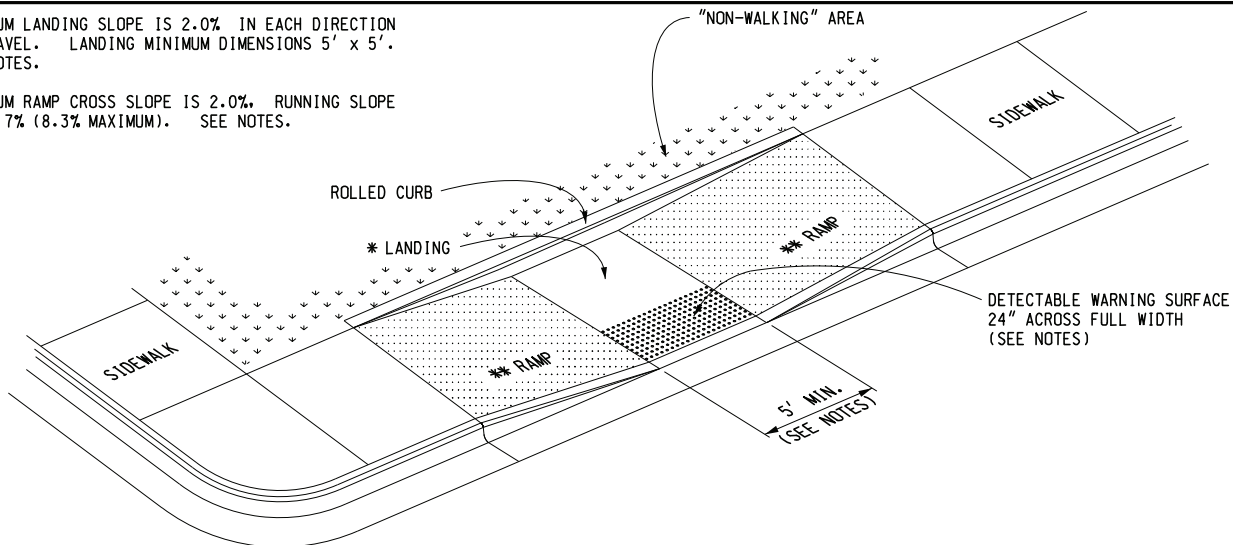


SECTION THROUGH CURB RAMP OPENING
(TYPICAL ALL RAMP TYPES)

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR
**CURB RAMP AND
DETECTABLE WARNING DETAILS**

* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

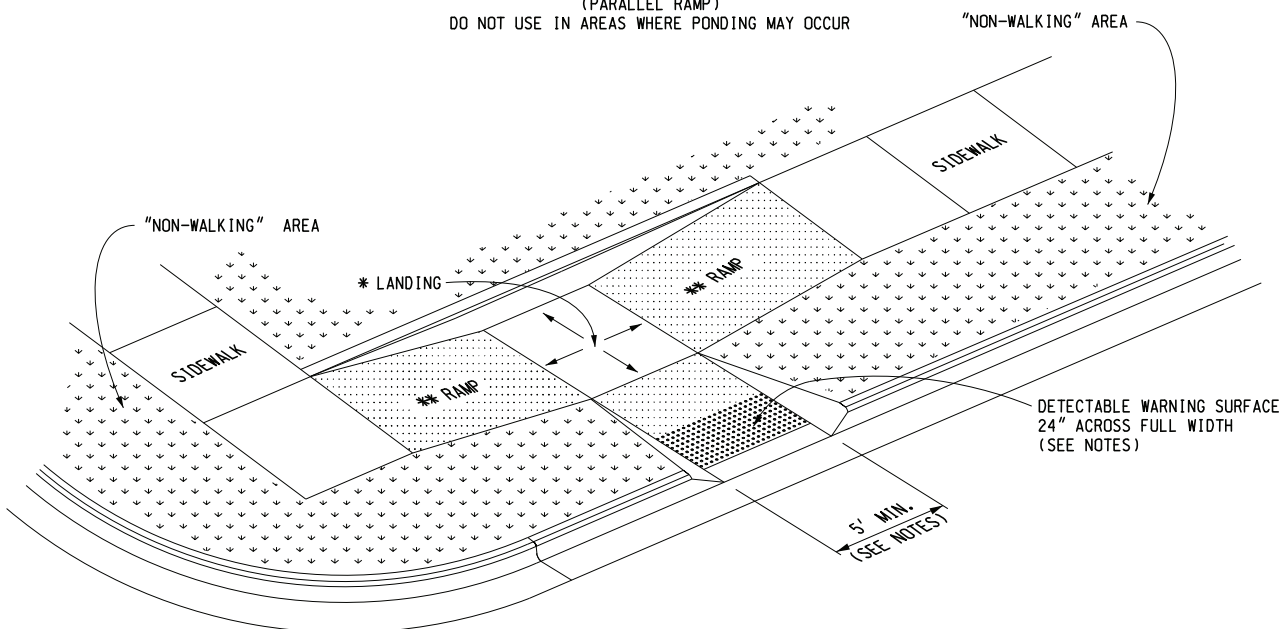
** MAXIMUM RAMP CROSS SLOPE IS 2.0%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



CURB RAMP TYPE P

(PARALLEL RAMP)

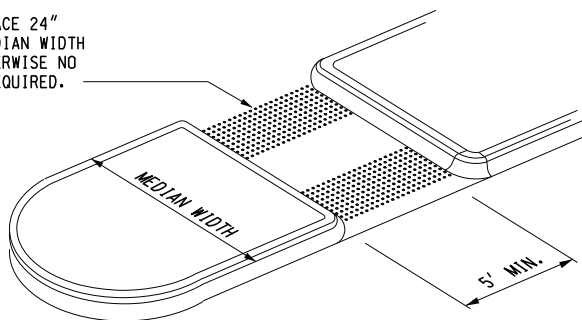
DO NOT USE IN AREAS WHERE PONDING MAY OCCUR



CURB RAMP TYPE C

(COMBINATION RAMP)

DETECTABLE WARNING SURFACE 24" ACROSS FULL WIDTH IF MEDIAN WIDTH IS AT LEAST 6'-0". OTHERWISE NO DETECTABLE WARNING IS REQUIRED.



CURB RAMP TYPE M

(MEDIAN ISLAND)

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**CURB RAMP AND
DETECTABLE WARNING DETAILS**

4-7-2022
F.H.W.A. APPROVAL

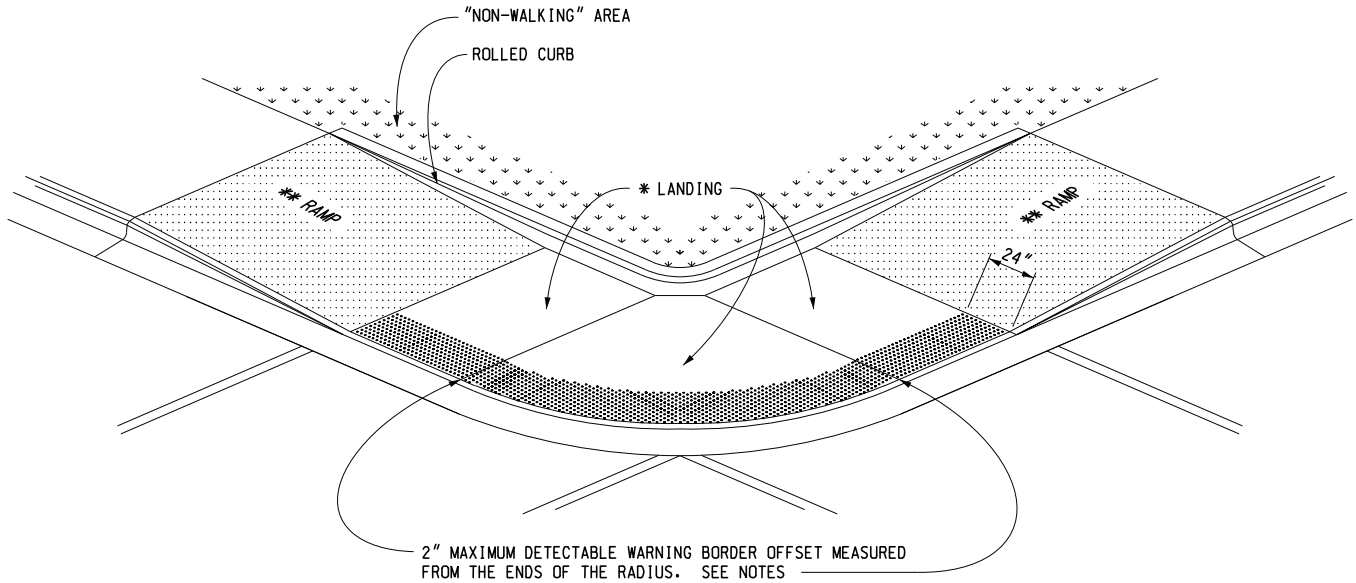
5-8-2020
PLAN DATE

R-28-J

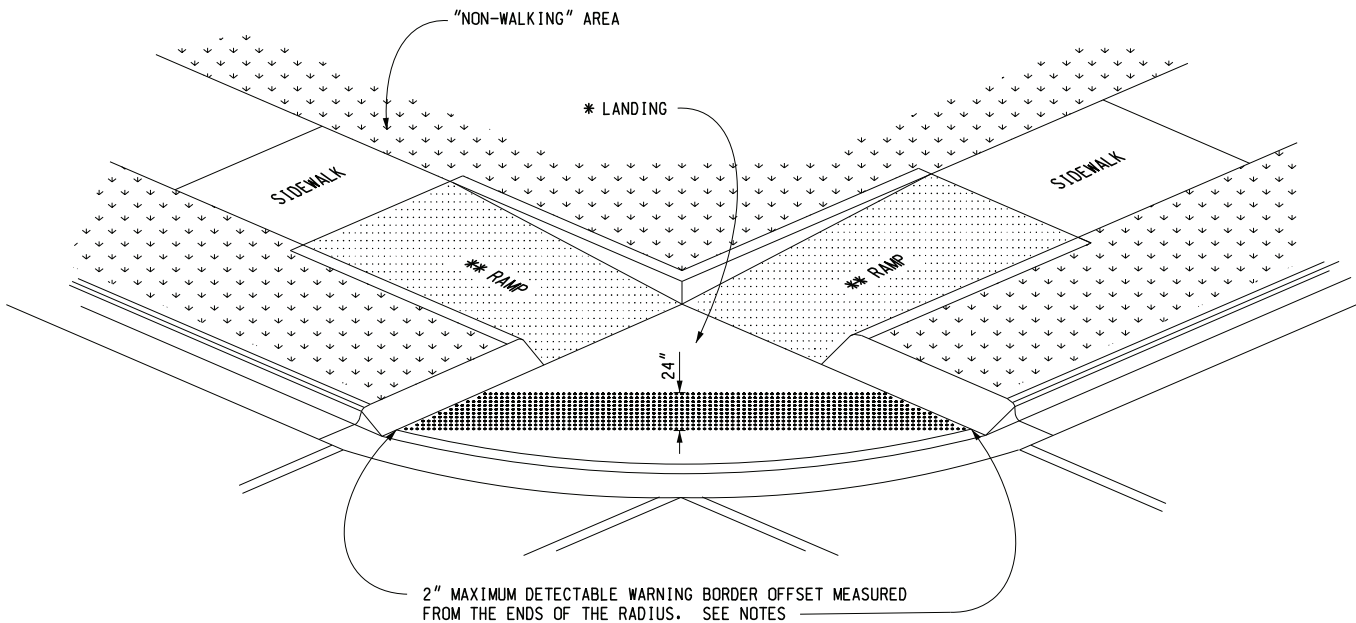
SHEET
3 OF 7

* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



(RADIAL DETECTABLE WARNING SHOWN)



(TANGENT DETECTABLE WARNING SHOWN)

CURB RAMP TYPE D

(DEPRESSED CORNER)

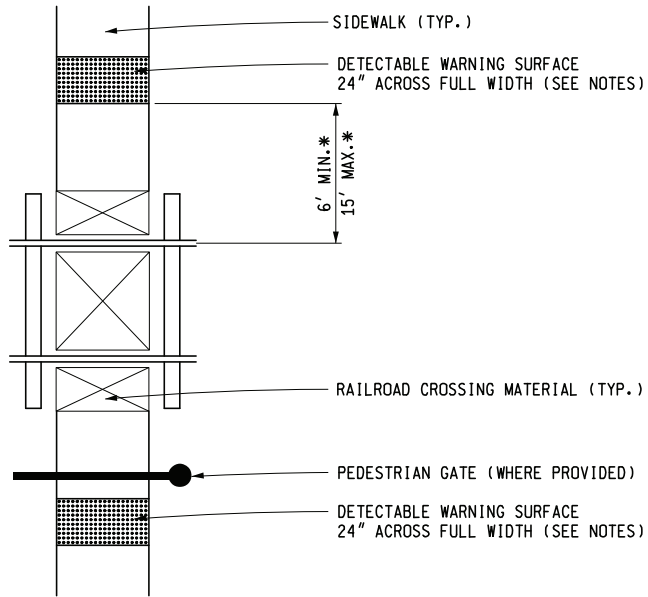
USE ONLY WHEN INDEPENDENT DIRECTIONAL RAMPS CAN NOT BE CONSTRUCTED FOR EACH CROSSING DIRECTION

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

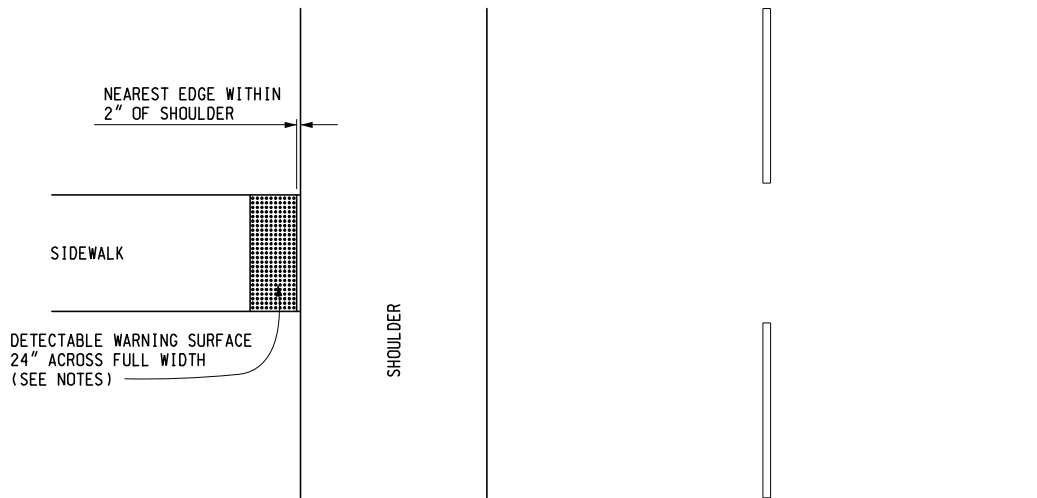
**CURB RAMP AND
DETECTABLE WARNING DETAILS**

4-7-2022 F.H.W.A. APPROVAL	5-8-2020 PLAN DATE	R-28-J	SHEET 4 OF 7
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* THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE RAIL CROSSING IS 6' MINIMUM AND 15' MAXIMUM FROM THE CENTERLINE OF THE NEAREST RAIL. DO NOT PLACE DETECTABLE WARNING ON RAILROAD CROSSING MATERIAL.



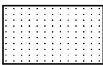





DETECTABLE WARNING AT RAILROAD CROSSING

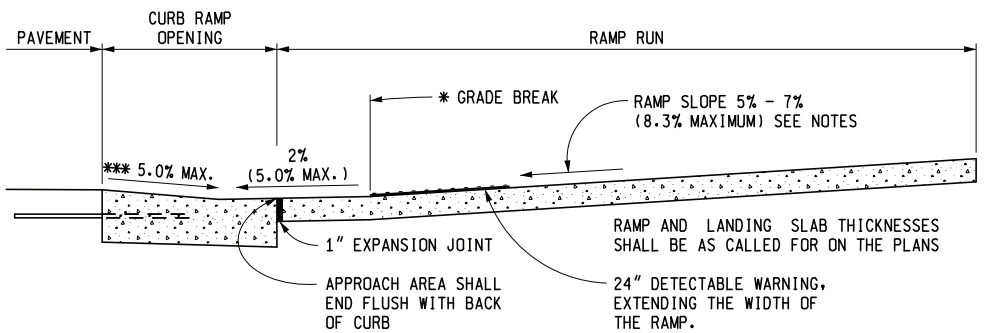
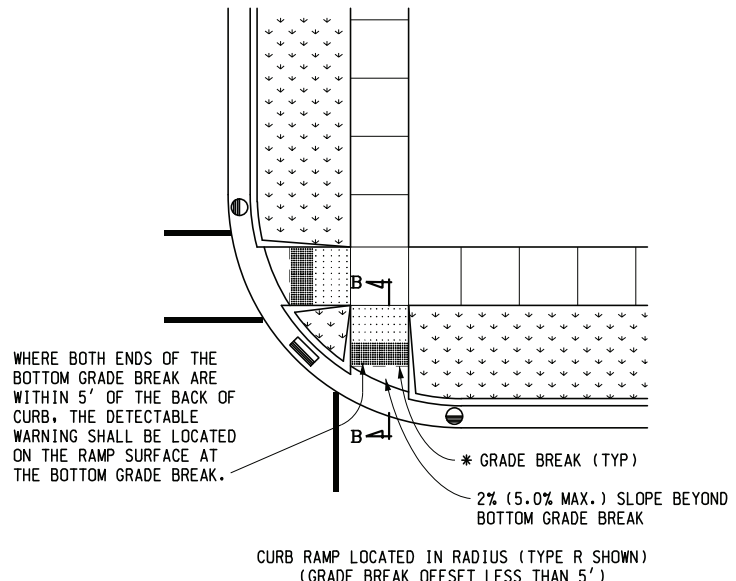
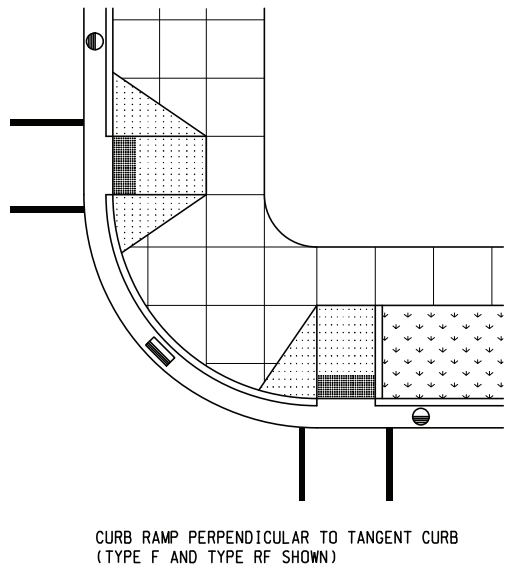
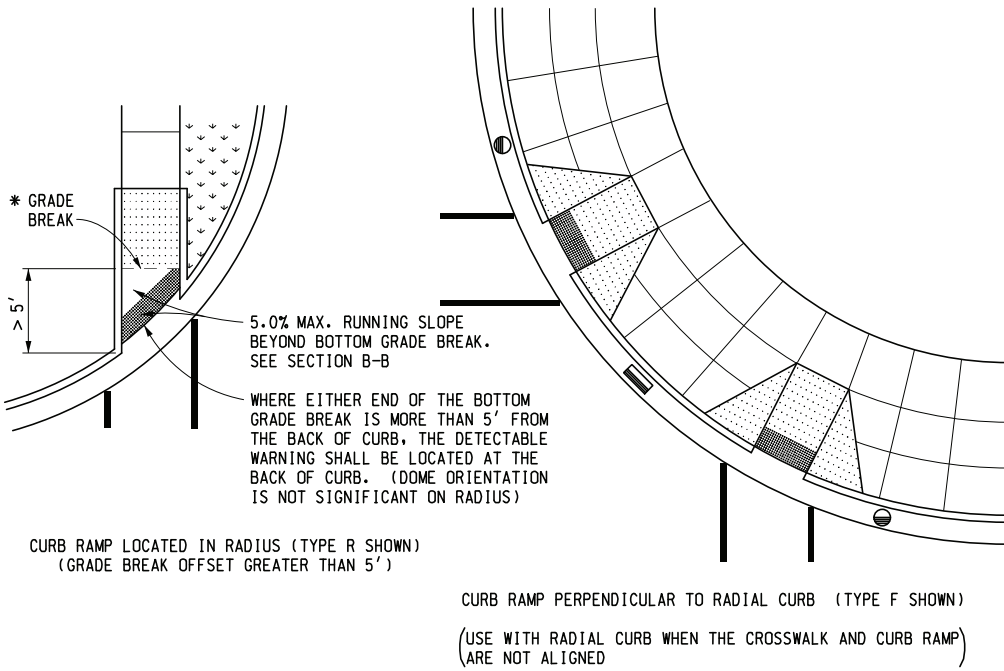


DETECTABLE WARNING AT FLUSH SHOULDER OR ROADWAY

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR			
CURB RAMP AND DETECTABLE WARNING DETAILS			
4-7-2022 F.H.W.A. APPROVAL	5-8-2020 PLAN DATE	R-28-J	SHEET 5 OF 7

LEGEND

	SLOPED SURFACE
	DETECTABLE WARNING
	"NON-WALKING" AREA
	CROSSWALK MARKING
	PREFERRED LOCATION OF DRAINAGE INLET (TYP.)
	ALTERNATE LOCATION OF DRAINAGE INLET (TYP.)



* GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMPS SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.

*** TRANSITION ADJACENT GUTTER PAN CROSS SECTION TO PROVIDE 5.0% MAXIMUM COUNTER SLOPE ACROSS THE RAMP OPENING.

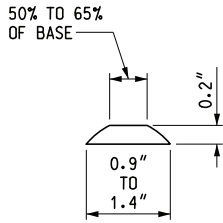
SEE SHEET 2 FOR CURB RAMP OPENING DETAILS.

**SECTION B-B
CURB RAMP ORIENTATION**

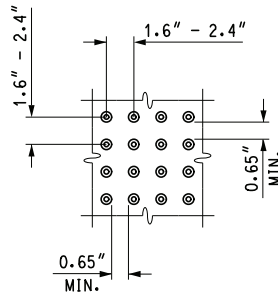
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**CURB RAMP AND
DETECTABLE WARNING DETAILS**

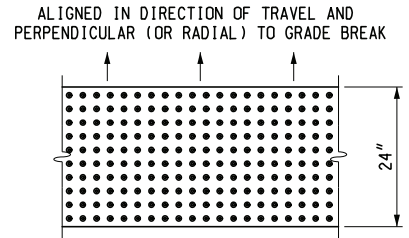
4-7-2022 F.H.W.A. APPROVAL	5-8-2020 PLAN DATE	R-28-J	SHEET 6 OF 7
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DOMES SECTION



DOMES SPACING



DOMES ALIGNMENT

DETECTABLE WARNING DETAILS

NOTES:

DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION, RECONSTRUCTION, OR ALTERATION OF STREETS, CURBS, OR SIDEWALKS IN THE PUBLIC RIGHT OF WAY.

CURB RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

RAMPS SHALL BE PROVIDED AT ALL CORNERS OF AN INTERSECTION WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. RAMPS SHALL ALSO BE PROVIDED AT MARKED AND/OR SIGNALIZED MID-BLOCK CROSSINGS.

SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE RUNNING SLOPE.

SIDEWALK SHALL BE RAMPED WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK.

CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP. WHERE CONDITIONS PERMIT, IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

RAMP WIDTH SHALL BE INCREASED, IF NECESSARY, TO ACCOMMODATE SIDEWALK SNOW REMOVAL EQUIPMENT NORMALLY USED BY THE MUNICIPALITY.

WHEN 5' MINIMUM WIDTHS ARE NOT PRACTICABLE, RAMP WIDTH MAY BE REDUCED TO NOT LESS THAN 4' AND LANDINGS TO NOT LESS THAN 4' x 4'.

CURB RAMPS WITH A RUNNING SLOPE $\leq 5\%$ DO NOT REQUIRE A TOP LANDING. HOWEVER, ANY CONTINUOUS SIDEWALK OR PEDESTRIAN ROUTE CROSSING THROUGH OR INTERSECTING THE CURB RAMP MUST INDEPENDENTLY MAINTAIN A CROSS SLOPE NOT GREATER THAN 2% PERPENDICULAR TO ITS OWN DIRECTION(S) OF TRAVEL.

DETECTABLE WARNING SURFACE COVERAGE IS 24" MINIMUM IN THE DIRECTION OF RAMP/PATH TRAVEL AND THE FULL WIDTH OF THE RAMP/PATH OPENING EXCLUDING CURBED OR FLARED CURB TRANSITION AREAS. A BORDER OFFSET NOT GREATER THAN 2" MEASURED ALONG THE EDGES OF THE DETECTABLE WARNING IS ALLOWABLE. FOR RADIAL CURB THE OFFSET IS MEASURED FROM THE ENDS OF THE RADIUS.

FOR NEW ROADWAY CONSTRUCTION, THE RAMP CROSS SLOPE MAY NOT EXCEED 2.0%. FOR ALTERATIONS TO EXISTING ROADWAYS, THE CROSS SLOPE MAY BE TRANSITIONED TO MEET AN EXISTING ROADWAY GRADE. THE CROSS SLOPE TRANSITION SHALL BE APPLIED UNIFORMLY OVER THE FULL LENGTH OF THE RAMP.

THE MAXIMUM RUNNING SLOPE OF 8.3% IS RELATIVE TO A FLAT (0%) REFERENCE. HOWEVER, IT SHALL NOT REQUIRE ANY RAMP OR SERIES OF RAMPS TO EXCEED 15 FEET IN LENGTH NOT INCLUDING LANDINGS OR TRANSITIONS.

DRAINAGE STRUCTURES SHOULD NOT BE PLACED IN LINE WITH RAMPS. THE LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER THE LOCATION OF THE DRAINAGE STRUCTURE. WHERE EXISTING DRAINAGE STRUCTURES ARE LOCATED IN THE RAMP PATH OF TRAVEL, USE A MANUFACTURER'S ADA COMPLIANT GRATE. OPENINGS SHALL NOT BE GREATER THAN 1/2". ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.

CROSSWALK AND STOP LINE MARKINGS, IF USED, SHALL BE SO LOCATED AS TO STOP TRAFFIC SHORT OF RAMP CROSSINGS. SPECIFIC DETAILS FOR MARKING APPLICATIONS ARE GIVEN IN THE "MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

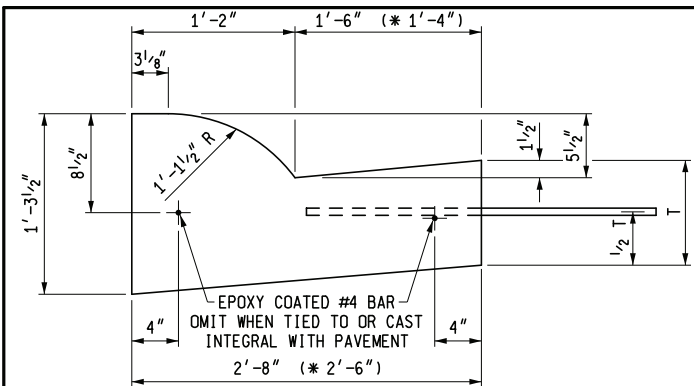
FLARED SIDES WITH A SLOPE OF 10% MAXIMUM, MEASURED ALONG THE ROADSIDE CURB LINE, SHALL BE PROVIDED WHERE AN UNOBSTRUCTED CIRCULATION PATH LATERALLY CROSSES THE CURB RAMP. FLARED SIDES ARE NOT REQUIRED WHERE THE RAMP IS BORDERED BY LANDSCAPING, UNPAVED SURFACE OR PERMANENT FIXED OBJECTS. WHERE THEY ARE NOT REQUIRED, FLARED SIDES CAN BE CONSIDERED IN ORDER TO AVOID SHARP CURB RETURNS AT RAMP OPENINGS.

DETECTABLE WARNING PLATES MUST BE INSTALLED USING FABRICATED OR FIELD CUT UNITS CAST AND/OR ANCHORED IN THE PAVEMENT TO RESIST SHIFTING OR HEAVING.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**CURB RAMP AND
DETECTABLE WARNING DETAILS**

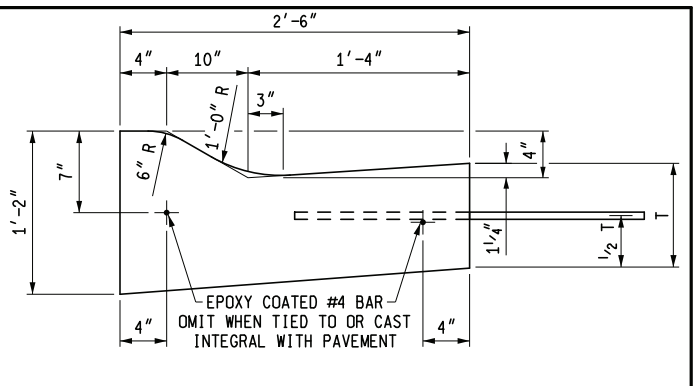
4-7-2022 F.H.W.A. APPROVAL	5-8-2020 PLAN DATE	R-28-J	SHEET 7 OF 7
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(* GUTTER PAN WIDTH MAY BE REDUCED WHEN APPROVED BY THE ENGINEER)

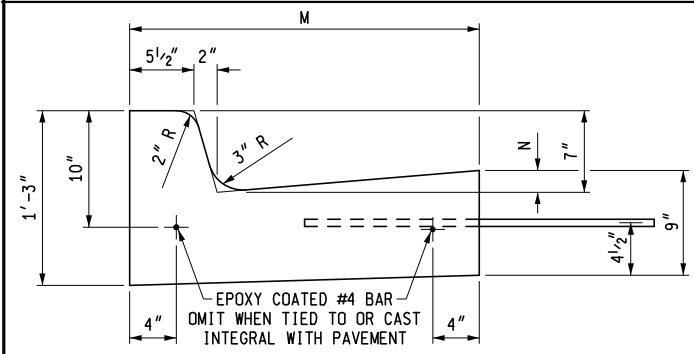
DETAIL	DIMENSION	LANE TIES	CONCRETE CYD / LFT	CONCRETE CYD / LFT
	T			
B1	9"	AS SHOWN	0.0900	(* 0.0855)
B2	9"	OMITTED	0.0900	(* 0.0855)
B3	10"	AS SHOWN	0.0941	(* 0.0894)

B



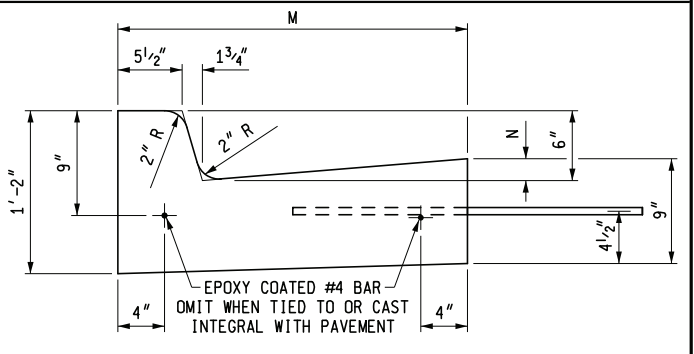
DETAIL	DIMENSION	LANE TIES	CONCRETE CYD / LFT
	T		
D1	9"	AS SHOWN	0.0788
D2	9"	OMITTED	0.0788
D3	10"	AS SHOWN	0.0826

D



DETAIL	DIMENSION		LANE TIES	CONCRETE CYD / LFT
	M	N		
C1	1'-6"	7/8"	AS SHOWN	0.0506
C2	1'-6"	7/8"	OMITTED	0.0506
C3	2'-0"	1 3/8"	AS SHOWN	0.0632
C4	2'-0"	1 3/8"	OMITTED	0.0632
C5	2'-6"	1 7/8"	AS SHOWN	0.0757
C6	2'-6"	1 7/8"	OMITTED	0.0757

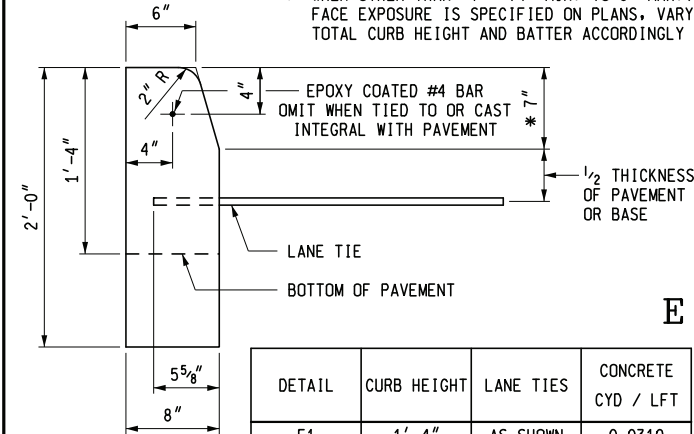
C



DETAIL	DIMENSION		LANE TIES	CONCRETE CYD / LFT
	M	N		
F1	1'-6"	7/8"	AS SHOWN	0.0484
F2	1'-6"	7/8"	OMITTED	0.0484
F3	2'-0"	1 3/8"	AS SHOWN	0.0610
F4	2'-0"	1 3/8"	OMITTED	0.0610
F5	2'-6"	1 7/8"	AS SHOWN	0.0737
F6	2'-6"	1 7/8"	OMITTED	0.0737

F

* WHEN OTHER THAN 7" (4" MIN. TO 9" MAX.) FACE EXPOSURE IS SPECIFIED ON PLANS, VARY TOTAL CURB HEIGHT AND BATTER ACCORDINGLY



DETAIL	CURB HEIGHT	LANE TIES	CONCRETE CYD / LFT
E1	1'-4"	AS SHOWN	0.0310
E2	1'-4"	OMITTED	0.0310
E4	2'-0"	OMITTED	0.0477

E

MDOT
Michigan Department of Transportation

PREPARED BY
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Kirk T. Stuedle

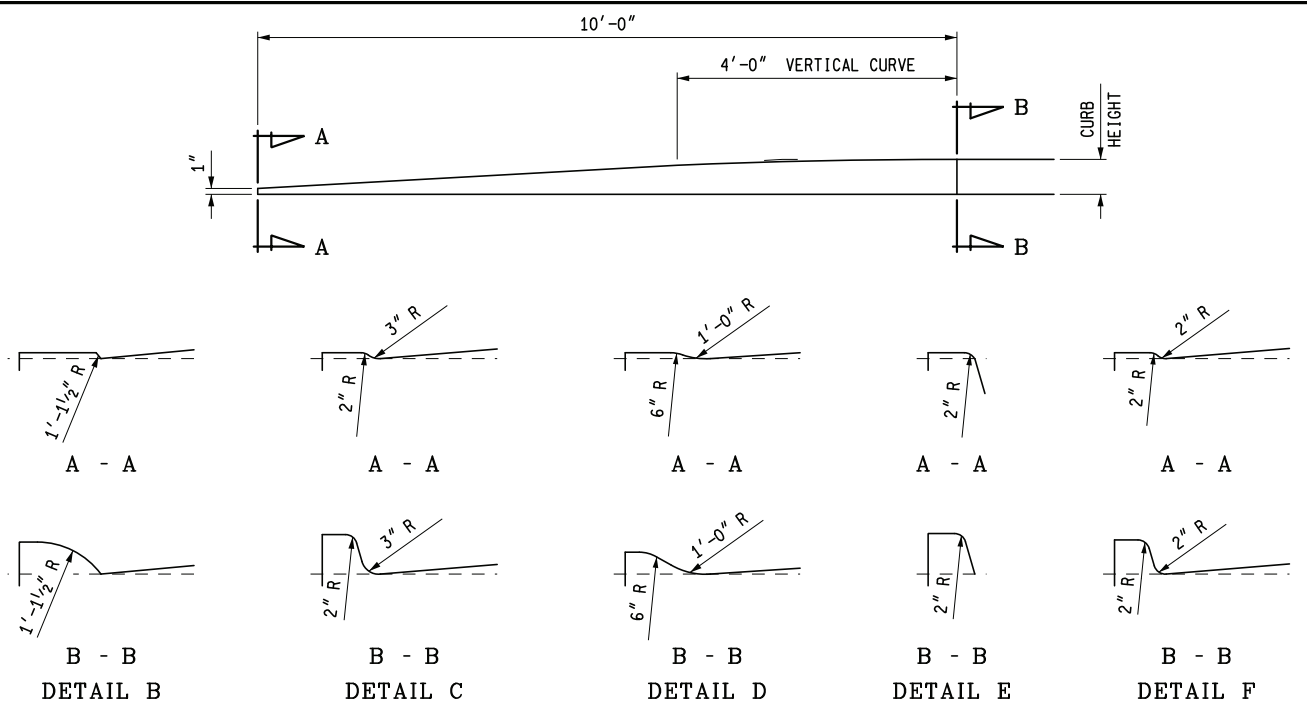
APPROVED BY: Randy V. [Signature]
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Mark A. Van [Signature]
DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT

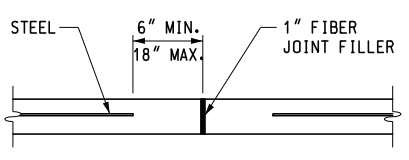
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

**CONCRETE CURB AND
CONCRETE CURB & GUTTER**

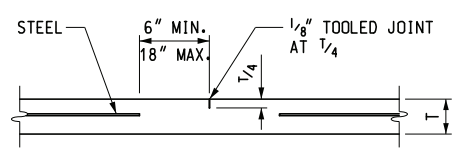
9-30-2014 F.H.W.A. APPROVAL	2-6-2014 PLAN DATE	R-30-G	SHEET 1 OF 2
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CONCRETE CURB, CURB AND GUTTER ENDINGS



1" FIBER JOINT FILLER



CONTRACTION JOINT

NOTES:

- CURB AND GUTTER RADII SHALL BE DIMENSIONED TO THE FRONT EDGE OF THE GUTTER PAN OR EDGE OF PAVEMENT.
- CONCRETE CURB AND GUTTER ENDINGS WILL BE PAID FOR IN LINEAR FEET OF THE ADJACENT CURB DETAIL.
- JOINTS SHALL BE PLACED AT RIGHT ANGLES TO THE EDGE OF CONCRETE CURB AND GUTTER.
- JOINTS DETAILED ON THE PLANS SHALL SUPERSEDE THOSE SPECIFIED ON THIS STANDARD PLAN.
- BOTTOM SLOPE OF CURB AND GUTTER STRUCTURE MAY BE THE SAME SLOPE AS BOTTOM OF PAVEMENT. BACK OF CURB AND VERTICAL EDGE OF GUTTER PAN MAY HAVE A MAXIMUM 1/2" BATTER TO FACILITATE FORMING.
- WHEN CURB AND GUTTER IS CAST INTEGRALLY, SEE CURRENT STANDARD PLAN R-31-SERIES.
- ALL JOINTS FOR CURB OR CURB AND GUTTER ARE INCLUDED IN THE PAY ITEM FOR THE CURB OR CURB AND GUTTER.

JOINTS IN CURB OR CURB AND GUTTER NOT TIED TO CONCRETE PAVEMENT; ADJACENT TO CONCRETE BASE COURSE; OR ADJACENT TO HMA PAVEMENT:

- A. PLACE 1" FIBER JOINT FILLER AT 400' MAXIMUM INTERVALS.
- B. PLACE 1" FIBER JOINT FILLER AT SPRING POINTS OF INTERSECTING STREETS.
- C. PLACE 1/2" ISOLATION JOINT AT CATCH BASINS PER STANDARD PLAN R-37-SERIES.
- D. PLACE CONTRACTION JOINTS AT 40' MAXIMUM INTERVALS.

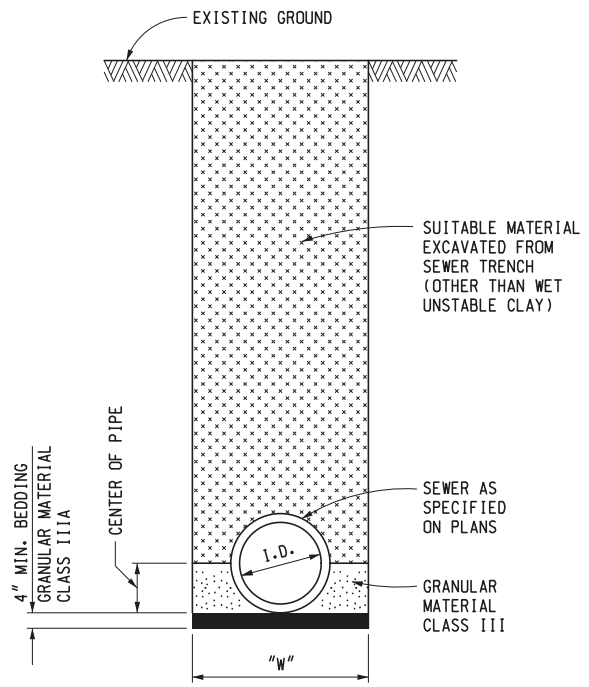
JOINTS IN CURB OR CURB AND GUTTER TIED TO JOINTED PAVEMENT

- A. PLACE 1" FIBER JOINT FILLER OPPOSITE ALL TRANSVERSE EXPANSION JOINTS IN PAVEMENT.
- B. PLACE 1/2" ISOLATION JOINT AT CATCH BASINS PER STANDARD PLAN R-37-SERIES.
- C. PLACE CONTRACTION JOINTS OPPOSITE ALL TRANSVERSE CONTRACTION JOINTS IN PAVEMENT.
- D. A SYMBOL (B) JOINT SHALL BE PLACED BETWEEN CURB OR CURB AND GUTTER AND ADJACENT CONCRETE PAVEMENT AS SPECIFIED ON STANDARD PLAN R-41-SERIES.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

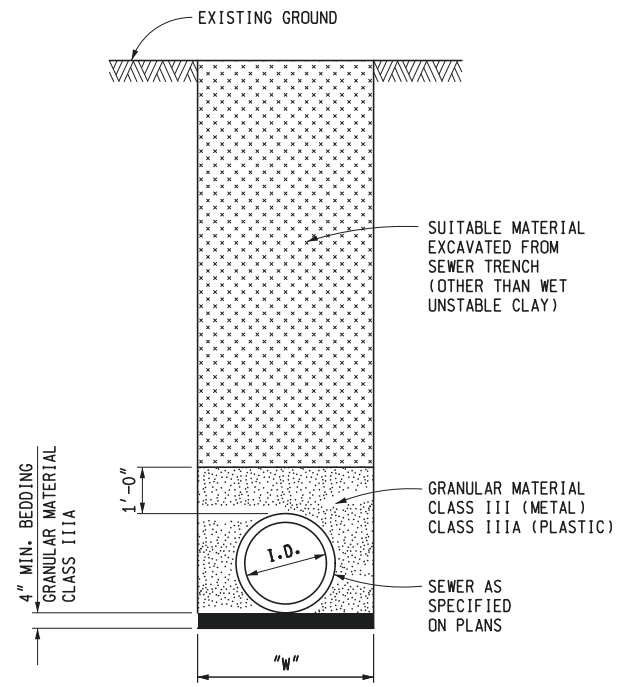
**CONCRETE CURB AND
CONCRETE CURB & GUTTER**

9-30-2014 F.H.W.A. APPROVAL	2-6-2014 PLAN DATE	R-30-G	SHEET 2 OF 2
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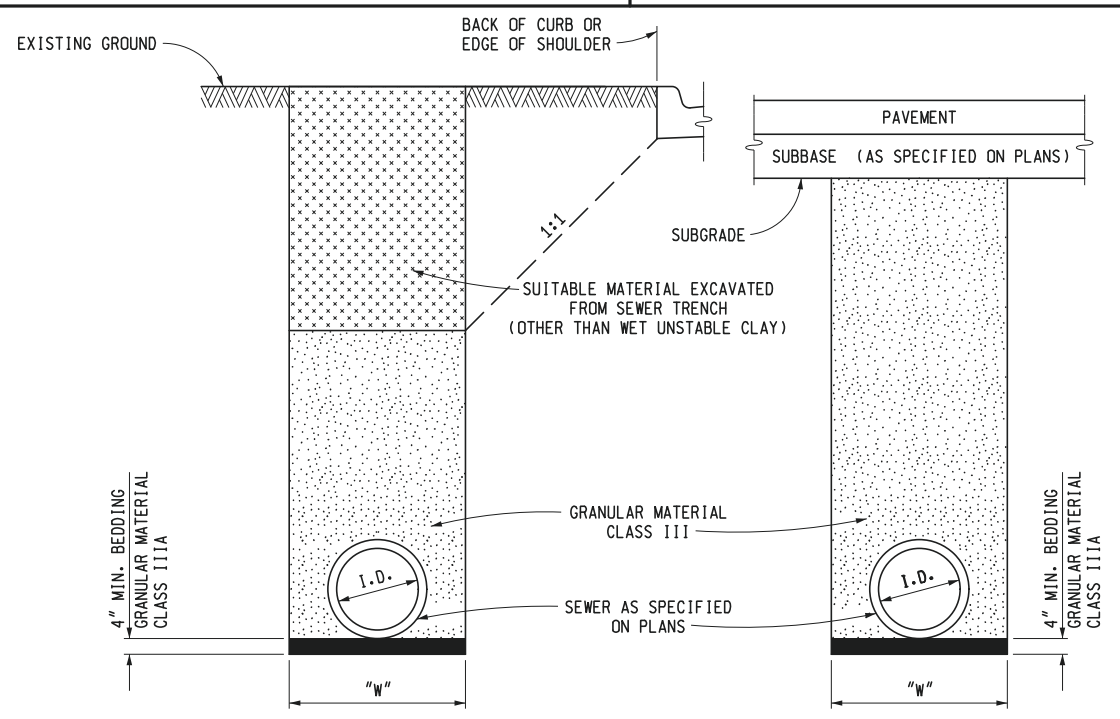
**SEWER NOT UNDER ROADBED
CONCRETE**

NOTE: FOR "W" SEE NOTES ON SHEET 5 **A1**



**SEWER NOT UNDER ROADBED
METAL & PLASTIC**

NOTE: FOR "W" SEE NOTES ON SHEET 5 **A2**



**SEWER UNDER ROADBED OR
WITHIN INFLUENCE OF ROADBED
CONCRETE & METAL PIPE**

B1



PREPARED BY
DESIGN DIVISION
DRAWN BY: B.L.T.
CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Kirk T. Steudle

APPROVED BY: Kimberly Avery
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Bradley C. Wieferich
DIRECTOR, BUREAU OF DEVELOPMENT

Digitally signed by Kimberly Avery
DN: cn=Kimberly Avery, o=MDOT,
ou=Bureau of Field Services,
email=averyk@michigan.gov, c=US
Date: 2016.12.15 09:03:17 -0500

Digitally signed by Bradley C. Wieferich
DN: cn=Bradley C. Wieferich, o=Michigan
Department of Transportation, ou=Design
Division, email=wieferichb@michigan.gov, c=US
Date: 2016.12.15 09:45:44 -0500

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

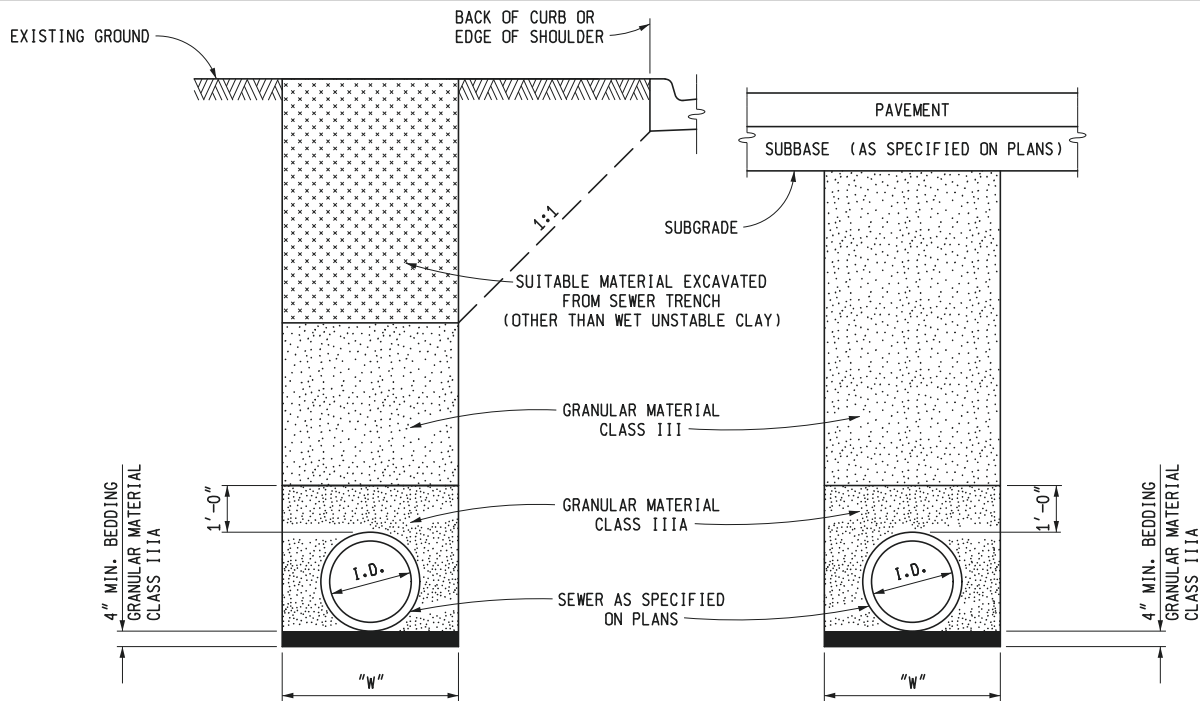
UTILITY TRENCHES

7-25-2017
F.H.W.A. APPROVAL

2-8-2016
PLAN DATE

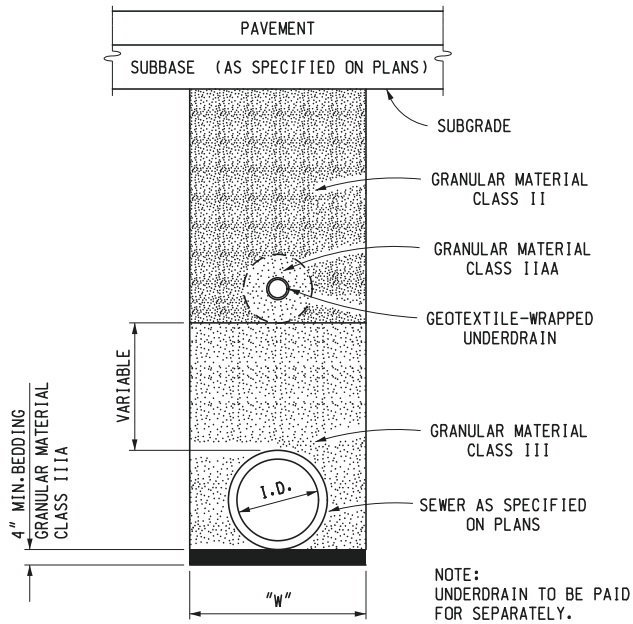
R-83-C

SHEET
1 OF 5



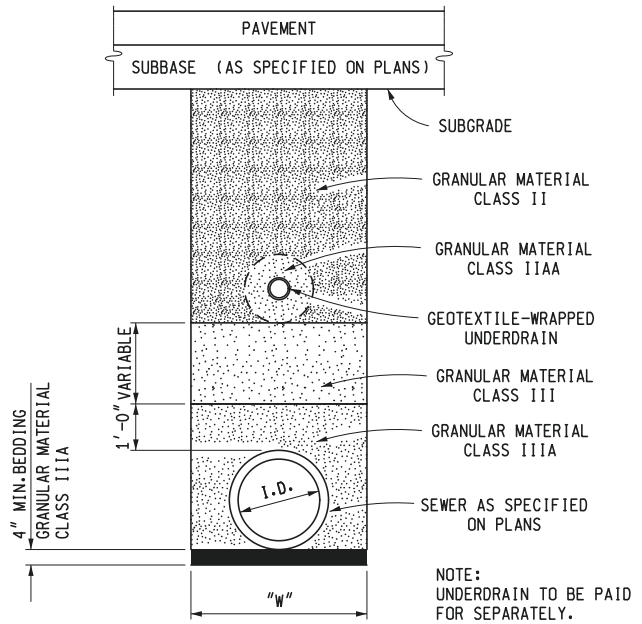
**SEWER UNDER ROADBED OR
WITHIN INFLUENCE OF ROADBED
PLASTIC PIPE**

B2



**SEWER WITH UNDERDRAIN UNDER ROADBED
CONCRETE & METAL PIPE**

C1



**SEWER WITH UNDERDRAIN UNDER ROADBED
PLASTIC PIPE**

C2

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

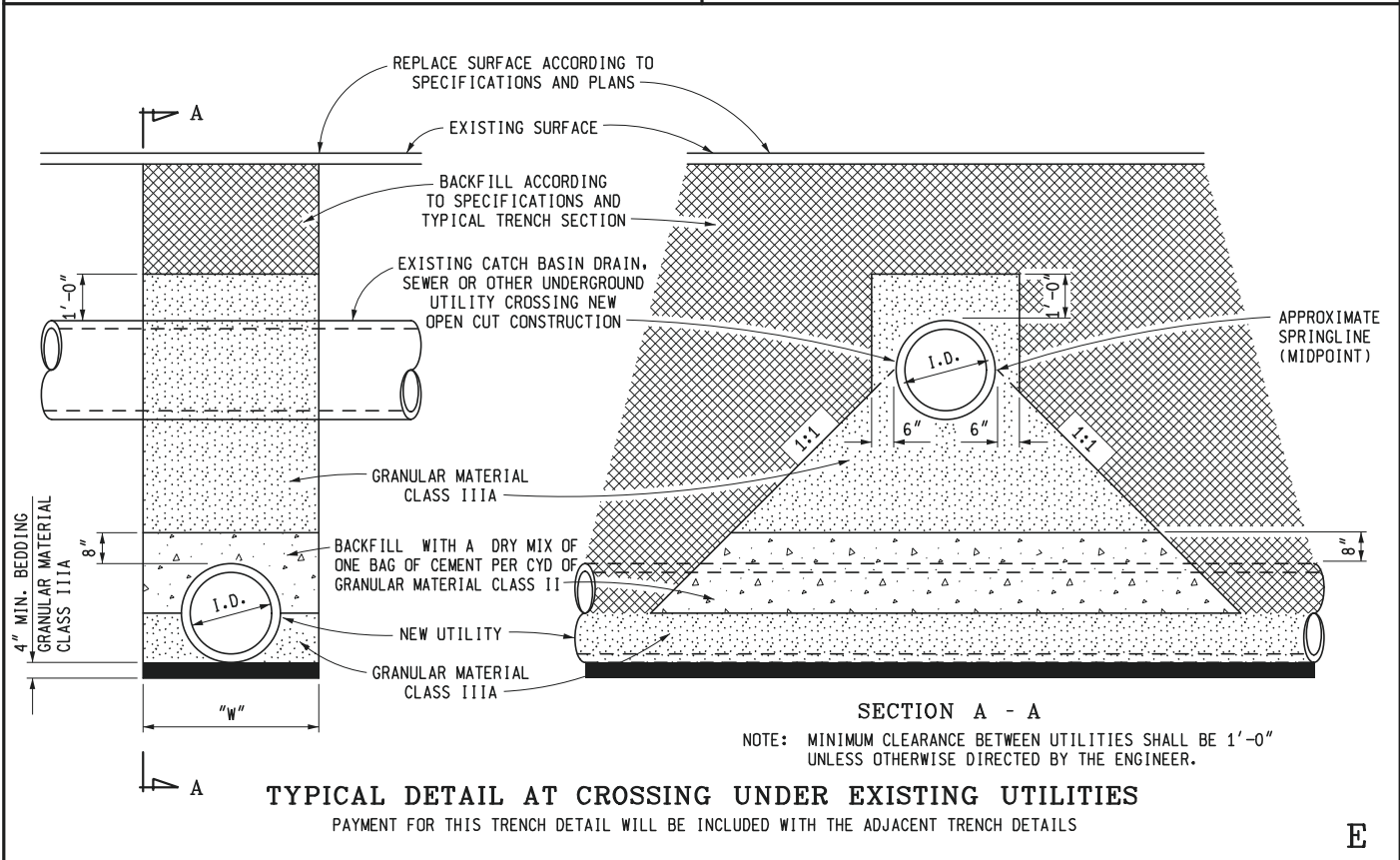
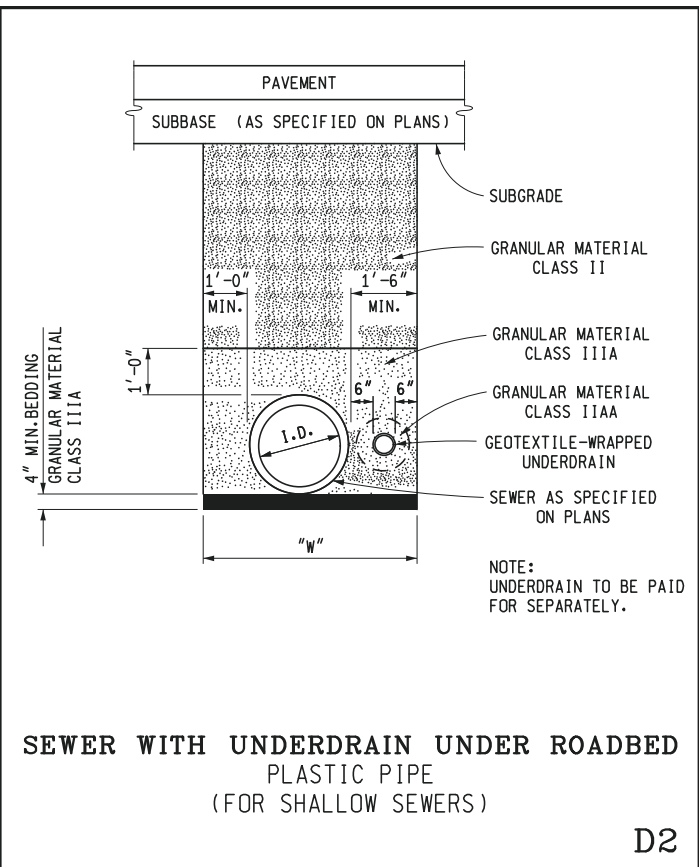
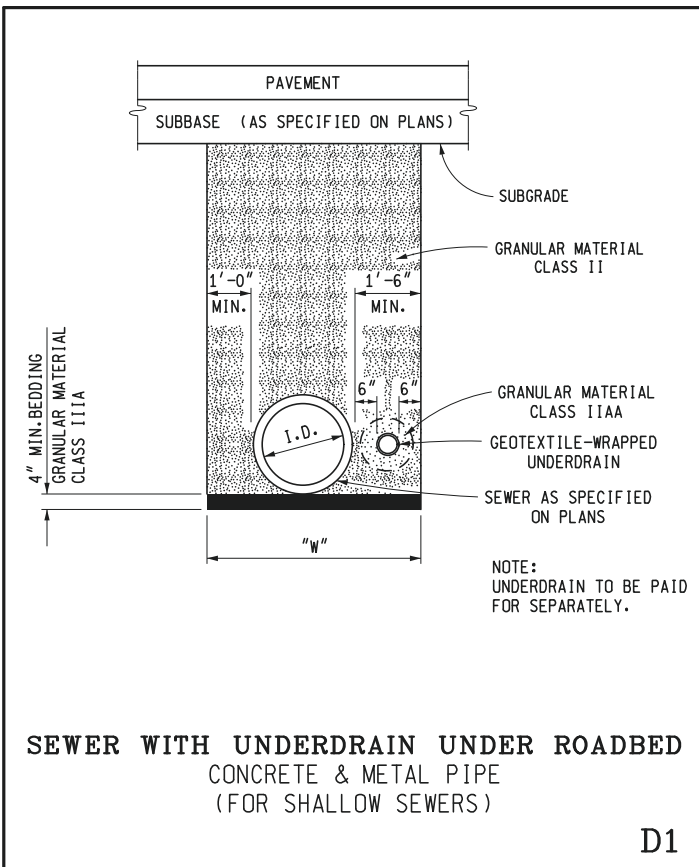
UTILITY TRENCHES

7-25-2017
F.H.W.A. APPROVAL

2-8-2016
PLAN DATE

R-83-C

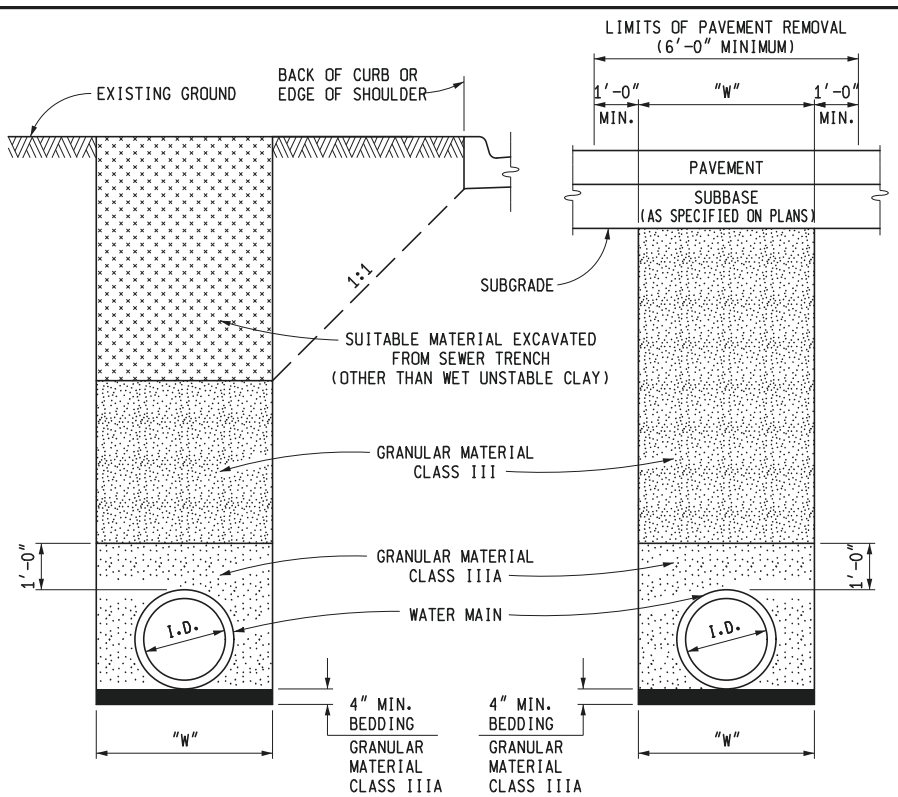
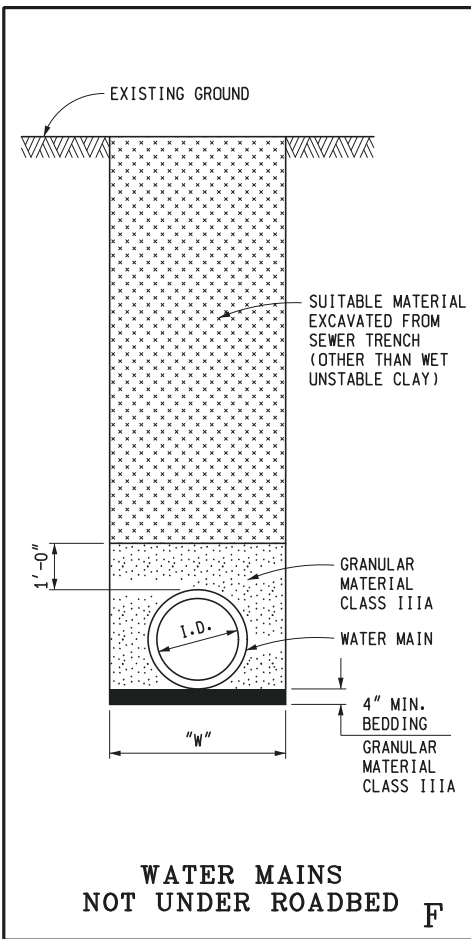
SHEET
2 OF 5



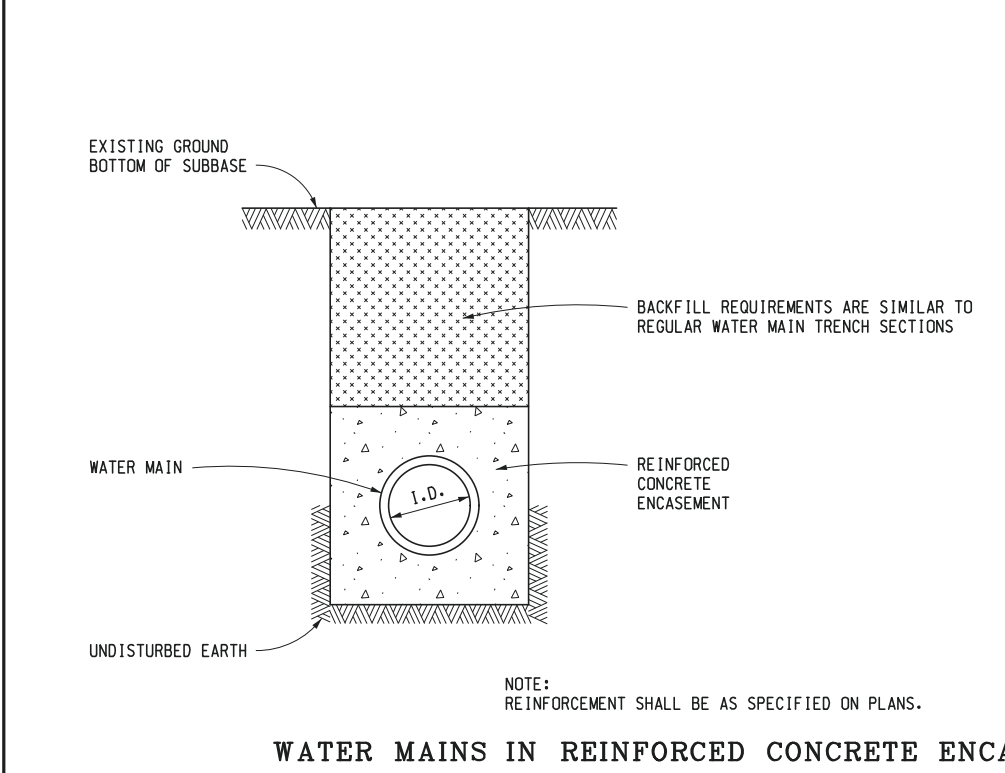
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

UTILITY TRENCHES

7-25-2017 F.H.W.A. APPROVAL	2-8-2016 PLAN DATE	R-83-C	SHEET 3 OF 5
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NOTE: WHEN WATER MAIN IS PLACED IN PROPOSED ROADBED AREA, IT SHALL BE BACKFILLED WITH SELECTED EXCAVATION MATERIAL ABOVE FUTURE SUBGRADE TO EXISTING GROUND LINE.



REQUIRED ENCASEMENT SIZE FOR RESPECTIVE PIPE SIZES	
DIAMETER OF PIPE	ENCASEMENT SIZE AND TRENCH WIDTH
6" - 12"	3'-0"
16"	3'-6"
24"	4'-6"
30"	5'-0"
36"	5'-6"
42"	6'-0"
48"	7'-0"
54"	7'-6"
60"	8'-0"
66"	8'-6"
72"	9'-0"

NOTES:

BACKFILLING SHALL BE ACCORDING TO THE STANDARD SPECIFICATION.

SUFFICIENT TRENCH WIDTH SHALL BE PROVIDED TO ALLOW FREE WORKING SPACE AND TO PERMIT COMPACTING THE BACKFILL AROUND THE PIPE.

THE FOLLOWING ARE MINIMUM TRENCH WIDTHS:

I.D. PIPE SIZE (INCHES)	LESS THAN 18	21	24	30	36
"W" TRENCH WIDTH (FEET)	3.0	3.5	4.0	5.0	6.0

I.D. PIPE SIZE (INCHES)	42	48	54	60	66	72
"W" TRENCH WIDTH (FEET)	7.0	8.0	9.5	10.0	10.5	11.0

I.D. PIPE SIZE (INCHES)	78	84	90	96	102	108
"W" TRENCH WIDTH (FEET)	11.5	12.0	12.5	13.0	13.5	14.0

ESTIMATED PAVEMENT REMOVAL WIDTH IS TO BE TRENCH WIDTH "W" PLUS 1'-0" EACH SIDE OF THE TRENCH (6'-0" MINIMUM).

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

UTILITY TRENCHES

7-25-2017 F.H.W.A. APPROVAL	2-8-2016 PLAN DATE	R-83-C	SHEET 5 OF 5
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APPENDIX D

Asphalt Core Log



Pavement Core Summary

Location		HMA (in)	Base Material Description
100' West of Sun Rapids	Aeolian Dr.	2.75	
100' West of Sunwind	Aeolian Dr.	3.25	6.5 inch agg and sand
5418	Amber Lane	4	6 inch agg and sand
5443	Amber Lane	3.5	
1284	Bayshore Dr.	2	8 inch sand and aggregate
1319	Bayshore Dr.	2.5	2.5 inch sand and aggregate
1358	Bayshore Dr.	4	
2662	Blue Haven Ct.	3	7 inch sand
2696	Blue Haven Ct.	3.75	
5405	Blue Haven Dr.	4	7 inch agg and sand
5350	Blue Haven Dr.	3.25	
1279	Buckingham Rd.	2	8 inch agg and sand
1316	Buckingham Rd.	3	
5619	Buckingham Rd.	6.25	9 inch clay
5670	Buckingham Rd.	2.5	
5746	Carlton St.	9	
South of RR	Carlton St.	5	3 inch agg and sand
5717	Carlton St.	6	4.5 inch agg on silt
3580	Chippendale Dr.	2.75	
3752	Chippendale Dr.	2.75	
3777	Chippendale Dr.	3	6.5 inch agg on sand
3806	Chippendale Dr.	3	
1861	Cimarron Dr.	2	5.5 inch agg and sand
1840	Cimarron Dr.	2.25	
1797	Creekview Terrace	3	8 inch agg on sand
1832	Crest St.	2.75	
1805	Crest St.	2.25	
1778	Crest St.	2.5	10 inch agg and sand
5655	Hallendale Rd.	4	6 inch agg/sand/clay
5636	Hallendale Rd.	2	
2394	Huron Hill Dr.	2	8.25 inch agg and sand
2403	Huron Hill Dr.	3.25	
5442	Jessalee Cir.	2	
5466	Jessalee Cir.	2	8 inch agg and sand
5455	Lampen Dr.	2.5	7.5 inch agg and sand
5416	Lampen Dr.	2.5	
5400	Lampen Dr.	3	
2662	Linden St.	3.25	6.25 inch agg and sand
2697	Linden St.	5	
1265	Mizzen Dr.	1.75	
1206	Mizzen Dr.	2.75	
1175	Mizzen Dr.	2.5	8 inch agg
6038	Oak Park Trail	2.25	4.25 inch agg
6085	Oak Park Trail	3	
6157	Oak Park Trail	3.5	



Pavement Core Summary

Location		HMA (in)	Base Material Description
6190	Oak Park Trail	3.25	
6227	Oak Park Trail	3	6.5 inch agg
2160	Quarry Rd.	2.5	7.5 inch agg and sand
2184	Quarry Rd.	3.25	
2200	Quarry Rd.	2.25	
2234	Quarry Rd.	2.25	
2630	Raphael Rd.	4.25	6.25 inch agg and sand
2654	Raphael Rd.	5	
6370	Royal Oak Dr.	4	7 inch agg and sand
6323	Royal Oak Dr.	3	
6299	Royal Oak Dr.	3.25	6.75 inch agg and sand
6276	Royal Oak Dr.	2.75	
3833	Sandlewood Dr.	2.25	
3800	Sandlewood Dr.	3.5	5.5 inch agg on sand
3886	Sandlewood Dr.	3.5	6 inch agg on sand
3921	Sandlewood Dr.	4	
1798	Sashabaw Court	2.75	5.75 agg on sand
1312	Splice Circle	2.25	8.75 inch sand
1846	Sunhollow Ct.	5.25	
3981	Sunwind Dr.	3.25	6 inch agg and sand
3938	Sunwind Dr.	3.5	
3788	Thistlewood Rd.	4	3.75 agg on sand
1980	Thistlewood Rd.	2.5	
5338	Timberlane St.	3.75	8.25 inch agg and sand
5370	Timberlane St.	3.25	
4117	Wharf Dr.	2.75	
4092	Wharf Dr.	2	7.5 inch agg
1036	Wild Ginger Tr.	3	6.5 inch agg and sand
1081	Wild Ginger Tr.	3.25	
1950	Wilder Court	4	8 inch agg and sand
1878	Wilder St.	3.75	8.25 inch agg and sand
1908	Wilder St.	2	
1938	Wilder St.	4	
1968	Wilder St.	4	8 inch agg and sand
3836	Windy Heights Dr.	3.75	7 inch agg and sand
3863	Windy Heights Dr.	3	
3924	Windy Heights Dr.	2.5	
3949	Windy Heights Dr.	2.5	
3992	Windy Heights Dr.	3.5	6.75 inch agg and sand
1083	Woodwind Trail	3.25	5.5 inch agg and sand
1067	Woodwind Trail	3	
3819	Yosemite Dr.	3	5 inch sand
3786	Yosemite Dr.	4	

APPENDIX E

Prevailing Wage Rates

"General Decision Number: MI20220001 06/10/2022

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).

<p>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:</p>	<p>. Executive Order 14026 generally applies to the contract.</p> <p>. 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.</p>
<p>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:</p>	<p>. Executive Order 13658 generally applies to the contract.</p> <p>. 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.</p>

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
4	03/25/2022
5	04/08/2022
6	04/15/2022
7	04/29/2022
8	05/06/2022
9	06/03/2022
10	06/10/2022

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, Oceola & 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
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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 09/01/2021

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

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

Rates Fringes

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

AREA 1:		
GROUP 1.....	\$ 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 Excavator

GROUP 2: Boom truck (power swing type boom); Crusher; Hoist; Pump (1 or more - 6-in. discharge or larger - gas or diesel- powered or powered by generator of 300 amperes or more - inclusive of generator); Side boom tractor (smaller

than type D-4 or equivalent); Tractor (pneu-tired, other than backhoe or front end loader); Trencher (8-ft. digging capacity and smaller); Vac Truck and End dump operator;

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

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

Group 5: Fire Person, Oiler

* ENGI0324-006 06/01/2022

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

Rates Fringes

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

GROUP 1.....	\$ 38.86	24.85
GROUP 2.....	\$ 32.13	24.85
GROUP 3.....	\$ 31.57	24.85
GROUP 4.....	\$ 31.40	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 05/01/2022

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.....	\$ 37.40	24.60
Crane operator, main boom & jib 120' or longer.....	\$ 43.87	24.60
Crane operator, main boom & jib 140' or longer.....	\$ 44.17	24.60
Crane operator, main boom & jib 220' or longer.....	\$ 44.17	24.60
Mechanic with truck and tools.....	\$ 43.00	24.60
Oiler and fireman.....	\$ 35.86	24.60
Regular operator.....	\$ 41.22	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 jettors and vacuum and mechanical debris removal systems

ENGI0325-012 05/01/2022

Rates Fringes

Power equipment operators -
gas distribution and duct
installation work:

GROUP 1.....	\$ 34.83	24.85
GROUP 2.....	\$ 32.55	24.85

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, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

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

IRON0055-005 07/01/2021

LENAWEE AND MONROE COUNTIES:

	Rates	Fringes
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
IRONWORKER (Including pre-engineered metal building erector).....		
	\$ 31.75	22.84

IRON0340-001 06/19/2017

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

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

LAB00005-006 10/01/2020

	Rates	Fringes
Laborers - hazardous waste abatement: (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE AND WEXFORD COUNTIES - Zone 10)		
Levels A, B or C.....	\$ 17.45	12.75
class b.....	\$ 18.64	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, aquafers, 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, OGEAW, 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 04/01/2022

MICHIGAN STATEWIDE

	Rates	Fringes
LABORER (DISTRIBUTION WORK)		
Zone 1.....	\$ 25.17	13.32
Zone 2.....	\$ 23.47	13.40
Zone 3.....	\$ 21.60	13.45
Zone 4.....	\$ 20.97	13.43
Zone 5.....	\$ 21.00	13.40

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

PAINTER

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

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

PLAS0514-001 06/01/2018

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

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

Rates Fringes

CEMENT MASON/CONCRETE FINISHER

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

PLUM0190-003 05/01/2015

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA,

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

Rates Fringes

Plumber/Pipefitter - gas
distribution pipeline:

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

TEAM0007-004 06/01/2020

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. \$470.70 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)....	\$ 22.89	13.45
LINE PROTECTOR (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE).....	\$ 20.19	13.45
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1.....	\$ 30.52	13.45
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2.....	\$ 27.47	13.45
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1.....	\$ 26.92	13.45
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2.....	\$ 24.23	13.45

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.

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"