



Notice of Contract

State of Michigan Procurement

Michigan Department of Transportation
425 W Ottawa St, Lansing, MI 48933
PO Box 30050, Lansing, MI 48909

Notice of Contract No. 260000001344
between
The State of Michigan
and

Contractor	State
Nelson Haines Plumbing and Drain Cleaning LLC	Program Manager
6827 Barker Dr	Brian Peets MDOT
Waterford, MI 48329	616-690-6684
Nathan Bourdon	peetsb@michigan.gov
Owner	Contract Administrator
248-993-4422	Anna Swanson MDOT
Nelson.hainesplumbing@gmail.com	517-230-2063
VS0385864	Swansona1@michigan.gov

Contract Summary

Description: Catch Basin/Drainage Structure Cleaning State Trunkline Allegan and Barry Counties

Initial Effective Date	Initial Expiration Date	Initial Options Available	Expiration Date Before Change(s) Noted Below
October 5, 2026	October 4, 2029	Two (2) one-year	
Payment Terms		Delivery Timeframe	
Net 45		N/A	
Alternate Payment Options		Extended Purchasing	
N/A		No	
Minimum Delivery Requirements			
N/A			
Miscellaneous Information			
This Contract Agreement is awarded on the basis of the State’s inquiry bearing the solicitation number RFP 260000002504 and State Administrative Board approval on September 29, 2026.			

Estimated Contract Value at Time of Execution:

\$945,000.00

STANDARD CONTRACT TERMS

This STANDARD CONTRACT (“**Contract**”) is agreed to between the State of Michigan (the “**State**”) and Nelson Haines Plumbing and Drain Cleaning LLC (“**Contractor**”), a Michigan Limited Liability Company. This Contract is effective on October 5, 2026 (“**Effective Date**”), and unless terminated, will expire on October 4, 2029 (the “**Term**”).

This Contract may be renewed for up to two (2) two-year periods. Renewal is at the sole discretion of the State and will automatically extend the Terms of this Contract. The State will document its exercise of renewal options via Contract Change Notice.

The parties agree as follows:

- Duties of Contractor.** Contractor must perform the services and provide the deliverables (the “**Contract Activities**”) described in a Statement of Work, the initial Statement of Work is attached as Schedule A – Statement of Work. An obligation to provide delivery of any commodity is considered a service and is a Contract Activity.

Contractor must furnish all labor, equipment, materials, and supplies necessary for the performance of the Contract Activities unless otherwise specified in a Statement of Work.

Contractor must: (a) perform the Contract Activities in a timely, professional, safe, and workmanlike manner consistent with standards in the trade, profession, or industry; (b) meet or exceed the performance and operational standards, and specifications of the Contract; (c) provide all Contract Activities in good quality, with no material defects; (d) not interfere with the State’s operations; (e) obtain and maintain all necessary licenses, permits or other authorizations necessary for the performance of the Contract; (f) cooperate with the State, including the State’s quality assurance personnel, and any third party to achieve the objectives of the Contract; (g) return to the State any State-furnished equipment or other resources in the same condition as when provided when no longer required for the Contract; (h) assign to the State any claims resulting from state or federal antitrust violations to the extent that those violations concern materials or services supplied by third parties toward fulfillment of the Contract; (i) comply with all State physical and IT security policies and standards which will be made available upon request; and (j) provide the State priority in performance of the Contract except as mandated by federal disaster response requirements. Any breach under this paragraph is considered a material breach.

Contractor must also be clearly identifiable while on State property by wearing identification issued by the State, and clearly identify themselves whenever making contact with the State.

- Notices.** All notices and other communications required or permitted under this Contract must be in writing and will be considered given and received: (a) when verified by written receipt if sent by courier; (b) when actually received if sent by mail without verification of receipt; or (c) when verified by automated receipt or electronic logs if sent by facsimile or email.

If to State:	If to Contractor:
Anna Swanson 425 W Ottawa St Lansing, MI 48933	Nelson Haines Plumbing and Drain Cleaning LLC 6287 Barker Dr Waterford, MI 48329

Swansona1@michigan.gov 517-230-2063	Nelson.hainesplumbing@gmail.com 248 993 4422
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3. **Contract Administrator.** The Contract Administrator, or the individual duly authorized for each party, is the only person authorized to modify any terms of this Contract, and approve and execute any change under this Contract (each a “**Contract Administrator**”):

State:	Contractor:
Anna Swanson 425 W Ottawa St Lansing, MI 48933 Swansona1@michigan.gov 517-230-2063	Nelson Haines Plumbing and Drain Cleaning LLC 6287 Barker Dr Waterford, MI 48329 Nelson.hainesplumbing@gmail.com (248) 993-4422

4. **Program Manager.** The Program Manager for each party will monitor and coordinate the day-to-day activities of the Contract (each a “**Program Manager**”):

State:	Contractor:
Brian Peets 2660 Leonard Street, NE Grand Rapids, MI 49525 peetsb@mi.gov (616) 690-6684	Nelson Haines Plumbing and Drain Cleaning LLC 6287 Barker Dr Waterford, MI 48329 Nelson.hainesplumbing@gmail.com (248) 993-4422

5. **Performance Guarantee.** Contractor must at all times have financial resources sufficient, in the opinion of the State, to ensure performance of the Contract and must provide proof upon request. The State may require a performance bond (as specified in a Statement of Work) if, in the opinion of the State, it will ensure performance of the Contract.

6. **Insurance Requirements.**

- a. **General Requirements.** Contractor, at its sole expense, must maintain the insurance coverage as specified herein for the duration of the Term. Minimum limits may be satisfied by any combination of primary liability, umbrella or excess liability, and self-insurance coverage. To the extent damages are covered by any required insurance, Contractor waives all rights against the State for such damages. Failure to maintain required insurance does not limit this waiver.
- b. **Qualification of Insurers.** Except for self-insured coverage, all policies must be written by an insurer with an A.M. Best rating of A- VII or higher unless otherwise approved by DTMB Enterprise Risk Management.
- c. **Primary and Non-Contributory Coverage.** All policies for which the State of Michigan is required to be named as an additional insured must be on a primary and non-contributory basis.
- d. **Claims-Made Coverage.** If any required policies provide claims-made coverage, Contractor must:
 - (1) Maintain coverage and provide evidence of coverage for at least 3 years after the later of the expiration or termination of the Contract or the completion of all its duties under the Contract;

- (2) Purchase extended reporting coverage for a minimum of 3 years after completion of work if coverage is cancelled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Effective Date of this Contract

e. Proof of Insurance

- (1) Insurance certificates showing evidence of coverage as required herein must be submitted to the Contract Administrator within 10 days of the contract execution date.
- (2) Renewal insurance certificates must be provided on annual basis or as otherwise commensurate with the effective dates of coverage for any insurance required herein.
- (3) Insurance certificates must be in the form of a standard ACORD Insurance Certificate unless otherwise approved by DTMB Enterprise Risk Management.
- (4) All insurance certificates must clearly identify the Contract Number (e.g., notated under the Description of Operations on an ACORD form).
- (5) The State may require additional proofs of insurance or solvency, including but not limited to policy declarations, policy endorsements, policy schedules, self-insured certification or authorization, and audited financial statements.
- (6) In the event any required coverage is cancelled or not renewed, Contractor must provide written notice to the Contract Administrator no later than 5 business days following such cancellation or nonrenewal.

- f. Subcontractors.** Contractor is responsible for ensuring its subcontractors, if any, carry and maintain insurance coverage as applicable to the subcontracted service(s).

g. Limits of Coverage & Specific Endorsements. (See Table 6.1 Below)

TABLE 6.1

Required Limits	Additional Requirements
Commercial General Liability Insurance	
Minimum Limits: \$1,000,000 Each Occurrence \$1,000,000 Personal & Advertising Injury \$2,000,000 Products/Completed Operations \$2,000,000 General Aggregate	Contractor must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 20 10 12 19 and CG 20 37 12 19.
Automobile Liability Insurance	
Minimum Limits: \$1,000,000 Per Accident	Contractor must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds; and (2) include Hired and Non-Owned Automobile coverage.
Workers' Compensation Insurance	

Required Limits	Additional Requirements
Minimum Limits: Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
Employers Liability Insurance	
Minimum Limits: \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease	
Environmental and Pollution Liability (Errors and Omissions)	
Minimum Limits: \$1,000,000 Each Occurrence \$2,000,000 Annual Aggregate	Contractor must have their policy: (1) be applicable to the work being performed, including completed operations equal to or exceeding statute of repose; (2) not have exclusions or limitations related to Transportation (upset overturn, spills during loading or unloading, Hazardous Materials Handling, and Non Owned disposal site liability; and (3) endorsed to add “the State of Michigan, its departments, division, agencies, offices, commissions, officers, employees, and agents” as additional insured.

h. Notice of Non-Compliance. Contractor consents to receiving electronic communications from a third-party service provider, Origami Risk, for the exclusive purpose of notifying Contractor of non-compliance with the requirements set forth in this Section 6.

i. Non-Waiver. This Section 6 is not intended to and is not to be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract, including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State.

7. Reserved.

8. Reserved.

9. Relationship of the Parties. The relationship between the parties is that of independent contractors. Contractor, its employees, and agents will not be considered employees of the State. No partnership or joint venture relationship is created by virtue of this Contract. Contractor, and not the State, is responsible for the payment of wages, benefits and taxes of Contractor’s employees and any subcontractors. Prior performance does not modify Contractor’s status as an independent contractor. Neither party has authority to contract for nor bind the other party in any manner whatsoever.

10. Intellectual Property Rights. If a Statement of Work requires Contractor to create any intellectual property, Contractor hereby acknowledges that the State is and will be the sole and exclusive owner of all right, title, and interest in the Contract Activities and all associated intellectual property rights, if any. Such Contract Activities are works made for hire as defined in

Section 101 of the Copyright Act of 1976. To the extent any Contract Activities and related intellectual property do not qualify as works made for hire under the Copyright Act, Contractor will, and hereby does, immediately on its creation, assign, transfer and otherwise convey to the State, irrevocably and in perpetuity, throughout the universe, all right, title and interest in and to the Contract Activities, including all intellectual property rights therein.

- 11. Subcontracting.** Contractor may not delegate any of its obligations under the Contract without the prior written approval of the State. Contractor must notify the State at least 90 calendar days before the proposed delegation and provide the State any information it requests to determine whether the delegation is in its best interest. If approved, Contractor must: (a) be the sole point of contact regarding all contractual matters, including payment and charges for all Contract Activities; (b) make all payments to the subcontractor; and (c) incorporate the terms and conditions contained in this Contract in any subcontract with a subcontractor. Contractor remains responsible for the completion of the Contract Activities, compliance with the terms of this Contract, and the acts and omissions of the subcontractor. The State, in its sole discretion, may require the replacement of any subcontractor.
- 12. Staffing.** The State's Contract Administrator may require Contractor to remove or reassign personnel providing services by providing a notice to Contractor.
- 13. Background Checks.** Pursuant to Michigan law, all agencies subject to IRS Pub. 1075 are required to ask the Michigan State Police to perform fingerprint background checks on all employees, including Contractor and Subcontractor employees, who may have access to any database of information maintained by the federal government that contains confidential or personal information, including, but not limited to, federal tax information. Further, pursuant to Michigan law, any agency described above is prohibited from providing Contractors or Subcontractors with the result of such background check. For more information, please see Michigan Public Act 427 of 2018. Upon request, or as may be specified in a Statement of Work, Contractor must perform background checks on all employees and subcontractors and its employees prior to their assignment. The scope is at the discretion of the State and documentation must be provided as requested. Contractor is responsible for all costs associated with the requested background checks. The State, in its sole discretion, may also perform background checks.
- 14. Assignment.** Contractor may not assign this Contract to any other party without the prior approval of the State. Upon notice to Contractor, the State, in its sole discretion, may assign in whole or in part, its rights or responsibilities under this Contract to any other party. If the State determines that a novation of the Contract to a third party is necessary, Contractor will agree to the novation and provide all necessary documentation and signatures.
- 15. Change of Control.** Contractor will notify the State, within 30 days of any public announcement or otherwise once legally permitted to do so, of a change in Contractor's organizational structure or ownership. For purposes of this Contract, a change in control means any of the following: (a) a sale of more than 50% of Contractor's stock; (b) a sale of substantially all of Contractor's assets; (c) a change in a majority of Contractor's board members; (d) consummation of a merger or consolidation of Contractor with any other entity; (e) a change in ownership through a transaction or series of transactions; (f) or the board (or the stockholders) approves a plan of complete liquidation. A change of control does not include any consolidation or merger effected

exclusively to change the domicile of Contractor, or any transaction or series of transactions principally for bona fide equity financing purposes.

In the event of a change of control, Contractor must require the successor to assume this Contract and all of its obligations under this Contract.

- 16. Ordering.** Contractor is not authorized to begin performance until receipt of authorization as identified in Schedule A.
- 17. Acceptance.** Contract Activities are subject to inspection and testing by the State within 30 calendar days of the State's receipt of them ("**State Review Period**"), unless otherwise provided in a Statement of Work. If the Contract Activities are not fully accepted by the State, the State will notify Contractor by the end of the State Review Period that either: (a) the Contract Activities are accepted but noted deficiencies must be corrected; or (b) the Contract Activities are rejected. If the State finds material deficiencies, it may: (i) reject the Contract Activities without performing any further inspections; (ii) demand performance at no additional cost; or (iii) terminate this Contract in accordance with Section 24, Termination for Cause.

Within 10 business days from the date of Contractor's receipt of notification of acceptance with deficiencies or rejection of any Contract Activities, Contractor must cure, at no additional cost, the deficiency and deliver unequivocally acceptable Contract Activities to the State. If acceptance with deficiencies or rejection of the Contract Activities impacts the content or delivery of other non-completed Contract Activities, the parties' respective Program Managers must determine an agreed to number of days for re-submission that minimizes the overall impact to the Contract. However, nothing herein affects, alters, or relieves Contractor of its obligations to correct deficiencies in accordance with the time response standards set forth in this Contract.

If Contractor is unable or refuses to correct the deficiency within the time response standards set forth in this Contract, the State may cancel the order in whole or in part. The State, or a third party identified by the State, may perform the Contract Activities and recover the difference between the cost to cure and the Contract price plus an additional 10% administrative fee.

- 18. Reserved.**
- 19. Reserved.**
- 20. Reserved.**
- 21. Invoices and Payment.** Invoices must conform to the requirements communicated from time-to-time by the State. All undisputed amounts are payable within 45 days of the State's receipt. Contractor may only charge for Contract Activities provided as specified in a Statement of Work. Invoices must include an itemized statement of all charges. The State is exempt from federal excise tax, state, and local sales taxes, and use taxes if the Contract Activities purchased under this Contract are for the State's exclusive use. Contractor will not include the collection of taxes for which the State is exempt in any invoices or payments related to this Contract. The State is not responsible for taxes imposed or assessed on Contractor.

The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of the disputed amount. The State will notify Contractor of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to Contractor's continuing obligations, including claims for deficiencies or substandard Contract

Activities. Contractor's acceptance of final payment by the State constitutes a waiver of all claims by Contractor against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <http://www.michigan.gov/SIGMAVSS> to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

Excluding federal government charges and terms, Contractor warrants and agrees that each of the fees, economic or product terms or warranties granted pursuant to this Contract are comparable to or better than the equivalent fees, economic or product term or warranty being offered to any commercial or government customer (including any public educational institution within the State of Michigan) of Contractor. If Contractor enters into any arrangements with another customer of Contractor to provide the products or services, available under this Contract, under more favorable prices, as the prices may be indicated on Contractor's current U.S. and International price list or comparable document, then this Contract will be deemed amended as of the date of such other arrangements to incorporate those more favorable prices, and Contractor will immediately notify the State of such fee and formally memorialize the new pricing in a change notice.

22. **Liquidated Damages.** Liquidated damages, if applicable, will be assessed as described in a Statement of Work. The parties understand and agree that any liquidated damages (which includes but is not limited to applicable credits) set forth in this Contract are reasonable estimates of the State's damages in accordance with applicable law. The parties acknowledge and agree that Contractor could incur liquidated damages for more than 1 event. The assessment of liquidated damages will not constitute a waiver or release of any other remedy the State may have under this Contract for Contractor's breach of this Contract, including without limitation, the State's right to terminate this Contract for cause under Section 24 and the State will be entitled in its discretion to recover actual damages caused by Contractor's failure to perform its obligations under this Contract. However, the State will reduce such actual damages by the amounts of liquidated damages received for the same events causing the actual damages. Amounts due the State as liquidated damages may be set off against any fees payable to Contractor under this Contract, or the State may bill Contractor as a separate item and Contractor will promptly make payments on such bills.
23. **Stop Work Order.** The State may suspend any or all activities under the Contract at any time. The State will provide Contractor a written stop work order detailing the suspension. Contractor must comply with the stop work order upon receipt. Within 90 calendar days, or any longer period agreed to by Contractor, the State will either: (a) issue a notice authorizing Contractor to resume work, or (b) terminate the Contract or delivery order. The State will not pay for Contract Activities, Contractor's lost profits, or any additional compensation during a stop work period.
24. **Termination for Cause.** (a) The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State: (i) endangers the value, integrity, or security of any facility, data, or personnel; (ii) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; (iii) engages in any

conduct that may expose the State to liability; (iv) breaches any of its material duties or obligations under this Contract; or (v) fails to cure a breach within the time stated by the State in a notice of breach, if in its sole discretion the State has chosen to provide a time to cure. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

(b) If the State terminates this Contract under this Section, the State will issue a termination notice specifying whether Contractor must: (i) cease performance immediately. Contractor must submit all invoices for Contract Activities accepted by the State within 30 days of the date of termination. Failure to submit an invoice within that timeframe will constitute a waiver by Contractor for any amounts due to Contractor for Contract Activities accepted by the State under this Contract or (ii) continue to perform for a specified period. If it is later determined that Contractor was not in breach of the Contract, the termination will be deemed to have been a Termination for Convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in Section 25, Termination for Convenience.

The State will only pay for amounts due to Contractor for Contract Activities accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. Contractor must promptly reimburse to the State any fees prepaid by the State prorated to the date of such termination, including any prepaid fees. The Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, transition costs, and any costs the State incurs to procure the Contract Activities from other sources.

25. Termination for Convenience. The State may immediately terminate this Contract in whole or in part without penalty and for any reason or no reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance of the Contract Activities immediately. Contractor must submit all invoices for Contract Activities accepted by the State within 30 days of the date of termination. Failure to submit an invoice within that timeframe will constitute a waiver by Contractor for any amounts due Contractor for Contract Activities accepted by the State under this Contract, or (b) continue to perform the Contract Activities in accordance with Section 26, Transition Responsibilities. If the State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities to the extent the funds are available.

26. Transition Responsibilities. Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed **90** calendar days), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract Activities to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Contract Activities to the State or its designees. Such transition assistance may include, but is not limited to: (a) continuing to perform the Contract Activities at the established Contract rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Contract Activities, training, equipment, software, leases, reports and other documentation, to the State or the State's designee; (c) transferring title in and delivering to the State, at the State's discretion, all completed or partially completed deliverables prepared under this Contract as of the Contract termination date; and (d) preparing an accurate accounting from which the State and Contractor

may reconcile all outstanding accounts (collectively, “**Transition Responsibilities**”). This Contract will automatically be extended through the end of the transition period.

27. Return of State Property. Upon termination or expiration of this Contract for any reason, Contractor must take all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all materials, data, property, and confidential information provided directly or indirectly to the Contractor by any entity, agent, vendor, or employee of the State.

28. Indemnification. Contractor must defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to: (a) any breach by Contractor (or any of Contractor’s employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable) of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract; (b) any infringement, misappropriation, or other violation of any intellectual property right or other right of any third party; (c) any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to action or inaction by Contractor (or any of Contractor’s employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable); and (d) any acts or omissions of Contractor (or any of Contractor’s employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable).

The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations.

The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense, at its own cost and expense, if the State deems necessary. Contractor will not, without the State’s prior written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding.

Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

The State is constitutionally prohibited from indemnifying Contractor or any third parties.

29. Infringement Remedies. If, in either party’s opinion, any piece of equipment, software, commodity, or service supplied by Contractor or its subcontractors, or its operation, use or reproduction, is likely to become the subject of a copyright, patent, trademark, or trade secret infringement claim, Contractor must, at its expense: (a) procure for the State the right to continue using the equipment, software, commodity, or service, or if this option is not reasonably available to Contractor, (b) replace or modify the same so that it becomes non-infringing; or (c) accept its return by the State with appropriate credits to the State against Contractor’s charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

- 30. Limitation of Liability and Disclaimer of Damages.** IN NO EVENT WILL THE STATE'S AGGREGATE LIABILITY TO CONTRACTOR UNDER THIS CONTRACT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT, EXCEED THE MAXIMUM AMOUNT OF FEES PAYABLE UNDER THIS CONTRACT. The State is not liable for consequential, incidental, indirect, or special damages, regardless of the nature of the action.
- 31. Disclosure of Litigation, or Other Proceeding.** Contractor must notify the State within 14 calendar days of receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "**Proceeding**") involving Contractor, a subcontractor, or an officer or director of Contractor or subcontractor, that arises during the term of the Contract, including: (a) a criminal Proceeding; (b) a parole or probation Proceeding; (c) a Proceeding under the Sarbanes-Oxley Act; (d) a civil Proceeding involving: (1) a claim that might reasonably be expected to adversely affect Contractor's viability or financial stability; or (2) a governmental or public entity's claim or written allegation of fraud; or (3) any complaint filed in a legal or administrative proceeding alleging the Contractor or its subcontractors discriminated against its employees, subcontractors, vendors, or suppliers during the term of this Contract; or (e) a Proceeding involving any license that Contractor is required to possess in order to perform under this Contract.
- 32. State Data.** All data and information provided to Contractor by or on behalf of the State, and all data and information derived therefrom, is the exclusive property of the State ("**State Data**"); this definition is to be construed as broadly as possible. Upon request, Contractor must provide to the State, or a third party designated by the State, all State Data within 10 calendar days of the request and in the format requested by the State. Contractor will assume all costs incurred in compiling and supplying State Data. No State Data may be used for any marketing or commercial purposes.
- 33. Reserved.**
- 34. Non-Disclosure of Confidential Information.** The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged communication not intended to be disclosed to third parties.
- a. Meaning of Confidential Information.** For the purposes of this Contract, the term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked "confidential" or with words of similar meaning; or, (c) should reasonably be recognized as confidential information of the disclosing party. The term "Confidential Information" does not include any information or documentation that was or is: (a) subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf

of, the receiving party). For purposes of this Contract, in all cases and for all matters, State Data is deemed to be Confidential Information.

- b. Obligation of Confidentiality.** The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to a subcontractor is permissible where: (a) use of a subcontractor is authorized under this Contract; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the subcontractor's responsibilities; and (c) Contractor obligates the subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor or any subcontractor may be required to execute a separate agreement to be bound by the provisions of this Section.
- c. Cooperation to Prevent Disclosure of Confidential Information.** Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract and each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.
- d. Remedies for Breach of Obligation of Confidentiality.** Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.
- e. Surrender of Confidential Information upon Termination.** Upon termination of this Contract or a Statement of Work, in whole or in part, each party must, within 5 calendar days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control; provided, however, that Contractor must return State Data to the State following the timeframe and procedure described further in this Contract. Should Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and must certify the same in writing within 5 calendar days from the date of termination to the other party. However, the State's legal ability to destroy Contractor data may be restricted by its retention and disposal schedule, in which case Contractor's Confidential Information will be destroyed after the retention period expires.

35. Reserved.

36. Reserved.

37. Reserved.

38. Records Maintenance, Inspection, Examination, and Audit. Pursuant to MCL 18.1470, the State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain and provide to the State or its designee and the auditor general upon request, all records related to the Contract through the term of the Contract and for 4 years after the latter of termination, expiration, or final payment under this Contract or any extension (“**Audit Period**”). If an audit, litigation, or other action involving the records is initiated before the end of the Audit Period, Contractor must retain the records until all issues are resolved.

Within 10 calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Contract Activities are being performed, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If financial errors are revealed, the amount in error must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of the Contract must be paid or refunded within 45 calendar days.

This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.

39. Representations and Warranties. Contractor represents and warrants: (a) Contractor is the owner or licensee of any Contract Activities that it licenses, sells, or develops and Contractor has the rights necessary to convey title, ownership rights, or licensed use; (b) all Contract Activities are delivered free from any security interest, lien, or encumbrance and will continue in that respect; (c) the Contract Activities will not infringe the patent, trademark, copyright, trade secret, or other proprietary rights of any third party; (d) Contractor must assign or otherwise transfer to the State or its designee any manufacturer's warranty for the Contract Activities; (e) the Contract Activities are merchantable and fit for the specific purposes identified in the Contract; (f) the Contract signatory has the authority to enter into this Contract; (g) all information furnished by Contractor in connection with the Contract fairly and accurately represents Contractor's business, properties, finances, and operations as of the dates covered by the information, and Contractor will inform the State of any material adverse changes; (h) all information furnished and representations made in connection with the award of this Contract is true, accurate, and complete, and contains no false statements or omits any fact that would make the information misleading; and that (i) Contractor is neither currently engaged in nor will engage in the boycott of a person based in or doing business with a strategic partner as described in 22 USC 8601 to 8606. A breach of this Section is considered a material breach of this Contract, which entitles the State to terminate this Contract under Section 24, Termination for Cause.

40. Conflicts and Ethics. Contractor will uphold high ethical standards and is prohibited from: (a) holding or acquiring an interest that would conflict with this Contract; (b) doing anything that creates an appearance of impropriety with respect to the award or performance of the Contract; (c) attempting to influence or appearing to influence any State employee by the direct or indirect offer of anything of value; or (d) paying or agreeing to pay any person, other than employees and consultants working for Contractor, any consideration contingent upon the award of the Contract. Contractor must immediately notify the State of any violation or potential violation of

these standards. This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.

- 41. Compliance with Laws.** Contractor must comply with all federal, state and local laws, rules and regulations.
- 42. Reserved.**
- 43. Reserved.**
- 44. Nondiscrimination.** Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, et seq., the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, et seq., and Executive Directive 2019-09, Contractor and its subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, sexual orientation, gender identity or expression, height, weight, marital status, partisan considerations, any mental or physical disability, or genetic information that is unrelated to the person's ability to perform the duties of a particular job or position. Breach of this Section is a material breach of this Contract.
- 45. Unfair Labor Practice.** Under MCL 423.324, the State may void this Contract if the name of the Contractor, or the name of a subcontractor, manufacturer, or supplier of the Contractor, subsequently appears on the Unfair Labor Practice register compiled under MCL 423.322.
- 46. Governing Law.** This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles. Contractor waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint an agent in Michigan to receive service of process.
- 47. Non-Exclusivity.** Nothing contained in this Contract is intended nor is to be construed as creating any requirements contract with Contractor, nor does it provide Contractor with a right of first refusal for any future work. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Contract Activities from other sources.
- 48. Force Majeure.** Neither party will be in breach of this Contract because of any failure arising from any disaster or acts of god that are beyond their control and without their fault or negligence. Each party will use commercially reasonable efforts to resume performance. Contractor will not be relieved of a breach or delay caused by its subcontractors. If immediate performance is necessary to ensure public health and safety, the State may immediately contract with a third party.
- 49. Dispute Resolution.** The parties will endeavor to resolve any Contract dispute in accordance with this provision. The dispute will be referred to the parties' respective Contract Administrators or Program Managers. Such referral must include a description of the issues and all supporting documentation. The parties must submit the dispute to a senior executive if unable to resolve the dispute within 15 business days. The parties will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance.

Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' senior executive and either concludes that resolution is unlikely or fails to respond

within 15 business days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This Section does not limit the State's right to terminate the Contract.

50. Media Releases. News releases (including promotional literature and commercial advertisements) pertaining to the Contract or project to which it relates must not be made without the prior written approval of the State, and then only in accordance with the explicit written instructions of the State.

51. Schedules. All Schedules and Exhibits that are referenced herein and attached hereto are hereby incorporated by reference. The following Schedules are attached hereto and incorporated herein:

Document Title	Document Description
Schedule A	Statement of Work
Schedule B – Pricing Catch Basin Cleaning Location Specification Sheet (LSS)	Pricing and Description of Work
Schedule C	Equipment List
Attachment 1 – Spacing Charts	MDOT Maintaining Traffic Typical 101-Gen-Spacing-Charts
Attachment 2 – Shoulder Closure	MDOT Maintenance Maintaining Traffic Typical Shoulder Closure on a Two-Lane (4420-M-FW-SHL)
Attachment 2-Lane Closure	Two-Way Road, and Right Lane Closure on an Undivided Multi-Lane Roadway (4402-M-NFW-1LC)
Attachment 3 – Mobile Attenuator Special Provision	Reference document detailing the guidelines and requirements for using mobile attenuators to protect workers from vehicular traffic.

52. Entire Agreement and Order of Precedence. This Contract, which includes Statement of Work, and schedules and exhibits, is the entire agreement of the parties related to the Contract Activities. This Contract supersedes and replaces all previous understandings and agreements between the parties for the Contract Activities. If there is a conflict between documents, the order of precedence is: (a) first, this Contract, excluding its schedules, exhibits, and Statement of Work; (b) second, Statement of Work as of the Effective Date; and (c) third, schedules expressly incorporated into this Contract as of the Effective Date. NO TERMS ON CONTRACTOR'S INVOICES, ORDERING DOCUMENTS, WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP, CLICK-THROUGH OR OTHER NON-NEGOTIATED TERMS AND CONDITIONS PROVIDED WITH ANY OF THE CONTRACT ACTIVITIES, OR DOCUMENTATION HEREUNDER, EVEN IF ATTACHED TO THE STATE'S DELIVERY OR PURCHASE ORDER, WILL CONSTITUTE A

PART OR AMENDMENT OF THIS CONTRACT OR IS BINDING ON THE STATE OR ANY AUTHORIZED USER FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY THE STATE AND THE AUTHORIZED USER, EVEN IF ACCESS TO OR USE OF THE CONTRACT ACTIVITIES REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

53. **Severability.** If any part of this Contract is held invalid or unenforceable, by any court of competent jurisdiction, that part will be deemed deleted from this Contract and the severed part will be replaced by agreed upon language that achieves the same or similar objectives. The remaining Contract will continue in full force and effect.
54. **Waiver.** Failure to enforce any provision of this Contract will not constitute a waiver.
55. **Survival.** Any right, obligation or condition that, by its express terms or nature and context is intended to survive, will survive the termination or expiration of this Contract; such rights, obligations, or conditions include, but are not limited to, those related to transition responsibilities; indemnification; disclaimer of damages and limitations of liability; State Data; non-disclosure of Confidential Information; representations and warranties; insurance and bankruptcy.
56. **Contract Modification.** This Contract may not be amended except by signed agreement between the parties (a “**Contract Change Notice**”). Notwithstanding the foregoing, no subsequent Statement of Work or Contract Change Notice executed after the Effective Date will be construed to amend this Contract unless it specifically states its intent to do so and cites the section or sections amended.
57. **Accessibility Requirement.** All Contract Activities created, provided, or made available by Contractor under this Contract in a digital format, including but not limited to, websites, applications, software, mobile applications, text, images, sounds, videos, controls, animations, links, and documents (including files in the following formats: PDF, word processing, presentation, and spreadsheet) (hereinafter “**Digital Deliverables**”), must conform to the accessibility standards provided in the SOM Digital Standards, located at <https://www.michigan.gov/standards> (the “**Digital Accessibility Standards**”). Throughout the Term of the Contract, Contractor must: (a) ensure that no changes made by Contractor to any Digital Deliverables will have any adverse effect on conformance to the Digital Accessibility Standards; and (b) comply with plans and timelines approved by the State to remediate issues and achieve conformance with the Digital Accessibility Standards in the event of any deficiencies, at its sole cost and expense.

SCHEDULE A – STATEMENT OF WORK

Contract No. 260000001344

**Catch Basin/Drainage Structure Cleaning State Trunkline
Allegan and Barry Counties**

BACKGROUND

This contract is for Drainage System Cleaning Services for the Michigan Department of Transportation (MDOT), Grand Rapids Transportation Service Center (TSC). Drainage structures and catch basins must be periodically cleaned to maintain their ability to trap sediment and consequently their ability to prevent flooding. The removal of sediment, decaying debris, and highly polluted water from drainage structures and catch basins has aesthetic and water quality benefits, including reducing foul odors, reducing suspended solids, and reducing the load of oxygen-demanding substances that reach receiving waters.

The attached Schedule B indicates locations and estimated quantities and services requested for at this time. Quantities listed on Schedule B - Pricing are estimates, actual work performed will be decided by the Program Manager/Engineer or their designee. The State is not obligated to purchase any listed quantity.

This is a three (3) year contract with two (2) two-year options.

Any and all work-related citations/fines/tickets will be the responsibility of the Contractor.

SCOPE

This contract is for cleaning of drainage structures and lead cleaning. The Contractor must provide all personnel, equipment, tools, materials, supervision and other items and services necessary to perform the Catch Basin clean-out services as described herein.

All work will be documented in ArcGIS by MDOT. The Contractor can view the documented data and will be required to use ArcGIS Software for reporting purposes. Access to the catch basin GIS map online and via the Field Maps mobile application will be provided after award of the contract.

1. General Requirements

1.1. Routine Cleaning

The Contractor must clean all structures containing two (2) inches or more of material or as requested by the MDOT Program Manager or their designee. The Contractor will record each catch basin structure using the ArcGIS Online or Field Maps application. The Contractor must prepare an inspection log each week during cleaning operations using the format provided by MDOT called the Weekly Catch Basin Inspection Report. The log must identify each drainage structure and catch basin inspected. The log must include the route number, trunk line name, and direction of travel, the name of the nearest intersection, the catch basins distance from the intersection, the nearest street address, the depth of contents and remarks describing needed repairs. The Contractor must

update the log each week and provide copy of the log to the PM each week during cleaning operations.

The inspection log must identify the amount of material in the catch basin or drainage structure, any repairs they may need and any blocked outlets.

The drainage structure cleaning will be performed between April 15 and November 15 of each year and throughout the year weather permitting.

Drainage structures will be cleaned on a corridor basis as directed by the MDOT Program Manager. More than one corridor at a time may be requested for service. Callouts for individual drainage structure cleaning will be paid for as an emergency response.

The cleaning of the drainage structures is NOT to be considered routine. Structures cleaned will not be revisited annually except at MDOT garage locations listed in the LSS. The majority of the basins to be cleaned will have a heavy amount of debris.

All cleaning of drainage structures must be paid a unit price per drainage structure per cleaning basis. The completed work will be paid for at this Contract unit price, which price includes all equipment and labor to clean basin or manhole and hauling, testing (if required for disposal), disposing of all waste, and traffic control to satisfactorily complete the work as described.

One (1) unit must equal one (1) catch basin as described on Schedule B (Pricing).

Included in the service cost for catch basin cleaning, a Mobile Attenuator (MA) must be used as a shadow vehicle on any roadway with a speed limit of 45 mph or greater.

1.2. Emergency Cleaning

The Contractor must be available 24 hours, seven (7) days a week. The Contractor must organize their operations to respond to emergency calls for catch basin clean out services from the PM. Following a call from the PM, the Contractor must provide the necessary equipment for catch basin clean-out and/or lead cleaning at the designated scene within two (2) hours of notice. This activity is typically done in conjunction with localized flooding for catch basin clean out.

Payment for emergency call outs must be paid at an hourly rate. The billable time will begin when the Contractor arrives at the emergency scene with all personnel and equipment needed to perform the cleaning. One (1) additional hour for travel to the job site and one (1) additional hour for travel from the site will be paid for each emergency call out. The Contractor must include the cost of supervision and all labor, equipment, water, transportation, fees for disposal of debris in accordance with all local, State, and Federal statutes, and incidentals necessary to satisfactorily perform this service.

Emergency Service requests will include the appropriate vehicle, equipment and personnel to operate the requested equipment. Requests may be made for structure cleaning or video services. All services are included in the hourly rate. There are no other individual pay items that will be paid during an Emergency Response request.

A. Lead Cleaning

In an effort to maximize production during scheduled corridor jetting operations the Contractor must plan to have a 5,000-gallon capacity water truck able to charge their jetting trucks on site. Or the Contractor needs to have hydrant permits through the local agencies allowing the contractor to use City water in the immediate area that the contractor is working. For increased production the Contractor may be required, per the request of the MDOT Program Manager to provide multiple crews to expedite the work.

1.3. Equipment Requirements

A. General

The Contractor must furnish, operate, and maintain suitable and adequate equipment necessary to perform the drainage cleaning system operation in an approved safe, skillful manner without hindrance, delay, or damage to the roadside.

If the Contractor's equipment is involved in a crash while engaged in work operations, supply pictures of the crash scene and the damage of the equipment to the MDOT Program Manager within three (3) days of the incident for information purposes. MDOT will not be responsible for any damage to the Contractor's equipment due to a crash.

The Contractor must have a minimum of two (2) Jet-Vac trucks available for this contract as requested by the Engineer.

Equipment failure WILL NOT constitute an acceptable reason for deviating from the activities and or schedule for this Contract. In the event of mechanical breakdown of trucks or equipment, the Contractor will be expected to provide backup service so that cleaning will be performed as requested.

The Contractor is responsible for any damage done to any property while performing cleaning services and will be required to make repairs accordingly.

Bidder must complete the Equipment List tab on the Schedule B – Pricing Schedule C-Equipment List Catch Basin Cleaning LSS Allegan & Barry Counties attached to this Contract.

B. Type of Equipment

The Contractor must use Vactor vacuum/pump type equipment capable of producing a minimum of 2500 to 3500 CFM to remove debris from drains/basins and producing a minimum water pumping capacity of 60 gallons per minute of high-pressure water to flush out storm lines and clean drains/basins and hold at least five (5) cubic yards of debris in the holding tank.

If requested by MDOT, a meeting will be held at the Contractor's business location for the purpose of demonstrating Contractor's equipment's capabilities, suitability, and condition to MDOT. Contractor's equipment will be approved by MDOT based on the demonstration. Demonstrations will be at no cost to MDOT.

Each structure shall be located with a Quality Stand Alone GPS (Global Positioning System).

*Trimble GeoExplorer CE Series Model GeoXT, or approved equivalent with accuracy of 3ft.

Data from the Quality Stand Alone G.P.S. receiver for each catch basin cleaned shall be recorded electronically and submitted electronically into a shape file and forwarded via e-mail to the MDOT Program Manager along with the billing. Corrected inventory data shall be submitted with each

invoice for payment. Data shall consist of a unique number/letter for each structure with corresponding coordinate. An accuracy statement and description of coordinate system used shall be included on inventory sheets.

C. Safety

All equipment must meet all federal, state, and local safety requirements. Equipment must be equipped with commercial type flashing amber lights plainly visible from all directions. Flashers must have a minimum of 32 candlepower output and flash 50 to 60 times per minute.

A lighted arrow Type B or C as specified in the current Michigan Department of Transportation Standard Specifications for Construction (see [MDOT Standard Specifications for Construction](#)) must be mounted on, or towed behind, each vehicle.

1.4. Mobile Attenuators (MA)

A. Description

The Contractor must use Truck Mounted Attenuators (MAs) to shield workers or work equipment from errant vehicles according to the following guidelines.

MAs will be used for projects on freeways and roadways with operating speeds of 45 mph or greater where personnel or equipment are exposed to traffic and one (1) or more of the following conditions are met:

- The vehicle is designated as a protective vehicle (shadow vehicle or barrier vehicle) part of the maintenance of traffic typical, maintenance of traffic plans, or other documents.
- Aerial work is being performed on scaffolding, lifts, hoists, bucket trucks, etc., workers using this equipment are in an occupied lane or shoulder and not protected by temporary concrete barrier. Mobile attenuators are not intended to be used for removal, installation, or maintenance of traffic signals.
- Mobile/short duration operations such as pavement marking convoys, grinding in strips, permanent sign installations, luminescent installations, etc. Mobile attenuators are not intended to be used for the removal or installation of special markings.

TMAS shall not be mounted on the vehicle or equipment used by personnel to complete aerial work. TMAs shall not be used as a temporary/permanent barrier ending except during replacement of damaged temporary/permanent barrier ending. In the event that a mobile attenuator is used as a temporary safety measure for a damaged temporary/permanent barrier ending, the maximum length of time that it can be used for this purpose is 48 hours or as approved by the Engineer.

B. Stationary and Mobile Operation

The Contractor must furnish a vehicle with the required gross vehicle weight as shown in the tables below and furnishing, installing and operating a mobile attenuator according to the manufacturer's recommendations, the contract, and/or as directed by the Engineer. Locate the attenuator placement as detailed in the applicable maintaining traffic typical, maintenance of traffic plans or other contract documents.

Securely attach material loaded onto the vehicle to obtain the required gross weight, for transport or during work operations to the vehicle. Hazardous materials will not be allowed on this vehicle.

Materials that will be off loaded and incorporated into the construction activities will not be considered part of the vehicle gross weight.

C. Materials and Design

All TMAs used shall meet or exceed the requirements of National Cooperative Highway Research Program Report 350 (NCHRP 350) Test Level 2 (TL-2) or Test Level 3 (TL-3), or Manual for Assessing Safety Hardware (MASH) TL-2 or TL-3, as described below for work zone traffic control devices.

- Utilize a mobile attenuator rated for NCHRP 350, TL-2 or MASH, TL-2 on non-freeway roadways with a normal posted speed of 40 miles per hour (mph) or less. TL-2 mobile attenuators are prohibited for use on all freeways, non-freeway roadways, and work zones with posted speed limits of 45 mph or greater.
- Utilize a mobile attenuator rated for NCHRP 350, TL-3 or MASH, TL-3 on freeways, non-freeway roadways and work zones with posted speed limits of 45 mph or greater. TL-3 mobile attenuators may be used on all roadways and work zones regardless of the posted speed limit.
- Supply to the Engineer a copy of the FHWA letter of eligibility for federal aid stating the mobile attenuator meets the appropriate NCHRP 350 or MASH test level specified in the above stated criteria. In addition, supply a letter to the Engineer stating the mobile attenuator system has been installed and maintained according to manufacturer's specifications.

The face of the mobile attenuator, visible to approaching traffic must have reflectorized alternating yellow and black stripes, sloping downwards in both directions from the center of the attenuator.

D. Operating Details and Utilization

Operate the mobile attenuator as per manufacturer's recommendation, the contract, and/or as directed by the Engineer. This includes, but is not limited to, the following:

- Ensure the height from the bottom of the mobile attenuator to the roadway surface is 12 inches (± 2.5 inches) and within manufacturer's specifications.
- Ensure the mobile attenuator is parallel (level) with the roadway surface.
- Provide a shoulder harness and headrest for the mobile attenuator vehicle's operator.

For stationary operations, when operating the vehicle with the attenuator installed, ensure the vehicle is in second gear if it has a standard transmission (park if an automatic transmission), with the parking brakes set and steering wheels turned away from the work area and traffic, if possible. Place the mobile attenuator according to roll-ahead distance in Tables 1 or 2.

Under no circumstances will MDOT be responsible for any damage to the Contractor's equipment due to a crash.

The use of an MA will include the disbursement of up to 15 (20-minute flares) per hour. It is not the intent to utilize flares on a continuous basis or at every location. However, the MDOT Program Manager may request their usage to provide additional visibility to the operations.

TABLE 1. GUIDELINES FOR ROLL-AHEAD DISTANCE FOR MA VEHICLES TEST LEVEL 2

Weight of Mobile Attenuator Vehicle (Minimum)	Posted Speed (mph) (Posted Speed Prior to Work Zone)	Roll Ahead Distance(a) (Distance from front of Mobile Attenuator Vehicle to Work
5.5 Tons (Stationary Operation)	40 or Less	25 feet
a. Roll ahead distances are calculated using a 4,410-pound impact vehicle weight.		

TABLE 2. GUIDELINES FOR ROLL-AHEAD DISTANCE FOR MA VEHICLES TEST LEVEL 3

Weight of Mobile Attenuator Vehicle (Minimum)	Posted Speed (mph) (Posted Speed Prior to Work Zone)	Roll-Ahead Distance(a) (Distance from front of Mobile Attenuator Vehicle to Work Area)
5 Tons (Mobile Operation)	60-70	175 feet
	50-55	150 feet
	45	100 feet
12 Tons (Stationary Operation)	60-70	50 feet
	50-55	25 feet
	45	25 feet
a. Roll ahead distances are calculated using a 10,000-pound impact vehicle weight.		

The information above is summarized from Attachment 4 – Special Provision for Mobile Attenuators.

1.5. Maintaining Traffic

Maintain traffic in accordance with the current Standard Specifications for Construction, MDOT Maintaining Traffic Typical and the current edition of the Michigan Manual of Uniform Traffic Control Devices (MMUTCD). Conduct all operations in a manner that will not create a hazard, nor hinder, restrict, or impede trunkline traffic. The Contractor must not operate equipment on the roadway or in a manner that requires unnecessary crossing of the roadway. Traffic control is to be adhered in accordance with Section 812 of MDOT's current Standard Specifications for Construction, and with MDOT's Traffic Standards, Typical, Special Details, and the current Maintenance Work Zone Traffic Control Guidelines. The Contractor must not park equipment within the right of way of any state trunkline in a manner not permitted by posted traffic control devices. The Contractor must not store equipment in the right of way of any state trunkline or on state property when not engaged in cleaning operations.

For Short Term Mobile Operations refer to the attached Typical on Short Term Mobile Operations.

A digital copy of the MDOT Standard Specifications for Construction can be obtained from the public MDOT website, under the "Reports, Publications, and Specs" tab at (<https://www.michigan.gov/mdot/>), or at ([MDOT Standard Specifications for Construction](#)).

A digital copy of the MMUTCD as well as the referenced traffic typicals can be obtained from the MDOT Traffic and Safety/Standards and Special Details website at (<https://mdotjboss.state.mi.us/TSSD/tssdHome.htm>).

The two attached traffic typicals 4420-M-FW-SHL and 4402-M-NFW-1LC are for a short duration shoulder closure, and short duration lane closure on non-freeways, respectively, and are for

reference. The Contractor is responsible for utilizing the traffic typical(s) which best suites their closure requirements and the lane configurations.

1.6. Disposal of Material

The Contractor is responsible for disposal of all material using either Disposal Alternate A or B listed below. At no time will waste material or storage containers be staged/stored on State properties or right of way.

Disposal Alternate A

1. Solid Waste Phase

Dispose of the solid waste generated at a Type II landfill. Solid is defined as having no releasable liquids. The landfill may require testing before accepting the waste. Provide the Contract Compliance Inspector disposal documentation from the Type II landfill or certified transfer station.

2. Liquid Waste Phase

- a. Option 1 - This waste may be evaporated; or
- b. Option 2 - This waste may be placed in a sanitary sewer system with the approval of the owner of the system. Provide the MDOT Program Manager with a copy of the owner's approval; or
- c. Option 3 – This waste may be placed into a portable tank or container and allowing enough time to allow the sediment and suspended solids to settle out. After the settling has occurred, only the clear liquid phase may be discharged into a storm sewer, well above a receiving stream, creek, drain, etc. This option must be carefully monitored to ensure that contaminants or sediment are not placed back into the sewer system. The remaining solid/liquid phase is to be managed as a waste and disposed of using Disposal Alternate B or using Disposal Alternate A with Options one (1) or two (2). Contractor is responsible for any and all fines for failure to comply with the statute.

Disposal Alternate B

The waste generated must be transported and disposed of by an EGLE-permitted Liquid Waste Hauler in accordance with Part 121, Liquid Industrial By-Product, of the Natural Resources and Environmental Protection Act, Act 451, PA 1994. The MDOT Program Manager must be provided with a copy of the manifest with every invoice submitted.

Notify the MDOT Program Manager if at any time the material is suspected of being hazardous. If material tests hazardous as defined by Part 111 of the Natural Resources and Environmental Act, Act 451, P.A. 1994, the MDOT Program Manager must be notified immediately as well.

2. Service Requirements

2.1. Timeframes

Provide Contract Activities during the State's normal working hours Monday – Friday 7:00 a.m. to 5:00 p.m. EST. Night and weekend hours, depending on the requirements of the project, must be approved by the Program Manager.

The Contractor will provide a two-week schedule to the MDOT Program Manager within seven (7) business days from receipt of delivery order. The receipt of order date is pursuant to the Notices section of the Standard Contract Terms. The Contractor will notify the MDOT Program Manager via email before starting work and during cleaning operations provide updates on a daily basis. Start date must be approved by the MDOT Program Manager.

The September billing must be received no later than September 22nd every year, due to MDOT fiscal year ending September 30th.

2.2. Reporting

The Contractor will submit to the Program Manager/Contract Compliance Inspector the following written reports on a monthly basis (to be included with invoice submission):

- a) GPS Drainage System Cleaning Report
- b) Copy of the Waste Manifests
- c) Updated Progress Schedule

The Contractor will explain its reporting capabilities and any reporting that is included in its proposal. The MDOT Program Manager may require additional reports throughout the life of the contract. The vendor will provide GPS reports, waste manifests, and updated progress schedules with each monthly invoice. During active cleaning operations, the vendor will provide the required inspection log weekly in MDOT's required electronic format, including locations, coordinates, material depths, repair observations, and blocked outlets.

2.3. ArcGIS Online (AGO)

A. Background

GIS is a visualization of data in a map. ArcGIS Online (owned by the company ESRI) can be accessed on desktop computers via Google Chrome or Firefox, or on connected devices like smart phones and tablet through free applications, such as Field Maps.

The MDOT Data Inventory and Integration Division is responsible for statewide usage of the application.

ArcGIS Online is commonly abbreviated as AGO.

AGO automatically includes coordinate information when data is entered in the GIS map. AGO maps that can be accessed by smart devices are called Web Maps.

MDOT will assume all responsibility for developing, deploying, and maintaining AGO with applicable app.

Use of AGO may be required for tracking contract activity and assigning Work Orders.

MDOT Program Manager and Contractor will determine if Work orders will be applicable for designated routes.

B. Installation, Set-Up

Installation and Set-up is zero dollars. The Contractor may incur applicable data charges for usage.

AGO is available on stated devices, through the Internet via Google Chrome or Firefox. (The Contractor should not use Internet Explorer or Edge to access AGO.)

AGO can be used on existing computers or smart devices currently assigned to Contractor's staff/personnel.

If the Contractor already has an AGO account, these same credentials may be associated with the Web Map and other developed applications for this contract.

MDOT will provide log on credentials to the Contractor for access to AGO data and maps, for interfacing with the Collector Maps and for downloading data to aid in easier payment processing.

C. Training

MDOT will provide training to the Contractor for AGO for both desktop/laptop and smart devices.

The Contractor may request individualized training from MDOT on downloading and uploading local caches of the Collector Map while connected to Wi-Fi.

D. Device Requirements

The Contractor is required to have mobile devices with cellular connections, which must have both location services and photos enabled, and support the latest versions of Esri ArcGIS products.

MDOT will not provide computers or smart devices for the Contractor's use.

E. Service Level

If applicable, Work Orders in AGO will be considered written approval. The Contractor will provide services at the locations described on Work Orders.

The Contractor will be required to monitor AGO for new requests or to update the status of previous Work Orders.

The Contractor will utilize AGO using a computer (via Google Chrome or Firefox) or a smart device with AGO:

- to, View locations and due dates
- for, Communicate progress/status with the MDOT Program Manager
- for, Electronic Report submittal applicable to the service being performed, with locations identified by coordinates.

MDOT and Contractor representatives will be utilizing the same dataset. The dataset will be backed up by MDOT periodically to monitor any changes. Data points from the map can be extracted and used for reporting purposes.

There will be limitations on what information MDOT and/or the Contractor can modify in the AGO dataset, to include only MDOT will have the right to create a Work Order for the Contractor.

2.4. Meetings

The Contractor must attend the following meetings:

- Kick Off meeting.

The State may request other meetings as it deems appropriate.

3. Acceptance

3.1. Acceptance, Inspection and Testing

The State will use the following criteria to determine acceptance of the Contract Activities:

The Contractor will consult the MDOT Program Manager, or their designee, for inspection and tentative approval of work being accomplished, so that, in the event of unsatisfactory work, sufficient time will be available to the Contractor to make corrections in a satisfactory manner within the specified time. Notification with specified completed limits must be sent to the MDOT Program Manager the day work is done.

4. Staffing

4.1. Contractor Program Manager

The Contractor must appoint one Project Manager and one Field Supervisor, specifically assigned to State of Michigan accounts that will respond to State inquiries regarding the contract activities. Both employees will be specifically assigned to this Contract, be knowledgeable on the contractual requirements, have a technical background to perform requested work. The Contractor must notify the MDOT PM at least five (5) calendar days before removing or assigning these positions. The information to supply for each staff member is as follows:

Provide Program Manager information:

Contact name & title:	Travis Haines, Project Manager
Telephone Number:	(248) 648-5009
Email:	Travisrhaines@aol.com

Provide Field Supervisor information:

Contact name & title:	Cory Olson, Field Supervisor
Telephone Number:	(248) 877-4775
Email:	Nelson.hainesplumbing@gmail.com

4.2. Key Personnel

The Contractor must appoint one Contract Administrator who will be directly responsible for the day-to-day operations of the Contract ("Key Personnel"). Key Personnel must be specifically assigned to the State account, be knowledgeable on the contractual requirements, and respond to State inquiries within two (2) hours.

The Contractor may not remove or assign Key Personnel without the prior consent of the State. Prior consent is not required for reassignment for reasons beyond the Contractor's control, including illness, disability, death, leave of absence, personal emergency circumstances, resignation, or termination for cause. The State may require a 30-calendar day training period for replacement personnel.

Provide Key Personnel information:

Contact name & title:	Jessica Bourdon, Contract Administrator
Telephone Number:	(248) 697-6132
Email:	Nelson.hainesplumbing@gmail.com

4.3. Training

The Contractor's employees are trained in proper traffic-control techniques. Applicable employees are OSHA 30 certified and trained for confined-space work. Additional project-specific training will be completed as required.

4.4. Disclosure of Subcontractors

Subcontractors will not be utilized in the performance of this Contract.

4.5. Security

The Contractor will be subject the following security procedures: All vehicles and equipment will be clearly identified with the Contractor's logo. The Contractor will provide all personnel with personal protective equipment (PPE) that must be worn when outside of the vehicles.

The Contractor must explain any additional security measures in place to ensure the security of State facilities.

The Contractor's staff may be required to make deliveries to or enter State facilities. The State may require the Contractor's personnel to wear State issued identification badges.

The Contractor must: (a) explain how it intends to ensure the security of State facilities, (b) whether it uses uniforms and ID badges, etc., (c) identify the company that will perform background checks, and (d) the scope of the background checks.

print Plumbing and Drain Cleaning LLC will limit facility access to authorized personnel; display company logos on vehicles and equipment; require uniforms or identification badges and appropriate PPE; and comply with State badge and access procedures. Required background checks will be coordinated through the Michigan State Police or another screening provider approved by MDOT and will include identity verification, criminal-history screening, driving-record review for vehicle operators, and verification of applicable licenses and certifications, as permitted by law.

5. Pricing

5.1. Price Term

Pricing is firm for the entire length of the Contract.

6. Ordering

6.1. Authorizing Document

The appropriate authorizing document for the Contract will be a delivery order (DO) with the Contract number.

7. Invoice and Payment

7.1. Invoice Requirements

All invoices must be emailed and include the following: (a) date; (b) delivery order number/contract number; (c) quantity; (d) description of the Contract Activities; (e) unit price; (f) vendor-generated invoice number; and (g) total price. Overtime, holiday pay, and travel expenses will not be paid. Payments for work performed will be verified by reports generated from the ArcGIS database. All invoices should reflect actual work done monthly.

7.2. Payment Methods

The State will make payment for Contract Activities Sigma/Vendor Self Service via Electronic Funds Transfer (EFT): [SIGMA Vendor Self-Service \(VSS\)](#). As required by MCL 18.1283, the Contractor must electronically register with the State.

7.3. Procedure

Invoices will be submitted via email to the MDOT Program Manager at peetsb@michigan.gov.

8. Liquidated Damages

Late or improper completion of the Contract Activities will cause loss and damage to the State and it would be impracticable and extremely difficult to fix the actual damage sustained by the State. Therefore, if there is late or improper completion of the Contract Activities the State is entitled to collect liquidated damages in the amount of \$1,000 and an additional \$100 per day for each day Contractor fails to remedy the late or improper completion of the Work.

Pricing						
Catch Basin/Drain Structure Cleaning Services						
Catch Basin Cleaning		NUMBER OF CATCH BASINS		UNIT PRICE (PRICE PER CATCH BASIN)		EXTENDED PRICE
1	Group A, see route/county on Tab 2 Description of Work	2,054	X	\$178.00	=	\$365,612.00
2	Number of occurrences during three year contract is two times. Group A will be cleaned in the first and third years of the contract					\$2.00
3	GRAND TOTAL CONTRACT PRICE GROUP A (Line 1 x Line 2)					\$731,224.00
4	Group B, see route/county on Tab 2 Description of Work	18	X	\$214.00	=	\$3,852.00
5	Number of occurrences during three year contract is three times. Group B will be cleaned in the first, second, and third years of the contract					\$3.00
6	GRAND TOTAL CONTRACT PRICE GROUP B (Line 4 x Line 5)					\$11,556.00
7	GRAND TOTAL CONTACT PRICE ALL CATCH BASIN CLEANING (Sum of Line 3 + Line 6)					\$742,780.00
Catch Basin Cleaning - Emergency Cleaning		ESTIMATED HOURS PER YEAR		UNIT PRICE (PRICE PER HOUR)		
8	Emergency Catch Basin Clean Out: Allegan and Barry Counties	130	X	\$347.00	=	\$45,110.00
9	Number of occurrences during three year contract is two times. Emergency Clean Out will be allowed in the first and third years of the contract					\$2.00
10	GRAND TOTAL CONTRACT PRICE GROUP A (Line 8 x Line 9)					\$90,220.00

Catch Basin Cleaning - Leads Cleaning (Optional)		ESTIMATED FEET PER YEAR		UNIT PRICE (PRICE PER FEET)		
11	Leads Cleaning: 12-36 inches	3,000	X	\$12.00	=	\$36,000.00
12	Leads Cleaning: Greater than 36 inches	1,000	X	\$20.00	=	\$20,000.00
13	Number of occurrences during three year contract is two times. Leads Cleaning is optional and will be allowed in the first and third years of the contract					\$2.00
14	GRAND TOTAL CONTRACT PRICE Leads Cleaning 12-36 inches (Line 11 x Line 13)					\$72,000.00
15	GRAND TOTAL CONTRACT PRICE Leads Cleaning Greater than 36 inches (Line 12 x Line 13)					\$40,000.00
16	TOTAL CONTRACT PRICE (Sum of Line 7 + Line 10 + Line 14 + Line 15)					\$945,000.00

Description of Work				
Catch Basin Cleaning/Drain Structure Cleaning Locations				
Group	Route/County	Starting At	Ending At	Number of Catch Basins
A	Allegan / US-31	I-196/US-31 at US-31 BR (S. Washington Ave.) in Holland Approximate Coordinates: 42°45'11.88"N, 86° 6'58.95"W	US-31 at E 32nd St. in Holland Approximate Coordinates: 42°46'7.36"N, 86° 5'10.21"W	73
A	Allegan / M-40	M-40 (Lincoln Ave.) at US-31 in Holland Approximate Coordinates: 42°45'38.05"N, 86° 5'49.47"W	M-40 (Cutler St.) at Hubbard in Allegan Approximate Coordinates: 42°31'38.49"N, 85°51'14.62"W	391
A	Allegan / M-40	M-40 (Jenner Dr.) at Hubbard in Allegan Approximate Coordinates: 42°31'38.49"N, 85°51'14.62"W	M-40 at Baseline Rd. in Trowbridge Townshp Approximate Location: 42°25'13.09"N, 85°51'46.13"W	33
A	Allegan / M-89	M-89 (124th Ave.) at I-196 in Ganges Township Approximate Coordinates: 42°35'33.87"N, 86°13'9.36"	M-89 (124th Ave.) at M-40 (Lincoln Rd.) in Valley Township Approximate Coordinates: 42°35'35.27"N, 85°56'11.50"W	143
A	Allegan / M-89	M-89 (Marshall St.) at Cutler St. in Allegan Approximate Coordinates: 42°31'45.49"N, 85°51'18.62"W	M-89 (Allegan St.) at Main St. in Plainwell Approximate Coordinates: 42°26'34.11"N, 85°38'30.40"W	368

A	Allegan / M-89	M-89-M-40 roundabout in Allegan Approximate Coordinates: 42°31'36.88"N, 85°51'16.08"W		1
A	Allegan / M-89	M-89 approximately 150 feet north of bridge over Kalamazoo River Approximate Coordinates: 42°31'33.70"N, 85°51'7.32"W		1
A	Allegan / M-89	M-89 (Lincoln Rd.) at 800 ft W of Jefferson Avenue (500 ft E of Kalamazoo River) Approximate Coordinates: 42°27'35.99"N, 85°43'12.00"W		1
A	Allegan / M-89	M-89 (E. Bridge St.) at Main St. in Plainwell Approximate Coordinates: 42°26'34.11"N, 85°38'30.40"W	M-89 (Allegan St.) at Doster Rd. in Prairieville Township Approximate Coordinates: 42°25'42.11"N, 85°32'36.41"W	48
A	Allegan / I-196	I-196 at Baseline Rd. in Casco Township Approximate Coordinates: 42°25'10.11"N, 86°15'7.80"W	I-196 at M-89 in Saugatuck Township Approximate Coordinates: 42°35'35.13"N, 86°12'59.76"W	35
A	Allegan / I-196	I-196 at M-89 in Saugatuck Township Approximate Coordinates: 42°35'35.13"N, 86°12'59.76"W	I-196 at the US-31/I-196 split in Laketown Township Approximate Coordinates: 42°43'48.26"N, 86° 8'48.09"W	55

A	Allegan / I-196	I-196 at the US-31/I-196 split in Laketown Township Approximate Coordinates: 42°43'48.26"N, 86° 8'48.09"W	I-196 at E Ottogan St. in Filmore Township Approximate Coordinates: 42°46'7.85"N, 86° 2'10.61"W	1
A	Allegan / US-131	US-131 at W Baseline Rd. in Gunplain Township Approximate Coordinates: 42°25'15.34"N, 85°39'37.09"W	US-131 at M-222 (116th Ave.) in Martin Township Approximate Coordinates: 42°32'13.50"N, 85°39'36.05"W	25
A	Allegan / US-131	US-131 at M-222 (116th Ave.) in Martin Township Approximate Coordinates: 42°32'13.50"N, 85°39'36.05"W	US-131 at 108th St in Dorr Township Approximate Coordinates: 42°46'3.99"N, 85°40'59.15"W	106
A	Allegan / M-179	M-179 at US-131 in Wayland Township Approximate Coordinates: 42°37'49.65"N, 85°39'44.29"W	M-179 (Chief Noonday Rd.) at Patterson Rd. in Wayland Township Approximate Coordinates 42°37'50.70"N, 85°32'39.08"W	35
A	Allegan / M-222	M-222 at M-89/M-40 in Allegan Approximate Coordinates: 42°31'44.96"N, 85°51'18.93"W	M-222 (116th Ave.) at US-131 in Martin Township Approximate Coordinates: 42°32'12.20"N, 85°39'36.53"W	80
A	Barry / M-37	M-37 at E Baseline Rd. in Johnstown Township Approximate Coordinates: 42°25'12.07"N, 85°14'17.40"W	M-37 at W State St. in Hastings Approximate Coordinates: 42°38'55.14"N, 85°17'26.43"W	151

A	Barry / M-37	M-37 at M-179 in Rutland Township Approximate Coordinates: 42°38'43.47"N, 85°20'8.59"W	M-37 at 108th St. in Caledonia Township Approximate Coordinates: 42°46'6.66"N, 85°30'23.38"W	66
A	Barry / M-43	M-43 at E Baseline Rd. in Prairieville Township Approximate Coordinates: 42°25'12.87"N, 85°26'20.47"W	M-43 at M-179 in Rutland Township Approximate Coordinates: 42°38'44.56"N, 85°20'24.31"W	94
A	Barry / M-43	M-43 at Maple St. in Delton Approximate Coordinates: 42°29'56.05"N, 85°24'28.05"W		1
A	Barry / M-43	M-43 at M-179 in Hastings Approximate Coordinates: 42°38'44.22"N, 85°20'24.83"W	M-43 at M-37 in Hastings Approximate Coordinates: 42°38'54.84"N, 85°17'26.47"W	64
A	Barry / M-43	M-43 at M-37 in Hastings Approximate Coordinates: 42°38'54.84"N, 85°17'26.47"W	M-43 at M-66 in Woodland Township Approximate Coordinates: 42°43'36.09"N, 85° 5'38.09"W	129
A	Barry / M-50	M-50 at M-66 in Woodbury Township Approximate Coordinates: 42°45'17.42"N, 85° 4'29.17"W	M-50 at Eaton Rd. in Woodbury Township Approximate Coordinates: 42°46'13.43"N, 85° 6'53.99"W	2

A	Barry / M-66	M-66 at E Baseline Rd. in Assyria Township Approximate Coordinates: 42°25'14.29"N, 85° 7'25.39"W	M-66 at M-79 in Maple Grove Township Approximate Coordinates: 42°34'0.64"N, 85° 5'44.22"W	111
A	Barry / M-66	M-66 at M-79 in Maple Grove Township Approximate Coordinates: 42°34'0.64"N, 85° 5'44.22"W	M-66 at Eaton Rd. in Woodland Township Approximate Coordinates: 42°46'14.13"N, 85° 4'27.50"W	6
A	Barry / M-79	M-79 at M-37 in Hastings Township Approximate Coordinates: 42°36'41.30"N, 85°16'14.40"W	M-79 at M-66 (Green Arrow Rt) in Nashville Approximate Coordinates: 42°35'59.00"N, 42°35'59.00"N	28
A	Barry / M-79	M-79 at M-66 in Maple Grove Township Approximate Coordinates: 42°34'3.62"N, 85° 5'42.03"W	M-79 at Curtis Rd in Maple Grove Township Approximate Coordinates: 42°34'2.23"N, 85° 4'29.19"W	3
A	Barry / M-179	M-179 (Chief Noonday Rd.) at Patterson Rd. in Yankee Springs Township Approximate Coordinates: 42°37'48.95"N, 85°32'40.13"W	M-179 at M-43 in Rutland Township Approximate Coordinates: 42°38'44.60"N, 85°20'32.42"W	3
Group A Total:				2054

B	Barry / M-79	Hastings Maint. Garage 1300 E. Quimby Road. Hastings, Michigan, 49058	Hastings Garage on M-79 in Hastings Township Approximate Coordinates: 42°36'34.37"N, 85°15'51.31"W	6
B	Allegan / M-89	Fennville Maint. Garage 5252 124th Ave., Fennville, MI, 49408	Fennville Garage on M-89 east of 53rd st. in Manlius Township Approximate Coordinates: 42°35'37.85"N, 86° 3'42.92"W	6
B	Allegan / US-131	Plainwell Maint. Garage 596 106th Ave., Plainwell, MI 49080	Plainwell Garage on 106th Ave. in Gunplain Township Approximate Coordinates: 42°27'50.66"N, 85°39'28.02"W	6
				Group B Total:
				18
				Grand Total:
				2072

DISTANCE BETWEEN TRAFFIC SIGNS, "D"

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

GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE, "B"

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

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

MINIMUM MERGING TAPER LENGTH, "L" (FEET)

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

NOT TO SCALE

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

FILE: 101-GEN-SPACING-CHARTS.dgn

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

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

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

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

TYPES OF TAPERS

UPSTREAM TAPERS

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

TAPER LENGTH

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

DOWNSTREAM TAPERS

(USE IS RECOMMENDED)

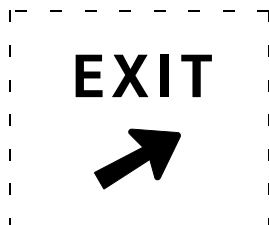
100' (PER LANE)

MAXIMUM SPACING FOR CHANNELIZING DEVICES

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

SIGN OUTLINE KEY

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



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



NOT TO SCALE



NOT TO SCALE

WORK ZONE TRAFFIC CONTROL TYPICAL

NO: 101-GEN-
SPACING-CHARTS

FILE: 101-GEN-SPACING-CHARTS.dgn

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

DATE:
NOV 2020

SHEET:

2 OF 3

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

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

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

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

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

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

KEY

 LIGHTED ARROW PANEL (CAUTION MODE)

 TRAFFIC FLOW

 SHADOW VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR

NOTES

THERE MUST BE EITHER AN APPROPRIATELY MARKED VEHICLE WITH A ROTATING BEACON OR OPTIONAL W20-1 SIGNS TO INDICATE TO THE PUBLIC THAT WORK IS BEING DONE IN THE AREA.

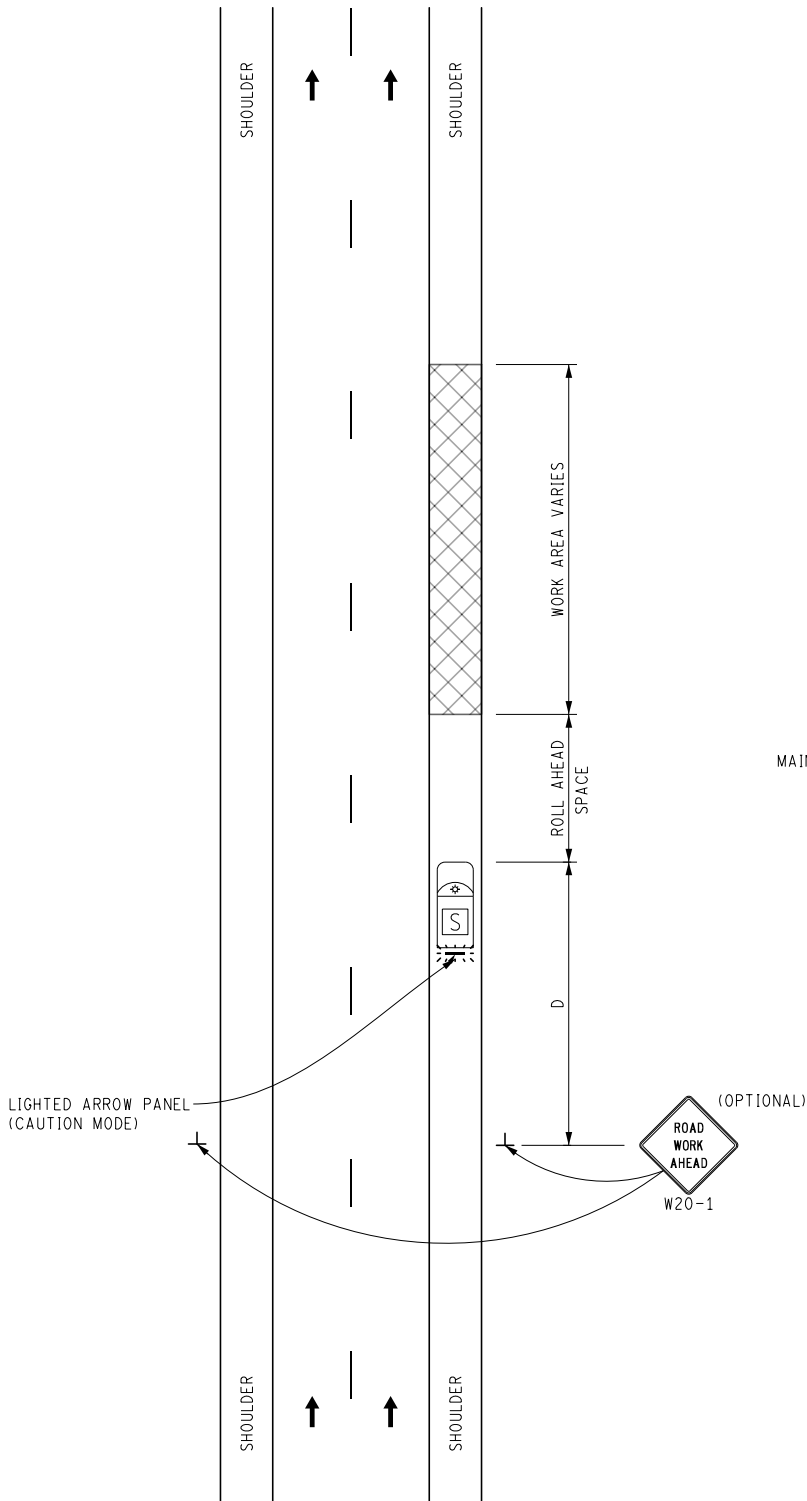
STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1

MAINT & SURV: MS2, MS3, MS4



NOT TO SCALE

 Michigan Department of Transportation	MAINTENANCE MAINTAINING TRAFFIC TYPICAL	DURATION: SHORT-DURATION MOBILE	SHOULDER WORK ON A DIVIDED ROADWAY OR FREEWAY	DATE: MAY 2021
				NO: 4420-M-FW-SHL SHEET: 1 OF 1

FILE: 4420-M-FW-SHL.dgn

KEY



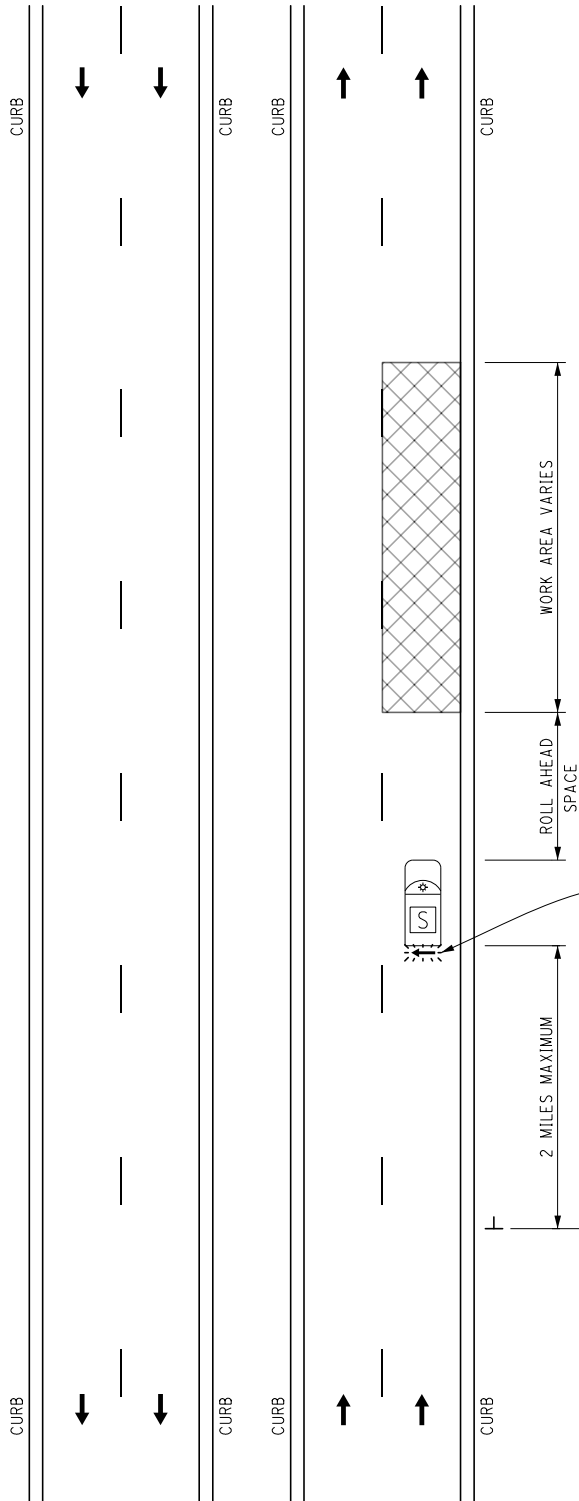
LIGHTED ARROW PANEL



TRAFFIC FLOW



SHADOW VEHICLE WITH OPTIONAL TRUCK MOUNTED ATTENUATOR



NOTES

"ROAD WORK AHEAD" SIGN SHALL BE WITHIN TWO MILES OF WORK AREA.

THIS DETAIL IS ONLY ALLOWED IN AREAS WITHOUT SHOULDERS AND SPEED LIMITS OF 45 MPH OR LESS. USED FOR PATROLLING, MINOR PATCHING AND OTHER ACTIVITIES IN AREAS WITH CURBED ROADWAY.

STANDARD NOTES

(SEE 102-GEN-NOTES)

GENERAL: G1, G2, G3, G4

SIGNING: S1

MAINT & SURV: MS1, MS2, MS3, MS4, MS5

LIGHTED ARROW PANEL
(ARROW MODE)

W20-1

NOT TO SCALE



MAINTENANCE
MAINTAINING TRAFFIC
TYPICAL

DURATION:

SHORT-DURATION
MOBILE

LANE CLOSURE ON A
DIVIDED ROADWAY WITH CURBS
AND SPEED LIMITS 45 MPH OR LESS

DATE:
MAY 2021

NO:
4402-M-NFW-1LC

SHEET:
1 OF 1

FILE: 4402-M-NFW-1LC.dgn

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
MOBILE ATTENUATOR

COS:CRB

1 of 4

APPR:CT:LLR:08-04-22
FHWA:APPR:08-15-22

a. Description. This special provision sets the guidelines for when mobile attenuators are to be used to protect workers or work equipment from vehicular traffic. Throughout this special provision, mobile attenuators refer to truck mounted attenuators (TMA) and trailer mounted attenuators.

Use mobile attenuators in projects to protect personnel or equipment when one or more of the following conditions are met.

- The vehicle is designated as a protective vehicle (shadow vehicle or barrier vehicle) as part of the Maintaining Traffic Typical, maintenance of traffic plans, or other contract documents.
- Aerial work is being performed on scaffolding, lifts, hoists, bucket trucks, etc., where workers using this equipment are in an occupied lane or shoulder and not protected by temporary barrier. Mobile attenuators are not intended to be used for the removal, installation, or maintenance of traffic signals.
- Mobile/short duration operations such as pavement marking convoys, grinding in rumble strips, permanent sign installations, temporary ground mounted sign installations, sign installations located in areas where a work-vehicle cannot pull entirely outside of the edge line, luminescent installations, etc. Mobile attenuators are not intended to be used for the removal or installation of special markings.

Do not mount mobile attenuators on the vehicle or equipment used by personnel to complete aerial work. Do not use mobile attenuators as a temporary/permanent barrier ending except during replacement of damaged temporary/permanent barrier endings. In the event that a mobile attenuator is used as a temporary safety measure for a damaged temporary/permanent barrier ending, the maximum length of time that it can be used for this purpose is 48 hours or as approved by the Engineer.

1. Stationary and Mobile Operation. This work consists of furnishing a vehicle with a gross vehicle weight meeting manufacturer's specifications, or meeting the minimum weight requirements shown in Tables 1 and 2, whichever is greater. Furnish, install, and operate a mobile attenuator in accordance with the manufacturer's recommendations, the contract, and/or as directed by the Engineer. Locate the attenuator placement as detailed in the applicable Maintaining Traffic Typical, maintenance of traffic plans or elsewhere in the contract.

Securely attach material loaded onto the vehicle to obtain the required gross weight, for transport or during work operations to the vehicle. Hazardous materials will not be allowed

on this vehicle. Materials that will be off loaded and incorporated into the construction activities will not be considered part of the vehicle gross weight.

b. Materials and Design. Use mobile attenuators that meet or exceed the requirements of *NCHRP 350 Test Level 2 (TL-2)* or *Test Level 3 (TL-3)*, or *MASH TL-2* or *TL-3*, as described below for work zone traffic control devices.

1. Utilize a mobile attenuator rated for *NCHRP 350, TL-2* or *MASH, TL-2* on non-freeway roadways with a normal posted speed of 40 mph or less. TL-2 mobile attenuators are prohibited for use on all freeways, regardless of the posted speed limit, and non-freeway roadways and work zones with posted speed limits of 45 mph or greater.

2. Utilize a mobile attenuator rated for *NCHRP 350, TL-3* or *MASH, TL-3* on all freeways, regardless of the posted speed limit, and non-freeway roadways and work zones with posted speed limits of 45 mph or greater. TL-3 mobile attenuators may be used on all roadways and work zones regardless of the posted speed limit.

Furnish the Engineer a copy of the FHWA letter of eligibility for federal aid stating the mobile attenuator meets the appropriate *NCHRP 350* or *MASH* test level specified in the above stated criteria. In addition, furnish a letter to the Engineer stating the mobile attenuator system has been installed and maintained in accordance with the manufacturer's specifications.

The face of the mobile attenuator, visible to approaching traffic must have reflectorized alternating yellow and black stripes, sloping downwards in both directions from the center of the attenuator.

c. Operating Details and Utilization. Operate the mobile attenuator per manufacturer's recommendations, the contract, and/or as directed by the Engineer. This includes, but is not limited to, the following:

- Unless otherwise specified by the mobile attenuator manufacturer, ensure the height from the bottom of the mobile attenuator to the roadway surface is 12 inches (± 2.5 inches). When specified otherwise by the manufacturer, furnish documentation to the Engineer indicating the manufacturer's bottom height recommendations and tolerances.
- Ensure the mobile attenuator is parallel (level) with the roadway surface.
- Furnish a shoulder harness and headrest for the mobile attenuator vehicle's operator.

For stationary operations, when operating the vehicle with the attenuator installed, ensure the vehicle is in second gear if it has a standard transmission (park if an automatic transmission), with the parking brakes set and steering wheels turned away from the work area and traffic, if possible.

Place the mobile attenuator in accordance with the manufacturer's recommended roll-ahead distance, or the minimum roll-ahead distance shown in Tables 1 and 2, whichever is greater.

If the mobile attenuator is involved in a crash, provide pictures of the crash scene and the damage of the mobile attenuator to the Engineer within 7 days of the incident.

d. Measurement and Payment. Mobile attenuators will be furnished and operated at no cost to the Department for all contract items associated with pavement marking operations.

The cost for the equipment, mobilization, and labor to furnish and operate this equipment will be included in other contract pay items. The Department will pay for repair or replacement of a mobile attenuator called for as part of the pavement marking operations if damaged by something other than the Contractor's own equipment, during contract operations as described below. Measurement and payment for the use of mobile attenuators on all other contract items will be as described below.

Pay Item**Pay Unit**

Mobile Attenuator Each

The Department will pay for the maximum number of mobile attenuators deployed per the Maintaining Traffic Typical, maintenance of traffic plans or elsewhere in the contract and in use at any one time during the life of the project or as approved by the Engineer. If the Contractor uses alternative construction operations or methods that require additional mobile attenuators that exceed the amount specified in the contract, the additional mobile attenuators must be provided at the Contractor's expense.

The Department will pay for repair or replacement of a mobile attenuator called for as part of the contract if damaged by something other than the Contractor's own equipment, during contract operations by contract modification with the name of the extra pay item to be defined as Mobile Attenuator, Repair or Mobile Attenuator, Replace if the following criteria are met:

1. The damaged or destroyed attenuator must meet all of the manufacturing and operating criteria of this special provision.
2. The Contractor must have attenuators repaired or replaced in accordance with the Manufacturer/Supplier recommendations to ensure that the units are in good working order. Documentation of repair is to be furnished to the Engineer via signed certification from the Contractor stating that the repairs have been done in accordance with the Manufacturer's recommendations prior to implementing the mobile attenuators for use.
3. Furnish a crash report from the enforcement agency involved in the crash investigation.
4. Furnish pictures of the crash scene and damages to the mobile attenuator.
5. Ensure the attenuator repair or replacement is for the actual unit as required by this special provision. The cost to perform the repairs or replace the attenuator including installation will be paid for by the Contractor. Furnish to the Engineer a detailed invoice from the Supplier showing material costs for replacement or repair for payment. The Department will not pay for repair or replacement cost beyond the Suppliers' invoice cost for a new attenuator.
6. The Department will not pay for any costs that are required to replace or repair the attenuator vehicle and any other items which were used to operate the attenuator.
7. Attenuators that have been repaired or replaced as part of the contract are not eligible for additional payment using the Mobile Attenuator pay item once the attenuator is placed back into service.

Table 1. Guidelines For Roll-Ahead Distance For Mobile Attenuator Vehicles Test Level 2

Weight of Mobile Attenuator Vehicle (b)	Posted Speed (mph) (Posted Speed Prior to Work Zone)	Roll Ahead Distance (a), (c) (Distance from front of Mobile Attenuator Vehicle to Work Area)
5.5 Tons (Stationary Operation)	40 or Less	25 feet
a. Roll ahead distances are calculated using a 4,410 pound impact vehicle weight. b. Minimum vehicle weight specified. Use manufacturer's recommended mobile attenuator vehicle weight when the manufacturer's recommendation exceeds the minimum weight specified in this table. c. Minimum roll-ahead distance specified. Use manufacturer's recommended roll-ahead distance when the manufacturer's recommendation exceeds the minimum roll-ahead distance specified in this table.		

Table 2. Guidelines For Roll-Ahead Distance For Mobile Attenuator Vehicles Test Level 3

Weight of Mobile Attenuator Vehicle (b)	Posted Speed (mph) (Posted Speed Prior to Work Zone)	Roll-Ahead Distance (a), (c) (Distance from front of Mobile Attenuator Vehicle to Work Area)
5 Tons (Mobile Operation)	60-70	175 feet
	50-55	150 feet
	45	100 feet
12 Tons (Stationary Operation)	60-70	50 feet
	50-55	25 feet
	45	25 feet
a. Roll ahead distances are calculated using a 10,000 pound impact vehicle weight. b. Minimum vehicle weight specified. Use manufacturer's recommended mobile attenuator vehicle weight when the manufacturer's recommendation exceeds the minimum weight specified in this table. c. Minimum roll-ahead distance specified. Use manufacturer's recommended roll-ahead distance when the manufacturer's recommendation exceeds the minimum roll-ahead distance specified in this table.		