Montgomery County Government



Local Small Business Reserve Program (LSBRP)

Invitation for Bids (IFB) for

#1195636

Removal and Replacement of Concrete Curb and Sidewalk in the Business Districts Countywide

Department of Transportation

NOTICE OF LSBRP INVITATION FOR BIDS

IFB #1195636 Removal and Replacement of Concrete Curb and Sidewalk in the Business Districts Countywide

<table>
<tr><td>IFB SUMMARY</td><td colspan="6">Montgomery County, Maryland is launching an LSBRP IFB to establish contract unit pricing for the labor and materials required for new construction, rehabilitation and safety improvements of concrete curbs and gutters, sidewalks, ADA ramps, driveway aprons and any related work for the County's business districts.</td></tr>
<tr><td>IFB ISSUE DATE</td><td colspan="6">10/14/2026</td></tr>
<tr><td>BID DUE DATE</td><td colspan="6">Bids are due on 11/18/2026 no later than 11:00 am EST Zone Bidders are invited to attend the Bid Opening. Bid Opening Link</td></tr>
<tr><td>BID INTENT</td><td colspan="6">Establish a Fixed Price</td></tr>
<tr><td rowspan="3">BID TYPE</td><td colspan="2">Services Contract</td><td colspan="2">Construction Contract</td><td colspan="2">Goods Contract</td></tr>
<tr><td>☐YES</td><td>☒ NO</td><td rowspan="2">☒ YES</td><td rowspan="2">☐ NO</td><td rowspan="2">☐ YES</td><td rowspan="2">☒ NO</td></tr>
<tr><td colspan="2">Non-Professional Services</td></tr>
<tr><td>METHOD OF AWARD (Choose One)</td><td colspan="6">☒ The contract will be awarded to the responsible bidder submitting the lowest responsive bid, as determined by the Director, Office of Procurement. The lowest bidder is determined by the aggregate amount of the unit prices extended by the quantities set forth on the Quotation Sheet. Bidders must bid each item in order to be eligible for an award.</td></tr>
<tr><td rowspan="2">WAGE LAW APPLICABILITY</td><td colspan="2">Services Contract (Wage Requirements Law)</td><td colspan="2">Construction Contract (Prevailing Wage Law)</td><td colspan="2">Goods Contract</td></tr>
<tr><td>☐ YES</td><td>☒ NO</td><td>☒ YES</td><td>☐ NO</td><td colspan="2">Not Applicable</td></tr>
<tr><td>PRE-SUBMISSION CONFERENCE</td><td colspan="6">A pre-submission conference will be held on 10/28/2026 at 2:00 PM. Bidders are invited to attend. Pre-Submission Conference Link</td></tr>
<tr><td>IFB QUESTIONS</td><td colspan="3">Technical Questions Contact
Timothy Serrano, Contract Administrator from the Department of Transportation at 240-777-7602 or email at timothy.serrano@montgomerycountymd.gov.</td><td colspan="3">Procurement Questions Contact
Michael Greve at 240-777-9923 or via email at michael.greve@montgomerycountymd.gov .</td></tr>
<tr><td>IFB QUESTIONS DUE DATE</td><td colspan="6">11/5/2026</td></tr>
<tr><td>BID SECURITY</td><td colspan="3">☒ YES
A bid security $50,000.00 is required.</td><td colspan="3">☐ NO</td></tr>
<tr><td rowspan="2">PERFORMANCE BOND AND PAYMENT BOND</td><td colspan="3">☒ YES</td><td colspan="3" rowspan="2">☐ NO</td></tr>
<tr><td colspan="3">A Performance Bond in the amount of $200,000.00 (see Attachment F) is required.
A Payment Bond of $200,000 is required (See Attachment G)</td></tr>
</table>

BID SUBMISSION PROCESS	Prospective bidders must submit their bid electronically via **BidNet Direct.**

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LOCAL SMALL BUSINESS RESERVE PROGRAM (LSBRP) NOTICE

#1195636
for

Removal and Replacement of Concrete Curb and Sidewalk in the Business Districts Countywide

This solicitation is reserved for only **application submitted/certified** local small businesses timely registered with the County's LSBRP. This solicitation thus comes under County Code, sections 11B-17A; 11B-65; 11B-66A; 11B-70 and Executive Regulation 21-05AM. These documents can be accessed through the LSBRP web site.

LSBRP criteria are based on a firm's location, ownership status, number of employees and annual revenue amount. Submitting a bid/proposal constitutes willfully stating your firm has an **application submitted or is a certified** Local Small Business. Therefore, if you wish to submit a bid/proposal for this solicitation adhering to the LSBRP, you must:

1. Submit an application as a LSBRP firm prior to the bid's/proposal's due date. If your LSBRP status is not **application submitted/certified** in our database prior to the bid's/proposal's due date and time, then your bid will be deemed non-responsive and rejected or your proposal will be deemed unacceptable and removed from consideration. Go to the LSBRP web site and follow the instructions under "*Registration/Certification*."

2. After the RFP closes and upon notification by the County, you must provide within three (3) business days the LSBRP documentation of:
   - All of its business location(s) (if more than one),
   - Number of employees by location,
   - Annual gross revenue of the business for the past three fiscal years.

Preferred documents: a copy of a lease, Maryland Unemployment Insurance Contribution Report (summary or quarterly), and Financial Statement/Tax Returns. At the discretion of the LSBRP, alternative type of documents might be accepted.

If, after receipt of these documents, the LSBRP finds that your firm does not meet the LSBRP requirements, then your bid will be deemed non-responsive and rejected or your proposal will be deemed unacceptable and removed from further consideration. For questions, contact the LSBRP Program Manager at 240-777-9913 or send an email at lsbrp@montgomerycountymd.gov

BID AND CONTRACT AWARD PAGE

Contract Document

THE FOLLOWING DOCUMENTS ARE HEREBY INCORPORATED BY REFERENCE INTO AND MADE PART OF ANY CONTRACT AWARDED. In the event of any conflict among the provisions of the bid documents, or those documents comprising the resultant Contract, the conflict must be resolved by giving precedence to the below documents in the following order:

1. Attachment A. General Conditions of Contract between County and Contractor.
2. The specifications/scope of work shown in Section 1 of this document (See page 6).
3. All solicitation amendments that change Section 1 will supersede in the event of a conflict.
4. All representations and certifications listed in this document.
5. This Bid and Contract Award Page and the attached solicitation Quotation Sheet(s) and Delivery Schedule (See Attachment B1 and B2).

Signature for Bid and Contract

The bidder's signature on the contract, amendment(s) or related correspondence, must conform to the following:

All signatures must be made by an authorized officer, partner, manager, member, or employee. The signing of this bid or a contract is a representation by the person signing that the person signing is authorized to do so on behalf of the bidder or contractor.

Business Firm's Legal Name (printed)	
Business Firm Legal Address	
Printed Name, Title of Person Authorized to Sign Proposal	
E-Mail of Person Authorized to Sign Proposal	
Signature	
Date	

Printed Name of Contracting Officer	
Signature	
Date	
Contract Number	

Acknowledgment of Solicitation Amendments

The Bidder acknowledges receipt of all amendment(s) to the solicitation:

Amendment Number(s)	Date

SECTION 1. SCOPE OF WORK

1.1. Scope of Work

1.1.1. Background

This solicitation is for the Removal & Replacement of Concrete Curb & Sidewalk in Business Districts County Wide on an ongoing maintenance / construction contract with Montgomery County. The goal of the work is to execute required maintenance and safety improvements in the County's business district for existing curb and gutters, sidewalks, ADA ramps and driveway aprons when applicable. The work may also include the installation of new concrete curbs and gutters, sidewalks, ADA ramps, driveway aprons and other work as determined by the County.

1.1.2. IFB Intent

This Invitation for Bids will establish a firm fixed price ***requirements*** contract with established unit prices from the awarded vendor for a comprehensive list of pay items related to the execution of maintenance and safety improvements. This contract and its pricing will be in effect for one year and at the Director of Procurement's discretion may be renewed annually for a total of two (2) renewals. The Vendor is allowed to request price adjustments at the end of each year in relation to the Consumer Price Index (CPI) cost of living increases (See Section 2.1 of the IFB).

The Contractor acknowledges and understands that the County maintains the sole authority to determine program/project scope, pay items, and estimated/final quantities of each item for all Task Orders. Additionally, the County intends to utilize any item, regardless of bid price or quantity stated in the IFB to ensure the County receives the best value in each project scenario. The Contractor shall not rely on previous quantities used, historical quantities or combination of items, previous agreements or previous Contracts, when entering into this agreement or as a basis to dispute project scope, use of items, or sequence of work.

1.1.3. General Requirements

The Contractor is expected to conduct its operations in a professional and safe manner that complies with all relevant regulatory standards and requirements. The Contractor shall comply with all local, State and Federal laws and regulations whether stated in this document or not. The Contractor is required to meet the insurance requirements, comply with business registration and operations rules and meet all procurement submission requirements. It is the responsibility of the Contractor to be knowledgeable of the variety and scope of the County roadway infrastructure at the time of bid.

1.1.4. Service Requirements

The Contractor will be required to provide service and materials for the removal of existing and / or the installation of new curb and gutters, sidewalks, ADA ramps and driveway aprons.

1.1.5. Performance Metrics and Contract Management
MFD Requirements
Prevailing Wage Requirements.

1.1.6. Mandatory Contractor Qualifications

- Only corporate vendor experience will be considered. Individual employee experience while employed with other vendors will not be counted towards corporate experience.
- Vendors shall list their successfully completed multiple year “requirements” type contracts of similar scope within the last five (5) years along with references. Vendors must certify they have the resources and capacity to handle multiple Task Order assignments concurrently.The Contractor must provide evidence of certification, for at least one on-site crew member, as an American Concrete Institute Certified Flatwork Concrete Finisher/Technician, or an approved equal.

1.1.7. Contractor’s Responsibilities

The Contractor’s responsibilities for the entire contract and each Task Order include:

- Determining the means and methods for staging and construction.
- Managing daily operations, including scheduling, site maintenance, traffic management, assignment of the personnel and equipment required for the removal and / or installation.
- Maintaining the site in a safe and orderly manner including removal of trash, equipment and any hazards created by the work to ensure public safety.
- Communicating any issues related to the work, payment or safety with the County’s Contract Administrator or Designee and assist in resolving problems.
- Responsiveness: The Contractor must have the capability to be contacted by the County and respond outside of regular hours.
- Ensuring the protection of utilities.

1.1.8. County’s Responsibilities

- The County is responsible for assigning Task Orders.
- The repair and/or replacement of infrastructure components are limited to those identified by the Contract Administrator or Designee.
- The County determines program/project scope, pay items, and estimated/final quantities of each item for all Task Orders.

SECTION 2. SPECIAL TERMS AND CONDITIONS

2.1. ANNUAL PRICE ADJUSTMENT (CPI)

Prices quoted are firm for a period of one year after execution of the contract. Any request for a price adjustment after this one-year period is subject to the following:

- Approval or rejection by the Director, Office of Procurement or designee.
- Must be submitted in writing to the Director, Office of Procurement, and accompanied by supporting documentation justifying the Contractor's request. A request for any price adjustment may not be approved unless the contractor submits to the County sufficient justification to support that the Contractor's request is based on its net increase in costs in delivering the goods/services to the County under the contract terms.
- Must be submitted sixty (60) days prior to the contact expiration date, if the contract is amended.
- May not be approved in an amount that exceeds the annual percentage change of the Consumer Price Index (CPI) for the twelve-month period immediately prior to the date of the request. The request must not exceed the CPI for all urban consumers issued for the Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan area by the United States Department of Labor, Bureau of Labor Statistics for ALL ITEMS, unless a commodity or service group is specifically stated below:

  Annual Price Adjustment: ALL ITEMS
- The County will approve only one price adjustment for each contract term, if a price adjustment is approved.
- Should be effective sixty (60) days from the date of receipt of the contractor's request.
- Must be executed by written contract amendment.

2.2. CLEANING OF SITE

The Contractor must always keep the premises free from accumulation of waste materials or rubbish caused by the work performed. Upon completion of the work, waste materials, rubbish, and tools, equipment, machinery and surplus materials must be removed from and about the project (job) site. Waste materials and rubbish must be properly disposed of by the Contractor. All building surfaces and work areas are to be left "broom clean."

2.3. CONTRACT ADMINISTRATOR

A Contract Administrator will be designated by the Director, Office of Procurement or authorized representative. Along with the duties and responsibilities outlined in Section 8 – Contract Administration of the General Conditions for Contract between County and Contractor, the Contract Administrator is responsible for:

2.3.1. Instructing the Contractor of the details of work required including the labor and the material/equipment to be used;

2.3.2. Approving the Contractor's maintained record of time and material used for the job. The Administrator must sign and date these records;

2.3.3. Approving the rental of equipment and/or tools that may be considered "not customary" to the trade;

2.3.4. Inspecting all work performed and authorizes payment upon acceptance. The designated Contract Administrator for the Department of Transportation is Timothy Serrano, Phone: 240-777-7602, Email: timothy.serrano@montgomerycountymd.gov. The Contract Administrator for any other department will be identified in an applicable Purchase Order or a Contract Amendment.

2.4. CONTRACT TERM

The term of the contract is for ONE (1) from the date of signature by the Director, Office of Procurement. Before the contract term ends, the Director may (but is not required to) renew this contract, if the Director determines that renewal is in the best interests of the County. The Contractor's satisfactory performance does not guarantee renewal of this Contract. The Director may exercise this option to renew for TWO (2) additional one-year periods.

2.5. CONTRACT VALUE

This is a Requirements Contract and the County will place orders for goods/services as needed. The estimated quantities and/or annual expenditure for such requirements as stated on the Quotation Sheet represents only the County's best estimates. The County may purchase more or fewer of the goods and/or services provided under this contract. No guarantee of purchases of any specific quantity or total dollar amount is made. All purchases are contingent upon the appropriate fiscal funding.

2.6. CORRECTION OF WORK AFTER FINAL PAYMENT

The Contractor must remedy any defects due to faulty material or workmanship and pay for any damage to other work resulting there-from, which shall appear or occur within the guarantee period beginning with the date of final payment, or from the date of the County's substantial usage of the project, whichever is earlier. The County will give notice of observed defects with reasonable promptness.

2.7. CORRECTION OF WORK BEFORE FINAL PAYMENT

The Contractor must promptly remove from the premises all work and materials condemned by the County as failing to conform to the contract, whether incorporated or not, and the Contractor shall promptly replace and re-execute condemned work in accordance with the contract and without expense to the County and shall bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement.

2.8. DELAYS AND EXTENSION OF TIME

If the Contractor is delayed at any time in the delivery of Supplies, Material, Equipment and/or Services by any act or neglect of any separate Contractor employed by the County, or by changes ordered in the Supplies, Materials, Equipment and Services, or by strikes, lockouts, fires, unusual delay in transportation, unavoidable casualties or any causes beyond the Contractor's control, or by delay authorized by the County, the County shall decide the extent of such delay or the justification of any other delay, then the time of completion shall be extended for such reasonable time as the County may decide.

2.9. DEPARTMENTS AUTHORIZED TO USE CONTRACT(S)

The primary user of this contract will be the Department named on the Notice for Invitation for Bids, under the Technical Questions Contact. This agency is authorized to use its own internal Job Release System and Financial Department methods. All other users of this contract must route their usage through THE CONTRACTING OFFICER, or Designee. Contractors are cautioned not to perform work for any other than the primary user without written authorization from the Director, Office of Procurement.

2.10. FAILURE TO PERFORM/DELIVER

The Contractor acknowledges and agrees that delayed performance or failure to make timely delivery under this Contract, without prior agreement of the County, will cause real and significant damage to the County, the extent of which would be impossible, or extremely difficult, to reasonably ascertain due to the nature of such damages. Therefore, in lieu of actual damages, the parties agree that the County may assess liquidated damages at the rate of $500.00 per day for each day of delay beyond the established performance/delivery date.

The parties affirm that these liquidated damages are not intended to be a penalty, are solely intended to compensate for damages, and that the measure of liquidated damages specified herein is a reasonable approximation of the actual damages which the County, as the non-breaching party, is likely to incur as a result of the failure by the Contractor to perform its obligations under this Contract.

In the event that liquidated damages are assessed by the County Contract Administrator, the County may reduce the amount owed or paid to the Contractor, and reduce or withhold from payment to the Contractor, the applicable liquidated damages amount. Any disputes regarding liquidated damages must be resolved via the dispute process set forth in Section 14.2 of the Montgomery County Procurement Regulations.

The assessment of liquidated damages by the County does not preclude the County from exercising its legal rights to: (1) make an open market purchase of the goods and/or services which were to be delivered by the Contractor; (2) charge as damages the difference between the contract price and the actual cost incurred by the County; (3) terminate the Contract for default pursuant; and/or (4) pursue any other remedies legally available to the County. Any assessment of liquidated damages by the County will terminate upon the County’s receipt of the required goods and/or services.

2.11. INVOICES

All true and corrected invoices and all inquiries regarding payment are to be sent in accordance with Provision 2.55 and 2.57. Failure to submit timely and/or accurate invoices may delay payment.

2.12. METHOD OF ORDERING

It is the intention of the County to issue written purchase orders or blanket purchase order(s) to the contractor(s). If blanket purchase order(s) is/are issued, written individual releases against such blanket order(s) will be made by the using agency as required. Issuance of all purchase orders will be contingent upon appropriation of funds by the Montgomery County Council and encumbrance of such funds after July 1, of each year, as provided by the Montgomery County Code.

2.13. NET PRICES

Prices are net, inclusive of all charges for transportation FOB Destination, freight prepaid and allowed, and inside delivery, and all other charges necessary for performance under the Contract. Prices are less Federal, State, and Local taxes. The County will not pay gross receipts or heavy equipment taxes.

2.14. NEW MATERIALS

Unless this contract specifies otherwise, the Contractor represents that the supplies and components are new and are not of such age or so deteriorated as to impair their usefulness or safety.

2.15. ORDERING TERMS

Orders for goods/services that are placed before the expiration of the contract term and are to be started and/or completed before the expiration of the contract are to be honored with all terms, conditions, and prices of the Contract in effect until the final delivery of goods and/or completion of the work is made and accepted by the County.

With respect to task order contracts, in the event there is an open task order(s) as of the date of contract termination, the contract will remain open, with all terms and conditions in effect, for the sole and limited purpose of completion of any outstanding task order(s). No new task orders may be initiated following the date of contract termination.

2.16. PERFORMANCE BOND

No contract shall exist until the County receives a duly executed Performance Bond or Irrevocable Letter of Credit prepared on an approved form in the amount indicated on the Notice of Invitation for Bids. The bond must be made payable to Montgomery County, as security for the faithful performance of the contract and having as surety thereon such surety company or companies as are acceptable to the County and as are authorized to transact business in the State of Maryland. In the event the Performance Bond is not delivered within ten (10) days of Notice of Award then the offer may be ruled null and void and the award made to the next lowest responsive

bidder. The County reserves the right of approval of any instrument offered as a Performance Bond.

The Performance Bond must provide assurance of faithful performance and discharge of all duties and responsibilities attendant thereto required by law or as provided herein by the Contractor of all ASPECTS, TERMS AND CONDITIONS of the contract and shall be maintained in full force and effect until the termination of this agreement. See Attachment F. **Leave date of Bond blank, County will fill in date of contract execution.**

2.18. PROTECTION OF EXISTING FACILITIES

The Contractor shall take all necessary precautions during the period of service to protect existing County facilities from damage by the Contractor, Contractor's employees, subcontractor or subcontractor's employees and shall repair or replace, at the Contractor's own expense, any damaged property caused by the Contractor, Contractor's employees, subcontractor or subcontractor's employees.

2.19. PURCHASE OF GOODS BY NON-PROFIT ORGANIZATIONS

Pursuant to the requirements set forth in the Montgomery County Code, Chapter 11B-49, the Contractor agrees to extend the same terms, conditions, and prices for the goods provided by the Contractor pursuant to this contract to those Non-Profit organizations which may need the goods to perform a contract with the County. Non-Profit Organizations are defined as those organizations that are exempt from taxation under Section 501(c) (3) of the Internal Revenue Code but are not defined as a "public entity" under subsection (n) of Chapter 11B-1 of the Montgomery County Code.

2.20. WARRANTY

The Contractor must warrant, for a minimum of one year from the County's acceptance, all goods, services, and construction provided under the Contract, including any products or materials used in the course of providing the goods, services, and/or construction,

The Contractor must also guarantee that all products offered (or used in the installation of those products) carry a warranty against any and all defects for a minimum of one year from date of acceptance by the County.

Should a manufacturer's or service provider's warranty or guarantee exceed the requirements stated above, that guarantee or warranty will be the primary one used in the case of defect. Copies of manufacturer's or service provider's warranties must be provided upon request. The Contractor must provide, with the bid submission, a detailed listing of items that will be covered under a manufacturer's or service provider's warranty, along with the terms thereof.

2.21. ABBREVIATIONS

i.	AAN	American Association of Nurserymen
ii.	AAPA	American Association of Port Authorities
iii.	AAR	Association of American Railroads
iv.	AASHTO	American Association of State Highway and Transportation

		Officials
v.	ACI	American Concrete Institute
vi.	AIA	American Institute of Architects
vii.	AIEE	American Institute of Electrical Engineers
viii.	AISC	American Institute of Steel Construction
ix.	AISI	American Iron and Steel Institute
x.	ANSI	American National Standards Institute
xi.	ARA	American Railway Association
xii.	AREA	American Railway Engineering Association
xiii.	ASCE	American Society of Civil Engineers
xiv.	ASHRAE	American Society of Heating, Refrigeration and Air-Conditioning Engineers
xv.	ASLA	American Society of Landscape Architects
xvi.	ASME	American Society of Mechanical Engineers
xvii.	ASTM	American Society for Testing and Materials
xviii.	ATA	American Transit Association
xix.	AWWA	American Water Works Association
xx.	AWS	American Welding Society
xxi.	AWPA	American Wood Preservers Association
xxii.	AGC	Associated General Contractors of America
xxiii.	BOCA	Building Officials Conference of America
xxiv.	COMAR	Code of Maryland Regulations
xxv.	CRSI	Concrete Reinforcing Steel Institute
xxvi.	DED	Dutch Elm Disease
xxvii.	EEI	Edison Electric Institute
xxviii.	EIA	Electronic Industries Association
xxix.	EPA	Environmental Protection Agency
xxx.	FAA	Federal Aviation Administration, U.S. Department of Transportation
xxxi.	FCC	Federal Communications Commission
xxxii.	FHWA	Federal Highway Administration, U.S. Department of Transportation
xxxiii.	FRA	Federal Railway Administration, U.S. Department of Transportation
xxxiv.	FSS	Federal Specifications and Standards, General Services Administration
xxxv.	FTA	Federal Transit Administration
xxxvi.	IEEE	Institute of Electrical and Electronic Engineers
xxxvii.	IES	Illuminating Engineers Society
xxxviii.	IMSA	International Municipal Signal Association
xxxix.	IPCEA	Insulated Power Cable Engineers Association
xl.	IRT	Institute for Rapid Transit
xli.	MBMA	Metal Building Manufacturers' Association
xlii.	NCHRP	National Cooperative Highway Research Program
xliii.	MCDOT	Montgomery County Department of Transportation
xliv.	M-NCPPC	Maryland-National Capital Park and Planning Commission
xlv.	MSHA	Maryland State Highway Administration.
xlvi.	MSMT	Maryland Standard Method of Tests (as developed by the State Highway Administration)
xlvii.	MdMUTCD	Maryland Manual on Uniform Traffic Control Devices

xlviii.	NBFU	National Board of Fire Underwriters
xlix.	NBS	National Bureau of Standards
l.	NEC	National Electric Code
li.	NESC	National Electric Safety Code
lii.	NEMA	National Electrical Manufacturers' Association
liii.	NFPA	National Fire Protection Association
liv.	OSHA	Occupational Safety and Health Administration
lv.	RLMI	Reflector and Lamp Manufacturers' Institute
lvi.	SAE	Society of Automotive Engineers
lvii.	SAWP	Society of American Wood Preservers
lviii.	SSPC	Society for Protective Coatings
lix.	UL	Underwriters Laboratories, Incorporated
lx.	QPL	Qualified Products List
lxi.	WSSC	Washington Suburban Sanitary Commission

2.24. CONTRACTOR'S PERSONNEL

The Contractor will provide a sufficient work force to successfully meet the terms of the Contract. The Contractor must provide supervision for all personnel on the work site when any work is being performed. The Contractor shall provide the County's Contract Administrator with the contact information of the permanent, full-time Superintendent assigned to the Contract by the Contractor.

2.25. CONTRACTOR'S RESPONSIBILITY FOR COMMUNICATING WITH THE COUNTY.

The Contractor must have the capability to receive messages from the County and respond and/or send messages to the County via electronic mail (e-mail). Upon receiving an email communication from the County, the Contractor has until 12:00 noon the next business day to respond. If the Contractor fails to respond to the County within the time constraint specified, the County may take corrective action.

The Contractor must provide the Contract Administrator or Designee with prompt written notice (within 24 hours of the occurrence) for any additional Contract Sum and/or additional Contract Time or claims for damages that may be made by the Contractor or paid to the Contractor for any delay, disruption, inefficiency, interference or hindrance from any cause whatsoever, whether foreseeable or not, including (i) acts or omissions by the Owner, its agents, employees or consultants, (ii) Contract Documents that are negligently prepared or contain inaccurate statements, or (iii) force majeure and circumstances beyond the Contractor's control. The sole remedy for delays, disruptions or hindrances will be non-compensable time extensions for completion of the Work. Failure to notify within the time period will waive any extension of time.

2.26. CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES

At points where the Contractor's operations are adjacent to properties of railway, transit, public utilities of any kind to include but not be limited to telegraph, telephone, water, sewer, cable, communication and power companies, or are adjacent to other property, damage to which might result in expense, loss or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made by the Contractor.

The Contractor must cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations for these operations to

progress in a reasonable manner, that duplication or rearrangement work may be reduced to a minimum and that services rendered by those parties will not be unnecessarily interrupted.

In the event of interruption to utility services because of accidental breakage or because of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate with the said authority in the restoration of service. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority.

2.27. CONTRACTOR'S RESPONSIBILITY FOR WORK

Except as herein elsewhere provided, until final acceptance of the work by the County, the Contractor shall have the charge and care thereof and shall take every reasonable precaution against injury or damage to any part thereof by the action of the elements, or from any other cause, whether rising from the execution or from the non-execution of the work, including in cases of suspension of work. The Contractor, except as herein elsewhere provided, shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work before final acceptance and shall bear the expense thereof. Material lost, or structures damaged because of faulty temporary drainage during construction or the action of the elements shall be replaced or repaired by the Contractor at no cost to the County. The Contractor shall make good or replace at his/her own expense and as required any County furnished material which may be broken, lost through fire, theft, or otherwise damaged, or in any way made useless for the purpose and use intended subsequent to delivery to the Contractor by the County and prior to final acceptance of the work.

2.28. CONTRACTOR’S WORKERS, METHODS AND EQUIPMENT

The Contractor shall employ sufficient labor and equipment to complete work in the manner and time required by the Contract and/or individual Task Order(s). Contractors employees must have sufficient skill and experience to properly perform the work assigned to them.

The Contractor shall be solely responsible for the performance of the Contractor’s and/or sub-Contractor’s employees, suppliers and third parties. The County’s Contract Administrator reserves the right to request the Contractor remove any of its’ employees or sub-contractor’s employees that do not perform in accordance with terms of the contract. In the event this type of request is not honored by the Contractor, the County Contract Administrator may withhold the Contractor’s invoices.

Equipment to be used on the work shall meet the requirements of the work and produce a satisfactory quality of work. All equipment used shall be properly maintained and regularly inspected in accord with the manufacturer and/or regulatory agency. The Contract Administrator or Designee may order the removal and require replacement of any unsatisfactory equipment. Defective work produced through the use of unsatisfactory equipment must not be measured for payment and shall be removed from the work site immediately, entirely at the expense of the Contractor and at no cost to the County.

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the Contract, the Contractor may proceed with any methods or equipment that he/she demonstrates to the satisfaction of the Contract Administrator or Designee will accomplish the Contract work in conformity within the requirements of the Contract. When the Contract specifies the work be performed using certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Contract Administrator or Designee in writing. If the Contractor desires to use a method or type of equipment other than those specified in the Contract, they may request authority from the Contract Administrator or Designee to do so. The request must include a full description of the methods and equipment proposed to be used and an explanation of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing construction work in conformity with Contract requirements.

If, after trial use of the substituted methods or equipment, the Contract Administrator or Designee determines that the work produced does not meet Contract requirements, the Contractor must discontinue the use of the substituted method or equipment and complete the remaining construction with the specified methods and equipment. The Contractor must remove the deficient work and replace it with work of specified quality or take such other corrective action as the Contract Administrator or Designee may direct.

No change will be made in basis of payment for the construction items involved nor in Contract time as the result of authorizing a change in methods or equipment under these provisions.

2.29. CONTRACTOR'S TASK ORDER SCHEDULING CHART / CPM

The Contractor shall provide an Activities Chart Task Order Schedule in conformance with the Technical Requirements' *Section 110– Activities Chart Project Schedule*, for each individual Task Order and/or a Critical Path Project Schedule in conformance with *Section 109 – Critical Path Method Project Schedule*, of the current MSHA "Standards Specifications for Construction and Materials", based on the project. The type of schedule(s) shall be at the sole discretion of the Contract Administrator or Designee.

Any Activities Chart Task Order Schedule and/or Critical Path Method (CPM) schedule shall be detailed to the satisfaction of the Contract Administrator or Designee.

The Task Orders will be calculated with calendar days. The schedule must be submitted a minimum of seven (7) calendar days prior to the specified work commencement date.

This Schedule is to break down into detail the Contract time required to perform and complete all the work activities of the Task Order within the specified time duration. The required Schedule must be approved by the Contract Administrator, or Designee, prior to any work commencing on the assigned Task Order. As the work progresses, the Contractor will provide written updates to the Schedule(s) as specified in Sections 109 and/or 110 of the Technical Requirements of this Contract Document or as directed by the Contract Administrator, or Designee.

Task Order assignments exceeding the calendar daytime duration, as established by the County, will be subject to assessment of liquidated damages.

Failure to adhere to the latest approved Schedule will be cause for the County to deny requests for additional compensation or extension of the Task Order time duration.

When the Contractor has multiple assignments through this contract or other County contracts; the Contractor must, at the request of the Contract Administrator, provide a master schedule demonstrating how all work/Task Order(s) activities are to be performed within the durations of each assignment. A narrative shall be provided to include a detailed description of a work plan to include all resources such as labor force, types of crews, number of crews, subcontractors, equipment, and materials necessary to complete each task assignment and its relationship to the scheduling of critical activities for all assignments throughout all County contracts which the Contractor may hold.

The Contractor must have sufficient resources available to begin work on the Task Order within 14 calendar days from the date of issuance of the Notice-to-Proceed by the County. Should the Contractor fail to begin work within 14 calendar days, the County will have the right to withdraw the Task Order from the Contractor and obtain other resources as necessary to perform the work.

It may be necessary for the Contractor to provide multiple crews working concurrently on the same Task Order if the Contractor falls behind schedule, at no fault to the County, and is not maintaining the Task Order's specified completion date.

2.30. DETERMINATION AND EXTENSION OF TASK ORDER TIME

The Contractor shall complete the work contracted for in an acceptable manner within the number of working days, calendar days, or calendar date as specified in the Invitation for Bids and/or specified in the Notice-to-Proceed for the assigned Task Order.

The Contract Administrator or Designee will make available to the Contractor each week a record, such as the Daily Construction Log, showing the number of days charged to the Contract for the preceding week. The Contractor will be allowed one week in which to contest and 30 days in which to file a written statement, setting forth in what respects time charges are incorrect.

If satisfactory fulfillment of the Task Order requires the performance of work in greater quantities than specified in the Task Order estimate, the Contract time allowed for performance may be adjusted based on the quantities, cost, and the nature of the work involved.

Time used in performing work of an emergency nature ordered by the Contract Administrator or Designee for the convenience of the traveling public or for the production or delivery of materials for storage, if performed during the period of suspension, will not be charged against the Contract time.

Following the date on which all work has been completed, no time will be charged against the Contract until it is again permissible to proceed with the work, except for (1) those landscaping items on which work is restricted to specified seasons and (2) when inspection and acceptance for maintenance is being deferred pending completion of those landscaping items, and for no other reason. However, time will be charged during any extensions of the specified season that may be granted the Contractor.

2.31. COOPERATION BY CONTRACTOR

The Contractor shall give the Task Order the constant attention necessary to facilitate the progress thereof and shall cooperate with the Contract Administrator or Designee and his/her inspectors in every way possible.

The Contractor must assign to the Contract as their agent, a competent superintendent capable of communicating in English and capable of reading and thoroughly understanding the Contract Documents. The superintendent must be thoroughly experienced in the type of work activities being performed and able to receive instructions from the Contract Administrator or Designee or their authorized representatives. The superintendent must have full authority to execute the order or directions of the Contract Administrator or Designee without delay, and to promptly supply such materials, equipment, tools, labor and incidentals as may be required. Such superintendence must be furnished irrespective of the amount of work sublet. Said Superintendent must be on the project site at all times when the work is in progress.

2.32. DAMAGE TO ADJACENT PROPERTY

The Contractor's activities and operations shall be confined to the properties owned or under the control of the Montgomery County Department of Transportation, Division of Highway Services. If any damage occurs to adjacent properties as a result of the Contractor's operations, it is the Contractor's responsibility to repair and restore, to its original condition. The replacement and restoration must be acceptable to the Contract Administrator or Designee and the adjacent property owner.

The Contractor is solely responsible for the restoration of any area that is utilized for the storage of equipment and/or materials. No payment shall be made for this work; however, it must be a requirement of this Contract that all such areas (if any) are to be restored to their original condition when so directed by the Contract Administrator or Designee.

The Contractor has no additional right-of-way for the project. Whenever improvements are scheduled beyond the right-of-way, written authorization from the Owner will be on file. In all other instances, the Contractor is to limit his/her operations to the existing right-of way limits.

2.33. DISINCENTIVE PAYMENT REDUCTIONS

Payment reductions for pavement density not meeting the specifications will be based on individual sublot core test data for a given lot and the lot average density as specified in the Contract and Table 504A. Payment reductions for density and for mixture will be made by adjusting the payment for the Asphalt Mix. Payment reductions for density will be waived for portions of the pavement where a poor foundation is determined as the cause for inadequate density. Prior to the placement

of any Asphalt Mix, the Contract Administrator or Designee and the Contractor shall determine and locate any areas of distressed roadway that could have a negative impact on the final asphalt mix density values. Any claims of poor foundation made by the Contractor after the placement of Asphalt Mix shall be considered null and void.

At the discretion of the Contract Administrator or Designee, Asphalt Mix that does not meet the specified pavement density requirements and/or the approved asphalt mix design, shall be completely removed and replaced entirely at the Contractor's expense and at no cost to the County.

2.34. EXPERIENCE, PERSONNEL AND EQUIPMENT REQUIREMENTS

For this Contract, the Contractor must be prepared to perform a minimum of fifty percent (50%) of the work in any Task/Job Order assigned to them.

All bidders for this Invitation for Bids must have a minimum of five (5) years' experience in the successful patching, repair, milling, and overlay of streets and roadways, and all required Maintenance of Traffic for local, state, and county jurisdictions, and have the capacity to verify through written documentation the minimum five (5) year experience requirement.

Every concrete crew must have a minimum of one finisher or finishing supervisor who is an American Concrete Institute (ACI) Certified Flatwork Concrete Finisher/Technician, or an approved equal, on site for the entire duration of any concrete placement and finishing. A copy of each individual's certifications must be provided **upon award** and must also be submitted to the Contract Administrator or Designee, for review and acceptance, prior to the commencement of any work. A change in the appointment of any finisher or finishing supervisor throughout the duration of the Contract will require the individual's certifications to be provided for review and approval. No concrete shall be placed at any time the certified Flatwork Concrete Finisher/Technician is not on site and not in control of the proposed concrete placement and finishing. Any delay to a task/job order due to the Contractor failing to provide a certified Flatwork Concrete Finisher/Technician for any concrete placement and finishing will be considered an inexcusable delay and subject to liquidated damages, and/or cancellation of the task/job order.

The Contractor must have sufficient resources available to begin work on the Task/Job Order within 14 calendar days from the date of issuance of the Notice-to-Proceed by the County.

The Contractor must have sufficient resources of personnel and equipment to complete the Job Order in the specified time. Any delay in completing the Job Order, within the specified time limit due to the Contractor failing to provide the necessary resources, will be considered an inexcusable delay and subject to liquidated damages.

It may be necessary for the Contractor to provide multiple crews working concurrently on same Task/Job Order if the Contractor falls behind schedule at no fault to the County and is not maintaining the Task/Job Order's specified completion date.

2.35. FAILURE TO MAINTAIN ENTIRE PROJECT

Failure on the part of the Contractor, at any time, to comply with the provisions of Maintenance of Work during Construction, will result in the Contract Administrator or Designee immediately notifying the Contractor to comply with the required maintenance provisions. In the event that the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of such notice, the Contract Administrator or Designee will immediately proceed with adequate forces and equipment to maintain the project, and the entire cost of this maintenance will be deducted from monies due the Contractor.

Additionally, an appropriate deduction will be made from the Contractor's next progress estimate for each day or portion thereof that **Maintenance of Traffic deficiencies** exist and will continue until the deficiencies are satisfactorily corrected and accepted by the Contract Administrator or Designee. Any portion of a day will be assessed a full day deduction.

The above noted deduction will be assessed on the next progress estimate if the Contractor does not take action to correct the deficiencies and properly assume the responsibilities of maintaining the project (as determined by the Contract Administrator or Designee) within four hours of receiving a notice to comply with the required maintenance provisions.

The deduction will be the daily limits established in Section 2.41 Liquidated Damages ($500.00 a day) and will continue until the deficiencies and proper assumption of the required maintenance provisions are satisfactorily corrected and accepted by the Contract Administrator or Designee. The amount of monies deducted will be a permanent deduction and are not recoverable.

2.36. FINAL ACCEPTANCE AND FINAL PAYMENT

A. When the Contractor has completed a Task/Job Order, the County will have thirty days to perform any final inspections, calculate final quantities, and notify the Contractor in writing of any deficiencies (including material clearances and certifications) that must be corrected prior to acceptance for payment to start the warranty period.

B. The Contractor shall then have a period of 30 days from the date of receiving the aforementioned tabulation and notice of deficiencies from the County, in which:

1. To decide whether or not to accept final payment upon such a basis, and

2. To notify the County, in writing, of the decision. The Contractor may request an additional period up to 30 days in which to notify the County of the decision. In the event the Contractor notifies the County that they contest final payment on such a basis, that notification shall outline the reasons for said protest.

C. If under the provisions of paragraph (B) above, the Contractor notifies the County of their contestation and non-acceptance of the data submitted to them, the County shall pay the Contractor a semi-final estimate, or an additional semi-final estimate in the event a semi-final estimate has already been paid based upon the data noted in paragraph (A) above, with deductions for all prior payments and also deducting the

quantities in question and are determined by the Contract Administrator or Designee not to be in compliance with the Contract requirements. The acceptance of such semi-final estimate, or additional semi-final estimate, shall not be considered a waiver on the part of the Contractor of their right to pursue contestation and press for acceptance and final payment.

D. In the event the Contractor does not accept the data submitted to them as described in paragraph (A) above and/or has outstanding a claim filed in conformance with the requirements of this Contract Document, the Contract Administrator or Designee and the Contractor shall confer at mutually convenient times and endeavor to reconcile all points of disagreement expeditiously. If such reconciliation is not accomplished, the Contractor shall follow Section B - of the General Conditions of Contract Between County and Contractor, Provision No. 8 Disputes.

2.37. HAZARDOUS MATERIAL

If the Contractor encounters or exposes during construction any abnormal conditions that indicate the presence of a hazardous material or toxic waste, work in the area shall immediately be suspended and the Contract Administrator or Designee notified. The Contractor's operations in this area shall not resume until permitted by the Contract Administrator or Designee; however, the Contractor may continue working in other areas of the project, unless directed otherwise.

Abnormal conditions shall include, but not be limited to, the presence of barrels, obnoxious or unusual odors, excessively hot earth, smoke, or any other condition that could be a possible indicator of hazardous material or toxic waste. Where the Contractor performs necessary work required to dispose of these materials and no items have been identified in the Contract Documents, the work shall be performed under a change order.

For any material furnished on the project by the Contractor suspected to be hazardous or toxic, the Contract Administrator or Designee may require the Contractor to have it tested and certified to be in conformance with all applicable requirements and regulations. Material found to be hazardous or toxic shall not be incorporated into the work. The required testing will be determined by the Contract Administrator or Designee and may include, but not be limited to, the EPA Toxicity Characteristic Leaching Procedure (TCLP) or its successor. The evaluation and interpretation of the test data will be made by the Contract Administrator or Designee. Testing and certification shall be at no additional cost to the County.

Disposition of the hazardous material or toxic waste shall be made in conformance with all applicable requirements and regulations.

2.38. INCENTIVE PAYMENTS

There shall be no incentive payments made for providing Pavement Densities that meet the compaction requirements and no incentive payments made for providing Asphalt Mixes that meet the Mix Design specifications.

2.39. INSPECTION

The Contract Administrator or Designee may designate the Project Manager, or Designee as his/her onsite representative. Work will be inspected promptly to insure strict compliance with the specifications, but if, for any reason, delay should occur, the Contractor shall have thereby no claim for damages or extra compensation. Materials and workmanship shall always be subject to the approval of the Contract Administrator or Designee. No inspection, approval or acceptance of any part of the work, or of the materials used therein, or any payment on account thereof shall prevent the rejection of said materials or work at any time. During the existence of the Contract, should said work or materials be found to be defective or not in accordance with the requirements of the Contract, the Contract Administrator or Designee may reject said materials or work at no cost to the County.

2.40. LABOR AND MATERIAL PAYMENT BOND

The Contract is not valid until the County receives a duly executed Labor and Material Payment Bond (Bond) that is in an approved form (See Attachment G), in the amount indicated on the Notice of LSBRP Invitation For Bids – Page 2. Please use Attachment G, as it meets all the requirements needed by Montgomery County. The Bond must be issued in favor of Montgomery County as the Owner. The Bond is Security that guarantees payment to suppliers and subcontractors of the Contractor of the Contract. The surety must be acceptable to the County and as authorized to transact business in the State of Maryland. The Contractor must maintain the Bond in full force and effect until the termination of the Contract. The County has the right to approve, disapprove, or require changes to any instrument offered as a Bond. If the County does not approve the Bond, the Bidder/Contractor has until close of business ten (10) calendar days from the date of disapproval to furnish an acceptable Bond. If not corrected, the County has the option to rescind the recommended award and to award to the responsible bidder that submitted the next lowest responsive bid.

The County reserves the right, in its sole and absolute discretion, to accept from the Bidder/Contractor in lieu of the Bond, a Certified Check, Treasurer's Check, or irrevocable Letter of Credit, payable to the County in the amount indicated on the Notice of LSBRP Invitation For Bids – Page 2, as payment security for the Contract. **Leave date of Bond blank, County will fill in date of contract execution.**

2.41. LIQUIDATED DAMAGES

After the issuance of the Notice-to-Proceed, and upon acceptance of the Contractor's Activities Chart Task/Job Order Schedule and Traffic Control Plan for each Task/Job Order, the Contractor must begin work on or before the specified start date. Time charges shall commence on the Contractor's first day of work or the specified start date, whichever occurs first. The Contractor shall continue operations until completion of all designated work. The sum of $500.00 per calendar day for each calendar day beyond the scheduled completion date will be deducted from the performance bond or from any money due to the Contractor, not as a penalty but as liquidated damages. If the Contractor continues to fail to meet Task/Job Order completion dates, then the Contract Administrator or Designee may pursue any alternative means he/she deems necessary (per Section C provision entitled "Failure to Perform/Deliver") to complete any assigned Task/Job Order(s). If the County has

temporarily suspended work for any reason the Contractor will not be assessed liquidated damages for that period.

In addition, the Contractor will be required to diligently pursue the specified work without interruption (except for adverse weather). Specified work is defined in the Task/Job Order assignments and provides the limits for each Task/Job Order and a description of the work to be performed. Actual work quantities may vary from those estimated as the work unfolds and the Contract Administrator or Designee becomes more aware of actual conditions. The Contract Administrator or Designee could assign additional calendar days to a Task/Job Order (to be reviewed on a case by case basis) if actual quantities are greater than estimated.

The Contractor must not temporarily suspend their work for reasons other than adverse weather. Over scheduling, conflicting Task/Job Orders and manpower shortages are not considered valid reasons for a work delay. Should the Contractor exceed the number of allowable calendar days, the sum of $500.00 per calendar day for each and every day over the allotted Contract time will be deducted from any money due the Contractor, not as a penalty, but as liquidated damages.

2.42. MAINTENANCE OF WORK DURING CONSTRUCTION

A. The Contractor shall maintain the work during construction and until acceptance. This maintenance shall constitute continuous and effective work prosecuted as required with adequate equipment and forces to the end that all parts of the work be kept in satisfactory condition at all times.

B. Particular attention shall be given to drainage, both permanent and temporary. The Contractor shall use all reasonable precautionary measures to avoid damage or loss that might result from accumulations and concentrations of drainage water, and material carried by such water and such drainage shall be diverted or removed when necessary to prevent damage to excavation, embankments, surfacing, structures or property. Suitable measures shall be taken by the Contractor to prevent the erosion of soil in all construction areas where the existing ground cover has been removed.

C. All cost of maintenance work during construction and before final acceptance shall be included in the price bid and the Contractor will not be paid additional amount for such work, except as otherwise provided.

D. In the event that the Contractor's work is ordered shutdown for failure to comply with the provisions of the Contract, the Contractor shall maintain the entire Task/Job Order as provided herein, and provide such ingress and egress for local residents or tenants adjacent to the Task/Job Order work site, for tenants of the Task/Job Order work site, and for the general public as may be necessary during the period of suspended work or until the Contract has been declared in default.

E. On projects where traffic flow is maintained, the Contractor shall be responsible for repair of all traffic damages to the work, either partially or totally completed, until such time as the work is accepted by the Contract Administrator or Designee. Responsible, as used here, shall mean the responsibility for

restoration, and the cost thereof unless otherwise expressly provided for in the Special Provisions.

2.43. MEASUREMENT OF QUANTITIES

For all items of work, other than those to be paid by lump sum, after the work is completed and before final payment is made, the Contract Administrator or Designee will make final measurements to determine the quantities of various items of work performed as the basis for final settlement. The Contractor in case of unit price items will be paid for the actual amount of work performed and for the actual amount of materials in place in conformance with the Specifications and final measurements. All work completed under the Contract will be measured by the Contract Administrator or Designee in conformance with the United States Standard Measure.

2.44. PRESERVATION AND RESTORATION OF PROPERTY

A. The Contractor must not enter upon private property for any purpose without obtaining permission and he/she shall be responsible for the preservation of all public and private property, trees, monuments, highway signs and markers, fences along and adjacent to the work, and shall use every precaution necessary to prevent damage or injury thereto. The highway signs and markers shall be carefully removed when grading operations begin, stored in a manner to keep them clean and dry and shall be re-erected at such new locations as may be directed by the Contract Administrator or Designee. Any items damaged due to the Contractor's negligence will be replaced at no cost to the County. No separate pay item will be included for this work; costs shall be included in prices bid for other items. The Contractor must take suitable precaution to prevent damage to underground or overhead public utility structures. The cost of maintaining any underground or overhead structures encountered in the prosecution of this work will not be paid for. Costs for this work must be included in the prices bid for other items. Normally the maintenance of such underground or overhead structures is cared for by the utility company to whom they belong.

B. It is the Contractor's responsibility to carefully protect from disturbances or damages all land monuments and property markers until the Contract Administrator or Designee has witnessed or otherwise referenced their location. Removal, if required will be performed under the direction and supervision of the Contract Administrator or Designee. Normally the Contract Administrator or Designee will be responsible for resetting all monuments and markers to insure accuracy. However, costs for resetting monuments and markers not witnessed by the Contract Administrator or Designee or destroyed by the Contractor's negligence will be deducted from monies due him/her under terms of this Contract.

C. The Contractor is responsible for all damages or injury to property of any character during the prosecution of the work, resulting from any act, omission, neglect or misconduct in his/her manner or method of executing said work satisfactorily, or due to his/her non execution of said work, or at any time due to defective work or materials, and said responsibility shall not be released until the work shall have been completed and accepted. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, neglect or misconduct in the execution of the work or in consequence of the non-execution thereof on the part of the Contractor, he/she must restore, at

his/her own expense, such property to a condition similar or equal to the condition existing before such damage or injury was done by repairing, rebuilding or otherwise restoring as may be directed, or he/she must make good such damage or injury in an acceptable manner. In case of the failure on the part of the Contractor to restore such property or make good such damage or injury or otherwise restore such property as may be deemed necessary, the cost thereof will be deducted from any monies due or which may become due the Contractor under this Contract.

D. Special attention must be given to the landscape features of the work and special care taken to protect the natural surroundings. The Contractor shall not deface, injure or destroy trees nor remove or cut them without first obtaining a Maryland Forest Service Permit. The roots of trees or shrubbery will not be cut unnecessarily, and the Contractor will be required to handwork or otherwise prevent damage to roots of trees, which extend into grading limits and/or from trees intended to be left in an undamaged state, within the construction limits. No road machinery of any description which might throw off gas or smoke in such volume as to damage vegetation shall be allowed to stand under such trees or shrubbery.

E. Selected trees, that, in the opinion of the Contract Administrator or Designee, may be defaced, bruised, injured or otherwise damaged by the Contractor's construction equipment or operations shall be protected by boards or planks.

F. Any timber, trees, or landscape features scarred or damaged by the Contractor's operations shall be removed, neatly trimmed up or restored as nearly as possible to the original condition, as required by the Contract Administrator or Designee and at the Contractor's expense. All scars made on trees by construction operations or the removal of limbs shall be painted as soon as possible with an approved paint. No ropes, cables or guys are to be fastened to or attached to any existing nearby trees for anchorages, or in lieu of placing of dead men, unless specifically authorized by the Contract Administrator or Designee. In a special emergency the Contractor will first wrap the trunk with a sufficient thickness of burlap or rags, over which soft wood cleats shall be tied, before any wire, cable or rope is placed. The Contractor shall in any event be responsible for any damage to any trees so used and shall repair any such damage due to this use of the trees, if any occurs.

G. The Contract Administrator or Designee may direct the Contractor to protect trees against blasting and dumping operations by placing lumber or poles around such trees. These precautions will be at the expense of the Contractor.

H. Where it is necessary to set or reset the curb along an existing concrete sidewalk and the pavement is disturbed in doing so, in all cases Contractor must restore the curb and pavement by removing the damaged portions to a straight line parallel to the curb and the replacing pavement replaced. Where necessary in order to obtain a workmanlike finish, the Contractor will be required to take up and replace the pavement to the nearest joint back of the curb. All sidewalk or pavement areas broken or cracked through carelessness or negligence on the part of the Contractor must be restored by the Contractor at his/her own expense, to comply with these specifications.

2.45. FUEL PRICE ADJUSTMENTS

The County will not approve Price Adjustments except for those in accordance with Section 2. 2.1. This includes any requests due to fuel or fuel increases. Bidders must consider their anticipated costs during the bid process. During the Contract, if the Contractor's fuel costs increase, the Contract is responsible in incurring these costs and cannot request an increase in pricing except as permitted in Section 2.1.

2.46. PUNCH LIST

When a Task/Job Order is substantially complete, the Contract Administrator or Designee will provide the Contractor with a punch list of deficient and unacceptable items of work. The Contractor shall have 14 calendar days to correct the items listed on the punch list. Payment for the items found to be deficient and unacceptable shall be withheld by the County until the Contractor satisfactorily completes the work on the punch list items. For each calendar day beyond the 14 calendars days the Contractor is provided to complete the punch list, the County shall assess Liquidated Damages against the Contractor's final payment. Any punch list work shall be performed entirely at the expense of the Contractor and at no cost to the County, including the setup, operation and removal of all necessary Temporary Traffic Controls. Failure to provide the necessary Temporary Traffic Controls shall result in the immediate ceasing of all work activity and the clearing of the County Right-of-Way.

2.47. REFERENCE STANDARDS

Reference to Specifications or procedures beginning with the letters M, R, or T shall be understood to be AASHTO. Reference to Specifications or procedures beginning with the letters A, B, C, D, E, F, G, ES or P shall be understood to be ASTM. References to all Specifications and procedures shall be understood to be the most recently published standard at the time of advertisement unless otherwise specified in the Contract Documents.

2.48. REMOVAL OF DEFECTIVE WORK

Any defective work discovered prior to or after payment of such work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, found to exist must be removed and replaced by the Contractor with work and materials that conform to the Specifications or shall be remedied otherwise in an acceptable manner authorized by the Contract Administrator or Designee.

No inspection, approval or acceptance of any part of the work, or of the materials used therein, or any payment on account thereof shall prevent the rejection of said materials or work at any time. Payment, including final payment, for any work does not relieve the Contractor of any requirements and responsibility to repair or replace any defective or deficient work. The repair and/or replacement of any defective or deficient work including punch list work shall be made and completed to the satisfaction of the Contract Administrator or Designee and entirely at the Contractor's expense including traffic control.

Upon failure on the part of the Contractor to comply promptly with any order of the Contract Administrator or Designee, made under the provisions of these Regulations, the Contract Administrator or Designee shall have authority to cause defective work to be remedied or removed and replaced and unauthorized work to be removed and

to deduct the costs from any monies due or to become due the Contractor under this Contract

2.49. SAMPLING AND TESTING

Materials may be sampled for testing either at the point of delivery or at the plant. Montgomery County may analyze samples taken to assure conformity to Contract specifications. Materials will be accepted or rejected based on the results of tests performed. In the event tests conducted by Montgomery County and the Contractor's quality control staff differ, the Contractor may request a third test be conducted jointly. The Contractor will not be paid for materials failing to meet the Contract specifications. The Contractor must provide any material samples requested by the County for testing to assure quality control.

2.50. SINGLE BID

A "person," as that term is defined under applicable law, is permitted to submit only one (1) bid in response to this solicitation. Where two or more bidders share in common one or more person(s) within the organizations' leadership, including those in the positions of member, partner, officer, director, shareholder, or some other key role (referred to in this paragraph as "common leadership"), each offer submitted by each bidder in response to this solicitation, as well as any resulting contract, must be prepared, considered, and signed by separate individuals. In all cases, and particularly where two or more bidders have common leadership, each bidder must provide information, including documentation, demonstrating to the County's satisfaction that the bidder is a separate and independent person under applicable law, and that it is independent and separate from any other person in its business operations and finances. The County reserves the right to reject any offer submitted by a bidder in response to a solicitation, based on the bidder's failure to demonstrate responsiveness or responsibility, respectively, if the bid or bidder does not satisfy the above-noted requirements in this paragraph.

2.51. STANDARDS OF MEASUREMENT

English and Metric methods of measurements are both used in this Contract. Should a conflict between English and Metric measurements arise then the English standard shall prevail.

2.52. SUBCONTRACTORS

The Contractor may utilize the services of specialty Subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty Subcontractors.

The Contractor must perform at least fifty (50) percent of the actual construction work with its own forces. "Its own forces" is defined as actual employees of the Contractor (not subcontractors or contract workers). Verification interviews may be conducted and/or certified payrolls may be required. "Fifty (50) percent of the actual construction work" is defined as one half of the total Contract Price excluding the cost of prefabricated items that become a permanent part of the construction. This requirement does not alter or waive any other provision or clause of this Contract. No portion of the Contract shall be subcontracted, assigned or otherwise disposed of

except with the written consent of the Owner. Any assignment, subcontract or other disposition of all or part of this Contract without the express written consent of the Owner shall be null and void. The Contractor shall submit all Subcontractor names and qualifications for approval by the Owner prior to award of any subcontracts. Subcontractors may not initiate any work on the project prior to approval by the Owner. Consent to subcontract, assign or otherwise dispose of any portion of the Contract shall not be construed to relieve the Contractor or surety of any responsibility for the fulfilling of all the requirements of the Contract.

The Contractor must incorporate by reference or otherwise include these Contract Provisions in every subcontract issued pursuant to or under this Contract, and shall require the same reference or inclusion be contained in every subcontract entered into by and of its subcontractors.

The subcontractors named in the Contractor's bid and approved by the County and those approved when subsequently submitted shall perform the Contract items as approved by the County. Requests for permission to sublet, assign, or otherwise dispose of any portion of the Contract shall be in writing and include the item number or numbers and the dollar value. The Contractor must give assurance that the minimum wage for labor, as specified in the Contract Documents, shall apply to labor performed on all work sublet, assigned, or otherwise disposed of.

When a subcontractor has been approved by the County for the performance of specific items of work on the Contract, the County will not allow the Contractor to substitute another subcontractor, except in the event the Contractor requests in writing that the approved subcontractor be relieved of the necessity of performance of the work. Any change of subcontractors shall be requested in writing by the Contractor and shall have the written concurrence of the previously designated subcontractor. Concurrence shall not be unreasonably delayed, in the judgment of the County.

If a subcontractor does not perform to the satisfaction of the Contractor, the Contractor may request to be allowed to perform the work with his/her own forces or request that another subcontractor, mentioned by name, be substituted. When reasons submitted for the substitution of the subcontractor indicate that the change will be in the best interest of the County, approval of the request will be granted.

Nothing contained in this Contract shall create any contractual relation between any Subcontractor and the Owner.

All subcontractors who are approved by the County for work under this solicitation shall perform the Contract items as approved by the County. No subcontractor will perform any work under this Contract without pre-approval from the County. Any work performed by any subcontractor will remain the responsibility of the Prime Contractor for purposes of warranty. The County reserves the right to remove any subcontractor who fails to perform to the Contract Specifications.

2.53. SUSPENSION OF WORK

The Contract Administrator or Designee has the authority to suspend the work wholly or in part due to the failure of the Contractor to correct conditions unsafe for the workers or the general public; for failure to carry out the requirements of the Contract Documents, or as directed in conformance with the Contract Documents for conditions considered unsuitable for the prosecution of the work.

No claim under this clause shall be allowed:

A. For any costs incurred more than 20 days before the Contractor shall have notified the Contract Administrator or Designee in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and,

B. Unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of a suspension, delay, or interruption, but not later than the date of final payment under the Contract.

Work of an emergency nature ordered by the Contract Administrator or Designee for the convenience of the traveling public or for the production or delivery of materials for storage, if performed during the period of suspension, shall not be charged to the Contract time.

At the direction of the Contract Administrator or Designee respectively, work on any Task/Job Order may be suspended on any or all Saturdays, Sundays, legal holidays, neighborhood events and the days immediately preceding and following. All equipment, barricades, etc., are to be removed from the roadway proper and full traffic capacity maintained throughout these periods.

2.54. TASK/JOB ORDER ASSIGNMENT

The County will develop Task/Job Orders for the planned improvements to various residential roads as prioritized by the County and also determined by available funding. It is the County's intention to balance the available funding and work evenly between the five (5) County Council Districts. In the solicitation, the terms: Task Order, Job Order, Work Order, and Project shall be considered the same. The County does not guarantee the amount of work projected for the contract.

Each Task/Job Order will be related to specific road(s) or a group of roads in a specific area of the County. The Contract Administrator or Designee will designate Task/Job Orders for which residential roadway or group of roadways constitute a specific Task/Job Order. The Task/Job Order will be issued to the Contractor along with a Notice To Proceed and a Purchase Order.

Individual Task/Job Orders will be assigned using the following procedures:

A. The Contract Administrator or Designee will issue the Task/Job Order to the Contractor accompanied with a Limited Notice To Proceed. The Limited Notice To Proceed will include the following type of information:

- Location(s) of the work to be performed
- Description of the work to be performed.

- The approximate quantities and items of work that will be required to complete the work
- Total costs of the Purchase Order or portion of the Purchase Order of which will be dedicated to the Task/Job order and considered as a not to exceed amount
- The time duration, measured in the number of calendar days, that the Contractor will be allowed to complete the work
- A start date of when time charges will commence
- County contact(s) who will oversee the work
- All documentation requirements prior to issuance of the Notice To Proceed
- A preconstruction meeting at the County's option

B. Upon receipt of all required documentation listed within the Limited Notice To Proceed, the Notice to Proceed and a purchase order executed by the Office of Procurement will be issued to the Contractor.

The Contractor shall not commence work under any Task/Job Order until a Purchase Order has been executed by the Office of Procurement, or a release has been issued against a Blanket Purchase Order; and, a Notice To Proceed has been issued for that Task/Job Order by the Contract Administrator or Designee.

Any Calendar Days provided between the date of the issuance of a Limited Notice To Proceed or the Notice To Proceed and the specified work commencement date shall be applied to providing the required Task/Job Order submissions. These submissions include, but are not limited to, the Traffic Control Plan and the Activities Chart Task/Job Order Schedule. These Submissions must be provided to the Contract Administrator or Designee a minimum of seven (7) Calendar Days before the specified work commencement date.

The Contractor is reminded that within thirty (30) days after receipt of notification of award of the Contract, the Contractor shall submit in writing to both the Contract Administrator or and Designee and to the MCDOT Materials Control Center the sources from which the Contractor proposes to obtain all materials which are to be incorporated into the Project. No work shall begin until all required submissions have been submitted to, reviewed and accepted by the County. The specified work commencement date shall not be changed to allow the Contractor additional time for providing the required submissions. Failure to provide the required submission in the time specified will result in the Task/Job Order being withdrawn from the Contractor designated to perform the work.

If the Contractor cannot meet the requirements for the Task/Job Order (including start date and schedule) as specified by the Contract Administrator or designee, the Task/Job Order may be issued under a separate solicitation.

If the Contractor of an assigned Task/Job Order is behind schedule on any Task/Job Order, including previously assigned Task/Job Orders for this Contract; and Task/Job Orders assigned under any other Montgomery County Contract, at no fault to the County, then the County may elect to issue a separate solicitation for the services.

A minimum of seven (7) calendar days prior to the specified time charge commencement date, the Contractor shall provide the Contract Administrator or Designee with:

- An Activities Chart Task/Job Order Schedule in conformance with Section 109 of the Special Provisions for the assigned Task/Job Order.
- A site specific Traffic Control Plan for the assigned Task/Job Order in conformance with Section 104.01 of the Special Provisions.

To maintain eligibility for any future Task/Job Order assignments, the Contractor must have complied with and maintained in good order all previous Activities Chart Task/Job Order Schedules and have resolved any issues involving assessed liquidated damages, at the County's sole discretion.

In the event that MCDOT is provided with increased funding that must be expended within a limited time duration, such as the fiscal year or a paving season and it is determined by the Contract Administrator that the Contractor does not have the apparent resources necessary to perform the work within the available time limits, the County may issue a separate solicitation for those services. The assignment of this work will be determined by the County with the cooperation of the Contractor if needed. In this event, the award of any Task/Job Order to the Contractor will not be subject to dispute by the Contractor.

Once a Task/Job Order has been assigned, the Contractor must perform the work in a diligent and timely manner. Failure to timely commence with the work or abandoning the work for any length of time shall not be tolerated. Contractors not completing the work in the time specified will be assessed liquidated damages. If the Contractor refuses to perform the work or any part of the work, the Contractor may be considered as not responsible and subject to termination of the Contract for default.

The County may cancel or terminate an assigned Task/Job Order at any time and without explanation. For Task/Job Orders already in progress, the Contractor will be directed to restore the right-of-way to a safe condition prior to removing all personnel, equipment and materials from the work site. All work satisfactorily completed by the Contractor will be measured for payment up to the point where the Contractor is directed to cease and desist from continuing with any more work on the Task/Job Order. No charges or claims for damages may be made by the Contractor or paid to the Contractor for the cancellation of any Task/Job Order in whole or in part.

The responsibility of assigning Task/Job Orders shall be exclusively that of the Montgomery County Department of Transportation's Division of Highway Services. The decisions made in assigning the work shall be final and shall not be adversely commented on, protested or refused by the bidder.

2.55. TAX EXEMPTION

Montgomery County is exempt from the State of Maryland Retail Sales Tax, Exemption Certificate number 30001235 and Federal Excise Tax, Exemption Certificate number 52-6000980.

2.56. WORK HOURS

The Contractor will not be allowed to work on Saturdays, Sundays, County, State, and Federal holidays (when applicable), to include the day before and the day after the holiday, without authorization (in writing) from the Contract Administrator or Designee. The Montgomery County Department of Transportation, Division of Highway Services reserves the right to limit the Contractor's operations during peak traffic hours, neighborhood events, or at any other time, if in the opinion of the Contract Administrator or Designee, or the Inspector, the Contractors operations are creating an undesirable or unsafe condition affecting the traveling public or pedestrians. For the purpose of this Contract, peak traffic hours are defined as 5:00 AM to 9:00 AM and 3:00 PM to 7:00 PM, EST. Any request to work outside the time restrictions specified by this Contract Document must be made in writing to the Contract Administrator or Designee a minimum of two (2) work days prior to the proposed work time.

2.57. ELECTRONIC INVOICES

All true and corrected invoices and all inquiries regarding payment are required to be sent electronically to the Contract Administrator, Timothy Serrano, listed on the NOTICE OF LSBRP INVITATION FOR BIDS or an alternative Designee, as designated by the Contract Administrator. Failure to promptly comply with this requirement must delay payment.

2.58. ASSIGNMENT OF WORK

It is the intent to award all work to the Contractor subject to the following:

1. To maintain eligibility for any future Task Order assignments, the Contractor must have complied with and maintained in good order all previous approved Schedules and resolved any issues involving assessed liquidated damages, under this solicitation and/or with any other contract/solicitation held under separate division or department with County Government. Eligibility will be based on the County's sole discretion.

2. In the event that MCDOT is provided with increased funding that must be expended within a limited time duration, such as the fiscal year or a paving season, and it is determined by the Contract Administrator that the Contractor does not have the apparent resources necessary to perform the work within the available time limits, the County may utilize the second vendor or may issue a separate solicitation for those services. The assignment of this work will be determined by the County with the cooperation of the Contractor, if needed. In this event, the award of any Task Order to the Primary or Secondary or newly solicited Contractor will not be subject to dispute by the Contractor.

3. The responsibility of assigning Task Orders shall be exclusively that of the Montgomery County Department of Transportation's Division of Highway Services. The decisions made in assigning the work shall be final and shall not be adversely commented on, protested or refused by the bidder.

2.59. PAYMENT UPON RECEIPT OF FINAL INVOICE

Payment shall be made upon the receipt of an electronic submission of the final approved invoice monthly, by the first day of the month, for all work performed during the previous month.

SECTION 3. PRICING AND DELIVERY SCHEDULE

3.1. Quotation Sheet

The bidders must complete the Quotation Sheet in full, per the accompanying instructions.

Any deviation, exception, or alternative to the IFB requirements shall be expressly identified in writing; otherwise, the bidder is deemed to have quoted in full compliance. Incomplete, conditional, or non-conforming quotations may be rejected as non-responsive.

See Attachment B 1 for the Quotation Sheet.

APPENDIX 1. MANDATORY SUBMISSION INSTRUCTIONS

1. MANDATORY BID SUBMISSIONS

The following items and any related Attachments to this solicitation must be submitted with your bid:

- Bid and Contract Award Page (See page 5)
- Quotation Sheets (See Attachment B, Section B 1)
- Prevailing Wage Law Local Hiring Attestation
- References (minimum three). The three references must be from individuals or firms currently being serviced or supplied under similar contracts, or for whom work of a similar scope has been performed within the last year. Names for references shall be individuals who directly supervised or had direct knowledge of the services or goods provided. If you do not include them with your bid submission, and you are one of the three lowest bidders, you may be required to submit references within ten (10) days' notice from the County. Failure to provide the County with references within that time frame may result in the Bidder being ruled non-responsible or non-responsive by the Director, Office of Procurement, or their designee and the forfeiture of your bid security (if applicable). See Attachment D for References.
- Bid Security (See Page 2 of the IFB)
- Experience and Equipment Certification Form (See Attachment H)

Failure to submit the mandatory bid submissions may be cause for your bid to be deemed non-responsive.

2. MANDATORY AWARD SUBMISSIONS

The following items must be submitted within ten (10) business days after the date of the County's written notification of Intent to Award a Contract:

- Minority, Female, Disabled Person Subcontractor Performance Plan. See Attachment E #6, if requested in the Intent to Award notice.
- Performance Bond (See Attachment F)
- Labor and Material Payment Bond (Attachment G)
- Certificate of Insurance that meets the Mandatory Insurance Requirements (See Attachment C). Awardee must provide the applicable insurance coverage and all costs for this coverage must be calculated into the bid price.
- Certificate for at least one crew member certified by the American Concrete Institute (ACI) as a Concrete Flatwork Finisher / Technician.

Failure to submit information in a timely manner as indicated may be cause to consider the Bidder non responsible.

APPENDIX 2. ADDITIONAL INSTRUCTIONS AND CONDITIONS FOR BIDDERS

1. BID SECURITY

A Bid Security (Bid Bond or Irrevocable Letter of Credit), must accompany each Bid and be duly executed by the Bidder as a principal, and made payable to Montgomery County. See the Notice of Invitations for Bids for the amount required for the Bid Security for this particular IFB.

Bidders must submit a PDF copy of their Bid Security or Irrevocable Letter of Credit electronically with their bid. The original Bid Security or Irrevocable Letter of Credit must be received by the Office of Procurement within 5 business days of the bid due date at 27 Courthouse Square, Suite 330, Rockville, MD 20850.

The County reserves the right of approval of any instrument offered as Bid Security.

2. BIDNET

All Bidders must register at BidNet. Registration is free (choose “Limited Access”). For assistance, contact BidNet Support at 800-835-4603 (Option 2). It is the bidder’s responsibility to complete all registration and submission steps.

3. BIDS

Bidder must electronically submit their bid through www.bidnetdirect.com/maryland/montgomerycounty no later than the due date and time as indicated on Notice of Invitation for Bids. Bidders must register with BidNet Direct in order to view and respond to this solicitation. Visit www.bidnetdirect.com and click on the link to register at no charge. Follow the registration path and select the "Limited Access" option which will provide you with an automatic e-mail notification at no charge. If you need help registering, please call BidNet Direct’s Support Department at 800-835-4603, Option 2.

Information regarding the bid results (apparent low bidder) for this bid or any bid issued by the Montgomery County Office of Procurement, will be posted on Montgomery County’s website at: https://www.montgomerycountymd.gov/PRO/solicitations/proposed-awardees.html and https://www.montgomerycountymd.gov/office-procurement/solicitations-contracts/bid-tabulations

4. NAME AND SIGNATURE REQUIREMENTS FOR BIDS AND CONTRACTS

The correct and full legal business name of the entity involved must be used on bids received and on contract(s) issued as a result of this solicitation. A trade name, i.e., a shortened or different name under which the firm does business, must not be used when the full legal name is different. Corporations must have names that comply with State law, which requires a suffix indicating the corporate status of that business (e.g., Inc., Incorporated, etc.). Trade names may be indicated by individuals or corporations with the individual or corporate name followed by "t/a" (trading as) or "d/b/a" (doing business as), respectively. The signature on the bid, contract, amendment, or related correspondence must conform to the following:

All signatures must be made by an authorized officer, partner, manager, member, or employee. The signing of an offer or a contract is a representation by the person signing that the person signing is authorized to do so on behalf of the bidder or contractor.

5. QUALIFICATION OF BIDDERS

Bidders may be required to furnish satisfactory evidence that they are qualified dealers or manufacturers of the items listed or are regularly engaged in performing the services on which they are submitting a bid, and in both cases maintain a regularly established place of business. An authorized representative of the County may visit and inspect any prospective Contractor's plant, manufacturing

facility or place of business, etc. where the goods, services or construction are performed to determine ability, capacity, reliability, financial stability, and other factors necessary to perform the contract. The County may visit and inspect any prospective Contractor's use of a Subcontractor's plant, manufacturing facility or place of business, etc. where the goods, services or construction are performed to determine ability, capacity, reliability, financial stability, and other factors necessary to perform the contract. In both instances above, the information gathered on the visit and inspection on the Contractor or its Subcontractor(s) may be used by the County to determine the responsibility of a Bidder.

If so requested, a bidder may be required to submit information about its reputation, past performance, business, and financial capability, and other factors that demonstrate that the bidder is capable of satisfying the County's needs and requirements for this solicitation.

6. BIDDER'S PAYMENT TERMS

The County will reject as nonresponsive a bid under this solicitation, which is conditioned on payment of proper invoices in less than thirty (30) days. The County's Standard Payment Terms are Net Thirty (30) Days. This does not preclude any bidder from offering a prompt payment discount for payment of proper invoices in less than thirty (30) days. An optional prompt payment term is not required but may be offered conditioned on the following basis: Only a prompt payment discount conditioned on a thirty-day or greater payment basis will be utilized to recalculate prices for purposes of the Method of Award process for price only. Prompt payment discounts may be offered on a shorter payment basis and adopted by the County at time of award, but will not be considered during the Method of Award process.

7. SUBMISSION METHOD

Submit bids electronically through BidNet before the deadline. Late bids will not be accepted. The County will not accept bids by fax, email, mail, or hand delivery; such bids will be returned.

8. BID PREPARATION

Review IFB thoroughly and prepare and submit all mandatory documents requested for a responsive bid submission.

9. BID PREPARATION EXPENSES

All costs incurred in the preparation and submission of bids will be borne by the bidder and shall not be incurred in anticipation of receiving reimbursement from the County.

10. JOINT PROCUREMENT (Optional Use of the Contract)

The following entities within Montgomery County must be able to purchase directly from contracts resulting from this solicitation:

- Maryland-National Capital Park & Planning Commission (M-NCPPC)
- Montgomery College (MC)
- Montgomery County Public Schools (MCPS)
- Montgomery County Revenue Authority
- Montgomery County Housing Opportunities Commission (HOC)
- Washington Suburban Sanitary Commission (WSSC)
- Municipalities & Special Tax Districts in Montgomery County.

While this IFB is prepared on behalf of Montgomery County, it is intended to apply for the benefit of the above-named entities as though they were expressly named throughout the document. Each of these entities may purchase from the successful vendor under the same prices and goods and/or services of the contract with Montgomery County, in accordance with each entity's respective laws and regulations, or an entity may choose not to procure from the successful bidder at the entity's sole discretion. If one of the above-named entities elects to purchase under the contract, the price shall be determined by using unit costs and other pertinent costs that are provided in the bid. Montgomery County shall not be held liable for any costs, payments, invoices, or damages incurred by the above jurisdictions. Each entity above will be solely responsible for and contract directly with the bidder under the entity's own procurement laws and regulations. ANY SPECIAL DISCOUNTS UNIQUE TO A PARTICULAR ENTITY (e.g. Montgomery County Public Schools educational discounts) SHOULD BE OFFERED TO THAT ENTITY.

11. ACCEPTANCE TIME

By submission of an offer under this solicitation, the bidder agrees that the County has 120 days after the opening date in order to issue an award. The County reserves the right to reject, as non-responsive, any offer that specifies less than 120 days of acceptance time. Upon mutual agreement between the County and the Bidder, the acceptance time for the Bidder's bid may be extended.

12. ERRORS IN BIDS

a. Failure of the bidder to thoroughly understand all aspects of the Invitation for Bids before submitting the bid will not act as an excuse to permit withdrawal of the bid nor secure relief on pleas of error.

b. The **unit price** will govern in the event of a discrepancy between the unit price bid and the extended price.

c. The sum of the extended prices will govern in the event of a discrepancy between the aggregate total bid and the extended prices.

d. The written words will govern in the event of a discrepancy between the prices written in words and the prices written in figures.

13. PROPRIETARY & CONFIDENTIAL INFORMATION

This is to notify prospective bidders that the County has unlimited data rights regarding bids submitted in response to its solicitations. Unlimited data rights means that Montgomery County has the right to use, disclose, reproduce, prepare derivative works, distribute copies to the public, or perform publicly and display publicly any information submitted by bidders in response to this or any solicitation issued by the County. However, information that is deemed to be confidential commercial or financial information as defined by the Maryland Information Act, State Government Article §10-617, will be exempted from disclosure if the submitter can show that release of such information would cause substantial competitive harm to the submitter.

It is the responsibility of the bidder to clearly identify each part of his/her offer that it believes is confidential commercial or financial information by stamping the bottom right-hand corner of each pertinent page with one inch bold face letters stating the words "confidential" or "proprietary." The bidder agrees, with regard to any portion of the bid that is not stamped "proprietary" or "confidential" that it believes, and expressly permits, the County to deem it not to be proprietary or confidential.

14. PUBLIC POSTING

Of particular importance is the fact that the notice of a decision to make an award will be accomplished by a posting of the proposed contract awardee on a public list located on the Office of Procurement's website.

The time period for appeal contained in Section 11B-36 commences THE DAY FOLLOWING the date of the posting.

It is the responsibility of the bidders to keep informed of the current status of any proposed awardees for contracts in which they are interested, as per Section 3.2.2 of the Procurement Regulations.

Information regarding the proposed awardee(s) under this bid or any bid issued by the Montgomery County Office of Procurement will be posted on Montgomery County's website.

15. BID PROTESTS

All protests made pursuant to this solicitation must be in writing and delivered to the Director, Office of Procurement: (a) within ten (10) calendar days after the Director, Office of Procurement, publicly posts the proposed contract award, if the bidder seeks as a remedy the award of the contract or costs under Section 11B-36(h) of the Montgomery County Code, or (b) before the submission date for bids, if the bidder seeks as a remedy the cancellation or amendment of the solicitation. Each protest must contain a protest filing fee in the amount of $500 (US currency); if the fee is paid by check, then the check must be made out to "Montgomery County Government." The Director, Office of Procurement, may return the filing fee to the protesting bidder, if the protest is sustained. The Director, Office of Procurement, must dismiss any protest not timely received.

Only an "aggrieved" bidder may file a protest. Aggrieved means that the bidder who is filing the protest may be eligible for an award of the contract if the protest is sustained (e.g., a fourth ranked bidder is not aggrieved unless the grounds for a protest, if sustained, would disqualify the top three ranked bidders or would require that solicitation be reissued).

Each protest must contain the following: identification of the solicitation; the name, address, email address, fax and telephone numbers of the protesting bidder; a statement supporting that the bidder is aggrieved; and specification of all grounds for the protest, including submission of detailed facts and all relevant documents, citation to relevant language in the solicitation, regulations, or law relied upon; and, all other matters which the bidder contends supports the protest. The burden of production of all relevant evidence, data, and documents, and the burden of persuasion, to support the protest is on the bidder making the protest.

16. BID WITHDRAWAL/MODIFICATION

Vendor can withdraw and make edits to a bid before a solicitation's closing date and time. To withdraw your bid, log into www.bidnetdirect.com/maryland/montgomerycounty and click "Solicitations" then "Bid Management" and follow the withdrawal process. If you need help withdrawing your bid, please call BidNet Direct's Support Department at 800-835- 4603, Option 2. The bidder's withdrawal and resubmission must occur before the closing date and time.

17. AWARD OR REJECTION OF BID

a. Failure to submit requested data, surety, or other documents in the electronic bid submission as may be required herein may be cause for rejection of the bid.

b. The County reserves the right to accept or reject any or all bids, or portion thereof, to give an bidder an opportunity to cure any deficiency resulting from a minor irregularity in a bid or to waive the deficiency, whichever is to the advantage of the County, and to award the Contract in

the best interest of the County. The decision of the Director with respect to whether a defect is a minor informality is made in the sole discretion of the Director and is not subject to review and may not be challenged by a bidder.

c. Conditional or qualified bids are subject to rejection.

d. The County reserves the right to reject the bid of a bidder who has previously failed to perform properly or to complete in a timely manner, contracts of a similar nature, or if investigation shows the bidder is unable to perform the requirements of the contract.

18. ALTERNATE OFFERS

Of particular importance is the fact that the notice of a decision to make an award will be accomplished by a posting of the proposed contract awardee on a public list located on the Office of Procurement's website.

The time period for appeal contained in Section 11B-36 commences THE DAY FOLLOWING the date of the posting.

It is the responsibility of the bidders to keep informed of the current status of any proposed awardees for contracts in which they are interested, as per Section 3.2.2 of the Procurement Regulations.

Information regarding the proposed awardee(s) under this bid or any bid issued by the Montgomery County Office of Procurement will be posted on Montgomery County's website.

19. SAMPLES

When samples are required it will be so indicated under mandatory bid submissions. Samples must be submitted so as to arrive at the designated location prior to the opening of bids and must be identified with the NAME OF BIDDER, BID NUMBER AND BID ITEM NUMBER. Failure to properly identify samples may cause bid to be considered nonresponsive. Samples shall be free of charge and delivered at the bidder's expense. The County will have the right to destroy, alter, or mutilate samples in examination for specification or performance compliance without charge from bidder. Samples may be removed within ten (10) days after award. Samples may at the County's option be retained for the life of any subsequent contract period.

20. OR EQUAL INTERPRETATION

Unless stated otherwise in the Scope of Work, identification of an item by manufacturer's name, trade name, catalog number, or reference is intended to be descriptive but not restrictive in that it is used for the purpose of describing the type, style, quality, performance and minimum specifications of the product desired, and shall not be interpreted to mean the only acceptable product. Bids on other makes and/or models will be considered provided the bidder clearly states in the spaces provided in the Quotation Sheet what is being proposed and forwards with the bid complete descriptive literature indicating the character of the article being offered and addressing all specifications of this solicitation.

The County reserves the right to accept or reject, in its sole discretion, items offered as an "equal."

21. BID WITHDRAWAL/MODIFICATION

Vendor can withdraw and make edits to a bid before a solicitation's closing date and time. To withdraw your bid, log into www.bidnetdirect.com/maryland/montgomerycounty and click "Solicitations" then "Bid Management" and follow the withdrawal process. If you need help withdrawing your bid, please call BidNet Direct's Support Department at 800-835- 4603, Option 2. The bidder's withdrawal and resubmission must occur before the closing date and time.

22. BIDDER'S PAYMENT TERMS

The County will reject as nonresponsive a bid under this solicitation, which is conditioned on payment of proper invoices in less than thirty (30) days. The County's Standard Payment Terms are Net Thirty (30) Days. This does not preclude a bidder from offering a prompt payment discount for payment of proper invoices in less than thirty (30) days. An optional prompt payment term is not required but may be offered conditioned on the following basis: Only a prompt payment discount conditioned on a thirty-day or greater payment basis will be utilized to recalculate prices for purposes of the Method of Award process for price only. Prompt payment discounts may be offered on a shorter payment basis and adopted by the County at time of award but will not be considered during the Method of Award process.

23. MINORITY, FEMALE, DISABLED PERSON PROGRAM COMPLIANCE

Under County law, this solicitation is subject to the Montgomery County Code and the Montgomery County Procurement Regulations regarding participation in the Minority, Female, Disabled Person (MFD) Procurement Program. Further information regarding the County's MFD program is contained within this solicitation (see the provision entitled "Minority-Owned Business Addendum to the General Conditions of Contract between County and Contractor" and its companion document entitled "Minority, Female, and Disabled-Person Subcontractor Performance Plan").

24. MONTGOMERY COUNTY CODE AND PROCUREMENT REGULATIONS

The Montgomery County Code and Procurement Regulations are applicable to this solicitation and any contract awarded pursuant to this solicitation.

25. SOLICITATION AMENDMENTS

In the event that an amendment to this solicitation is issued, all solicitation terms and conditions will remain in effect unless they are specifically changed by the amendment. Bidders are responsible for checking the website at periodically to remain informed of any solicitation amendments.

BIDDERS MUST ACKNOWLEDGE RECEIPT OF SUCH SOLICITATION AMENDMENTS, to the place designated, and prior to the hour and date specified in the solicitation (as amended) for receipt of Bids. UNLESS A WAIVER IS GRANTED, BIDDERS THAT DO NOT TIMELY ACKNOWLEDGE RECEIPT OF SOLICITATION AMENDMENTS BY ONE OF THE FOLLOWING METHODS WILL BE REJECTED:

a. by acknowledging receipt of the amendment on the Bid and Contract Award Page submitted.

b. by a signed statement that the amendment is acknowledged which indicates the solicitation and amendment numbers and is submitted with the bid or prior to the bid due date and time.

A waiver may be granted by the Director, Office of Procurement, if it is deemed to be in the County's best interest. No waiver may be granted, however, until the bidder states in writing that the bidder will be bound by any substantive changes made by the amendment to the terms of the solicitation. If a bidder desires to change a bid that has already been submitted, the bidder can withdraw and make edits to a bid before a solicitation's closing date and time. To withdraw your bid, log into www.bidnetdirect.com/maryland/montgomerycounty and click "Solicitations" then "Bid Management" and follow the withdrawal process. If you need help withdrawing your bid, please call BidNet Direct's Support Department at 800-835- 4603, Option 2. The bidder's withdrawal and resubmission must occur before the closing date and time.

26. SERVICES CONTRACT (COUNTY CODE 11B-33A)

Under County law, a solicitation for a contractor to provide services is subject to the Montgomery County Code regarding compliance with certain wage requirements payable to the Contractor's

employees. Additional information regarding the County's wage requirements is contained within this solicitation (see the provision entitled "Wage Requirements for Services Contracts Addendum to the General Conditions of Contract between County and Contractor" and its companion documents entitled "Wage Requirements Law Certification" and "501(c)(3) Nonprofit Organization's Employee's Wage and Health Insurance Form). If a bidder fails to submit and complete the required material information on the Wage Requirements Law Certification form, its bid may be deemed unacceptable under County law and may be rejected for non-responsiveness. For more information, refer to: https://www.montgomerycountymd.gov/office-procurement/division-business-relations-compliance-dbrc/wage-requirement-law-wrl

27. PREVAILING WAGE (County Code §§11B-33C, and 20-75)

The Prevailing Wage Law applies to all construction contracts and to mechanical systems services contracts that meet minimum threshold contract values. Unless otherwise excluded by County law, a County-financed construction contract and a mechanical systems service contract that meet minimum threshold contract values are subject to the Montgomery County Code regarding compliance with the prevailing wage paid to construction workers, as established for the County by the Maryland State Commissioner of Labor and Industry. Additional information regarding the County's prevailing wage requirements is contained within this solicitation/contract (see the provision entitled "Prevailing Wage Requirements for Construction Contract Addendum to the General Conditions of Contract between County and Contractor"). An aggrieved employee is a third-party beneficiary of this Contract and the employee may, by civil action, recover the difference between the prevailing wage for the type of work performed and the amount actually received, with interest and a reasonable attorney's fee.

28. TIE BIDS

In conjunction with the bid's selected method of award (Section A.3.), tie bids will be resolved by making a proposed award of the contract(s) to the bidder who has its principal place of business in Montgomery County, Maryland. If bids are still tied, then the tie will be resolved in accordance with the criteria in the order stated under Procurement Regulation 4.1.1.4(e).

ATTACHMENT A.
MONTGOMERY COUNTY, MARYLAND,
GENERAL TERMS AND CONDITIONS OF CONTRACT

1. DEFINITIONS. As used in this Contract, the following words have the following meanings:

1.1. **"County Data**" means all data created by or in any way originating with the County, and all data that is the output of computer processing of or other electronic manipulation of any data that was created by or in any way originated with the County, whether such data or output is stored on the County's hardware, the Contractor's hardware or exists in any system owned, maintained or otherwise controlled by the County or by the Contractor.

1.2. "**Contractor Data**" means all data created by or in any way originating with the Contractor, and all data that is the output of computer processing of or other electronic manipulation of any data that was created by or in any way originated with the Contractor, whether such data or output is stored on the County's hardware, the Contractor's hardware or exists in any system owned, maintained or otherwise controlled by the County or by the Contractor.

1.3. "**Data Breach**" means the unauthorized access of Personal Information (PI), Individually Identifiable Health Information, and/or non-public County Data in the possession of the Contractor by a non-authorized person(s).

1.4. "**Deliverable**" means any of the goods, services, documents and/or materials including, but not limited to, software, reports, drawings, studies, specifications, estimates, tests, maps, photographs, designs, graphics, mechanical, artwork, computations, and data created and/or provided by Contractor or its subcontractor(s) specifically for the County under a contract.

1.5. "**Individually Identifiable Health Information**" means information that is a subset of health information, including demographic information collected from an individual, and:

1.5.1. is created or received by a health care provider, health plan, employer or health care clearinghouse; and

1.5.2. relates to the past, present or future physical or mental health or condition of an individual; the provision of health care to an individual; or the past, present or future payment for the provision of health care to an individual; and

1.5.2.1. that identifies the individual; or

1.5.2.2. with respect to which there is a reasonable basis to believe the information can be used to identify the individual.

1.6. "**Personal Information (PI)**" means personal data as defined in the Protection of Information by Government Agencies Act, currently found at MD Code Ann., State Government, §10-1301(c), as amended.

1.7. "**Protected Health Information**" (PHI) means individually identifiable health information transmitted by electronic media, maintained in electronic media, or transmitted or maintained in any other form or medium. PHI excludes education records covered by the Family Educational Rights and Privacy Act (FERPA), as amended, 20 U.S.C. 1232g,

records described at 20 U.S.C. 1232g(a)(4)(B)(iv) and employment records held by a covered entity in its role as employer.

1.8. "**Security Incident**" means the potentially unauthorized access by a non-authorized person(s) to Personal Information (PI), Individually Identifiable Health Information, and/or non-public County Data that the Contractor believes could reasonably result in the use, disclosure or theft of such information within the possession or control of the Contractor. A security incident may or may not turn into a Data Breach.

2. ACCOUNTING SYSTEM, ACCURATE INFORMATION, AND AUDIT.

2.1. The Contractor certifies that all information the Contractor has provided or will provide to the County is true and correct and can be relied upon by the County in awarding, modifying, making payments, or taking any other action with respect to this contract including resolving claims and disputes.

2.2. Any false or misleading information is a ground for the County to terminate this contract for cause and to pursue any other appropriate remedy. The Contractor certifies that the Contractor's accounting system conforms with generally accepted accounting principles, is sufficient to comply with the contract's budgetary and financial obligations and is sufficient to produce reliable financial information.

2.3. The County may examine the Contractor's and any first-tier subcontractor's records to determine and verify compliance with the contract and to resolve or decide any claim or dispute arising under this contract. The Contractor and any first-tier subcontractor must grant the County access to these records at all reasonable times during the Contract term and for 3 years after final payment. If the contract is supported to any extent with federal or state funds, the appropriate federal or state authorities may also examine these records. The Contractor must include the preceding language of this paragraph in all first-tier subcontracts.

3. ASSIGNMENTS AND SUBCONTRACTS.

3.1. The Contractor must not assign or transfer this contract, any interest herein or any claim hereunder, except as expressly authorized in writing by the Director, Office of Procurement. Unless performance is separately and expressly waived in writing by the Director, Office of Procurement, an assignment does not release the Contractor from responsibility for performance of this contract.

3.2. The Contractor must identify all of its strategic business partners related to services provided under this contract, including but not limited to all subcontractors or other entities or individuals who may be a party to a joint venture or similar agreement with the Contractor, and who will be involved in any application development and/or operations.

3.3. Any subcontract for any work hereunder must comport with the terms of this contract and County law and must include any other terms and conditions that the County deems necessary to protect its interests. The Contractor must not employ any subcontractor that is a debarred or suspended person under County Code §11B-37. The Contractor is fully responsible to the County for the acts and omissions of itself, its subcontractors and any persons either directly or indirectly employed by them. Nothing contained in the Contract documents creates any contractual relation between any subcontractor and the County, and nothing in the contract documents is intended to make any subcontractor a beneficiary of the contract between the County and the Contractor.

4. CHANGES.

4.1. The Director, Office of Procurement, may unilaterally change the work, materials and services to be performed, upon a finding that such change is in the best interests of the County. The change must be in writing and within the general scope of the contract. The contract will be modified to reflect any time or money adjustment the Contractor is entitled to receive. Contractor must bring to the Contract Administrator, in writing, any claim about an adjustment in time or money resulting from a change, within 30 days from the date the Director, Office of Procurement, issued the change in work, or the claim is waived. Any failure to agree upon a time or money adjustment must be resolved under the "Disputes" clause of this contract. The Contractor must proceed with the prosecution of the work as changed, even if there is an unresolved claim. No charge for any extra work, time or material will be allowed, except as provided in this section.

5. COMPLIANCE WITH APPLICABLE LAWS.

5.1. Contractor must comply with all applicable Federal, State, County, and local laws and regulations including, but not necessarily limited to, the ones listed herein. The Contractor must, without additional cost to the County, pay any necessary fees and charges, obtain any necessary licenses and permits, and comply with applicable federal, state and local laws, codes and regulations.

5.2. Americans With Disabilities Act. The Contractor agrees to comply with the nondiscrimination requirements of Titles I and II, and other provisions, of the Americans with Disabilities Act of 1990, Pub. Law 101-336, and ADA Amendments Act of 2008, Pub. Law 110-325, as amended, currently found at 42 U.S.C., § 12101, et seq., and 47 U.S.C., ch. 5, and, without limitation, 28 C.F.R. § 35.200 et seq.

5.3. Accessibility of Web Content and Mobile Applications.

5.3.1. Contractor warrants that any information technology it provides to or develops for the County under this contract complies fully with Americans with Disability Act accessibility requirements for online content and mobile applications, as set forth at 28 C.F.R. 35.200.

5.3.2. Contractor must make available its current Voluntary Product Accessibility Template (“VPAT”), which describes the extent to which the application conforms to Level A and Level AA success criteria and conformance requirements specified in WCAG 2.1, and must update such VPAT from time to time in accordance with its standard practices and not less than annually. Contactor must also provide copies of its VPAT upon County request.

5.3.3. The Contractor’s services must comply in all material respects with Web Content Accessibility Guidelines (WCAG) 2.1 Level AA success criteria and conformance requirements. Contractor’s conformance to WCAG 2.1, Level AA is a material contractual obligation.

5.3.4. In the event the County receives any complaints or has concerns regarding the accessibility of the Contractor’s services, the Contractor must promptly provide the County with a written response outlining its plan to address such complaints or concerns or must provide written notice that it is unable to resolve them. The Contractor must address such complaints or concerns and must communicate regularly and promptly with the County regarding the status of any remediation efforts.

5.4. Displaced Service Workers Protection Act. The Contractor agrees to comply with the requirements of the Displaced Service Workers Protection Act, which appears in County Code, Chapter 27, Human Rights and Civil Liberties, Article X, Displaced Service Workers Protection Act, §§ 27-64 through 27-66.

5.5. Earned Sick and Safe Leave. Montgomery County's Earned Sick and Safe Leave Law, found at Sections 27-76 through 27-82 of the County Code, became effective October 1, 2016. An employer doing business in the County, as defined under the statute, must comply with this law. This includes an employer vendor awarded a County contract. A vendor may obtain information regarding this law at http://www.montgomerycountymd.gov/humanrights/.

5.6. Ethics Requirements/Political Contributions.

5.6.1. The Contractor must comply with the ethics provisions contained in Chapters 11B and 19A of the Montgomery County Code, which include the following:

5.6.1.1. a prohibition against making or offering to make certain gifts. Section 11B-51(a).

5.6.1.2. a prohibition against kickbacks. Section 11B-51(b).

5.6.1.3. a prohibition against a person engaged in a procurement from employing or offering to employ a public employee. Section 11B-52 (a).

5.6.1.4. a prohibition against a contractor that is providing a recommendation to the County from assisting another party or seeking to obtain an economic benefit beyond payment under the contract. Section 11B-52 (b).

5.6.1.5. a restriction on the use of confidential information obtained in performing a contract. Section 11B-52 (c).

5.6.1.6. a prohibition against contingent fees. Section 11B-53.

5.6.2. Through signature of this contract, the contractor certifies that the contractor has filed an initial statement with the Maryland State Board of Elections in compliance with MD Code Ann., *Election Law*, §14-104(b)(1), or is not required to file an initial statement as per MD Code Ann., *Election Law*, §14-104(c)(2).

5.6.3. Hazardous and Toxic Substances. Manufacturers and distributors are required by federal "Hazard Communication" provisions (29 CFR 1910.1200), and the Maryland "Access to Information About Hazardous and Toxic Substances" Law, to label each hazardous material or chemical container, and to provide Material Safety Data Sheets to the purchaser. The Contractor must comply with these laws and must provide the County with copies of all relevant documents, including Material Safety Data Sheets, prior to performance of work or contemporaneous with delivery of goods.

5.6.4. Immigration Reform and Control Act. The Contractor warrants that both the Contractor and its subcontractors do not, and will not, hire, recruit or refer for a fee, for employment under this Contract or any subcontract, an alien while knowing the alien is an unauthorized alien, or any individual without complying with the requirements of the federal Immigration and Nationality laws, including any verification and record keeping requirements. The Contractor further assures the County that, in accordance with those laws, it does not, and will not,

discriminate against an individual with respect to hiring, recruitment, or referral for a fee, of an individual for employment or the discharge of an individual from employment, because of the individual's national origin or, in the case of a citizen or prospective citizen, because of the individual's citizenship status.

5.6.5. Intergovernmental Purchasing. Certain non-profit and governmental entities may purchase supplies and services, similar in scope of work and compensation amounts provided for in a County contract, using their own contract and procurement laws and regulations, pursuant to Md. Code Ann., State Fin. and Proc., §13-110(c).

5.6.6. Non-Conviction of Bribery. The Contractor hereby declares and affirms that, to its best knowledge, none of its officers, directors, or partners or employees directly involved in obtaining contracts has been convicted of bribery, attempted bribery, or conspiracy to bribe under any federal, state, or local law.

5.6.7. Non-Discrimination in Employment. The Contractor agrees to comply with the non-discrimination in employment policies and/or provisions prohibiting unlawful employment practices in County contracts as required by Section 11B-33 and Section 27-19 of the Montgomery County Code, as well as all other applicable state and federal laws and regulations regarding employment discrimination.

5.6.7.1. The Contractor assures the County that, in accordance with applicable law, it does not, and will not, discriminate in any manner on the basis of race, color, religious creed, ancestry, national origin, age, sex, marital status, disability, or sexual orientation.

5.6.7.2. The Contractor must bind its subcontractors to the provisions of this section.

5.6.8. No Retaliation. Contractor and all of its subcontractors must comply with the provisions of County Code §11B-35A and must not retaliate against a covered employee who discloses an illegal or improper action described in §11B-35A. Furthermore, an aggrieved covered employee under §11B-35A is a third-party beneficiary under this Contract, who may by civil action recover compensatory damages including interest and reasonable attorney's fees, against the contractor or one of its subcontractors for retaliation in violation of that Section.

5.6.9. Prevailing Wage. The County's prevailing wage law, as found at §11B-33C of the County Code, applies to certain construction and mechanical systems service contracts. To the extent applicable, the County's prevailing wage requirements are enumerated within the "Prevailing Wage Requirements for Construction Contract Addendum to the General Conditions of Contract between County and Contractor." If applicable to this contract, the Addendum will be attached to the contract, and will be incorporated herein by reference, and made a part thereof.

5.6.10. Workplace Safety. The Contractor must ensure adequate health and safety training and/or certification, and must comply with applicable federal, state and local Occupational Safety and Health laws and regulations.

6. CONFIDENTIAL AND PROPRIETARY INFORMATION AND MATERIALS.

6.1. Subject to the Maryland Public Information Act (Md. Code Ann., Gen. Prov. §4-101, et. seq.) and any other applicable laws including, without limitation, HIPAA, the HI-TECH Act, and the Maryland Medical Records Act and regulations promulgated pursuant

thereto, all confidential or proprietary information and documentation relating to either party (including without limitation, any information or data stored within the Contractor's computer systems or cloud infrastructure, if applicable) must be held in confidence by the other party. Each party is, however, permitted to disclose, as provided by and consistent with applicable law, relevant confidential information to its personnel and agents to the extent that such disclosure is necessary for the performance of their duties under this contract.

6.2. Each party must advise each of its personnel and agents to whom any of the other party's confidential information is to be disclosed of the obligations hereunder.

6.3. The provisions of this Section do not apply to information that: (a) is lawfully in the public domain; (b) has been independently developed by the other party without violation of this contract; (c) was already rightfully in the possession of such party; (d) was supplied to such party by a third party lawfully in possession thereof and legally permitted to further disclose the information; or (e) which such party is required to disclose by law.

7. CONSTRUCTION, CONFLICTING TERMS, AND VENUE.

7.1. This contract must be construed in accordance with the laws and regulations of Maryland and Montgomery County. The Montgomery County Procurement Regulations are incorporated by reference into, and made a part of, this contract. In the case of any inconsistency between this contract and the Procurement Regulations, the Procurement Regulations govern.

7.2. Notwithstanding any provisions to the contrary in any contract terms or conditions supplied by the Contractor, and in the event of any inconsistency, these General Terms and Conditions of Contract, together with any Addenda thereto, supersede any terms and conditions supplied by the Contractor.

7.3. For purposes of litigation involving this contract, except for contract Disputes discussed in Section 11, Disputes, below, exclusive venue and jurisdiction must be in the Circuit Court for Montgomery County, Maryland or in the District Court of Maryland for Montgomery County.

8. CONTRACT ADMINISTRATION.

8.1. The County's contract administrator is the Department representative designated by the Director, Office of Procurement, in writing, and is authorized to:

8.1.1. serve as liaison between the County and the Contractor;

8.1.2. give direction to the Contractor to ensure satisfactory and complete performance;

8.1.3. monitor and inspect the Contractor's performance to ensure acceptable timeliness and quality;

8.1.4. serve as records custodian for this contract, including wage and prevailing wage requirements;

8.1.5. accept or reject the Contractor's performance;

8.1.6. furnish timely written notice of the Contractor's performance failures to the Director, Office of Procurement, and to the County Attorney, as appropriate;

8.1.7. prepare required reports;

8.1.8. approve or reject invoices for payment;

8.1.9. recommend contract modifications or terminations to the Director, Office of Procurement;

8.1.10. issue notices to proceed; and

8.1.11. monitor and verify compliance with any MFD Performance Plan.

8.2. The contract administrator is NOT authorized to make determinations (as opposed to recommendations) that alter, modify, terminate or cancel the contract, interpret ambiguities in contract language, or waive the County's contractual rights.

9. COST AND PRICING DATA.

9.1. Chapter 11B of the County Code and the Montgomery County Procurement Regulations require that cost and pricing data be obtained from proposed awardees/contractors in certain situations. The Contractor guarantees that any cost and pricing data provided to the County will be accurate and complete. The Contractor grants the Director, Office of Procurement, access to all books, records, documents, and other supporting data in order to permit adequate evaluation of the contractor's proposed price(s). The Contractor also agrees that the price to the County, including profit or fee, may, at the option of the County, be reduced to the extent that the price was based on inaccurate, incomplete, or noncurrent data supplied by the contractor

10. DISPUTES.

10.1. Any dispute arising under this contract that is not disposed of by agreement must be decided under the Montgomery County Code and the Montgomery County Procurement Regulations. Pending final resolution of a dispute the Contractor must proceed diligently with contract performance.

10.2. Subject to subsequent revocation or alteration by the Director, Office of Procurement, the head of the County department, office or agency ("Department Head") of the contract administrator is the designee of the Director, Office of Procurement, for purposes of dispute resolution. The Department Head, or his/her designee, must forward to the Director, Office of Procurement, a copy of any written resolution of a dispute. The Department Head may delegate this responsibility to another person (other than the contract administrator).

10.3. The Contractor must notify the County’s contract administrator of a claim in writing and must make a good faith effort to resolve a claim with the contract administrator prior to filing a dispute with the Director, Office of Procurement or designee.

10.4. The Contractor must file a dispute with the Director within 30 days of the event giving rise to the claim (unless the contract provides otherwise), whether or not the contract administrator has responded to the written notice of claim or resolved the claim. The Contractor waives any dispute not timely filed. The Director, Office of Procurement, must dismiss a dispute that is not timely filed.

10.5. A dispute must be in writing, for specific relief, and any requested relief must be fully supported by affidavit of all relevant calculations, including cost and pricing information, records, and other information necessary for determination of the dispute. All relevant documentation must be provided with the written dispute.

10.6. If the Director denies a dispute, in whole or in part, the Contractor may file a contract dispute appeal with the County’s Chief Administrative Officer (CAO). The dispute appeal must be filed within 30 days after the party receives the Director’s decision. If no

decision is rendered by the Director within 45 days of the Director's receipt of the dispute, and the parties have not agreed to an extension of time, then the dispute appeal must be filed within 75 days after the party filed the dispute. Upon receipt of the contract dispute appeal, the CAO must review the dispute de novo, but the CAO must not consider any grounds except those presented by the filing party in the initial dispute filing. The dispute appeal must identify the relief sought and all grounds and materials supporting the request for relief. The appealing party must provide a copy of the dispute appeal to the opposing party, the Director and the County Attorney.

10.7. The Contractor may pursue judicial review of the final decision of the CAO to the Circuit Court in accordance with the Maryland Rules governing judicial review of administrative agency decision (Maryland Rules 7-201, et. seq.) and as provided under Section 11B-35(d) of the Code. Either the Contractor or the County may appeal the Circuit Court's decision to the appellate courts of Maryland.

10.8. At the County's option, the Contractor agrees to be made a party to any related dispute involving another contractor.

11. DOCUMENTS, MATERIALS AND DATA – OWNERSHIP AND USE.

11.1. All documents, materials, and/or data generated as a result of this contract are the County's property. The County has the right to use and reproduce any documents, materials, and data, including confidential information, used in the performance of, or developed as a result of, this contract. The County may use this information for its own purposes, including reporting to state and federal agencies.

11.2. The Contractor must not access County user accounts or data, except:

11.2.1. as necessary to provide the goods and services described in this contract;

11.2.2. as required by the express terms of this contract;

11.2.3. in response to service or technical issues; or

11.2.4. at the County's written request.

11.3. The Contractor warrants that it has title to or right of use of all documents, materials or data used or developed in connection with this contract. The Contractor must keep confidential all documents, materials, and data prepared or developed by the Contractor or supplied by the County. Except as may otherwise be set forth in this contract, Contractor must not use, sell, sub-lease, assign, give, or otherwise transfer to any third party any information or material provided to Contractor by the County or developed by Contractor relating to the contract.

12. DURATION OF OBLIGATION.

12.1. The Contractor agrees that all of Contractor's obligations and warranties, including all requirements imposed by the Minority Owned Business Addendum to these General Conditions, if any, which directly or indirectly are intended by their nature or by implication to survive Contractor performance, do survive the completion of performance, termination for default, termination for convenience, or termination by mutual consent of the contract.

13. ENTIRE AGREEMENT.

13.1. There are no promises, terms, conditions, or obligations other than those contained in this contract. This contract supersedes all communications, representations, or

agreements, either verbal or written, between the parties hereto, with the exception of express warranties given to induce the County to enter into the contract.

14. GUARANTEE AND WARRANTY.

14.1. The Contractor guarantees all goods, services, and construction provided under the contract, including any products or materials used in the course of providing the goods, services, and/or construction. The Contractor further guarantees that all products offered (or used in the installation of those products) carry a guarantee and/or warranty against any and all defects. These guarantees are in effect for one year from the date of the County's acceptance of the goods, services or construction, unless a longer period is: (1) agreed upon by the Parties in the contract; (2) provided by the manufacturer; or (3) specified in the County's written solicitation.

14.2. The Contractor must correct any and all defects in material and/or workmanship that may appear during the guarantee period, or any defects that occur within one (1) year of acceptance even if discovered more than one (1) year after acceptance, by repairing, (or replacing with new items or new materials, if necessary) any such defect at no additional cost to the County and to the County's satisfaction.

14.3. Should a manufacturer's or service provider's warranty or guarantee exceed the requirements stated above, that guarantee or warranty will be the primary one used in the case of defect. Copies of manufacturer's or service provider's warranties must be provided upon request.

14.4. All warranties and guarantees must be in effect from the date of the County's acceptance of the goods, services, or construction.

14.5. Goods and materials provided under this contract must be of first quality, latest model and of current manufacture, and must not be of such age or so deteriorated as to impair their usefulness or safety. Items that are used, rebuilt, or demonstrator models are unacceptable, unless specifically requested by the County in the specifications.

14.6. The Contractor guarantees that all work will be accomplished in a workmanlike manner, and the Contractor must observe and comply with all Federal, State, County and local laws, ordinances and regulations in providing the goods and performing the services or construction.

15. GENERAL INDEMNIFICATION AND HOLD HARMLESS.

15.1. The Contractor is responsible for any loss, personal injury, bodily injury, death and any other damage (including incidental and consequential) that may be done or suffered by reason of the Contractor's negligence or failure to perform any contractual obligations. The Contractor must indemnify and save the County harmless from any loss, cost, damage and other expenses, including attorney's fees and litigation expenses, suffered or incurred due to the Contractor's negligence or failure to perform any of its contractual obligations. If requested by the County, the Contractor must defend the County in any action or suit brought against the County arising out of the Contractor's negligence, errors, acts or omissions under this contract. The negligence of any agent, subcontractor or employee of the Contractor is deemed to be the negligence of the Contractor. For the purposes of this paragraph, County includes its boards, agencies, agents, officials and employees.

16. INDEPENDENT CONTRACTOR.

16.1. The Contractor is an independent contractor. The Contractor and the Contractor's employees or agents are not agents of the County.

17. INSPECTIONS.

17.1. The County has the right to monitor, inspect and evaluate or test all supplies, goods, services, or construction called for by the contract at all reasonable places (including the Contractor's place of business) and times (including the period of preparation or manufacture).

18. INSURANCE.

18.1. Prior to contract execution by the County, the Contractor must obtain, at its own cost and expense, the minimum insurance specified by the County, with one or more insurance company(s) licensed or qualified to do business in the State of Maryland and acceptable to the County's Division of Risk Management. The minimum limits of coverage listed must not be construed as the maximum as required by contract or as a limitation of any potential liability on the part of the Contractor to the County, nor is failure by the County to request evidence of this insurance in any way be construed as a waiver of Contractor's obligation to provide the insurance coverage specified.

18.2. Contractor must keep this insurance in full force and effect during the term of this contract, including all extensions. Prior to award of this contract, and prior to any contract modification extending the term of the Contract, and upon request by the County, the Contractor must submit to the Director, Office of Procurement, one or more Certificate(s) of Insurance, as evidence of compliance with this provision. If requested by the County, the Contractor must provide a copy of any and all insurance policies to the County.

18.3. The Contractor's insurance must be primary. Montgomery County, MD, including its officials, employees, agents, boards, and agencies, must be named as an additional insured on all liability policies where required by Minimum Insurance Requirements.

18.4. Contractor must provide to the County at least 30 days' written notice of a cancellation of, or a material change to, an insurance policy. A cancelled policy must be replaced with a new policy including the same insurance coverage(s) type and limits equal to or greater than the expired policy(s). A copy of the new Certificate of Insurance must be provided promptly to the County. In no event may the insurance coverage be less than that shown on the applicable Minimum Insurance Requirements documentation provided by the County.

19. INTELLECTUAL PROPERTY.

19.1. Ownership of all copyrights, patents, trademarks, trade secrets, and any other intellectual property existing prior to the Effective Date of this contract remains with the party that owned such rights immediately prior to the Effective Date ("Pre-Existing Intellectual Property").

19.2. If the Contractor will be preparing, providing, displaying, publicly performing, reproducing, or otherwise using, in any manner or form, any information, document, design, process, device, material, or other item that is subject to a copyright, trademark, patent, or other property or privacy right, then the Contractor must obtain all necessary licenses, authorizations, permissions, and approvals related to its use and obtain all

necessary licenses, authorizations, permissions, and approvals to permit the County to use such item(s) pursuant to the County's rights granted under the contract.

19.3. The Contractor agrees that any and all Deliverable(s) are the sole property of the County and must be available to the County at any time. The County has the right to use the same without restriction and without compensation to the Contractor other than that specifically provided by this contract. Deliverables do not include Pre-Existing Intellectual Property.

19.4. For all Contractor Pre-Existing Intellectual Property embedded in any Deliverable(s), Contractor grants to the County a license to use such Pre-Existing Intellectual Property in connection with the County's permitted use of the Deliverable(s).

20. LIMITATION OF COUNTY'S LIABILITY.

20.1. Any obligation or liability of the County arising in any way from this contract is subject to, limited by, and contingent upon the appropriation and availability of funds, as well as the damage caps and notice requirements stated in the Local Government Tort Claims Act, Md. Code Ann., Cts. & Jud. Proc., §§5-301, et seq. (the "LGTCA"), the immunities and prohibited actions with respect to the County and its personnel set forth in Md. Code Ann., Cts. & Jud. Proc., §§5-501, et. seq., and the provisions governing contract claims against the County set forth in Md. Code Ann., Cts. & Jud. Proc. §5-5a-02, (together the "Applicable County Liability Statutes"), all as amended from time to time. Any indemnification given by the County in this contract is not intended to create any rights or causes of action in any third parties or to increase the County's liability above the caps provided in the Applicable County Liability Statutes, as applicable.

21. NON-INFRINGEMENT AND INDEMNIFICATION.

21.1. The Contractor warrants that the Deliverables provided to the County do not and will not infringe upon or violate any patent, copyright, trade secret or other proprietary rights of any third party.

21.2. To the extent any Deliverable(s) incorporates any third party's intellectual property, Contractor warrants that Contractor has the right to use such third-party intellectual property in connection with provision of the Deliverable and that it has obtained, to the extent necessary, permission for the County to use the third-party intellectual property in connection with the County's permitted use of the Deliverable(s).

21.3. The Contractor must protect, indemnify, and hold harmless the County, and its agents and employees, from and against any and all claims, suits, actions, liabilities, damages, losses, demands, and judgments (including, without limitation, litigation costs, lost employee time, and counsel fees) arising out of or in connection with any third party claim based upon or arising out of any allegation of infringement, misappropriation, violation, unauthorized use, or conversion of any patent, copyright, trademark or trade name, license, proprietary right, or other related property or privacy interest in connection with, or as a result of, the Contractor-provided products/services this contract and/or the performance by the Contractor of any of its activities or obligations under this contract.

21.4. If any equipment, software, services (including methods) products or other intellectual property used or furnished by the Contractor is, or in the Contractor's reasonable judgment is likely to be, held to constitute an infringing product, the Contractor must, at its expense and option, either:

21.4.1. Procure the right for the County to continue using the Product(s);

21.4.2. Replace the product with a non-infringing equivalent that satisfies all the requirements of the contract; or

21.4.3. Modify the Product(s) to make it or them non-infringing, provided that the modification does not materially alter the functionality or efficacy of the product or cause the Product(s) or any part of the work to fail to conform to the requirements of the contract, or only alters the Product(s) to a degree that the County agrees to and accepts in writing.

21.5. The Contractor must report to the County, promptly and in written detail, each notice or claim of copyright infringement received by the Contractor with respect to any product, service, or data delivered under this contract.

22. PAYMENT AUTHORITY.

22.1. No payment by the County may be made, or is due, under this contract, unless funds for the payment have been appropriated and encumbered by the County. Under no circumstances will the County pay the Contractor for legal fees, late fees, or shipping fees that are not provided for in the contract. The Contractor must not perform any work (provide goods, services, or construction) prior to receiving written confirmation that the County has appropriated and encumbered funds for that work. If the Contractor fails to obtain this verification from the Office of Procurement prior to performing work, the County has no obligation to pay the Contractor for the work.

22.2. If this contract provides for an additional contract term beyond its initial term, continuation of Contractor's performance under this contract beyond the initial term is contingent upon, and subject to, the appropriation of funds and encumbrance of those appropriated funds for payments under this contract. If funds are not appropriated and encumbered to support continued Contractor performance in a subsequent fiscal period, Contractor's performance must end without further notice from, or cost to, the County. The Contractor acknowledges that the County Executive has no obligation to recommend, and the County Council has no obligation to appropriate, funds for this contract in subsequent fiscal years. Furthermore, the County has no obligation to encumber funds to this contract in subsequent fiscal years, even if appropriated funds may be available. Accordingly, for each subsequent contract term, the Contractor must not undertake any performance under this Contract until the Contractor receives a purchase order or contract amendment from the County that authorizes the Contractor to perform work for the next contract term.

23. P-CARD OR SUA PAYMENT METHODS.

23.1. The County is expressly permitted to pay the vendor for any or all goods, services, or construction under the contract through either a procurement card ("p-card") or a Single Use Account ("SUA") method of payment, if the Contractor accepts the noted payment method from any other person. In that event, the County reserves the right to pay any or all amounts due under the contract by using either a p-card (except when a purchase order is required) or a SUA method of payment, and the Contractor must accept the County's p-card or a SUA method of payment, as applicable. Contractor is prohibited from charging or requiring the County to pay any fee, charge, price, or other obligation for any reason related to or associated with the County's use of either a p-card or a SUA method of payment.

24. PERSONAL PROPERTY.

24.1. All furniture, office equipment, equipment, vehicles, and other similar types of personal property specified in the contract, and purchased with funds provided under the contract, become the property of the County upon the end of the contract term, or upon termination or expiration of this contract, unless expressly stated otherwise.

25. PRIVACY AND INFORMATION SECURITY.

25.1. Encryption of Data at Rest. The Contractor must ensure hard drive encryption consistent with validated cryptography standards as referenced in FIPS 140-2, Security Requirements for Cryptographic Modules for all Personal Information, unless the Contractor presents a justifiable position approved by the County that Personal Information must be stored on a portable device in order to accomplish work as defined in the contract.

25.2. Health Insurance Portability and Accountability Act (HIPAA). Contractor must comply with all requirements in the federal Health Insurance Portability and Accountability Act (HIPAA), to the extent that HIPAA is applicable to this contract. Furthermore, Contractor must enter into the County's standard Business Associate Agreement or Qualified Service Organization Agreement when Contractor or the County, as part of this contract, may use or disclose to one another, to the individual whose health information is at issue, or to a third-party, any Protected Health Information that is obtained from, provided to, made available to, or created by, or for, the Contractor or the County.

25.3. Maryland Protection of Information by Government Agencies ("PIGA"). In any contract under which Contractor is to perform services and the County may disclose to Contractor Personal Information about an individual, as defined by State law, Contractor must implement and maintain reasonable security procedures and practices that: (a) are appropriate to the nature of the Personal Information disclosed to the Contractor; and (b) are reasonably designed to help protect the Personal Information from unauthorized access, use, modification, disclosure, or destruction. Contractor's requirement to implement and maintain reasonable security practices and procedures must include requiring any third-party to whom it discloses Personal Information that was originally disclosed to Contractor by the County to also implement and maintain reasonable security practices and procedures related to protecting the Personal Information. Contractor must notify the County of a breach of the security of a system if the unauthorized acquisition of an individual's Personal Information has occurred or is reasonably likely to occur and also must share with the County all information related to the breach. Contractor must provide the above notification to the County as soon as reasonably practicable after Contractor discovers or is notified of the breach of the security of a system. Md. Code Ann., State Gov't. § 10-1301, et seq.

25.4. No Sale or Redisclosure. Any data provided by the County to the Contractor under this contract that constitutes personal records or sensitive data, both as defined by Md. Code Ann., State Gov't § 10-1702, or geolocation data must not be sold or redisclosed by the Contractor. Contractor must bind its subcontractors to these no-sale and no-redisclosure requirements.

25.5. Payment Card Industry Compliance. In any contract where the Contractor provides a system or service that involves processing credit card payments ("Payment Solution"), the Contractor must ensure that the Payment Solution is compliant with the Payment Card Industry Data Security Standard ("PCIDSS"), as determined and verified by the

County's Department of Finance. The Payment Solution must process credit card payments using a Merchant ID ("MID") obtained by the County's Department of Finance and held in the County's name as the merchant of record unless the Department of Finance determines, in its sole discretion, that use of a County MID is not feasible for the specific Payment Solution. Use of an MID obtained and held by the Contractor in the Contractor's name as merchant of record is prohibited unless the Contractor obtains prior written approval from the County's Department of Finance. Approval may be granted only as a last resort measure when the Department of Finance determines that no technically or operationally feasible County-issued MID configuration is available. Any such approval will be limited, conditional, and subject to additional security, reporting, and monitoring requirements as established by the Department of Finance. The Contractor must comply with all requirements set forth in the County's PCI Security Addendum and Vendor Security Addendum.

25.6. Protection of County Data. Contractor must safeguard the confidentiality, integrity and availability of County Data and comply with the following conditions:

25.6.1. Contractor must implement and maintain appropriate administrative, technical and organizational security measures to safeguard against unauthorized access, disclosure or theft of personal data and non-public data. Such security measures must be in accordance with recognized industry practice and not less stringent than the measures the Contractor applies to its own personal data and non-public data of similar kind.

25.6.2. Contractor must ensure that all County Data is backed up and is recoverable by the Contractor.

25.6.3. All personal data must be encrypted at rest and in transit with controlled access. Unless otherwise stipulated, the Contractor is responsible for encryption of the personal data.

25.6.4. County Data must not be copied, disclosed or retained by the Contractor for subsequent use in any transaction that does not include the County.

25.6.5. All County Data must be stored solely in data centers located in the United States. Contractor must not allow its employees, agents or subcontractors to store County data on portable devices, including personal computers, except for devices that are used and kept only at its data centers located in the United States. The Contractor must not permit its personnel and contractors to access County Data remotely except as may be required to provide technical support.

25.6.6. Prohibition on Use of County Data for AI Training:

25.6.7. Contractor must not use, and must not permit any third party to use, any County Data for the purposes of training, fine-tuning, or otherwise improving any artificial intelligence (AI), machine learning (ML), or similar models, including large language models, neural networks, or any data processing tools that derive insights or functionality through algorithmic training, unless specifically defined in the contract.

25.6.8. No Derivative Works from County Data:

25.6.9. Contractor must not create, or assist in the creation of, any derivative works or data sets based on County Data for the purpose of developing or enhancing any AI models or algorithms.

25.6.10. Data Segregation:

25.6.11. Contractor must implement appropriate technical and organizational measures to ensure that County Data is segregated from any data sets used for AI training.

25.6.12. Prior consent to AI Features:

25.6.13. Contractor must not introduce or make AI features available without explicit County approval. County must retain decision-making authority over the use of AI, even when Contractor introduces new features after the contract is signed.

26. RIGHT TO REMOVE INDIVIDUALS.

26.1. The County has the right at any time to require that the Contractor remove from involvement with the contract any Contractor employee, agent or representative who the County believes is detrimental to its working relationship with the Contractor or to the provision of services to the public.

27. SECURITY INCIDENT OR DATA BREACH NOTIFICATION AND LIABILITY.

27.1. The Contractor must report a Security Incident to the County within twenty-four (24) hours.

27.2. The Contractor must take all commercially reasonable measures to fully investigate a Security Incident and to confirm whether a Data Breach has occurred.

27.3. In the event the Contractor learns of, or reasonably believes that there has been, a Data Breach, the Contractor must:

27.3.1. Notify the County's contract administrator no later than three (3) business days by telephone and email. Contractor's report must include, to the extent known:

27.3.1.1. The nature of the unauthorized use or disclosure;

27.3.1.2. Identification of the data used or disclosed;

27.3.1.3. Identification of any individual(s) whose personal information or PHI was used or disclosed;

27.3.1.4. Identification of the individual(s) or group(s) who made the unauthorized use and/or received the unauthorized disclosure;

27.3.1.5. What action Contractor has taken and/or plans to take to mitigate any damages arising out of the breach.

27.3.1.6. Any other such information as reasonably requested by the County.

27.3.2. Take all commercially reasonable measures to fully to investigate and resolve the Data Breach;

27.3.3. Cooperate with the County and provide the County with any information needed by the County to comply with its legal obligations pursuant to the PIGA, HIPAA, and any other applicable laws. Such information may include, but is not necessarily limited to, the names and contact information of all persons whose personal information was acquired and/or was possessed by the Contractor as part of its performance under the contract;

27.3.4. Keep the County apprised of the status of Contractor's investigation insofar as it pertains to County Data and/or the contract, including, but not limited to, advising

the County when any element of the Contractor's initial report, set forth in Paragraph 28.3 above, that was unknown becomes known;

27.3.5. Promptly implement appropriate remedial measures, if necessary; and;

27.3.6. Document responsive actions taken related to the Data Breach, including any post-incident review of events and actions taken to make changes in business practices in providing the services, if necessary.

27.4. If a Data Breach is a direct result of the Contractor's breach of its contractual obligations to encrypt personal data or otherwise prevent its release, the Contractor must bear the costs associated with (1) the investigation and resolution of the Data Breach; (2) notifications to individuals, regulators or others required by state law; (3) a credit monitoring service required by state (or federal) law; (4) a website or a toll-free number and call center for affected individuals required by state law — all not to exceed the average per record per person cost calculated for data breaches in the United States in the most recent Cost of Data Breach Study: Global Analysis published by the Ponemon Institute at the time of the data breach; and (5) complete all corrective actions as reasonably determined by service provider based on root cause; all [(1) through (5)] subject to this contract's limitation of liability.

28. TERMINATION FOR CONVENIENCE.

28.1. This contract may be terminated by the County, in whole or in part, upon written notice to the Contractor, when the County determines this to be in its best interest. The termination for convenience is effective on the date specified in the County's written notice. Payment for goods and/or services provided pursuant to the contract and accepted by the County prior to the date of termination, will be compensated in accordance with the contract.

28.2. If the contract is terminated for convenience, the Contractor may seek reimbursement for actual, reasonable expenses incurred by the Contractor, prior to the date of notification of termination, specifically in connection with the Contractor's good faith efforts to perform, or prepare to perform, the subject contract. The Contractor is not entitled to reimbursement of costs for items that may be repurposed or returned by the Contractor. The Contractor is not entitled to recovery of anticipated profit, ordinary costs of doing business, or shared costs (i.e., a percentage of contractor's general operating costs). The Contractor must not be paid compensation as a result of a termination for convenience that exceeds the amount encumbered to pay for work to be performed under the contract.

29. TERMINATION FOR DEFAULT.

29.1. The Director, Office of Procurement, may terminate the contract in whole or in part, whenever the Director, Office of Procurement, determines that the Contractor is:

29.1.1. defaulting in performance or is not complying with any provision of this contract;

29.1.2. failing to make satisfactory progress in the prosecution of the contract; or

29.1.3. endangering the performance of this contract.

29.2. The Director, Office of Procurement, will provide the Contractor with a written notice to cure the default. The termination for default is effective on the date specified in the County's written notice. However, if the County determines that default contributes to the curtailment of an essential service or poses an immediate threat to life, health, or

property, the County may terminate the Contract immediately upon issuing oral or written notice to the Contractor without any prior notice or opportunity to cure.

29.3. In addition to any other remedies provided by law or the contract, the Contractor must compensate the County for additional costs incurred by the County to obtain substitute performance. A termination for default is a termination for convenience if the termination for default is later found to be without justification.

30. TIME.

30.1. Time is of the essence.

31. TRANSITION FOLLOWING TERMINATION.

31.1. Upon termination or the expiration of the contract, the Contractor must, upon request by the County:

31.1.1. Return to the County all County Data in a mutually agreed-upon format; and

31.1.2. Preserve, maintain, and protect all County Data for a period of up to ninety (90) days after the termination or expiration date, so that the County can ensure that all returned data is readable.

31.2. Following the ninety (90) day retention period, or earlier if directed by the County, Contractor must, unless legally prohibited from doing so, securely dispose of all County Data in Contractor's possession in all of its forms.

31.3. County Data must be permanently deleted and must not be recoverable, according to NIST guidelines for media sanitization (NIST SP 800-88); and certificates of destruction must be provided to the County.

31.4. Upon request by the County, Contractor must perform preparatory and/or close-out work to assist the County in transitioning services to a new vendor to ensure continuity of services.

32. WORK UNDER THE CONTRACT.

32.1. Contractor must not commence work under this contract until all conditions for commencement are met, including execution of the contract by both parties, compliance with insurance requirements, encumbrance of funds, and issuance of any required notice to proceed.

THIS FORM MUST NOT BE MODIFIED WITHOUT THE PRIOR APPROVAL OF THE OFFICE OF THE COUNTY ATTORNEY.

ATTACHMENT B.
QUOTATION SHEET AND DELIVERY SCHEDULE

B 1. Quotation Sheet: Please Refer to the Excel File

ATTACHMENT C.
MANDATORY INSURANCE REQUIREMENTS

Removal and Replacement of Concrete Curb and Sidewalk in the Business Districts Countywide - New construction, rehabilitation, and safety improvements involving the removal, replacement, and installation of concrete curbs, gutters, sidewalks, ADA ramps, driveway aprons, and related infrastructure throughout County business districts

Prior to the execution of the contract by the County, the proposed awardee/contractor must obtain, at their own cost and expense, the following *minimum* (not maximum) insurance coverage with an insurance company/companies licensed to conduct business in the State of Maryland and acceptable to the Division of Risk Management. This insurance must be kept in full force and effect during the term of this contract, including all extensions. The insurance must be evidenced by a certificate of insurance, and if requested by the County, the proposed awardee/contractor shall provide a copy of the insurance policies and additional insured endorsements. The minimum limits of coverage listed below shall not be construed as the maximum as required by contract or as a limitation of any potential liability on the part of the proposed awardee/contractor to the County nor shall failure to request evidence of this insurance in any way be construed as a waiver of proposed awardee / contractor's obligation to provide the insurance coverage specified. The Contractor's insurance shall be primary with the County's being non-contributory.

Commercial General Liability

A minimum limit of liability of ***two million dollars ($2,000,000) per occurrence and four million dollars ($4,000,000) in the aggregate*** for bodily injury, personal injury, and property damage coverage per occurrence, including the following coverages:

- Contractual Liability
- Premises and Operations
- Independent Contractors & Subcontractors
- Products and Completed Operations
- No sublimit or exclusion for liability arising from the use of cranes **(can be waived if no crane is used)**
- Sudden and Accidental Pollution
- Coverage shall be endorsed to apply on a per project or per contract basis

Business Automobile Liability

A minimum limit of liability of ***two million dollars ($2,000,000)***, ***combined single limit*** for bodily injury and property damage coverage per occurrence, including the following:

- Owned automobiles
- Hired automobiles
- Non-owned automobiles
- Loading and unloading

Workers' Compensation/Employers' Liability

Meeting all statutory requirements of the State of Maryland Law, and with the following minimum Employers' Liability limits:

- ***Bodily Injury by Accident - $100,000 each accident***
- ***Bodily Injury by Disease - $500,000 policy limits***
- ***Bodily Injury by Disease - $100,000 each employee***

Subcontractor Requirements

Contractor shall require all subcontractors to obtain, and maintain, insurance with limits equal to, or greater, than those limits required within the contract.

Additional Insured

Montgomery County, Maryland, its elected and appointed officials, officers, consultants, agents and employees, must be included as an additional insured on an endorsement to Contractor's commercial general, automobile liability, and contractor's excess/umbrella insurance policies, if used to satisfy the Contractor's minimum insurance requirements under this contract, for liability arising out of contractor's products, goods and services provided under this contract. The stipulated limits of coverage above shall not be construed as a limitation of any potential liability of the contractor. Coverage pursuant to this Section shall not include any provision that would bar, restrict, or preclude coverage for claims by Montgomery County against Contractor, including but not limited to "cross-liability" or "insured vs insured" exclusion provisions.

Policy Cancellation

Should any of the above policies be canceled before the expiration date thereof, written notice must be delivered to the County in accordance with the policy provisions.

Certificate Holder

Montgomery County, Maryland
Department of Transportation / Paula Griffith
100 Edison Park Drive, 4th Floor
Gaithersburg, Maryland 20878

ATTACHMENT D.
REFERENCES

You are requested to provide references to the County with your bid. The three references must be from individuals or firms currently being serviced or supplied under similar contracts, or for whom work of a similar scope has been performed within the last year. Names for references shall be of individuals who directly supervised or had direct knowledge of the services or goods provided. Submit at least three (3) references.

Reference #1

Item	Please fill in the information
Name of the Company	
Address (street, city, state, zip)	
Contact Person Name	
Contact Person Email	
Contact Person Cell Phone	
Contact Person Office Phone	

Reference #2

Item	Please fill in the information
Name of the Company	
Address (street, city, state, zip)	
Contact Person Name	
Contact Person Email	
Contact Person Cell Phone	
Contact Person Office Phone	

Reference #3

Item	Please fill in the information
Name of the Company	
Address (street, city, state, zip)	
Contact Person Name	
Contact Person Email	
Contact Person Cell Phone	
Contact Person Office Phone	

ATTACHMENT E.
WEBLINKS FOR DOCUMENTS AND FORMS

Click the following link to access all forms listed below: https://www.montgomerycountymd.gov/office-procurement/solicitations-contracts/solicitation-forms.

1. County Vendor Registration System.
2. Procurement Frequently Asked Questions.
3. MD-SDAT and MD-SDAT Frequently Asked Questions FAQ.
4. Wage Requirements Law, Independent Contractor Certification.
5. Minority Business Program & Offeror's Representation.
6. Minority, Female, Disabled Person Subcontractor Performance Plan.
7. Sample MFD Report of Payments Received.
8. Wage Requirements for Services Contracts Addendum.
9. Wage Requirements Certification Form and 501(c)(3) Nonprofit Organization's Employee's Wage and Health Insurance Form.
10. Prevailing Wage Requirements for Construction Contract Addendum.
11. Minority-Owned Business Addendum to General Conditions of Contract Between County and Contractor.
12. Local Business Subcontracting Performance Plan.
13. Prevailing Wage Local Hiring Report.
14. Prevailing Wage Law Local Hiring Attestation.

ATTACHMENT F.
PERFORMANCE BOND

Click to add name of bonding company as surety ("Surety"), and Click to add full legal name of the Contractor as principal ("Contractor"), enter into and execute this bond ("Performance Bond"), and bind themselves in favor of Montgomery County Maryland, as obligee ("Owner"), in the initial amount of **$200,000.00** of the Contract Sum or such greater amount as the Contract Sum may be adjusted to from time to time in accordance with the Contract between the Contractor and Owner) (the "Penal Sum").

WHEREAS, the Contractor has executed a contract with Montgomery County Maryland dated Click to add date of contract execution (the "Contract") for the Removal and Replacement of Concrete Curb and Sidewalk in the Business Districts Countywide (the "Project"); and

WHEREAS, the Owners have required the Contractor to furnish this Performance Bond as a condition to executing the Contract with the Contractor;

NOW THEREFORE, the Surety and the Contractor, both jointly and severally, and for themselves, their heirs, administrators, executors, successors and assigns agree:

1. **CONTRACT INCORPORATED; SURETY AND CONTRACTOR BOUND FOR FULL PERFORMANCE**. The Contract is incorporated by reference and made a part of this bond. The Surety and the Contractor are bound for the full performance of the Contract including without exception all of the Contract Documents (as defined in the Contract) and all of their terms and conditions, both express and implied.
2. **OWNER'S AFFIDAVIT OF CONTRACTOR BREACH OR DEFAULT**. If the Owner shall provide to Surety the written affidavit of the Owner stating that the Contractor is in breach or default of the Contract, and that such breach or default remains uncured by the Contractor, then upon delivery of such affidavit to the Surety in the method for providing notices as set forth in Paragraph 7 below, Surety must promptly notify the Owner in writing which action it will take as permitted in Paragraph 3.
3. **SURETY'S OBLIGATION UPON DELIVERY OF OWNER'S AFFIDAVIT OF CONTRACTOR'S BREACH OR DEFAULT**. Upon the delivery of the Owner's affidavit of breach or default by the Contractor as provided in Paragraph 2 above, the Surety may promptly remedy the breach or default or must, within thirty (30) days, proceed to take one of the following courses of action:
    a. **Proceed Itself**. Complete performance of the Contract including correction of defective and nonconforming Work through its own contractors or employees, approved as being acceptable to the Owner, in the Owner's sole discretion, provided, however, that Owner's discretion to approve Surety's contractor will not be unreasonably withheld as to any contractor who would have qualified to offer a proposal on the Contract (including the Contractor provided the Surety has remedied the default to satisfaction of the Owner). During this performance by the Surety the Owner will pay the Surety from its own funds only those sums as would have been due and payable to the Contractor under the Contract as and when they would have been due and payable to the Contractor in the absence of the breach or default not to exceed the amount of the remaining Contract balance less any sums due the Owner under the Contract. During this performance Surety's payment bond must remain in full force and effect; or
    b. **Tender a completing contractor acceptable to Owner.** Tender a contractor, approved as being acceptable to the Owner (in the Owner's sole discretion), together with a contract for fulfillment and completion of the Contract executed by the completing contractor, to the

Owner for the Owner's execution. Owner's discretion to approve Surety's completing contractor will not be unreasonably withheld as to any contractor who would have qualified to offer a proposal on the Contract and is not affiliated (as defined in the General Conditions of Contract) with the Contractor. Owner's discretion to approve Contractor as the completing contractor, however, shall be in Owner's sole subjective discretion. Upon execution by the Owner of the contract for fulfillment and completion of the Contract, the completing contractor must furnish to the Owner a performance bond and a separate payment bond, each in the form of those bonds previously furnished to the Owner for the Project by the Contractor. Each such bond must be in the Penal Sum of the full cost to complete the Contract. The Owner will pay the completing contractor from its own funds only those sums as would have been due and payable to the Contractor under the Contract as and when they would have been due and payable to the Contractor in the absence of the breach or default not to exceed the amount of the remaining Contract balance less any sums due the Owner under the Contract. To the extent that the Owner is obligated to pay the completing contractor sums which would not have then been due and payable to the Contractor under the Contract (any sums in excess of the then remaining Contract balance less any sums due the Owner under the Contract), the Surety must pay to the Owner the full amount of those sums at the time the completing Contractor is tendered to the Owner so that the Owner can utilize those sums in making timely payment to the completing contractor; or

c. **Tender the Full Penal Sum**. Tender to the Owner the full Penal Sum of the surety bond. The Owner will refund to the Surety without interest any unused portion not spent by the Owner procuring and paying a completing contractor or completing the construction contract itself, plus the cost allowed under Section 4, after completion of the contract for fulfillment and completion of the Contract and the expiration of any applicable warranties; or

d. **Other Acts**. Take any other acts mutually agreed upon in writing by the Owner and the Surety.

4. **SURETY'S ADDITIONAL OBLIGATIONS**. In addition to those duties set forth herein above, the Surety must promptly pay the Owner (i) all losses, costs and expenses resulting from the Contractor's breach(es) or default(s), including, without limitation, fees, expenses and costs for architects, engineers, consultants, testing, surveying and attorneys, plus (ii) liquidated or actual damages, whichever may be provided for in the contract, for lost use of the Project, plus (iii) re-procurement costs and fees and expenses, plus (iv) costs incurred at the direction, request, or as a result of the acts or omissions of the Surety; provided that in no event shall Surety's liability exceed the Penal Sum of this Bond.

5. **SURETY'S WAIVER OF NOTICE**. The Surety waives notice of any Modifications to the Contract, including changes in the Contract Time, the Contract Sum, the amount of liquidated damages, or the Work to be performed.

6. **NO THIRD-PARTY BENEFICIARIES**. The Surety provides this Performance Bond for the sole and exclusive benefit of the Owner and, if applicable, any dual obligee designated by attached rider, together with their heirs, administrators, executors, successors and assigns. No other party, person or entity has any rights against the Surety.

7. **METHOD OF NOTICE.** All notices to the Surety, the Contractor or the Owner must be given by Certified Mail, Return Receipt Requested, to the address set forth for each party below:

SURETY:

Name of the Company:	
Attention:	
Address *(street, city, state, zip):*	

CONTRACTOR:

Name of the Company:	
Attention:	
Address *(street, city, state, zip):*	

OWNER:

Name of the Department:	Montgomery County Government, Department of Transportation
Attention:	Timothy Serrano
Address *(street, city, state, zip):*	100 Edison Park Drive, 4th Floor, Gaithersburg, MD 20878

with a copy to:

Montgomery County Government,
Office of the County Attorney
Attn: Trevor Ashbarry, Associate County Attorney

101 Monroe Street, 3rd Floor

Rockville, Maryland 20850

8. **STATUTE OF LIMITATIONS.** Any statutory limitation, which may be contractually superseded, to the contrary notwithstanding, any action hereon may be instituted so long as the applicable statute of limitations governing the Contract (including any warranty period) has not run or expired or within three (3) years following Final Completion of the Contract (including any warranty period) and acceptance of the Work performed under the Contract by the Owner, whichever is longer.
9. **RECITALS**. The recitals contained in this Performance Bond are incorporated by reference herein and are expressly made a part of this Performance Bond.
10. **GOVERNING LAW**. This Performance Bond shall be governed by, and construed in accordance with the laws of the State of Maryland without regard to its conflict of laws provisions.
11. **VENUE**. In the event any legal action shall be filed upon this Performance Bond, venue shall lie exclusively in the Circuit Court for Montgomery County, Maryland.

SIGNATURE PAGE FOLLOWS

	CONTRACTOR	SURETY
Company Name:		
Address *(street, city, state, zip):*		
Seal	N/A	
Name:		
Title:		
Date:		

ATTACHMENT G
PAYMENT BOND

_____, as surety ("Surety"), and _____, as principal ("Contractor"), enter into and execute this bond ("Payment Bond"), and bind themselves in favor of Montgomery County Maryland ("Owner") in the initial amount of $200,000 of the Contract Sum may be adjusted to from time to time in accordance with the Contract between Contractor and Owner) (the "Penal Sum").

WHEREAS, the Contractor has executed a contract with the Owner dated _____ (the "Contract") for Removal and Replacement of Concrete Curb and Sidewalk in the Business Districts Countywide (the "Project"); and

WHEREAS, the Owner has required the Contractor to furnish this Payment Bond containing the terms and conditions set forth herein as a condition to executing the Contract with the Contractor;

NOW THEREFORE, the Surety and the Contractor, both jointly and severally, and for themselves, their heirs, administrators, executors, successors and assigns agree:

1. The Contract is incorporated by reference and made a part of this Agreement. The Surety and the Contractor are bound for the full performance of the Contract including without exception all of the Contract Documents (as defined in the Contract) and all of their terms and conditions, both express and implied, and, without limitation, specifically including Contractor's obligation to pay for labor, materials, services and equipment provided in connection with the Contract performance;

2. For purposes of this Payment Bond, Beneficiary is defined as a person or entity who has actually provided labor, material, equipment, services or other items for use in furtherance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract and having:

    a. a direct contract with the Contractor; or
    b. a direct contract with a subcontractor or sub-subcontractor of the Contractor; or
    c. rights, under the laws applicable in Montgomery County, Maryland, to file a lien, a claim or notice of lien, or otherwise make a claim against the Project,

the Site, or against funds held by the Owner, if the Project is, or were, subject to such filing.

3. The Surety is not obligated hereunder to a Beneficiary other than a Beneficiary having a direct contract with the Contractor unless such Beneficiary has given written notice of its claim to the Contractor and the Surety within the longer of:

   a. ninety (90) days after such Beneficiary provided labor, material, equipment, services or other items for use in furtherance of the Contract; or,

   b. the period of time under the laws applicable in Montgomery County, Maryland for (1) filing of a lien, claim of lien, or notice of lien, if the Project is, or were, subject to such filing, or (2) otherwise making a claim against the Project or against funds held by the Owner; stating the amount claimed and identifying, by name and address, the person or entity to whom such labor, material, equipment, services or other items were provided.

4. In no event is the Surety obligated hereunder for sums in excess of the Penal Sum.

5. Upon receipt of a claim from a Beneficiary hereunder, the Surety must promptly, and in no event later than forty-five (45) days after receipt of such claim and supporting documentation, respond to such claim in writing (furnishing a copy of such response to the Owner) by:

   a. making payment of all sums not in dispute; and,

   b. stating the basis for disputing any sums not paid.

   The failure of Surety to identify a specific defense to all or part of a claim shall not be deemed an admission of liability by Surety or otherwise constitute a waiver of any claims or defenses that the Contractor and/or Surety may have or acquire as to such claim, including, without limitation the right to dispute such claim.

6. No action shall be commenced by a Beneficiary hereunder after the passage of the longer of one (1) year following final completion of the Contract (including any warranty period) and acceptance of the Work performed under the Contract by the Owner or any limitation period provided under the laws applicable in Montgomery County, Maryland.

7. The Surety waives notice of any Modifications to the Contract, including changes in the Contract Time, the Contract Sum, the amount of liquidated damages, or the Work to be performed.

8. All notices to the Surety, the Contractor or the Owner must be given by Certified Mail, Return Receipt Requested, to the address set forth for each party below:

SURETY:

Name: _____
Attention: _____
Street: _____
City, State, Zip _____

CONTRACTOR:

Name: _____
Attention: _____
Street: _____
City, State, Zip _____

OWNER:

Montgomery County Government
Department of Transportation/Highway Services
Attention: Timothy Serrano, Contract Administrator
100 Edison Park Drive, 4th Floor
Gaithersburg, Maryland 20878

with a copy to:

Office of the County Attorney
Trevor Ashbarry
101 Monroe Street, 3rd Floor
Rockville, Maryland 20850

9. The recitals contained in this Payment Bond are incorporated by reference herein and are expressly made a part of this Payment Bond.
10. This Payment Bond shall be governed by, and construed in accordance with the laws of the State of Maryland without regard to its conflict of laws provisions.
11. In the event any legal action shall be filed upon this Payment Bond, venue shall lie exclusively in the Circuit Court for Montgomery County, Maryland.

SIGNATURE PAGE FOLLOWS

Contractor	**Surety**
(Typed Firm Name)	(Typed Firm Name)
(Seal) – if available – not required	(Seal)
By:	By:
(Signature)	(Signature)
(Printed Name)	(Printed Name)
(Title)	(Title)
(Address)	(Address)
(Date of Execution)	(Date of Execution)

END OF DOCUMENT

ATTACHMENT H.(MCDOT-*DHS Form*)
EXPERIENCE AND EQUIPMENT CERTIFICATION FORM

75. GENERAL

(a.) Legal Title and Address of Organization

_____

_____

_____

(b.) Maryland Representative's Name, Title, and Address

_____

_____

_____

(c.) Check One: Corporation _____ Co-Partnership _____ Individual _____

(d.) Name and Title of Corporate Officers Authorized to sign Contract Documents, Change and Field Orders, Estimates, and other pertinent Contract Forms. Please be advised that it will be necessary to inform the County of any changes in the above authorization.

NAME TITLE

_____

_____

_____

_____

II. EXPERIENCE

(a) Indicate the type of contracting undertaken by your organization and years of experience.

General Contractor: _____ Years Type of Work: _____

_____

Sub-Contractor: _____ Years Type of Work _____

(b) State construction experience of principal members of your organization:

Name	Title Pres., Mgr., etc.	Construction Experience Years	Type of Work (Hwy., Bridges, Paving, etc.)	In What Capacity? (Supt,. Foreman, etc.)

(c) Give any special qualifications of firm members (Registered Engineer, Surveyors, etc.)

III. EQUIPMENT

(a) What equipment do you own, rent, or intend to buy for use on this project. (Please include any attachments.)

Quantity	Item	Description, Capacity, Size, etc.	Condition	Years of Service	Present Location	Date Available for this Project

IV. AWARD OF CONTRACT

(a) If awarded this contract, do you intend to sublet any portion of this work? If so, state items numbers, or description, and if known, the name and address of the subcontractor.

_____

_____

_____

_____

_____

(b) Work presently under contract to, or pending award to, your organization. (Please include any attachments.)

Contract No. or Description	Total cost of Project	Amount of Work Completed	Amount to be Completed	Probable Date of Completion

(c) List some principal projects completed by your organization. (Please include any attachments.)

Description of Work	General or Sub (If Sub, what type of work)	Your Contract Amount	Year

(d) Have you ever performed work for the U. S. Government? _____ Any State government? _____ Any County or City government? _____ If yes to any of these, please list which agency, references, phone numbers, and contact persons.

_____

_____

_____

_____

(e) Have you ever failed to complete any work awarded to you? _____ If so, where and why.

(f) Has any officer or partner of your organization ever been an officer or partner of some other organization that failed to complete a construction contract? If so, state name of individual, other organization and reason therefore.

(g) Has any officer or partner of your organization ever failed to complete a construction contract handled in his/her own name? _____ If so, state name of individual, name of owner and reason therefore.

V. BIDDER CERTIFICATION

The above statements are certified to be true and accurate, and we have the equipment, labor, supervision, and financial capacity to perform this Contract, either with our organization, or with subcontractors.

Dated at _____

this _____ day of _____ , 2026

By: _____

_____
(Title of Person Signing)

_____
(Name of Organization)

State of _____

County of _____

_____ Being duly sworn that he/she is

_____ of _____
(Title) (Name of Organization)

the answers to the foregoing questions and all statements therein contained are true and accurate.

Sworn to before me this _____ day of _____ , 2026

_____
Notary Public

My commission expires _____

IFB # 1195636

ATTACHMENT I.

Informational Wage Rates – Prevailing Wage

INFORMATIONAL WAGE RATES

The wage rates listed below are published by the State of Maryland, Division of Labor and Industry, Prevailing Wage Unit.

The wage rates posted on this site are provided for **informational** purposes ONLY.

The wage and fringe rates may change between the time of issuance of the wage determinations and the award of the public works contract. Therefore, prior to the award of the public works contract, verification must be made with the public body, to insure that the rates contained in this determination are still prevailing.

These **Informational Prevailing Wage Rates** may not be substituted for the requirements of pre-advertisement for bids or onsite job posting for a public work contract that exceeds $250,000 in value and either of the following criteria are met: (1) the contracting body is a unit of State government or an instrumentality of the State and there is any State funding for the project; or (2) the contracting body is a political subdivision, agency, person or entity (such as a county) and the State funds 25% or more of the project.

INFORMATIONAL PURPOSES ONLY

MONTGOMERY COUNTY **HIGHWAY CONSTRUCTION** **Print Date Oct 14, 2026**

CLASSIFICATION	MODIFICATION REASON	BASIC HOURLY RATE	BORROWED FROM	FRINGE BENEFIT PAYMENT
BALANCING TECHNICIAN	CR	$46.96	033	$24.45
BRICKLAYER	AD	$25.50		$0.00
CARPENTER	AD	$32.28		$0.00
CARPENTER - SHORING SCAFFOLD BUILDER	AD	$35.89		$14.60
CARPET LAYER	AD	$35.10		$15.33
CEMENT MASON	AD	$24.00		$0.00
ELECTRICIAN	AD	$59.50		$23.06
IRONWORKER - REINFORCING	CR	$36.60	033	$26.06
IRONWORKER - STRUCTURAL	CR	$39.30	033	$27.14
LABORER - AIR TOOL OPERATOR	AD	$33.88		$9.20
LABORER - ASPHALT PAVER	AD	$33.88		$9.20
LABORER - ASPHALT RAKER	AD	$29.58		$9.20
LABORER - BLASTER - DYNAMITE	AD	$33.88		$9.20
LABORER - BURNER	AD	$33.88		$9.20
LABORER - COMMON	AD	$29.58		$9.20
LABORER - CONCRETE PUDDLER	AD	$29.58		$9.20
LABORER - CONCRETE SURFACER	AD	$33.88		$9.20
LABORER - CONCRETE TENDER	AD	$29.58		$9.20
LABORER - CONCRETE VIBRATOR	AD	$29.58		$9.20
LABORER - DENSITY GAUGE	AD	$29.58		$9.20
LABORER - FIREPROOFER - MIXER	AD	$29.58		$9.20
LABORER - FLAGGER	AD	$29.58		$9.20
LABORER - GRADE CHECKER	AD	$29.58		$9.20
LABORER - HAND ROLLER	AD	$29.58		$9.20
LABORER - HAZARDOUS MATERIAL HANDLER	AD	$33.88		$9.20
LABORER - JACKHAMMER	AD	$29.58		$9.20
LABORER - LANDSCAPING	AD	$29.58		$9.20
LABORER - LAYOUT	AD	$29.58		$9.20
LABORER - LUTEMAN	AD	$29.58		$9.20
LABORER - MASON TENDER	AD	$33.88		$9.20
LABORER - MORTAR MIXER	AD	$29.58		$9.20

LABORER - PIPELAYER	AD	$33.88		$9.20
LABORER - PLASTERER - HANDLER	AD	$29.58		$9.20
LABORER - SCAFFOLD BUILDER	AD	$33.88		$9.20
LABORER - TAMPER	AD	$29.58		$9.20
LINEWORKER/UNDERGROUND MECHANIC	CR	$34.18		$7.04
MARINE - DIVER	CR	$37.74	033	$14.73
MILLWRIGHT	CR	$29.00	033	$0.00
PAINTER - BRIDGE	CR	$45.00	033	$17.01
PAINTER-INDUSTRIAL	CR	$32.88		$14.33
PILEDRIVER	CR	$37.74	033	$14.73
PLUMBER	AD	$51.25		$23.10
POWER EQUIPMENT OPERATOR - ASPHALT DISTRIBUTOR	AD	$33.25		$1.32
POWER EQUIPMENT OPERATOR - BACKHOE	AD	$35.00		$10.42
POWER EQUIPMENT OPERATOR - BOOM TRUCK	AD	$36.72		$5.61
POWER EQUIPMENT OPERATOR - BROOM / SWEEPER	AD	$28.95		$10.42
POWER EQUIPMENT OPERATOR - BULLDOZER	CR	$34.00	021	$14.05
POWER EQUIPMENT OPERATOR - CRANE	AD	$45.49		$5.61
POWER EQUIPMENT OPERATOR - DRILL - RIG	CR	$34.00	021	$14.05
POWER EQUIPMENT OPERATOR - EXCAVATOR	AD	$33.52		$7.52
POWER EQUIPMENT OPERATOR - FORKLIFT	CR	$31.04	021	$14.05
POWER EQUIPMENT OPERATOR - GRADALL	AD	$36.42		$10.42
POWER EQUIPMENT OPERATOR - LOADER	AD	$30.00		$2.56
POWER EQUIPMENT OPERATOR - MECHANIC	AD	$32.30		$0.00
POWER EQUIPMENT OPERATOR - MILLING MACHINE	AD	$27.70		$0.00
POWER EQUIPMENT OPERATOR - PAVER	AD	$28.21		$0.00
POWER EQUIPMENT OPERATOR - ROLLER - ASPHALT	AD	$25.90		$6.53
POWER EQUIPMENT OPERATOR - ROLLER - EARTH	CR	$28.95	033	$10.42
POWER EQUIPMENT OPERATOR - SCREED	AD	$28.49		$6.53
POWER EQUIPMENT OPERATOR - SKID STEER (BOBCAT)	AD	$25.00		$0.00
POWER EQUIPMENT OPERATOR- TRANSFER MACHINE OPERATOR	CR	$28.46	033	$14.76
POWER EQUIPMENT OPERATOR-VACUUM TRUCK	CR	$38.60	021	$15.75
RESILIENT FLOOR	AD	$35.10		$15.33
SPRINKLERFITTER	CR	$42.32	033	$26.05
STONE MASON	AD	$33.00		$0.00
TILE & TERRAZZO FINISHER	CR	$28.85	033	$12.85
TRUCK DRIVER - DUMP	AD	$22.00		$0.00
TRUCK DRIVER - FLATBED	CR	$20.00	033	$0.00
TRUCK DRIVER - LOWBOY	AD	$24.75		$2.00
TRUCK DRIVER - TACK/TAR TRUCK	AD	$23.47		$6.53
UNDERGROUND CABLE SPLICER	CR	$29.49		$4.64
UNDERGROUND GAS MECHANIC	CR	$29.57		$8.82

Incidental Craft Data: Caulker, Man Lift Operator, Rigger, Scaffold Builder, and Welder receive the wage and fringe rates prescribed for the craft performing the operation to which welding, scaffold building, rigging, operating a Man Lift, or caulking is incidental.

INFORMATIONAL PURPOSES ONLY

These **Informational Prevailing Wage Rates** may not be substituted for the requirements of pre-advertisement for bids or onsite job posting for a public work contract that exceeds $250,000 in value and either of the following criteria are met: (1) the contracting body is a unit of State government or an instrumentality of the State and there is any State funding for the project; or (2) the contracting body is a political subdivision, agency, person or entity (such as a county) and the State funds 25% or more of the project.

Modification Codes:

(AD) 17-209 Annual Determination from Survey Wage Data Received
(CH) 17-211 Commissioners' Hearing
(CR) 17-208 Commissioners' Review
(SR) 17-208 Survey Review by Staff

Each "Borrowed From" county is identified with the FIPS 3-digit county code unique for the specific jurisdiction in Maryland.

For additional information on the FIPS (Federal Information Processing Standard) code, see http://www.census.gov/datamap/fipslist/AllSt.txt

The Prevailing Wage rates appearing on this form were originally derived from Maryland's annual Wage Survey. The Commissioner of Labor & Industry encourages all contractors and interested groups to participate in the voluntary Wage Survey, detailing wage rates paid to workers on various types of construction throughout Maryland.

A mail list of both street and email addresses is maintained by the Prevailing Wage Unit to enable up-to-date prevailing wage information, including Wage Survey notices to be sent to contractors and other interested parties. If you would like to be included in the mailing list, please forward (1) your Name, (2) the name of your company (if applicable), (3) your complete postal mailing address, (4) your email address and (5) your telephone number to PWMAILINGLIST@dllr.state.md.us. Requests for inclusion can also be mailed to: Prevailing Wage, 1100 N. Eutaw Street - Room 607, Baltimore MD 21201-2201.

END OF REPORT

INFORMATIONAL PURPOSES ONLY

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

IFB #1195636

Removal & Replacement of Concrete Curb & Sidewalk in Business Districts County Wide

SECTION D

CONTRACT PROVISIONS AND TECHNICAL REQUIREMENTS

IFB No. 1195636

Removal & Replacement of Concrete Curb & Sidewalk in Business Districts County Wide

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CONTRACT

PROVISIONS

Removal & Replacement of Concrete Curb & Sidewalk in Business Districts County Wide

SECTION D

ADDITIONAL CONTRACT PROVISIONS

All work for this Contract shall conform to the Maryland Department of Transportation, State Highway Administration's General Provisions and TECHNICAL REQUIREMENTS of the specifications manual entitled, "Standard Specifications for Construction and Materials" latest edition, including all revisions thereof, and additions thereto, and these Special Provisions and Special Provision Inserts included in this Invitation for Bids.

GENERAL PROVISIONS and TERMS AND CONDITIONS of the Maryland Department of Transportation, State Highway Administration, "Standard Specifications for Construction and Materials", latest edition and all additions and revisions thereto do not apply to this Contract Document.

In the event that any of the above Contract requirements and/or specifications conflict with the Montgomery County Procurement Regulations, the Montgomery County Procurement Regulations shall prevail.

SECTION – D
ADDITIONAL CONTRACT PROVISIONS

D-1: ASPHALT MIX MATERIALS

This Contract includes Asphalt Mixes using virgin materials and Asphalt Mixes that can include Reclaimed Asphalt Pavement (RAP) materials. **RECLAIMED ASPHALT PAVEMENT (RAP) IS CAPPED AND WILL NOT EXCEED THE PERCENTAGES AS STATED IN EACH QUOTATION ITEM.** Any Asphalt Mixes, including mixes containing RAP, submitted on the Source of Supply for the MCDOT Materials Lab's review and approval must be **FINAL MIXES as VERIFIED** by the Maryland State Highway Administration's Office of Materials and Technology. Asphalt Mixes that are not **FINAL MIXES as VERIFIED** by the Maryland State Highway Administration's Office of Materials and Technology shall be disapproved and rejected. Unless specifically noted, Asphalt Mix will include Hot and Warm Asphalt.

D-2: ASPHALT MIX PAVEMENT QUALITY CONTROL PLAN

At least thirty (30) days prior to the placement of any Asphalt Mix pavement, the Contractor must submit a Plant Quality Control Plan and a Field Quality Control Plan in writing to the Contract Administrator or Designee for review and acceptance. The plans shall be in accordance with the current Maryland State Highway Administration's *Standard Specifications for Construction and Materials* Section 504.03 and all additions and revisions thereto. ***No Task Orders will be issued until the Contractor provides acceptable Asphalt Mix QA – QC plans to the County.***

D-3: AUTHORITY AND DUTIES OF INSPECTORS

County Inspectors are authorized to inspect and measure all work done and all material furnished. Such inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. The Inspector is not authorized to revoke, alter or waive any requirements of the Contract, nor is he/she authorized to approve or accept any portion of the complete project. He/she is authorized to call the attention of the Contractor to any failure of the work or materials to conform to the Contract. He/she shall have the authority to reject materials or suspend the work until any questions at issue can be referred to and decided by the Contract Administrator or Designee. Inspectors shall perform their duties at such times and in such manner as will not unnecessarily impede progress on the Contract.

The Inspector shall in no case act as foreman or perform other duties for the Contractor, nor interfere with the management of the work by the latter. Any advice, instruction, direction or other order which the Inspector may give the Contractor shall not be construed as binding the Contract Administrator or Designee in any way or releasing the Contractor from fulfilling all the terms of the Contract.

Where there is disagreement between the Contractor (or his/her representative) and the Inspector, such as refusal by the Contractor to use properly approved material, performing work not in compliance with Plans and/or Specifications, and/or refusing to suspend work until problems at issue can be referred to and decided by the Contract Administrator or Designee, the Inspector will immediately direct the Contract Administrator's or Designee's attention to the issues of disagreement. If the Contractor still refuses to make corrections, comply or suspend work, the Contract Administrator or Designee will prepare and deliver in writing to the Contractor, by mail or otherwise, a written order suspending the work and explaining the reason for such shutdown. As soon as the Inspector is advised of the delivery of the shutdown order, the Inspector shall immediately leave the site of the work and any work performed during the Inspector's absence will not be accepted or paid for and may be required to be removed and disposed of at the Contractor's expense.

D-4: CARE AND PROTECTION OF THE WORK

From the commencement of a Task Order and until its completion, the Contractor shall be solely responsible for:

(a) the care of the work, or materials provided and/or installed as part of this contract;

(b) all injury or damage to the work from whatever cause and restoration shall be made good at his/her own expense; and

(c) means of protection for all materials intended to be used in the work and for work in progress, as well as completed project until accepted by the County.

D-5: COMPLIANCE WITH MARYLAND VEHICLE LAWS

The Maryland Vehicle Law requires each motor vehicle, trailer, semi-trailer, and pole trailer driven on a highway to be registered.

There are some exceptions to this general requirement concerning nonresidents. If a nonresident is operating a vehicle in Maryland as described below the nonresident exemption is not applicable, and the vehicle being operated shall be titled and registered in conformance with the applicable Motor Vehicle Laws when the vehicle is:

(a) Used for transporting persons for hire, compensation, or profit;

(b) Regularly operated in carrying on business in this County;

(c) Designed, used, or maintained primarily for the transportation of property; or

(d) In the custody of any resident for more than 30 days during any registration year.

In addition to the titling and registration requirements for vehicles being operated in Maryland, all equipment being used shall be properly identified. Maryland classifies this equipment as "Special Mobile Equipment", which is defined as a vehicle that:

(a) Is not used primarily for highway transportation or property, and

(b) Is operated or moved on highway only as an incident to its non-highway use.

Special mobile equipment includes a trailer, road construction or maintenance machine, mobile crane, ditch digger, well driller, concrete mixer, job site office vehicle, or portable power generator.

An interchangeable license plate is issued to special mobile equipment; however, titling is not required.

For additional information concerning the requirements for titling and registering vehicles in Maryland, contact the Motor Vehicle Administration, Chief, Division of Vehicle Registration.

The Contractor shall adhere to all State Motor Vehicle Laws and safety regulations.

D-6: CONSTRUCTION AND MATERIAL DEFINITIONS

D-6.01: Award - The decision by the Montgomery County Office of Procurement to execute a purchase agreement or Contract after all necessary approvals have been obtained.

D-6.02: **Base Course** - The one or more layers of specified material and thickness placed on a sub-base or a subgrade to support a surface course.

D-6.03: **Certification -** A document which verifies that the material and work complies with the applicable specifications and includes the actual test results to confirm the statement. The contents of the certification shall be on the Contractor's/vendor's/manufacturer's letterhead or approved document and shall be duly signed by a company officer. Certifications for metal products, when required, shall include a statement that the material was melted and manufactured in the United States except as provided in Section 165 of the Surface Transportation Assistance Act of 1982, as amended by Section 1041(a) and 1048(a) of the Intermodal Surface Transportation Efficiency Act of 1991 regarding the furnishing and coating of iron and steel products. A nationwide waiver for this provision has been granted for pig iron and processed, pelletized, and reduced iron ore.

D-6.04: **Culvert -** Any structure not classified as a bridge which provides an opening under any roadway.

D-6.05: **Designee –** the Contract Administrator may delegate some duties to other parties within the MCDOT construction team. As specified in Section C – SPECIAL TERMS AND CONDITIONS, paragraph 7, identifies the Contract Administrator under this solicitation. If a Designee is assigned to represent the County, in any capacity, the Contract Administrator will do so in writing for record of designation. Only if a Designee has been assigned, in writing, will any other party be authorized to discuss, but not implement negotiated changes to the contract terms and/or conditions; dispute resolution; and variation from any of the contract requirements and/or specifications.

D-6.06: **Drainage Ditch -** In general, any open water course other than gutters, constructed as indicated in the Contract Documents.

D-6.07: **Laboratory or MCDOT Materials Control Center** - The Montgomery County Department of Transportation Materials Control Center or any other testing laboratory designated by the Montgomery County Department of Transportation Materials Control Center.

D-6.08: **Materials -** Any substances specified for use in the construction of the project and its appurtenances.

D-6.09: **MCDOT -** Montgomery County Department of Transportation.

D-6.10: **MdMUTCD -** Maryland Manual on Uniform Traffic Control Devices.

D-6.11: **Median -** The portion of a divided highway separating the traveled ways for traffic in opposite directions.

D-6.12: **MSHA** or **Administration -** In the current Maryland Department of Transportation, State Highway Administration's Specifications entitled, "Standard Specifications for Construction and Materials" and these Special Provisions, the designation "MSHA" (Maryland State Highway Administration) or "Administration" shall mean MCDOT (Montgomery County Department of Transportation).

D-6.13: **Pavement Structure -** The surface, base, or subbase course placed in layers on a subgrade to support and distribute the traffic load to the roadbed.

D-6.14: **Plans -** The official drawings issued by the County as part of the Contract Documents, including those incorporated in the Contract Documents by reference.

D-6.15: **Profile Grade -** The trace of a vertical plane intersecting the top surface of the proposed wearing surface usually along the longitudinal center line of the roadway. Profile grade means either elevation or gradient of the vertical plane.

D-6.16: **QPL -** Shall mean the Maryland State Highway Administration's Office of Materials Technology **Q**ualified **P**roducts **L**ist, and when applicable includes the Montgomery County Depart of Transportation's Materials Testing Lab.

D-6.17: **Ramp -** A connecting roadway between two intersecting highways at a highway separation.

D-6.18: **Right-of-Way -** The area acquired and reserved by the County for use in constructing the proposed and authorized improvement and appurtenances.

D-6.19: **Roadbed -** The graded portion of a highway within the top and side slopes prepared as a foundation for the pavement structure and shoulders.

D-6.20: **Road, Highway, Street, or Roadway -** The words road, highway, street and roadway include rights-of-way, surfaces, subgrades, shoulders, median dividers, drainage facilities and structures, roadway cuts, roadway fills, traffic barriers, bridges, highway grade elimination structures, tunnels, overpasses, underpasses, interchanges, entrance plazas, approaches, and other structures forming an integral part of a street, road, or highway; including bicycle and walking paths and related storm water management facilities and structures. Any other property acquired for the construction, operation, or use of the highway.

D-6.21: **Roadside -** A general term denoting the area adjoining the outer edge of the roadbed within the right-of-way. Extensive areas between the roadways of a divided highway may also be considered roadside

D-6.22: **Roadside Development -** Work for the preservation of natural and landscaped areas and the rehabilitation and protection against erosion of all areas disturbed by construction through turf establishment and the placing of other ground covers, suitable planting, and other improvements to increase the effectiveness and enhance the appearance of the highway.

D-6.23: **Rock** - The presence of rock shall not entitle the bidder / contractor to additional compensation beyond the unit prices stipulated or bid for any class excavation or any other item found on the quotation sheets.

D-6.24: **Seal Coat -** An application of asphalt material followed by an application of cover coat aggregate.

D-6.25: **Shoulder -** The portion of the roadbed contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

D-6.26: **Sidewalk -** The portion of the roadway constructed for use by pedestrians.

D-6.27: **Slopes -** The inclined graded areas beyond the shoulder, extending from the shoulders to the natural, undisturbed surface of the ground.

D-6.28: **Source of Supply -** A written document submitted by the Contractor to Montgomery

County for approval that lists the sources from which the Contractor proposes to obtain each material item that the Contractor intends to install or incorporate into the work. This document shall list the contract number, bid item number and material(s) to be used for each bid item. The source for each of these materials shall be listed with the supplier's name and address; and the manufacturer's and/or fabricator's name and address. The County's approval of the proposed source for each material indicates that the submitted manufacturer has previously and successfully produced the specified material(s) for Montgomery County or the Maryland State Highway Administration; and the materials will be produced in accordance and in full compliance with the specifications referenced in this solicitation.

Approval does **not** imply that the material(s) are approved for payment. Approved sources of supplies do not waive any required sampling and testing as specified or referenced elsewhere in the contract document. No material unapproved or pending approval shall be used in the construction of any of the work. For material sources of supply from new suppliers or manufacturers to the County, approval will be contingent upon the manufacturer providing documentation suitable to the County that the manufacturer has successfully produced the intended materials in accordance with national standards for other states and/or local governments. Approval of any materials will be at the sole discretion of Montgomery County and upon certification of testing data provided by the manufacturer which demonstrates that the materials are produced in accordance with the specifications and/or national standards as approved by the County.

No asbestos or asbestos-like material will be permitted in materials used in unbound surfaces where vehicular and/or pedestrian traffic will be maintained. Approval of materials by MCDOT will not relieve the Contractor from sole and full responsibility to ensure that the materials, regardless of source, meet all specifications; conform with all Federal, State and County ordinances and regulations; and are free from any material or substance, that would pose a health risk to the public due to normal short or long term exposure.

Note: Any required testing as referenced above will be at the expense of the manufacturer or Contractor.

D-6.29: **Standards -** The official Standards for Highway and Incidental Structures, maintained on the Maryland State Highway Administration website. The latest incorporated revisions issued on or before the date of advertisement of the Contract.

D-6.30: **Standard Specifications -** The most current book of Specifications entitled "Standard Specifications for Construction and Materials" published by the State Highway Administration and intended for general application and repetitive use.

D-6.31: **State -** The word State shall mean Montgomery County Government acting through its authorized representative. The changing from MSHA to County shall not be to the exclusion of MSHA and FHWA Reviews and any references to the individual State Highway Administration's standards as specifications. Where appropriate within the text of the SHA standards and specifications, the word State shall mean County.

D-6.32: **Structures -** Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, end walls, buildings, sewers, service pipes, underdrains, foundation drains, steps, fences, and other features that may be encountered in the work and not otherwise classified.

D-6.33: **Subbase -** The layers of specified or selected material of designed thickness placed on a subgrade to support a base course or surface course.

D-6.34: **Subgrade -** The top surface of a roadbed upon which the pavement structure, shoulders, and curbs are constructed.

D-6.35: **Substructure –** All of that part of the structure below bottoms of bearings of simple and continuous spans, skewbacks of arches and tops of footings of rigid frames, together with the back walls and wing walls.

D-6.36: **Superstructure –** All of that part of the structure above bottoms of bearings of simple and continuous spans, skewbacks of arches and tops of footings of rigid frames, except as noted above for substructure.

D-6.37: **Supplemental Specifications -** Additions and revisions to the Standard Specifications. generally, include new or improved procedures, construction items or materials developed subsequent to the publication of Standard Specifications.

D-6.38: **Surface Course -** One or more layers of a pavement designed to accommodate the traffic load.

D-6.39: **TCP and TTCP -** shall mean Temporary Traffic Control Plan.

D-6.40: **Traveled Way -** The portion of the roadway for the movement of vehicles, exclusive of shoulders.

D-6.41: **Trench -** An excavation made for the purpose of installing or removing pipes, drains, catch basins, etc., which is later refilled.

D-6.42: **American Concrete Institute (ACI) Certified Concrete Flatwork Finisher** – To be granted a Certification as an ACI Certified Concrete Flatwork Finisher an individual must obtain a passing grade on the written examination PLUS either:

- Possess 1,500 hours of actual on-the-job finishing* experience (approximately one year of regular full-time work) AND successfully complete the performance examination, OR

- Possess 4,500 hours of actual on-the-job finishing* experience (approximately three years of regular full-time work).

D-6.43: **American Concrete Institute (ACI) Certified Concrete Flatwork Technician –** To be granted a Certification as an ACI Certified Concrete Flatwork Technician an individual must obtain a passing grade on the written examination. Individuals with Flatwork Technician certification can upgrade to full Flatwork Finisher status upon submittal and approval of sufficient work experience or successful completion of the ACI performance evaluation.

D-7: COOPERATION BETWEEN CONTRACTORS

Separate Contractors on adjoining or overlapping work shall cooperate with each other as necessary. Such cooperation shall include:

(a) Arrangement and conduct of work.

(b) Storage and disposal of materials, etc., by each in such manner as not to unnecessarily interfere with or hinder the progress of the work being performed by other Contractors. Contiguous work shall be joined in an acceptable manner.

The County or the Department shall have the right, at any time, to Contract for and perform other work on, near, over or under the work covered by this Contract. In addition, other work may be performed under the jurisdiction of another Local Government or State agencies. In such cases, when a dispute arises among Contractors, the Contract Administrator will decide which jurisdiction or entity will settle said dispute. The Contractor shall cooperate fully with such other Contractors and carefully fit his/her own work to such other work as may be directed by the Contract Administrator or Designee.

The Contractor agrees that in the event of dispute as to cooperation the Contract Administrator or Designee will act as referee. The Contractor agrees to make no claims against the County for any inconvenience, delay or loss experienced by them because of the presence and operations of other Contractors.

D-8: FINAL MIXES AS VERIFIED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION

Any Asphalt Mixes submitted on the Source of Supply for the **MCDOT Materials Control Center's** review and approval must be FINAL MIXES as VERIFIED by the current Maryland State Highway Administration's Office of Materials and Technology and in accordance with Section 504 of the MSHA Standard Specifications for Construction and Materials. **RECLAIMED ASPHALT PAVEMENT (RAP) IS CAPPED AND WILL NOT EXCEED THE PERCENTAGES AS STATED IN EACH QUOTATION ITEM.** Asphalt Mixes that are not FINAL MIXES as VERIFIED by the Maryland State Highway Administration's Office of Materials and Technology will be submitted as Tentative Mixes until approved or disapproved. The County will allow installation of the Tentative asphalt mixes on County projects during the final verification process. The Contractor is expected to complete final verification of a Tentative Mix within the placement of 1,000 tons of that mix. The County may stop production of a tentative mix at any time after 1,000 tons of that mix has been placed on County projects. The County will pay for the placement of the Tentative Mix at the bid price for the specific mix and will also apply the price adjustments as referenced in MSHA Standard Specifications Section 504 for any asphalt mix (tentative and/or approved mixes) installed during the verification process and considered defective or not conforming to the submitted mix design. The Contractor will be responsible for all costs associated with the SHA verification of each mix and payment for those costs will be incidental to the Asphalt Mix items of work.

There shall be **no** incentive payments made for providing Pavement Densities that meet the compaction requirements and **no** incentive payments made for providing Asphalt Mixtures that meet the Mix Design specifications. Payment reductions for pavement density not meeting the specifications will be based on individual sub-lot core test data for a given lot and the lot average density as specified in Section 504 and Table 504A. Payment reductions for density and for mixture will be made by adjusting the payment for Asphalt Mixes. Payment reductions for density will be waived for portions of the pavement where a poor foundation is determined as the cause for inadequate density.

At the discretion of the Contract Administrator or Designee, Asphalt Mix that does not meet the specified pavement density requirements and/or the approved asphalt mix design, shall be completely removed and replaced entirely at the Contractor's expense and at no cost to the County.

D-9: HIGH VISIBILITY SAFETY APPAREL POLICY (MSHA 05-30-17)

D-9.01 BACKGROUND. Research indicates that high visibility garments have a significant impact on the safety of employees who work on highways and rights-of-way. In addition,

high visibility garments may help to prevent injuries and accidents and to make highway workers more visible to the motoring public, which ultimately improves traffic safety.

D-9.02 STATEMENT OF POLICY.

(a) The High Visibility Safety Apparel Policy provides a standardized apparel program.

(b) The program seeks to improve the visibility of all persons who work on County highways and rights-of-way.

(c) All apparel shall contain the appropriate class identification label.

(d) Compliance with this policy is retroactive and becomes effective immediately. All affected employees shall receive high visibility apparel awareness training.

D-9.03 APPLICABILITY. This policy applies to all County employees and all other persons who work on County highways and rights-of-way. All workers shall wear, at a minimum, Class 2 ANSI/ISEA 107-2020 apparel and shall meet the latest minimum standard as set by Federal, State, or County regulations, ordinance or law.

(a) For County employees, this apparel shall have a fluorescent yellow-green background material color and be the outermost garment worn.

(b) Retro-reflective material color for County employee apparel shall be silver or white and be visible at a minimum distance of 1,000 feet. The retro-reflective safety apparel shall be designed to clearly recognize and differentiate the wearer from the surrounding work environment. The retro-reflective material may be contrasted by fluorescent orange background material not exceeding one and one-half inches on either side of the retro-reflective material.

(c) For non-County employees, this apparel shall be either fluorescent orange-red or fluorescent yellow-green background material color and be the outermost garment worn.

(d) Retro-reflective material color for non-County employee apparel shall either be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and be visible at a minimum distance of 1,000 feet. The retro-reflective safety apparel shall be designed to clearly recognize and differentiate the wearer from the surrounding work environment.

D-9.04 REFERENCES.

(a) ANSI/ISEA 107/2020 standard - American National Safety Institute/International Safety Equipment Association

(b) MUTCD 2023 or latest edition - Manual for Uniform Traffic Control Devices - Sections 6D.03B and 6E.02

(c) Visibility Research - The VCTR 1989 report concludes that fluorescent colors, when compared with non-fluorescent colors, enhance the daytime conspicuity of worker clothing.

D-9.05 DEFINITIONS.

(a) Apparel - The outermost high-visibility garment worn by employees who work on County highways and rights-of-way.

(b) Highways - All roads owned by Montgomery County, Maryland and maintained by the Department of Highway Services.

(c) High Visibility- The ability for workers to be distinguishable as human forms to be seen, day and night, at distances that allow equipment operators and motorists to see, recognize, and respond.

D-10: LAND, AIR AND WATER POLLUTION

(a) The Contractor must incorporate all permanent erosion control features into the work at the earliest practicable time as required by the Contract Documents. Temporary pollution and/or erosion control measures will be used to correct conditions that develop during construction that were not foreseen during design; that are needed prior to installation of permanent pollution and/or erosion control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.

(b) The Contractor's attention is directed to the fact that temporary pollution and/or erosion control may include control measures outside the right-of-way or project site where such work is necessary as a direct result of project construction. The Contract Administrator or Designee shall be kept advised of all such off-site control measures taken by the Contractor. This shall not relieve the Contractor of the basic responsibilities for such work.

(c) In case of failure on the part of the Contractor to control erosion, pollution or siltation, the Contract Administrator or Designee reserves the right to employ outside assistance or to use his/her own forces to provide the necessary corrective measures. All expenses to include direct and indirect cost incurred by the Contract Administrator or Designee in the performance of such duties for the Contractor shall be withheld from monies becoming due to the Contractor.

(d) Contractors and suppliers must submit evidence to the County that the governing Federal, State and local air pollution criteria will be met. This evidence and related documents will be retained by the County for on-site evaluation.

(e) Control of Air Pollution

(1) Air pollution is regulated by the Department of Environmental Protection (DEP) under State and County Law.
(2) All trucks will be covered, consistent with the Maryland Motor Vehicle Laws.
(3) Reasonable precautions, as determined by DEP, must be taken to prevent particulate matter from becoming airborne. This includes, but is not limited to, dust from site preparation, road usage, and materials in handling.
(4) Burning of trash, refuse or construction debris is strictly prohibited.
(5) Permits for open burning of land clearing debris will be issued only if all of the following conditions are met:

(A) DEP is convinced that there is no practical alternative disposal method

(B) The material being burned originated on the site (e.g., no hauling of materials from elsewhere)

(C) Burning can be conducted at least 1,500 feet (497 meters), in any direction, from an occupied building or publicly maintained roadway

(D) Burning will take place in an "air curtain destructor" approved for design and operation by DEP

(6) If all the above conditions can be met, burning pit applications can be applied for and subject to approval, be obtained from the Division of Environmental Policy and Compliance, DEP, by calling 240-777-7748.

(7) Take notice that, as a matter of law and policy, County Agencies and their contractors, enjoy no immunity from compliance with applicable laws and regulations. Therefore, violators will be subject to civil citation and other remedies as allowed by law, including Stop Work Orders. If there are any questions, contact the Division of Environmental Policy and Compliance, DEP, at 240-777-7748.

(f) Noise Control

The Montgomery County Council enacted a comprehensive revision to the County Noise Control Ordinance (Chapter 31B, Montgomery County Code), including changes to the provisions concerning noise from construction activities.

(1) General Ordinance Standards (Non-construction related)

Maximum allowable sound levels, measured at the nearest receiving property line, are 65 dBA (A-weighted decibels) during daytime hours and 55 dBA during nighttime hours, for residential receiving properties (67 dBA daytime and 62 dBA nighttime for non-residential receiving property). Mixed Use Zones are considered residential.

(A) "Daytime" means from 7 am to 9 pm weekdays and 9 am and 9 pm weekends and holidays.
(B) "Nighttime" means from 9 pm to 7 am weekdays and 9 pm to 9 am weekends and holidays.
(C) Receiving Property" means any property where people live or work and where noise is heard.

(2) Construction Exemption and Standards

"Construction" means temporary activities directly associated with site preparation, assembly, erection, repair, alteration, or demolition of structures or roadways. Construction Noise levels must be measured on a receiving property, but no closer than 50 feet from the noise source.

From 7 am to 5 pm Weekdays, Construction Noise Levels must not exceed:
75 dBA without a "Noise Suppression Plan"
85 dBA with a "Noise Suppression Plan"

"Noise Suppression Plan" means a written plan to use the most effective noise suppression equipment, materials, and methods appropriate and reasonable available for a particular type of construction. At all times other than 7 am to 5 pm weekdays, the general standards specified must be met.

For example: Assuming residential or mixed-use receiving property, construction levels from 5 pm to 9 pm weekdays and from 9 am to 9 pm on weekdays and holidays must not exceed 65 dBA. From 9 pm to 7 am weekdays and 9 am on weekends and holidays, the standard is 55 dBA, (this is unchanged from the previous ordinance).

Construction activities are also subject to the "Noise Disturbance" provisions of the Ordinance. Examples of Noise Disturbances are delivering materials or equipment or loading or unloading in a residential area or operating construction equipment with audible back-up warning devices during Nighttime Hours.

(3) Summary - Construction Noise

Residential noise areas are measured at nearest receiving property, but no closer than 50' from the noise source.

Weekdays (Monday - Friday), 7am to 5pm Without Suppression Plan	75 dBA
Weekdays (Monday - Friday), 7am to 5pm With Suppression Plan	85 dBA
Weekdays (Monday - Friday) 5pm to 9pm	65 dBA
Weekdays (Monday - Friday) 9 pm to 7 am	55 dBA
Saturday, Sunday, Holidays 9am to 9pm	55 dBA
Saturday, Sunday, Holidays 9 pm to 9 am	55 dBA

In most circumstances in the County, the Receiving Property will be considered residential. In cases where the nearest receiving properties are non-residential, the standards will be 67 dBA/Daytime and 62 dBA/Nighttime, except from 7 am to 5 pm weekdays, when the higher construction exemption prevails.

While a Noise disturbance, as defined by the Ordinance, could conceivably occur at any time, it is most likely to happen during Nighttime hours. The most common complaint involves back-up beepers and can be avoided by employing lawful alternatives to audible devices.

All trucks / equipment and support equipment shall be equipped with warning devices, reflectors, reflective signs, and lights meeting or exceeding all Federal, State, and Local laws and regulations.

All vehicles must be equipped with a smart alarm system that provides a backup warning signal. This signal shall comply with County, State and Federal backup or reverse signal alarm requirements as well as noise control regulations.

Vendors are required to provide quiet back up alarms on all trucks to reduce community noise complaints while also producing sound frequencies that enable workers, including those wearing hearing protection or who are hearing impaired, to instantly locate where the sound is coming from.

Each truck should be equipped with a device that utilizes smart alarm technology including but not limited to one of the following options:
(1) Multi-Frequency back-up alarms manufactured by ECCO or approved equal that are an alternative to the potential noise pollution created by conventional tonal back-up alarms in confined or densely populated work areas. Multi-Frequency alarms should provide a warning signal for those in the danger zone of backing vehicles while minimizing disturbance to work site neighbors. These alarms operate by emitting sound at multiple frequencies attenuated above 4000Hz.

(2) White Noise Sound reversing alarm functioning like the BBS-Tek Reversing and Warning Alarms as manufactured by Brigade Electronics or approved equal. This device produces a warning sound that should be heard clearly and be easily located in the work zone then dissipate quickly outside the area of work to lessen the impact of noise on the surrounding areas.

Most equipment manufacturers will have detailed noise performance specifications for their products. Many also provide silencing packages, both design and retrofit.

Copies of the revised Ordinance will be mailed upon request. Contact the Division of Environmental Policy and Compliance at 240-777-7748.

D-11: LIMITATIONS OF OPERATION

The Contractor shall conduct the work at all times in such a manner and in such sequence as will assure the least interference with the public.

D-12: LOAD AND SPEED LIMITATIONS

The Bidder's attention is directed to the Annotated Code of Maryland, Transportation Article, Section 24-206, authorizing the appropriate County authorities of Montgomery County, to establish such load limits and appropriate speed limits on County roads as may be necessary to preserve the roads and provide adequately for public safety. The Contractor is advised to consult with the Contract Administrator or Designee to ascertain the extent of any restrictions applicable to County roads that the County authorities may propose to establish in connection with the construction of a Contract.

D-13: LOAD RESTRICTIONS

(a) The Contractor shall comply with all State and local requirements pertaining to speed, size and weight of motor vehicles. It is the Contractor's responsibility to be knowledgeable of all speed, size and weight restrictions on all roadways throughout the Montgomery County political boundaries at the time of bid. The Contractor must take into account, and will be responsible for, all additional costs and time associated with any modifications necessary to perform work at any location within the Montgomery County political boundaries.

(b) The Contractor shall consider all posted bridges, the crossing of which might be contemplated by the work on the Contract. No loads more than posted limits will be allowed in the prosecution of the work on any Contract, unless the required permits are obtained from the appropriate State and local governmental agencies.

(c) The Contractor shall consider possible detrimental effects of operating heavy paving and grading equipment contiguous to retaining walls, pipe culverts, arches, forms for concrete work as well as construction existing prior to performing work.

(d) The Contract Administrator or Designee shall have the right to limit passage of heavy equipment (plus loads) when such passage or usage is causing apparent or visible damage to embankments, paving, structures or any other property.

(e) The Contract Administrator or Designee shall have the right to restrict the load size and/or have the Contractor provide tri-axle hauling units to avoid damaging embankments, paving, structures or any other property.

D-14: LOCATION OF WORK

Work under this Contract will be located within the political boundaries of Montgomery County, Maryland. It is the responsibility of the Contractor to be knowledgeable of the variety and scope of the County roadway infrastructure at the time of bid.

D-15: MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MdMUTCD) REQUIREMENTS (MSHA 05-30-17)

The 2011 Maryland Manual on Uniform Traffic Control Devices (MdMUTCD) is the legal State standard for traffic control devices. All traffic control devices (temporary or permanent) utilized on County Task Orders shall be in conformance with the requirements provided in the 2011 Edition of the Maryland State Highway Administration's MdMUTCD for Streets and Highways and/or as specified and directed by the Montgomery County Division of Traffic Engineering and Operations.

D-16: MOVING EQUIPMENT

The Contractor will not be permitted to move over or operate on any road (except on the road under construction) any power shovels, rollers, concrete mixers, cranes, tractors, or any other heavy equipment of weight or dimensions more than Maryland Motor Vehicle Law or County/State regulations without first obtaining the usual permit. In case of permits for oversize and overweight vehicle movements, attention is directed to Maryland Motor Vehicle Laws requiring the State to collect a fee on every such vehicle movement using highways of the County. The payment of and securing of such permit is required irrespective of whether the movement is in connection with a subject Contract or for other purposes.

D-17: NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 AND THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) COMPLIANCE FOR DEVICES USED IN THE MAINTENANCE OF TRAFFIC AND TRAFFIC CONTROL (MSHA 09-13-17)

Except as otherwise specified in this section, all items for the temporary traffic control, including those listed under the following categories and permanent roadside hardware such as concrete barriers, W-beam barriers, cable barriers, end terminals, crash cushions, sign supports and all other breakaway hardware, shall be crashworthy in conformance with the appropriate test level as required by the safety crash testing and performance criteria published in the National Cooperative Highway Research Program (NCHRP) Report 350, "Recommended Procedures for the Safety Performance Evaluation of Highway Features" or the Manual for Assessing Safety Hardware (MASH). When conformance with NCHRP Report 350 or MASH is required, provide the Contract Administrator or Designee with the manufacturers' certifications that the devices comply with the specified criteria.

All temporary and permanent roadside devices shall comply with MASH 2016 criteria by the relevant dates in accordance with the Joint Implementation Agreement memorandum dated January 7, 2016 between the American Association of State Highway and Transportation Officials (AASHTO) and Federal Highway Administration (FHWA). This document may be downloaded from:

https://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/docs/memo_joint_implementation_agmt.pdf

Unless specifically waived in the Contract Documents, only devices approved for use by Maryland State Highway Administration and the Montgomery County Division of Traffic Engineering and Operations may be used.

D-17.01 Category 1 Devices
These devices include cones, tubular markers, flexible delineator posts, and drums, none of which have any accessories or attachments, and are used for channelization and delineation.

D-17.02 Category 2 Devices
These devices include Type I, II, and III barricades, portable sign supports with signs, intrusion alarms, drums, vertical panels, and cones, any of which having accessories or attachments.

D-17.03 Category 3 Devices

(a) Truck Mounted Attenuators (TMAs) and Trailer Truck Mounted Attenuators (TTMAs).

(b) Temporary Barrier.

(c) Concrete Barrier.

(d) Traffic Barrier W Beam and Water Filled Barrier.

(e) Steel/Aluminum Barrier.

(f) Temporary End Treatments.

D-17.04 Category 4 Devices
These devices include area lighting supports, arrow panels, and portable variable message signs that may be portable or trailer-mounted.

Category 1, 2 and 3 devices shall always conform to NCHRP Report 350 or MASH Criteria. The AASHTO/FHWA Joint Implementation Agreement for MASH states that temporary work zone devices including category 4 devices manufactured after 12/31/2019 must be successfully tested to the 2016 edition of MASH before 12/31/2019 and relevant devices manufactured on or before 12/31/2019 and successfully tested to NCHRP 350, the 2009 edition of MASH, or otherwise authorized may continue to be used throughout their normal service life. Use of Category 4 devices shall comply with the provisions of Part 6 of the MD MUTCD.

D-18: <u>OCCUPYING WETLANDS (MSHA 05-30-17)</u>
The Contractor is hereby alerted to the importance of preserving wetland areas. The Maryland State Highway Administration, in conjunction with the various environmental agencies, has developed these Contract Documents to minimize or eliminate disturbance and damage to existing wetland areas. To accomplish this, the following must be rigidly adhered to:

(a) Prior to performing any work on the project, the areas of wetland will be identified and marked as directed by the County. All personnel of the Contractor or Subcontractors shall be alerted to these designated areas.

(b) The Contractor or Subcontractors shall not impact any wetland or waterway, whether it be permanently or temporarily unless otherwise stipulated in the permit application and approved as an authorized action by the appropriate regulatory agency. No fill shall be placed in these areas without a permit.

(c) If a Contractor or Subcontractor must impact a wetland or waterway that is not covered by an existing wetland permit, they shall immediately notify the Contract Administrator or Designee. The Contract Administrator or Designee will notify the Environmental Programs Division to determine the extent of any permit modification. At that time the Environmental Programs Division will request a permit modification or submit a permit application.

(d) If the Contractor impacts any wetland or waterway for which they do not have a wetland permit, they shall be responsible for restoring the wetland areas and possibly mitigating the wetland impacts to the full satisfaction of the environmental agencies, which could include monetary compensation.

(e) The cost of restoration and mitigation of the impacted areas, to include all direct and indirect cost, shall be at no additional cost to the County.

The importance of not abusing the wetland areas cannot be overemphasized. Abuse of wetland areas could jeopardize the operation of the total Contract and could be cause for a shut-down. If a shut-down occurs because of the Contractor's failure to secure the required permits (i.e. the Contractor's method of work includes impacts not approved by previously acquired permits), the Contractor's negligence, actions, failure to act, or operations, all costs and damages to the Contractor and to the State will be at no additional cost to the County. Noncompliance with these requirements will not be considered for an extension of Contract time.

D-19: PAVEMENT MARKINGS INVENTORY

Prior to the commencement of any activity which may remove or otherwise obliterate any existing roadway pavement markings, the Contractor shall inventory and diagram all existing pavement markings and submit the inventory and diagram to the Contract Administrator or Designee for review and acceptance. Unless otherwise directed by the Contract Administrator or Designee, the location of all existing pavement markings shall be reestablished on the new pavement surface in accordance to the latest edition of the Manual of Uniform Traffic Control Devices. The milling/grinding of the roadway surface, the placement of any Asphalt Mix overlay, the application of any type of pavement sealer will **not** be permitted until the pavement marking inventory and diagram has been submitted to and accepted by the Contract Administrator or Designee.

The inventory of all existing pavement markings will not be measured but the cost shall be incidental to the pertinent Temporary Pavement Marking items and Permanent Pavement Marking items specified to be completed under the individual Task Order.

D-20: PROJECT DESCRIPTION

This Invitation for Bids will establish contract unit prices for items related to the execution of required work and safety improvements for the Removal & Replacement of Concrete Curb & Sidewalk in Business Districts County Wide. The work and safety improvements shall include but not be limited to the removal and replacement of concrete curb and gutters, sidewalks, ADA ramps and driveway aprons when applicable, the work may also include the installation of new concrete curb and gutters, sidewalks, ADA ramps and driveway aprons and other work as determined by the County. The length and width of the replaced or newly installed concrete sections shall be determined solely by the County. The repair and/or replacement of infrastructure components are limited to those identified by the Contract Administrator or Designee. Work under this Contract will be located within the political boundaries of Montgomery County, Maryland. It is the responsibility of the Contractor to be knowledgeable of the variety and scope of the County roadway infrastructure at the time of bid.

The Contractor acknowledges and understands that the County maintains the sole authority to determine program/project scope, pay items, and estimated/final quantities of each item for all Task Orders.

Additionally, the County intends to utilize any item, regardless of bid price or quantity stated in the IFB to ensure the County receives the best value in each project scenario. The Contractor shall not rely on previous quantities used, historical quantities or combination of items, previous agreements or previous Contracts, when entering into this agreement or as a basis to dispute project scope, use of items, or sequence of work.

This Summary Description does not in any way limit any scope of work, contractor responsibilities or requirements as outlined in this Solicitation. Contractors are responsible for each and every applicable Bid Quotation Item and all of the Terms and Conditions include or referenced herein.

D-21: RIGHT-OF-WAY

All work which is to be constructed under this Contract shall occur within the limits of the existing Montgomery County Right-of-Way. Any additional easement(s) required by the Contractor for operations, plant, equipment, storage of materials, access to disposal areas, etc., must be obtained and paid for by the Contractor. This includes all necessary permits required to construct temporary construction entrances to access areas located outside the designated limits of work and the MCDOT Right-of-Way. The Contractor is not to assume that working for the Montgomery County Department of Transportation implies that he/she has permission to move across the MCDOT Right-of-Way in an un-inhibited manor. The Contract Administrator or Designee will report all instances of the Contractor illegally crossing the MCDOT Right-of-Way to the Montgomery County Department of Environmental Protection, the code enforcement agency in such matters. In addition to any fines levied against the Contractor by the DEP, the payment for any future progress estimates will be withheld until the Contractor obtains any necessary permits and constructs a proper and legal construction entrance and/or restores the Right-of-Way back to its original condition as determined and approved both by the Contract Administrator or Designee and the DEP inspector.

The Contractor shall not occupy any portions of the existing Right-of-Way, **located outside the designated construction limits**, for the purposes of conducting operations, setting up any type of plant, parking equipment, storage of materials, access to disposal areas, etc., without express written permission from the Montgomery County Department of Transportation or the property owner. Whenever improvements are scheduled outside the limits of the right-of-way, a written authorization from the Owner will be on file. In all other instances, the Contractor is to limit his/her operation to the existing right-of-way limits.

D-22: SAFETY HAZARDS IN CONFINED SPACES

The Contractor shall be responsible for gas detection in and ventilation of confined spaces.

When procedures require workers to enter confined spaces such as steel or concrete box section type superstructures, particularly when the interior is closed off at both ends, the Contractor shall be cognizant of the potential health hazards.

The Contractor shall adhere to all applicable MOSH and OSHA regulations. The Contractor shall have approved detecting devices available and shall conduct tests for oxygen content and presence of gases, such as combustible gas, carbon dioxide, methane, carbon monoxide, and hydrogen sulfide whenever any fabrication, erection, or inspection operations are to be performed within the confined spaces. The Contractor shall apply mechanical ventilation continuously to the confined space during occupancy to maintain the proper oxygen content and shall conduct air tests periodically during the occupancy.

The Contractor shall provide to the County daily a copy of any and all Confined Space entry Permits. All employees entering a confined space shall be properly trained and equipped.

D-23: TREE CANOPY PROTECTION

The Contractor is hereby notified that protection of tree canopies is of primary importance to Montgomery County, Md. All trees and tree canopies must be protected in strict conformance with the Montgomery County, Md. Roadside Tree Law (Bill No. 41-12 made effective March 1, 2014) and the Montgomery County, Md. Tree Canopy Law (Bill No. 35-12 made effective March 1, 2014). As a requirement of the Contract, the Contractor will be required to modify equipment so that no exhaust from the equipment is discharged directly into the tree canopies. The County Inspector or the Chief of the Tree Maintenance Section will inspect and approve all modifications to equipment prior to commencing work.

D-24: UNIT PRICE ADJUSTMENTS DUE TO FLUCTUATION IN THE PRICE OF ASPHALT BINDER

A Unit Price Adjustment (UPA) will be made to provide additional compensation to the Contractor or a credit to the County for the fluctuation in the cost of asphalt binder.

The Contractor **must** provide the Cold Patch Material mix design, specifying the liquid asphalt content, with the Source of Supply submittal.

For adjustment purposes, the prevailing base index price will be the price specified for PG 64-22 (PG64S-22) at time of bid opening. Cost differentials between PG 64-22 (PG64S-22) and a binder specified shall be included in the price bid per ton for Asphalt. A historical database will be maintained by the Maryland State Highway Administration.

The UPA will be made when the index price for the month of placement increases or decreases more than 5 percent of the price specified for PG 64-22 (PG64S-22) at time of bid opening.
Should price changes exceed the budget appropriations for those items, the County may terminate the Task Order. The County initiates all price adjustments per this provision.

Retroactive UPA adjustment requests will not be accepted by the County. Only the fore mentioned Unit Price Adjustments are allowed.

To calculate the Percent Change (PC):

$PC = [(Pp – Pb) \div Pb] \times 100$

Where:

Pp = Index price for PG 64-22(PG64S-22) asphalt binder per ton for the month of placement

Pb = Index price specified for PG 64-22 (PG64S-22) asphalt binder per ton at time of bid opening.

To calculate the Unit Price Adjustment (UPA), for one ton of Asphalt Mix the following formula will be used:

$UPA = T \times (Pp – (D \times Pb))$

Where:

T = Design target asphalt content of the material expressed as a decimal

D = 1.05 for Percent Change increases over 5 percent; 0.95 for Percent Change decreases over 5 percent.

Pp = Index price for PG 64-22(PG64S-22) asphalt binder per ton for the month of purchased

Pb = Index price specified for PG 64-22 (PG64S-22) asphalt binder per ton at time of bid opening.

D-25: UTILITY ACCEPTANCE

At times, the Contractor may complete all work and punch list items, however utility inspection may be outstanding due to scheduling conflicts with various utilities. Upon completion of the work, and with the exception of any outstanding utility locations awaiting inspection, the County will issue a Letter of Acceptance to begin the two (2) year warranty period. The issuance of a Letter of Acceptance, and start of the warranty period, does not relieve the Contractor of any correction, changes or alterations as a result of the utility owner's subsequent inspection. Contractor shall perform any remedial work required for utility locations irrespective of the Letter of Acceptance and/or warranty period.

D-26: PORTABLE TOILET(S)

The Contractor is required and must provide a Portable Toilet or Toilets on each job site on each and every day the Contractor works on the job site. All provisions of OSHA Standard Number 1915.88 to include adequate and readily accessible facilities, establishment of and implementation of a schedule for servicing, cleaning and supplying each facility and all other applicable requirements of the standard shall apply. The number of Portable Toilets required shall be governed by OSHA Standard 1915.88(d)(2). There will be no compensation for providing such facilities and the cost is considered incidental. Failure to provide Portable Toilets in accord with the requirements of this contract, may result in Suspension of the Work to include the assessment of liquidated damages, and/or the County providing such facilities and the Contractor being assessed all direct and indirect costs of said action.

D-27: WORK ADJACENT TO PRIVATE PROPERTY

This contract requires work to be performed adjacent to private properties that are to be considered as sensitive areas. Prior to the start of work, the Contractor must submit a detailed work plan describing the equipment and methods of construction to be utilized to minimize the impact to public and private property including protection of trees, tree roots, grass areas, driveways, and other features common to residential neighborhoods. The Contractor in its plan shall include the smallest types of equipment to perform this work and minimize the impacts as described above. The operators must possess the skill to operate the equipment with minimal damage to existing conditions. At the start of work and after the work plan is accepted by the County, the Contractor must demonstrate the ability to perform the work with the utmost care. If the County is not satisfied with the performance, a revised method and plan will be required. The Contractor will be responsible at its cost to restore areas unnecessarily damaged by its activities as determined by the County.

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TECHNICAL REQUIREMENTS

CATEGORY 100
PRELIMINARY

SECTION 104 – MAINTENANCE OF TRAFFIC

(This task is incidental to Item 1001 & 1050)

DELETE: **Section 104.00 General** of the latest edition of the Maryland Department of Transportation, State Highway Administration's, "Standard Specifications for Construction and Materials".

INSERT: The following:

104.00 GENERAL.

This Section sets forth the traffic control requirements necessary for the safe and continuous maintenance of traffic throughout the area affected by the work and is intended to minimize inconveniences to the traveling public, while providing for the safety of motorists, pedestrians, and workers. Maintain vehicular and pedestrian traffic on or along any transportation facility as specified in the Contract Documents.

When speed of traffic is noted, this means the posted speed or prevailing travel speed, whichever is higher, unless otherwise specified.

All applicable Maintenance of Traffic equipment shall conform to NCHRP Report 350 and/or MASH criteria for Test Level 3.

When no longer needed, remove items used for temporary maintenance of traffic from the project site. All removed items shall become the property of the Contractor, unless otherwise specified.

Ensure that at least 90 percent of all reflective barrier markers, warning lights, and raised pavement markers are operational at any given time. Correct deficiencies within 24 hours after notification.

Upon initial installation, temporary traffic control signs shall have at least 70 percent of the reflectivity specified in Section 950.03 over 90 percent of the reflectorized surface. Channelizing devices shall have at least 80 percent of the reflectivity specified in Section 950.03 over 90 percent of the reflectorized surface.

Replace damaged traffic control signs within four hours of notification. Take necessary corrective action, as approved, to adequately warn and protect the public until the signs are replaced.

The Contract Documents will specify one or more of the items listed in the following sections. **Any work that is specified to be accomplished for the Maintenance of Traffic, and is not listed as an individual item of work on the *Quotation Sheets*, shall be considered incidental to the pertinent Maintenance of Traffic items listed in the individual Task Order for this Contract and not measured for payment.**

It shall be the responsibility of the Contractor to maintain both highway and pedestrian traffic safely, adequately and continuously within and through all portions of the affected work area. Unless authorized by the Contract Administrator or Designee, only one (1) side of a street may be worked on at a time.

The Contractor must submit an inventory and diagram of all existing lane markings prior to the patching, milling and/or placement of an Asphalt Mix overlay to the existing roadway surface. No equipment or material will be stored within the limits of the right-of-way areas where either vehicular or pedestrian traffic must be maintained.

The Contractor shall provide adequate barricades, traffic drums, signs and arrow boards in accordance with the most recent edition of the Manual of Uniform Traffic Control Devices and in conformance with the most recent edition Montgomery County Work Zone Traffic Control Standards.

Notwithstanding any reference to the standards presented in the latest revision of the 2011 MdMUTCD, all traffic control devices (temporary or permanent) utilized on County Task Orders shall be in conformance with the requirements provided in the Montgomery County Work Zone Traffic Control Standards, July 2008, the 2011 or latest edition, including all revisions thereof, and additions thereto of the Maryland State Highway Administration's MdMUTCD for Streets and Highways and the U. S. Department of Transportation, Federal Highway Administration, Manual of Uniform Traffic Control Devices for Streets and Highways, (MUTCD) 2009 Edition, or latest edition, including all addenda, additions and revisions thereof, and additions thereto.

The Contractor will be solely responsible for all accidents and/or damage to person and/or property resulting from their operation.

The Contractor must coordinate his/her work sequences so that there will be a minimum inconvenience to the traveling public. The Montgomery County Department of Transportation, Division of Highway Service reserves the right to restrict the Contractor's operation during peak traffic hours or at any other time on any street and/or roadway where in the opinion of the Contract Administrator or Designee an undesirable traffic condition warrants the same. Peak traffic hours for this Contract are defined as those hours between 5 AM and 9 AM and the hours between 3 PM and 7 PM, EST.

Any anticipated night work must be scheduled and approved by the Contract Administrator or Designee at least thirty (30) days in advance. Night work must not be performed prior to the issuance of any required Noise Ordnance Waiver by the Montgomery County Department of Environmental Protection.

No work will be permitted on Saturdays, Sundays, National, State, or County Holidays without the written permission of the Contract Administrator or Designee.

As part of this Contract, the Contractor will be required to post "NO PARKING" signs as directed by the Contract Administrator or Designee a minimum of 48 Hours prior to commencing work on any roadway or street. The Montgomery County Department of Transportation, Division of Highway Services will provide the signs for posting. The Contractor must supply the labor to post the signs and then remove the signs when they are no longer needed. It will be the responsibility of the Contractor to check the signs periodically prior to the scheduled date of the work. The Contractor will immediately notify the County Administrator/Designee of any damaged or removed "NO PARKING" signs and replace them if so directed.

<u>NOTICE</u>: The posting and removal of "No Parking Signs" is considered incidental to the items of work specified for payment in each individual Task Order. No additional compensation will be paid to the Contractor for the posting and removal of "No Parking Signs".

Any construction activity requiring the flagging of motor vehicles shall be conducted as specified in the current edition of Montgomery County Work Zone Traffic Control Standards or in the Manual of Uniform Traffic Control Devices for Streets and Highways. Only flaggers possessing a current and up to date certified flagger card from the *Maryland State Highway Administration* (MSHA) and/or the American Traffic Safety Services Association (ATSSA) shall perform flagging operations.

Flaggers shall be competent, courteous, neat, and shall be equipped with safety vests and stop/slow paddles

When it is necessary to remove any Traffic Regulatory Signs to facilitate construction, the Contractor must provide a temporary replacement sign or set up a traffic control flagging operation to compensate for the removal of the permanent sign during work hours. The Contractor must re-set all regulatory signs back to their original position and original condition at the end of each workday.

The Contractor shall develop a written Temporary Traffic Control Plan for all work zones in each Task Order. The plan must be submitted to and approved by the Montgomery County Department of Transportation, Division of Traffic Engineering and Operations, and the Contract Administrator or Designee, a minimum of seven (7) calendar days prior to the specified work commencement date.

Access to any property adjacent to the limits of work shall not be blocked without prior coordination with the property owner. The access to any property shall be maintained as close as possible in width to that of the existing access point.

The Contractor shall be responsible for assuring that all warning lights, whenever used or required, are in good working order and are operated and maintained as specified in Section 6F-7 of the MUTCD.

Temporary pavement markings or channelizing devices shall be used to separate traffic lanes when construction work necessitates the use of such lanes other than the ones normally used by traffic. Channelizing devices mostly used are plastic cones, traffic drums, vertical panels, barricades or barriers.

No equipment or materials shall be stored or permitted to stand unprotected on the roadway or sidewalk surface, or adjacent to the roadway or sidewalk surface, where traffic is maintained.

No material or equipment shall be stored on or adjacent to the road surface during non-work periods.

Excavated material shall be stored away from the paved roadway whenever possible. Any earth or fill material which might be dropped on the surface where traffic is being maintained shall be removed to avoid slippery conditions. The use of a water wagon will be required as directed by the Contract Administrator or Designee for control of dust within the Task Order limits.

All approved "Maintenance of Traffic" facilities, including signs, lights, traffic drums, barricades, etc., shall be in place before work is started. Every effort shall be made to keep all traffic control devices timely. All traffic control devices not applicable to the actual situation shall either be removed, covered or turned away from the drivers' view prior to the commencement of any work

activity. The Contractor shall coordinate the installation or removal of traffic control devices with adjacent maintenance or construction Task Orders as necessary.

Every effort shall be made to move the equipment and material in a safe manner. Maryland State Highway Administration (MSHA) or American Traffic Safety Services Association (ATSSA) certified flaggers shall be employed to alter or direct traffic as and when necessary.

The County reserves the right to modify or expand on the methods of temporary traffic control specified and to restrict working hours if, in the opinion of the Contract Administrator or Designee, the Contractor's operations are a detriment to traffic.

All portable signs shall be mounted in such a manner that the bottom of the sign is at least one foot off the ground.

The reflectorizing of the signs and channelizing devices shall be as per the MUTCD and in accordance with MSHA Specifications Section 950 and Section 950.03. All "W" series signs shall be "black" legend on "orange" background.

All flags attached to the temporary traffic control signs and Type III barricades will not be measured. Their installation, maintenance, replacement, and removal will be incidental to the Temporary Traffic Signs item.

The furnishing, installing, removing, resetting and maintenance of any steel plates, required for the construction of any Task Order, will not be measured for payment and shall be considered incidental to the pertinent items specified in this Contract Document and made part of the individual Task Orders.

When uneven longitudinal paving joints are exposed to traffic, the Contractor shall erect warning signs in strict conformance with the latest editions, including all revision thereof, and additions thereto of the Montgomery County Work Zone Traffic Control Standards and the Manual of Uniform Traffic Control Devices. The entire warning system shall be placed for all directions of travel.

104.00.01 Unit Day. A **Unit Day** will consist of any approved usage within a 24-hour calendar day period. Each **Unit** will be paid for only once per **Unit Day**. When a Unit is used for only part of a day, it shall be measured and paid as a **Unit Day**.

For this Contract, items measured and paid for at the Contract unit price per **Unit Day** include but are not limited to; Arrow Panel and Portable Variable Message Board. There shall be no adjustment made to the Contract **Unit Day** unit price regardless the roadway classification and configuration (two lane, divided four lane, open section, closed section, etc.), and regardless of the amount of time it takes to complete each Task Order. No payment shall be made for the Arrow Panel and Portable Variable Message Board items of work when the Contractor is not actively working on the subject Task Order on a scheduled workday with favorable weather and grade conditions and at no fault by the County.

104.00.02 Contract Term. The term of the Contract is for **ONE (1)** year from the date of signature by the Director, Office of Procurement. Before the Contract term ends, the Director may (but is not required to) renew this Contract, if the Director determines that renewal is in the best interest of the County. The Contractor's satisfactory performance

does not guarantee renewal of this Contract. The Director may exercise this option to renew the Contract term for **TWO (2)** additional one-year periods.

(a) Maintenance of Traffic. Temporary Traffic Signs, Drums and Cones for Maintenance of Traffic that are furnished, set and left in place, and set and removed daily shall be measured for payment once and **ONLY ONCE** for the entire duration of each **Contract Term**. The beginning and the end of the construction season shall be of no consequence in the measurement and payment of these items. When the **Contract Term** is divided by two calendar years, no additional payment shall be made at the beginning of the succeeding construction season for Temporary Traffic Signs, Drums and Cones for Maintenance of Traffic until:

(1) The total payment quantity from the preceding construction season that is within the limits of the same **Contract Term** are exceeded.

(2) An additional type/classification of sign or additional Drums and/or Cones for Maintenance of Traffic, that were not paid for during the previous construction season, are required for use during the second construction season and before the end of the current **Contract Term**.

(b) Additional Contract Terms. Provided the Director, Office of Procurement renews this Contract for additional **Contract Terms**:

(1) The total square feet of Temporary Traffic Signs for Maintenance of Traffic will be zeroed out.

(2) The total number per each of the Drums for Maintenance of Traffic will be zeroed out.

(3) The total number per Cone for Maintenance of Traffic will be zeroed out.

Measurement and payment for these items will commence at the start of the new Contract Term. Payment will be made for each Sign type/classification, Drum and Cone once and only once for the entire duration of the current Contract Term, regardless of the number of times the individual type/classification of Sign, Drum and Cone for Maintenance of Traffic, paid for in previous Task Orders, is used in succeeding Task Orders.

104.00.03 Storage and Relocation. For any Temporary Traffic Signs, Drums and Cones for Maintenance of Traffic, the storage off site when construction activity is suspended due to seasonal weather constraints, the storage off site between Task Order assignments, the removal, transporting, and resetting, of the Temporary Traffic Signs, Drums and Cones for Maintenance of Traffic on a daily basis shall not be measured for payment but shall be considered incidental to the Contract unit price per paid for Temporary Traffic Signs, Drums and Cones for Maintenance of Traffic.

104.01 – TEMPORARY TRAFFIC CONTROL PLAN (TTCP).

DELETE: **Section 104.01 — Temporary Traffic Control Plan** of the Maryland Department of Transportation, State Highway Administration's, "Standard Specifications for Construction and Materials" latest edition.

INSERT: The following:

104.01 TEMPORARY TRAFFIC CONTROL PLAN (TTCP).

104.01.01 DESCRIPTION.

Develop and implement a TTCP. The TTCP will include the design and placement of items such as signing, pavement markings, delineation, channelization, barriers, crash cushions, staging areas for equipment and material storage, and other items as required.

TTCPs may be implemented within a single Task Order or jointly between two or more Task Orders. In situations where TTCPs are jointly implemented, ensure that correct and nonconflicting guidance is presented to the traveling public.

Temporary Traffic Control Plan Development. The Contractor shall develop a Temporary Traffic Control Plan (TTCP) for each Task Order. A minimum of seven (7) calendar days prior to the specified work commencement date, the Contractor must submit Five (5) copies of the TTCP to the Contract Administrator or Designee and the Montgomery County Division of Traffic Engineering and Operations for review and acceptance. Once accepted by the County, any changes to the TTCP, initiated by the Contractor, must be submitted in writing at least five days prior to the proposed date scheduled for implementing the change. The Contractor must have written acceptance of any TTCP changes from the Contract Administrator or Designee and the Montgomery County Division of Traffic Engineering and Operations prior to the implementation of any change. No work shall begin until the required traffic control patterns and devices are in place.

TTCP submittals shall be provided on sheets measuring at a minimum of 11 X 17 inches with a standard margin and a standard title block at the lower right corner or on 8½ X 11-inch paper with a 1-inch margin and a title block. Use of copied Temporary Traffic Control Standard Details is acceptable provided street names and compass directions are provided on each sheet.

The title block shall contain the following information in the order listed.

(1) Name of Contractor (and subcontractor, if applicable)
(2) Address of Contractor (and subcontractor, if applicable)
(3) Sheet Title
(4) Montgomery County Invitation for Bids Number and Task Order Number.
(5) The statement: “Prepared for Montgomery County Department of Transportation, Division of Highway Services, Gaithersburg, Maryland.”
(6) Signature block for approval by Contractor’s Traffic Manager and date of approval.
(7) All lines shall be clean, sharp, solid, and heavy enough for adequate reproduction.
(8) Do not use white pigment to cover lines.
(9) Plans shall indicate the proposed traffic movements throughout the area affected by the work for each phase of construction. Label all routes, and show north arrow and any other information that would clarify the TTCP.
(10) All TTCP’s must include a written narrative detailing how the proposed TTCP is to be setup, implemented and maintained.

It is understood that the effective implementation of the accepted TTCP is the responsibility of the Contractor. Minor modifications may be made by the Traffic Manager if field conditions

warrant and prior concurrence is obtained from the Contract Administrator or Designee and the Montgomery County Division of Traffic Engineering and Operations. Significant changes to the TTCP must be submitted in writing to the Contract Administrator or Designee and the Montgomery County Division of Traffic Engineering and Operations for acceptance and in conformance with the Contract Document's Specifications 104.01.

The Contractor and the Contract Administrator or Designee will meet prior to commencing work to discuss the development and implementation of a Temporary Traffic Control Plan for each Task Order.

In the event that the set-up and implementation of the Temporary Traffic Control Plan is determined to present a hazardous and unsafe condition to the public and/or the Contractor's workers, all work shall be immediately suspended, and the right-of-way restored to a safe condition. The Contractor must provide any necessary TTCP adjustments to the Contract Administrator or Designee and the Montgomery County Division of Traffic Engineering and Operations for review and acceptance prior to implementation. No time extensions, charges or claims for damages may be made by the Contractor or paid to the Contractor for any delay, disruption, inefficiency, interference or hindrance due to the suspension of work caused by the implementation of a Temporary Traffic Control Plan that is determined to be unsafe.

Staging Areas. The Contractor's proposed TTCP must include the location of any staging areas. It is the responsibility of the Contractor to locate a staging area for each Task Order where equipment and material can be safely parked and stored during non-working hours. The staging area must not present a hazardous and dangerous condition to the residents, pedestrian traffic or vehicular traffic. The Contractor must obtain written authorization from any government agency and/or property owner and must obtain all necessary local permits to use the proposed staging area. Copies of the government agency's and/or property owner's written authorization and all necessary permits shall be provided to the Contract Administrator or Designee. The Contractor must observe and comply with all local ordinances when using and maintaining any staging area. and must be in strict conformance with the Montgomery County, Md. Roadside Tree Law (Bill No. 41-12 made effective March 1, 2014); the Montgomery County, Md. Tree Canopy Law (Bill No. 35-12 made effective March 1, 2014); the Maryland Roadside Tree Law; the Forest Conservation Act; including all addenda, additions and revisions thereto, and all accepted arboricultural practices.

THE COUNTY IS <u>NOT</u> RESPONSIBLE AND UNDER NO OBLIGATION TO PROVIDE THE CONTRACTOR WITH A STAGING AREA. NO ADDITIONAL PAYMENT SHALL BE MADE TO THE CONTRACTOR BY THE COUNTY, FOR MOBILIZING AND TRANSPORTING MATERIAL AND EQUIPMENT ON A DAILY BASIS TO THE WORK SITE IF THE CONTRACTOR IS UNABLE TO PROPERLY SECURE A STAGING AREA.

Work Restrictions. The Contract Administrator or Designee reserves the right to modify or expand the methods of traffic control or working hours as specified in the Contract Documents. Any request from the Contractor to modify the work restrictions shall require written approval from the Contract Administrator or Designee at least 72 hours prior to implementing the change. The Contractor shall submit a copy of the original work restrictions with the written request.

Work is not permitted on Saturdays or Sundays.

Work is not permitted on the following holidays indicated below with an "X", nor is work permitted on the day immediately preceding and immediately following the holidays indicated below with an "X".

☒ New Year's Day, January 1
☒ Dr. Martin Luther King's Birthday, the third Monday in January
☒ President's Day, the third Monday in February
☐ Good Friday
☐ Easter Weekend
☒ Memorial Day, the last Monday in May
☒ Juneteenth, June 19
☒ Independence Day, July 4
☒ Labor Day, the first Monday in September
☐ Columbus Day, the second Monday in October
☒ Veterans' Day, November 11
☒ Thanksgiving Day, the fourth Thursday in November
☒ Christmas Day, December 25

Work is not permitted on the following weekend days indicated below with an "X".

☒ Saturdays, unless prior written approval is given by the Contract Administrator or Designee.
☒ Sundays, unless prior written approval is given by the Contract Administrator or Designee.

Temporary Lane or Shoulder Closure.

TEMPORARY LANE OR SHOULDER CLOSURE SCHEDULE			
ROADWAY	**# LANE(S) / SHOULDER CAN BE CLOSED**	**DAY OF THE WEEK**	**CLOSURE PERIOD (TIME OF DAY)**
AS APPROVED AND SPECIFIED BY THE *DIVISION OF TRAFFIC ENGINEERING AND OPERATIONS* OF THE *MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION* FOR EACH TASK ORDER **LANE CLOSURES SHALL NOT BE PERMITTED BEFORE 9:00 AM AND AFTER 3:00 PM** **NOTICE: ON SOME ROADWAYS, HEAVY AND CONGESTED TRAFFIC CONDITIONS MAY REQUIRE ANY WORK, THAT ADVERSELY IMPACTS THE FLOW OF TRAFFIC, BE PERFORMED AT NIGHT.**			

TTCP Provisions.

When closing or opening a lane on freeways, expressways, and roadways with posted speed greater than or equal to 55 mph, a work vehicle shall be closely followed by a protection vehicle (PV) during installation and removal of temporary traffic control devices. The PV shall consist of a work vehicle with approved flashing lights, either a truck-mounted attenuator (TMA) with support structure designed for attaching the system to the work vehicle or a trailer truck-mounted attenuator (TTMA) designed for attaching the system to the work vehicle by a pintle hook and an arrow panel (arrow mode for multilane roadways and caution mode on two-lane, two-way roadways).

Temporary Traffic Control for shoulder work along freeways, expressways, and roadways with posted speed greater than or equal to 55 mph shall include the use of a PV. The PV shall be outfitted with a TMA or TTMA as noted above and be positioned on the shoulder to protect the work area throughout the duration of the shoulder work operation.

The work vehicle size and method of attachment shall be as specified in the TMA/TTMA manufacturer's specification as tested under NCHRP and/or MASH Test Level 3.

When a temporary lane or shoulder closure is in effect, work shall begin within one hour after the lane is closed. Any delay greater than one hour with no work in progress shall require the Contractor to remove the lane closure at no additional cost to the County. The Contractor's Traffic Manager shall attend Pre-Construction and Pre-Paving Meetings and shall discuss traffic control and the Temporary Traffic Control Plan including procedures to be implemented for lane closures.

All closures shall be in conformance with the approved TTCP and under the direction of the Contractor's Traffic Manager and the Contract Administrator or Designee.

Workers and equipment, including temporary traffic control devices, are prohibited from occupying the lane or shoulder to be closed or restricted before the time specified in the Contract

Document's work restrictions, unless otherwise noted below or as approved by the Contract Administrator or Designee.

Temporary Traffic Control (TTC) devices to be used for lane/shoulder closure may be placed on the shoulder of the roadway by workers no earlier than 30 minutes prior to actual time lane/shoulder closure or restriction is permitted. When TTC devices are being installed, all work vehicles involved in the installation shall display flashing lights that provide a 360-degree visibility of the vehicles. These lights shall remain on until the full installation of TTC devices is complete. Temporary Traffic Signs may be displayed to traffic at this time.

Workers shall not enter a lane open to traffic. Workers may be present on shoulders to prepare for lane closure setup no earlier than 15 minutes prior to actual time lane/shoulder closure or restriction is permitted. During preparation for the lane closure, all work vehicles present at the site and involved in the installation of the lane closure or restriction shall display flashing lights that provide 360-degree visibility of the vehicles. These lights shall remain on until the full implementation of the road closure or restriction is complete.

Restore all temporary lane or shoulder closures at the end of the closure period and ensure that no travel lane has been reduced to less than 11 feet on expressways, freeways and 10 feet on other roadways. Prior to opening the closed lane or shoulder, clear the lane or shoulder of all material, equipment, and debris.

Failure to restore full traffic capacity within the time specified will result in a deduction being assessed on the next progress estimate in conformance with the following. This is in addition to the requirements specified in the provision entitled FAILURE TO MAINTAIN ENTIRE PROJECT of this Contract Document.

The lane closure penalties for all roadways to be rehabilitated, reconstructed and improved under this Contract shall be:

ASSESSED DEDUCTIONS FOR ALL ROADWAYS	
Elapsed Time (minutes)	Deduction
For 1 Lane Closure	
1 minute to 10 minutes	$400.00
Over 10 minutes	$200.00 per minute (In addition to the original 10-minute deduction)
For 2 or more Lane Closures	
1 minute to 10 minutes	$800.00
Over 10 minutes	$400.00 per minute (In addition to the original 10-minute deduction)

Any changes to the TTCP or Section 104 of these Special Provisions shall be submitted in writing to the Montgomery County Division of Traffic Engineering and Operations. Do not implement any changes until written approval from the Montgomery County Division of Traffic Engineering and Operations is received. Include a copy of the original work restrictions with the written request. The Montgomery County Division of Traffic Engineering and Operations also reserves the right to modify or expand the methods of traffic control or working hours as specified in the Contract Documents.

All work shall be in accordance with the most recent edition of the Montgomery County Work Zone Traffic Control Standards book.

All Existing regulatory signage shall be maintained throughout the entire duration of construction.

The Contractor is solely responsible for all accidents, injuries to persons, and/or property damage resulting from the Contractor's operations.

The phases on the TTCP represent methods of traffic maintenance only and should not be construed as representing phases of construction. The sequence of construction is addressed elsewhere in these Special Provisions.

Pedestrian and bicycle traffic shall be maintained at all times unless otherwise specified on the TTCP.

Ingress and egress to adjacent private properties shall be maintained at all times as directed by the Contract Administrator or Designee. Accessibility for emergency vehicles shall be maintained at all times.

Traffic drum spacing on radii shall be 10 feet or less, center to center.

Markings no longer applicable, which might create confusion to drivers, shall be removed or obliterated by the Contractor at the direction of the Contract Administrator or Designee. When removal of existing pavement markings is required, removal shall be total and complete to prevent confusion to the motorists. Conflicting markings that need to be temporarily removed are to be masked using "3M Removable Black Lane Mask" or an approved equal. Painting over existing markings with black paint does not constitute removal.

Any existing traffic control devices that belong to Montgomery County and which must be removed during construction, shall be removed with reasonable care and transported by the Contractor, at Contractor's expense, to the Montgomery County Sign Shop located at 1283 Seven Locks Road, Rockville Maryland between the hours of 6:30 AM and 3:00 PM, Monday through Friday.

A pre-construction meeting will be held at the County's option when the installation and application of permanent traffic control devices are included as items of work in the Contract. If the County determines that a pre-construction meeting for the installation and application of the traffic control devices is necessary, the Contractor shall be responsible for coordinating the pre-construction meeting with the MCDOT Division of Traffic Engineering and Operations, the Contract Administrator or Designee, the Contractor's Traffic Manager, the Contractor's Superintendent, and a supervisory representative from each sub-contractor involved in the work. This pre-construction meeting must be held a minimum of ten (10) working days in advance of final roadway surfacing to discuss and review the required procedures necessary for the installation and application of the traffic control devices. Time charges shall continue to be assessed against the Task Order until the installation and application of all permanent traffic control devices is complete and in place.

Traffic shall not be permitted within ten (10) feet of any excavation that results in a vertical drop-off of more than five (5) inches in the level of pavement during non-working hours unless protected by temporary concrete barriers or ramped with aggregate material at a 3:1 or flatter slope from the edge of pavement. When ramping is utilized, traffic drums shall be positioned adjacent to the edge of the work area on the traffic side of the slope.

Traffic shall not be permitted within two (2) feet of any excavation that results in a vertical drop-off of more than two (2) inches but no more than five (5) inches in the level of pavement during non-working hours unless either ramped with aggregate material at a 3:1 or flatter slope, provided with an abutting wedge of bituminous material at a 3:1 or flatter slope or protected by traffic drums.

In areas where the drop-off in the level of pavement is two (2) inches or less, traffic may be allowed to freely cross under the following conditions:

(a) Where longitudinal paving joints of two (2) inches or less are exposed to traffic, warning signs shall be posted indicating "UNEVEN LANES" (W8-11 modified). These signs shall be placed 250 feet in advance of the uneven joint and spaced at appropriate intervals throughout the area of the uneven joint.

(b) Where lateral paving joints of two (2) inches or less are exposed to traffic, a "BUMP" sign (W8-1) shall be posted 100 feet in advance of the joint.

When milled pavement is left exposed to traffic a "ROUGH ROAD" (W8-8) or "GROOVED PAVEMENT" (W8-15) sign shall be placed 250 feet in advance of the milled area.

All excavations in the paved section of the roadway shall be backfilled and capped with Cold Mix, Warm Mix or Hot Mix Asphalt, or steel plated at the end of the workday. At the end of the workday, the roadway shall be re-opened to the original cross section. Whenever steel plates are used to cover an excavation on a residential right-of-way, the steel plates shall be inlayed or recessed into the pavement adjacent to the excavation. When steel plates are inlayed or recessed, the surface of the steel plate shall be flush with the adjacent pavement surface. All steel plates shall be a nominal one inch (1") in thickness. Steel plates must be large enough to allow a minimum of one foot (1') of bearing on all sides of the excavation. The Contract Administrator or Designee may allow alternative bearing requirements for steel plates when bearing on all sides of the excavation is impractical. Steel plates abutted edge to edge can be welded together and anchored with pins on the outermost edges. Additional pins shall be spaced as necessary to assure the steel plates are secured. No corner of any steel plate shall overhang the excavated trench. Cold Mix, Warm Mix or Hot Mix Asphalt must be tapered from the height of the steel plate to the existing roadway surface at a slope of 36:1.

Excavations in unpaved sections of the right-of-way shall be either backfilled to grade or completely covered with lumber of a nominal thickness of 2 inches (2") and completely surrounded with an approved construction fence at the end of the workday. Only at the discretion of the Contract Administrator or Designee may an excavation be left open after work hours.

Advance "STEEL PLATE AHEAD" warning signs (W8-24) shall be properly posted and maintained in accordance with the latest edition of the MCDOT *Work Zone Temporary Traffic Control Standards* and as directed by the Division of Traffic Engineering and Operations. From November 1st through April 15th the Contractor shall notify the Chief of the MCDOT Division of Highway Services (240-777-ROAD) of the exact location of any steel plates placed in the roadway or on the shoulder. Also, from November 1st through April 15th and as directed by the Contract Administrator or Designee, the Contractor shall place additional signs or reflective posts to identify the limits and exact location of any steel plates. Signs and reflective posts shall be a minimum of forty-eight inches (48") in height. Any adjustments, repositioning, or replacement of any steel plates made necessary because of any snow removal operations, shall be made by the Contractor within two hours of being notified by MCDOT, and shall be done so entirely at the Contractor's expense. Steel plates shall not remain in the roadway for longer than seven (7) days at any one location.

Any excavations in the sidewalk shall be backfilled or plated prior to the end of each workday and the sidewalk reopened to its full cross section.

The Contractor shall contact the adjacent property owners a minimum of 72 hours in advance of any work on the site informing them of the scope and timing of construction. The Contract Administrator or Designee shall also be notified 48 hours in advance regarding the work schedule.

The Contractor shall arrange and host a pre-phase traffic switch meeting at least two weeks prior to switching traffic. The following offices shall be notified of this meeting and of the impending traffic switch:

- Montgomery County, Division of Traffic Engineering and Operations, (240-777-2190)
- Montgomery County, Division of Transit Services, (240-777-5800)
- Montgomery County Public Schools, Local Depot Manager

- Montgomery County Fire and Rescue Service, Local Fire Department Captain
- Montgomery County Department of Police, Local Traffic Sergeant

At no time will the Contractor be allowed to implement a full road closure.

Portable **V**ariable **M**essage **S**igns **(PVMS)** will be used to notify motorists of impending traffic pattern changes. PVMS shall be setup three (3) working days prior to a traffic switch and remain operational for three (3) working days after a traffic switch. The Contractor shall contact the Division of Traffic Engineering and Operations for PVMS locations and messages.

If you have any questions regarding these Special Provisions or the TTCP, contact the Division of Traffic Engineering and Operations at (240)-777-2190.

104.01.02 MATERIALS.

Not applicable.

104.01.03 CONSTRUCTION.

Not applicable.

104.01.04 MEASUREMENT AND PAYMENT.
The development of an acceptable Traffic Control Plan for each Task Order shall not be measured for payment, but the cost shall be incidental to the Maintenance of Traffic item specified in the individual Task Order. Included in the payment and considered incidental to these individual items is all work necessary for locating and obtaining permission to establish an acceptable equipment and materials staging area.

No time extensions, charges or claims for damages may be made by the Contractor or paid to the Contractor for any delay, disruption, inefficiency, interference or hindrance due to the suspension of work caused by the implementation of a Temporary Traffic Control Plan that is determined to present a hazardous and unsafe condition to the public and/or the Contractor's workers.

104.02 MAINTENANCE OF TRAFFIC (MOT).

DELETE: **Section 104.02 — Maintenance of Traffic (MOT)** of the Maryland Department of Transportation, State Highway Administration's, "Standard Specifications for Construction and Materials" latest edition.

INSERT: The following:

104.02 MAINTENANCE OF TRAFFIC (MOT).

104.02.01 DESCRIPTION.

Maintain traffic safely and efficiently through and around the area affected by the work.

104.02.02 MATERIALS.

Traffic Materials Section 950

104.02.04 CONSTRUCTION.

(a) Maintenance of Existing Roadway. Maintain the existing roadway surface and shoulders, including crossroads, ramps, approaches, crossovers, medians, detour roads, entrances, and pavement markings within the limits of the project, throughout the duration of the Contract.

Repair potholes, shoulder defects, and hazardous conditions that exist or develop throughout the duration of the Contract.

(b) Existing Regulatory Signs, Warning Signs, Guide Signs, and Pavement Markings. Relocate, turn, completely cover with opaque material, or remove with the approval of the Contract Administrator or Designee, signs that are not applicable due to temporary traffic conditions. Properly redisplay signs to traffic as soon as conditions warrant. Replace any signs misplaced or damaged by the Contractor's operations.

Prior to construction and in the company of the Contract Administrator or Designee, inventory and note the location, type, size, and color of all existing pavement markings, legends, and symbols. Submit the results on a marked-up set of the Contract Plans or on Contractor prepared sketches or drawings.

(c) Storage and Movement of Equipment, Material, and Vehicles. All equipment, material, storage, and parking areas shall have advance written approval from the Contract Administrator or Designee. Employee vehicles shall not be parked within the right-of-way of the through highway, without a written exception. Equipment and material shall not be stored or permitted to stand in unprotected areas or open areas within 30 feet of traffic except as follows:

(1) Approved temporary traffic barrier is in place prior to storage of any equipment or materials.

(2) Equipment and material are at least 4 feet behind the face of the traffic barrier.

(3) Equipment or material is stored in conformance with the AASHTO Roadside Design Guide.

Restore areas used for storage of equipment and material to original condition immediately upon completion of use, at no additional cost to the County.

Vehicles and equipment shall enter and leave the work area in the direction of traffic flow.

Work on or adjacent to the traveled way shall be performed in the direction of traffic flow, unless written approval is obtained prior to beginning the work.

The Contractor's vehicles and equipment shall enter on and exit from the roadway at interchanges or legally allowed public use crossovers. Do not make U-turns across medians and crossovers signed FOR USE OF AUTHORIZED AND EMERGENCY VEHICLES ONLY, without written approval.

(d) Warning Lights and Devices. Use warning lights and flags on warning signs as specified in the TCP, the Contract Documents, or as directed. During hours of darkness, attach one Type A

low intensity flashing warning light to the traffic side of channelizing devices used to warn of a spot hazard. Attach two Type A low intensity flashing warning lights to the top of each Type III barricade.

(e) General Requirements for Temporary Pavement Markings (TPMs). For pavement marking dimensions refer to Pavement Marking Dimension Table following (f) (10) below.

(1) Temporary pavement markings are those markings placed upon the roadway to serve an area of work activity or a work phase for a period of time after which they are to be removed.

When approved, a less than full complement of pavement markings and reduced dimension markings for dashed center lines and lane lines may be used, but for a period of not more than two weeks.

(2) TPMs may be either full dimension or reduced dimension as specified in the Contract Documents or as directed.

(3) Full dimension TPMs shall be in accordance with the MdMUTCD and the Pavement Marking Dimension Table following (f) (10).

(4) Reduced dimension TPMs shall be in accordance with the MdMUTCD and the Pavement Marking Dimension Table following (f) (10), except that the dashed center lines and lane lines may consist of 4-foot segments and 36-foot gaps.

(f) Specific Requirements for TPMs.

(1) As a minimum, place all center and lane lines at the close of each day.

(2) During the workday, while work activities are underway, clearly define all vehicle paths by center and lane lines, channelizing devices, signs, or other traffic control devices.

(3) Along two-lane, two-way roadways place a center line consisting of a continuous double solid yellow center line, a single dashed yellow center line at full dimension, or a single dashed yellow center line at reduced dimension as directed.

(4) Mark and sign ‘no passing zones’ as specified or as directed. A no passing zone may be identified by signing for a period not to exceed seven days.

(5) Along multilane undivided roadways identify the center line using a continuous double solid yellow line.

If a two-way left turn is present, see (6) below.

If the roadway is three lanes, the center line may be either a continuous double solid yellow center line or, where passing is permitted in the single lane direction, a continuous single solid yellow and single dashed yellow combination center line. For the placement of no passing zones, see (f)(4) above.

(6) Along multilane undivided roadways having a two-way left turn lane, the left-turn lane need not be marked provided that the lane is continuously delineated using channelizing devices spaced at no more than 200ft. The devices shall separate the opposing flows of traffic and provide areas where left-turning vehicles may store while awaiting the opportunity to turn.

(7) Along multilane roadways having reversible lanes, mark the lanes with the full complement of pavement markings as described in the MdMUTCD.

(8) Where edge lines are not in place, delineate the edge of the roadway by using appropriate channelizing devices or other delineation.

(9) Specific pavement marking, and complementary signing details are shown on the Temporary Traffic Control (TTC) Typical Applications.

(10) Contact the MCDOT Materials Control Center for the latest approved TPM materials.

PAVEMENT MARKING DIMENSION TABLE			
LINE TYPE	**MATERIAL**	**REQUIRED MINIMUM EFFECTIVE WIDTH, (inches)**	
		EXPRESSWAYS AND FREEWAYS	**OTHER ROADWAYS**
Lane Lines	Paint	5	5
	Preformed Tape	5	5
Lane Shifts, Lane Divides and Severe Alignment Changes	Paint	5	5
	Preformed Tape	5	5
Center Lines *See Note	Paint	5	5
	Preformed Tape	5	5
Edge Lines	Paint	5	5
	Preformed Tape	5	5
Ramp Edge Lines	Paint	5	5
	Preformed Tape	5	5
Gore Marking	Paint	10	10
	Preformed Tape	10	10
Auxiliary	Paint or Preformed Tape	Same as line being extended	Same as line being extended

Note: Provide a discernible space of 4 to 5 in. between double lines.

(g) Channelizing Devices. Install traffic channelizing in accordance with the MdMUTCD, the Contract Documents, and the following:

(1) Spacing in feet for channelizing devices in a taper shall be no more than the posted speed limit in mph.

(2) Spacing in feet for channelizing devices in a tangent shall be no more than twice the posted speed limit in mph.

(3) To define interchange gore areas or other unusual alignments, space channelizing devices at 25 feet intervals, unless the Contract Administrator or Designee directs a closer spacing.

(4) Space channelizing devices at approximately 6-foot intervals at driveways and intersections, so that sight distance at these locations is not restricted.

(5) The Contractor's name or identification mark may be placed in an inconspicuous location on the channelizing device, facing away from traffic. No advertising is permitted.

104.02.04 MEASUREMENT AND PAYMENT.
The payment shall be full compensation for all work necessary for the safe and continuous maintenance of traffic throughout the work zone, the work zone traffic control set up to minimize any inconveniences to the traveling public while providing for the safety of motorists, pedestrians, and workers, the relocating, turning, completely covering or removing any existing traffic control device, the maintaining in like new condition and the cleaning all temporary traffic control devices, the placement, removal, storage and resetting of all temporary traffic control devices on a daily basis, the inventory of all existing pavement markings, the treatment of any other traffic control device not included in these Specifications that is necessary for the fulfillment of the Contract requirements, the development and implementation of the approved Traffic Control Plan, the Traffic Manager, and for all material, labor, equipment, tools and incidentals necessary to complete the work.

ITEM No. 1001 – Maintenance of Traffic (Bid Price Must Not Exceed Seven Hundred and Fifty Dollars per Unit Day) - will be measured and paid for at the Contract unit price per unit day.

**** * * NOTICE * * ****

ANY BID WHERE THE BID AMOUNT FOR MAINTENANCE OF TRAFFIC EXCEEDS SEVEN HUNDRED FIFTY DOLLARS ($750.00) PER UNIT DAY SHALL BE DEEMED TO BE NON-RESPONSIVE

Maintenance of Traffic **will be paid** at the Contract unit price per Unit Day for Saturdays, Sundays, Holidays, and Non-workdays when the Temporary Traffic Control Plan or site conditions require Temporary Traffic Control Devices to remain on site and in place during non-work hours to protect the residents, vehicular traffic and pedestrian traffic from peril and harm. The Contractor's Traffic Manager must provide written inspection reports on the work site conditions and the condition of all Temporary Traffic Control Devices specified to remain in place to protect residents, vehicular traffic and pedestrian traffic on Saturdays, Sundays,

Holidays, and Non-workdays. Payment for Maintenance of Traffic **will not** be paid for Saturdays, Sundays, Holidays, and Non-workdays when the Contractor's Traffic Manager fails to provide written inspection reports, within forty-eight (48) hours, for the respective days.

Upon finding any Temporary Traffic Control Devices out of place, missing, or damaged the Contractor's Traffic Manager shall mobilize the Contractor's personnel and equipment as necessary to restore all Temporary Traffic Control Devices to good order at no addition cost to the County.

For partial workdays of five (5) hours or less, payment for Maintenance of Traffic shall be prorated per hour for an eight (8) hour workday. No additional payment for Maintenance of Traffic shall be made to the Contractor for working longer than an eight (8) hour workday. The full amount per unit day for Maintenance of Traffic will be paid for workdays exceeding five (5) hours in duration.

Maintenance of Traffic shall not be paid:

- during the performance of punch list work,
- for weekend, holiday and non-workday inspections of the work site by the Traffic Manager when work site inspections are not required,
- for any Saturday, Sunday or holiday when work is not scheduled and/or approved in advance by the Contract Administrator or Designee in advance,
- for any non-workdays when work site inspections are not required,
- **for any suitable workday the Contractor is not actively on the work site and work site inspections are not required,**
- for any workday the Contractor is on site without previously notifying and in the presence of the Contract Administrator or Designee,
- for any remedial work performed by the Contractor on items of work that the Contractor has previously received payment for.

The Contractor shall NOT be paid more than one (1) unit day for Maintenance of Traffic when the Contractor has multiple crews working at more than one (1) location within the limits of the same Subdivision/Neighborhood specified and designated by the Task Order currently in progress. The Contractor will only be paid more than one (1) unit day for Maintenance of Traffic for working multiple work sites when the work occurs at a different Subdivision/Neighborhood outside of the limits of the Subdivision/Neighborhood for the current Task Order as determined by the Contract Administrator or Designee.

104.02.04.01 Primary, Secondary and Residential Roadways. There shall be no adjustment made to the Contract unit prices regardless the roadway classification and configuration (two lane, divided four lane, open section, closed section, etc.), and regardless of the amount of time it takes to complete each Task Order.

104.02.04.02 Portable Variable Message Sign and Arrow Panel. No payment for any Portable Variable Message Sign or Arrow Panel shall be made when these temporary traffic control devices are set in place and activated prior to the date authorized in the individual Task Order or activated and left in place after all Task Order work activity has been completed. Payment for the furnishing, setup, activation, maintenance and removal from the work site is incidental to the Contract unit price paid for these devices as shown on the *Quotation Sheet.*

104.02.04.03 Maintenance of Traffic Pay Items. Measurement and payment of the Maintenance of Traffic pay items specified for use in the individual Task Orders shall be as specified in this Contract Document.

104.02.04.04 Traffic Manager. Traffic Manager shall not be measured but the cost shall be incidental to the Maintenance of Traffic item included the individual Task Orders. No additional payment shall be made for the Traffic Manager's required inspection and reporting of the Task Order Maintenance of Traffic work zone setup when not actively working the Task Order work site on Saturdays, Sundays, Holidays, the required one night per week and for any day when there is no work activity occurring on the Task Order work site. Payment for the Traffic Manager's inspections and maintaining the daily log of the work zone Maintenance of Traffic setup for these non-workdays is incidental to the other pertinent items specified in this Contract Document and made part of the individual Task Orders.

104.02.04.05 Maintenance of Traffic Incidental Items. Maintenance of Traffic devices, including but not limited to reflective collars, anchoring devices, STOP/SLOW paddles, two-way radios, sign flags, warning lights and any other necessary Maintenance of Traffic device will not be measured and shall be incidental to the Maintenance of Traffic item specified in this Contract Document and made part of the individual Task Orders.

104.02.04.06 Defective Temporary Traffic Control Devices. As directed by the Contract Administrator or Designee any defective temporary traffic control device shall be replaced immediately by the Contractor. The cost to replace temporary traffic control devices, including all material, labor, equipment and tools, will not be measured but shall be incidental to the unit price of the pertinent item specified in the Contract Document. The Contractor must replace any defective temporary traffic control device within four (4) hours after being directed to do so by the Contract Administrator or Designee. The Contractor shall be assessed all applicable penalties and deductions as specified in the Section C Provision of the Contract document entitled "Failure to Maintain Entire Project" for any Temporary Traffic Control Device not maintained in proper working order and condition for the entire duration specified on the Temporary Traffic Control Plan or for any additional time as directed by Contract Administrator or Designee.

104.02.04.07 Detour Routes. All material, labor, equipment, tools and incidentals necessary for the construction and removal of temporary or detour routes will be measured and paid for at the Contract unit price for the pertinent items found on the *Quotation Sheets*. The Contractor shall receive **NO ADDITIONAL** compensation for setting up, maintaining, and removing a temporary detour route.

ANY CORRECTIVE (PUNCH LIST) WORK SHALL BE PERFORMED ENTIRELY AT THE EXPENSE OF THE CONTRACTOR AND AT NO COST TO THE COUNTY, INCLUDING THE SETUP, OPERATION AND REMOVAL OF ALL NECESSARY TEMPORARY TRAFFIC

CONTROLS. FAILURE TO PROVIDE THE NECESSARY TEMPORARY TRAFFIC CONTROLS SHALL RESULT IN THE IMMEDIATE CEASING OF ALL WORK ACTIVITY AND THE IMMEDIATE CLEARING OF THE COUNTY RIGHT-OF-WAY.

MAINTENANCE OF TRAFFIC *SHALL NOT BE PAID WHEN THE CONTRACTOR IS PERFORMING CORRECTIVE (PUNCH LIST) WORK.*

SECTION 104.07 - ARROW PANEL (AP).
(this task is incidental to Item 1002)

DELETE: **Section 104.07 — Arrow Panel (AP)** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

104.07 ARROW PANEL (AP).

104.07.01 DESCRIPTION.

Furnish and place APs for temporary use.

104.07.02 MATERIALS.

All materials used under this Section must appear on the most recent edition of the *Maryland Department of Transportation, State Highway Administration; Office of Traffic & Safety's* QUALIFIED PRODUCTS LIST (QPL) and must be approved by the MCDOT Materials Control Center and the Division of Traffic Engineering and Operations.

104.07.03 CONSTRUCTION.

Furnish and test the APs as directed 24 hours in advance of actual use. The AP unit shall conform to the Arrow Panel table and be arranged with double pointed arrow configuration capable of displaying a left arrow, right arrow, double arrow, and a four-corner caution mode.

Furnish APs that are self-contained, vehicle-mounted or portable, and approved. Use of a self-contained trailer unit is mandatory unless otherwise specified.

Provide APs that have both manual and automatic dimmer devices capable of reducing the light intensity by 50 percent. Periodically clean the photocells to prevent malfunctioning of the brightness control. Dimmer devices are mandatory during night operation. The devices shall include a fail-safe system that ensures maximum brightness during daytime operations and a reduction in brightness of up to 50 percent during periods of darkness, regardless of which dimmer device is operational.

The AP's shall provide full illumination within at least a 24-degree cone perpendicular to the panel face.

In the event of a breakdown or other mishap, the Contractor shall repair or replace the inoperable AP within two (2) hours.

The Contractor shall provide the name and telephone number of an employee who is available twenty-four (24) hours a day, seven (7) days a week, to repair or replace any AP that may become inoperable. The employee must respond within two (2) hours after notification of a problem.

Power Supply. The AP shall operate from a solar powered electrical system and consist of battery power and solar array panels and be capable of providing power supply to the AP for 21 consecutive days without auxiliary charge.

A sequential chevron shall not be displayed.

ARROW PANEL				
AP UNIT	**MdMUTCD TYPE**	**LAMP OPTIONS***		
		No. 4412 A-Par 46	**No. 4415A**	**1295 GE**
Portable	A, D	—	X	X
Vehicle Mounted	B	X	—	—
Self-Contained Trailer	C	X	—	—

*Or as approved.

Arrow Board Type	Minimum Size	Minimum Legibility Distance	Minimum Number of Elements
A	48x24 in.	½ mile	12
B	60x30 in.	¾ mile	13
C	96x48 in.	1 mile	15
D	None*	½ mile	12

* Length of arrow equals 48 in. width of arrowhead equals 24 in.

Use an AP to close any lane of a multilane highway. Place APs as specified. Maintain APs in good operating order.

(a) The AP shall conform to the applicable requirements of the MdMUTCD and only be used to supplement other required traffic control devices. Use the "Arrow" mode when closing a through travel lane on a multilane roadway. Place only one AP in the "Arrow" mode for each stationary lane closure. Moving work operations may utilize one or more APs for a single lane closure. Ensure that placement does not cause driver confusion near ramps, median crossovers, and side road intersections.

(b) Aim the AP at approaching traffic in conformance with the minimum legibility distances specified above. Ensure that the display is level.

(c) For stationary lane closures, place the AP on the shoulder at the beginning of the taper (nearest to oncoming traffic). Where there are narrow or no existing shoulders in the closed lane behind the channelizing devices, place the AP as near to the beginning of the taper as possible.

(d) For a lane closure on a two-lane, two-way roadway, or for a shoulder closure on any roadway, use the "Caution" mode. In "Caution" mode, one light is displayed in each corner.

(e) For moving operations, refer to Section 104.23.

Defective Arrow Panels. As directed by the Contract Administrator or Designee any defective Arrow Panel shall be replaced immediately by the Contractor. The cost to replace any Arrow Panel, including all material, labor, equipment and tools, will not be measured but shall be incidental to the unit price of the pertinent item specified in the Contract Document. The Contractor must replace any Arrow Panel within four (4) hours after being directed to do so by the Contract Administrator or Designee. The Contractor shall be assessed all applicable penalties and deductions as specified in the Section C Provision of the Contract Document entitled "Failure to Maintain Entire Project" for any Arrow Panel not maintained in proper working order and condition for the entire duration specified on the Temporary Traffic Control Plan or for any additional time as directed by Contract Administrator or Designee.

104.07.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for all material, labor, equipment, tools, incidentals required to setup and operate at the original site and at any relocated site, as required by the Traffic Control Plan or as directed.

ITEM No. 1002 – Arrow Panel - will be measured and paid for at the Contract price per unit day.

104.07.04.01 Unit Day. A unit day shall consist of any approved usage within a 24-hour calendar day period. Each Arrow Panel will be paid for only once per unit day, regardless of how many times it is relocated. When an arrow panel is authorized for use for part of a day, the arrow panel will be measured and paid for as a unit day.

104.07.04.02 Non-Payment.

(a) No payment for any Arrow Panel shall be made when the Arrow Panel is set in place and activated prior to the date authorized in the individual Task Order or activated and left in place after all Task Order work activity has been completed. Payment for the furnishing, setup, activation, maintenance and removal from the work site is incidental to the Contract unit price per unit day paid for the Arrow Panel.

(b) No payment shall be made for any Arrow Panel when the Contractor is not actively working on the subject Task Order on a scheduled workday with favorable weather and grade conditions and at no fault by the County.

104.07.04.03 Failure to Maintain Arrow Panel. The Contractor shall be assessed all applicable penalties and deductions as specified in the Section C Provision entitled "Failure to Maintain Entire Project" of this Contract Document, for any Arrow Panel not maintained in proper working order and condition for the entire duration specified on the Temporary Traffic Control Plan or for any additional time as directed by Contract Administrator or Designee.

104.07.04.04 Payment for Approved Non-Work Calendar Days. To receive payment on a scheduled and approved non-work calendar day for any Arrow Panel specified for use on the approved Temporary Traffic Control Plan, the Contractor's Traffic Manager must certify in writing that he/she inspected the work site during the

non-working hours to ensure that the Arrow Panel was in good order and proper working condition. The work site must be inspected a minimum of once every approved non-work calendar day with work site inspections occurring a minimum of 8 hours apart and a maximum of 12 hours apart for consecutive approved non-work calendar days. The written certification must include a statement of the condition of the Arrow Panel, the date and time of the work site visit, the location of the Arrow Panel and the Traffic Manager's signature. A written certification must be provided for every approved non-work calendar day, within forty-eight (48) hours, even when the approved non-workdays occur in consecutive order.

104.07.04.05 Drums Placed at Arrow Panels. Any Drums for Maintenance of Traffic required for this work will not be measured but the cost will be incidental to the pertinent Contract items. The payment will be full compensation for reflectorization, setting, resetting, removing, sandbags, maintenance, cleaning of drums to like new condition, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. A disposition as specified in Section 104.12.03 is required prior to payment.

Replacement Drums for any Drums damaged by traffic will not be measured but the cost will be incidental to the pertinent Contract items.

During the full Contract Term, no additional payment shall be made for the relocation/resetting of Drums for Maintenance of Traffic within in the limits of construction. The relocation and/or resetting of Drums for Maintenance of Traffic, within the limits of construction for each Task Order shall not be measured but the cost shall be incidental to the pertinent Contract items.

SECTION 104.08 TEMPORARY TRAFFIC SIGNS (TTS).
(this task is incidental to Item 1003)

DELETE: **Section 104.08 ─ Temporary Traffic Signs (TTS)** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

104.08 TEMPORARY TRAFFIC SIGNS (TTS).

104.08.01 DESCRIPTION.
Furnish, install, and maintain TTS on or along all transportation facilities.

During any phase of the Task Order, unless otherwise stated, any additional signing, warning, regulatory, or guide, necessary to facilitate the movement of traffic shall be provided and installed by the Contractor and shall conform to the latest edition of the MUTCD.

If you have any questions regarding these Special Provisions on the Maintenance of Traffic, please contact 240-777-2165.

104.08.02 MATERIALS.

Wood Sign Supports	Sections 921.05 and 921.06
Square Perforated Tubular Steel	As approved by the MCDOT
Sign Supports	Materials Control Center and the Division of Traffic Engineering and Operations
Reflectorization	Section 950.03
Signs	Section 950.08
Portable Sign Supports, Composite Aluminum Signs, Plastic Signs, and Flexible Roll Up Signs	*Maryland Department of Transportation, State Highway Administration; Office of Traffic & Safety's* QUALIFIED PRODUCTS LIST (QPL)

All materials used under this Section must appear on the most recent edition of the *Maryland Department of Transportation, State Highway Administration; Office of Traffic & Safety's* QUALIFIED PRODUCTS LIST (QPL) and must be approved by the MCDOT Materials Control Center and the Division of Traffic Engineering and Operations.

104.08.03 CONSTRUCTION.

Place signing in accordance with the MdMUTCD, the Maryland State Highway Administration's Standard Highway Sign Book (SHSB), and the APPROVED Traffic Control Plan. All work area warning signs shall be 48-inch x 48-inch unless otherwise specified. The SHSB may be obtained from the Office of Traffic and Safety, Traffic Engineering Design Division. Designs of signs not included in the SHSB may be prepared by the Contractor in sketch form, to scale, and for approval by the Montgomery County Division of Traffic Engineering and Operations. Make requests in written form directed to the Contract Administrator or Designee.

Mount signs that will be in place for more than three working days on two 4-inch x 4-inch wood posts or on two 2-inch x 2-inch square perforated tubular steel posts, unless otherwise specified. Mount the sign at a height of at least 7 feet or as specified. Do not place any additional bracing on wood posts unless the sign is behind the protective barrier. The tops of the wood posts shall not protrude more than 3 inches beyond the nearest edge of the sign. Place 4-inch x 4-inch wood posts at least 4 feet into the ground. Place 4-inch x 6-inch wood posts at least 5 feet into the ground.

Signs on portable supports shall be mounted so that the bottom of the sign is at least 1 foot above the roadway pavement elevation. Portable sign supports shall be self-erecting, able to withstand a wind velocity of 70 mph, and able to maintain themselves within five degrees rotation around their vertical axis.

Use the following minimum thickness for fabricated aluminum signs mounted on wood or steel tubular posts.

LONGEST DIMENSION OF SIGN (inches)	MINIMUM THICKNESS (inches)
Less than or equal to 12	0.040
12+ to 24	0.063
24+ to 36	0.080
36+ to 48	0.10
Greater than 48	0.125

When composite aluminum, plastic, or flexible roll up signs are used on portable supports, the support shall be approved by the *Maryland Department of Transportation, State Highway Administration's* Office of Traffic and Safety to hold that sign material. When supported on portable sign supports, composite aluminum signs shall be at least 0.08 in. thick.

TTS shall not be installed until inspected and approved. Do not display signs to traffic until directed. Properly maintain the TTS, leave in place while applicable, and remove immediately when no longer required. When operations are performed in phases or stages, only signs that apply to the present conditions shall be displayed to traffic.

Properly space the signs along the highway to provide adequate sight distance to work zone signs and existing signs. When a sign is not indicative of actual conditions, such as during periods of temporary shutdown or extended periods of no work being performed (including lunchtimes and overnight periods), either remove the entire work zone setup and remove the sign, turn it away from all traffic (turning parallel to traffic is prohibited), or completely cover it with an approved opaque material.

Ensure that signs are not obscured or obstructed, and that they meet all specified sight distance requirements.

Use reflectorized TTS for both daytime and nighttime use.

Maintain sign faces free of tape, tape residue, or any other foreign matter. Remove all advertisements from signs and supports. Ensure that supplemental signs do not cover any part of the face of the primary sign

At the end of the workday, any Temporary Traffic Signs that are not required for the safe maintenance of traffic during the off-work hours, shall be removed from the site and stored in a secure and safe location. Removing Temporary Traffic Signs from the stand or post and laying them along the right-of-way and/or edge of pavement is not acceptable and shall not be allowed.

In areas where longitudinal paving joints are left exposed to traffic, warning signs shall be erected indicating UNEVEN LANES (W8-11). They shall be placed in advance of the uneven joints and spaced at intervals as directed by the Contract Administrator or Designee throughout the area of the uneven joints.

In areas of exposed lateral paving joints, the warning sign message shall be BUMP (W8-1).

When milling pavement, a ROUGH ROAD (W8-8) sign or a GROOVED PAVEMENT (W8-15) sign shall be used.

Along two and three-lane, two-way roadways where a standard center line is not provided and passing is not permitted, DO NOT PASS (R4-1) signs shall be erected at the beginning of the NO PASSING ZONES along the right side and at approximately one thousand five hundred (1500) foot intervals throughout the Task Order unless otherwise directed by the Contract Administrator or Designee. A NO PASSING ZONE sign (W 14-3) shall be erected at the beginning on the left-hand side of the roadway across from the first DO NOT PASS sign.

Sign Replacement. Maintain signs in a new or like new condition. When directed, replace signs that become faded, illegible, or damaged. Signs that are not new may be used only if the reflective intensity at a divergence angle of 0.2 degrees and incidence angle of minus 4 degrees conforms to at least 70 percent of the values specified in Section 950.03 over 90 percent of their reflectorized surface. At other times throughout the duration of the Contract, the sign reflectivity intensity shall be at least 60 percent. The acceptability of the signs shall be determined by 1-foot square test plates calibrated in accordance with these requirements.

104.08.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for furnishing the signs and supports, installation, relocation, maintenance, cleaning, replacement due damage caused by the Contractor's negligence and normal wear, removal and resetting daily, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

ITEM No. 1003 – Temporary Traffic Signs - will be measured and paid for at the Contract unit price per square foot.

104.08.04.01 Contract Term. Temporary Traffic Signs that are furnished, set in place, and removed daily and/or set in place for the duration of the Task Order shall be measured for payment once and **ONLY ONCE** for the entire duration of each **Contract Term**. The beginning and the end of the construction season shall be of no consequence in the measurement and payment of this item. When the **Contract Term** is divided by two calendar years, no additional payment for this item shall be made at the beginning of the succeeding construction season until:

- The total payment, from the preceding construction season that is within the limits of the same **Contract Term**, is exceeded.

- An additional type/classification of sign that was not paid for during the previous construction season is required for use during the second construction season and before the end of the current **Contract Term**.

For this Contract, the **Contract Term** shall be for **ONE (1) year** from the date of signature by the Director, Office of Procurement. Before the contract term ends, the Director may (but is not required to) renew this Contract, if the Director determines that renewal is in the best interests of the County. The Contractor's satisfactory performance does not guarantee renewal of this Contract. The Director may exercise this option to renew for TWO (2) additional one-year (term) periods.

Provided the Director, Office of Procurement renews this Contract for additional **Contract Terms**, the total square feet of Temporary Traffic Signs will be zeroed out. Measurement

and payment for this item will commence at the start of the new **Contract Term**. Payment will be made for each sign type/classification once and only once for the entire duration of the **Contract Term**, regardless of the number of times the individual type/classification of sign paid for in previous Task Orders, is used in succeeding Task Orders.

104.08.04.02 Damaged Temporary Signs. Temporary Traffic Signs, that have been properly set in place and are subsequently damaged beyond repair by traffic at no fault by the Contractor, shall be replaced in kind by the Contractor. The replacement Temporary Traffic Signs will be measured for payment at the Contract unit price. The Contract Administrator or Designee has the sole authority in determining if payment is due for any replacement Temporary Traffic Signs. No additional compensation shall be made to the Contractor for the removal and disposal of any damaged Temporary Traffic Signs.

104.08.04.03 Task Order Completion. When no longer needed, temporary traffic signs and all associated materials and incidentals shall be removed from the Task Order site and become the property of the Contractor

104.08.04.04 Storage. The storage off site when construction activity is suspended due to seasonal weather constraints, the storage off site between Task Order assignments, the removal, transporting, and resetting, of the Temporary Traffic Signs daily shall not be measured for payment but shall be considered incidental to the Contract unit price paid for this item.

104.12 DRUMS FOR MAINTENANCE OF TRAFFIC.
(this task is incidental to Item 1006)

DELETE: **Section 104.12 — Drums for Maintenance** of Traffic of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

104.12 DRUMS FOR MAINTENANCE OF TRAFFIC.

104.12.01 DESCRIPTION.

Furnish, set, reset, maintain, and remove drums for maintenance of traffic.

All Traffic Drums shall be maintained in like new condition. The drums shall be located as specified in the Contract Documents or as directed by the Contract Administrator or Designee.

104.12.02 MATERIALS.

Reflectorization	Section 950.03
Plastic Drums	*Maryland Department of Transportation, State Highway Administration; Office of Traffic & Safety's* QUALIFIED PRODUCTS LIST (QPL)

Drums shall be manufactured of low-density polyethylene (LDPE), 36 inches in height, and have a diameter of at least 18 inches. The drum shall have four, 6-inch-wide horizontal, circumferential, alternating orange and white stripes, with the top stripe being orange. Drums may have one or more flat sides as long as the minimum 18-inch diameter is satisfied. Drums may include recycled plastic content. The drum base may contain up to 100 percent recycled content.

Use high performance wide angle white and fluorescent orange sheeting on all drums.

All materials, including Plastic Drums, must be approved by the MCDOT Materials Control Center and the Division of Traffic Engineering and Operations

104.12.03 CONSTRUCTION.
Use sand-filled bases or bags of sand to keep the drums from moving. Install sandbags on the base of the drum only. Rubber or plastic bases or recycled tires, weighing between 20 and 40 lbs., may be used as a substitute for sandbags.

The Contractor's name or identification mark may be neatly stenciled at the bottom of the nonreflective portion of the drum in letters no more than 2 inches high. No other markings or wording may be on the vertical side of the drum.

Maintain drums in a new or like new condition. Replace drums damaged by traffic within four hours after notification. Damaged drums shall be recycled to the extent possible. The disposition of the damaged drums shall be provided prior to payment for any replacement drums.

104.12.04 MEASUREMENT AND PAYMENT
The payment will be full compensation for reflectorization, setting, resetting, removing, sandbags, maintenance, cleaning of drums to like new condition, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. A disposition as specified in Section 104.12.03 is required prior to payment.

ITEM No. 1006 – Drums for Maintenance of Traffic - will be measured and paid for at the Contract unit price per each.

104.12.04.01 Contract Term. Drums for Maintenance of Traffic that are furnished, set in place, and removed daily shall be measured for payment once and **ONLY ONCE** for the entire duration of each **Contract Term**. The beginning and the end of the construction season shall be of no consequence in the measurement and payment of this item. When the **Contract Term** is divided by two calendar years, no additional payment for this item shall be made at the beginning of the succeeding construction season until:

- The total payment, from the preceding construction season that is within the limits of the same **Contract Term**, is exceeded.

- Any additional Drums that were not paid for during the previous construction season are required for use during the second construction season and before the end of the current **Contract Term**.

For this Contract, the **Contract Term** shall be for **ONE (1) year** from the date of signature by the Director, Office of Procurement. Before the Contract term ends, the Director may (but is not required to) renew this Contract, if the Director determines that renewal is in the best interests of the County. The Contractor's satisfactory performance

does not guarantee renewal of this Contract. The Director may exercise this option to renew for TWO (2) additional one-year (term) periods.

Provided the Director, Office of Procurement renews this Contract for additional **Contract Terms**, the total number of Drums for Maintenance of Traffic will be zeroed out. Measurement and payment for this item will commence at the start of the new **Contract Term**. Payment will be made for each Drum once and only once for the entire duration of the **Contract Term**, regardless of the number of times a counted Drum, paid for in previous Task Orders, is used in succeeding Task Orders.

104.12.04.02 Defective Drums for Maintenance of Traffic. As directed by the Contract Administrator or Designee any defective Drums for Maintenance of Traffic shall be replaced immediately by the Contractor. The cost to replace Drums for Maintenance of Traffic, including all material, labor, equipment and tools, will not be measured but shall be incidental to the unit price of the pertinent item specified in the Contract Document. The Contractor must replace any defective Drums for Maintenance of Traffic within four (4) hours after being directed to do so by the Contract Administrator or Designee. The Contractor shall be assessed all applicable penalties and deductions as specified in the provision of the Contract document entitled "Failure to Maintain Entire Project" for any Drums for Maintenance of Traffic not maintained in proper working order and condition for the entire duration specified on the Temporary Traffic Control Plan or for any additional time as directed by Contract Administrator or Designee.

104.12.04.03 Damaged Drums. Drums for Maintenance of Traffic, that have been properly set in place and are subsequently damaged beyond repair by traffic at no fault by the Contractor, shall be replaced in kind by the Contractor. The replacement Drums will be measured for payment at the Contract unit price. The Contract Administrator or Designee has the sole authority in determining if payment is due for any replacement Drums. No additional compensation shall be made to the Contractor for the removal and disposal of any damaged Drums.

104.12.04.04 Task Order Completion. When no longer needed, all Drums and all associated materials and incidentals shall be removed from the Task Order site and become the property of the Contractor

104.12.04.05 Storage. The storage off site when construction activity is suspended due to seasonal weather constraints, the storage off site between Task Order assignments, the removal, transporting, and resetting, of the Drums for Maintenance of Traffic daily shall not be measured for payment but shall be considered incidental to the Contract unit price paid for this item.

ALL WORK SHALL BE SUSPENDED
FOR PROVIDING IMPROPERLY WEIGHTED DRUMS.

104.14 CONES FOR MAINTENANCE OF TRAFFIC.
(this task is incidental to Item 1007)

DELETE: **Section 104.14 - Cones for Maintenance of Traffic** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

104.14 CONES FOR MAINTENANCE OF TRAFFIC.

104.14.01 DESCRIPTION.

Furnish, set, reset, maintain, and remove cones for maintenance of traffic.

104.14.02 MATERIALS.

Reflectorization	Section 950.03
Cones	*Maryland Department of Transportation, State Highway Administration; Office of Traffic & Safety's* QUALIFIED PRODUCTS LIST (QPL)

All cones shall meet MdMUTCD and be new or like new condition. All cones shall be orange in color. Cones shall be at least 28 inches high, 10 inches in diameter at the inside of the base and reflectorized with two white retroreflective stripes. The top stripe shall be 6 inches wide and located 3 to 4 inches from the top of the cone. The second stripe shall be 4 inches wide and located 2 inches below the top band.

Tall-Weighted Cones: When specified, tall-weighted cones shall be at least 42 inches high and 7 inches in diameter at the inside of the base. Tall-weighted cones shall be manufactured of low-density polyethylene (LDPE) and have four high performance wide angle white and orange retroreflective stripes. The stripes shall be horizontal, circumferential and 6 inches wide. Alternate stripe colors with the top stripe being orange. Any non-retroreflective spaces between the orange and white stripes shall not exceed 1/2 inch.

104.14.03 CONSTRUCTION.

The Contractor's name or identification mark may be neatly stenciled at the bottom of the cone in maximum 2-inch-high letters. Place no other markings or writings on the vertical area of the cone. Turn the cone so that Contractor's name or identification mark faces away from traffic.

Equip all cones with approved weights or anchor collars, (15-pound maximum) as needed to maintain an upright position. Anchor collars shall fit to the base of the cone. For tall-weighted cones use anchor collars weighing 10 to 30 pounds.

Replace cones damaged by traffic within four hours or as directed after being notified.

104.14.04 MEASUREMENT AND PAYMENT.

The payment will be full compensation for furnishing, installing and removing all required cones, reflective collars, approved weights and/or anchor collars, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

ITEM No. 1007 Cones for Maintenance of Traffic - will be measured and paid for at the Contract unit price per each.

104.14.04.01 Contract Term. Cones for Maintenance of Traffic that are furnished, set in place, and removed daily shall be measured for payment **ONCE AND ONLY ONCE** for the entire duration of each **Contract Term**. The beginning and the end of the construction season shall be of no consequence in the measurement and payment of this item.

When the **Contract Term** is divided by two calendar years, no additional payment for this item shall be made at the beginning of the succeeding construction season until:

- The total payment, from the preceding construction season that is within the limits of the same **Contract Term**, is exceeded.

- Any additional cones that were not paid for during the previous construction season is required for use during the second construction season and before the end of the current **Contract Term**.

For this Contract, the **Contract Term** shall be for **ONE (1) year** from the date of signature by the Director, Office of Procurement. Before the Contract term ends, the Director may (but is not required to) renew this Contract, if the Director determines that renewal is in the best interests of the County. The Contractor's satisfactory performance does not guarantee renewal of this Contract. The Director may exercise this option to renew for TWO (2) additional one-year (term) periods.

Provided the Director, Office of Procurement renews this Contract for additional **Contract Terms**, the total number of Cones for Maintenance of Traffic will be zeroed out. Measurement and payment for this item will commence at the start of the new **Contract Term**. Payment will be made for each cone once and only once for the entire duration of the **Contract Term**, regardless of the number of times a counted cone, paid for in previous Task Orders, is used in succeeding Task Orders.

104.14.04.02 Defective Cones for Maintenance of Traffic. As directed by the Contract Administrator or Designee any defective Cones for Maintenance of Traffic shall be replaced immediately by the Contractor. The cost to replace Cones for Maintenance of Traffic, including all material, labor, equipment and tools, will not be measured but shall be incidental to the unit price of the pertinent item specified in the Contract Document. The Contractor must replace any defective Cones for Maintenance of Traffic within four (4) hours after being directed to do so by the Contract Administrator or Designee. The Contractor shall be assessed all applicable penalties and deductions as specified in the provision of the Contract document entitled "Failure to Maintain Entire Project" for any Cones for Maintenance of Traffic not maintained in proper working order and condition for the entire duration specified on the Temporary Traffic Control Plan or for any additional time as directed by Contract Administrator or Designee.

104.14.04.03 Replacement Cones. Cones for Maintenance of Traffic, that have been properly set in place and are subsequently damaged beyond repair by traffic at no fault by the Contractor, shall be replaced in kind by the Contractor. The replacement Cones will be measured for payment at the Contract unit price. The Contract Administrator or Designee has the sole authority in determining if payment is due for any replacement

Cones. No additional compensation shall be made to the Contractor for the removal and disposal of any damaged Cones.

104.14.04.04 Task Order Completion. When no longer needed, Cones for Maintenance of Traffic and all associated materials and incidentals shall be removed from the project site and become the property of the Contractor.

104.14.04.05 Storage. The storage off site when construction activity is suspended due to seasonal weather constraints, the storage off site between Task Order assignments, the removal, transporting, and resetting, of the Cones for Maintenance of Traffic daily shall not be measured for payment but shall be considered incidental to the Contract unit price paid for this item.

104.15 FLAGGER
(this task is incidental to Item 1008)

DELETE: **Section 104.15 - Flagger** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

104.15 FLAGGER.

104.15.01 DESCRIPTION.

Furnish flaggers when specified or directed. Flaggers shall have completed a Maryland State Highway Administration's approved flagger training course within the last four years. The failure of any flagger to perform the required duties will be grounds for replacement.

Flaggers shall utilize two-way radios, field telephones, or pilot vehicles when not within sight distance of each other, or when directed.

Retro-reflective clothing shall be worn by the flagger for any night-time work. This clothing must show the outline of the human form.

104.15.02 MATERIALS.

Reflective Sheeting on the STOP/SLOW paddle	Section 950.03

Paddles shall be 24 inches by 24 inches with letters at least 8 inches high and mounted at least 5 feet above the ground.

104.15.03 CONSTRUCTION.

Flagging shall conform to MdMUTCD. All outfits and equipment (STOP/SLOW paddles, pilot cars or other vehicles, air horns or bull horns, field telephones, two-way radios, site illumination, etc.) will be subject to approval. All Flaggers shall use STOP/SLOW paddles. The use of flags or any other device shall NOT be permitted. Standard paddle sign design shall be as specified in Part VI of the

latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). The use of additional flaggers, when required for intersection work, shall be as directed and authorized by the County.

104.15.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for safety clothing, STOP/SLOW paddles, two-way radios, field telephones, pilot vehicles and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

ITEM No. 1008 - Flagger - will be measured and paid for at the Contract unit price per hour. Payment shall only be made for the actual time the flagger is performing a required and necessary flagging operation.

Only flaggers authorized and required to be on site by the County will be measured for payment.

ALL FLAGGERS MUST BE:

MARYLAND STATE HIGHWAY ADMINISTRATION (MSHA) CERTIFIED

OR

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED

104.18 TRAFFIC MANAGER (TM).
(this task is incidental to Item 1001)

DELETE: **Section 104.18 ─ Traffic Manager (TM)** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

104.18 TRAFFIC MANAGER (TM).

104.18.01 DESCRIPTION.

Provide a Traffic Manager (TM).

104.18.02 MATERIALS.

Not Applicable.

104.18.03 CONSTRUCTION.
Submit the TM's name for approval at least 10 days prior to commencing any work on the Task Order. Provide proof that the TM has completed a MSHA approved Temporary Traffic Control training course within the last four years. A change in the appointment of any TM throughout the duration of the Contract will require a written submittal for approval. Any failure of the TM to perform the required duties will be grounds for replacement. The TM shall be available at all times and be on site within 1/2 hour during periods of active work in the work zone.

The TM shall do the following:

(a) Implement the Temporary Traffic Control Plan (TTCP), maintain an up-to-date TTCP, and provide a copy to the Contract Administrator or Designee following any changes.

(b) Closely coordinate the operations with the Contract Administrator or Designee and supervise the maintenance of traffic for the Task Order, including those involving subcontractors.

(c) Make on-site inspections of the area affected by the work daily including Saturdays, Sundays, and holidays, and be available for consultation at all times. When the TTCP is in place, make daily inspections during hours of operations and at least one-night inspection per week. Perform additional inspections as directed.

(d) During holiday periods, in addition to the monitoring of the maintenance of traffic, conduct a surveillance of any area affected by the Contract work.

(e) Maintain a daily log of the inspections and include the date, time, hours worked, condition of maintenance of traffic, and any corrective action taken. Furnish a copy of the daily log to the Contract Administrator or Designee by the following day.

(f) Provide coordination between adjacent work zone operations to ensure that inappropriate or conflicting messages or devices are not displayed to traffic.

(g) Immediately, notify the Contract Administrator or Designee of any accident or incident within the area affected by the Contract.

(h) Make inspections during and immediately after adverse weather conditions to ensure that the traffic control devices are clean, undamaged, and in the correct position.

104.18.04 MEASUREMENT AND PAYMENT.
Traffic Manager shall not be measured for payment, but the cost shall be incidental to the Maintenance of Traffic item specified in this Contract Document and made part of the individual Task Orders.

104.19 PORTABLE VARIABLE MESSAGE SIGNS (PVMS)
(this task is incidental to Item 1009)

DELETE: **Section 104.19 - Portable variable Message Signs (PVMS)** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

104.19 PORTABLE VARIABLE MESSAGE SIGNS (PVMS).

104.19.01 DESCRIPTION.

Furnish, install and relocate portable, self-contained, trailer mounted variable message signs.

For this Contract, the manufacturer and type of PVMS shall be submitted to the Contract Administrator or Designee and the MCDOT Division of Traffic Engineering and Operations for approval prior to the commencement of work. Only MCDOT approved PVMS units shall be measured for payment.

104.19.02 MATERIALS.

PVMS	*Maryland Department of Transportation, State Highway Administration;Office of Traffic & Safety's* QUALIFIED PRODUCTS LIST (QPL)

All materials shall be like new, corrosion resistant, and unaffected by water spray, salt, oil, gasoline, and all other contaminants in the quantities normally found along the edge of the traveled roadway. Construction, materials, and operation shall meet NFPA, UL, and NEC. Ensure that sign messages are visible and legible for 900 feet from any point along the traveled approach roadway at all times. The PVMS shall be equipped with a sighting device to provide alignment for maximum visibility.

104.19.03 CONSTRUCTION.

104.19.03.01 Equipment.

- **Trailer.** In accordance with Maryland Motor Vehicle Law.
- **Structural Support.** The structural support framework shall allow the system to be assembled into a unit and be mounted on the trailer and shall provide the support mechanism between the sign panel assembly, the power supply, and the controller.

  The framework shall provide sufficient support to prevent damage to any unit component when the sign is in down and locked position during normal highway travel.

  The deployed structure shall supply adequate support to allow complete sign operation, including raising and lowering of the sign panel, during sustained wind speeds of 85 mph.

  The display windows shall be made of impact-resistant clear Lexan or as approved.
- **Sign Panel.** Not to exceed 144 in. length, 90 in. height, 12 in. depth.
- **Display.**

  (a) Capable of displaying three lines of text.

(b) Each line of text shall be constructed using either a discrete matrix or a full matrix display.

(c) Capable of displaying eight characters per line.

(d) The character height shall be at least 18 in.

(e) If discrete matrix display is used, each character shall be displayed using a 5 x 7 array with at least eight array modules per line.

A 4-1/4 to 7 in. space shall exist between each display line with no glare reflection.

(f) If full matrix display is used, the sign shall have at least 25 rows and 45 columns of disks. Each display line shall have at least 7 rows and 45 columns of disks and a 4-1/4 to 7 in. space between each display line with no glare reflection.

- **Flip Disk Mechanism.**

(a) Be electromagnetically activated, with a service life of at least 200 million operations.

(b) Have a reflective surface that will maintain color intensity for at least three years.

(c) Be circular or rectangular, with a visible surface area between 3-3/4 and 4-1/4 in^2.

- **LED Illumination.** LED illumination for each matrix element shall:

(a) Meet ITE specification for amber color.

(b) Utilize AlInGaP substrate.

(c) Each LED shall produce at least a 1 candela output on center at 25 mA drive current.

(d) Each matrix element shall have at least two LED's located within the perimeter of the flipping disk.

(e) Provide full illumination within at least a 24-degree cone perpendicular to the sign face.

(f) Have an operating temperature range of -40 to 160 F.

- **PVMS UNIT.**

Lift Mechanism.

(a) Electric or electrically assisted hydraulic mechanism capable of raising and lowering the sign panel.

(b) Capable of being raised or lowered manually.

(c) Furnished with a stainless-steel safety bolt to prevent the sign panel from lowering once in the raised position. A self-locking mechanism shall be incorporated into the safety bolt to prevent it from being inadvertently dislodged.

(d) Designed to allow the raised sign panel to rotate 360 degrees about the vertical axis.

(1) Allow rotation clockwise and counter-clockwise.

(2) A mechanism shall be provided to lock the sign panel in place, at any position.

Electrical Connections and Gauges.

(a) All wiring from power sources to PVMS equipment shall use locking cable connectors.

(b) Volt and amp gauges shall be provided for both AC and DC.

(c) Standard negative ground system shall be tied to the sign chassis.

(d) Lightning protection shall be supplied to the load side of the sign system's distributed power lines to withstand multiple surges more than 600 volts.

Power Supply. Either a solar powered electrical system, or existing commercial electrical service.

Solar Powered Electrical System. Battery power system and solar array panels capable of displaying a two-page message for 21 consecutive days without auxiliary charge.

Sign Controller.

(a) Capable of driving the matrix display panel operating over a -50 to 150 F range and in a 20 to 100 percent noncondensing humidity range.

(b) Accommodate 100 pre-programmed, user-defined messages.

(c) Capable of displaying three sequenced messages. On/Off time for each message in a sequence shall be user adjustable within a range of 0 to 5 seconds.

(d) Designed for fail-safe prevention of improper information display in the case of a system malfunction.

(e) Cause a user defined default message to be displayed in case of failure of the PVMS unit when flip disk mechanism is used.

(f) Have the capability of retrieving all messages stored in temporary memory.

(1) Temporary memory shall be nonvolatile.

(2) All messages and programs shall remain resident in the controller's memory in the event of a power failure.

(3) Have an RS-232 port to facilitate connection of an external communication device.

(g) Capable of automatic system recovery after power outages to the central controller without operator intervention, including the ability to maintain an up-to-date status on a remote unit if sign is operated from a remote location.

(h) Monitor and display the battery output voltage and solar array activities (charging/discharging) and blank the sign when the battery output voltage drops below the manufacturer's recommended output level.

(i) Capable of monitoring and displaying the status of the photocell and adjusting the sign illumination to match the ambient light conditions. The controller shall have at least nine levels of dimming from 10 to 100 percent brightness.

(j) Contained in a secure weatherproof cabinet located on the controller housing and insulated to protect against excessive vibration, temperature or tampering.

(1) Equipped with a lockable door latch and an interior cabinet dome light.

(2) Provided with a keyboard storage location inside the cabinet.

(3) Security locks shall include those installed by the manufacturer and an additional hardened hasp/lock combination with a user changeable combination. This hasp/lock setup shall be installed in a manner to maximize its effectiveness in stopping unauthorized access to the sign controls. For control box surfaces not compatible with the hasp/lock setup, other supplemental high security locking devices may be approved by the Contract Administrator or Designee.

Security.

(a) Lock all trailer control cabinets when not attended by Contractor’s employee or, whether being stored, in transport, or deployed and activated.

(b) Do not store or maintain any passwords on the PVMS.

(c) Remove any password attached or inscribed on the PVMS trailer or equipment.

(d) Change the password when it is no longer secure, or every 6 months, whichever comes first.

(e) Some older model PVMS may not have a changeable password, so extra measures shall be taken to hide the password.

(f) Do not leave Owner/Instruction manuals in the trailer control cabinets. Manuals should be copied and made available to the personnel responsible for deploying the PVMS Signs.

(g) When equipped with a detachable keyboard, remove it from the trailer and secure in the transport vehicle, field office, or at the respective shop.

(h) Failure to comply with these security standards or any subsequent PVMS tampering incidents will be cause for penalty under the provision entitled **FAILURE TO MAINTAIN ENTIRE PROJECT.**

(i) Construction and District Inspectors will ensure contractor compliance.

Character Set Software.

(a) Have all the standard ASCII characters and symbols.

(b) Provide left and right arrows.

(c) Have all alphanumeric entries performed with a keyboard or keypad that causes the same character to be displayed on the matrix. Arrow symbols shall be generated via a cursor pad on the keyboard or keypad.

(d) Have messages default to self-centering display with the ability to left or right justify a display when full matrix is used.

104.19.03.02 Set up and operate the PVMS on the project site 24 hours in advance of actual use. Ensure that each unit is functioning properly and approved. Locate the PVMS as specified.

Aim the PVMS at approaching traffic in accordance with the 900 feet minimum visibility and legibility requirement. Ensure that the PVMS is level and that the sign face is not obscured by highway alignment or glare from either sunlight or vehicle headlights.

104.19.04 MEASUREMENT AND PAYMENT.

The payment will be full compensation for the electrical power and hook up, setup and maintenance of computer programs, changing messages, and for all material, labor, equipment, tools, any incidentals required for setup and operation at the original site and at any relocated site as required by the Traffic Control Plan or as directed any and incidentals necessary to complete the work.

ITEM No. 1009 - Portable Variable Message Sign - will be measured and paid for at the Contract price per unit day. This unit price will be the same regardless of the type of unit used.

104.19.04.01 Unit Day. A unit day shall consist of any approved usage within a 24-hour calendar day period. Each Portable Variable Message Sign will be paid for only once per unit day, regardless of how many times it is relocated. When a Portable Variable Message Sign is authorized for use for part of a day, the Portable Variable Message Sign will be measured and paid for as a unit day.

104.19.04.02 Defective Portable Variable Message Sign. As directed by the Contract Administrator or Designee any defective Portable Variable Message Sign shall be replaced immediately by the Contractor. The cost to replace Portable Variable Message Signs, including all material, labor, equipment and tools, will not be measured

but shall be incidental to the unit price of the pertinent item specified in the Contract Document. The Contractor must replace any defective Portable Variable Message Sign within four (4) hours after being directed to do so by the Contract Administrator or Designee. The Contractor shall be assessed all applicable penalties and deductions as specified in the provision of the Contract document entitled "Failure to Maintain Entire Project" for any Portable Variable Message Sign not maintained in proper working order and condition for the entire duration specified on the Temporary Traffic Control Plan or for any additional time as directed by Contract Administrator or Designee.

104.19.04.03 Non-Payment.

(a) No payment for any Portable Variable Message Sign shall be made when the Portable Variable Message Sign is set in place and activated prior to the date authorized in the individual Task Order or activated and left in place after all Task Order work activity has been completed. Payment for the furnishing, setup, activation, maintenance and removal from the work site is incidental to the Contract unit price per unit day paid for the Portable Variable Message Sign.

(b) No payment shall be made for any Portable Variable Message Sign when the Contractor is not actively working on the subject Task Order on a scheduled workday with favorable weather and grade conditions and at no fault by the County.

104.19.04.04 Failure to Maintain Portable Variable Message Sign. The Contractor shall be assessed all applicable penalties and deductions as specified in the provision entitled "Failure to Maintain Entire Project", of this Contract Document, for any Portable Variable Message Sign not maintained in proper working order and condition for the duration specified in the Temporary Traffic Control Plan or for any additional time as directed by Contract Administrator or Designee.

104.19.04.05 Payment for Approved Non-Work Calendar Days. To receive payment on a scheduled and approved non-work calendar day for any Portable Variable Message Sign specified for use on the approved Temporary Traffic Control Plan, the Contractor's Traffic Manager must certify in writing that he/she inspected the work site during the non-working hours to ensure that the Portable Variable Message Sign was in good order and proper working condition.

The work site must be inspected a minimum of once every approved non-work calendar day with work site inspections occurring a minimum of 8 hours apart and a maximum of 12 hours apart for consecutive approved non-work calendar days. The written certification must include a statement of the condition of the Portable Variable Message Sign, the date and time of the work site visit, the location of the Portable Variable Message Sign and the Traffic Manager's signature.

A written certification must be provided for every approved non-work calendar day even when the approved non-workdays occur in consecutive order.

104.19.04.06 Drums Placed at VMS. Any Drums for Maintenance of Traffic required for this work will not be measured but the cost will be incidental to the Contract price per unit day paid for this item. The payment will be full compensation for reflectorization, setting, resetting, removing, sandbags, maintenance, cleaning of drums to like new condition, and for all material, labor, equipment, tools, and incidentals

necessary to complete the work. A disposition as specified in Section 104.12.03 is required prior to payment.

Replacement Drums for any Drums damaged by traffic will not be measured but the cost will be incidental to the Contract price per unit day paid for this item.

No additional payment shall be made for the relocation/resetting of Drums for Maintenance of Traffic within in the limits of construction. The relocation and/or resetting of Drums for Maintenance of Traffic, within the limits of each Task Order, will not be measured but the cost will be incidental to the pertinent Contract items.

104.20 TEMPORARY ORANGE CONSTRUCTION FENCE. (this task is incidental to Item 1010, 1011)

DELETE: **Section 104.20 - Temporary Orange Construction Fence** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

104.20 TEMPORARY ORANGE CONSTRUCTION FENCE.

104.20.01 DESCRIPTION.

Furnish, install, and maintain new or like new temporary orange mesh construction fence. **This fence is not to be used as a safety barrier.**

104.20.02 MATERIALS

Precast Concrete Blocks	Section 903.05
Tie Wire, Tension Wires, Tension Wire Clips and Hardware	Section 914.02
Orange Mesh Fencing	As approved

Fence posts shall be 4 feet high, 1.90 inches diameter round posts; or 5-1/2 feet high, 2-inch steel U channel posts, as specified herein.

Submit samples of the fence fabric, fence posts, movable precast concrete blocks, tie wire, tension wires, and other miscellaneous hardware for approval.

104.20.03 CONSTRUCTION.

Temporary orange construction fence shall be at least 4 feet high and with a maximum post spacing of 8 feet. When installed on a paved surface, support the fence by inserting the round post into a precast concrete block having a round hole through the center of the block. When installed in unpaved areas, use steel U channel fence posts driven 1-1/2 feet into the ground. Installation of the fence in any other manner will require approval.

Secure the fabric to the posts by wrapping a tie wire around the horizontal fence strands and the posts. Install a top tension wire to prevent sagging. When installed on paved surfaces, the Contract Administrator or Designee will determine if a bottom tension wire is required.

Remove the fence when the Contract Administrator or Designee determines that the fence is no longer required. The removed fence is the property of the Contractor.

Damaged Construction Fence. Repair or replace damaged construction fence within four hours after notification.

104.20.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for the final removal and site restoration and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

(a) ITEM No. 1010 – Furnish and Install Temporary Orange Construction Fence for Tree Protection (Bid Price Must Not Exceed Three Dollars Per Linear Foot) and shall be measured and paid for at the Contract unit price per linear foot for the actual number of linear feet measured to the centers of end posts.

(b) ITEM Nos. 1011 – Remove and Reset, Including Final Removal, Temporary Orange Construction Fence for Tree Protection (Bid Price Must Not Exceed One Dollars and Seventy-Five Cents [$1.75] Per Linear Foot) - shall be measured and paid for at the Contract unit price per linear foot for the actual number of linear feet measured to the centers of end posts.

NOTICE: ***TEMPORARY ORANGE CONSTRUCTION FENCE IS NOT ACCEPTABLE AND SHALL NOT BE USED AS A BARRIER DEVICE AROUND ANY EXCAVATED AREA, OPEN STRUCTURE UNDER CONSTRUCTION, ANY SEDIMENT CONTROL DEVICE OR ANY OTHER HAZARD THAT THREATENS PEDESTRIAN SAFETY. ONLY WELDED WIRE OR CHAIN LINK FENCE FABRIC IS TO BE USED FOR THESE APPLICATIONS.***

104.31 ACCESSIBLE PEDESTRIAN MAINTENANCE OF TRAFFIC.
(this work is incidental to the items of work specified for each individual Task Order)

DELETE: **Section 104.31 — Accessible Pedestrian Maintenance of Traffic** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

104.31 ACCESSIBLE PEDESTRIAN MAINTENANCE OF TRAFFIC.

104.31.01 DESCRIPTION.
Provide and maintain an accessible pedestrian route, to the "maximum extent feasible", throughout the Task Order's limits. When an existing pedestrian access route within the public right of way is blocked by construction, alteration, or maintenance activity, an alternate accessible pedestrian route shall be provided.

The phrase to the "maximum extent feasible" applies in areas where the nature of an existing facility or site conditions makes it virtually impossible to comply fully with applicable accessibility standards through a planned alteration. In these circumstances, the alternate accessible pedestrian route shall provide the maximum physical accessibility that is feasible, or a design waiver must be approved by the MCDOT Division of Traffic Engineering and Operations.

104.31.02 MATERIALS.

Not applicable

104.31.03 CONSTRUCTION.

The following shall be considered when addressing accessible pedestrian maintenance of traffic:

(a) All pedestrians, including persons with disabilities, shall be provided with a reasonably safe, convenient and accessible path that replicates as much as practicable the existing pedestrian facilities.

(b) The width of the existing pedestrian facility should be maintained if practical. When it is not possible to maintain a minimum width of 60 inches throughout the entire length of the pedestrian route, a minimum width of 36 inches shall be provided with 60-inch x 60 inch passing zones at least every 200 feet, to allow individuals in wheelchairs to pass.

(c) Traffic control devices and other construction materials and features shall not intrude into the usable width of the sidewalk, temporary pathway or other pedestrian facility.

(d) Signs and other devices mounted lower than 7 feet above the temporary pedestrian pathway shall not project more than 4 inches into accessible pedestrian route.

(e) A smooth, continuous hard surface shall be provided throughout the entire length and width of the pedestrian route throughout construction. There shall be no curbs or vertical elevation changes greater than 1/4 in. in grade or terrain that could cause tripping or be a barrier to wheelchair use. Vertical elevation differences between ¼ inch and ½ inch shall be beveled at a maximum 2:1 slope.

(f) When channelization is used to delineate a pedestrian pathway, a continuous detectable edging should be provided throughout the length of the facility such that pedestrians using a white cane can follow it. Edging should protrude at least 6 in. above the surface of the sidewalk or pathway with the bottom of the edging a maximum of 2.5 in. above the surface

(g) Temporary ramps shall be provided when an alternate pedestrian route crosses a curb and no permanent ramps are in place. The width of the ramp shall be a minimum of 36 inches, and the slope of the ramp shall not exceed 12:1. Temporary detectable warning mats must be installed at street crossings and signalized entrances.

(h) When possible, an accessible pedestrian route shall be provided on the same side of the street as the disrupted route. When it is not feasible to provide a same-side accessible pedestrian route an accessible pedestrian detour route shall be provided.

(i) Information regarding closed pedestrian routes, alternate crossings, and sign and signal information shall be communicated to pedestrians with visual disabilities by providing

devices such as audible information devices, accessible pedestrian signals or barriers and channelizing devices that are detectable to the pedestrians traveling with the aid of a white cane or who have low vision.

(j) It is desirable that pedestrians cross to the opposite side of the roadway at intersections rather than mid-block. Appropriate signing shall be placed at the intersections.

(k) Access to transit stops shall be provided and maintained at all times.

104.31.04 MEASUREMENT AND PAYMENT.

Accessible Pedestrian Maintenance of Traffic shall not be measured but the cost shall be incidental to the pertinent items specified in this Contract Document and made part of the individual Task Orders. The payment will be full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work.

104.40 MCDOT - TEMPORARY CONSTRUCTION FENCE. (this task is incidental to Item 1012)

104.40.01 DESCRIPTION.

The Contractor is responsible to protect any dangerous and hazardous conditions arising from the Contractor's activities. This work requires furnishing and installing new or like-new temporary galvanized steel chain link fence or a welded wire fence. The fence shall be used primarily as a barrier between areas of public access and the work zone. Prior to the placement of any fencing, the Contractor will review his/her proposed location of the fence with the Contract Administrator or Designee in the field. The Construction Fence shall be a minimum of 4 feet in height.

104.40.02 MATERIALS.

Chain Link Fence Fabric	Section 914.01
Precast Concrete Blocks	Section 903.05
Tie Wire, Line Post Clips, Tension Wire, Tension Wire Clips	Section 914.02
Posts, Braces, Fittings, and Hardware	Section 914.03

Welded wire fence shall be a minimum of forty-eight (48) inches high, have posts spaced no farther apart than eight (8) feet, be made of a minimum fourteen (14) gauge welded wire fabric, and must have openings no greater than two (2) inches in width and four (4) inches in height. Fence posts shall be two (2) inch steel U-channel, a minimum of six (6) in height.

104.40.03 CONSTRUCTION.

Temporary Construction Fence shall be a minimum of four (4) feet in height with the post spacing not to exceed eight (8) feet. When the fence is installed in unpaved areas, the fence posts shall be driven a minimum of one and one-half (1½) feet into the ground.

When the fence is installed on paved or other impenetrable surfaces, rigid fence panels, six (6) feet high by eight (8) feet long shall be used. Panels shall be constructed in such a manner as to allow for

the placement of the panel posts in the precast concrete blocks. The concrete blocks shall have a hole through the center sized to hold the inserted post true and plumb and be of sufficient mass to support and hold the fence upright in a fifty (50) mile per hour wind. A minimum of three brackets must be used to connect adjacent vertical posts occupying the same concrete block.

The fence fabric shall be attached to the posts using tie wire. The tie wire shall be wrapped around the horizontal fence strands and the posts, securing the fabric to the posts. A tension wire shall be used to prevent sagging. When installed on paved surfaces, the Contract Administrator or Designee shall determine if a bottom tension wire is required. The Contractor may elect to install the construction fence in another manner if approved by the Contract Administrator or Designee.

Samples of the fence fabric, fence posts, movable precast concrete blocks, tie wire, tension wires and other miscellaneous hardware shall be submitted to the Contract Administrator or Designee prior to installing any fencing.

Damaged construction fencing and shall be repaired or replaced no later than four (4) hours after the Contractor has been notified. When the Contract Administrator or Designee determines that the Temporary Construction Fence is no longer needed, it shall be removed by the Contractor. Upon removal, ownership of the Temporary Construction Fence shall be retained by the Contractor.

104.40.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for the furnishing, installation, maintenance and removal, all posts, fabric, hardware, concrete blocks, and hardware, and all material, labor, equipment, tools, and incidentals necessary to complete the work.

ITEM No. 1012 – Furnish & Install (Including Final Removal) Temporary Construction Fence: Minimum 4 Feet in Height - will be measured for payment at the Contract unit price per linear foot.

Any repair or replacement of the Temporary Chain Link Construction Fence necessary because of any construction activity or negligence on the part of the Contractor or his/her agent(s), will not be measured for payment, but will be made entirely at the Contractor's expense.

There will be no additional measurement or payment for temporarily or permanently removing, relocating, and/or reinstallation of the Temporary Construction Fence from its original location made necessary due interference or conflict with any subsequent construction activity.

SECTION 105 – AGGREGATE FOR MAINTENANCE OF TRAFFIC
(this task is incidental to Item 1019)

DELETE: **Section 105 – Aggregate for Maintenance of Traffic** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

SECTION 105 – AGGREGATE FOR MAINTENANCE OF TRAFFIC

105.01 DESCRIPTION.
Place aggregate material for the maintenance of traffic.

105.02 MATERIALS.

Crusher Run Aggregate CR-6	Section 901.01
Bank Run Gravel Subbase	Section 901.01
Graded Aggregate Base	Section 901.01

Black Sand for Maintenance of Traffic. - This material must match the color of the applied Slurry Seal and Latex Modified Slurry Seal. When tested in accordance with AASHTO T 27 (ASTM C 136) and AASHTO T 11 (ASTM C 117), including all addenda, additions and revisions thereto, the gradation of the Black Sand shall fall within the following parameters:

SIEVE SIZE								
ENGLISH	**3/8**	**#4**	**#8**	**#16**	**#30**	**#50**	**#100**	**#200**
METRIC	**9.5 mm**	**4.75 mm**	**2.36 mm**	**1.18 mm**	**600 µm**	**330 µm**	**150 µm**	**75 µm**
PERCENT PASSING	100	100	90 - 100	65 - 90	40 - 65	25 - 42	15 - 30	10 - 20

A sample of this material must be provided to the Contract Administrator or Designee and the MCDOT Materials Control Center for testing and acceptance prior to the commencement of any work.

ALL MATERIAL USED UNDER THIS ITEM SHALL BE ASBESTOS FREE.

105.03 CONSTRUCTION.
In general, Refer to Section 501.03:

Black Sand for Maintenance of Traffic will be manually broadcast over the newly applied Slurry Seal at any intersection where it is not practical to keep vehicular traffic off the roadway until the Slurry Seal material has fully cured. Included in this work is the cleanup, removal, re-handling and off-site disposal of any loose material after it has been determined by the Contract Administrator or Designee that the Black Sand for Maintenance of Traffic is no longer necessary.

105.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for all aggregate, hauling, placing, compacting, removal, re-handling, reworking, and disposal, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

ITEM No. 1019 – Crusher Run Aggregate CR-6 for Maintenance of Traffic - will be measured and paid for at the Contract unit price per ton.

105.04.01 Any Graded Aggregate Base for Maintenance of Traffic that is reused as Select Borrow Excavation shall not be measured for payment under the Borrow Excavation items. Once the material is measurement for payment under Graded Aggregate (GAB) for Maintenance of Traffic item, the material shall not be measured for payment a second time.

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SECTION 106 – ASPHALT MIXES FOR MAINTENANCE OF TRAFFIC

(this task is incidental to Item 1015, 1016)

DELETE: **Section 106 – Asphalt Mixes for Maintenance of Traffic** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

SECTION 106 – ASPHALT MIXES FOR MAINTENANCE OF TRAFFIC

106.01 DESCRIPTION.

This work shall consist of utilizing COLD ASPHALT MIX, ASPHALT MIX (Warm or Hot) pavement for maintenance of traffic within the existing facilities as specified in the Contract Documents or as directed by the Contract Administrator or Designee. The type of material used, Cold Asphalt Mix, Asphalt Mix (Warm or Hot), will be determined by the Contract Administrator or Designee in the field.

106.02 MATERIALS.

Tack Coat (Rapid Setting)	Section 904.03
Hot/Warm Asphalt Mix	Section 904.04
Cold Asphalt Mix	Mix Design as approved by the MCDOT Materials Control Center
Crack Filler	Sections 911.01 & 911.01.01
Production Plant	Section 915

106.03 CONSTRUCTION.

Refer to the applicable portions of Section 504.03 and the following:

Cold Mix Asphalt for Maintenance of Traffic or Hot/Warm Mix Asphalt for Maintenance of Traffic shall be used for, but not limited to, the ramping of all storm drains and utility appurtenances protruding above the milled pavement surface and at all temporary pavement tie-ins between existing pavement and milled pavement. This material shall be placed at a minimum slope of 18:1 or as directed by the Contract Administrator or Designee.

106.04 MEASUREMENT AND PAYMENT.

The payment will be full compensation for all tack coats, crack filler, hauling, placing, compacting, maintaining, removal, rehandling, reworking, disposal, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

When an asphalt mix is part of any base or pavement course used for the construction and maintenance of temporary detours, approaches, crossings, and widenings, the item of work will be measured and paid for as specified in Section 504. For payment of temporary tie-ins, refer to Section 504.04.

(a) ITEM No. 1015 – Hot/Warm Asphalt Mix for Maintenance of Traffic will be measured and paid for at the Contract unit price per ton.

(b) ITEM No. 1016 – Cold Asphalt Mix for Maintenance of Traffic will be measured and paid for at the Contract unit price per ton.

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SECTION 108 – MOBILIZATION

(this work is incidental to the items of work specified for each individual Task Order)

DELETE: **Section 108 – Mobilization** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

SECTION 108 – MOBILIZATION.

108.01 DESCRIPTION.
Construction preparatory operations that include the movement of personnel and equipment to the project site and the establishment of the Contractor's offices, buildings, and other facilities necessary to begin work.

108.02 MATERIALS.

Not applicable.

108.03 CONSTRUCTION.

Not applicable.

108.04 MEASUREMENT AND PAYMENT
Mobilization shall not be measured for payment. The cost for Mobilization, including the required insurance and bonds, shall be incidental to the other items specified in the Contract Documents and the items of work specified for each individual Task Order.

108.04.01 No additional compensation or time extensions shall be provided to the Contractor regardless of the number of times the Contractor is required by the County or regardless of the number of times the Contractor and/or Subcontractor(s) choose to relocate, mobilize, demobilize and remobilize his/her personnel and equipment within the physical limits of each Task order and within the time limit specified for completion of each Task order.

108.04.02 When the Contractor fails to complete a Task Order within the time specified and within the accepted time constraints of a normal construction season, no additional compensation shall be provided to the Contractor when the Contractor is directed by the County to remobilize and continue work during extended periods of acceptable weather conditions.

SECTION 110 – MCDOT ACTIVITIES CHART PROJECT SCHEDULE (renamed)

(this work is incidental to the items of work specified for each individual Task Order)

110.01 DESCRIPTION.

Plan, schedule, and construct the Task Order using an Activities Chart (AC). The AC shall break down into detail the Contract time required to perform the work activities for the specified duration of the Task Order. Use the AC for coordinating and monitoring the work specified in the Contract Documents including activities of subcontractors, vendors, suppliers, utilities, railroads, and other parties associated with the construction of the Contract.

(a) Task Order Work Assignments. The Contract Administrator or Designee will provide a written assignment for each Task Order. The written assignment for the Task Order will include:

(1) Location of the work to be performed

(2) Description of the work to be performed

(3) The approximate quantities and items of work that will be required to complete the Task Order.

(4) The time duration, measured in the number of calendar days, that the Contractor will be allowed to complete the Task Order.

The Contractor must then prepare a schedule, for each Task Order, to perform the designated items and quantities of work in the specified time in accordance with **TABLE A**.

(b) Table A.

TABLE A		
CONSTRUCTION DURATION	**IAC[1]**	**ACR UPDATES[2]**
30 CALENDAR DAYS OR LESS	A MINIMUM OF 7 CALENDAR DAYS PRIOR TO THE SPECIFIED NOTICE-TO-PROCEED/WORK COMMENCEMENT DATE FOR THE INDIVIDUAL TASK ORDER	EVERY 7 CALENDAR DAYS
30 TO 60 CALENDAR DAYS	A MINIMUM OF 7 CALENDAR DAYS PRIOR TO THE SPECIFIED NOTICE-TO-PROCEED/WORK COMMENCEMENT DATE FOR THE INDIVIDUAL TASK ORDER	EVERY 14 CALENDAR DAYS
MORE THAN 60 CALENDAR DAYS	A MINIMUM OF 7 CALENDAR DAYS PRIOR TO THE SPECIFIED NOTICE-TO-PROCEED/WORK COMMENCEMENT DATE FOR THE INDIVIDUAL TASK ORDER	EVERY MONTH (WITH PAYMENT INVOICE) OR EVERY 30 DAYS (AT DISCRETION OF CONTRACT ADMINISTRATOR OR DESIGNEE)

TABLE A NOTES: [1]DUE AFTER THE CONTRACTOR RECEIVES THE LIMITED NOTICE-TO-PROCEED FROM THE CONTRACT ADMINISTRATOR OR DESIGNEE.

[2]DUE AFTER THE FIRST SCHEDULED DAY OF WORK

Once a Task Order has been assigned, the Contractor must perform the work in a diligent and timely manner. Abandoning the work for any length of time shall not be tolerated. Contractors not completing the work in the time specified will be assessed liquidated damages.

As stated elsewhere in this Contract Document, the quantities and items of work are estimates only. As warranted by existing field conditions and as directed by the Contract Administrator or Designee, the quantities may be overrun, under-run, or not used at all. Payment will be made only for the actual work performed by the Contractor. Additional items of work may be added as determined and directed by the Contract Administrator or Designee. In the event of adding items of work to the Task Order, adjustments to the Calendar Day time duration may be made as deemed fair and reasonable by the Contract Administrator or Designee.

110.01.01 Initial Activities Chart Task Order Schedule (IAC). The IAC shall consist of:

(a) A chronologically sequenced bar chart in which work activity durations shall be represented by working days, calendar days, or completion date as specified in the Invitation for Bids (IFB) in an electronic schedule file (.xer file extension) generated in Primavera P6 or an equivalent Planning and Scheduling software approved by the Contract Administrator or Designee. An electronic schedule file (.xer file extension) may NOT be required by the Contract Administrator or Designee should the total project duration be 10 working days or less with submission of (a) and (b).

(b) A Written Narrative (WN) describing the original sequence of work, number of shifts per day, number of hours per shift, number and composition of crews, and the equipment to be utilized on each work activity. List subcontracting activities.

The Contractor shall expend the entire Working Day, Calendar Day, or Calendar Date time duration specified for the Task Order or Single Contractor/Subcontractor assignment.

The Contract Administrator or Designee reserves the right to specify the number of activities and require additional breakdown of the activities at any time. Additionally, the Contract Administrator or Designee may require the scheduler to adhere to specific calendar or logic requirements per Activity or as it pertains to the overall IAC to ensure compliance with Contractual obligations.

The Contractor shall submit the IAC in an electronic schedule file (.xer file extension) generated in Primavera P6 or an equivalent Planning and Scheduling software approved by the Contract Administrator or Designee.

The submittal of an electronic schedule file requirement, at the sole discretion of the Contract Administrator or Designee, may be waived for projects with total durations of 10 days or less. The Contractor shall still be required to submit an IAC schedule and to meet all other schedule submittal requirements.

The Contract Administrator or Designee will review the IAC within 5 business days after receipt. If required, a Joint Review Conference will be convened at which time the Contract Administrator or Designee and Contractor may make corrections and adjustments to the IAC. Submit revisions to the IAC due to the Contract Administrator or Designee's review or the Joint Review Conference within five business days from the date of the review for another review. Submit the revisions in the format used in the IAC. The Contract Administrator or Designee will respond to the revised IAC within five business days after receipt.

No construction work shall begin until the IAC is accepted.

Time charges shall begin no later than the date of the Notice-to-Proceed/Work Commencement Date. Any delay in starting work caused by the acceptance of the IAC by the Contract Administrator or Designee will not be a basis for any monetary claim. The County may consider a noncompensable Contract time extension, if warranted.

Upon notification that the IAC is accepted, that document will become the Activities Chart of Record (ACR). The ACR shall be the work plan for completing the entire Contract as specified in the Contract Documents.

Failure to adhere to the latest approved ACR will be cause for the County to deny requests for additional compensation or extensions of the Contract duration.

110.01.02 Revisions to the ACR. Revisions shall consist of one or a combination of the following:

(a) A change in the duration of an activity.

(b) A change in the logic of the schedule.

(c) The deletion or addition of one or more activities.

Proposed revisions to the ACR may be submitted at any time during the life of the Contract.

Submit a proposed revision whenever the activities differ from the accepted ACR. Submit the revision in the same format used for the IAC and within 30 days from the date on which activities deviated from the accepted ACR. Include data from all ACR Updates that have been accepted by the County. The WN accompanying the revisions shall describe the reason for the revision, the interdependence of the work activities, and all duration modifications to the ACR. These shall include, but not be limited to, changes in the method or manner of the work, changes in Specifications, addition or deletion of work, increased or decreased quantities, defective work, and acceleration of the work.

The Contract Administrator or Designee will review the ACR and respond to the proposed revision within 30 days after receipt. The County reserves the right to deny any proposed revision that adversely impacts the County, utilities, or other interested parties.

110.01.03 ACR Updates. Submit updates of the ACR as specified in Table A. Submit updates in the same format as the IAC. Describe the progress of the Task Order to date. Include a description of the current work, any delays or disruptions experienced during the period of the update, any change in manpower or equipment, the inclusion of any schedule revisions, and any potential delays or disruptions.

When a delay or disruption to the work identified in the ACR Update is believed to be the responsibility of the County, submit a revision to the ACR within 30 days after the submittal of the update.

THE ACR UPDATES MUST BE SUBMITTED AS SPECIFIED. THE COUNTY WILL NOT PROCESS ANY MONTHLY PAY INVOICES SUBMITTED WITHOUT THE REQUIRED ACR UPDATE(S).

110.01.04 Monthly Task Site Progress Meetings. The County and the Contractor shall hold monthly progress meetings to discuss the progress of the Task Order and update the ACR. Arrange to have a representative of each subcontractor currently working on the Task Order in attendance. Submit the ACR updates within 14 days from the date of the monthly meeting. The Contract Administrator or Designee will review the update and advise the Contractor of its acceptability prior to the next monthly meeting.

110.01.05 Extensions of Contract Time. Any written request for an extension of time shall be accompanied by a revised ACR documenting the actual delay to the Contract completion date. Include a Written Narrative of the events necessitating the extension of the Contract time. Only delays to activities that affect the Contract completion date will be considered for a time extension.

110.01.06 Master Initial Activities Chart Task Order Schedule (MIAC). A Master Initial Activities Chart Task Order Schedule is required for Contracts that provide for multiple Task Orders assignments to be performed concurrently by a single contractor. If the primary contractor is unable to provide a viable Master Initial Activities Chart Task Order Schedule showing that the Contractor can perform all of the assigned Task Orders concurrently, a portion or all of the Task Order assignments may be reassigned by the County to the secondary and/or tertiary contractor.

110.02 MATERIALS.

Not applicable.

110.03 CONSTRUCTION.

Not applicable.

110.04 MEASUREMENT AND PAYMENT.

The payment shall be full compensation for the cost to develop and prepare the IAC, ACR updates and the MIAC, attend and conduct meetings, prepare and maintain a written record of all and any meetings, organize revise and update the ACR, and all work necessary to complete and maintain the Activities Chart Task Order Schedule.

The Individual Activities Chart Task Order Schedule and Master Initial Activities Chart Task Order Schedules shall not be measured for payment but shall be incidental to the items of work specified for each individual Task Order and/or multiple concurrently constructed Task Orders.

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SECTION 114 – TRUCK STAGING AREAS AND IDLING REQUIREMENTS

(this work is incidental to the items of work specified for each individual Task Order)

DELETE: **Section 114 – Truck Staging Areas and Idling Requirements** of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials."

INSERT: The following:

SECTION 114 – TRUCK STAGING AREAS AND IDLING REQUIREMENTS.

114.01 DESCRIPTION.

Locate truck staging areas and avoid unnecessary idling of construction equipment to reduce engine emissions and to provide air quality benefits to those who live or work in or adjacent to the construction site.

114.02 MATERIALS.

Not applicable.

114.03 CONSTRUCTION.

Establish truck staging areas for all vehicles waiting to load or unload materials at the job site. Subject to review and approval by the County, locate staging areas where emissions will have the least impact on sensitive areas and the public.

Sensitive areas include, but are not limited to, hospitals, schools, residences, motels, hotels, daycare facilities, and elderly housing and convalescent facilities. All sources of emissions shall be located as far away as possible from fresh air intakes, air conditioners, and windows.

Idling of all mobile construction equipment, including delivery trucks, shall be limited to five minutes except under any of the following circumstances:

(a) When forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control.

(b) When necessary to operate defrosting, heating, or cooling equipment to ensure the safety or health of the driver or passenger.

(c) When necessary to operate auxiliary equipment that is in or on the mobile source to accomplish the intended use of the mobile source.

(d) To attain the recommended operating temperature.

(e) When the outdoor temperature is below 32 F.

(f) When undergoing maintenance that requires operation for more than five consecutive minutes.

The above requirements do not prohibit the operation of an auxiliary power unit or generator set as an alternative to idle the main engine of a motor vehicle operating on diesel fuel.

114.04 MEASUREMENT AND PAYMENT.
All methods and procedures required to comply with these requirements will not be measured for payment but will be incidental to the items of work specified for each individual Task Order.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

SECTION 120 – TREE PRESERVATION (renamed)
(this task is incidental to Items 1010, 1011)

DELETE: **Section 120 — Tree Preservation** of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials."

INSERT: The following:

SECTION 120 – TREE PRESERVATION AND PROTECTION

120.01 DESCRIPTION.
This work is for the preservation and protection of individual trees and groups of trees adjacent to and within the limits of primary and residential roadway rehabilitation construction. This work shall be as specified in the Contract Documents and as directed by the Contract Administrator or Designee. The Contractor must observe and comply with all Federal, State and Local laws and regulations and must be in strict conformance with the Montgomery County, MD Roadside Tree Law (Bill No. 41-12 made effective March 1, 2014); the Montgomery County, MD Tree Canopy Law (Bill No. 35-12 made effective March 1, 2014); the Maryland Roadside Tree Law; the Forest Conservation Act; including all addenda, additions and revisions thereto, and all accepted arboricultural practices.

120.02 MATERIALS.

Temporary Orange Construction Fence	Section 104.20.02
Fertilizer	Section 920.03

120.03 CONSTRUCTION.
Furnish and install the Temporary Orange Construction Fence (TOCF) as shown on the TYPICAL PRIMARY & RESIDENTIAL ROADWAY TREE PROTECTION Detail and as directed by the Contract Administrator or Designee.

120.03.01 Tree Expert. MCDOT shall provide a tree expert to perform the following work for trees whose disturbance is necessary due to construction:

- **(a)** Recommend procedures to compensate for loss of roots (if any).
- **(b)** Inspect all trees at the completion of construction and specify any follow-up care for any damage incurred.
- **(c)** Indicate any damaged trees that are incapable of reaching maturity and those recommended for removal and replacement.

120.03.02 Certified Professional Arborist. The Contractor shall provide a Certified Professional Arborist to perform the following for trees which are damaged due to negligence during construction:

- **(a)** Recommend procedures to compensate for loss of roots (if any).
- **(b)** Indicate any damaged trees that are incapable of reaching maturity and those recommended for removal and replacement.

(c) Certify that damaged trees were promptly and properly treated.

A Licensed Tree Expert (LTE) shall perform or directly supervise the remedial operations as specified and approved by the County and in strict conformance with the Montgomery County, MD. Roadside Tree Law (Bill No. 41-12 made effective March 1, 2014); the Montgomery County, MD. Tree Canopy Law (Bill No. 35-12 made effective March 1, 2014); Maryland Roadside Tree Law; the Forest Conservation Act; and accepted arboricultural practices.

120.03.03 Prohibited Activities within the Tree Protection Area (TPA). The following must not occur within the limits of the TPA:

(a) Felling, removing, or harming any tree or plant designated for preservation.

(b) Removing wood, soil, stones, and other natural materials.

(c) Any kind of foot or vehicular traffic

(d) Driving, storing, washing, or maintaining trucks or construction equipment.

(e) Placing backfill, stacking or storing supplies.

(f) Grading, trenching, draining, dewatering, and burning activities.

(g) Dumping waste or storing toxic or hazardous materials.

(h) Felling trees.

(i) Storing construction equipment

120.03.04 Cleanup and Restoration. When construction activities are complete, remove the TOCF, construction materials, and debris without damaging trees in the TPA and adjacent areas. Grade as necessary the perimeter of the TPA to blend with nearby areas. Seed as specified in Section 705.

120.03.05 Damage Repair. Do not injure vegetation to be preserved. Injuries to bark, trunks, or limbs shall be repaired by cutting, smoothing, and tracing the bark in accordance with all ANSI A300 Standards for Tree Care Operations.

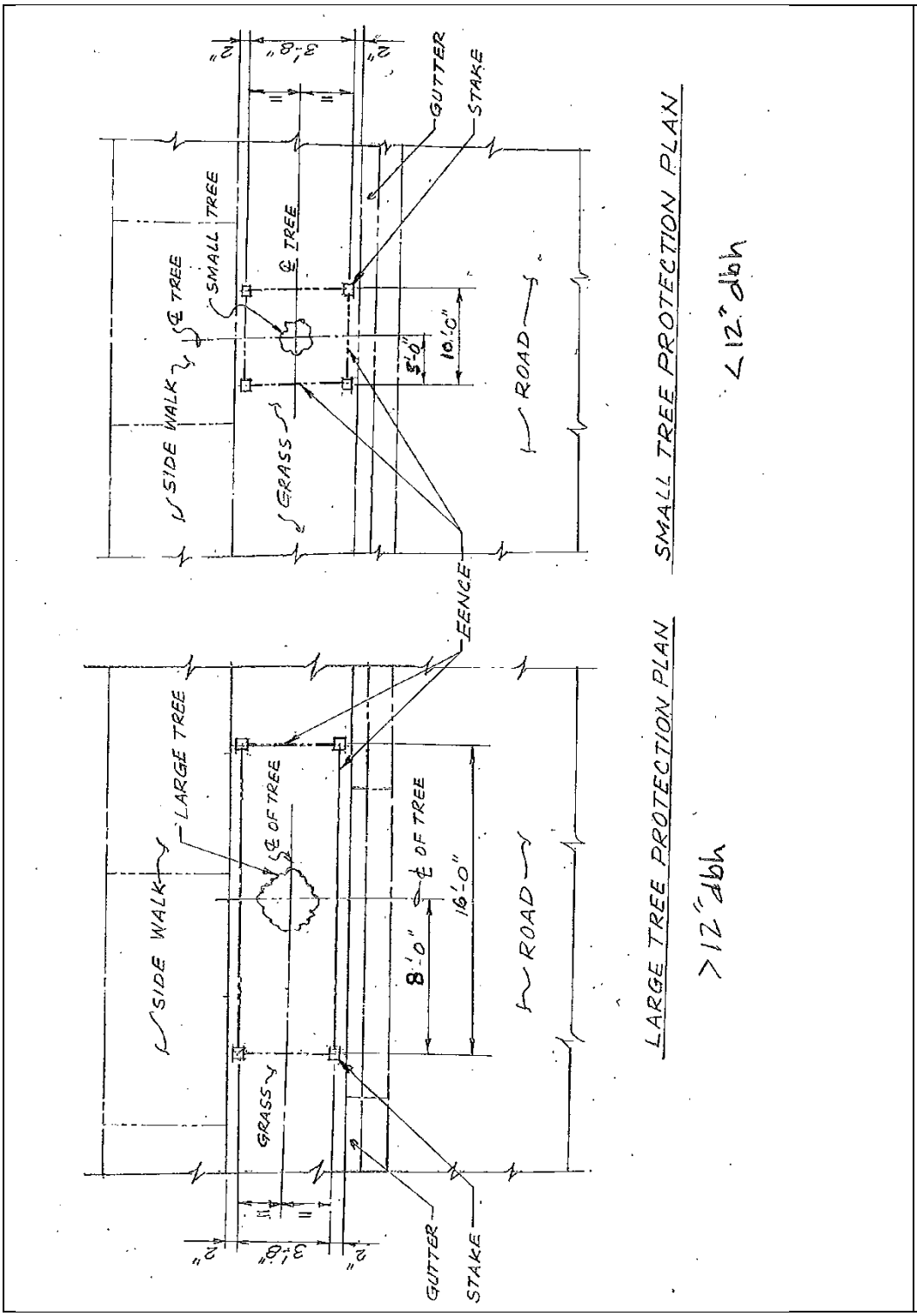
120.03.06 Damage Compensation. Monetary compensation for damage or loss of trees will be calculated and assessed in conformance with the latest edition of the Guide for Plant Appraisal of the Council of Tree & Landscape Appraisers.

120.04 MEASUREMENT AND PAYMENT.

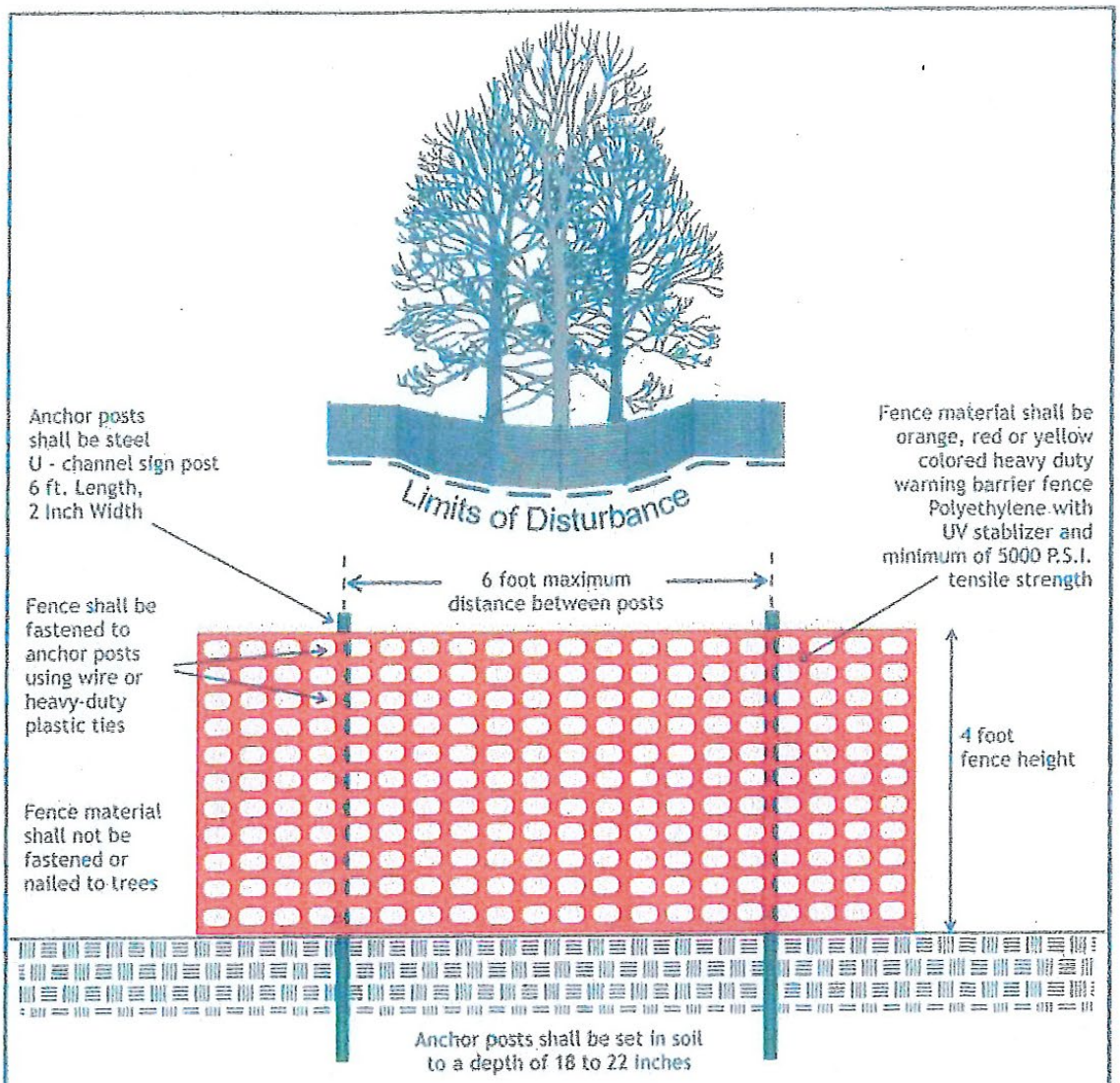
Tree Preservation and Protection shall be measured and paid for as specified in Section 104.20.04, items 1010 and 1011 of this Contract Document. The payment shall be full compensation for all fertilizer, material, labor, equipment, tools, and incidentals necessary to complete the work.

120.04.01 Tree Treatments, Tree Replacements, and the services of a Maryland Licensed Tree Expert which are necessary due to damage caused by the negligence of the Contractor and/or a subcontractor shall not be measured for payment.

120.04.02 Price Adjustment. If smaller trees are furnished and installed to replace larger trees that have been damaged beyond repair as determined by the Contract Administrator or Designee, an amount shall be deducted from payments owed the Contractor and/or retained by the County at a rate of $300.00 per inch of caliper differential.



TYPICAL PRIMARY & RESIDENTIAL ROADWAY TREE PROTECTION



Unless trees are already protected by means of sediment and erosion control devices such as super silt fence, tree protection fencing shall be installed along the approved limits of disturbance before any clearing, grading or construction activities begin; and, shall be maintained throughout all active phases of construction. If for any reason DPS determines that polyethylene barrier fence is not providing effective protection, other forms of tree protection such as 14-gauge welded wire or chain link fencing may be required as a replacement

MONTGOMERY COUNTY MARYLAND	MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES	TREE PROTECTION FENCING DETAIL	DATE: 6 /14 SCALE: NONE

SECTION 130 – MCDOT - UNSKILLED LABORER
(this task is incidental to Item 1017)

130.01 DESCRIPTION.
This is for providing Unskilled Labor to perform tasks that are not covered under any items of work listed on the Quotation Sheets. The Contract Administrator or Designee shall have the sole authority in determining when this item will be used and measured for payment and when the specified tasks are incidental to the items specified on the Quotation Sheets.

130.02 MATERIALS.

Not applicable.

130.03 CONSTRUCTION.
The Unskilled Laborer will be responsible for performing a wide variety of manual labor tasks at a proficient level using a variety of small and large hand tools. These tasks assigned to the Unskilled Laborer will not require any specialized skills, any knowledge in the use of any specialized tools, or any knowledge in the operation of specialized equipment. Examples of the tasks to be performed include, but are not limited to, are:

(a) Deliver and hand out informational flyers throughout the neighborhoods adjacent to the location of where the roadway work is being performed.

(b) Clean up and loading onto trucks any tree limbs, leaves, trash and/or debris which would impact the progress of work within the Right-of-Way and was not caused directly or indirectly by any of the Contractor's activities as determined by the Contract Administrator.

The Unskilled Laborer shall have:

(a) The ability to understand and carry out simple written and oral instructions.

(b) The ability to exert moderate physical effort for prolonged periods and heavy physical effort for limited periods.

It shall be the Contractor's responsibility to ensure that the Unskilled Laborer is equipped with all necessary safety and protection equipment and apparel. As determined by the Contract Administrator/Designee, any Unskilled Laborer not equipped to perform the task shall be dismissed from the work site and shall not be measured for payment.

Any non-productive individuals, as determined by the Contract Administrator or Designee, will be dismissed and must be immediately removed from the work site.

Any individual disrupting the progress of work and/or the tranquility and character of the neighborhood, as determined by the Contract Administrator or Designee, will be dismissed and must be immediately removed from the work site.

Two (2) working days prior to requiring the use of the Unskilled Laborer(s), the Contract Administrator or Designee will provide the Contractor written notification specifying the number of Unskilled Laborers required, the total number of hours each Unskilled Laborer will be needed, and a brief description of the work to be performed and what hand tools, if any, will be used by the Unskilled Laborer(s).

130.04 MEASUREMENT AND PAYMENT.

The payment will be full compensation for providing a capable and appropriately attired individual who has been furnish with all necessary safety and protection apparel including, but not limited to hard hats, hearing and eye protection, High Visibility Safety Apparel, hand and foot protection, all-weather gear, and for all material, equipment, tools and incidentals necessary to complete the work.

ITEM No. 1017 – Unskilled Laborer - will be measured and paid for at the Contract unit price per unit hour.

THERE SHALL BE NO PAYMENT MADE FOR ANY UNSKILLED LABORERS WHOSE PRESENCE ON THE WORK SITE HAS NOT BEEN REQUESTED AND APPROVED BY THE CONTRACT ADMINISTRATOR OR DESIGNEE IN WRITING. THERE SHALL BE NO PAYMENT MADE FOR TRAVEL TIME OR MEAL TIMES. PAYMENT SHALL BE MADE ONLY FOR THE ACTUAL UNIT HOURS WORKED.

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CATEGORY 200
GRADING

SECTION 201 – ROADWAY EXCAVATION
(Class 1, Class 1-A, Class 2) (renamed)
(this task is incidental to Item 2001)

DELETE: **Section 201 – Roadway Excavation (Class 1, Class 1-A, Class 2)** of the latest edition of the Maryland Department of Transportation, State Highway Administration's, "Standard Specifications for Construction and Materials."

INSERT: The following:

SECTION 201 – UNCLASSIFIED ROADWAY EXCAVATION

201.01 DESCRIPTION.
Excavate and grade for roadways and appurtenances to the lines and grades specified.

This work shall consist of the excavation, grading and any necessary undercutting required for the construction and repair of roadways and their appurtenances to the lines and grade specified in the Contract Documents. The Contractor shall use all suitable materials from any excavation in the construction of embankments throughout the limits of the work as directed by the Contract Administrator or Designee. Any necessary undercutting shall be approved by the Contract Administrator or Designee in advance. Any rock, if encountered, will be the responsibility of the Contractor and no additional compensation will be considered.

201.01.01 Classification. UNCLASSIFIED ROADWAY EXCAVATION is all inclusive of the following:

(a) CLASS 1 — All excavation where the width of the bottom of the cut is 15 feet or more.

(b) CLASS 1-A — All excavation of unsuitable material below the lowest excavation limits established.

(c) CLASS 2 — All excavation where the width of the bottom of the cut is less than 15 ft. Excavation for flumes, ditches, outside cut or fill slopes, and stream and channel changes are included in this classification unless otherwise specified.

(d) Cut areas within the boundary faces of the typical cross sections specified, including ditches within the cut sections, entrances, approach roads, streets, intersections, gutters, ditches, berm ditches, and flumes.

(e) The removal and disposal of existing asphalt mix and concrete pavement, asphalt mix and concrete sidewalks and curb, and concrete combination curb and gutter. This work shall be performed as specified in Section 206 of this Contract Document.

(f) The removal and disposal of below grade structures is included in this work.

(g) Class 1 Excavation will be allowed in median areas of cut sections only where 4 in. or greater of topsoil is to be placed. This method will also apply to Class 1-A and Class 2 Excavation unless otherwise specified.

201.02 MATERIALS.

Not applicable.

201.03 CONSTRUCTION.

201.03.01 Grading Units. Not applicable.

201.03.02 Use of Excavated Materials. All excavated material must be removed and disposed of properly off-site.

201.03.03 Broken Pavement Material. Existing pavement, sidewalks, gutter, curb, and combination curb and gutter must be removed and disposed of properly off-site.

201.03.04 Rock Excavation. Not applicable.

201.03.05 Frozen Material. Frozen material shall not be used within the limits of work for any Task Order.

201.03.06 Serrated Slopes. Not applicable.

201.03.07 Drainage. If standing or ponding water renders an area unworkable, the Contractor shall be responsible for repairing the area to the satisfaction of the Contract Administrator or Designee. This work will not be measure for payment but shall be made entirely at the Contractor's expense.

201.03.08 Excavation Beyond Specified Limits. The limits of all excavation shall be as specified and directed by the Contract Administrator or Designee.

201.03.09 Unsuitable Material. Remove from the limits of work all unstable or unsuitable material encountered at or below the specified typical section to the extent directed by the Contract Administrator or Designee. All material removed from the work site must be disposed of in strict accordance with all Federal, State and Local regulations.

201.03.10 Coal Deposits. Not applicable.

201.03.11 Widening for Staged Roadway Construction. Limit the area to be excavated for widening to the extent that the excavated area can be backfilled within the same working day using select material to form a temporary wedge. Refer to the most current version of MSHA Standard Detail No. MD 104.01-28 for the area to be backfilled. Maintain the 4:1 or flatter fill slope. Compact the material as directed and leave it in place until placement of the graded aggregate base course

201.03.12 Saw Cuts. The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

201.03.13 Gradall® Type Excavator. All full depth pavement removal for either Roadway Patching and Roadway Rehabilitation is to be removed using a milling machine. However, with the Contract Administrator's or Designee's written approval a Gradall® or Gradall® type excavator may be used. Use of a Gradall® or Gradall® type excavator must be approved prior to the commencement of work on the Task Order.

201.03.14 Slope Excavation. All cut slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed fifteen (15) feet in height.

201.04 MEASUREMENT AND PAYMENT.
Payment for this item includes, but is not limited to, all Class 1, Class 1-A, and Class 2 Excavation. The payment will be full compensation for all excavation and hauling, blasting, formation and compaction of embankments and backfills, disposing of excess and unsuitable materials, preparation and completion of subgrade and shoulders except as otherwise specified, serrated slopes, rounded and transition slopes, partial depth and full depth saw cutting, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. Payment will not be made for excavation of any material used for purposes other than those specified.

ITEM No. 2001 – Unclassified Roadway Excavation - will be measured and paid for at the Contract unit price per cubic yard.

201.04.01 Limits of Measurement. Roadway Excavation. The upper limit of the Unclassified Roadway Excavation measurement will be the surface upon which roadway materials, including base course, surfacing, or selected capping material is to be placed in either pavement or shoulder areas.

201.04.02 Cross Section Method of Measurement. Quantities for payment of Excavation may be computed by using the average end areas from the cross sections of the original ground combined with cross sections of the completed work.

201.04.03 Removal of existing pavement, sidewalk, paved ditches, curb, or combination curb and gutter outside the limits of construction will not be measured for payment under this Section. Payment for this work shall be as specified under the individual items of work found elsewhere in the Contract Documents.

201.04.04 The Select Borrow material required to fill the temporary wedge area as specified in Section 201.03.11, maintaining the 4:1 or flatter slope, compaction, and removal of the material will not be measured but the cost will be incidental to the Contract unit price for the pertinent Class of Excavation. Refer to Section 104.12.04 for measurement and payment of Drums.

201.04.05 Backfill for unsuitable material will be measured and paid for at the Contract unit price for the pertinent item specified in the Contract Documents.

201.04.06 Full Depth Saw Cuts and Saw Cutting Any Depth. Shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be removed shall be saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean straight and vertical edge and to the depth specified by the Contract Administrator or Designee.

Full depth saw cuts and saw cutting any depth shall **NOT** be measured for payment. All saw required and specified cuts and saw cutting shall be considered incidental to the Contract unit price of the pertinent item of work where its use is specified to be necessary.

The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

201.04.07 Excavation and Removal of Existing Asphalt Pavement Using a Gradall® Type Excavator for Full Depth Asphalt Mix Patches: shall not be measured for payment and shall be considered incidental to the Full Depth Asphalt Mix Patch Items.

SECTION 203 – BORROW EXCAVATION
(this task is incidental to Item 2003 to Item 2005)

DELETE: **SECTION 203 – BORROW EXCAVATION** of the Maryland Department of Transportation, the State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials."

INSERT: The Following:

SECTION 203 – BORROW EXCAVATION

203.01 DESCRIPTION.
This work is for providing select borrow backfill for areas of unsuitable subgrade that require undercutting and removal.

Acquire all necessary material from a licensed commercial operating supplier.

203.02 MATERIALS.

Graded Aggregate Base	Section 901
No. 57 Aggregate	Section 901
Crusher Run Aggregate CR-6	Section 901

203.03 CONSTRUCTION.

Compaction: Immediately after spreading each layer of fill, compact the material with approved equipment. Perform all rolling in a longitudinal direction along the embankment. Begin at the outer edges and progress towards the center. Vary the travel paths of traffic and equipment over the width of the embankment to aid in obtaining uniform compaction.

Compact the material that is 1 foot below the top of subgrade to at least 92 percent of the maximum dry density per T 180. Compact the top 1 foot to at least 97 percent of the maximum dry density per T 180. When necessary, add water or dry the layer to compact to the required density. When finally compacted to the required density, the resultant moisture content of embankment material shall be within two percentage points of optimum.

203.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for furnishing, hauling, placement, fine grading and compaction, subgrade, manipulation and additives for select borrow and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

Payment shall be made only for material delivered to the site with a certified weight ticket from an approved supplier.

(a) ITEM No. 2003 – Select Borrow Using Crusher Run Aggregate CR-6 - will be measured and paid for at the Contract unit price per ton.

(b) ITEM No. 2004 – Select Borrow Using No. 57 Aggregate - will be measured and paid for at the Contract unit price per ton.

(c) ITEM No. 2005 – Select Borrow Using Fine Aggregate - will be measured and paid for at the Contract unit price per ton.

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SECTION 205 – TEST PIT EXCAVATION

DELETE: **Section 205 – Test Pit Excavation** of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

SECTION 205 – TEST PIT EXCAVATION

205.01 DESCRIPTION.

Excavate and backfill test pits to determine the location of underground structures and utilities.

The Contractor shall be required to test pit areas where existing underground utilities are shown (or are marked) to be located within five (5) horizontal feet or five (5) vertical feet of a proposed underground installation.

Any delays to the work schedule caused by the Contractor's untimely or improper test pitting or by a failure to test pit in accordance with the above requirement, will be considered an inexcusable delay to the schedule and as such will not warrant a time extension to the Contract or a cause for additional compensation.

Bidders or Contractors should not consider any of the test pit data supplied by the County or its authorized agents as positive representations of any conditions that will be encountered in the field nor should this information be considered as a basis for the computation of the unit prices used for bidding purposes. This information **DOES NOT** relieve the Contractor of his/her responsibility to contact ***MISS UTILITY*** to locate and verify the elevation of all underground structures and utilities prior to commencing excavation activities of any kind.

The County will not consider any claim for damages because of the Contractor's reliance upon any Test Pit information provided the County or its authorized agents.

205.02 MATERIALS.

Not applicable.

205.03 CONSTRUCTION.

Determine the location of underground structures and utilities by test pit excavation prior to excavation operations.

Excavate test pits at the location and to the size and depth authorized. Backfill test pits as specified in Section 210 of the latest edition of the Maryland Department of Transportation, State Highway Administration's, "Standard Specifications for Construction and Materials."

205.03.01 Saw Cuts. The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

205.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for all excavation, tamped backfill, and all material, labor, equipment, tools, and incidentals necessary to complete the work. Any pavement to be replaced will be measured and paid for as specified in Section 106.

205.04.01 Full Depth Saw Cuts and Saw Cutting Any Depth shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be removed shall be saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean straight and vertical edge and to the depth specified by the Contract Administrator or Designee.

Full depth saw cuts and saw cutting any depth shall **NOT** be measured for payment. All saw required and specified cuts and saw cutting shall be considered incidental to the Contract unit price of the pertinent item of work where its use is specified to be necessary.

The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

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SECTION 206 – REMOVAL OF EXISTING PAVEMENT, SIDEWALK, PAVED DITCHES, CURB OR COMBINATION CURB AND GUTTER (renamed)
(this work is incidental to the items of work specified for each individual Task Order)

DELETE: **SECTION 206 – REMOVAL OF EXISTING PAVEMENT, SIDEWALK, PAVED DITCHES, CURB, OR COMBINATION CURB AND GUTTER** of the latest edition of the Maryland Department of Transportation, State Highway Administration's, "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The Following:

SECTION 206 – REMOVAL OF EXISTING PAVEMENT

206.01 DESCRIPTION
Remove and dispose of existing pavement as required for roadway patches and repair.

206.01.01 WSSC Facilities. The adjustment of any WSSC water manhole, WSSC sewer manhole, and/or any WSSC valve boxes must be performed in strict compliance with all applicable WSSC specifications. Progress payments provided for this work by the County do not establish final acceptance. Any installation or adjustments to any WSSC appurtenance must be inspected and approved by the WSSC before **FINAL ACCEPTANCE** is granted by the County for the individual Task Order. The Contractor must correct any defective work found as a result of the WSSC inspection entirely at the Contractor's expense and as a requirement of any Task Order being finally accepted. To expedite the final acceptance of a Task Order, the Contractor is strongly encouraged to coordinate any work performed on any WSSC facility with the County's Contact Administrator or Designee and the appropriate WSSC representative.

206.02 MATERIALS.

Not applicable.

206.03 CONSTRUCTION.

206.03.01 Pavement Removal for Roadway Patching and Roadway Rehabilitation.

(a) Partial Depth. All partial depth pavement removal for Roadway Patching must be removed using a milling machine.

(b) Full Depth. All full depth pavement removal for either Roadway Patching and Roadway Rehabilitation is to be removed using a milling machine. However, with the Contract Administrator's or Designee's written approval a Gradall® or Gradall® type excavator may be used. Use of a Gradall® or Gradall® type excavator must be approved prior to the commencement of work on the Task Order.

206.03.02 Full Depth Saw Cuts. The Contractor shall full depth saw cut the existing pavement as specified and directed by the Contract Administrator or Designee. The Contractor shall be prepared to make saw cuts up 18 inches in depth when required. The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

(a) Equipment. The Contractor shall use a walk behind or self-propelled concrete saw equipped with water tank and a diamond blade for sawing asphalt mix pavement and concrete mix pavement. The use of a hand-held cut-off saw shall not be permitted.

206.03.03 Use of Removed Pavement. Any pavement removed to facilitate a roadway patch or repair shall be removed and disposed of off-site and shall not be re-used within the limits of work under this Contract.

206.03.04 Protection of Retained Pavement, Sidewalk, Paved Ditches, Curb, or Combination Curb and Gutter. Protect all sections designated to remain from being damaged. The Contractor must repair or replace damaged section(s) that are a result of negligence on the part of the Contractor or any subcontractor. These repairs shall be made entirely at the expense of the Contractor and at no cost to the County.

206.04 MEASUREMENT AND PAYMENT.

206.04.01 Removal of Existing Pavement. Removal of existing pavement using a Milling Machine or a Gradall® type excavator for partial depth/full depth asphalt mix/concrete mix roadway patches and repairs will not be measured for payment and shall be considered incidental to the pertinent Partial Depth Asphalt/Concrete Mix Patch item and/or the pertinent Full Depth Asphalt/Concrete Mix Patch item.

206.04.02 Equipment. There shall be no adjustment made to the Contract Unit Prices regardless of the type of equipment specified by the Contract Administrator or Designee for excavation.

206.04.03 Full Depth Saw Cuts and Saw Cutting Any Depth. Shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be removed shall be saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean straight and vertical edge and to the depth specified by the Contract Administrator or Designee.

Full depth saw cuts and saw cutting any depth shall **NOT** be measured for payment. All required and specified saw cuts and saw cutting shall be considered incidental to the Contract unit price of the pertinent item of work where its use is specified to be necessary.

The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

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CATEGORY 300
DRAINAGE

SECTION 301 – CLASS 3 EXCAVATION FOR INCIDENTAL CONSTRUCTION (renamed) (this task is incidental to Item 3001 to Item 3003)

DELETE: **Section 301 – Class 3 Excavation for Incidental Construction** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

SECTION 301 – CLASS 3 EXCAVATION FOR STORM DRAIN & MISCELLANEOUS CONSTRUCTION

301.01 DESCRIPTION.
This work shall consist of excavation and backfill for storm drainage structures, including but not limited to inlets, headwall, endwalls, and manholes, for any size and any type of pipe culvert, and for any type of excavation necessary for any miscellaneous construction which is not covered or specified under any other item, including but not limited to retaining walls.

Excavate below the specified elevation when unsuitable subgrade material is encountered.

301.02 MATERIALS.

Not applicable.

301.03 CONSTRUCTION.
Excavate to the length, width, and depth at authorized locations. All applicable portions specified in Section 402.03. Backfill shall conform to Section 302. Handle excavated material according to 402.03.01.

301.03.01 Saw Cuts. The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

301.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for all excavation, backfill, filling the void around footings due to removing forms, blasting, grout, dewatering, removal and disposal of excess or unsuitable material, saw cuts, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

(a) ITEM No. 3001 – Class 3 Excavation for Storm Drain Structure Repair and Replacement: Total Depth of Excavation Less Than or Equal to 4 Vertical Feet - will be measured and paid for at the Contract unit price per cubic yard.

(b) **ITEM No. 3002 – Class 3 Excavation for Storm Drain Structure Repair and Replacement: Total Depth of Excavation Greater Than 4 Vertical Feet and Less Than or Equal to 8 Vertical Feet** - will be measured and paid for at the Contract unit price per cubic yard.

(c) ITEM No. 3003 – Class 3 Excavation for Storm Drain Structure Repair and Replacement: Total Depth of Excavation Greater Than 8 Vertical Feet - will be measured and paid for at the Contract unit price per cubic yard.

For structures, the horizontal measurements shall extend a maximum of 18 inches outside the vertical planes of the structure. Where blasting is required, a maximum of 6 inches will be allowed below the planed elevation.

For pipe culverts, the length is measured between the outside excavation limits of the connected structures. The width shall be as specified in Subsection 303.03.01 Excavation.

For vertical measurement, the upper limits of the existing ground or embankments will be the existing groundline or the lower limit of Unclassified Roadway Excavation. The lower limit of the two will control.

301.04.01 Additional Excavation. Additional excavation required below the elevation as specified due to unsuitable foundation material will be measured and paid for under this item.

301.04.02 Excavation Support. Sheeting, bracing, and shoring either removed or left in place, will not be measured but the cost will be incidental to the pertinent Class 3 Excavation item.

301.04.03 Rock Excavation. No additional compensation shall be made for excavation when rock is encountered.

301.04.04 Full Depth Saw Cuts and Saw Cutting Any Depth shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be removed shall be saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean straight and vertical edge and to the depth specified by the Contract Administrator or Designee.

Full depth saw cuts and saw cutting any depth shall **NOT** be measured for payment. All required and specified saw cuts and saw cutting shall be considered incidental to the Contract unit price of the pertinent item of work where its use is specified to be necessary.

The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

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SECTION 303 – PIPE CULVERTS
(this task is incidental to Item 3007)

SECTION 303 – PIPE CULVERTS of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto., amended as follows:

303.02 MATERIALS

ADD: The following to the materials list:

Reinforcement Steel Section 908
Galvanized Pipe Hangers Section M181

DELETE: Section 303.02 Bedding, in its entirety.

INSERT: The following:

303.03.02 Bedding. All pipe bedding shall be Class "C" or better. All pipes shall be bedded in an approved foundation, shaped by means of a template that will support the pipe for at least ten percent (10%) of its overall height.

When rock is encountered, it shall be removed and replaced with a minimum of eight inches (8") of selected backfill as directed by the Contract Administrator or Designee. When unsuitable foundation material is encountered, it shall be removed and replaced with selected backfill for the full width of the trench as directed by the Contract Administrator or Designee.

303.03 CONSTRUCTION

303.03.01 Pipe Culvert Installation

ADD: The following after (d) item (3) **Plastic Pipe.**

Concrete Collars Around End to End Pipe Connections. Cast in place concrete collars shall be placed around end to end pipe joints as directed by the Contract Administrator or Designee. The Concrete Collars shall be constructed using Concrete Mix No. 2. The Concrete Collar shall be a minimum of twenty-four inches (24") wide and a minimum of twelve inches (12") in depth around both sides, underneath and on top of the pipes being joined. The Concrete Collar shall be placed against undisturbed earth down both sides and along the bottom of the pipe trench.

ADD The following new Section:

303.03.08 End Sections for Corrugated Pipe. End sections for corrugated pipe shall be installed at the locations as directed by the Contract Administrator or Designee. The end sections shall conform, using the most current revision(s), to MSHA Standard No 370.01, MSHA Standard No 370.11 – Type 2, and MSHA Standard No. 371.01 and Section 905 of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

Construction methods shall conform to Section 303. The method utilized for connecting the end section to the pipe shall be in accordance with the most current revision of MSHA Standard No. 370.11 – Type 2 and the following:

The end sections shall be connected to the first corrugation from the end of the pipe which is to receive the end section. These connections must be tightened to a point that excludes all apparent seepage of water and infiltration of sediment from outside the system. The Contract Administrator or Designee shall be the sole judge as to the acceptability of the connections.

ADD: The following new Section:

303.03.09 Connections to Existing Structures. Maintaining the existing storm water flows during construction is the responsibility of the Contractor. Precautions and methods to divert storm water, and to prevent sediment and debris from entering the existing system shall be taken and employed as required. Storm water backup damage and / or clean up required which is a result of the Contractor's operations will be repaired and cleaned up at the Contractor's expense. The connecting pipe shall extend completely through and be cut off flush with the interior wall surface of the structure. The connection of the new pipe to the existing structure shall be sealed, both on the inside and outside of the structure, with a quick setting non-shrink grout.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

SECTION 305 – MISCELLANEOUS STRUCTURES
(this task is incidental to Item 3079 to Item 3082 & Item 3084)

DELETE: **Section 305 –Miscellaneous Structures** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

SECTION 305 — MISCELLANEOUS STRUCTURES

305.01 DESCRIPTION.
Construct miscellaneous cast in place concrete or masonry drainage structures, furnish and install precast concrete drainage structures, and clean existing drainage structures including but not limited to inlets, manholes, junction boxes and risers.

This work includes the repair and reconditioning of existing storm drain structures as directed by the Contract Administrator or Designee.

The elevation adjustment to any existing Storm Drain Manholes and Grates, the removal and replacement of existing Storm Drain Traffic Bearing Manhole Frames and Covers, and the removal and replacement of Traffic Bearing Inlet Frames for Grates and Traffic Bearing Inlet Grates shall be as specified in Category 800 – Traffic and Utilities.

305.02 MATERIALS.

No. 57 Aggregate	Section 901
Mortar Sand	Section 901
Curing Materials	Section 902.07
Portland Cement Concrete; Mix No. 2, 3, or 6	Section 902.10
Mortar	Section 903.06
Grout	Section 902.11
Brick	Section 903.02
Pipe	Section 905
Reinforcement Steel	Section 908
Steel	Section 909.02
Castings for Frames, Covers, Gratings and Steps	Section 909.04
Zinc Coating	A 153
Precast Concrete End Walls, Inlets, and Manholes	M 199

305.03 CONSTRUCTION.

Refer to Section 420 for Portland Cement Concrete.

Refer to Section 463 for brick masonry.

Refer to Section 402.03.01 for excavated material.

305.03.01 Construction Sequence. Complete the underground drainage structures before placing the roadway surfacing. Manholes, catch basins, and inlets shall not be completed to final grade until the grading has been finished and all necessary arrangements have been made to ensure suitable connections and tie ins at proper grade and alignment with pavements, gutters, and curbs.

305.03.02 Castings. Set frames for grates and covers for inlets and manholes, in full beds of mortar and rigidly secure them in place to the specified grade and alignment.

305.03.03 Pipe Connections. Set or cut inlet and outlet pipes flush with the inside face of the structure. Extend them a sufficient distance beyond the outside face of these walls to provide for making proper connections. Completely and neatly close the joint around the pipe in the structure wall with mortar or other specified materials.

305.03.04 Inverts. When drainage structures contain two or more pipes, construct channeled inverts conforming to the appropriate Standard Detail or as directed by the Contract Administrator or Designee.

305.03.05 Drainage Structures. Provide two block outs, each at least 8 inches diameter, in inlets and manholes for underdrains. Backfill with No. 57 aggregate for a width of 1.5 feet outside of the structure and extended from the bottom of the structure to the subgrade.

305.03.06 Precast Drainage Structures. For structures not detailed in the Contract Documents, submit working drawings for approval.

Certification. Certification from the manufacturer is required for each shipment of precast units. Provide a copy of the certification to the Contract Administrator or Designee, the Laboratory, and the Contractor with each shipment. One copy shall remain at the plant. Include the name and address of the manufacturer, the type of structure, the identification number, the date of manufacture, the date of shipment, a statement indicating conformance with the Specifications, and the signature of the quality control manager. Mark the unit with the station number and designation, the identification number, the name or trademark of the manufacturer, the date manufactured, and stamp indicating conformance with the Specifications.

Do not ship any precast unit without complete documentation showing that all materials meet specifications per Section 305.02 or the Contract Documents; or without complete identification markings per Section 440, Section 905, and Section 915 of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

Place and consolidate at least 6 inches of No. 57 aggregate bedding under the unit.

305.03.07 Clean Existing Drainage Structures. Clean existing drainage structures and dispose of the material. Reset and anchor existing grates as directed.

305.03.08 Repair or Replacement of Existing Storm Drain Structures. This work shall be as specified by the Contract Administrator or Designee. Remove and dispose of all damaged and deteriorated portions of the existing storm drain structure until all that remains is solid and structurally sound. The removal of the damaged and deteriorated areas shall be performed using nondestructive methods so as not to damage any portion of the structure which has been designated to remain. The use of power hammers and chisels is prohibited for this work. The storm drain structure shall be repaired and rebuilt to a solid and like new condition using new materials and the methods of construction specified in Section 420 and Section 463. All excess and waste material produced by this work shall be removed and disposed of off-site. In kind materials, or the materials as specified and directed by the Contract Administrator or Designee shall be used to repair any existing storm drain

structure. MSHA Mix No. 3 concrete must be used for the replacement of existing storm drain inlet throats and storm drain inlet top slabs.

(a) Precast Structures. When replacing the entire structure, the Contractor has the option of using an approved precast unit. The Contractor must submit working drawings of the structure to the Contract Administrator or Designee for review and approval of the structure. The Contractor must not order any precast structure until approval for its use has been provided in writing by the Contract Administrator or Designee.

305.03.09 Saw Cuts. The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

305.03.10 End Sections for Corrugated Pipe. End sections for corrugated pipe shall be installed at the locations as directed by the Contract Administrator or Designee. The end sections shall conform to the latest pertinent Maryland Department of Transportation, State Highway Administration's standards and specifications.

The method utilized for connecting the end section to the pipe shall be in accordance with MSHA Standard No. 370.11 – Type 2 and the following:

(a) The end sections shall be connected to the first corrugation from the end of the pipe which is to receive the end section. These connections must be tightened to a point that excludes all apparent seepage of water and infiltration of sediment from outside the system. The Contract Administrator or Designee shall be the sole judge as to the acceptability of the connections.

305.04 MEASUREMENT AND PAYMENT.

(a) ITEM No. 3079 - Repair, Replace and Construct Storm Drain and Miscellaneous Structures Using MSHA Concrete Mix No. 2, No. 3, Mix No. 6, Solid Masonry and/or Precast - will be measured and paid for at the Contract unit price per cubic yard.

The payment will be full compensation for the removal and disposal off-site of all defective and deteriorated material, the repair and restoration of the structure, all necessary saw cuts, all excavation, concrete, masonry, special or precast units, reinforcement, ladder rungs, backfill, underdrain stubs, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

(1) For repairing storm drain and miscellaneous structures, measurement will be made on the actual volume of the void of the removed portion of the structure after all defective and deteriorated areas have been removed.

(2) For replacing the entire storm drain or miscellaneous structure measurement will be made on the actual volume of concrete (precast or cast in place) or masonry used to fabricate the structure.

(b) ITEM No. 3080 - Remove and Replace Existing Storm Drain Inlet Throats (Any Size/Any Type) - will be measured and paid for at the Contract unit price per linear foot.

The payment will be full compensation for the removal and disposal off-site of the existing inlet throat section, all MSHA Mix No. 6 concrete, steel reinforcement, wrought iron pipe supports, expansion material, excavation, and all material, labor, equipment, tools, and incidentals necessary to complete the work.

(c) ITEM No. 3081 - Adjust and/or Reset Existing Storm Drain Inlet Top Slab to Finished Grade (Any Size/Any Type) - will be measured and paid for at the Contract unit price per each.

Payment per each will be full compensation for all concrete, masonry, mortar, removal, handling, and resetting of the slab, expansion material, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

Any top slabs mishandled and damaged by the Contractor's negligence, shall be replaced by the Contractor at no additional cost to the County.

(d) ITEM No. 3082- Remove and Replace Existing Storm Drain Inlet Top Slabs (Any Size/Any Type) using SHA Mix No. 6 Concrete - will be measured and paid for at the Contract unit price per square foot.

This work includes but is not limited to the top slabs for the tops of MCDOT Standard "A", "B", and Modified "B" inlet structures, the special precast curb for SHA "WR" and "NR" inlets, the precast inlet head for SHA "WR" and "NRM" inlets, and the type "B" or "C" slab on SHA WRM inlets.

Payment per cubic yard will be full compensation for furnishing and installing all MSHA Mix No. 3 concrete, masonry, special or precast units, new steel reinforcement, new manhole frames and covers, new wrought iron pipe supports and flanges, new steel channel with welded #3 bars, expansion material, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. The area of any manhole frame and cover located within the limits of the top slabs will **NOT** be deducted from the per cubic yard computation for this item.

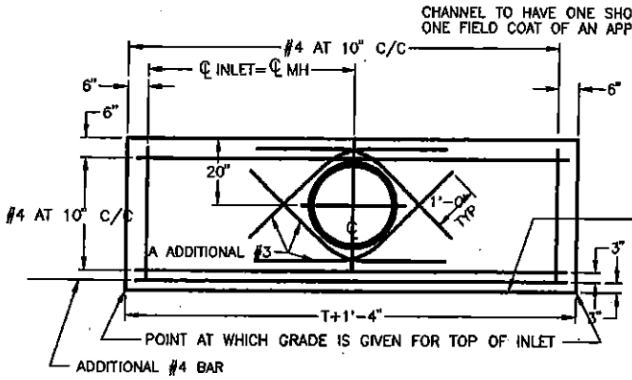
(e) ITEM No. 3084 – Clean existing Inlets as Directed by the Contract Administrator or Designee will be measured and paid for at the Contract unit price per each unit. The payment will be full compensation for all material, labor, equipment, tools and incidentals necessary to complete the work

305.04.01 Adjustments to existing storm drain manhole frames and covers shall be as specified in Category 800.

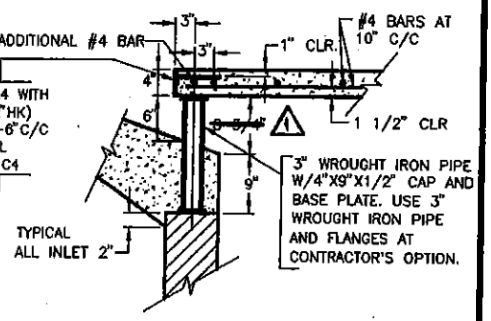
305.04.02 Full Depth Saw Cuts and Saw Cutting Any Depth shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be removed shall be saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean straight and vertical edge and to the depth specified by the Contract Administrator or Designee.

Full depth saw cuts and saw cutting any depth shall **NOT** be measured for payment. All required and specified saw cuts and saw cutting shall be considered incidental to the Contract unit price of the pertinent item of work where its use is specified to be necessary.

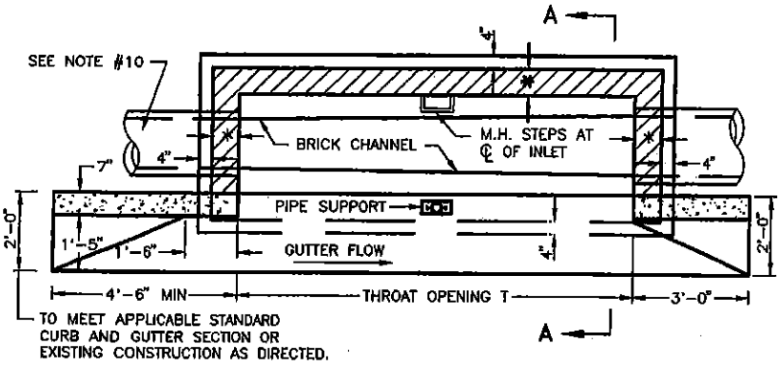
The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.



PLAN TOP SLAB

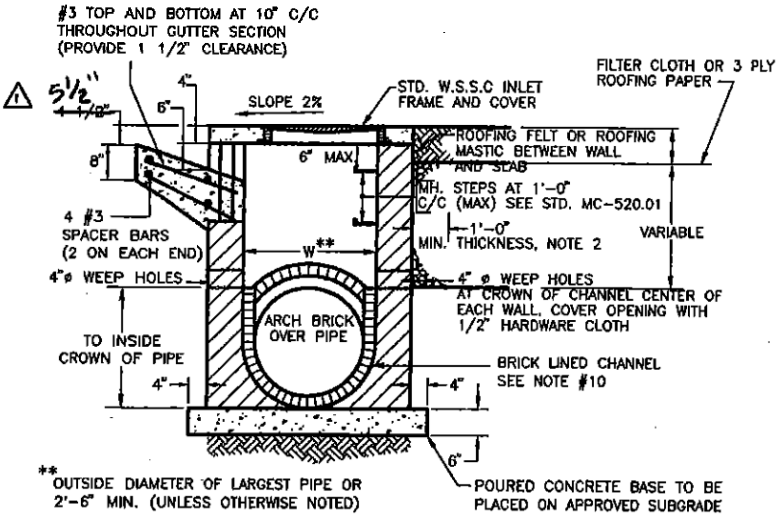


SECTION THROUGH PIPE SUPPORT



* SEE NOTE # 5.

PLAN BELOW SLAB



SECTION A-A

GENERAL NOTES

1. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
2. INSTALL FOUNDATION DRAINAGE MATERIAL AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 8" OF SURFACE.
3. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C 270 TYPE M.
4. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
5. WALL THICKNESS WILL BE THE FOLLOWING: 8" THICK WALLS FOR THE FIRST 8'-0" OF DEPTH, 12" THICK WALLS BETWEEN 8'-0" AND 12'-0" OF DEPTH, 16" THICK WALLS FOR DEPTH GREATER THAN 12'-0" DEPTH TO BE MEASURED FROM TOP OF CURB TO CROWN OF OUTGOING PIPE.
6. f'_c =3500 PSI AT 28 DAYS.
7. ALL REINFORCING STEEL TO BE ASTM A615, GR 60.
8. FOR PIPES 30" AND LARGER, PROVIDE STEPS IN CHANNELS OR STRUCTURES. SEE STANDARD MC-520.02
9. ON TERMINAL INLETS, THE INLET BOTTOM SHALL BE SLOPED TO OUTLET PIPE WITH SEWER BRICK OR CONCRETE, 9" MIN. FALL.
10. FOR ACTUAL PIPE LOCATIONS, REFER TO STORM DRAIN PLANS AND CONSTRUCT BRICK CHANNEL TO PIPE CONFIGURATIONS BRICK CHANNEL SHALL BE SEWER BRICK ON EDGE AND BUILT TO THE CROWN OF THE PIPE.

DESIGNATION	T THROAT OPENING	NUMBER OF PIPE SUPPORTS
A-5	5'-0"	0
A-10	10'-0"	1
A-15	15'-0"	2
A-20	20'-0"	3

PIPE SUPPORTS TO BE SPACED AT 5'-0" C/C

APPROVED JAN 5/96
DATE

DIRECTOR, DEPT. OF TRANS.

CHIEF, DIV. OF ENG. SERVICES

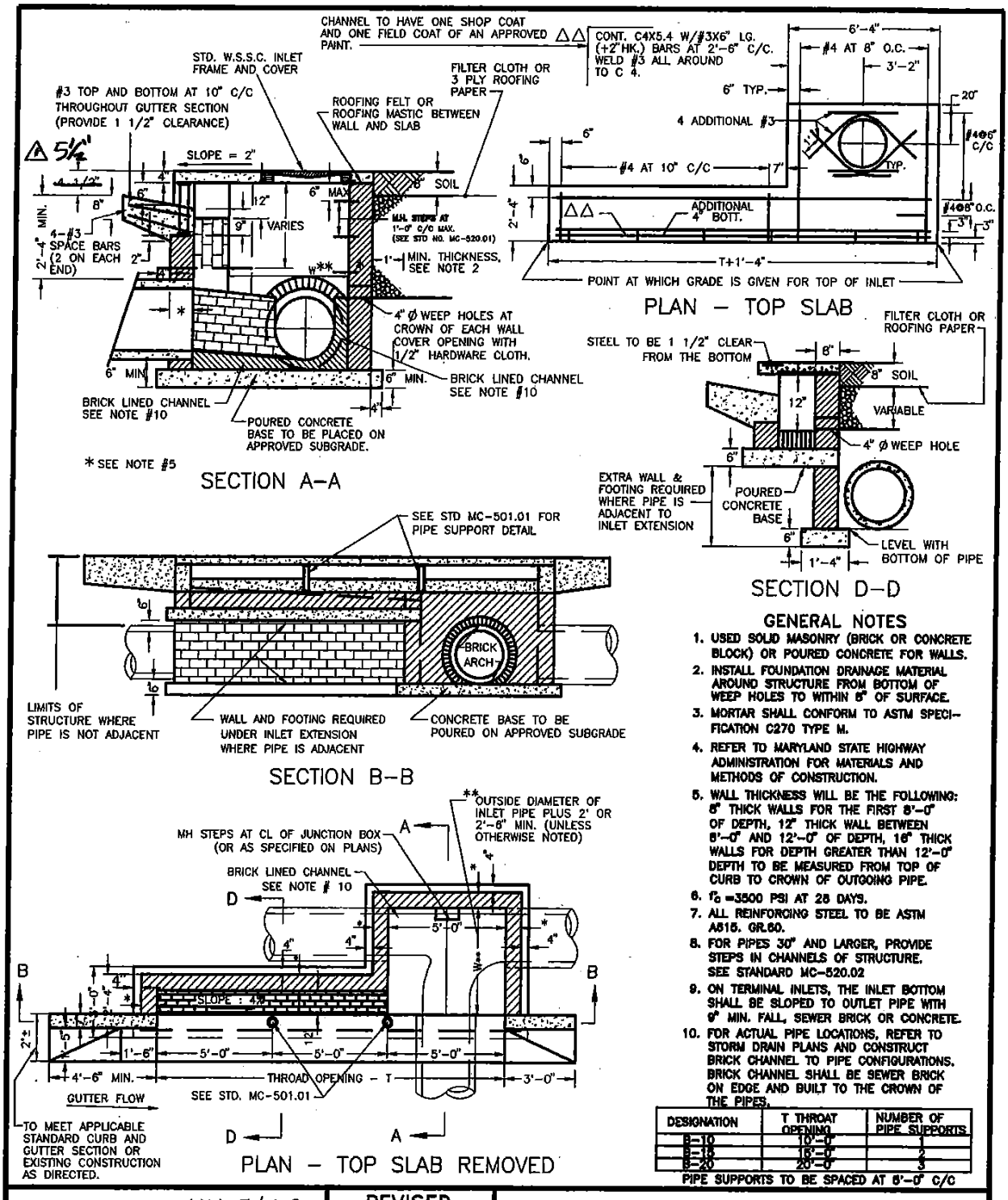
REVISED
RESTORED 1" DEPRESSION AT GUTTER EDGE 6/25/12

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

"A" INLET

STANDARD NO. MC-501.01

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GENERAL NOTES

1. USED SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
2. INSTALL FOUNDATION DRAINAGE MATERIAL AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 6" OF SURFACE.
3. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270 TYPE M.
4. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
5. WALL THICKNESS WILL BE THE FOLLOWING: 8" THICK WALLS FOR THE FIRST 8'-0" OF DEPTH, 12" THICK WALL BETWEEN 8'-0" AND 12'-0" OF DEPTH, 16" THICK WALLS FOR DEPTH GREATER THAN 12'-0" DEPTH TO BE MEASURED FROM TOP OF CURB TO CROWN OF OUTGOING PIPE.
6. f'_c =3500 PSI AT 28 DAYS.
7. ALL REINFORCING STEEL TO BE ASTM A615, GR.60.
8. FOR PIPES 30" AND LARGER, PROVIDE STEPS IN CHANNELS OF STRUCTURE. SEE STANDARD MC-520.02
9. ON TERMINAL INLETS, THE INLET BOTTOM SHALL BE SLOPED TO OUTLET PIPE WITH 9" MIN. FALL, SEWER BRICK OR CONCRETE.
10. FOR ACTUAL PIPE LOCATIONS, REFER TO STORM DRAIN PLANS AND CONSTRUCT BRICK CHANNEL TO PIPE CONFIGURATIONS. BRICK CHANNEL SHALL BE SEWER BRICK ON EDGE AND BUILT TO THE CROWN OF THE PIPES.

DESIGNATION	T THROAT OPENING	NUMBER OF PIPE SUPPORTS
B-10	10'-0"	2
B-15	15'-0"	3
B-20	20'-0"	3

PIPE SUPPORTS TO BE SPACED AT 6'-0" C/C

APPROVED JAN 5/96
DATE
DIRECTOR, DEPT. OF TRANS.
CHIEF, DIV. OF ENG. SERVICES

REVISED
RESTORED 1" DEPRESSION AT GUTTER EDGE 6/25/12

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

" B " INLET

STANDARD NO. MC-502.01

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SECTION 306 – UNDERDRAINS, SUBGRADE DRAINS AND SPRING CONTROL
(this task is incidental to Item 3111)

DELETE: **SECTION 306 - Underdrains, Subgrade Drains and Spring Control** of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

SECTION 306 - UNDERDRAINS, SUBGRADE DRAINS AND SPRING CONTROL

306.01 DESCRIPTION.
Construct underdrains, subgrade drains, underdrain for spring control, underdrain pipe outlets, and blind drains using pipe, geotextile, and granular material. Clean existing underdrain outlets.

306.02 MATERIALS.

No. 57 Aggregate	Section 901
Portland Cement Concrete, Mix No. 2	Section 902.10
Pipe	Section 905
Geotextile – Class PE, Type II	Section 919
Securing Pins or Staples	Section 919
Flexible Delineator Post and as approved by the MCDOT Rodent Screens Materials Control Center	

The drilling of holes in solid pipe, by the Contractor, for use as perforated pipe is not acceptable. All perforated pipe used shall be manufactured by an approved supplier. A Bill of Lading from the manufacturer shall be provided for all pipes used for this item.

306.03 CONSTRUCTION.
Coordinate the field installation of traffic barrier, signs, lighting, and landscaping with the Engineer to avoid any damage to the underdrains, subgrade drains, or outlet pipes. Correct any damage to the underdrains, subgrade drains, or outlet pipes.

306.03.01 Excavation. Excavate trenches to the specified dimensions and grade. Ensure that the sides and bottom of trenches are smooth and uniform to prevent tearing of the geotextile when backfilling. For excavated material, refer to 402.03.01

306.03.02 Geotextile. Place geotextile when specified. Place it with the machine direction parallel to the longitudinal direction of the trench. Ensure that it is of sufficient width to completely enclose the underdrain trench, including specified overlaps.

Place the geotextile tightly against the underdrain trench to eliminate voids beneath the geotextile. Avoid wrinkles and folds. Maintain at least a 24-inch overlap at joint ends or breaks. Pin joints and

overlaps to securely hold the geotextile in place until placement of the cover material. Pin longitudinal joints, overlaps, and edges no more than 50 feet on center. Replace or repair damaged geotextile.

306.03.03 Pipe Placement. Slope the underdrain pipe to maintain positive drainage toward the outlet. Place perforated pipes with the perforations down and arranged symmetrically about the vertical axis. Plug the ends of trunk lines, wyes, tees, or ells as directed. Make joints and connections in accordance with the manufacturer's recommendations.

306.03.04 Outlets. Outlet the underdrains into drainage structures whenever possible. Outlets that empty into a drainage structure shall be at least 9 inches above the normal flow line in the structure and be constructed of normal underdrain outlet pipe. Maintain at least 18 inches of cover over the pipe. Rodent screens are not required when the underdrain outfalls into a drainage structure.

When the underdrain outfalls into a slope or ditch, slope the outlet pipe at least three percent. Use Type 'S' (smooth interior wall) polyethylene (PE), or smooth-wall polyvinyl chloride profile wall (PPWP) pipe according to Section 905 Construct a sloped concrete headwall with a removable rodent screen at the end of the outlet pipe. Place a flexible delineator post on the slope headwall.

Space outlets for longitudinal underdrains at intervals no more than 250 feet and at the lowest elevation on all vertical curves. When changing the direction of the longitudinal underdrain or outlet pipe, ensure all bends have a radius of at least 3 feet.

306.03.05 Backfill. Backfill trenches to the specified dimensions and grades. Backfill underdrain and outlet trenches as the work progresses.

(a) Underdrain. Lightly tamp aggregate backfill, and screed or rake to provide proper thickness and grade.
(b) Outlets. Backfill according to Section 210.

Replace geotextile, underdrain pipe, and outlet pipe damaged by excessive tamping.

Cover longitudinal underdrain with the next pavement layer within 72 hours. Cover all other underdrains within 48 hours. Protect underdrain, including the geotextile, from contamination by soil fines. Replace or repair clogged geotextile and any underdrain trench that becomes contaminated.

306.03.06 Video Inspection and Acceptance. Not applicable.

306.03.07 Cleaning Existing Outlets. Clean existing underdrain pipe outlets and dispose of the material. Remove and replace existing rodent screens. Where there are no screens, install them as directed.

306.03.08 Permanent Subgrade **Drains.** Construct permanent subgrade drains when specified and/or directed. Subgrade drains consist of trenches excavated through the shoulder and roadside grading from the edges of the road pavement to a side ditch, embankment slope, or other approved outlet and filled with aggregate. Locate subgrade drains at low points, and space them at 25-foot intervals for 125 feet on each side of the low point, then at intervals of 100 foot to within 125 feet of the high point. Before placing the road pavement and before completion of the shoulder paving or final roadside grading areas, cut and shape trenches to a width of 24 inches. Place No. 57 aggregate to the underside of the shoulder material and to the underside of the specified topsoil thickness in the roadside grading area. The portion of the trench within the roadside grading area shall be completely wrapped in geotextile. The bottom of the trench at the end adjacent to the road pavement shall be at least 2 inches below the subgrade.

306.04 MEASUREMENT AND PAYMENT.

(a) **ITEM NO. 3111 - Furnish and Install: 6 Inch Diameter Pipe Connections to Existing Storm Drain Structures for Underdrains, Subgrade Drains and Spring Control** - will be measured and paid for at the Contract unit price per each. The payment will be full compensation for cutting into, connecting, and sealing the pipe into the existing structure, and for all material, labor, equipment, tools and incidentals necessary to complete the work.

306.04.01 Excavation for Underdrains, Subgrade Drains and Spring Control shall be considered Unclassified Roadway Excavation will be measured and paid for as specified under Section 201.04.

306.04.02 Selected Backfill Using No. 57 Aggregate will be measured and paid for as specified in Section 302.04.

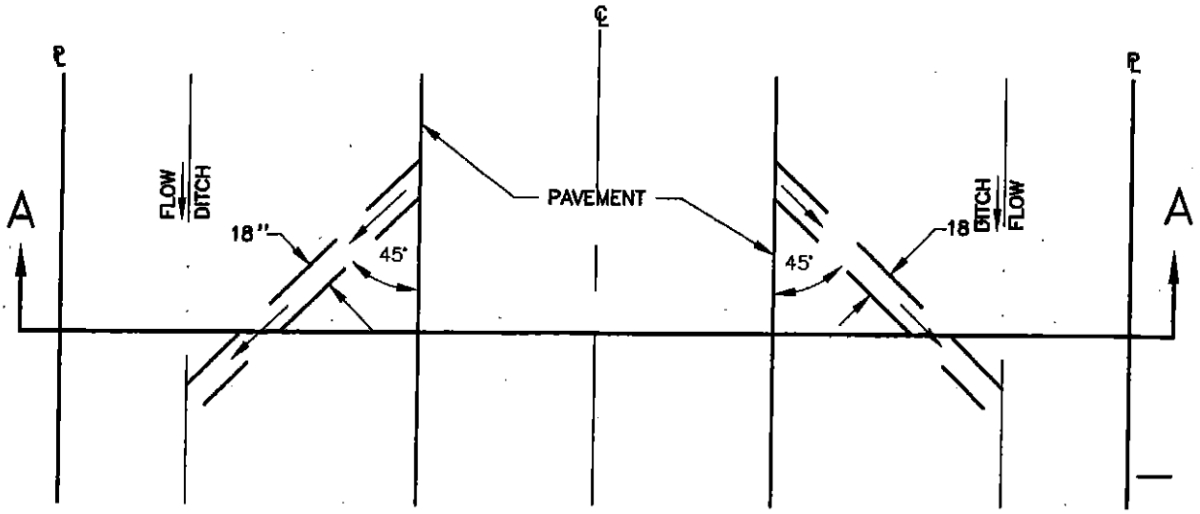
306.04.03 Geotextile will not be measured for payment but shall be considered incidental to the Contract unit price per linear foot paid for the specified pipe used for Underdrains, Subgrade Drains and Spring Control.

306.04.04 Full Depth Saw Cuts and Saw Cutting Any Depth shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be removed shall be saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean straight and vertical edge and to the depth specified by the Contract Administrator or Designee.

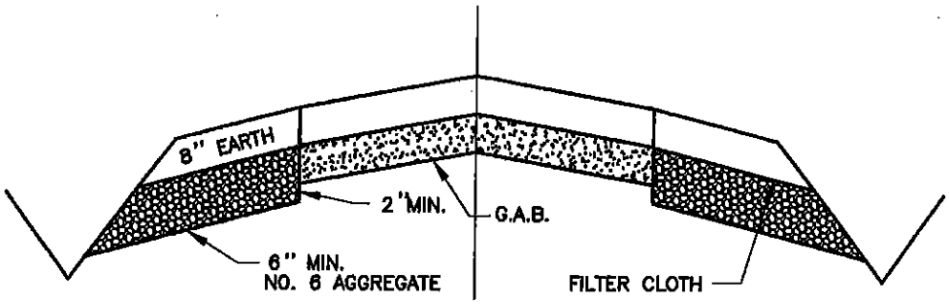
Full depth saw cuts and saw cutting any depth shall NOT be measured for payment. All required and specified saw cuts and saw cutting shall be considered incidental to the Contract unit price of the pertinent item of work where its use is specified to be necessary.

The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

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PLAN



SECTION A – A

GENERAL NOTES

1. MINIMUM SLOPE OF UNDERDRAIN = 1/4 INCH PER FOOT.
2. AGGREGATE IN TRENCH SHALL BE MSHA NO. 6 AGGREGATE, SPECIFICATIONS ARTICLE 20.02.
3. FOR CONSTRUCTION METHODS AND SPACING INTERVALS SEE MCDOT SPECIFICATIONS – 1981 SUBGRADE DRAINS FOR OPEN SECTION ROADWAYS.

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APPROVED JAN 5/95
DATE

DIRECTOR, DEPT. OF TRANS.

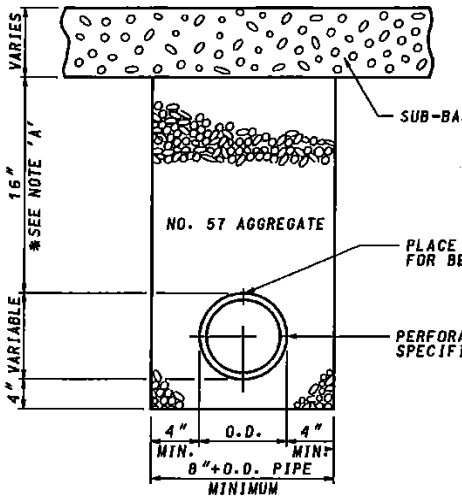
CHIEF, DIV. OF ENG. SERVICES

REVISED

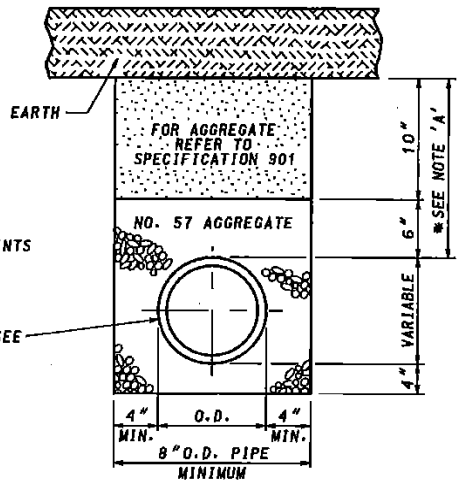
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

SUBGRADE DRAINS
OPEN SECTION ROADWAYS

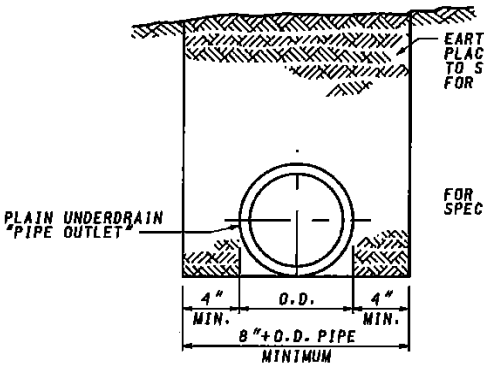
STANDARD NO. MC-525.01



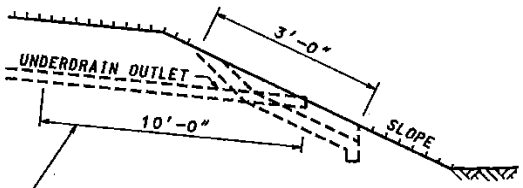
SUB-BASE DRAINAGE DITCH SECTION



SUB-SURFACE DRAINAGE DITCH SECTION

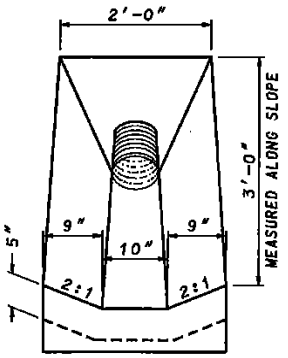


OUTLET DITCH SECTION



THIS LENGTH SHALL BE CIRCULAR CPP-S (CORRUGATED POLYETHYLENE PIPE-SMOOTH INTERIOR), PVC (POLYVINYL CHLORIDE), OR PPWP (POLYVINYL CHLORIDE PROFILE WALL) OF SPECIFIED OUTLET SIZE IN ALL CASES. TO BE MEASURED AND PAID FOR AT CONTRACT UNIT PRICE FORUNDERDRAIN OUTLET.

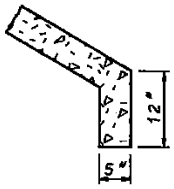
5" CONCRETE GUTTER FOR UNDERDRAIN OUTLET



ELEVATION-UNDERDRAIN OUTLET

NOTE: UNDERDRAIN TO BE LAID ON A MINIMUM OF 0.5% GRADE UNLESS OTHERWISE DIRECTED.

*NOTE 'A': WHERE UNDERDRAIN IS OUTLETTED INTO AN INLET, OR WHERE ANY OTHER UNUSUAL CONDITIONS PREVAIL, THESE DIMENSIONS MAY BE VARIED AS DIRECTED.



TOE WALL

SPECIFICATION	CATEGORY CODE ITEMS

APPROVED _____ DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL SHA REVISIONS		APPROVAL FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	3-6-86	APPROVAL	4-14-86
REVISED	12-21-17	REVISED	11-28-17
REVISED		REVISED	
REVISED		REVISED	

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD UNDERDRAINS

STANDARD NO. MD 387.01

SECTION 320 – MCDOT - CONNECTIONS TO OFFSITE STORM WATER DRAINS
(this task is incidental to Item 3148 to 3149)

320.01 DESCRIPTION.
Reconstruct and reconnect existing off-site drainage systems that convey and direct the flow of storm water across and onto the Right-of-Way. Examples of offsite drainage systems include but are not limited to: roof drains and drains for sump outfalls that typically flow through 4-inch to 6-inch diameter pipe and either daylight in the face of the County curb line or into a County storm drainage structure. This work will be performed as specified by the Contract Administrator or Designee.

320.02 MATERIALS.

Concrete Mix No. 2 Section 902.10

Nonshrink Grout Section 902.11(c)

Pipe Section 905

The type or combination of pipes to be used for this work shall be as directed and by the Contract Administrator or Designee using the items specified in this Section and on the Quotation Sheets.

320.03 CONSTRUCTION.
All excavation necessary for the repair and replacement of existing sidewalk and/or curb and gutter must be performed in a manner to minimize the destruction of existing off-site storm water drainage systems. As determined by the Contract Administrator or Designee, any portions of the off-site drainage system that are damaged beyond the reasonable excavation limits necessary to perform the work, shall be replaced by the Contractor at no cost to the County. Make joints and connections in accordance with the manufacturer's recommendations. All pipe connections must be watertight. Slope the pipe to maintain positive drainage toward the outlet. Once the reconnection to the existing off-site drainage system is made, it shall be the Contractor's responsibility to ensure that the entire pipe run is free of all debris and functioning at 100% capacity.

320.03.01 Outlets. Redirect and outlet the existing off-site drainage systems into drainage structures whenever possible. Outlets that empty into a drainage structure shall be at least 9 inches above the normal flow line in the structure. The pipe shall be cut flush with the inside of the structure, with the connection sealed and made watertight with nonshrink grout.

For outlets made in the face of the curb line, Schedule 40, 4-inch Polyvinyl Chloride (PVC) Pipe shall be used across the width of the Right-of-Way to the face of the curb line. The PVC Pipe shall be cut at an angle to exactly match the batter of the face of the curb. The elevation of the invert of the outfall pipe is to match the elevation of the flow line of the curb and gutter at the point of intersection.

320.04 MEASUREMENT AND PAYMENT.
The payment for the items specified in the Contract Documents will be full compensation for all applicable dewatering, hauling, storing, re-handling of material, removal and disposal of excess and unsuitable material, tamped fill, forming bed or foundation, backfill, compaction and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

(a) ITEM No. 3148 – Furnish and Install 3 inch, 4-inch and/or 6-Inch Diameter Solid Pipe and/or Perforated Pipe for Connections to Off-site Storm Water Drains, Using: Schedule 40 PVC Pipe

or Corrugated High Density Polyethylene (HDPE) Pipe - will be measured and paid for at the Contract unit price per linear foot. The payment will be full compensation for all three-inch (3"), four inch (4") and/or six inch (6") diameter solid and/or perforated pipe, the removal and disposal of all unsuitable and excess material from the site, compaction, the watertight connection of the new pipe to the existing pipe, backfill and compaction, and for all material, labor, equipment, tools and incidentals necessary to complete the work.

(b) ITEM No. 3149 - Furnish and Install 3 inch, 4 inch and/or 6 Inch Diameter Solid Pipe Outlet Connections for Off-site Storm Water Drains: Made at the Face of Curb or into the Storm Drain of Structure - will be measured and paid at the Contract unit price per each. Payment will be full compensation for all form work, cutting a hole in the existing structure, removal and disposal of all debris from the site, sealing the connection between the existing structure and the new pipe, any prefabricated connections, non-shrink grout, all saw cuts, and all material, labor, equipment, tools, and incidentals necessary to complete the work.

320.04.01 Pipe Connections and Elbows will be included in the per linear foot measurement of the pertinent pipe item. No deduction from the pipe measurement will be made for pipe connections. Connections to drainage structures containing prefabricated holes in which the pipe will be connected with grout or mortar will not be measured, but the cost will be incidental to the pertinent Pipe item.

320.04.02 All excavation outside the limits of removal for the existing Curb and Gutter, and the existing Sidewalk, for the installation of Pipe for Connections to Off-site Storm Water Drains will be measured and paid as specified in Section 301 - Class 3 Excavation for Storm Drain and Miscellaneous Construction. Pipe trenches shall be backfilled with all suitable excavated material as determined by the Contract Administrator or Designee in the field. The use of Selected Backfill will be directed by the Contract Administrator or Designee in the field.

320.04.03 Any necessary removal and disposal of existing pipe for connections to off-site storm water drains (any size, any type), will not be measured but shall be considered incidental to the Contract unit price paid for Furnish and Install 4-inch and/or 6-inch Diameter Solid Pipe for Connections to Off-site Storm Water Drains, Using: Schedule 40 PVC Pipe or Corrugated High Density Polyethylene (HDPE) Pipe.

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CATEGORY 500
PAVING

SECTION 501 – UNTREATED AGGREGATE BASE COURSES (Renamed)
(this task is incidental to Item 5002)

AMEND: SECTION 501 – UNTREATED AGGREGATE BASE COURSES of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials" as follows:

INSERT: The Following:

SECTION 501 – AGGREGATE BASE COURSES

SECTION 501.03.08 Spreading.

ADD: The following to the end of the paragraph:

Graded Aggregate Base (GAB) shall be placed to the depth specified by the Contract Administrator or Designee. The un-compacted depth of the lifts of GAB placed shall not exceed 4 inches.

SECTION 501.04 MEASUREMENT AND PAYMENT

DELETE: **501.04 MEASUREMENT AND PAYMENT** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto., in its entirety.

INSERT: The following:

501.04 MEASUREMENT AND PAYMENT ITEM
Measurement for payment shall be for the quantity of material placed within the limits of work for this item as specified and authorized by the Contract Administrator or Designee.

The construction, compaction, maintenance, and removal of the temporary graded aggregate base wedge constructed in conformance with Standard No. MD-104.01-28, will not be measured but the cost will be incidental to the Graded Aggregate Base Course item.

(a) ITEM No. 5002 – Furnish and Place Graded Aggregate Base Course, Variable Depths – Maximum 4 Inch Lifts will be measured and paid for at the Contract unit price per cubic yard.

SECTION 504 – ASPHALT PAVEMENT
(this task is incidental to Item 5005)

DELETE: **SECTION 504 – ASPHALT PAVEMENT** of the Maryland Department of Transportation, State Highway Administration's "Standard Specifications for Construction and Materials" amended as follows:

INSERT: The Following:

SECTION 504 – ASPHALT PAVEMENT

504.01 DESCRIPTION.

Construct Asphalt Pavement.

ADD: The following at the end of the Section:

504.01.01 Manual/Hand Placement of Surface Asphalt Mix. An item of work for the manual placement of Asphalt Mix has been included in this Contract. This item of work shall only be used and measured for payment with the prior approval of the Contract Administrator or Designee. This item of work is for the furnishing, placement, finishing and compaction of Asphalt Mix where use of mechanized equipment is not practical, such as the paving of ditch lines within the County Right-of-Way and outside the limits of roadway paving. This item of work is **NOT** for the manual work required for the mechanized placement of Asphalt Mix at driveways, intersections, tie-ins to the existing pavement, etc. This item of work is **NOT** intended for and shall **NOT** be used for the placement, finishing and compaction of Asphalt Mix for any roadway patch. Payment for this item will be made under **Item 5014** - Manual/Hand Placement of Surface Asphalt Mix.

504.02 MATERIALS.

Performance Graded Asphalt Binders	904.02
Tack Coat	904.03
Asphalt Mixes	904.04
Crack Filler	911.01
Production Plants	915
Qualified Asphalt Release Agent	915.02 Must be listed on the Maryland State Highway Administration, Office of Materials Technology's Qualified Products List

ADD: The following to the end of the Section:

504.02.01 This contract includes Asphalt Mixes using virgin materials and Asphalt Mixes that are allowed to include Reclaimed Asphalt Pavement (RAP) materials. Any Asphalt Mixes, including mixes containing RAP, submitted on the Source of Supply for the MCDOT Materials Lab's review and approval must be **FINAL MIXES as VERIFIED** by the Maryland State Highway Administration's Office of Materials and Technology. Asphalt Mixes that are not **FINAL.**

MIXES as VERIFIED by the Maryland State Highway Administration's Office of Materials and Technology shall be disapproved and rejected.

504.02.02 The Asphalt Mix items to be used in the individual Task Orders will be determined by the Contract Administrator or Designee and will be included in the written assignment for each Task Order. Once the Asphalt Mix items have been determined, and the Notice to Proceed has been issued for the Task Order, no adjustments to the designated items or the quantities will be made unless authorized in writing by the Contract Administrator or Designee.

504.02.03 Qualified Asphalt Release Agent. Only Asphalt Release Agents conforming to Section 915.02(f) of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials" are to be used. The Asphalt Release Agent used must not contaminate or alter the characteristics of the hot mix asphalt.

Any Asphalt Release Agent used must be listed on the most current edition of the Maryland State Highway Administration, Office of Materials Technology's Qualified Products List for Asphalt Release Agents.

Asphalt Release agents derived from petroleum are not to be used.

504.02.04 Sampling Asphalt Mixtures from the Roadway. In accordance with the latest revision to Maryland State Highway Administration, Office of Materials Technology's Maryland Standard Method of Tests No. 457 (Rev. 08/12), the Contractor must furnish the following materials and equipment upon request by the Contract Administrator or Designee:

(a) General.

(1) Random Sample Location Program or Random Selection Cards numbered from 0 to width of the paving lane in increments of 1 foot. Use only one of the randomly selected locations for obtaining a mixture sample.

(2) Measuring Tape – 25 foot minimum.

(3) Sample boxes, waterproof labels, tape.

(4) Shovel, spatula.

(5) Spray paint or other suitable marking method.

(b) Method A.

(1) Sampling Plates – Three plates (minimum) with a minimum are of 2 square feet. The material and thickness of the plate shall be such that the plate can safely hold a mass of 35 to 60 pounds per square foot. The sampling plate shall have a hole of approximately ¼ inch diameter in each corner.

(2) Masonry nails or equivalent

(3) Pitchfork

(4) Square-end shovel, fire shovel or grain shovel

(5) Scoop

(6) 24 linear feet of 18-gauge mechanical wire or equivalent to tie through each hole of the plate.

(c) Method B.

(1) Shovel and spatula

504.03 CONSTRUCTION.

Quality Control Plan. Submit a Plant Quality Control Plan and a Field Quality Control Plan (QCP) at least 30 days prior to placement of any asphalt pavement. Submit the Plant QCP to the Office of MCDOT Materials Control Center for approval. Submit the Field QCP to the Contract Administrator for approval. The Plans shall contain a statistically based procedure of random sampling and show methods proposed to control the equipment, materials, production, and paving operations. Discuss the QCP requirements in the pre-construction, pre-pave and progress meetings.

The Plans shall contain a statistically based procedure of random sampling and show methods proposed to control the equipment, materials, production, and paving operations. Discuss the QCP requirements in the pre-construction, pre-pave and progress meetings.

The Plant and Field QCP shall contain:

(a) Name and location of asphalt production plants,

(b) Laboratory and field personnel qualifications,

(c) Inspection and record keeping methods, and

(d) Minimum frequencies of sampling and testing.

Use the Quality Control Plans for Plants Template to address all requirements necessary for plant quality control and plant approval.

Corrective actions will be taken for unsatisfactory construction practices and deviations from the Contract Documents.

Plan Administrator and Certified Technicians. The QCPs shall designate a Plan Administrator who shall have full authority to institute any action necessary for the successful implementation of the Plan. The Plan Administrator may supervise the QCP on more than one project if that person can contact the job site within one hour after being notified.

The QCP shall also designate a Certified Asphalt Plant Technician - Level 2, a Certified Asphalt Field Technician, a Certified Inertial Profiler Operator, a Certified Asphalt Plant Technician – Level 1, or Trainee Technicians per the Mid-Atlantic Region Technician Certification Program (MARTCP) and the Maryland Technician Certification Program.

A Certified Plant Technician shall be present at the plant during asphalt production and shipment unless otherwise approved in the Plant QCP. The technician shall perform quality control sampling, testing and documentation as specified.

A Certified Field Technician shall be present at the job site unless otherwise approved in the Field QCP. The technician shall be responsible for the required field quality control sampling and testing. Deviations from the QCP shall be cause for immediate suspension of production and paving operations.

The Certified Technicians shall perform sampling for quality control, quality assurance, acceptance, split sampling, and verification. Submit quality control test results to the Contract Administrator or Designee.

MARTCP-Certified Technicians found deficient in their duties will have their certification(s) rescinded, as determined. Replace the deficient technician with a certified technician before resuming production and paving operations.

Records. Maintain complete records of sampling, testing, corrective actions and quality control inspection results. The producer shall provide the MCDOT Materials Control Center oven recordation tapes for each ignition burn and plant printouts for each day supplied regardless of quantity of production and in addition will provide additional reports for every 100 tons or part thereof for all mix bands and types that are being supplied each day. The producer shall deliver the record tapes and plant printouts to the MCDOT Materials Control Center no later than forty-eight (48) hours after each day of production. Electronic delivery, facsimile or hand delivery are all deemed acceptable means to provide the required information. In the event the Contractor fails to supply the required documentation within forty-eight (48) hours after each day of production, or the next business day, as applicable, the Contract Administrator may suspend work on the project until the documentation is provided.

Maintain linear control charts or use other types of control charts (such as standard deviation or range), as approved. Control charts may be maintained by production, by mix, or by mix per project. Maintain the control charts in the quality control laboratory per the QCP. The control charts shall identify the mix design number, each test result, and the upper and lower limits specified for each test. Retain all original Quality Control worksheets for five years.

Quality Assurance (QA). The Administration will perform independent QA sampling, testing and inspections. QA consists of the following:

(a) Periodically observe the performance of Quality Control (QC) or QA testing,

(b) Monitoring control charts,

(c) Directing the sampling of mixes behind the paver prior to compaction,

(d) Directing the sampling of mixes at the plant site,

(e) Directing the sampling of cores taken from the compacted pavement,

(f) Monitoring conformance with the approved QCP(s), and

(g) Quality control sampling and testing procedures and quality control sampling and testing equipment will be evaluated per the Independent Assurance (IA) program.

(h) The Contractor shall protect the pavement against damage from all causes. Any part of the pavement that is damaged shall be repaired or replaced by the Contractor at no additional cost to the County.

(i) All Asphalt Mix Base and the entire milled surface of all existing pavement must be covered by the first layer of Asphalt Mix Surface within five (5) working days of placement and / or milling.

504.03.01 Equipment. All production and paving equipment will be subject to approval. Ensure the plant is ready for inspection per Section 915.01.02.

Hauling Units. Refer to 915.02(f).

Pavers. Pavers shall be equipped with a means of preventing the segregation of the coarse aggregate particles when moving the mix to the paver augers. The means and methods used may consist of chain curtains, deflector plates, or other such devices, or any combination of these per the manufacturer's recommendations. Demonstrate that modifications to the paving equipment have been implemented on all pavers prior to use on the project.

Use a self-contained, self-propelled unit for mainline paving. Inspection and approval will be based upon the manufacturer's recommendations. The paver shall:

(a) Produce a finished surface of the required smoothness and texture without tearing, shoving, or gouging the mix.

(b) Be operated in a manner which delivers a homogeneous mix the full width of the pavement.

(c) Have automatic controls capable of maintaining the grade and transverse slope within the required tolerances set forth in the contract documents.

(d) Use auger extensions to maintain a distance no greater than 18 in. from the end of the auger to the end gate when screed extensions are used.

Provide reference lines or other approved markings to control the horizontal alignment.

Manual operation will be permitted to make grade changes for constructing irregularly shaped and minor areas.

The equipment may be operated manually for the remainder of the workday if a malfunction of any automatic control occurs, as directed.

Safety Edge Magnetic Protractor. Safety edge magnetic protractor shall have increments of 0 degrees to 90 degrees in four quadrants, with a minimum 4 in. lens diameter and two level vials.

Rollers. Rollers shall be self-propelled, reversible, and steel wheeled or pneumatic tired. Inspect all rollers and present them for approval before use. Rollers shall be operated:

(a) In conformance with the manufacturer's recommendations.

(b) In a manner that does not damage the pavement.

(c) In a manner that delivers the optimal combination of density and ride requirements.

(d) In a manner that protects bridge decks. Do not use rollers in vibratory mode when paving bridge decks.

ADD: The following to the end of the Section:

Power Street Cleaning Equipment. A self-contained street cleaning unit or combination of street cleaning units shall be vacuum equipped and self-contained, capable of removing all loose and deleterious material from the roadway surface without causing dust to escape into the air and without depositing any debris outside of the limits of the roadway pavement, shall precede all tack coat applications. The use of any street cleaning unit(s) shall be subject to approval of the Contract Administrator or Designee. If any street cleaning unit in use is performing unsatisfactorily, as

determined by the Contract Administrator or Designee, all work activity shall cease until an acceptable street cleaning unit(s) is brought to the work site and operated in an acceptable manner.

504.03.02 Weather Restrictions. Place mixes used as the final surface when the ambient air and surface temperatures are at least 40°F. Ensure that surfaces to be paved are clean, clear and dry before paving, as approved.

(a) Place mixes used as intermediate and base layers when the ambient air and surface temperatures are at least 32°F.

(b) Place polymer-modified surface mixes when the ambient air and surface temperatures are at least 50°F.

(c) Do not place asphalt on a frozen graded aggregate base.

(d) In the event of minor inclement weather conditions, to include but not limited to rain and/or weather conditions differing from the limits herein, material on site and enroute from the plant can be placed solely at the Contractor's risk.

(e) If necessary, at the time of severe inclement weather and/or any concern to the safety of the onsite personnel and traveling public, the Contract Administrator or Designee may halt material placement.

(1) In circumstances when material placement is halted due to severe weather and/or safety concerns, all material enroute from the plant at the time of the Contract Administrator or Designee's direction will be wasted at no cost to the county.

(2) The Contractor shall be reimbursed for material on-site as follows: Up to one tandem truck load in the actual process of unloading when placement is halted and up to a maximum of two tandem truckloads of Asphalt Mix that have not started unloading but are on-site when placement is halted. In no case will the Contractor be reimbursed for more than a total of three (3) tandem truckloads of Asphalt Mix regardless of the number of truckloads on-site.

(f) Determination of minor and severe inclement weather at the project location is at the sole discretion of the Contract Administrator or Designee.

(g) The Contract Administrator or Designee reserves the right to require and/or perform any testing, at any time necessary to ensure the quality of the pavement.

(h) All additional testing (other than MCDOT Materials Control Center testing) and associated costs, including maintenance of traffic, and the removal and proper disposal of all unsuitable and rejected material, shall be performed by the Contractor and entirely at the Contractor's expense.

504.03.03 Foundation Preparation. Construct the foundation as specified prior to paving. Place crack seal and mastic as specified in Section 510. Remove all excess crack sealer and patch material before paving over existing pavement. All spalls and potholes shall be cleaned, tack coated, filled with asphalt, and tamped before paving. Adjust to grade manholes, valve boxes, inlets, and other construction appurtenances within the area to be paved as directed.

504.03.04 Non-Tracking Tack Coat (NTTC). All Tack Coat for Asphalt Pavement shall be Non-Tracking (NTTC). Ensure the surface is dry, clean and thoroughly cleaned by a power broom, clear of all loose and foreign materials prior to application. Apply the tack coat by uniformly covering across the surface using an application rate of 0.01 to 0.10 gallons per square yard as directed.

The Manufacturer shall supply a QCP for the NTTC detailing the handling and application procedures per PP71-11, and test results from an independent, accredited laboratory for shear and tensile strength.

(a) Sample the NTTC as directed and submit to MCDOT Materials Control Center. All samples will be tested against the manufacturer's specifications. Material out of compliance will not be accepted for use.

(b) Use equipment to heat and apply the NTTC at an application temperature range that conforms to the manufacturer's recommendations. Apply the NTTC in accordance with 504.03.02 and as directed.

(c) Apply the NTTC uniformly with a pressure distributor. Use hand spraying equipment only in areas inaccessible to the pressure distributor. Apply the NTTC using an application rate of 0.01 to 0.10 gal/yd^2, as directed, and do not dilute with water. The quantity, rate of application, temperature, and areas to be tacked shall be approved prior to application.

(d) Do not clean or discharge the tack coat distributor into ditches, onto shoulders or along the right of way. Park the distributor so the spray bar will not drip NTTC onto the surface of the traveled pavement.

(e) Exclude all traffic from sections treated with NTTC until the tack has cured and will no longer track onto adjacent non-treated areas. Adjacent pavement surfaces shall show minimal visible evidence and pavement markings shall show no visible evidence of tracking.

504.03.05 Asphalt Placement. Delivery and placement of the asphalt should be continuous. Place the asphalt while the temperature is at least 225F, or as specified in the Field QCP. Place the asphalt with a paver that conforms to Section 504.03.01. Do not broadcast loose mix over the new surface.

The Contractor shall provide, at no cost to MCDOT, a surface thermometer for use by the Contract Administrator or Designee prior to and during all paving operations. The surface thermometer shall be a rugged and durable instrument with a window and a gauge. The scale shall be from zero degrees (0°) to four hundred degrees (400°) Fahrenheit in one-degree (1°) increments. The thermometer shall detect surface temperature through the use of a thermocouple in as short a period as five (5) seconds, and temperature of the asphalt mat through of a penetration needle within approximately five (5) seconds. These readings shall have an accuracy of plus or minus one degree (±1º) Fahrenheit.

The surface thermometer shall be presented to the Contract Administrator or Designee for his/her approval a minimum of forty-eight (48) hours prior to any anticipated asphalt mix paving. The thermometer shall be maintained on the Task Order site prior to and during all asphalt mix paving operations.

An additional thermometer meeting these requirements shall be available on the Task Order site in case the original ceases to function.

504.03.06 Compaction. Roll the asphalt immediately after placement and compact to the proper in-place density and ride smoothness. Incentive or disincentive price adjustment for density will be as specified in 504.04.02. Use steel wheel rollers for the first rolling of all joints and edges, the initial breakdown rolling, and the finish rolling. Use a power-driven trench roller when base widening is too narrow to permit the use of conventional rollers.

Construct an earth berm or shoulder against the loose asphalt as soon as it is placed. The trench must be excavated wider than the proposed width. Roll and compact the two materials simultaneously. No traffic is permitted on the pavement after rolling until it has cooled to less than 140° F. Roller marks shall not be visible after rolling operations.

504.03.07 Joints. Construct joints as directed and as follows:

(a) Stagger longitudinal and transverse joints in successive courses so that one is not directly above the other.

(b) Stagger transverse joints by the length of the paver.

(c) Stagger longitudinal joints at least 6 in. and arrange so that the longitudinal joint in the top course is within 6 in. of the line dividing the traffic lanes.

(d) Construct joints in a manner that provides a continuous bond between the old and new surfaces.

(e) Overlap the existing pavement 1 to 1.5 in. when constructing longitudinal joints adjacent to existing asphalt pavements.

(f) The initial longitudinal roller pass shall be on the uncompacted hot mat and 6 inches to 1 foot from the joint. The successive roller pass shall compact the overlapped material and the 6 -inch to 1-foot material simultaneously.

(g) Apply tack coat to joints as directed. Cut back the edge of the existing pavement for its full depth at transverse joints when placing a surface course and apply tack coat material as directed.

(h) Apply tack coat to all contact surfaces before placing the mix against curbs, gutters, headers, manholes, etc.

504.03.08 Edge Drop-off. When paving highways carrying traffic:

(a) Match all compacted pavement courses exceeding 2-1/2 in. in depth with the abutting lane or shoulder on the same working day.

(b) For compacted pavement courses of 2-1/2 in. or less are placed, use the option of paving the abutting lane or shoulder on alternate days.

(c) Pave all abutting lanes or shoulders prior to weekends and temporary shutdowns.

(d) Place advance warning traffic control devices per Section 104 where uneven pavement joints.

504.03.09 Tie-In. When paving highways carrying traffic:

(a) Construct a temporary tie-in at least 4 feet in length for each 1 inch of pavement depth when the posted speed is less than or equal to 40 mph.

(b) Construct a temporary tie-in at least 10 feet in length for each 1 inch of pavement depth when the posted speed greater than 40 mph.

(c) Construct temporary tie-ins before traffic is allowed to cross the transverse joint.

(d) Construct temporary tie-ins 10 feet or greater using a paver meeting Section 504.03.01.

(e) Remove a transverse portion of the existing pavement at the final tie-in point to maintain the design thickness of the final surface course.

(f) Construct the final tie-in to a length equal to the posted speed per 1-inch depth of the design thickness of the final course, with a length of at least 25 feet per 1-inch depth and a maximum length of fifty (50) feet per 1-inch depth.

504.03.10 Mix Sampling & Testing. Mix sampling and testing for Quality Control (QC) is the responsibility of the Producer or Contractor. Identify the QC sampling locations in the Field QC Plan (plant or project site). Perform Quality Assurance (QA) sampling as directed and witnessed by the County. Obtain QA samples from behind the paver prior to compaction. The County will perform all QA testing.

(a) QC Sampling at the Plant. Refer to MSMT 457. The Contract Administrator or Designee will retain all random sampling documentation. The producer shall sample the mix at the plant. The sample shall be obtained or witnessed by the certified technician. QC plant mix sample results shall not be used in the pay factor calculation. Submit the results to the County and identify as Plant samples.

(b) QC Sampling at the Project Site. Refer to MSMT 457. QC and QA samples shall not be split samples. The certified technician shall sample the mix at the project site. Sampling will be witnessed by the County.

(1) A mix lot constitutes all sublots of a mix created during the production of required tonnage for a lot.

(2) A mix sublot size should not exceed 1,000 tons.

(3) A sublot size up to 200 tons can be combined with the previous 1,000-ton sublot placed on the same day.

(4) A new lot number for a mix will be given when there is a change in the approved job mix formula.

(5) QC project site mix sample results may be used in the pay factor calculation.

(c) QA Sampling at the Project Site. Refer to MSMT 457. Sample mixes at the project site as specified.

(1) Obtain the samples from behind the paver prior to compaction. Documentation of random sampling shall be retained by the Contract Administrator or Designee.

(2) The Contractor's Certified Technician shall sample the mix at the project site as witnessed by the County.

(3) The County will take possession of the QA samples and deliver them to the MCDOT Materials Control Center for testing.

(4) A mix sublot size should not exceed 1,000 tons. A sublot size up to 200 tons can be combined with the previous 1,000-ton sublot placed on the same day. A mix lot constitutes all sublots of a mix created during the production of required tonnage for a lot. A new lot number for a mix will be given when there is a change in the approved job mix formula.

(d) Mix Acceptance Determination. Obtain at least three behind the paver mix samples per acceptance lot for mix acceptance determination. An acceptance lot size is approximately equal to 6,000 tons of mix per project. A mix acceptance lot ends on the day when 6,000 tons is reached.

(1) QC and QA results from behind the paver will be compared based on the F test and t test methods per MSMT 733 for each pay factor property.

(2) When F test and t test method results indicate a QC and QA pay factor property is not from different populations, QC and QA results will be combined to calculate the mix pay factor property per MSMT 735 and Section 504.04.02.

(3) When F test and t test method indicate a QC and QA pay factor property is from different populations, the pay factor property will be determined using QA results only.

(4) The Contract Administrator or Designee will determine the acceptance evaluation procedure when less than three QA samples are obtained for an acceptance lot. The results will be made available within five working days.

504.03.11 Sampling & Testing for Density Determination. Refer to MSMT 457. Random core sampling locations will be selected for each sublot as specified. Sample the QC and QA cores in the presence of the Contract Administrator or Designee. Cut four or six-inch cores for mixes smaller than 25 mm and 6 inches cores for mixes 25 mm and larger.

A density lot is defined as a day's paving per mix. A sublot shall not exceed 500 tons. A paving day shall begin with a new lot and sublots. The Contract Administrator or Designee shall witness the random location coring. At the end of the day's paving, the Contract Administrator or Designee will designate one randomly selected core sublot set for QC and one for QA. The Contract Administrator or Designee will note specific reasons for any density waivers and submit the proper forms to the Contract Administrator or Designee.

(a) Quality Control for Density. The density of the core samples will be expressed as a percentage of the maximum specific gravity of the mixture for each lot's placement. The maximum specific gravity will be determined in accordance with T 209 and the core's percent density will be expressed to the nearest 0.1 percent.

1. If more than one mix sample is obtained per day's placement, an average of all maximum specific gravity tests for the day will be used for the determination of percent density of each core sample. The QC Laboratory will make results of individual days paving available to the Contract Administrator or Designee and the Contractor no later than the next working day. Retain core samples until notified of the results of the F & t test.

(b) Quality Assurance for Density. The Contract Administrator or Designee will take possession of the core samples and deliver the cores to the County's Laboratory for

testing. The density of the core samples will be expressed as a percentage of the maximum specific gravity of the mixture for each lot's placement. The maximum specific gravity will be determined in accordance with T 209 and the core's percent density will be expressed to the nearest 0.1 percent.

(c) If more than one mix sample is obtained per day's placement, an average of all maximum specific gravity tests for the day will be used for the determination of percent density of each core sample. The Laboratory will make results of individual days paving available to the Contract Administrator or Designee and the asphalt Producer within five working days.

(d) Acceptance. Each asphalt density lot will be evaluated for compliance using the Contract Administrator's or Designee's quality assurance test data and the Contractor's QC data. The QC and QA core specific gravity data will be analyzed in conformance with MSMT 733 (F test and t test method).

(1) If test results are determined to be from the same population, QC and QA sublot results will be averaged to calculate the density pay factor in accordance with Section 504.04.02.

(2) If results are determined not to be from the same population, the pay factor will be calculated using QA sublot results only. The average QC maximum specific gravity test results and the average project site behind the paver QA maximum specific gravity test results shall be compared.

(3) If QC results and QA results compare within 0.026, the average of the combined QC and QA results shall be used to calculate each core density. If they do not compare within 0.026, QA maximum specific gravity results shall be used to determine each core density.

(4) Pay reduction or incentive for the pavement compaction lot will be calculated in conformance with Section 504.04.02. Statistical outliers will be determined per MSMT 734.

(5) An asphalt density lot size shall equal one paving day's production per mix. A lot shall be divided into a minimum of five equal sublots. A sublot shall not be greater than 500 tons. When a paving day's production per mix is greater than 2,500 tons, then each sublot size shall be 500 tons or fraction thereof.

504.03-12 NOT USED.

DELETE: 504.03.13 Thin Lifts and Wedge/Level Courses in its entirety.

INSERT: The following.

504.03.13 Thin Lifts and Wedge/Level Courses. If an asphalt course is determined to be a thin lift in accordance with the "Thin Lift Mix Design Identification Table" in Section 904.04.03, construct a 400 to 500 foot control strip on the first day of paving to determine optimum pavement density.

(a) Use a thin-lift nuclear or non-nuclear asphalt density gauge in accordance with the manufacturer's recommendations to take readings from the control strip in five random

locations to determine roller patterns and the number of passes needed to obtain optimum density. Optimum density is defined as when the average density does not change by more than 1.0 percent between successive roller passes and the percent density is between 90.0 and 97.0.

(b) Core the five random gauge reading locations to verify the gauge calibration and to determine the percent pavement density. The cores will be tested by the Contractor's QC laboratory and results will be verified by the Montgomery County Materials Testing Lab. The QC/QA cores will be saved by the Contractor and made available to the County for retesting fifteen calendar days past after the paving date.

(c) On the first day of paving, the target optimum density will be determined using the density gauge readings from the control strip; verified by the core results. The lot average density from the five control strip cores will be used as the target optimum density.

(d) Take a minimum of ten QC/QA gauge readings daily from random locations per day's paving per mix or two per 500 tons of paving per mix; whichever yields the higher frequency of locations. A density lot is defined as a day's paving per mix. A sublot shall not exceed 500 tons. A paving day shall begin with a new lot and sublots.

(e) Any lot average 2.0 percent or more below optimum and below 92 percent shall require a new control strip to be constructed, tested and approved before paving continues.

(f) Take a minimum of two (2) QA cores daily when production is more than 500 tons per location, or when successive days of less than 500 tons production totals 1,000 tons or greater. If the average of the two density gauge readings and the average of the two respective QA core densities are within 3.0 pounds per cubic foot, the County will accept all the daily density gauge readings. If they do not compare within 3.0 pounds per cubic foot, construct a new control strip and recalibrate the density gauge.

(g) Wedge/Level courses placed at variable thicknesses and any area greater than 3/4 inch shall be tested and accepted in accordance with this Thin Lift specification. Density incentives are not applicable for Thin Lift or Wedge/Level Courses. Apply mix pay factors as determined by the Contract Administrator / Designee and the Contractor at the Pre-pave meeting.

504.03.14 Control **Strip.** When mixes are not determined to be Thin Lifts per Section 504.03.13, use the option of constructing a control strip for guidance in determining roller patterns. Construct the control strip on the first workday in which asphalt is placed between 400 and 500 feet in length. Remove any control strip, if necessary and as determined at no additional cost.

The construction of a control strip may be required at any time during placement of asphalt based on the evaluation of compaction results, as determined.

504.03.15 Pavement Surface Checks. Ensure an approved 10-foot straightedge is available at all times. The surface of each pavement course shall be true to the established line and grade after final compaction of each course. The surface shall also be sufficiently smooth so that the surface does not deviate more than 1/8 inch when the straightedge is placed parallel to the centerline. The transverse slope of the finished surface of each course shall not deviate more than 3/16 inch when the straightedge is placed perpendicular to the centerline.

Check transverse joints using the straightedge immediately after the initial rolling. When the surface of each course varies more than 1/8 inch from true, make immediate corrections so the finished joint surface is within tolerance.

Areas that are tested and reported in accordance with Section 535 - Pavement Surface Profile in the Contract Documents are not applicable to Section 504.03.15.

504.03.16 Curbs, Gutters, Etc. Construct permanent curbs, gutters, edges, and other supports as shown and as specified, then backfill prior to placing the asphalt.

504.03.17 Shoulders. Construct shoulders as specified. Shoulders abutting the asphalt surface course of any two-lane pavement being used by traffic shall be completed as soon as possible after placement of the surface course on that lane.

504.03.18 Safety Edge. Construct a sloped edge on the pavement shoulder of open section roadways using a device attached to the paver that constrains the asphalt head to produce a compacted profile. The device shall adjust to accommodate varying paving thicknesses. The device shall be capable of being detached or raised when not in use.

Construct a safety edge when the individual thickness is at least 1.5 in. or greater. The target range of the slope shall not be greater than 45 degrees when measured from the horizontal axis. Construct the sloped edge of multiple lifts on the top two pavement lifts when specified. Construct the entire sloped edge on underlying pavement.

(a) Use the safety edge as a standard treatment for the outside edge of all open section roadways with shoulders up to 6 ft wide.

(b) Do not use the safety edge when the resulting travel lane is less than 11 ft wide.

(c) Using the safety edge magnetic protractor, record 10 angle readings per mile in the presence of the Engineer. Readings will be witnessed by the Engineer and the results will be documented on Form OOC-91 by the Contractor for the project files. The performance criteria target is for 90 percent of the readings to fall below 45 degrees.

(d) The safety edge does not replace the requirements in Section 609.

504.03.19 Qualified Asphalt Pavement Release Agent. Only Asphalt Release Agents conforming to Section 915.02(f) of the latest edition of the Maryland Department of Transportation, State Highway Administration's, "Standard Specifications for Construction and Materials", are to be used. The Asphalt Release Agent used must not contaminate or alter the characteristics of the hot mix asphalt.

Any Asphalt Release Agent used must be listed on the most current edition of the Maryland State Highway Administration, Office of Materials Technology's Qualified Products List for Asphalt Release Agents.

Asphalt Release agents derived from petroleum are not to be used.

504.03.20 Saw Cuts. The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

504.04 MEASUREMENT AND PAYMENT

Base and Surface Asphalt Mix will be measured and paid for at the Contract unit price per ton for the mix design specified on the *Quotation Sheets.* The payment will be full compensation for furnishing, hauling, placing all materials including antistripping additive, tack coat, control strip, pothole and spall repairs, setting of lines and grades where specified, compaction, cleaning of the asphalt mix subsurface lift with power street cleaning equipment prior to placement, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

In the event that replacement of material is required at less than the total depth of removal in order to bring a section of roadway back into section or to ensure positive drainage, or for any other reason as determined by the Contract Administrator or Designee, the excess removal of material, regardless of excavation method selected, shall be measured and paid for as Unclassified Excavation under Item 2001.

The Contract Administrator or Designee will determine which asphalt mix items are to be included in the written assignment for each Task Order. Once the asphalt mix items have been determined, and the notice to proceed has been issued for the Task Order, no adjustments to the designated items or the quantities will be made.

Asphalt Mix - Base and Surface Pavement for Roadways. The use of these items will be for, but not limited to, the placement of material within the limits of the right-of-way designated for use by vehicular traffic. There will be no difficulty in accessing the area of paving with paving equipment and dump trucks, with no more than the usual amount of manual labor as is required for normal paving operations. No additional compensation will be made for any necessary manual placement of Asphalt Mix at roadway intersections and residential and commercial driveways.

Asphalt Mix -Surface Pavement for Wedge and Level Course. This item will be used to fill and bring to grade existing roadway pavement in preparation for an Asphalt Mix overlay. For each of these pay Items No. 5005, the Reclaimed Asphalt Pavement (RAP) will not exceed 20%.

The County has identified some select asphalt and concrete mixes that allow recycled content that is not to exceed 20%. There are also a few mixes listed on the quotation sheet that allow up to 30% recycled content. See the quotation sheet for Reclaimed Asphalt Pavement (RAP) caps for each pay item. Contractors are encouraged to be provide material mixes that are as close as possible to the County's / Department's max allowable recycled content for that specific mix. The Contractor is required to provide the plant data sheet for each mix.

(a) ITEM No. 5005 – Surface Asphalt Mix for Roadway Overlay: Superpave 4.75 MM, PG 64-22, ESAL Level 3 - will be measured and paid for at the Contract unit price per ton.

504.04.01 Price Adjustment for Asphalt Binder. A Price Adjustment (PA) will be made to provide additional compensation to the Contractor or a credit to the Administration for the fluctuation in the cost of asphalt binder.

For adjustment purposes, the prevailing base index price will be the price specified for PG 64-22 (PG64S-22) at time of bid opening. Cost differentials between PG 64-22 (PG64S-22) and a binder specified shall be included in the price bid per ton for Asphalt. A historical database will be maintained by the Administration

The PA will be made when the index price for the month of placement increases or decreases more than 5 percent of the prevailing base index price. Computations will be as follows:

Percent Change = ((Pp – Pb)/ Pb) X 100

PA = T x Q x ((Pp – (D x Pb))

Where:

PA = Price Adjustment for the current month

T = Design target asphalt content expressed as a decimal

Q = Quantity of asphalt placed for the current month

Pp = Index price for PG 64-22(PG64S-22) asphalt binder per ton for the month of placement

D = 1.05 for increases over 5 percent; 0.95 for decreases over 5 percent

Pb = Prevailing base index price for PG 64-22 (PG64S-22) asphalt binder per ton

A Price Adjustment resulting in an increased payment to the Contractor will be made by increasing the Contract unit price for the Asphalt Mix item in the amount specified by the formula shown above. A Price Adjustment resulting in a decreased payment to the Contractor will be made by decreasing the Contract unit price for the Asphalt Mix item in the amount specified by the formula shown above.

Price Adjustment for Asphalt Binder: A unit price surcharge adjustment due to petroleum price change is included in this Montgomery County Contract. The formula for determining the increase/decrease due to petroleum price change is included in SECTION "C" of the Contract documents.

504.04.02 Payment Adjustments for Asphalt Mix and Pavement Density. There shall be **no** incentive payments made for providing Pavement Densities that meet the compaction requirements and **no** incentive payments made for providing Asphalt Mixtures that meet the Mix Design specifications. Payment reductions for pavement density not meeting the specifications will be based on individual sublot core test data for a given lot and the lot average density as specified in this Section and Table 504A. Payment reductions for density and for mixture will be made by adjusting the payment for Asphalt Mix. Payment reductions for density will be waived for portions of the pavement where a poor foundation is determined as the cause for inadequate density.

At the discretion of the Contract Administrator or Designee, Asphalt Mix that does not meet the specified pavement density requirements and/or the approved Asphalt Mix design, shall be completely removed and replaced entirely at the Contractor's expense and at no cost to the County

TABLE 504A

Dense Graded HMA Mixes – Percent of Maximum Density

Lot Average % Minimum	No Individual Sublot Below %*	Pay Factor (DF)
94.0	94.0	1.000
93.8	93.7	1.000
93.6	93.4	1.000
93.4	93.1	1.000
93.2	92.8	1.000
93.0	92.5	1.000
92.8	92.2	1.000
92.6	91.9	1.000
92.4	91.6	1.000
92.2	91.3	1.000
90.2	89.2	0.910

91.8	90.8	0.990
91.6	90.6	0.980
91.4	90.4	0.970
91.2	90.2	0.960
91.0	90.0	0.950
90.8	89.8	0.940
90.6	89.6	0.930
90.4	89.4	0.920
90.2	89.2	0.910
89.8	88.8	0.890
89.6	88.6	0.880
89.4	88.4	0.870
89.2	88.2	0.860
89.0	88.0	0.850
88.8	87.8	0.840
88.6	87.6	0.830
88.4	87.4	0.820
88.2	87.2	0.810
88.0	87.0	0.800
Less than 88.0	87.0	0.750 or rejected by Contract Administrator or Designee

Note 1: Lots with test data above 97.0 may be rejected. Lots that are accepted will receive a pay adjustment in accordance with the following:
(a) When the density lot average is above 97.5, the pay factor = 75%
(b) When 3 sublot densities are above 97.0, the pay factor = 95%
(c) When 4 or more sublot densities are above 97.5, the pay factor = 75%

Note 2: Pay incentive or pay disincentive will not be paid for placements identified as wedge/level courses or thin lift courses.
Note 3: When the Contractor's core specific gravity data does not compare with the County's core specific gravity data, only the County's single sublot values and lot average value will be used in acceptance decision.
Note 4: The average sublot values and the lot average will be used in acceptance decision.

Lots in conformance will be accepted per Sections 904, 915, and MSMT 735. A composite pay factor (CPF) for Asphalt content and gradation will be based on the total estimated percent of the lot that is within specification limits using the quality level analysis.

Payment adjustments will be computed as follows:

Density Lot Payment Adjustment = (DF - 1) x(AP)x(TL)

Mix Design Lot Payment Adjustment = (MF - 1) x(AP)x(TL)

Where:

MF = Mixture pay factor [0.55 + (0.5 x CMPWSL)]
Refer to MSMT 735 for CMPWSL.

DF = Density pay factor from Table 504A.

AP = Adjusted/applicable unit price per 504.04.01.

TL = Applicable tonnage per lot.

(a) A lot containing material with a pay factor of less than 1.000 may be accepted at the reduced pay factor if the pay factor is at least 0.800 and there are no isolated defects.

(b) A lot containing material with a pay factor of less than 1.000 may be accepted at the reduced pay factor provided the composite pay factor for asphalt content and grading is at least 0.750, and there are no isolated defects.

(c) An in-place density lot containing nonconforming material that fails to obtain at least a 0.800 pay factor and a mixture lot containing nonconforming material that fails to obtain at least a 0.750 pay factor for asphalt content and gradation will be evaluated to determine acceptance. Lots that are rejected shall be replaced.

(d) Lots with less than five Quality Control or Quality Assurance samples per in-place density lot will not be evaluated for incentive payment.

(e) When less than three mix samples have been obtained at the time of the acceptance sampling or at the time a lot is terminated, the Contract Administrator or Designee will determine if the material in a shortened lot will be considered a part of the previous lot or whether it will be accepted based on the individual test data.

504.04.03 Dispute Resolution. Not applicable.

504.04.04 Control Strip Price Adjustment. The cost of the control strip, if constructed, will not be measured but the cost will be incidental to the pertinent Asphalt Mix item.

504.04.05 Removal of Existing Raised Pavement Markers. Removal of existing raised pavement markers, either visible or encountered below the existing grade, will not be measured but the cost will be incidental to the pertinent pavement removal item.

504.04.06 Temporary Tie-In. Placement and removal of the temporary tie-in where asphalt mix is being applied to the traveled way carrying traffic will be measured and paid as specified in Section 106 –Asphalt Mix for Maintenance of Traffic.

504.04.07 Final Tie-in. The removal of any existing pavement or structures for the final tie-in shall not be measured for payment and shall be considered incidental to the Contract unit price per ton paid for the asphalt mix item used to make the tie-in.

504.04.08 Appurtenance Adjustments. Adjustment of existing manholes, valve boxes, inlets or other structures and appurtenances, whether visible or encountered below grade, will be measured and paid for at the Contract unit price under the pertinent item(s) found elsewhere in this Contract Document.

504.04.09 Asphalt Mix Sampling Equipment. The furnishing of Random Sample Location Program or Random Selection Cards, 25 foot (minimum Length) measuring tape, Asphalt Mix sample boxes, waterproof labels, tape, shovel (square-end, fire and/or grain as specified by Contract Administrator or Designee), spatula, spray paint, 3 each sampling plates, masonry nails, pitchfork, scoop, 24 linear feet of mechanical wire shall not be measured for payment but shall be considered incidental to the Contract unit price paid for the Asphalt Mix material used.

504.04.10 Full Depth Saw Cuts and Saw Cutting Any Depth shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be

removed shall be saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean straight and vertical edge and to the depth specified by the Contract Administrator or Designee.

Full depth saw cuts and saw cutting any depth shall **NOT** be measured for payment. All saw cuts and saw cutting shall be considered incidental to the Contract unit price of the pertinent item of work where its use is specified to be necessary.

The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

504.04.11 Unit Price Adjustments (UPA) Due to Fluctuation in the Price of Asphalt Cement. Unit price surcharge adjustments shall be as specified above in Section 504.04.01 and under the conditions outlined in the **Special Terms and Conditions** under the provision entitled **UNIT PRICE ADJUSTMENTS DUE TO FLUCTUATION IN THE PRICE OF ASPHALT BINDER**.

SECTION 505 – ASPHALT PATCHES
(this task is incidental to Item 5019 & Item 5021)

DELETE: **SECTION 505 – ASPHALT PATCHES** of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials".

INSERT: The Following:

SECTION 505 – ASPHALT PATCHES

505.01 DESCRIPTION.
Repair rigid, flexible, or composite pavements by removing part or all of the section of the existing pavement and replace with asphalt paving material. The locations and extent of the repairs will be as specified or as directed. Prior to the commencement of any work on the individual Task Order, the Contract Administrator or Designee shall determine the limits and depth of the patch (whether a One Lift Patch or a Full Depth Patch).

One Lift Patch (OLP). OLP consists of removing areas of unsound pavement up to five (5) inches in depth and replacing with an asphalt mix. The pavement thickness is defined as the thickness of all bound materials in the pavement structure including asphalt mix, Portland cement concrete (PCC), and any other asphalt or cement modified material.

Full Depth Patching (FDP). FDP consists of removing the full thickness of the pavement sections to the top of the aggregate base and replacing with an asphalt mix. If more than 50 percent of the pavement thickness requires repair, the Contract Administrator or Designee will determine if an OLP or FDP is required.

Prior to the commencement of any work on the individual Task Order, the Contract Administrator or Designee shall determine and specify the means, method and equipment (either a milling machine or Gradall type excavator) to be used to excavate and remove the existing pavement.

This work shall include the patching of entire neighborhoods where patch locations are in close proximity to one another and the spot patching of individual roadways where there will be a lengthy distance between patches. Regardless of distance between patches, the Contractor shall receive **NO ADDITIONAL COMPENSATION** for performing either neighborhood patching or spot patching.

505.02 MATERIALS.

Graded Aggregate Base	Section 901
Aggregates for Asphalt Mixes	Section 901
Performance Graded Asphalt Binders and Asphalt Mixes	Section 904
Aggregates for Superpave Mixes	Section 901 and MP2
Crack Filler	Section 911.01
Production Plants	Section 915
Cold Patch Material	Section 924

505.03 CONSTRUCTION.
Keep disturbance of the base material to a minimum. The faces of the remaining pavement shall be square and vertical without ragged edges. Do not use equipment that could damage the existing pavement.

505.03.01 Weather Restrictions. Refer to 504.03.02.

505.03.02 Existing Pavement. Complete all repairs on the same day in which excavation is completed. Do not leave open excavated areas at the end of the workday.

As directed by the Contract Administrator or Designee, the surface lift of Asphalt Mix **must** be placed, over the entire limits of the patch and at the proper grade, within twenty-four (24) hours after the initial excavation of the patch. Under no circumstances, including non-work days and weekends, shall the Asphalt Mix Base pavement be exposed to the elements and traffic for longer than twenty-four (24) hours.

505.03.03 Removal of Pavement for OLP. Remove existing pavement by milling, grinding, or saw cutting to the specified depth. Maintain square vertical faces after removal.

(a) If concrete is encountered during removal, limit the depth of the patch to the top elevation of the PCC.

(b) For OLP of composite pavements, protect the PCC from damage during removal of the asphalt mix.

(c) When the material at the bottom of the OLP is determined to be unsuitable, remove the unsuitable material until sound material is encountered.

(d) When any PCC present in a composite pavement is determined to be unsuitable, follow the removal and replacement procedures for a FDP.

(e) Remove all loose and foreign materials before placing the patch, then treat all spalled cracks and joints by tack coating, filling and tamping with asphalt.

(f) The County reserves the right to specify the use Asphalt Mix in place of concrete to fill the void left from the removal of the existing concrete pavement.

(g) The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

(h) The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

505.03.04 Removal of Pavement for FDP. Make a perpendicular saw cut full depth around the perimeter and remove the existing pavement to the top of the aggregate base/subgrade. Prior to the commencement of any work on the individual Task Order, the Contract Administrator or Designee shall determine and specify what type of equipment (either a milling machine or Gradall type excavator) is to be used to remove the existing pavement. Refer to the applicable portions of 522.03.03 for the concrete portion of a composite pavement. Maintain square vertical faces after sawcutting.

505.03.05 Base and Subgrade Preparation. The aggregate base of the FDP area will be evaluated to determine its suitability.

(a) When the aggregate base is determined to be unstable, compact it as specified in 501.03.10.

(b) When no aggregate base is present, construct the subgrade foundation per Section 208 or as directed.

(c) Removal of Unsuitable Material:

(1) When the aggregate base or subgrade material is unsuitable, remove and dispose of the unsuitable material.

(2) Replace the unsuitable material with graded aggregate base conforming to Section 501.

(3) Compact the replacement material in layers no greater than 4-inch depth.

(4) Protect the aggregate base or subgrade after placement.

(5) Remove and replace any aggregate base or subgrade damaged due to lack of protection at no additional cost.

505.03.06 Subgrade Drains. Refer to Section 306 in the Maryland Department of Transportation, State Highway Administration's latest edition of "Standard Specifications for Construction and Materials". The construction of subgrade drains may be required in areas of wet underlying subgrade or in areas where future drainage problems may be a concern, as determined.

505.03.07 Emergency Filler. Have sufficient approved cold patch material readily available to fill the void of the repair area. Place and compact the material as directed. Completely remove the material at the beginning of the next workday.

505.03.08 Steel Plates. Ensure that an ample supply of 12 feet x 14 feet by 1-inch-thick steel plates are available on site to cover the emergency filler.

505.03.09 Patch Construction. Refer to Section 504. Furnish equipment and perform placement, compaction, and quality control procedures as specified. Manual placement of the Asphalt Mix patches is permissible. Thoroughly clean and tack the exposed vertical surface of adjacent pavement prior to placing the Asphalt Mix patch per 504.03.05. Patches more than 50 feet in length and 10 feet or greater in width shall have the final riding surface placed by a paver. Lower lifts may be placed by a paver or other methods as necessary. Do not place Asphalt Mix patches on a frozen base.

505.03.10 Patch Placement. Maintain lift thickness in conformance with the following:

ASPHALT MIX LIFT THICKNESS		
MIX DESIGNATION (mm)	**MINIMUM (in.)**	**MAXIMUM (in.)**
9.5	1.0	2.0
12.5	1.5	3.0
19.0	2.0	4.0
25.0	3.0	5.0

505.03.11 Patch Surface Checks. Have an approved 10-foot straightedge available as directed. The patch surface, after final compaction, shall be sufficiently smooth and true to the established line and

grade. Test the surface with the straightedge in the longitudinal and transverse direction immediately behind the final roller. The tested surface shall not deviate by more than 3/16 inches.

Correct any portions that deviate by more than 3/16 inch by removal and replacement or by diamond grinding at no additional cost.

Recheck all corrected pavement sections, including any additional transverse paving joints created, to determine if the sections meet specifications.

505.03.12 Mix Sampling Requirements. One random sample per mix will be required daily for projects using more than 200 tons per day. Quantities of 200 tons or less of asphalt per day may not require daily field sampling. However, one random sample per mix for every 1,000 tons of asphalt or one sample per mix will be required weekly; whichever yields the greater frequency. Random mix samples will be required for patches placed with a paver. Patches not placed with a paver or patches less than 1,000 square feet (10-foot-wide x 100-foot-long) will not require a mix sample.

505.03.13 Testing and Acceptance. Acceptance of Base and/or Surface of each patch per lift will be determined by using an asphalt density gauge with test data witnessed. Calibrate the density gauge to the mix to obtain representative readings.

505.03.14 Density Determination Requirements. On the first day of patching, perform density gauge testing and core sampling on three randomly selected test locations. Label the cores with the date sampled. Test the cores then submit the results to MCDOT Materials Control Center. The average pcf of the three cores and the average pcf of two corresponding gauge readings shall be within 3.0 lb/ft^3 of each other. If they do not compare, recalibrate the density gauge according to the manufacturer's recommendation. When the difference between the gauge readings and the core tests are greater than 3.0 lb/ft^3, verify the gauge's accuracy by reading three new random locations.

Report the density gauge test data as a percentage of the daily production maximum specific gravity. An in-place density of 92.0 to 97.0 percent is required for each randomly selected patch test location per lift. Compliance will be determined for each patch separately by averaging all density tests performed within each specific patch. Submit compaction sheets to OMT daily for all production. Retain the tested cores in the QC Laboratory until OMT verifies the results.

A patch of 2,500 linear ft. or greater shall require additional readings.

Take three cores and corresponding gauge readings per mix weekly to verify the gauge readings. If the average of the density gauge readings and the average of the core densities are within 3.0 lb/ft^3, all the daily density gauge readings will be accepted. If they do not compare, recalibrate the density gauge. Incentives are not applicable for patch density.

505.03.15 Patch for Curb, and Combination Curb and Gutter Construction. When necessary and as directed and approved by the Contract Administrator or Designee, a portion of the existing pavement may be removed to accommodate the placement of the curb or combination curb and gutter front form. The maximum width of the patch for Curb, and Combination Curb and Gutter Construction, measured from the front form towards the centerline of the roadway, shall be two (2) feet. The existing pavement must be saw cut for the entire length and across the two ends of the patch.

Patches made along the length of the curb and/or combination curb and gutter that are measured to be wider than two (2) feet shall be measured for payment under the item(s) for Asphalt Mix Pavement for Full Depth Patches and Partial Depth Roadway Patches.

505.04 MEASUREMENT AND PAYMENT.

The payment shall be full compensation, regardless of the method used, for the removal, hauling, and disposal of all excavated material, partial depth and full depth saw cutting, furnishing, placing and removal of any required steel plates, subgrade preparation, the furnishing, placing and compaction of the Asphalt Mix and Graded Aggregate Base, the furnishing and application of tack coat, and for all material, labor, equipment, tools and incidentals necessary to complete the work. No additional compensation will be made regardless of the means, method and equipment used for the excavation of the existing pavement as specified by the Contract Administrator or Designee. No additional payment shall be considered whether making a Full Depth Patch or a Partial Depth Patch.

Asphalt Mix Patches will be measured and paid for at the Contract unit price per ton of the Asphalt Mix material used to backfill the length and width of the patch to the depth specified by the Contract Administrator or Designee.

In the event that replacement of material is required at less than the total depth of removal in order to bring a section of roadway back into section or to ensure positive drainage, or for any other reason as determined by the Contract Administrator or Designee, the excess removal of material, regardless of excavation method selected, shall be measured and paid for as Unclassified Excavation under Item 2001.

Patches will be made to the depth specified by the Contract Administrator or Designee. There is no minimum depth for making a patch.

The excavation of the existing roadway paving section for patching shall not be measured for payment and shall be considered incidental to the Contract unit price per ton paid for the asphalt mix used to backfill the length, width and depth of the roadway patch.

Any Graded Aggregate Base found under the existing asphalt mix paving section and/or the existing Portland cement concrete mix paving section shall be considered as part of that paving section. The upper limit of the roadway subgrade shall be at the lower limit of the Graded Aggregate Base section.

Asphalt Mix for filling depressions and potholes and for wedging manholes, valve boxes, inlets and other structures will not be measured but the cost for all labor, equipment, material, and tools necessary will be considered incidental to the contract bid item.

The County has identified some select asphalt and concrete mixes that allow recycled content that is not to exceed 20%. There are also a few mixes listed on the quotation sheet that allow up to 30% recycled content. See the quotation sheet for Reclaimed Asphalt Pavement (RAP) caps for each pay item. Contractors are encouraged to provide material mixes that are as close as possible to the County's / Department's max allowable recycled content for that specific mix. The Contractor is required to provide the plant data sheet for each mix.

(b) ITEM No. 5019 – Surface Asphalt Mix for Full Depth Patches: Using Superpave 9.5 MM, PG 64-22, ESAL Level 3; Placed in One or More Lifts up to 2 Inches in Depth, Unit Price Includes Removal and Disposal of Existing Pavement - will be measured and paid for at the Contract unit price per ton. Reclaimed Asphalt Pavement (RAP) is capped and will not exceed 20%.

(c) ITEM No. 5021 – Base Asphalt Mix for Full Depth Patches: Using Superpave 19 MM, PG 64-22, ESAL Level 3; Placed in One or more Lifts up to 4 Inches in Depth, Unit Price Includes Removal and Disposal of Existing Pavement - will be measured and paid for at the Contract unit price per ton. Reclaimed Asphalt Pavement (RAP) is capped and will not exceed 30%.

505.04.01 Excavation and Removal of Existing Asphalt Mix/Concrete Mix Pavement for Asphalt Mix Patches.

(a) Removal and disposal of existing asphalt mix/concrete mix pavement using a Gradall® type excavator for full depth asphalt mix/concrete mix roadway patches and repairs shall not be measured for payment shall be considered incidental to the Contract unit price of the pertinent item of work where its use is required and specified to be necessary.

(b) Removal and disposal of existing asphalt mix/concrete mix pavement using a milling machine or grinder for partial depth and full depth asphalt mix/concrete mix roadway patches and repairs shall not be measured for payment shall be considered incidental to the Contract unit price of the pertinent item of work where its use is required and specified to be necessary.

505.04.02 Full Depth Saw Cuts and Saw Cutting Any Depth shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be removed shall be saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean straight and vertical edge and to the depth specified by the Contract Administrator or Designee.

Full depth saw cuts and saw cutting any depth shall NOT be measured for payment. All required and specified saw cuts and saw cutting shall be considered incidental to the Contract unit price of the pertinent item of work where its use is required and specified to be necessary.

The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

505.04.03 All steel plates and emergency filler, when satisfactorily removed from the Task Order will remain the property of the Contractor.

505.04.04 Subgrade. All unsuitable material below the existing paving section will be removed and paid for as specified under the Unclassified Excavation item in Section 201.

505.04.05 Select Backfill. All unsuitable subgrade materials will be replaced and paid using Select Borrow Using Graded Aggregate Base and as specified by the Contract Administrator or Designee.

505.04.06 Emergency Filler. Emergency Filler material will be measured and paid as specified under the Crusher Run Aggregate CR-6 for Maintenance of Traffic item in Section 105 and/or the Asphalt Mix for Maintenance of Traffic item in Section 106.

505.04.07 Asphalt Mix Placement.

(a) When the Contract Administrator or Designee specifies that the upper limit of Asphalt Mix, placed in the patch, be at or below the final milled surface elevation of the of the surrounding pavement, the area of the patch will be included in the measurements made for computing the pay quantities for the Milling item and/or the Grinding item.

(b) When the Contractor elects to place the Asphalt Mix in the patch to match the grade of the existing surface pavement prior to milling the roadway surface, the area of the patch **will** be deducted from the measurements made for computing the pay quantities for the roadway Milling item.

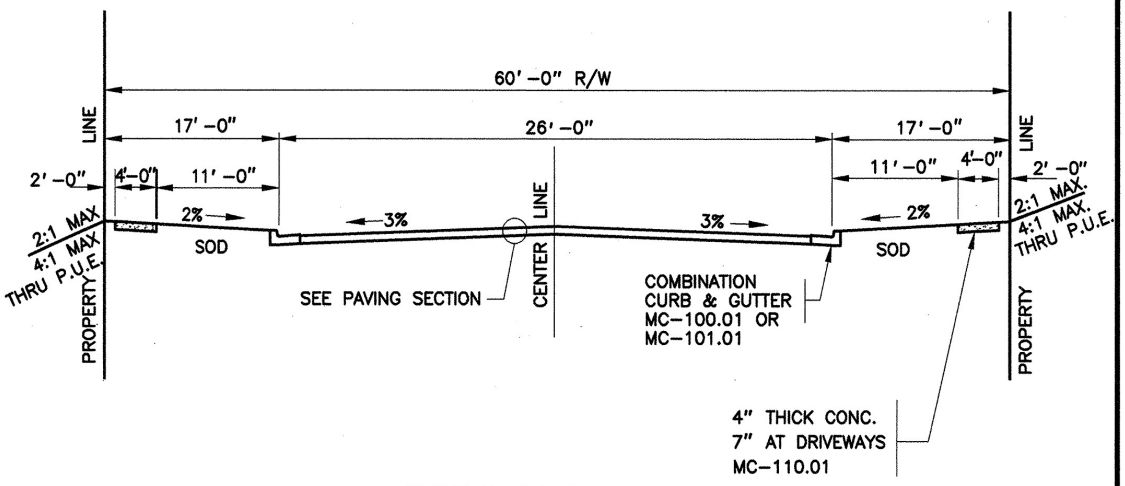
(c) When the Contract Administrator or Designee directs the Contractor to place the Asphalt Mix in the patch to match the grade of the existing surface pavement prior to milling the roadway surface the area of the patch will be included in the measurements made for computing the pay quantities for the Milling item and/or the Grinding item.

505.04.08 Appurtenance Adjustments. Any necessary appurtenance adjustments occurring within the limits of a Full Depth Patch shall be measured for payment under the applicable Quotation Item number.

505.04.09 Price Adjustment for Asphalt Binder. Refer to 504.04.01. An adjustment will be made to the unit price for asphalt mixture if the price of asphalt binder fluctuates significantly from the prevailing price on the date of placement. This includes asphalt patching material converted to tons.

505.04.10 Price Adjustment for Asphalt Mix. Payment reduction will be made as specified in Section 504.04.02**.** No additional compensation shall be provided to the Contractor for providing the designated Asphalt Mix that meets specifications.

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TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 – 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 – METHODS OF GRADING SIDE SLOPES.
3. TOP OF CURB ELEVATION = CENTERLINE ELEVATION +0.02' (FOR 6" CURB HEIGHT).
4. WHEN A TRAFFIC BARRIER IS WARRANTED HOLD A MINIMUM OF 7'-0" GREEN SPACE BETWEEN THE CURB AND THE SIDEWALK.

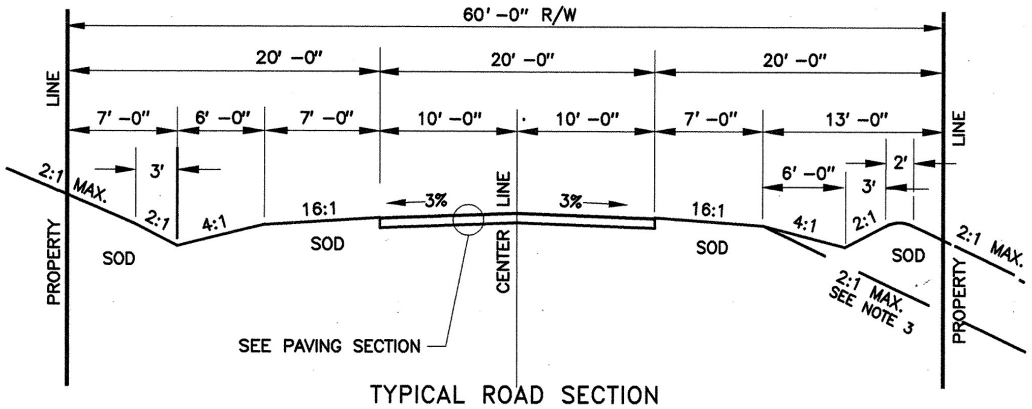
APPROVED JAN 5 / 96
DATE
DIRECTOR, DEPT. OF TRANS.
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

SECONDARY RESIDENTIAL ROAD

STANDARD NO. MC-211.01



TYPICAL ROAD SECTION
(OUTSIDE SURBURBAN DISTRICT)

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 – 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC–811.01 – METHODS OF GRADING SIDE SLOPES.
3. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.

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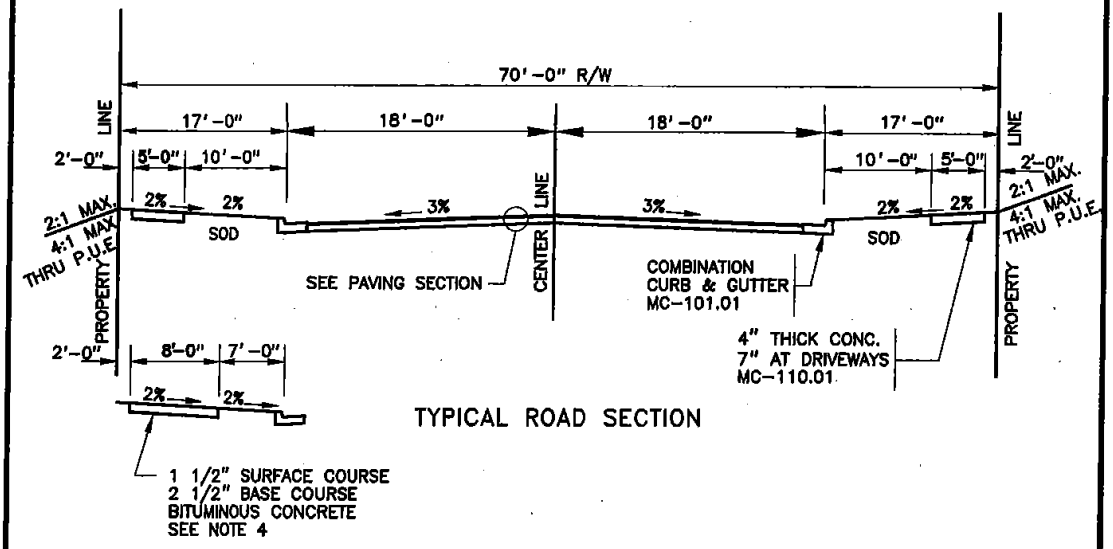
APPROVED JAN 5/96
DATE
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CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

SECONDARY RESIDENTIAL ROAD OPEN SECTION

STANDARD NO. MC–211.02



TYPICAL ROAD SECTION

1 1/2" SURFACE COURSE
2 1/2" BASE COURSE
BITUMINOUS CONCRETE
SEE NOTE 4

BIKE PATH OPTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 – 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 – METHODS OF GRADING SIDE SLOPES.
3. TOP OF CURB ELEVATION = CENTERLINE ELEVATION -0.13' (FOR 6" CURB HEIGHT) .
4. BIKE PATH SHALL BE REQUIRED ONLY IF SPECIFIED IN MASTER PLAN.
5. WHEN A TRAFFIC BARRIER IS WARRANTED HOLD A MINIMUM OF 7'-0" GREEN SPACE BETWEEN THE CURB AND THE SIDEWALK.

APPROVED JAN 5/96
DATE

DIRECTOR, DEPT. OF TRANS.

CHIEF, DIV. OF ENG. SERVICES

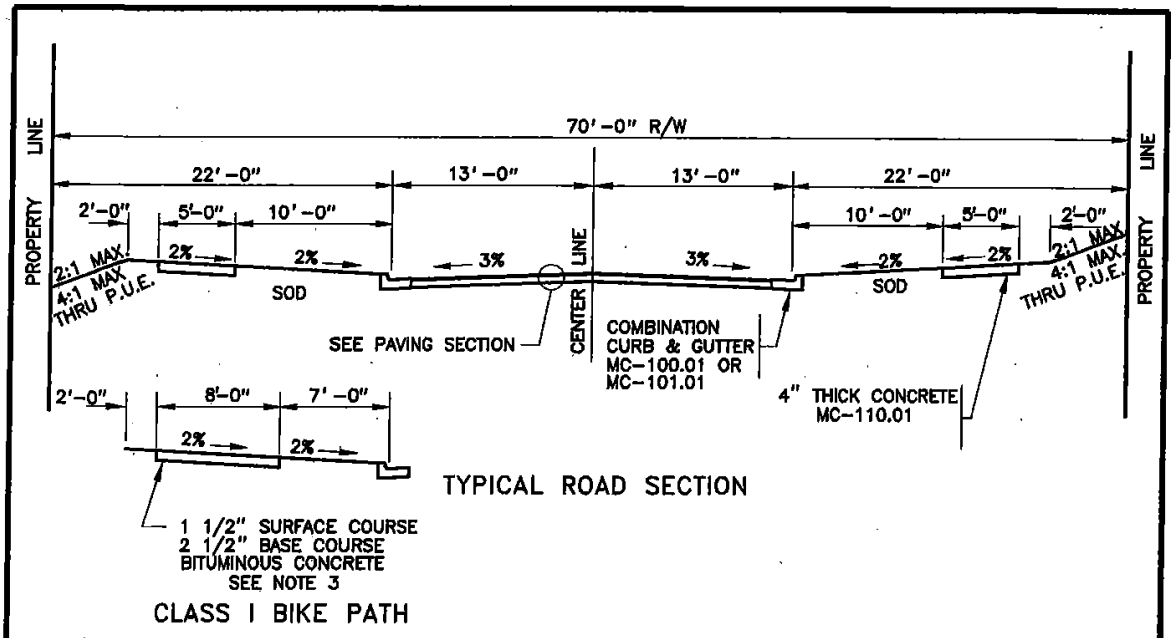
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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

PRIMARY
RESIDENTIAL ROAD

STANDARD NO. MC-212.01

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TYPICAL ROAD SECTION

1 1/2" SURFACE COURSE
2 1/2" BASE COURSE
BITUMINOUS CONCRETE
SEE NOTE 3

CLASS I BIKE PATH

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 – 1 1/2" LAYERS
5" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC-811.01 – METHODS OF GRADING SIDE SLOPES.
3. A CLASS I BIKE PATH SHALL BE PROVIDED IF REQUIRED AS A RESULT OF THE DEVELOPMENT REVIEW PROCESS. WHERE A CLASS III BIKE ROUTE IS SPECIFIED, CONSIDERATION SHALL BE GIVEN TO ADDITIONAL PAVEMENT WIDTH (DESIRABLE 2' IN EACH DIRECTION, R.O.W.= 70'). THIS STANDARD SHALL NOT BE USED WHERE A CLASS II BIKE ROUTE IS SPECIFIED.
4. OBSTRUCTIONS IN THE SIDEWALK THAT VIOLATE THE CLEAR WALKING SURFACE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" OF 1990 WILL NOT BE ALLOWED.
5. THIS STANDARD IS USED TO REDUCE THE IMPACT TO ADJACENT AREAS, IN LIEU OF USING THE "PRIMARY RESIDENTIAL ROAD" STANDARD, AS DETERMINED AT THE PRELIMINARY PLAN STAGE, WITH PRIOR APPROVAL OF M.C.D.O.T.
6. THIS STANDARD IS TO BE USED ONLY IN AREAS WHERE THERE ARE NO DRIVEWAYS, AND ON-STREET PARKING IS NOT NEEDED.
7. TOP OF CURB ELEVATION = CENTERLINE ELEVATION + 0.02' (FOR 6" CURB HEIGHT) .

APPROVED JAN 5/96
DATE

DIRECTOR, DEPT. OF TRANS.

CHIEF, DIV. OF ENG. SERVICES

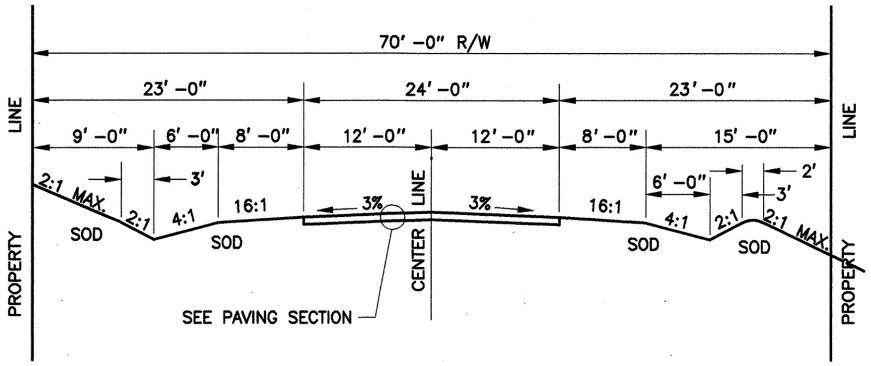
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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

ALTERNATIVE PRIMARY RESIDENTIAL ROAD

STANDARD NO. MC-212.02

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TYPICAL ROAD SECTION
(OUTSIDE SURBURBAN DISTRICT)

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 – 1 1/2" LAYERS
5" BITUMUNOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC–811.01 – METHODS OF GRADING SIDE SLOPES.
3. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.
4. WHEN SUBGRADE DRAINS ARE REQUIRED, THEY SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD NO. MC–525.01.

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APPROVED JAN 5/96
DATE
DIRECTOR, DEPT. OF TRANS.
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

PRIMARY RESIDENTIAL ROAD OPEN SECTION

STANDARD NO. MC–212.03

CATEGORY 600
SHOULDERS

SECTION 601 – EARTH SHOULDERS
(this task is incidental to Item 2001)

DELETE: **SECTION 601 – EARTH SHOULDERS** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

SECTION 601 – EARTH SHOULDERS

601.01 DESCRIPTION.
Construct shoulders using earth.

This work also includes shoulder excavation necessary to provide and improve drainage and to improve the roadway cross section.

601.02 MATERIALS.
Unless otherwise specified, use soils and soil aggregate mixtures that meet the common borrow requirements specified in Section 203.

601.02.01 Rock. Rock may be used in embankments, if individual pieces do not exceed 24 inches in any dimension. Larger size rocks may be wasted with the approval of the Contract Administrator or Designee. See MSHA Section 204.02.01.

601.02.02 Frozen Material. Refer to Section 201.03.05. In addition, do not cover any material that freezes after being placed in the embankment until it has thawed. See MSHA Section 204.02.02.

601.02.03 Embankment Adjacent to Structures**.**The Contract Administrator or Designee may require the use of specially selected material adjacent to structures to protect the structure from damage. Do not use rock. At locations of pile supported foundations, use embankment material that will allow piles to be easily driven. See MSHA Section 204.02.03.

601.03 CONSTRUCTION.
Refer to Section 204.03 and Section 208.03.

All construction of Earth Shoulders shall be completed within thirty (30) days after completion of the adjacent work of the Contract and/or Task Order.

601.04 MEASUREMENT AND PAYMENT.
Any excavation required to make grading adjustments to an existing roadway shoulder will be measured for payment as specified in Section 201.04, **ITEM No. 2001** for Unclassified Roadway Excavation.

SECTION 602 – CURB, COMBINATION CURB AND GUTTER, AND MONOLITHIC MEDIAN
(this task is incidental to Item 6003 to 6006)

DELETE: **SECTION 602 – CURB, COMBINATION CURB AND GUTTER, AND MONOLITHIC MEDIAN** of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The Following:

SECTION 602 – CURB, COMBINATION CURB AND GUTTER, AND MONOLITHIC MEDIAN

602.01 DESCRIPTION.
Construct concrete curb, concrete combination curb and gutter, concrete curb openings, concrete monolithic median, and asphalt mix curb. All concrete items shall be constructed using Concrete Mix No. 6 or higher strength concrete if approved by the Contract Administrator or Designee.

602.02 MATERIALS.

Crusher Run Aggregate CR-6	Section 901,01
No. 57 Aggregate	Section 901.01
Curing Compound Materials	Section 902.07
Form Release Compound	Section 902.08
Concrete Mix No. 6 and Mix No. 9	Section 902.10 with the following modification: The Ground Iron Blast Furnace Slag used in the mix to replace cement **must not** be more than 35% as measured by weight.
Asphalt Mix	Section 904
Tack Coat	Section 904.03
Reinforcement Steel	Section 908.01
Joint Sealer	Section 911.01
Preformed Joint Filler	Section 911.02
Borrow Excavation	Section 916.01
Common Borrow	Section 916.01
3 Ply Roofing Paper Materials or 6 mils Plastic	As approved by the MCDOT Testing Laboratory.
Topsoil	Sections 920.01.01 & 920.01.02
Subsoil	Sections 920.01.03 & 920.01.04

***NOTE:** **ONLY** white pigmented curing compound shall be used. Use of a clear curing compound shall not be permitted. To facilitate the application of the Penetrating Concrete Surface Treatment the Contractor has the option of using dissipating curing compound providing it is a white pigmented curing compound that meets all the requirements of Maryland Department of Transportation, State Highway Administration's latest edition of "Standard Specifications for Construction and Materials."

602.03 CONSTRUCTION.

602.03.01 Concrete Curb, Combination Curb and Gutter, and Monolithic Median.

(a) Excavation. Excavate to the specified depth and to the width required to install and brace the forms. Compact the subgrade to 92 percent density per T 180, Method C, and trim to the proper shape and required grade. Remove all soft and unsuitable material and replace with approved material.

(b) Forms.

(1) Fixed Form Method. Ensure that all forms are properly designed and acceptable. Use full-depth steel forms that are at least 10 feet in length. When installing forms where the radius of the curb face is less than 200 feet, use flexible or curved steel or wooden forms that are no more than 6 feet in length. Securely fasten and brace forms to prevent buckling, warping, or any other movement during the placing of concrete. Place the forms to a tolerance in grade and alignment of 1/4 inch in 10 feet. Thoroughly clean and coat the forms with a form release compound each time they are used.

(2) Slip-Form Method. The use of a slip-form machine shall not be permitted for this work.

(c) Concreting. Mix according to Section 915.03.04. Volumetric batching and continuous mixing will be permitted. Before placing concrete, moisten the subgrade with as much water as it can absorb. Consolidate the concrete in the forms by spading or other approved method. Remove curb face forms as soon as the concrete retains its shape. Keep other forms in place for at least 12 hours.

(d) Depressed Curbs. Construct depressed curbs at entrances and sidewalk ramps.

(e) Openings. Provide an outlet for rainspouts and other drainage by constructing insert openings within the curb. Construct curb openings as specified.

(f) Finishing. Strike off the concrete to the specified cross section. Finish, float, and apply a broom finish. For matching adjacent concrete surfaces, other methods of finishing may be permitted. Do not use plastering. Use a 1-inch radius edging tool on the face edge of the curb. Finish all other exposed edges with a 1/4-inch edging tool. Limit any deviation from grade and alignment of the face and top surface of curbs and medians to no more than 1/4 inch in 10 feet. Do not add water to the concrete at any time during any phase of the finishing operations. Immediately after removal of the forms, repair all honeycombed and damaged areas. Ensure an ACI Concrete Flatwork Finisher or NRMCA Concrete Exterior Flatwork Finisher is always present during finishing operations.

Additional water must not and shall not be sprayed, sprinkled or added in any way to the concrete once it has been unloaded from the mixer and placed in the forms. Any section(s) of concrete curb and/or combination concrete curb and gutter, where the Contract Administrator or Designee has determined that addition water has been applied to the concrete

after it has been placed in the forms, shall be removed and replaced entirely at the Contractor's expense.

(g) Joints.

(1) Fixed Form Method. Spacing between joints shall be 10 feet except where shorter spacing is necessary for closures and conformity to expansion and contraction joints in contiguous concrete pavements. No joint spacing shall be shorter than 4 feet. The joints shall be formed by using plate steel templates 1/8 to 3/16-inch-thick and shall have a width and depth equal to the unit cross section. The templates shall be set perpendicular to the grade and line of the unit. Intermediate templates or sections of templates are prohibited. Where stationary structures such as bridges and inlets are encountered, an expansion joint shall be constructed for the full depth using ½ inch preformed expansion joint filler. Expansion joints shall be constructed at points of curves, tangents, at locations coinciding with adjoining pavement joints and as specified in the Contract Documents or as directed by the Contract Administrator or Designee. ***The entire exposed length of all joints shall be sealed on all curb and combination curb and gutter. An approved sealer shall be applied to all joints from the back of the curb; across the entire exposed top of the curb and down the face of the curb; across the gutter pan to the outside lip.*** Expansion joints are not required when adjacent to a flexible pavement or away from any pavement.

(2) Slip-Form Method. The use of a slip-form machine shall not be permitted for this work.

(h) Weather Restrictions.

(1) Temperature and Surface Conditions. Begin concrete placement when the ambient air and surface temperatures are at least 40ºF and rising. Discontinue placement whenever the temperature falls below 40ºF. These requirements may be waived for incidental concrete construction. Do not place concrete on a frozen base.

(2) Precipitation. Have sufficient approved material on hand to cover freshly placed concrete as protection against precipitation.

(3) Wind. Cease placement when the Contract Administrator or Designee determines that wind conditions may have a detrimental effect on the work.

When weather conditions differ from these limits, placement of material on site or en route is at the Contractor's sole risk.

If the Contract Administrator or Designee for any reason stops placement, dispose of en route material at no additional cost to the County.

(i) Curing. Following texturing and edging, cure the concrete for at least 72 hours. Whenever the ambient air temperature falls below 40ºF during the curing period, use insulated blankets to maintain the concrete temperature above 40ºF. **Use insulated blankets in addition to any curing material that is used.** Provide a sufficient number of high/low thermometers to monitor the temperature of the concrete. Cure the concrete using the following method:

(1) Liquid Membrane Forming Compound. Use a white pigmented liquid membrane forming compound that is in conformance with Section 902.07.03. Apply the material to the surface as soon as the free water has disappeared. Use County approved spraying equipment. Have standby equipment on site in the event of failure. The spraying equipment must have an adequate wind guard and be capable of producing a fine spray of material that covers the surface with a uniform continuous film. Apply the compound in

two applications, each at a rate of 1/2 gal/200 square feet. Maintain the film free of pin holes, checks, cracks, peelings, and other imperfections. Correct discontinuities in the film by the application of an additional coat to the affected area within 30 minutes of the original coat. If sprayed surfaces are subjected to damaging rainfall within three hours after the second application, re-spray the surface at no additional cost to the County.

(j) Backfill. Backfill as directed.

(1) Non-Landscaped Areas. Backfill with approved materials as specified in Section 204 or Section 701 to the grade that is 4 inches below the final grade. Complete the backfill to the final grade with aggregate as specified or as directed.

(2) Landscaped Areas. Backfill with topsoil up to 8-inch depth as specified in Section 701 and perform sodding or seeding as described in (3) below. For backfill more than 8-inch depth, the use of aggregate fill is prohibited. Install subsoil or approved common borrow as specified in Section 204 or Section 701 to the grade that is 4 inches below the final grade. Complete the adjustment with topsoil as specified in Section 701 and perform sodding or seeding as described in (3) below.

(3) Sodding or Seeding. Immediately after placing topsoil, perform Turfgrass Sod Establishment as specified in Section 708. Alternatively, perform Turfgrass Establishment as specified in Section 705 and install Type A or Type E Soil Stabilization Matting as specified in Section 709.

Use rope or other approved masking methods to keep the vertical surfaces of longitudinal and transverse joints free of curing compound. Protect the sprayed surfaces to maintain the continuity of the membrane.

To facilitate the application of the Penetrating Concrete Surface Treatment the Contractor has the option of using dissipating curing compound providing it is a white pigmented curing compound that meets all the requirements of Section 902.07 of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials."

The Contractor **MUST** have an adequate supply of approved Liquid Membrane Forming Compound and fully operational application/spraying equipment **ON SITE** prior to the placement of any concrete.

(1) Burlap Curing. Place burlap conforming to Section 902.07.01 on the freshly placed concrete as soon as practical, without damaging the concrete. Overlap the burlap to provide a double thickness on the entire surface. Saturate the burlap with water before placement and keep it continuously wet during the curing period.

(2) Cotton Mat Curing. Place cotton mats conforming to Section 902.07.04 on the freshly placed concrete as soon as practical, without damaging the concrete. Saturate the cotton mats with water before placement and keep them continuously wet during the curing period.

(3) Sheet Materials. Use of sheet materials to cure this work shall not be permitted.

(k) Backfill. After curing for at least 72 hours, use approved material to backfill the front and back of the curb, combination curb and gutter, and median to the required elevations. Complete the

backfilling before rolling the adjacent roadway. Backfill must be completed within 48 hours of the removal of forms.

(l) Saw Cuts. All saw cuts shall be straight and made to a neat and clean vertical edge. When replacing the flow-line across an existing driveway apron, the limit of removal on the driveway apron must be saw cut. The locations and layout of all saw cutting must be approved by the County prior to construction. A full depth sawcut must be performed at the road edge before removing all curbing.

(m) Methods for Constructing New and Replacing Existing Concrete Curb and Combination Curb and Gutter. The following are details for the approved methods for constructing new concrete curb and combination curb and gutter along the edge of an existing roadway and for replacing existing concrete curb and combination curb and gutter along an existing roadway.

(1) Method 1. This detail and method includes the construction of new and replacement concrete curb and combination curb and gutter where a portion of the adjacent roadway must be removed for the installation of the front face form for concrete curb and the front gutter for concrete combination curb and gutter.

LEGEND FOR METHOD 1 DETAIL SHEET

1. TYPICAL ASPHALT PAVING MIX SECTION: 4 INCHES OF ASPHALT MIX BASE + 2 INCHES OF ASPHALT MIX SURFACE OR MATCH EXISTING PAVING SECTION WHICHEVER IS GREATER. MIX DESIGN AS PER QUOTATION SHEET AND /OR AS SPECIFIED BY THE CONTRACT ADMINISTRATOR OR DESIGNEE.

2. FULL DEPTH SAW CUT

   NOTE: THE LOCATIONS AND LAYOUT OF ALL SAW CUTTING MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR OR DESIGNEE PRIOR TO CONSTRUCTION. ALL SAW CUTTING IS INCIDENTAL TO THIS WORK.

3. MCDOT OR MSHA STANDARD COMBINATION CONCRETE CURB AND GUTTER OR CONCRETE CURB AS REQUIRED.

   LIMIT OF WORK FOR THE REMOVAL AND REPLACEMENT OF EXISTING CURB & GUTTER AND THE REMOVAL AND REPLACEMENT OF EXISTING CURB. MAXIMUM WIDTH FOR CURB AND GUTTER REMOVAL AND REPLACEMENT IS 4 FEET OR THE WIDTH AS REQUIRED BY THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, WHICHEVER IS LESS. MAXIMUM WIDTH FOR CURB REMOVAL AND REPLACEMENT IS 2 FEET 8 INCHES OR THE WIDTH AS REQUIRED BY THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, WHICHEVER IS LESS. WITHIN THIS LIMIT OF WORK, ALL MATERIAL, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK ARE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PERTINENT ITEM. THERE SHALL BE NO SEPARATE AND ADDITIONAL PAYMENT MADE FOR SAW CUTS, ANY

   EXCAVATION, FURNISHING AND INSTALLING ANY BACKFILL MATERIAL INCLUDING, BUT NOT LIMITED TO: CONCRETE, 3 PLY ROOFING PAPER, ASPHALT MIX, ANY TYPE OF BORROW MATERIAL, TOPSOIL, SEED, MULCH AND FERTILIZER. AREAS BEYOND THE 1 FOOT LIMIT OF REMOVAL OF EXISTING PAVEMENT WILL BE MEASURED AND PAID FOR UNDER THE ASPHALT MIX FOR PATCHES ITEMS FOUND ON THE *QUOTATION SHEETS*.

4. MINIMUM OF 2 INCHES OF APPROVED TOPSOIL INCLUDING SEED, MULCH AND FERTILIZER. ADDITIONAL BACKFILL MATERIAL SHALL BE FREE OF TOPSOIL, ORGANIC, FROZEN, AND OTHER UNDESIRABLE MATERIALS. KEEP SPACES TO BE BACKFILLED FREE OF TRASH. CLEAN THE SPACE BEFORE PLACING BACKFILL. USE SUITABLE MATERIAL FROM THE EXCAVATION OR OTHER SOURCES CONFORMING TO SECTION 204 OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION'S LATEST EDITION OF "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS." PLACE IN LAYERS NOT MORE THAN 8 INCHES LOOSE THICKNESS. USE MECHANICAL OR VIBRATORY COMPACTION EQUIPMENT TO OBTAIN AT LEAST 92 PERCENT OF MAXIMUM DENSITY AT A MOISTURE CONTENT WITHIN 2 PERCENT OF THE OPTIMUM PER T 180, METHOD C.

5. BACKFILL BETWEEN EXISTING PAVEMENT FACE OF CURB OR FACE OF GUTTER PAN:

FOR WIDTHS 6 INCHES OR LESS	[1]FOR WIDTHS LARGER THAN 6 INCHES AND ENDING AT THE ONE FOOT LIMIT
2 INCHES OF ASPHALT SURFACE	MATCH EXISTING HMA PAVING SECTION DEPTH OF LIFTS NOT TO EXCEED 3 INCHES PRIOR TO COMPACTION
FILL VOID TO WITHIN 2 INCHES BELOW THE TOP OF THE FACE OF THE GUTTER PAN WITH SHA PORTLAND CONCRETE CEMENT MIX No. 3 OR BETTER	
APPROVED SUBGRADE	APPROVED SUBGRADE

[1]ASPHALT MIX COMPACTION MUST MEET THE REQUIREMENTS OF **SECTION 504 ASPHALT PAVEMENT** OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION'S LATEST EDITION OF STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS."

USE OF MECHANICAL OR VIBRATORY COMPACTION EQUIPMENT IS MANDATORY.

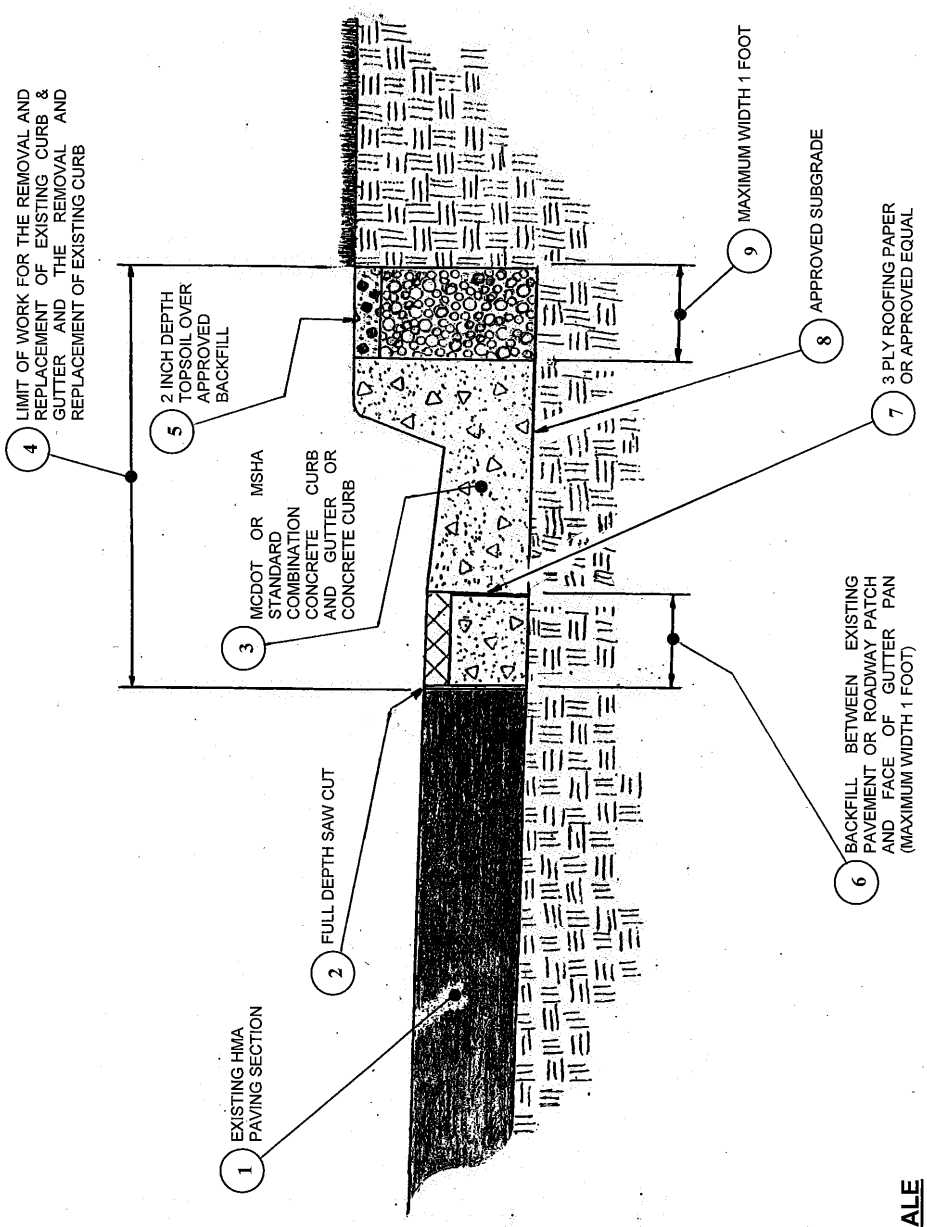
ANY DAMAGED REPLACEMENT CURB OR COMBINATION CURB AND GUTTER SHALL BE REPLACED ENTIRELY AT THE CONTRACTOR'S EXPENSE.

NOTE: AREAS BEYOND THE 1 FOOT LIMIT OF REMOVAL OF THE EXISTING PAVEMENT WILL BE MEASURED FOR PAYMENT UNDER THE ASPHALT MIX PATCHING ITEMS FOUND ON THE *QUOTATION SHEET*

6. 3 PLY ROOFING OR APPROVED EQUAL

7. APPROVED SUBGRADE

8. MAXIMUM WIDTH 1 FOOT.



NOT TO SCALE

METHOD No. 1

TYPICAL CONCRETE CURB AND CONCRETE CURB & GUTTER REPLACEMENT FOR ROADWAYS TO BE MILLED AND RESURFACED AND FOR ROADWAYS WHERE ONLY THE CONCRETE CURB AND CONCRETE CURB & GUTTER ARE REPLACED

(2) Method 2. This detail and method require saw cutting the joint where the existing roadway pavement meets the face of the existing gutter pan. After excavating behind the curb & gutter, the combination concrete curb & gutter must then be removed without damaging the edge of the existing pavement. Placement of the new curb will be made without the use of a front form. Approval to use this method will only be allowed when the Contractor demonstrates the ability to remove the sections of curb & gutter without damaging or disturbing the edge of the existing pavement. The replacement curb & gutter must be installed to the true alignment and elevation. Approval to use this method may be rescinded at any time, and without prior warning, by the Contract Administrator or Designee.

LEGEND FOR METHOD 2 DETAIL SHEET

1. TYPICAL ASPHALT PAVING MIX SECTION: 4 INCHES OF ASPHALT MIX BASE + 2 INCHES OF ASPHALT MIX SURFACE OR MATCH EXISTING PAVING SECTION WHICHEVER IS GREATER. MIX DESIGN AS PER QUOTATION SHEET AND /OR AS SPECIFIED BY THE CONTRACT ADMINISTRATOR OR DESIGNEE.

2. FULL DEPTH SAW CUT.

   NOTE: THE LOCATIONS AND LAYOUT OF ALL SAW CUTTING MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR OR DESIGNEE PRIOR TO CONSTRUCTION. ALL SAW CUTTING IS INCIDENTAL TO THIS WORK.

3. APPROVED SUBGRADE

4. LIMIT OF WORK FOR THE REMOVAL AND REPLACEMENT OF EXISTING CURB & GUTTER AND THE REMOVAL AND REPLACEMENT OF EXISTING CURB. MAXIMUM WIDTH FOR CURB AND GUTTER REMOVAL AND REPLACEMENT IS 4 FEET OR THE WIDTH AS REQUIRED BY THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, WHICHEVER IS LESS. MAXIMUM WIDTH FOR CURB REMOVAL AND REPLACEMENT IS 1 FOOT 8 INCHES OR THE WIDTH AS REQUIRED BY THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, WHICHEVER IS LESS. WITHIN THIS LIMIT OF WORK, ALL MATERIAL, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK ARE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PERTINENT ITEM.

   THERE SHALL BE NO SEPARATE AND ADDITIONAL PAYMENT MADE FOR SAW CUTS, ANY EXCAVATION, FURNISHING AND INSTALLING ANY BACKFILL MATERIAL INCLUDING, BUT NOT LIMITED TO: CONCRETE, 3 PLY ROOFING PAPER, ASPHALT MIX, ANY TYPE OF BORROW MATERIAL, TOPSOIL, SEED, MULCH AND FERTILIZER.

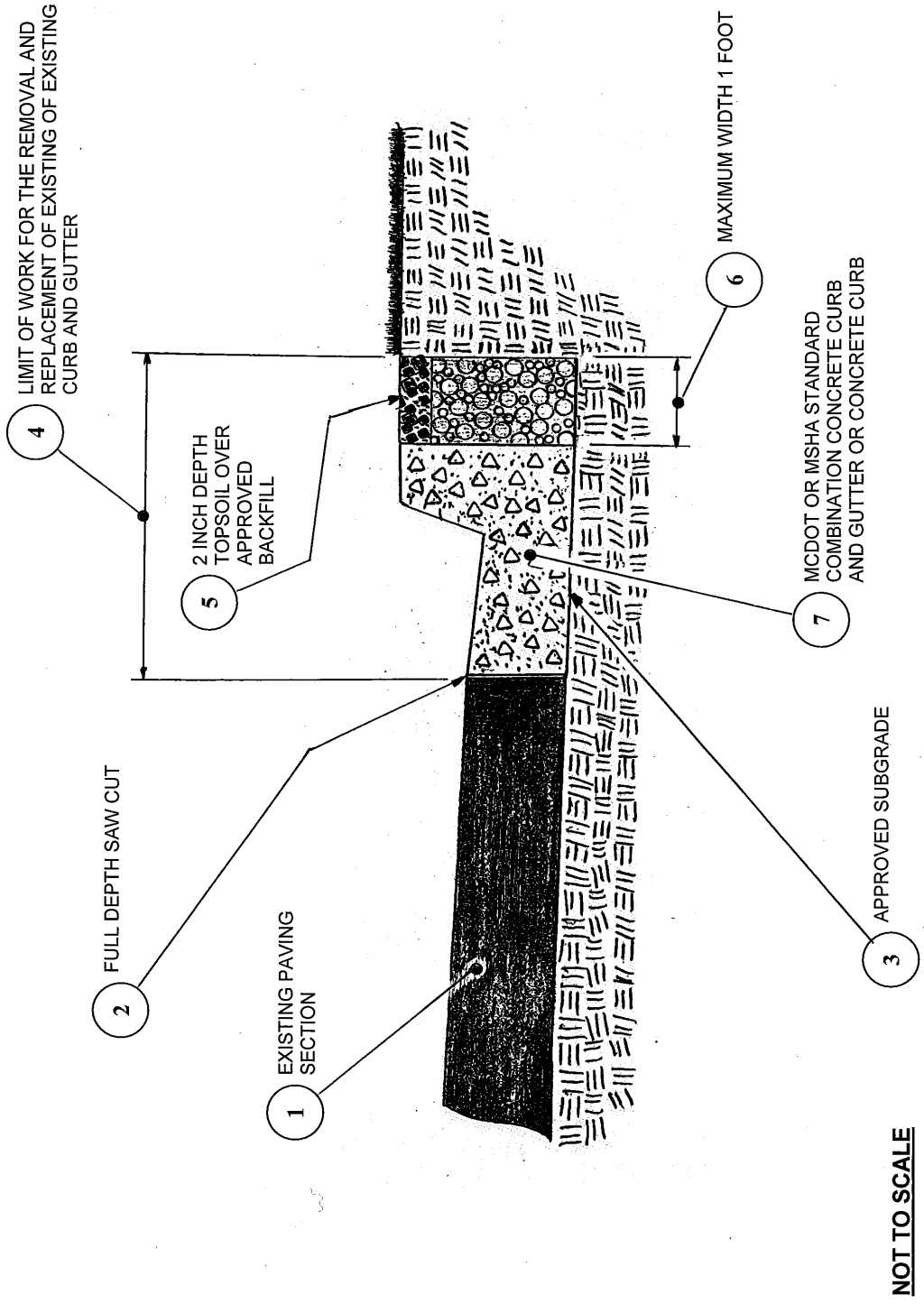
   MINIMUM OF 2 INCHES OF APPROVED TOPSOIL INCLUDING SEED, MULCH AND FERTILIZER. ADDITIONAL BACKFILL MATERIAL SHALL BE FREE OF TOPSOIL, ORGANIC, FROZEN, AND OTHER UNDESIRABLE MATERIALS. KEEP SPACES TO BE BACKFILLED FREE OF TRASH. CLEAN THE SPACE BEFORE PLACING BACKFILL. USE SUITABLE MATERIAL FROM THE EXCAVATION OR OTHER SOURCES CONFORMING TO SECTION 204 OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION'S LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS". PLACE IN LAYERS NOT MORE THAN 8 INCHES LOOSE THICKNESS. USE MECHANICAL OR VIBRATORY COMPACTION EQUIPMENT TO OBTAIN AT LEAST 92 PERCENT OF MAXIMUM

DENSITY AT A MOISTURE CONTENT WITHIN 2 PERCENT OF THE OPTIMUM PER T 180, METHOD C.

5. MAXIMUM WIDTH 1 FOOT IF ALLOWABLE.

6. MCDOT OR MSHA STANDARD COMBINATION CONCRETE CURB AND GUTTER OR CONCRETE CURB AS REQUIRED.

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NOT TO SCALE

METHOD No. 2

TYPICAL CONCRETE CURB AND CONCRETE CURB & GUTTER REPLACEMENT WITHOUT USING FRONT FORM AT GUTTER PAN

(3) Method 3. This detail and method includes the construction of new and replacement concrete curb and combination curb and gutter where the existing pavement section of the adjacent roadway is to be reconstructed for the entire lane width. The void between the new concrete curb or concrete combination concrete curb and gutter and the existing pavement shall be temporarily backfilled with GRADED AGGREGATE BASE FOR MAINTENANCE OF TRAFFIC and/or ASPHALT MIX FOR MAINTENANCE OF TRAFFIC as directed by the Contract Administrator or Designee.

LEGEND FOR METHOD 3 DETAIL SHEET

1. TYPICAL ASPHALT PAVING MIX SECTION: 4 INCHES OF ASPHALT MIX BASE + 2 INCHES OF ASPHALT MIX SURFACE OR MATCH EXISTING PAVING SECTION WHICHEVER IS GREATER. MIX DESIGN AS PER QUOTATION SHEET AND /OR AS SPECIFIED BY THE CONTRACT ADMINISTRATOR OR DESIGNEE.

2. FULL DEPTH SAW CUT

   NOTE: THE LOCATIONS AND LAYOUT OF ALL SAW CUTTING MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR OR DESIGNEE PRIOR TO CONSTRUCTION. ALL SAW CUTTING IS INCIDENTAL TO THIS WORK.

3. TEMPORARY BACKFILL USING GRADED AGGREGATE BASE FOR MAINTENANCE OF TRAFFIC AND/OR ASPHALT MIX FOR MAINTENANCE OF TRAFFIC AS DIRECTED BY THE CONTACT ADMINISTRATOR OR DESIGNEE. GRADED AGGREGATE BASE SHALL BE PLACED IN LAYERS NOT MORE THAN 4 INCHES LOOSE THICKNESS. USE MECHANICAL OR VIBRATORY COMPACTION EQUIPMENT TO OBTAIN AT LEAST 97 PERCENT OF MAXIMUM DENSITY AT A MOISTURE CONTENT WITHIN 2 PERCENT OF THE OPTIMUM PER MSMT 350 OR 352. ASPHALT MIX SHALL BE PLACED IN LAYERS NOT MORE THAN 3 INCHES LOOSE THICKNESS. USE MECHANICAL OR VIBRATORY COMPACTION EQUIPMENT TO MEET THE REQUIREMENTS OF SECTION 504.03 OF THIS CONTRACT AND OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION'S, "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS".

   MINIMUM OF 2 INCHES OF APPROVED TOPSOIL INCLUDING SEED, MULCH AND FERTILIZER. ADDITIONAL BACKFILL MATERIAL SHALL BE FREE OF TOPSOIL, ORGANIC, FROZEN, AND OTHER UNDESIRABLE MATERIALS. KEEP SPACES TO BE BACKFILLED FREE OF TRASH. CLEAN THE SPACE BEFORE PLACING BACKFILL. USE SUITABLE MATERIAL FROM THE EXCAVATION OR OTHER SOURCES CONFORMING TO SECTION 204 OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION'S, "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS". PLACE IN LAYERS NOT MORE THAN 8 INCHES LOOSE THICKNESS. USE MECHANICAL OR VIBRATORY COMPACTION EQUIPMENT TO OBTAIN AT LEAST 92 PERCENT OF MAXIMUM DENSITY AT A MOISTURE CONTENT WITHIN 2 PERCENT OF THE OPTIMUM PER T 180, METHOD C.

4. LIMIT OF WORK FOR THE REMOVAL AND REPLACEMENT OF EXISTING CURB & GUTTER AND THE REMOVAL AND REPLACEMENT OF EXISTING CURB. MAXIMUM WIDTH FOR CURB AND GUTTER REMOVAL AND REPLACEMENT IS 5 FEET OR THE WIDTH AS REQUIRED BY THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, WHICHEVER IS LESS. MAXIMUM WIDTH FOR CURB REMOVAL AND REPLACEMENT IS 3 FEET 8 INCHES OR THE WIDTH AS REQUIRED BY THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, WHICHEVER IS LESS. WITHIN THIS LIMIT OF WORK, ALL

MATERIAL, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK ARE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PERTINENT ITEM.

THERE SHALL BE NO SEPARATE AND ADDITIONAL PAYMENT MADE FOR SAW CUTS, ANY EXCAVATION, FURNISHING AND INSTALLING APPROVED BACKFILL MATERIAL PLACED BEHIND THE CURB, INCLUDING ANY TYPE OF BORROW MATERIAL, ALL TOPSOIL, SEED, MULCH AND FERTILIZER. THE TEMPORARY BACKFILL OF THE VOID BETWEEN THE EXISTING PAVEMENT AND THE NEW CURB OR NEW COMBINATION CURB AND GUTTER WILL BE MEASURED FOR PAYMENT UNDER THE GRADED AGGREGATE BASE FOR MAINTENANCE OF TRAFFIC AND/OR ASPHALT MIX FOR MAINTENANCE OF TRAFFIC ITEMS FOUND ON THE *QUOTATION SHEETS*. THERE SHALL BE NO ADDITIONAL PAYMENT MADE FOR THE REMOVAL AND DISPOSAL OF THE TEMPORARY BACKFILL MATERIAL REGARDLESS OF HOW LONG THAT MATERIAL REMAINS IN PLACE. NO PAYMENT SHALL BE MADE FOR TEMPORARY BACKFILL MATERIAL PLACED BEYOND THE SPECIFIED 2 FOOT WIDTH MEASURED FROM THE FACE OF THE CONCRETE CURB OR THE FACE OF THE GUTTER PAN OF COMBINATION CONCRETE CURB AND GUTTER.

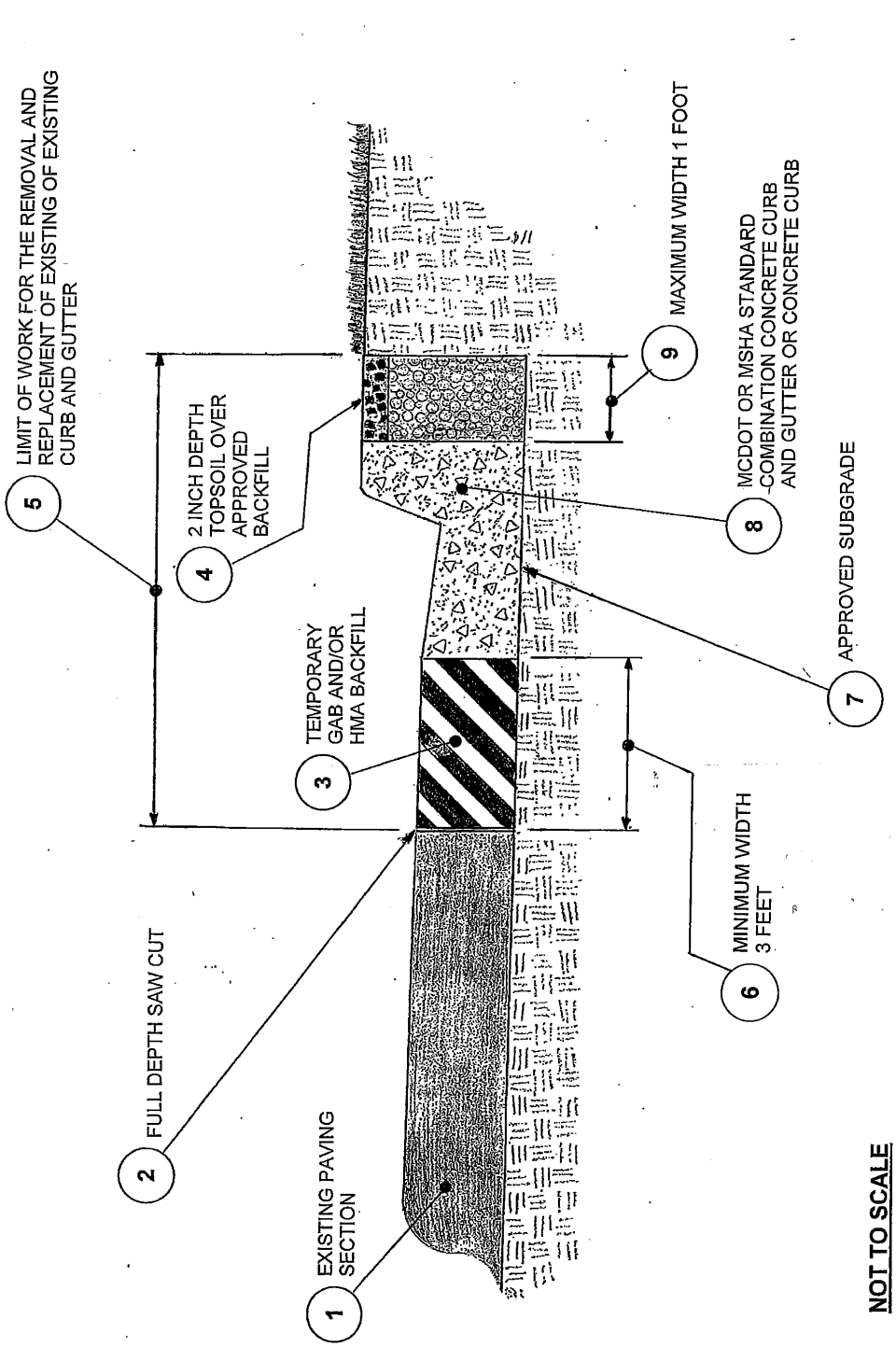
THE MINIMUM WIDTH OF THE TRENCH BETWEEN THE EXISTING PAVEMENT AND THE FACE OF THE NEW/REPLACEMENT CURB AND BETWEEN THE EXISTING PAVEMENT AND THE FACE OF THE GUTTER PAN OF NEW/REPLACEMENT COMBINATION CURB AND GUTTER IS 3 FEET. IF THE CONTRACTOR FINDS IT NECESSARY TO WIDEN THIS AREA TO ACCOMMODATE HIS/HER CHOICE OF MECHANICAL COMPACTION EQUIPMENT, THE REQUIRED ADDITIONAL TEMPORARY BACKFILL MATERIAL SHALL NOT BE MEASURED FOR PAYMENT. THIS MATERIAL SHALL BE PRORATED AND DEDUCTED FROM THE PAYMENT MADE FOR THE TEMPORARY BACKFILL MATERIAL.

5. APPROVED SUBGRADE

6. MCDOT OR MSHA STANDARD COMBINATION CONCRETE CURB AND GUTTER OR CONCRETE CURB AS REQUIRED.

7. MAXIMUM WIDTH 1 FOOT

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NOT TO SCALE

METHOD No. 3

TYPICAL CONCRETE CURB AND CONCRETE CURB & GUTTER REPLACEMENT FOR LOCATIONS OF FULL PAVEMENT DEPTH AND FULL LANE WIDTH ROADWAY RECONSTRUCTION

602.03.02 Asphalt Curb and Asphalt Curb Setbacks. Unless otherwise approved, use a self-propelled machine to place Asphalt curb. The machine shall form curbing that is uniform in texture, shape, and density, and to the specified template.

Place the curb on a clean, dry, and stable base. Apply tack coat using asphalt of the type and amount as directed.

When required, backfill the curb after it has sufficiently hardened to prevent damage. Consolidate the backfill by tamping or rolling.

When required and approved by the Contract Administrator or Designee, place Asphalt Mix base material beyond the road edge to create a suitable base to setback replacement asphalt curbs. Minimum 6" thickness or as designated by the Contract Administrator or Designee.

602.04 MEASUREMENT AND PAYMENT.
For all payment line items, the payment will be full compensation for placing and finishing all concrete, asphalt mix, forms, excavation, backfilling and backfill material, furnishing and placing top soil including seed, mulch and fertilizer, disposal off-site of all unsuitable and excess material, furnishing, placing, and removal of any required steel plates, drainage openings, joint sealer, tack coat, curing compound, form release oil, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

(a) ITEM No. 6003 – Remove and Replace Existing Concrete Curb (Any Type) and/or Combination Concrete Curb and Gutter (Any Type) Using Method No. 1 and SHA Concrete Mix No. 6, Unit Price Includes Removal and Disposal of Existing Curb and/or Combination Concrete Curb and Gutter - will be measured and paid for at the Contract unit price per linear foot. Measurement for this item will be made along the front face of the curb. Included for payment in this item are all depressed curbs for driveway entrances and wheelchair ramps.

(b) ITEM No. 6004 – Furnish and Install New Concrete Curb (Any Type) and/or Combination Concrete Curb and Gutter (Any Type) Using Method No. 1 and SHA Concrete Mix No. 6 will be measured and paid for at the Contract unit price per linear foot. Measurement for this item will be made along the front face of the curb. Included for payment in this item are all depressed curbs for driveway entrances and wheelchair ramps.

(c) ITEM No. 6005 – Remove and Replace Existing Concrete Curb (Any Type) and/or Combination Concrete Curb and Gutter (Any Type) Using Method No. 2 and SHA Concrete Mix No. 6, Unit Price Includes Removal and Disposal of Existing Curb and/or Combination Concrete Curb and Gutter - will be measured and paid for at the Contract unit price per linear foot. Measurement for this item will be made along the front face of the curb. Included for payment in this item are all depressed curbs for driveway entrances and wheelchair ramps.

(d) ITEM No. 6006 – Furnish and Install New Concrete Curb (Any Type) and/or Combination Concrete Curb and Gutter (Any Type) Using Method No. 2 and SHA Concrete Mix No. 6 and Application of Penetrating Concrete Surface Treatment will be measured and paid for at the Contract unit price per linear foot. Measurement for this item will be made along the front face of the curb. Included for payment in this item are all depressed curbs for driveway entrances and wheelchair ramps.

<u>NOTICE</u>: THE ONLY BACKFILL MATERIAL PAID FOR IN SECTION 602 IS THE TEMPORARY BACKFILL MATERIAL PLACED BETWEEN THE FACE OF THE

NEW CURB AND THE EXISTING PAVEMENT AND/OR THE TEMPORARY BACKFILL MATERIAL PLACED BETWEEN THE FACE OF THE GUTTER PAN OF NEW COMBINATION CURB AND GUTTER AND THE EXISTING PAVEMENT. ALL OTHER BACKFILL MATERIAL USED IN SECTION 602 SHALL BE INCIDENTAL TO THE PERTINENT ITEMS WHERE ITS USE IS REQUIRED AND REGARDLESS OF THE LOCATION WHERE THE MATERIAL IS PLACED.

602.04.01 The cost of removing and disposing of the existing curb and the existing combination curb and gutter, or monolithic median will be incidental to the Contract unit price paid for the Remove and Replace Existing Concrete Curb (Any Type) and/or Combination Concrete Curb and Gutter (Any Type) item.

602.04.02 Payment for Full Depth Roadway Patches at Curb, and Combination Curb and Gutter construction shall be as specified in Section 505.04 of this Contract Document.

602.04.03 The cost of the removal and disposal of any existing pavement and soil removed and replaced with new curb to accommodate the construction of the replacement curb and replacement combination curb and gutter, or monolithic median, the cost of the removal will be paid for will be incidental to the Contract unit price for the Remove and Replace Existing Concrete Curb (Any Type) and/or Combination Concrete Curb and Gutter (Any Type) item.

602.04.04 All steel plates and emergency filler, when satisfactorily removed from the project remain the property of the Contractor.

602.04.05 Removal of Existing Asphalt Mix Curb. Removal of existing Asphalt Mix Curb shall not be measured for payment and shall be considered incidental to the Contract unit price for the Milling Existing Asphalt Pavement in Preparation for Asphalt Mix Overlay; Total Depth Less than or Equal to 2 inches item.

602.04.06 Curb Openings. Standard Curb Openings will be measured and paid for under the Combination Concrete Curb and Gutter (Any Type) item. Measurement for payment for Standard Curb Openings will be the sum of the measurements made down both sides of the Standard Curb Openings from the *"LIMIT OF PAYMENT FOR CURB and GUTTER"* to the limit of concrete on the outfall of the curb opening. Drainage openings in curb/ curb and gutter will not be measured, but the cost will be incidental to the pertinent contract bid item for linear foot of curb/ curb and gutter. All curbs must be backfilled within 48 Hours of completion.

602.04.07 Unsuitable Material. The removal and disposal of unsuitable material below subgrade will be measured and paid as specified under **ITEM No. 2001** – Unclassified Roadway Excavation item in Section 201.

602.04.08 Select Borrow: NOT APPLICABLE.

602.04.09 Emergency Filler. Emergency Filler material will be measured and paid as specified under the Graded Aggregate Base for Maintenance of Traffic item in Section 105.

602.04.10 Temporary Backfill for Method No. 3. The temporary backfill material placed when constructing curb and combination curb and gutter using Method No. 3 will be measured for payment as follows:

(1) Temporary Graded Aggregate Base. NOT APPLICABLE.

(2) Temporary Asphalt Curbs, Concrete Curbs, and Concrete Combination Curb and Gutter will be measured along the front face of the curb. Monolithic Concrete Median

(3) Temporary Asphalt Mix. Temporary Asphalt Mix will be measured for payment under the Hot/Warm Asphalt Mix for Maintenance of Traffic **ITEM 1015** at the Contract unit price per ton.

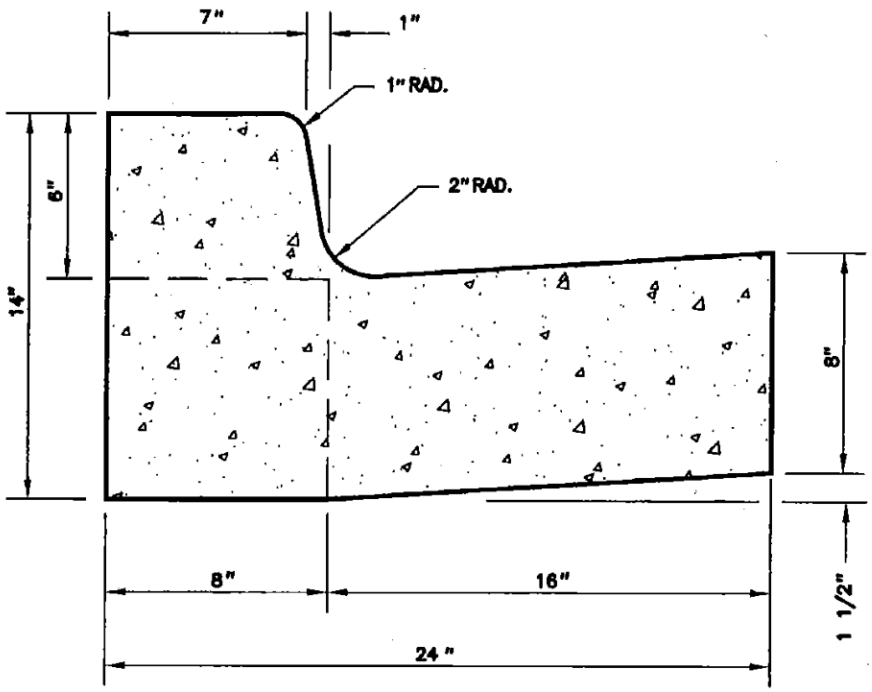
The payment under these Items shall be full compensation for the furnishing, placement, compaction, removal and disposal off-site of the temporary Graded Aggregate Base and/or temporary Hot/Warm Mix Asphalt material.

602.04.11 Full Depth Saw Cuts and Saw Cutting Any Depth shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be removed shall be saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean straight and vertical edge and to the depth specified by the Contract Administrator or Designee.

Full depth saw cuts and saw cutting any depth shall **NOT** be measured for payment. All saw cuts and saw cutting shall be considered incidental to the Contract unit price of the pertinent item of work where its use is specified to be necessary.

The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

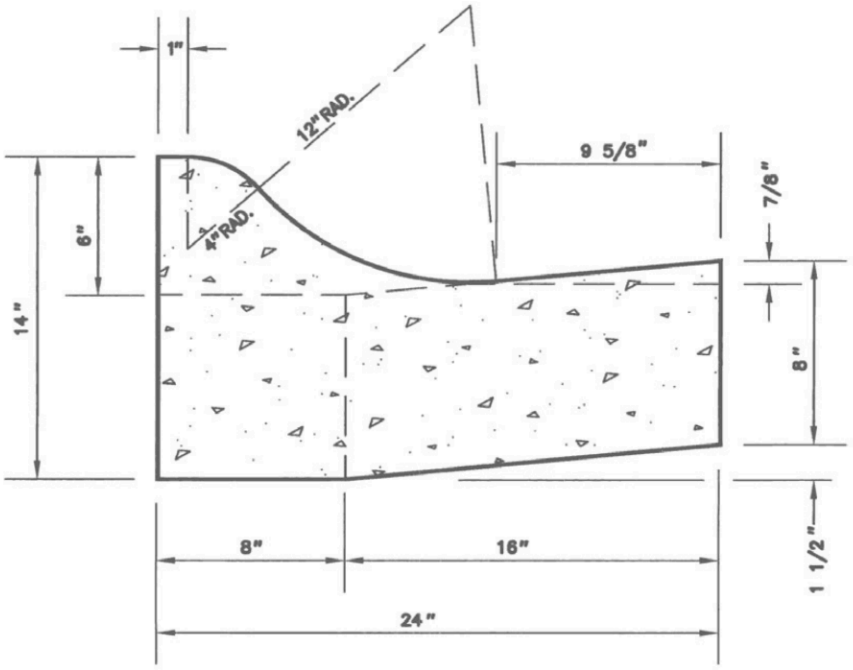
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GENERAL NOTES

1. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.
2. THIS STANDARD SHALL BE USED ON PRIMARY RESIDENTIAL, ARTERIAL AND BUSINESS DISTRICT ROADS AS WELL AS CURB RETURNS AND INLET THROATS.
3. WHENEVER STANDARD MC-101.01 CURB IS USED IN CONJUNCTION WITH THIS STANDARD, A TEN FOOT TRANSITION SHALL BE PROVIDED FROM STANDARD MC-100.01 TO STANDARD MC-101.01 FOR CURB RETURNS AND CURB SECTIONS WHICH INCLUDE INLETS.
4. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920. /1

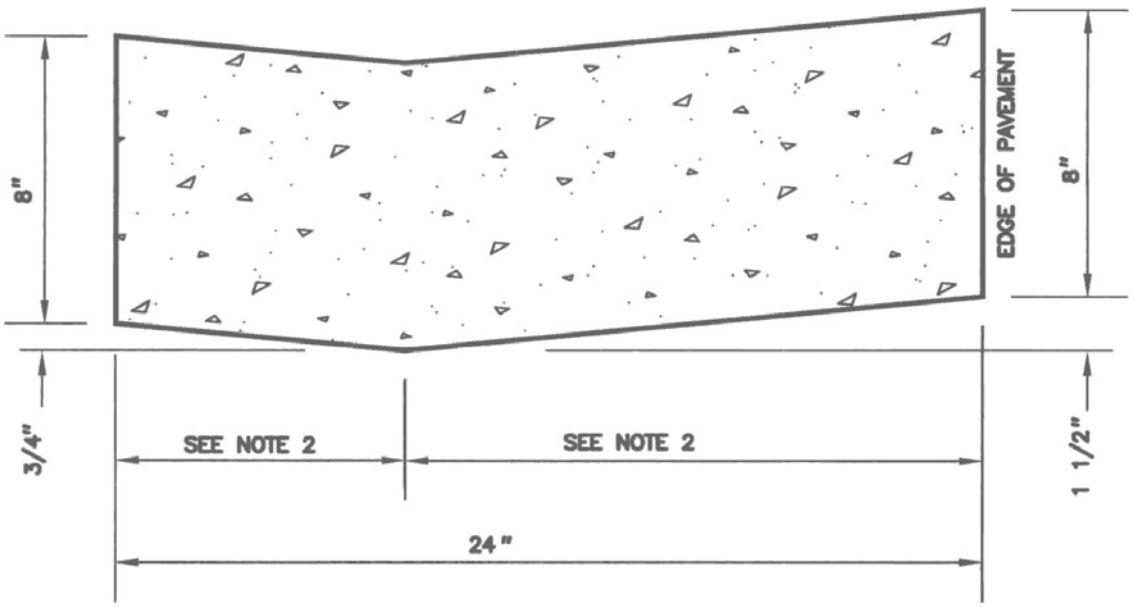
APPROVED 14 APR '06 DATE DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION for CHIEF, DIV. OF CAP. DEV.	REVISED /1 ASTM-C920 4/2006	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION COMBINATION CONCRETE CURB AND GUTTER TYPE A STANDARD NO. MC-100.01



GENERAL NOTES

1. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.
2. THIS STANDARD SHALL BE USED ON PRIMARY, SECONDARY AND TERTIARY RESIDENTIAL ROADS EXCEPT AT CURB RETURNS AND INLET THROATS.
3. WHENEVER STANDARD MC–100.01 CURB IS USED IN CONJUNCTION WITH THIS STANDARD, A TEN FOOT TRANSITION SHALL BE PROVIDED FROM STANDARD MC–101.01 TO STANDARD MC–100.01 FOR CURB RETURNS AND CURB SECTIONS WHICH INCLUDE INLETS.
4. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON–STAINING TWO–COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM–C920. △1

APPROVED 14 APR '06 DATE DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION for CHIEF, DIV. OF CAP. DEV.	REVISED △1 ASTM–C920 4/2006	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION COMBINATION CONCRETE CURB AND GUTTER TYPE C STANDARD NO. MC–101.01



GENERAL NOTES

1. REFER TO COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.

2. THE DISTANCES INDICATED IN NOTE 2 ABOVE SHALL BE ADJUSTED TO MATCH EXISTING CONDITIONS.

3. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUMDISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).

4. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920.

APPROVED 14 APR '86 DATE DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION CHIEF, DIV. OF CAP. DEV.		REVISED	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

SECTION 603 – SIDEWALKS
(this task is incidental to Items 6010 - 6016, Item 6022 & Item 6024)

DELETE: **SECTION 603 – SIDEWALKS** of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials."

INSERT: The Following:

SECTION 603 – SIDEWALKS

603.01 DESCRIPTION.
Construct asphalt mix or concrete sidewalks and sidewalk ramps. Ensure that the sidewalks and sidewalk ramps are constructed in accordance with the most recent accessibility guidelines of the Americans with Disabilities Act (ADA). Concrete sidewalk ramps shall be constructed using SHA Concrete Mix No. 6. Concrete sidewalks shall be constructed using SHA Concrete Mix #6 as directed by the Contract Administrator or Designee.

603.01.01 Brick/Flagstone Lead Walks. This work is for the reconstruction of brick masonry or flagstone masonry lead walks, located within the limits of construction that must be removed and rebuilt due to necessary elevation changes of the existing grade. This work may occur within **or** outside of the limits of the MCDOT Right-of-Way and shall only be performed at the direction of the Contract Administrator or Designee.

603.02 MATERIALS.
Refer to 701.02, 705.02, 708.02, and the following:

Curing Materials*	Section 902.07
Form Release Compound	Section 902.08
Concrete Mix No. 3	Section 902.10
Concrete Mix No. 6	Section 902.10 with the following modification: The Ground Iron Blast Furnace Slag used in the mix to replace cement **must not** be more than 35% as measured by weight.
Asphalt Mix	Section 904
Welded Wire Fabric	Section 908.05
Joint Sealer	Section 911.01
Preformed Joint Fillers	Section 911.02
Water-Based, Clear Penetrating Sealing Compound for Salt Protection	Section 902
Mortar Sand	Section 901, Table 901A
Brick	Section 903
Mortar	Section 903.06
Stone	As specified in the individual Task Order.
Borrow Excavation	Section 916.01
Common Borrow	Section 916.01
Topsoil	Sections 920.01.01, 920.01.02
Subsoil	Section 920.01.03, 920.01.04

***NOTE:** **ONLY** white pigmented curing compound shall be used. Use of a clear curing compound shall not be permitted. To facilitate the application of the Penetrating Concrete Surface Treatment the Contractor has the option of using dissipating curing compound providing it is a white pigmented curing compound that meets all the requirements of Section 902.07 of the current *Maryland Department of Transportation, State Highway Administration's* STANDARD SPECIFICATIONS for CONSTRUCTION and MATERIALS.

The Contractor shall submit a brick/flagstone sample to the Contract Administrator or Designee for inspection and acceptance a minimum of five (5) working days prior to the scheduled commencement date of work on the sidewalk. The color, texture and size of any new brick/flagstone must match that of the existing lead walk that is to remain in place.

For replacement brick, all brick pavers shall meet the highest quality standards per ASTM C936-82 standards. Performance shall match appearance with an average compressive strength of 8,000 psi. and an average absorption rate of less than 5% when tested in accordance with ASTM C140. Pavers shall exhibit resistance to 50 cycles of freeze-thaw while immersed in a 3% saline solution.

603.03 CONSTRUCTION.

603.03.01 Concrete Sidewalks, Concrete Ramps, and Concrete for Driveways and Driveway Aprons.

(a) Excavation. Excavate to the specified depth and to the width required to install and brace the forms. Compact the subgrade to 92 percent density per T 180, Method C, and trim to the proper shape and required grade. Remove all soft and unsuitable material and replace with approved material.

(b) Forms.

(1) Fixed Form Method. Use full-depth steel or wood forms. Use forms that are straight, free from warp, and of sufficient strength to resist the pressure of the concrete. Brace and stake the forms so that they remain in both horizontal and vertical alignment. Thoroughly clean and coat forms with form release compound each time they are used. Allow the concrete to set for at least 12 hours before removing the forms.

(2) Slip-Form Method. The use of a slip-form machine shall not be permitted for this work.

(c) Concreting. Before placing concrete, moisten the subgrade with as much water as it can absorb. Mix the concrete according to Section 915.03.05. Volumetric batching and continuous mixing will be permitted. Deposit the concrete on the prepared subgrade in successive batches to the full width of the sidewalk. Thoroughly spade along the edges and tamp the entire surface area to eliminate voids. Strike off and screed the concrete to the top of the forms.

(d) Finishing. Immediately after screeding and before bleed water appears, bull float the concrete to seat the coarse aggregate particles. After bull floating and waiting until bleed water has dissipated and the concrete has begun to set, float the concrete to provide a level surface and apply a broom finish. Do not plaster the surface. Use a 1/4 in. edging tool on all outside edges and all joints. On dry and/or windy days and as directed, while waiting for the concrete to set, apply a thin film of evaporation retarder according to the manufacturer's recommendations. Do not use evaporation retarder as a finishing aid. Do **not** add water to the concrete at **any** time during any phase of the finishing operations. Immediately following texturing and edging, begin

the concrete curing. Ensure an ACI Concrete Flatwork Finisher or NRMCA Concrete Exterior Flatwork Finisher is present at all times during finishing operations.

A**dditional water must not and shall not be sprayed, sprinkled or added in any way to the concrete once it has been unloaded from the mixer and placed in the forms.** Any section(s) of concrete sidewalk, where the Contract Administrator or Designee has determined that additional water has been applied to the concrete after it has been placed in the forms, shall be removed and replaced entirely at Contractor's expense.

(e) Joints. Place joints as specified. Tool or saw dummy joints a minimum of 3/4 inch deep. Match adjacent joints in curb or pavement. Place expansion joint material to the full depth of the concrete.

Joints for sidewalks, lead walks, sidewalk ramps, driveway aprons, and driveways shall be placed as specified in the appropriate MCDOT and/or SHA Standard.

(f) Weather Restrictions.

(1) Temperature and Surface Conditions. Begin concrete placement when the ambient air and surface temperatures are at least 40ºF and rising. Discontinue placement whenever the temperature falls below 40ºF. These requirements may be waived for incidental concrete construction. Do not place concrete on a frozen base.

(2) Precipitation. Have sufficient approved material on hand to cover freshly placed concrete as protection against precipitation.

(3) Wind. Cease placement when the Contract Administrator or Designee determines that wind conditions may have a detrimental effect on the work.

When weather conditions differ from these limits, placement of material enroute is at the Contractor's risk.

If the Contract Administrator or Designee for any reason stops placement, dispose of enroute material at no additional cost to the County.

(g) Curing. Following texturing and edging, cure the concrete for at least 72 hours. Whenever the ambient air temperature falls below 40ºF during the curing period, use insulated blankets to maintain the concrete temperature above 40ºF. **Use insulated blankets in addition to any curing material that is used.** Provide a sufficient number of high/low thermometers to monitor the temperature of the concrete. Cure the concrete using one of the following methods:

(1) Liquid Membrane Forming Compound. For concrete sidewalks use a white pigmented liquid membrane forming compound that is in conformance with Section 902.07.03. Apply the material to the surface as soon as the free water has disappeared. Use County approved spraying equipment. Have standby equipment on site in the event of failure. The spraying equipment must have an adequate wind guard and be capable of producing a fine spray of material that covers the surface with a uniform continuous film. Apply the compound in two applications, each at a rate of 1/2 gal/200 square feet. Maintain the film free of pin holes, checks, cracks, peelings, and other imperfections. Correct discontinuities in the film by the application of an additional coat to the affected area within 30 minutes of the original coat. If sprayed surfaces are subjected to damaging rainfall within three hours after the second application, re-spray the surface at no additional cost to the County.

Use rope or other approved masking methods to keep the vertical surfaces of longitudinal and transverse joints free of curing compound. Protect the sprayed surfaces to maintain the continuity of the membrane.

(2) Burlap Curing. Place burlap conforming to Section 902.07.01 on the freshly placed concrete as soon as practical, without damaging the concrete. Overlap the burlap to provide a double thickness on the entire surface. Saturate the burlap with water before placement and keep it continuously wet during the curing period.

(3) Cotton Mat Curing. Place cotton mats conforming to Section 902.07.04 on the freshly placed concrete as soon as practical, without damaging the concrete. Saturate the cotton mats with water before placement and keep them continuously wet during the curing period.

To facilitate the application of the Penetrating Concrete Surface Treatment the Contractor has the option of using dissipating curing compound providing it is a white pigmented curing compound that meets all the requirements of Section 902.07 of the latest edition of the *Maryland Department of Transportation, State Highway Administration's* STANDARD SPECIFICATIONS for CONSTRUCTION and MATERIALS.

The Contractor **MUST** have an adequate supply of approved Liquid Membrane Forming Compound and fully operational application/spraying equipment **ON SITE** prior to the placement of any concrete.

(4) Sheet Materials. Use of sheet materials to cure this work shall not be permitted.

(h) Expansion Joint Sealing. Prior to sealing, clear dirt and other foreign material from the expansion joints. Ensure that joint walls and all surfaces to which the sealing material is to adhere are surface dry for at least three hours prior to sealing. Do not seal the joints until they are acceptable to the Contract Administrator or Designee. Ensure that the surface of the sealing compound is not more than 1/8 inch below the sidewalk surface.

(i) Water–Based, Clear, Penetration Sealing Compound for Salt Protection of Concrete Sidewalks, Ramps, and Driveway Aprons. Apply to cleaned finished concrete surfaces in accordance with the Manufacturer's instructions at the indicated coverage rates.

(j) Section 603.03.05 Petrographic Examination of Hardened Concrete and Water-Soluble Chloride testing Mortar and Concrete, **ITEM 6078**, per Section 624.

603.03.02 Asphalt Mix Sidewalks.

(a) Excavation. Complete excavation, subgrade preparation, and form placement as required. Excavate to the specified depth and to the width required to install and brace the forms. Compact the subgrade to 92 percent density per T 180, Method C, and trim to the proper shape and required grade. Remove all soft and unsuitable material and replace with approved material.

(b) Placement. Place Asphalt Mix as specified in Section 504.03.06. When the sidewalk is not placed in forms, use acceptable backfill material to form an 18 in. wide shoulder for the Asphalt Mix or as specified.

(c) Compaction. Use an approved roller. In areas inaccessible to a roller, a vibrating plate compactor or hand tamping may be used. In any case, the Asphalt Mix shall be uniformly compacted. Start compaction effort as soon as the Asphalt Mix can be compacted without

displacement and continue until the material is thoroughly compacted and all marks have been removed.

603.03.03 Backfill. After the forms have been stripped and repairs are satisfactorily completed, backfill the spaces in front and back of the sidewalk to the required elevations using approved material.

All suitable excavated on-site material shall be salvaged and used for backfilling. Backfill must be completed within 48 hours of the removal of forms.

Refer to MD - Standard 657.00 for concrete stairway and step details. Concrete for stairway and steps will be at a minimum Mix #6 meeting requirements of Section-902.10.

603.03.04 Brick/Flagstone Lead Walks. All brick/flagstone shall be placed in a pattern that matches the existing brick/flagstone lead walk. The concrete base shall be constructed in conformance with all applicable specifications contained in Section 463.03, Section 603.01 and the following.

(a) Excavation. Excavation shall be to the specified depth and to a width that permits installation and bracing of the forms. The subgrade shall be compacted to ninety-two percent (92%) density in conformance with T 180, Method A, and trimmed to the proper shape and required grade. All soft and unsuitable materials shall be removed and replaced with Graded Aggregate Base.

(b) Concrete Base. Place and spread concrete to the full depth of forms. Use only square-end shovels or concrete rakes for hand-spreading and consolidating concrete. Exercise care during spreading and consolidating operations to prevent segregation of aggregate. Place concrete in one course, monolithic construction, for the full width and depth of concrete work. Provide depths as indicated on drawings. Strike off and bull float concrete after consolidating. Level ridges and fill voids. Check surface with a 10’-0” straightedge. Fill depressions and refloat repaired areas. Clean the concrete base to remove dirt, dust, debris and loose particles. 6 X 6 X W2.9 X W2.9 welded wire fabric shall be used as reinforcement for the concrete base.

(c) Expansion Joints. Pre-molded expansion joints one-half inch (½") thick shall be provided through the concrete base at intervals not greater than thirty feet (30'). The expansion joints shall also be located where the proposed lead walk abuts an existing sidewalk, existing concrete curb or concrete curb and gutter or other existing solid structure. The expansion joint material shall be trimmed and sealed in accordance with these specifications prior to the placement of the Mortar setting bed.

(d) Mortar Setting Bed: Thickness of the finished setting bed shall be no more than one inch (1") or less than one half inch (½"). The thickness shall be adjusted so that when the brick/flagstone is placed; the top surface of the brick/flagstone shall be at the required finished grade. Under no circumstances shall the setting bed exceed one inch (1") in depth.

(e) Placing of Brick/Flagstone.

(1) Ensure that all brick/flagstones are free of foreign material before installation.

(2) Place the brick/flagstone into position by hand, keeping the mortar joints at the proper width. Do not use brick/flagstone with chips, cracks, discolorations, or other defects. The width of the joints between brick/stone shall match that of the existing lead walk. Brick/Flagstone shall be placed in the pattern matching that of the existing lead walk. All edges shall align evenly.

(3) Fill gaps at the edges of the lead walk with cut brick/stone. Brick/Stone shall be cut with a diamond blade masonry saw.

(4) The final surface elevations shall not deviate more than ¼ inch under a 10-foot-long straightedge and must be sloped to provide positive drainage.

(5) Pointing. Tool all exterior head and bed joints with a round tool, slightly larger than the joint, pressed tight against the plastic mortar for a concave finish. When nails or line pins are used, plug the holes with mortar and point them immediately upon removal.

(6) Cleaning. Upon completion of the work, clean all exterior surfaces by scrubbing and washing down with water. If necessary, clean with a 5 percent solution of muriatic acid, which shall be rinsed off with liberal quantities of clean fresh water.

(7) Curing. After the work has been laid up and pointed, cure the exposed surfaces using one of the following methods:

(A) Cover with two layers of burlap and keep wet for three days.

(B) Apply a non-asphalt colorless liquid curing compound using an approved hand or motor driven spray operated at a pressure of 40 to 60 psi. Apply uniformly at a rate of 27 square yards per gallon. Ensure that the surface is completely coated and sealed in one application. Where there is evidence of insufficient coating, apply additional material as directed.

(8) Cold Weather Protection. Do not perform brick/flagstone masonry work and pointing when there is frost in the brick/flagstone or when the air temperature is below 50° F, unless suitable housing and heating devices are provided as necessary to keep the atmosphere surrounding the masonry at a temperature of at least 50° F for the curing period.

(f) Required Submittals.

(1) Submit full size samples of brick/flagstone.

(2) Certificates: Submit certificates signed by supplier that the brick/flagstone comply with specified requirements.

(3) Qualification Data: Submit installer qualifications verifying years of experience; include list of completed projects having similar scope of work identified by name, locations, date, reference names and phone numbers.

603.03.05 Saw Cuts. The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

603.04 MEASUREMENT AND PAYMENT.

Payment shall be as specified under the items listed below and found on the *Quotation Sheets*. The payment shall be full compensation for all excavation, backfill, disposal of excess or unsuitable material, Mix No. 6 Concrete, Mix No. 3 Concrete, Asphalt Mix, forms, reinforcement when specified, joints, sealer, compaction, curing, finishing, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

When the existing sidewalk is removed and replaced with a new sidewalk, the cost to remove the existing sidewalk shall be incidental to the Contract unit price for the new sidewalk.

(a) ITEM No. 6010 – Remove and Replace Existing 4 Inch Depth Concrete Sidewalks, Including ADA Access Ramps, Using SHA Concrete Mix No. 6: MCDOT Sidewalk Standard No. MC-110.01, Unit Price Includes Removal and Disposal of Existing Sidewalk - will be measured and paid at the Contract unit price per square foot. The removal and the disposal off-site of the existing sidewalk and any additional excavation necessary for the installation of the sidewalk forms shall not be measured for payment and shall be considered incidental to the Contract unit price paid for this item.

(b) ITEM No. 6011 – Remove and Replace Existing 4 Inch Depth Concrete Sidewalks Using SHA Concrete Mix No. 3: MCDOT Sidewalk Standard No. MC-110.01, Unit Price Includes Removal and Disposal of Existing Sidewalk and Application of Penetrating Concrete Surface Treatment - will be measured and paid at the Contract unit price per square foot. The removal and the disposal off-site of the existing sidewalk and any additional excavation necessary for the installation of the sidewalk forms shall not be measured for payment and shall be considered incidental to the Contract unit price paid for this item. ***This item must not be used to construct ADA Access Ramps.***

(c) ITEM 6012– Remove and Replace Existing 5 Inch Depth Concrete Sidewalks, Including ADA Access Ramps, Using SHA Concrete Mix No. 6: MCDOT Sidewalk Standard No. MC-110.01, Unit Price Includes Removal and Disposal of Existing Sidewalk and Application of Penetrating Concrete Surface Treatment - will be measured and paid at the Contract unit price per square foot. The removal and the disposal off-site of the existing sidewalk and any additional excavation necessary for the installation of the sidewalk forms shall not be measured for payment and shall be considered incidental to the Contract unit price paid for this item.

(d) ITEM No. 6013 – Remove and Replace Existing 5 Inch Depth Concrete Sidewalks Using SHA Concrete Mix No. 3: MCDOT Sidewalk Standard No. MC-110.01, Unit Price Includes Removal and Disposal of Existing Sidewalk and Application of Penetrating Concrete Surface Treatment - will be measured and paid at the Contract unit price per square foot. The removal and the disposal off-site of the existing sidewalk and any additional excavation necessary for the installation of the sidewalk forms shall not be measured for payment and shall be considered incidental to the Contract unit price paid for this item. ***This item must not be used to construct ADA Access Ramps.***

(e) ITEM No. 6014 – Remove and Replace Existing Concrete Sidewalk/Driveway Apron 7 Inches in Depth Using SHA Mix No. 6 Concrete, Unit Price Includes Removal and Disposal of Existing Sidewalk/Driveway Apron and Application of Penetrating Concrete Surface Treatment - will be measured and paid for at the Contract unit price per square foot.

(f) ITEM No. 6015 – Remove and Replace Existing Concrete Sidewalk/Driveway Apron 10 Inches in Depth Using SHA Mix No. 6 Concrete and Apply Penetrating Concrete Surface Treatment - will be measured and paid for at the Contract unit price per square foot. The removal and disposal off-site of the existing sidewalk/driveway apron and any additional excavation necessary for the installation of the sidewalk/driveway forms shall not be measured for payment and shall be considered incidental to the Contract unit price paid for this item.

(g) ITEM No. 6016 – Furnish and Install New 4 Inch Depth Concrete Sidewalks Including ADA Access Ramps Using SHA Concrete Mix No. 6 MCDOT Sidewalk Std No. MC-110.01 including the Application of Penetrating Concrete Surface Treatment – will be measured and paid for at the Contract unit price per square foot.

(h) ITEM No. 6022 – Replace Existing Brick Lead Walk Over New 4 Inch Concrete Base Using New Materials - will be measured and paid at the Contract unit price per square foot. Use SHA Concrete Mix No. 6 for the concrete base and apply penetrating concrete surface treatment. The excavation and removal of the existing lead walk, the excavation, removal and the off-site disposal of any excavated material, necessary for the installation of the lead walk and lead walk forms shall not be measured for payment and shall be considered incidental to the Contract unit price paid for this item.

(i) ITEM No. 6024 – Replace Existing Flag Stone Lead Walk Over New 4 Inch Concrete Base Using New Materials - will be measured and paid at the Contract unit price per square foot. Use SHA Concrete Mix No. 6 for the concrete base. The excavation and removal of the existing lead walk, the excavation, removal and the disposal off-site of any excavated material, necessary for the installation of the lead walk and lead walk forms shall not be measured for payment and shall be considered incidental to the Contract unit price paid for this item.

603.04.01 Excavation Below Subgrade. The removal and disposal of unsuitable material below subgrade will be measured and paid for as specified under **ITEM No. 2001** - Unclassified Roadway Excavation.

603.04.02 Select Borrow Graded Aggregate Base. NOT APPLICABLE.

603.04.03 Other Fills – Fill not required to replace unsuitable subgrade materials to include leveling of subgrade caused by removal of existing sidewalk concrete, existing voids, or over excavation are considered incidental and will not be measured for payment. Graded Aggregate Base and Crusher Run Aggregate CR-6 are authorized as fill material. There shall be no payment for over excavation by the Contractor except in the case of unsuitable subgrade materials.

603.04.04 Excavation Above Finished Grade. All excavation above finished grade will be measured and paid for as specified under Unclassified Roadway Excavation in Section 201.

603.04.05 All resetting of existing sidewalk railings or step railings will be incidental to the bid price.

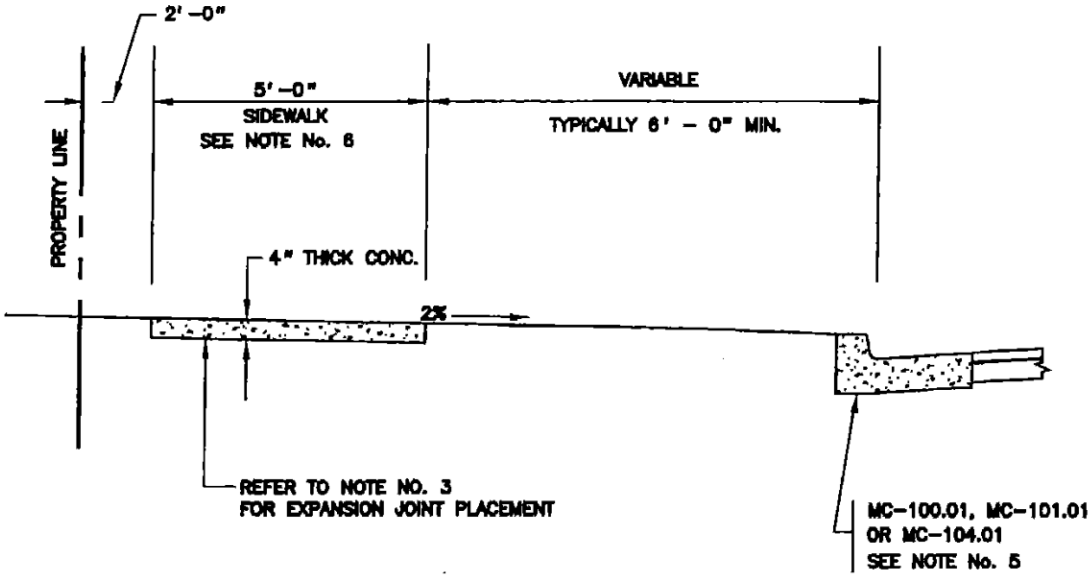
603.04.06 Repair Existing Brick/Flagstone Lead Walks - Will be measured and paid for at the Contract bid price per square foot. The Contract bid price will include all labor, equipment, materials and tools necessary to remove existing brick/flagstone, shape, grade and compact the sub-base, reset existing or replacement brick/ flagstone to line and grade. Lead walks damaged by the Contractors operations outside of the limits of disturbance will not be measured for payment. All cost associated with repairs to these areas will be at the Contractors' expense.

603.04.07 Full Depth Saw Cuts and Saw Cutting Any Depth shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be removed shall be saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean straight and vertical edge and to the depth specified by the Contract Administrator or Designee.

Full depth saw cuts and saw cutting any depth shall **NOT** be measured for payment. All saw cuts and saw cutting shall be considered incidental to the Contract unit price of the pertinent item of work where its use is specified to be necessary.

The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

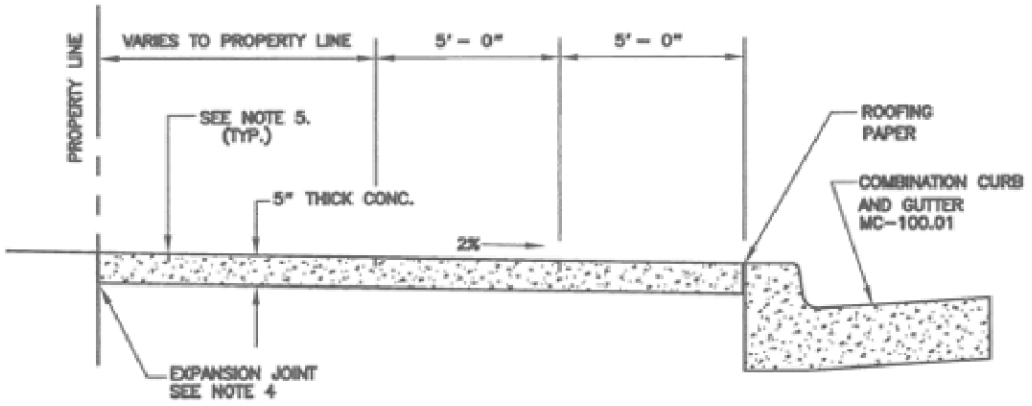
ANY SIDEWALKS AND SIDEWALK RAMPS THAT DO NOT CONFORM TO THE MOST RECENT ACCESSIBILITY GUIDELINES OF THE AMERICANS WITH DISABILITIES ACT (ADA) SHALL NOT BE MEASURED FOR PAYMENT.



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. REFER TO THE APPLICABLE MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS FOR DETAILS AT DRIVEWAYS.
3. EXPANSION JOINTS SHALL HAVE A MAXIMUM SPACING OF 100 FEET AND BE LOCATED AT POINTS OF CURVATURE. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920. ⚠1
4. SCORE THE CONCRETE TO A DEPTH OF 1/3 THE SLAB THICKNESS TO PROVIDE WEAKENED PLANE TRANSVERSE JOINTS AT 5'-0" INTERVALS.
5. REFER TO THE APPLICABLE ROAD STANDARD AND CURB AND GUTTER STANDARDS FOR OTHER OPTIONS.
6. SIDEWALK WIDTH SHALL BE 4'-0" FOR SECONDARY AND TERTIARY ROADWAYS.

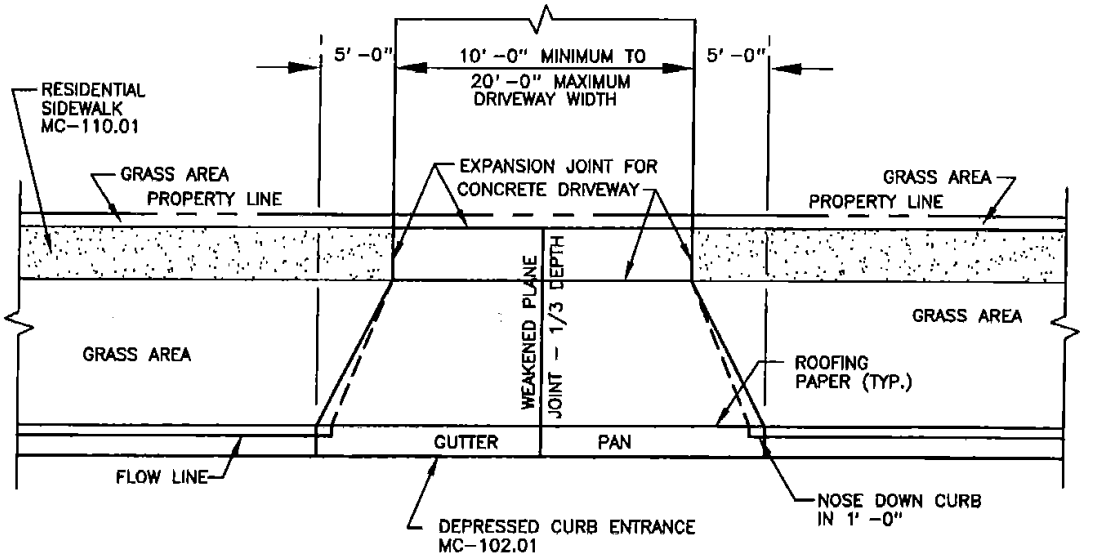
APPROVED 14APR '06 DATE DIRECTOR, DEPT. OF TRANS. for CHIEF, DIV. OF CAP. DEV.	REVISED ⚠1 ASTM-C920 4/2008	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION RESIDENTIAL SIDEWALK CLOSED SECTION STANDARD NO. MC-110.01

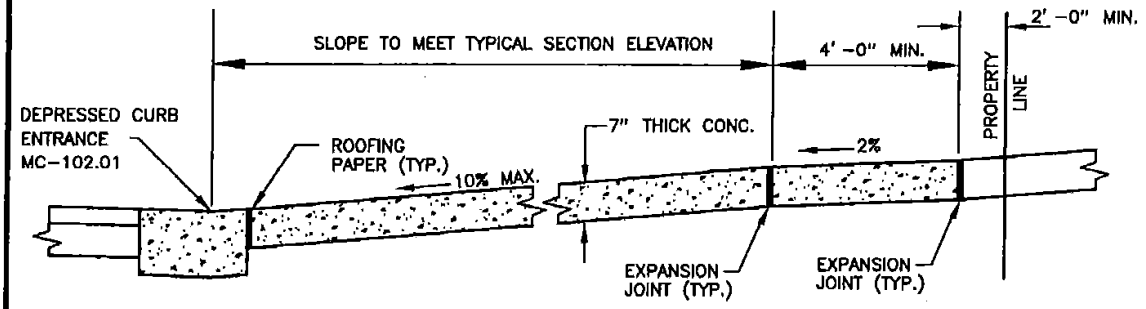


GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DESIGN STANDARD No. MC–302.01 FOR DETAILS AT A DRIVEWAY.
3. EXPANSION JOINT MATERIAL SHALL BE PLACED AROUND POLES, HYDRANTS, ETC. AND ALONG THE PROPERTY LINE WHEN THE SIDEWALK ABUTS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE.
4. EXPANSION JOINT MATERIAL SHALL HAVE A MAXIMUM LONGITUDINAL SPACING OF 100 FEET. THE MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON–STAINING, TWO–COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM–C920. △1
5. SCORE THE CONCRETE TO A DEPTH OF 1/3 THE SLAB THICKNESS TO PROVIDE WEAKENED PLANE TRANSVERSE JOINTS AT 5' – 0" INTERVALS PARALLEL WITH AND PERPENDICULAR TO THE CURBING.

APPROVED 14 APR '06 DATE DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION for CHIEF, DIV. OF CAP. DEV.	REVISED △1 ASTM–C920 4/2006	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION BUSINESS DISTRICT SIDEWALK STANDARD NO. MC–111.01

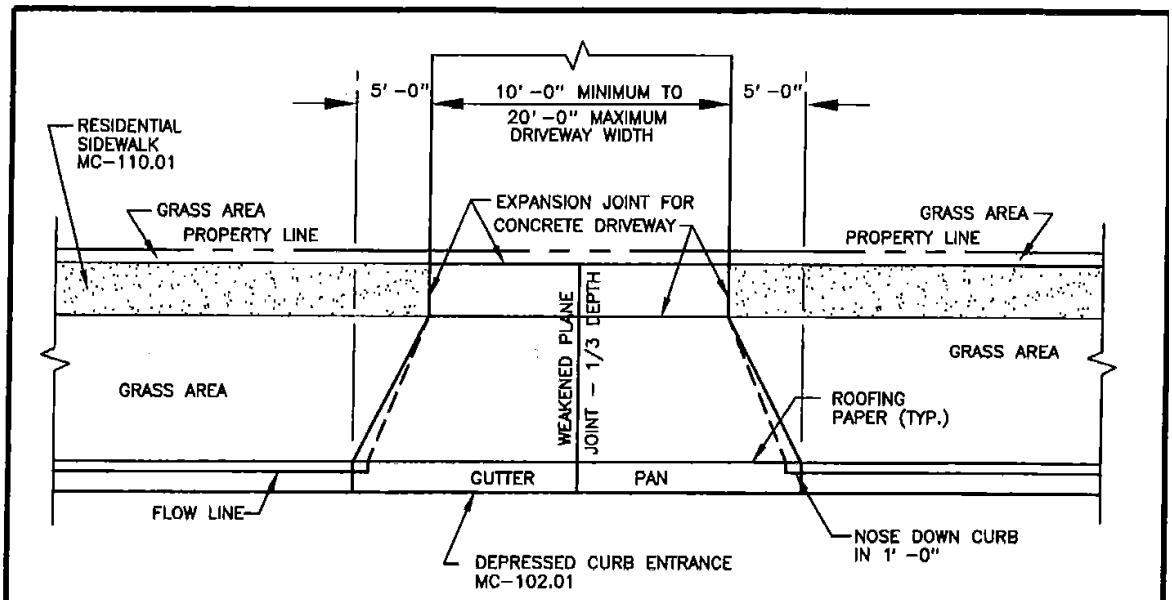


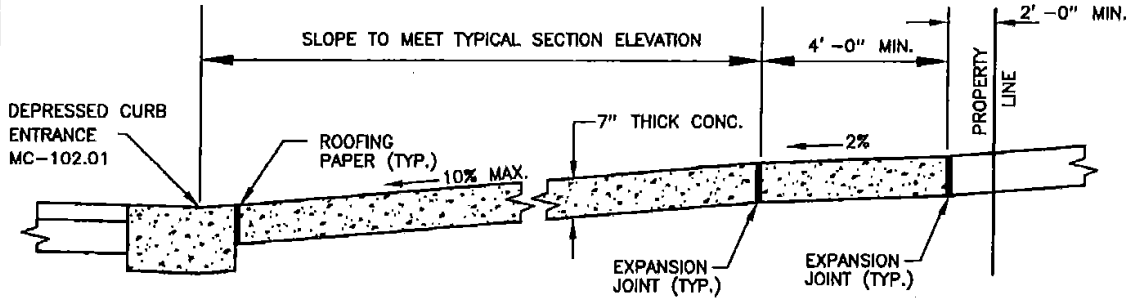


GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. PROVIDE WEAKENED PLANE JOINTS AT MAXIMUM INTERVALS OF 15'.
4. THE EXPANSION JOINTS SHALL BE PLACED AT LOCATIONS SHOWN.
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH ASTM-C920. ⚠1

APPROVED 14 APR '06 DATE DIRECTOR, DEPT. OF TRANS. for CHIEF, DIV. OF CAP. DEV.	REVISED ⚠1 ASTM-C920 4/2006	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION **RESIDENTIAL DRIVEWAY** **STANDARD NO. MC-301.01**

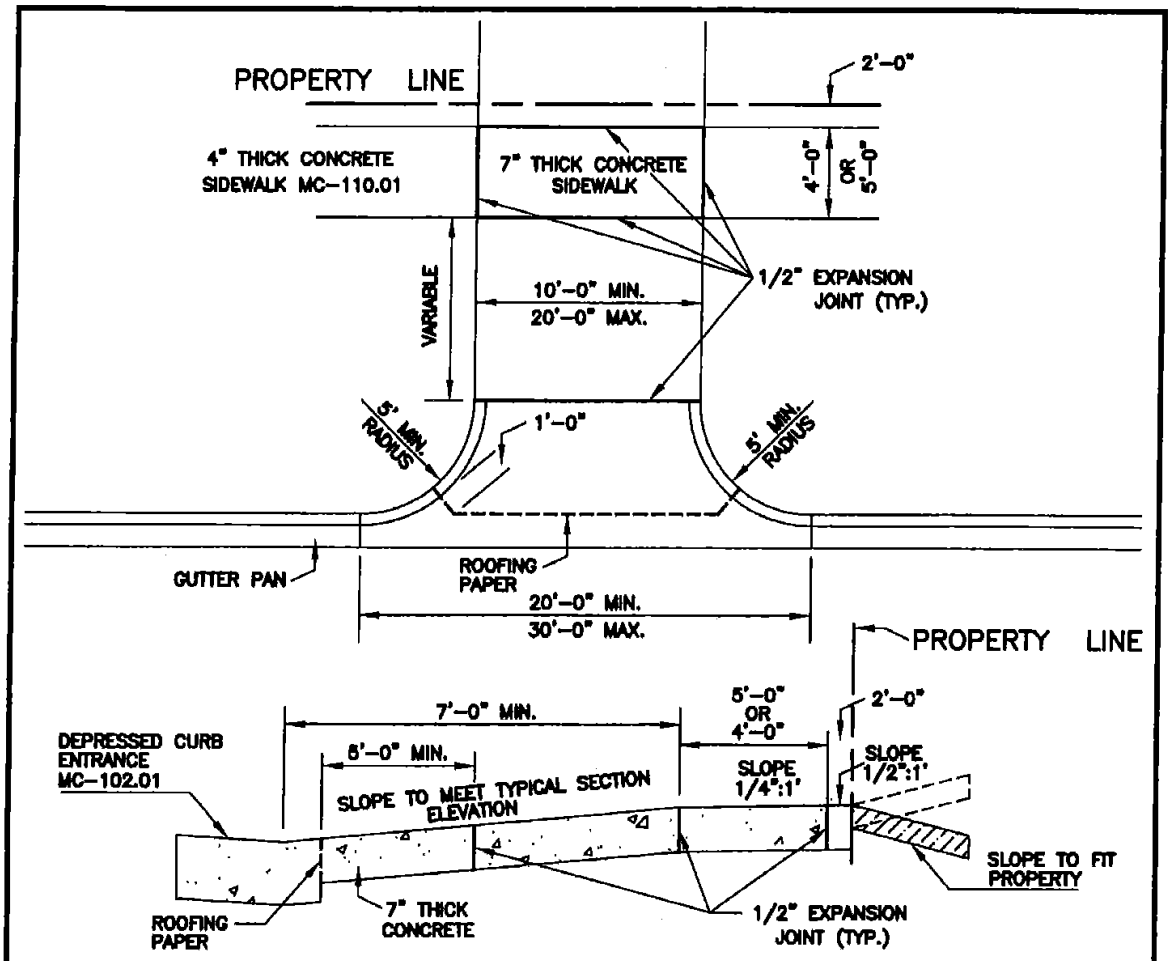




GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. PROVIDE WEAKENED PLANE JOINTS AT MAXIMUM INTERVALS OF 15'.
4. THE EXPANSION JOINTS SHALL BE PLACED AT LOCATIONS SHOWN.
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH ASTM-C920. ⚠1

APPROVED 14 APR '06 DATE DIRECTOR, DEPT. OF TRANS. CHIEF, DIV. OF CAP. DEV.	REVISED ⚠1 ASTM-C920 4/2006	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION **RESIDENTIAL DRIVEWAY** **STANDARD NO. MC-301.01**



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. THE EXPANSION JOINTS SHALL BE PLACED AT LOCATIONS SHOWN.
4. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920. ⚠1

APPROVED 14 APR '06 DATE DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION for CHIEF, DIV. OF CAP. DEV.	REVISED RENAMED 04-27-2005 ⚠1 ASTM-C920 4/2006	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION RESIDENTIAL DRIVEWAY WITH CURB RADIUS STANDARD NO. MC-301.05

SECTION 611 – DETECTABLE WARNING SURFACE
(this task is incidental to Item 6067)

DELETE: **SECTION 611 – DETECTABLE WARNING SURFACE** of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials."

INSERT: The Following:

SECTION 611 – DETECTABLE WARNING SURFACE

611.01 DESCRIPTION.
Furnish and install detectable warning surfaces. Ensure that the detectable warning surface is in accordance with the most recent accessibility guidelines of the Americans with Disabilities Act (ADA).

611.02 MATERIALS.

Detectable Warning Surface	Section 925

Select the detectable warning surface from the Maryland State Highway Administration, Office of Materials Technology's Qualified Product List (QPL). Ensure that detectable warning surface materials meet certification requirements prior to use. Submit the proposed source of supply and the specific product for approval by the Contract Administrator or Designee.

611.03 CONSTRUCTION.
The detectable warning system must be cast in place. Use only Type I detectable warning systems for new or replacement concrete installations. Install the system according to the manufacturer's recommendations.

The detectable warning surface shall be 24 inches wide in the direction of pedestrian travel and installed for the full width of the curb ramp, landing, or blended transition. Do not bridge or overhang cracks or expansion joints.

Ensure that the vertical edges of the installed system are not more than 0.50 inch above the adjacent surfaces. Place a 2:1 or flatter bevel on edges that are more than 0.25 inch above the adjacent surface. The same edge requirements apply to cut material.

611.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for removal and disposal of old treatments, including adhesives and sealants, reapplying, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

The sidewalk on which the detectable warning surface is placed will be measured and paid for at the Contract price for the pertinent Sidewalk item.

ITEM No. 6067 – Furnish and Install Detectable Warning Surfaces for Sidewalks and ADA Access Ramps - will be measured and paid for at the Contract unit price per square foot.

SECTION 615 – MCDOT - CONCRETE STAIRWAYS AND STEPS
(this task is incidental to Item 6070 to Item 6072)

615.01 DESCRIPTION.
This work is for the removal and replacement of existing concrete stairways and steps, and the resetting or replacement of any existing handrails and/or guardrails. While the replacement stairways and steps shall be replaced in kind, the replacement stairways and steps must be in compliance with the latest version of the Montgomery County Department of Permitting Services Building Code for riser height, tread depth and maximum stairway slope. All handrails and guardrails, whether resetting the existing handrail and/or guardrail or furnishing and installing new handrails and/or guardrails, must be in compliance with the latest version of the Montgomery County Department of Permitting Services Building Code.

615.02 MATERIALS.
As specified in Section 420.02 of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

Cold Drawn Steel Wire Section 908.09

615.02.01 Handrails and Pedestrian Guardrails. The structural performance of all handrails and guardrails must meet the requirements of the latest version of the Montgomery County Department of Permitting Services Building Code.

615.02.03 Cast-in-Place Post Anchors. Provide cast-in-place anchors, if used, fabricated from corrosion-resistant materials with the capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry and equal to four times the load imposed when installed in concrete, as determined by testing per ASTM E 488 conducted by a qualified independent testing agency.

615.03 CONSTRUCTION.

615.03.01 Concrete Stairways and Steps.

(a) Portland Cement Concrete. All applicable references as stated in Section 420 of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

(b) Excavated Material. All applicable references as stated in Section 402.03.01 of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

(c) Reinforcing Steel. All applicable references as stated in Section 421.03 of the Maryland Department of Transportation, State Highway Administration's, latest edition of the "Standard Specifications for Construction and Materials" and all additions and revisions thereto and the following:

(1) Place #4 bars on eight-inch (8") centers running the length of the stairway or steps, running from two inches (2") off the front of the bottom step to two inches (2") off the back of the top step. Keep all bars a minimum of three inches (3") away from the face of any concrete surface and three inches (3") above the top of the subgrade.

(2) Place #4 bars on twelve-inch (12") centers across the width of the stairway, from side to side. Keep all bars a minimum of two inches (2") away from the face of any concrete surface and two inches (2") above the top of the subgrade.

(3) Tie all bar intersections.

(4) 6 x 6 x W2.9 x W2.9 Welded Deformed Steel Wire Fabric may be used in lieu of deform steel reinforcement bars. The welded wire fabric is to be kept two inches (2") away from the face of any concrete surface and a minimum of two inches (2") above the top of subgrade.

615.03.02 Handrails and Pedestrian Guardrails. All handrails and pedestrian guardrails, whether resetting the existing handrail and/or pedestrian guardrail or furnishing and installing new handrails and/or pedestrian guardrails, must be in compliance with the latest version of the Montgomery County Department of Permitting Services Building Code.

(a) Railing Posts. Railing posts are to be set in concrete or fasten securely using cast in place concrete anchors. The use of grouted or expansion type anchors shall not be permitted.

(b) Installation.

(1) Set posts plumb within a tolerance of 1/16 inch in 3 feet.

(2) Align rails so variations from level for horizontal members and from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.

(3) Post spacing must be at the intervals as required to be in compliance with the structural load specification.

(4) Steel Pipe Sleeve Method. Use steel pipe sleeves preset and anchored into concrete for installing posts. Provide preset sleeves of steel not less than 6 inches long with inside dimensions not less than one half inch (½") greater than outside dimensions of the post, and with a steel plate forming the bottom closure. After posts have been inserted into sleeves, fill annular space between post and sleeve with non-shrink, nonmetallic grout, mixed and placed to comply with the manufacturer's written instructions. Leave anchorage joint exposed; wipe off surplus anchoring material; and leave one eighth inch (1/8") build-up, sloped away from post.

(5) Core Drill Method. Form or core-drill holes not less than five inches (5") deep and three quarters of an inch (¾") larger than OD of post for installing posts in concrete. Clean holes of loose material, insert posts, and fill annular space between post and concrete with non-shrink, nonmetallic grout mixed and placed to comply with the manufacturer's written instructions. Leave anchorage joint exposed; wipe off surplus anchoring material; and leave one eighth inch (1/8") build-up, sloped away from post.

(6) Cast-in-Place Anchor Method. Provide cast-in-place anchors fabricated from corrosion-resistant materials with the capability to sustain, without failure, a load equal

to six times the load imposed when installed in unit masonry and equal to four times the load imposed when installed in concrete, as determined by testing per ASTM E 488 conducted by a qualified independent testing agency.

615.03.03 Saw Cuts. The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

615.04 MEASUREMENT AND PAYMENT.

(a) ITEM No. 6070 – Remove and Replace Existing Concrete Stairway or Steps - will be measured and paid for at the Contract unit price per cubic yard. The payment shall be full compensation for all excavation, backfill, disposal of excess or unsuitable material, Mix No. 3 Concrete, forms, steel reinforcement, joints, sealer, compaction, curing, finishing, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

(b) ITEM No. 6071 – Remove and Reset Existing Handrails and/or Pedestrian Guardrails will be measured and paid for at the Contract unit price per linear foot. The payment shall be full compensation for the removal, protection and storage, and resetting of existing Handrails and Guardrails, cast in place anchors, anchor sleeves, core drilling, furnishing, placing and finishing of non-shrink grout, all necessary hardware, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

(c) ITEM No. 6072 – Furnish and Install New Handrails and/or Pedestrian Guardrails - will be measured and paid for at the Contract unit price per linear foot. The payment shall be full compensation for the furnishing, installation of new Handrails and Guardrails, cast in place anchors, anchor sleeves, core drilling, furnishing, placing and finishing of non-shrink grout, application of a protective paint coating, all necessary hardware, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

615.04.01 The removal and disposal of unsuitable material below subgrade will be measured and paid for at the Contract unit price for Unclassified Roadway Excavation **ITEM 2001**.

615.04.02 Select Borrow Using Graded Aggregate Base (GAB): NOT APPLICABLE.

615.04.03 Removal and disposal of any existing stairway or steps will be measured and paid for as specified under Removal of Existing Masonry in Section 207.

615.04.04 Reinforcement steel shall not be measured for payment for this work. Reinforcement steel shall be considered incidental to the Contract unit price per cubic yard paid for the Remove and Replace Existing Concrete Stairway or Steps item.

615.04.05 Saw Cuts. Full Depth Saw Cuts shall be performed as specified by the Contract Document and as directed by the Contract Administrator or Designee. All Existing Pavement, Sidewalks, Curb, and Concrete Combination Curb and Gutter specified to be removed shall be full depth saw cut to a neat and clean joint. Tie-ins of new pavement to existing pavement shall be cut to a neat, clean and straight edge to a depth specified by the Contract Administrator or Designee.

Unless listed on the Quotation Sheets as a specific item of work, all full depth saw cuts and saw cutting shall not be measured for payment. All full depth saw cuts and saw cutting shall be considered

incidental to the Contract unit price of the pertinent item of work where its use is specified and determined to be necessary.

The locations and layout of all saw cutting must be approved by the Contract Administrator or Designee prior to construction.

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SECTION 619 – MCDOT HORIZONTAL SAW CUTTING OF SIDEWALKS
(this task is incidental to Item 6076)

619.01 DESCRIPTION.

This work is for the horizontal saw cutting of sidewalks to eliminate trip hazards at locations located within the political boundaries of Montgomery County, Maryland. All locations for this work will be designated by the Contract Administrator or Designee.

THE GRINDING OF SIDEWALKS SHALL NOT BE ALLOWED.

619.02 MATERIALS. Not applicable.

619.03 CONSTRUCTION.

The Contractor shall horizontally cut all sidewalk joint deflections greater than one quarter inch (¼") of vertical deflection at locations directed by the Contract Administrator or Designee. Cuts shall be made horizontally with equipment designed for that purpose. Grinding will not be permitted other than for purposes of "touching up" cut surfaces. Cuts shall not leave ridges or grooves in the sidewalk that could inhibit or prevent drainage. Joint deflections shall be removed completely, from one end of the raised sidewalk to the other, leaving zero vertical deflection between adjacent slabs, in either direction.

When horizontal saw cutting of sidewalks is scheduled for both sides of any given block, the Contractor shall complete all repairs and reopen the sidewalk on one side of the block before beginning repairs on the opposite side of the block.

The horizontal saw cutting of any sidewalk slab must be completed by the end of the same day the work started. Sidewalk saw cutting through driveways of adjoining business properties shall be completed within two (2) hours.

All saw cutting shall be taken to the zero point of differential settlement and to both edges of the sidewalk to eliminate trip hazards the full width of the sidewalk.

619.03.01 Horizontal Saw Cutting Requirements.

(a) The work shall not damage, or make any visible markings on adjacent sidewalk slabs, curbs. The Contractor shall not disfigure or scar driveways, roadway, steps, walls and turf or damage any private installations such as sprinkler heads or electric fences, etc. The Contractor must also take precautions during saw cutting operations so as not to disfigure, scar, or impair the health of any tree on public or private property.

(b) Repairs must meet or exceed OSHA slip resistance guidelines. All cuts shall have a smooth, uniform appearance and texture. The finished surface shall have a coefficient of friction of at least 0.8.

(c) The final slope on all repaired surfaces must be ADA compliant. Horizontal Saw Cuts shall be made to provide a maximum slope of 1:12 (vertical: horizontal)

(d) Repairs must be made without damage to adjacent sidewalk areas and other adjacent structures. No heavy equipment such as tractors, skid steer loaders, backhoes, etc. will be allowed. Any damages must be repaired by the Contractor at no expense to the County.

(e) Any existing concrete, grout, concrete patch material, asphalt mix or other types of material, used for fill to shim raised/sunken sidewalks and mitigate the elevation difference between adjacent sidewalk slabs, must be removed and properly disposed of by the Contractor prior to the horizontal saw cutting of the sidewalk.

619.03.02 Dust control. Horizontal saw cutting shall be done by using means and methods that eliminate any dust. Airborne concrete dust resulting from the cutting process must be controlled with saw-mounted vacuum hoods.

619.03.03 Clean-up. Any remaining debris, cuttings, concrete dust and slurry shall be cleaned and removed from the sidewalk surface as well as surrounding rails, sidewalks, pavement, driveways, landscaping or other objects in the vicinity of work upon completion of each saw cut. Surface dust and debris must be swept and removed immediately including any sludge to reduce tracking.

Under no circumstances shall any debris be placed in, or be allowed to run into, adjacent landscaping or the storm drainage system. Any curb/gutter flow lines and/or structures found containing debris from the saw cutting operation, must immediately be cleaned by the Contractor at no cost to the County.

The Contractor shall seed and mulch any and all disturbed areas. Any debris from the backfilling and seeding operations shall be swept up and removed from the area immediately.

619.04 MEASUREMENT AND PAYMENT.
The payment shall be full compensation for furnishing and operating the saw properly configured for horizontal saw cutting, the cleanup and removal off-site of any and all debris, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

(a) ITEM No. 6076 – Horizontal Saw Cutting of Sidewalks - will be measured and paid for at the Contract unit price per inch-foot. The inch-foot measurement for payment for each trip hazard shall be made by computing the average depth of cut measured in inches multiplied by the length along the joint that is trimmed measured in feet.

Example: If a joint is cut 1” on one side and tapered to 0” on the other, a full 4-foot width of the sidewalk, it shall be calculated as follows:

AVERAGE DEPTH (in inches)	MULTIPLIED BY	LENGTH (in feet)	EQUALS	PAYMENT DUE FOR CUT (inch-feet)
$\frac{1" + 0"}{2}$	X	4'	=	2 Inch-Feet

The depth shall be measured to the nearest one eighth inch (1/8”), the length of cut shall be measured to the nearest one quarter foot (three inches). The payment will be full compensation for furnishing and operating a concrete saw capable of making horizontal cuts, dust control, mobilization and demobilization, protection of all adjacent private property and public right-of-way including but not limited to vegetation, protection of the storm drainage system, site clean-up including the proper disposal of all debris generated by the saw cutting activity, any necessary hand or mechanical excavation and backfill, any necessary backfill material, seed and mulch and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

SECTION 620 - MCDOT - PENETRATING CONCRETE SURFACE TREATMENT

620.01 DESCRIPTION.

This work is for the application of a Penetrating Concrete Surface Treatment to protect concrete curb, combination concrete curb and gutter, concrete sidewalk, and ADA access ramps from the damaging effects of water and chloride absorption brought on by exposure to road salts/deicing chemicals. The surface treatment used is to be a penetrating silane or silane/siloxane blend.

620.02 MATERIALS.

The concrete surface treatment used must meet the requirements of and comply with NCHRP 244, ASTM C672, ASTM E514 and the following:

(a) Penetrating Water Repellent: Water based penetrating concrete sealer consisting of 100% silane or silane/siloxane blend and meeting the following criteria;

(1) Flash Point	Greater than 125° F.
(2) NCHRP No. 244, Series II Reduction in Chloride Content	Minimum of 90%
(3) NCHRP No. 244, Series II Reduction in Water Absorption	Minimum of 85%
(4) VOC's	Less than 250 gm/l
(5) Average Depth of Penetration	0.2 Inch
(6) Color	Clear when dry

The Contractor is to submit all necessary certified documentation, showing that the Penetrating Concrete Surface Treatment meets or exceeds the specifications listed above to the MCDOT Materials testing Lab and the Contract Administrator within five (5) working days after the award of the Contract.

The Penetrating Concrete Surface Treatment shall be "Baracade Silane 100 C" by Euclid Chemical; "A-Tech Concrete Sealer" by Applied Technologies, LLC; "Aquapel Plus" by L&M Construction Chemicals; or an approved equal.

620.03 CONSTRUCTION.

New concrete surfaces must be a minimum 28 days old at time of application.

620.03.01 Surface Preparation. As specified by the material manufacturer and the following:

Prior to the application of the concrete surface treatment, the concrete surface must be clean, completely dry and free of grease, oil, and curing compound. To remove any residual form grease, oil and curing compound, the surface of the concrete shall be cleaned using high pressure cold water. After washing, the concrete surface treatment is not to be applied until the concrete surface is completely dry.

As per the manufacturer's recommendations, all concrete joints are to be sealed.

620.03.02 Application. In strict adherence to the means and methods specified by the concrete surface treatment manufacturer.

620.04 MEASUREMENT AND PAYMENT.

The application of Penetrating Concrete Surface Treatment to protect concrete curb, concrete combination curb and gutter, and concrete sidewalk will not be measured for payment but will be incidental to the concrete work provided for the installation of sidewalks, curbs and gutters. The work will include the thorough high-pressure cleaning of the concrete surface, the furnishing and proper application of the concrete surface treatment, the protection from overspray of all areas adjacent to the concrete surface undergoing treatment, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

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CATEGORY 700
LANDSCAPING

SECTION 701 – SUBSOIL AND TOPSOIL (renamed)
(this task is incidental to Item 7001)

DELETE: **SECTION 701 – SUBSOIL AND TOPSOIL** of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials."

INSERT: The Following:

SECTION 701 – TOPSOIL/SALVAGED TOPSOIL

701.01 DESCRIPTION.
Furnish and place topsoil/salvaged topsoil in preparation for vegetation establishment. Refer to Section 704 and provide short-term, long-term or permanent stabilization as necessary for soil erosion protection. Performance of topsoil/salvaged topsoil as specified herein complies with all requirements of the Maryland Department of the Environment for handling and placing soils.

IN NO CASE WILL SALVAGED TOPSOIL BE USED UNLESS SPECIFIED AND APPROVED BY THE CONTRACT ADMINISTRATOR OR DESIGNEE.

701.02 MATERIALS.

Furnished Topsoil	Section 920.01.02
Limestone	Section 920.02.01
Sulfur	Section 920.02.02
Gypsum	Section 920.02.04
Water	Section 920.09.01
Pesticides	Section 920.09.03

701.03 CONSTRUCTION.

701.03.01 General.

(a) Schedule. Perform topsoil operations when soil moisture and weather conditions are suitable. Cease operations when soil is muddy, frozen, or otherwise unsuitable.

(b) Pesticide Application. For any work involving existing or salvaged soils, the Contractor shall possess a Maryland Department of Agriculture Commercial Pesticide Business License and a Pesticide Applicator Certificate for the pertinent pesticide application Category: (2) Forest; (3-A) Ornamental Plant Exterior; (3-C) Turf; (5) Aquatic; (6) Right-of-Way and Weed.

Apply pesticides in conformance with the current Maryland Pesticide Applicator's Law, OSHA and MOSH regulations, and the manufacturer's label and Safety Data Sheets (SDS).

Ensure that pesticides are applied by a Maryland Certified Pesticide Applicator, or by a Registered Pesticide Applicator under the supervision of a Certified Pesticide Applicator.

(c) Prohibited Weeds. Refer to Section 920.01.01. Existing topsoil and topsoil to be salvaged, will be inspected and shall be free of prohibited weeds. Control prohibited weeds when preparing existing topsoil for vegetation establishment, or before salvaging operations. Prevent the spread of prohibited weeds as needed or as directed.

(d) Herbicide. To control prohibited weeds, and to remove vegetation when preparing existing topsoil, apply glyphosate 3% solution in water or submit a written request to use another herbicide or application rate.

(e) Pesticide Application Reporting. Record the location and details of pesticide applications on the Pesticide Application Reporting Form. Submit the Form within 24 hours after applying pesticides.

(f) Nutrient Management Plan (NMP). The specified application rates of the pertinent vegetation establishment will be the NMP unless the County develops a substitute NMP. Replace application rates of the pertinent specification as required by the NMP.

(g) Nutrient Management Reporting. Record the fertilizer analysis, the square yards covered, and the pounds of fertilizer applied on the Nutrient Management Reporting Form. Submit the Form within 48 hours after applying fertilizer.

701.03.02 Site Preparation and Salvaging.

(a) Removal. Remove vegetation, brush, and other debris from the areas of existing topsoil, and from areas where topsoil will be salvaged. Remove topsoil and subsoil to the depth as specified or directed. Transport salvaged topsoil and subsoil separately and keep them apart from other materials. Do not remove existing topsoil without written approval from the Contract Administrator or Designee.

(b) Storage. Constructing stockpiles on well drained land, away from streams, drainage areas, and floodplains as specified in Section 308. Maintain stockpiles of salvaged topsoil away from other materials and separate from each other.

Apply temporary mulch or temporary seed in conformance with Section 704 immediately after constructing stockpiles. Install and maintain silt fence around stockpiles in conformance with 308.03.29. Control prohibited weeds as needed or as directed.

(c) Excess. Existing topsoil/salvaged topsoil is the property of the County. Do not remove soils without written approval from the Contract Administrator or Designee.

701.03.03 Placing Topsoil or Salvaged Topsoil.

(a) Site Preparation. Ensure the site where topsoil/salvaged topsoil will be spread is uniformly graded true to line and cross section, and that the surface of the subsoil base is loose and able to provide a suitable bond for the topsoil/salvaged topsoil layer to be spread.

If the subsoil base is crusted or excessively compacted, then roughen and loosen the surface of the subsoil base with approved machinery before spreading topsoil/salvaged topsoil.

(b) Spreading. Spread topsoil/salvaged topsoil over the designated areas and lightly firm the topsoil to ensure uniform thickness of the specified depth, and to meet the required grades.

(c) Tracking. Track topsoil/salvaged topsoil on slopes 4:1 and steeper with cleated track equipment operated perpendicular to the slope.

(d) Grading Adjustment. When placing topsoil/salvaged topsoil for grading adjustment, the minimum thickness shall be 1/2 inch and the maximum thickness shall be 8 inches.

(e) Firming. Ensure that topsoil/salvaged topsoil is uniformly firmed near sidewalks, structures and pavement edges, and that the topsoil/salvaged topsoil surface is without gaps, mounds, depressions, soft spots, or areas that may impair surface drainage or future maintenance. Check topsoil/salvaged topsoil thickness, lines, grades, and elevations to ensure the completed work is as specified.

(f) Tilling. Refer to Table 1 and till topsoil/salvaged topsoil to incorporate soil amendments and prepare areas for seeding or installation of other specified vegetation.

(g) Debris. In areas within 10 feet of the pavement edge and near commercial and residential property, remove stones, wood, metal, and other debris with a length or width greater than 2 inches from the topsoil/salvaged topsoil surface when spreading is completed. In all other areas, remove debris with a length or width greater than 4 inches, or as directed.

(h) Stabilization. Immediately perform Turfgrass Establishment, or install other permanent vegetation as specified in the Contract documents or refer to Section 704 and install Temporary Mulch or Temporary Seed for soil erosion protection.

(i) Turfgrass Seed, Mulch and Fertilizer. MSHA Turfgrass Seed Mix, Wood Cellulose Fiber Mulch, and Fertilizer applied under **ITEM No. 7001,** shall be performed in strict accordance with Section 705 – TURFGRASS ESTABLISHMENT.

(j) Use of Material. The use of **ITEM No. 7001** will include but not be limited to backfill behind replaced curb and gutter, backfill along replaced sidewalks to re-grade and stabilize any disturbed area, and grading adjustments within the limits of the right-of-way.

(k) Removal from Stockpile. Stockpiles of topsoil will be inspected and shall be free of prohibited weeds.

Do not remove surface debris or transport soil from stockpiles before the inspection is completed, or before prohibited weeds are controlled. Control prohibited weeds as needed or as directed.

Remove grass, weeds, brush and other debris from the surface of stockpiles before transporting soil.

701.03.04 Inspection and Acceptance. Submit a request for Acceptance when operations are completed. An inspection will be conducted to verify that operations were completed as specified. Acceptance will be granted at that time from the Contract Administrator or Designee.

701.04 MEASUREMENT AND PAYMENT.
The payment will be full compensation for the preparation of surfaces, loading, hauling, placing, supplying, and spreading limestone and soil amendments, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

Amending furnished topsoil will not be measured but shall be considered incidental to the pertinent items listed on the Quotation Sheet.

(a) ITEM No. 7001 – Placing Furnished Topsoil, Including MSHA Turfgrass Seed Mix, Wood Cellulose Fiber Mulch, and Fertilizer - will be measured and paid for at the Contract unit price per cubic yard.

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SECTION 705 – TURFGRASS ESTABLISHMENT
(this task is incidental to Item 7012)

DELETE: **SECTION 705 — TURFGRASS ESTABLISHMENT** of the latest edition of the Maryland Department of Transportation, State Highway Administration's "Standard Specifications for Construction and Materials.

INSERT: The following:

SECTION 705 — TURFGRASS ESTABLISHMENT

705.01 DESCRIPTION.
Furnish and place topsoil, seed and mulch in disturbed areas or where directed by the Contract Administrator or Designee.

Perform Turfgrass Establishment as follows.

At Final Grade. For areas that are at final grade, establish turfgrass in topsoil or other specified soil substrate to provide permanent vegetation groundcover.

Not Final Grade. For areas that are not at final grade, or areas that will not be redisturbed for at least six months after seeding operations are completed, establish turfgrass in topsoil, subsoil, common borrow, or other specified soil substrate to provide temporary vegetation groundcover.

Temporary Stabilization. When it is not possible to perform Turfgrass Establishment, refer to Section 704 and perform Temporary Mulch or Temporary Seed, or as directed.

Performance of Turfgrass Establishment as specified herein complies with all requirements of the Maryland Department of the Environment for permanent seeding.

705.02 MATERIALS.

Limestone	Section 920.02.01
Sulfur	Section 920.02.02
Gypsum	Section 920.02.04
Compost	Section 920.02.05
Fertilizer	Section 920.03.01
Straw Mulch	Section 920.04.01
Wood Cellulose Fiber Mulch	Section 920.04.02
Seed	Section 920.06
SHA Turfgrass Seed Mix	Section 920.06.07(a)
SHA Special Purpose Seed Mix	Section 920.06.07(b)
SHA Temporary Seed Mix	Section 920.06.07(c)
Water	Section 920.09.01
Soil Stabilization Matting	Section 920.05.01
Fasteners	Section 920.05.02
Topsoil	Section 920.01.02

705.03 CONSTRUCTION.

705.03.01 General.

(a) Regions. Maryland is divided into Regions by counties as follows:

Region 1. Garrett, Allegany, and Washington, west of Clear Spring MD.

Region 2. Washington, east of Clear Spring, MD, Frederick, Carroll, Baltimore, Harford, Cecil, Howard, Montgomery, and Baltimore City.

Region 3. Anne Arundel, Prince George's, Calvert, Charles, St. Mary's, Kent, Queen Anne's, Talbot, Caroline, Dorchester, Wicomico, Worcester, and Somerset.

(b) Seeding Seasons and Seed Mixes. Perform operations according to Table 1 when soil moisture and weather conditions are suitable, when the temperature is above 32 F, and the soil is not frozen. Cease operations when conditions are unsuitable.

TURFGRASS ESTABLISHMENT
TABLE 1 - SEEDING SEASONS AND SEED MIXES

REGION	SEEDING SEASON - MONTH/DAY				
	Spring	Summer	Fall	Late Fall	Winter[3]
	SHA Turfgrass Seed Mix [1]				
1	3/1 to 6/14	6/15 to 7/31	8/1 to 9/30	10/1 to 11/15	11/16 to 2/29
2	3/1 to 5/14	5/15 to 7/31	8/1 to 10/14	10/15 to 11/15	11/16 to 2/29
3	3/1 to 4/30	5/1 to 7/31	8/1 to 10/31	11/1 to 11/15	11/16 to 2/29
		Plus Additive[2]		Plus Additive[2]	Plus Additive[2]

Notes:

[1] When seeding within 4 miles of a State airport: Use no additives and use SHA Special Purpose Seed Mix in lieu of SHA Turfgrass Seed Mix on slopes 4:1 and steeper, or in designated areas.

[2] Additive = SHA Temporary Seed Mix

[3] Approval is required for seeding during Winter. When approved, apply all materials except fertilizer. Refer to Section 705.03.06(e)

(c) Nutrient Management Plan (NMP). The specified application rates of the pertinent vegetation establishment will be the NMP unless the County develops a substitute NMP. Replace application rates of the pertinent specification as required by the NMP.

(d) Nutrient Management Reporting. Record the fertilizer analysis, the square yards covered, and details of soil amendment and fertilizer applications on the Nutrient Management Reporting Form. Submit the Form within 48 hours after applying fertilizer.

(e) Nutrient Management Reporting. Not applicable.

705.03.02 Modification Request. Submit a written Modification Request to perform seeding during Winter Seeding Season; to install an approved tackifier at manufacturer's recommended

application rates in lieu of wood cellulose fiber to secure straw mulch; or to use Type A, Type D, or Type E Soil Stabilization Matting per Section 709 in lieu of straw mulch and wood cellulose fiber in areas where those mattings have not been specified.

The Contract Administrator or Designee in consultation with the MCDOT Materials Testing Lab will evaluate the Request. If granted, a notice of approved modification will be returned within 14 days after the request is received.

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705.03.03 Application Rates. Apply materials according to Table 2.

TURFGRASS ESTABLISHMENT TABLE 2 - APPLICATION RATES [a, b, c, d]		
MATERIAL	**POUNDS PER SQUARE YARD**	**POUNDS PER ACRE**
SOIL AMENDMENTS per Nutrient Management Plan for topsoil or other specified soil substrate.		
Compost	0 to 1.033	0 to 5,000
Gypsum	0 to 0.455	0 to 2,200
Limestone	0 to 0.930	0 to 4,500
Sulfur	0 to 0.052	0 to 250
INITIAL FERTILIZER per Nutrient Management Plan [a, b]		
20-16-12 (83% UF with MAP & SOP)	0 to 0.041	0 to 200
or one or more of the following		
38-0-0 (UF)	0 to 0.021	0 to 100
11-52-0 (MAP)	0 to 0.036	0 to 175
0-0-50 (SOP)	0 to 0.041	0 to 200
SEED MIXES; select one		
SHA Turfgrass Seed Mix, applied to roadsides, facilities, and other designated areas	0.041	200
or		
SHA Special Purpose Seed Mix, applied to slopes 4:1 and steeper within four miles of a State airport, and other designated areas.	0.041	200
ADDITIVE SEED; when required per Table 1		
SHA Temporary Seed Mix	0.006	25
STRAW MULCH	0.826	4000
WOOD CELLULOSE FIBER to secure straw mulch	0.155	750
REFERTILIZING[d]		
37-0-0 Sulfur Coated Urea (SCU)	0.021	100

Notes:

[a]For existing topsoil and salvaged topsoil, the application rates will be included in the Contract documents.

For furnished topsoil, the application rates will be developed for the approved source of supply.

[b]When no NMP has been developed, apply 200 lb per acre of 20-16-12 initial fertilizer.

[c]UF = Ureaform; MAP = Monoammonium Phosphate; SOP = Sulfate of Potash. When application rate of 20-16-12 fertilizer is below 200 lb. per acre, apply UF, MAP, and SOP per NMP.

[d]Refer to 705.03.06(d) and 705.03.09(c). Apply Refertilizing when included in the Contract documents.

Apply compost, gypsum, limestone, sulfur, and initial fertilizer at rates specified in the NMP.

705.03.04 Grade Repair. Ensure that soil meets specified grades. Repair any gullies, washes, or disturbed areas that develop before preparing soil.

705.03.05 Preparing Topsoil. Provide a uniform and porous surface that is free of debris and weeds as follows.

(a) Areas Flatter than 4:1. Apply soil amendments, as required, and till to a depth of 2 in. to uniformly incorporate amendments into the soil. After tilling, remove

clods, stones, wood, metal and other debris with a length or width greater than 1-1/2 inch from the soil surface.

(b) Slopes **4:1 and Steeper.** Track slopes 4:1 and steeper with cleated track equipment operated perpendicular to the slope. After tracking, remove stones, wood, metal, and other debris with a length or width greater than 3 in. in any dimension from the soil surface.

705.03.06 Seeding and Initial Fertilizer.

(a) Application Schedule. Apply seed and initial fertilizer after preparing soil. Do not apply initial fertilizer in the Winter Seeding Season from November 16 through February 29.

(b) Application Equipment. Use hydroseeders, spreaders, drills, or other approved machinery. Calibrate equipment before application. Apply materials accurately and uniformly to avoid misses and overlaps. Do not operate machinery during windy weather that may interfere with uniform application.

(c) Hydroseeders. Hydroseeders shall be equipped with an agitation system able to keep solids in suspension and have a gauge to show fill levels and tank capacity. Apply fertilizer and seed mixtures within two hours after mixing. Direct hydroseeding mixtures so the droplets produce a uniform spray. Do not allow materials to runoff or cause erosion, or to blow onto sensitive areas or structures.

(d) Mechanical Seeders. Mechanical seeders shall be capable of uniformly placing seed and fertilizer at the specified rate.

(e) Delayed Initial Fertilizer. Apply initial fertilizer at the time of seeding per Table 1, except in Winter. When seeding from November 16 to February 29, apply initial fertilizer during March, and apply Refertilizing in conformance with Section 705.03.09(c) during April.

705.03.07 Mulching. Apply mulch immediately after seeding.

(a) Soil Stabilization Matting. Refer to Section 709 and install soil stabilization matting in lieu of straw mulch in designated areas.

(b) Straw Mulch. Straw mulch will only be used under special circumstances and with prior approval by the Contract Administrator or Designee. The method and equipment to be used for applying straw mulching must be reviewed and approved by the Contract Administrator or Designee prior to commencing with any work on this item. Cover at least 90 percent of the soil surface with straw mulch.

(1) Mulch Blower. Apply mulch to a loose depth of ¾ to 2 inches.

(2) By Hand. Apply mulch to a loose depth of 1½ to 3 inches.

Secure straw mulch immediately after the completion of mulching operations by applying wood cellulose fiber uniformly over the straw without displacing the mulch.

Do not operate machinery during windy weather that may interfere with uniform application. Do not allow materials to blow onto sensitive areas or structures.

(c) Wood Cellulose Fiber. Only wood cellulose fiber is to be used as mulch. Apply at least 70 percent of the wood cellulose fiber mulch after and separately from the seed and fertilizer during the Summer Seeding Season.

705.03.08 Seeding Phase Acceptance. Submit a request for Seeding Phase Acceptance when operations are completed. Inspection will be conducted to verify completion, and Seeding Phase Acceptance will be granted at that time.

705.03.09 Establishment Phase.

(a) Period of Maintenance. Maintain seeded areas until Final Acceptance.

(b) Required Maintenance. Perform the following during the Establishment Phase.

Watering. Apply water as needed to ensure survival of the turfgrass. Apply water to seeded and mulched areas with approved machinery. Do not allow water to cause erosion or to displace the mulch.

Overseeding. Overseeding consists of seeding and mulching in areas where living turfgrass coverage is 40 to 90 percent. When living turfgrass groundcover is not acceptable, perform overseeding as directed. In areas to be overseeded, cut the turfgrass to a height of 3 inches to 5 inches and remove debris that may interfere with seeding. Apply seed mixtures, seed additives, fertilizer, mulch, and secure mulch as specified in Sections 705.03.01 thru 705.03.07, but do not repair grade or prepare soil.

Reseeding with Slit Seeder. Perform reseeding when directed in areas where turfgrass groundcover is less than 40 percent, but soil conforms to Sections 701.03.05 and 705.03.05. Cut the area to be reseeded to a height of 1 inch to 3 inches and remove debris that may interfere with seeding. Utilize a mechanical slit seeder to cut groves into the soil at least 0.25-inch depth. Refer to Sections 705.03.06 and 705.03.07 and apply seed, fertilizer, and mulch, but do not secure mulch.

Reseeding. Reseeding consists of tilling, seeding and mulching in areas where turfgrass coverage is less than 40 percent. When living turfgrass groundcover is not acceptable, perform reseeding as directed. In areas to be reseeded, cut the turfgrass to a height of 3 to 5 in. and remove debris that may interfere with seeding. Repair grades, prepare soil, apply seed, fertilizer, and mulch, and secure mulch as specified in Sections 705.03.01 through 705.03.07.

Soil Restoration, Tilling and Reseeding. Perform soil restoration and reseeding when directed in areas where turfgrass groundcover is less than 40 percent, or when soil does not conform to Sections 701.03.05 and 705.03.05 because eroded gullies are present, or soil grades are not acceptable. Cut the area to be restored and reseeded to a height of 3 inches to 5 inches and remove debris that may interfere with seeding. Refer to Sections 705.03.01 thru 705.03.07 and repair grades, prepare soil, apply seed, fertilizer, and mulch, and secure mulch.

Mowing. Mow turfgrass in areas flatter than 4:1 before the grass grows to a height of 12 inches. when directed. Use approved machinery to cut to a height of 3 to 5 inches.

(c) Refertilizing. Refer to Section 705.03.06 and apply 37-0-0 SCU Refertilizing as specified in Table 2 at least one month after initial fertilizer was applied. Do not apply Refertilizing in the Winter Seeding Season from November 15 through March 1.

705.03.10 Final Acceptance. The Contract Administrator or Designee will complete an inspection of turfgrass height, color, and percent groundcover. When it is not possible to perform the inspection, Final Acceptance will be delayed until inspection is possible. Any deficiencies found during the inspection shall be included in the Punch List requirements for the project. Complete the Punch List requirements as directed.

Final Acceptance will be granted after all operations have been completed, and when the seedlings of turfgrass species have grown at least 4 inches tall, exhibit dark green color, and are least 95 percent groundcover.

705.04 MEASUREMENT AND PAYMENT.

The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work including, but not limited to, preparing soil, applying fertilizer, applying seed mixes and additives, overseeding, mulching, and securing mulch. Amending furnished topsoil and furnished subsoil will not be measured but shall be considered incidental to the pertinent items listed on the Quotation Sheet.

(a) ITEM No. 7012 – Application of MDSHA Turfgrass Seed Mix, Wood Cellulose Fiber Mulch, Fertilizer, and Water for Permanent Stabilization - will be measured and paid for at the Contract unit price per square yard.

705.04.01 Repairing unacceptable areas and areas outside the limits of work disturbed by the Contractor's or any sub-contractor's work activities, as determined by the Contract Administrator or Designee, will not be measured but shall be repaired by the Contractor at no additional cost to the County.

705.04.02 Stabilization Matting—When requested by the Contract Administrator or Designee, will be measured and paid for at the Contract bid price per square yard in place per Section 709.

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SECTION 708 – TURFGRASS SOD ESTABLISHMENT

DELETE: **SECTION 708 – TURFGRASS SOD ESTABLISHMENT** of the latest edition of Maryland Department of Transportation, State Highway Administration's "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The following:

SECTION 708 — TURFGRASS SOD ESTABLISHMENT

708.01 DESCRIPTION.

Establish turfgrass sod on topsoil or other specified soil substrate to provide permanent vegetation groundcover. When it is not possible to perform Turfgrass Sod Establishment, refer to Section 704 and perform Temporary Mulch, or as directed. Performance of Turfgrass Sod Establishment as specified herein complies with all requirements of the Maryland Department of the Environment for permanent vegetation groundcover.

708.02 MATERIALS.

Limestone	Section 920.02.01
Iron Sulfate	Section 920.02.02
Gypsum	Section 920.02.04
Compost	Section 920.02.05
Fertilizer	Section 920.03
Turfgrass Sod	Section 920.06.03
Fasteners	Section 920.05.02
Water	Section 920.09.01

708.03 CONSTRUCTION.

708.03.01 General.

(a) Regions. Refer to MSHA Section 705.03.01(a).

(b) Installation Season and Species. Perform operations when soil moisture and weather conditions are suitable. Cease operations when sod or soil is frozen, or conditions are unsuitable.

Tall Fescue Sod. Install from August 15 to May 31 in Region 1, Region 2, and Region 3 unless another species of sod is specified. Approval is required for installation from November 16 to February 29 when fertilizer may not be applied.

Zoysia Grass Sod. Install in specified areas of Region 2 and Region 3 from March 1 to June 15, and from August 1 to September 15.

Bermudagrass Sod. Install in specified areas of Region 3 from March 1 to June 15, and from August 1 to September 15.

(c) Nutrient Management Plan (NMP). Soil testing will be performed and an NMP will be developed by the Administration. Replace application rates of 708.03.04 as required by the NMP. When a NMP has not been developed, apply 200 lb per acre of 20-16-12 (83% UF with MAP & SOP) fertilizer as the NMP rate for Turfgrass Sod Establishment.

(d) Nutrient Management Reporting. Record the fertilizer analysis, the square yards covered, and the pounds of fertilizer applied on the Nutrient Management Reporting Form. Submit the Form within 24 hours after applying fertilizer.

708.03.02 Grade Repair. Refer to MSHA Section 705.03.04.

708.03.03 Preparing Soil. Refer to MSHA Section 705.03.05.

708.03.04 Application Rates. Apply materials according to Table 1.

TURFGRASS SOD ESTABLISHMENT
TABLE 1 - APPLICATION RATES [a, b, c, d]

MATERIAL	POUNDS PER SQUARE YARD	POUNDS PER ACRE
SOIL AMENDMENTS per Nutrient Management Plan for topsoil or other specified soil substrate		
Compost	0 to 1.033	0 to 5000
Gypsum	0 to 0.455	0 to 2200
Limestone	0 to 0.930	0 to 4500
Sulfur	0 to 0.052	0 to 250
INITIAL FERTILIZER		
20-16-12 (83% UF with MAP & SOP)	0 to 0.041	0 to 200
or one or more of the following		
38-0-0 (UF)	0 to 0.021	0 to 100
11-52-0 (MAP)	0 to 0.036	0 to 175
0-0-50 (SOP)	0 to 0.041	0 to 200
SEED MIXES; select one		
SHA Turfgrass Seed Mix, applied to roadsides, facilities, and other designated areas	0.041	200
or		
SHA Special Purpose Seed Mix, applied to slopes 4:1 and steeper within four miles of a State airport, and other designated areas.	0.041	200
ADDITIVE SEED; when required per Table 1		
SHA Temporary Seed Mix	0.006	25
STRAW MULCH	0.826	4000
WOOD CELLULOSE FIBER to secure straw mulch	0.155	750
REFERTILIZING[d]		
37-0-0 Sulfur Coated Urea (SCU)	0.021	100

Notes:
[a]For existing topsoil and salvaged topsoil, the application rates will be included in the Contract documents. For furnished topsoil, the application rates will be developed for the approved source of supply
[b]When no NMP has been developed, apply 200 lb per acre of 20-16-12 initial fertilizer.
[c]UF = Ureaform; MAP = Monoammonium Phosphate; SOP = Sulfate of Potash. When application rate of 20-16-12 fertilizer is below 200 lb. per acre, apply UF, MAP, and SOP per NMP.
[d]Refer to 705.03.06(d) and 705.03.09(c). Apply Refertilizing when included in the Contract documents.
Apply compost, gypsum, limestone, sulfur, and initial fertilizer at rates specified in the NMP.

708.03.05 Initial Fertilizer. Apply initial fertilizer after preparing soil, or after installing sod, per Table 1. When sodding from November 16 to February 29, apply initial fertilizer during March, and apply refertilizing in conformance with Section 708.03.12 during April.

Use spreaders, drills, or other approved machinery. Machinery shall be capable of uniformly placing fertilizer at the specified rate. Calibrate equipment before application. Apply materials accurately and uniformly to avoid misses and overlaps. Do not operate machinery during windy weather that may interfere with uniform application.

708.03.06 Transporting and Handling Sod. Transport and install turfgrass sod within 48 hours after harvest. Handle sod without excessive breaking, tearing, or loss of soil.

708.03.07 Placing Sod. Place sod neatly over the soil surface. Ensure that sod edges are tightly abutted. Do not overlap edges of sod or leave gaps between strips of sod.

708.03.08 Securing. Install fasteners in locations where sod may be dislodged by water flow. Secure turfgrass sod to the soil of ditches and slopes with at least two fasteners per strip spaced no more than 2 feet apart. Drive the fasteners through the sod and firmly into the soil, so there is no gap at the top of the fastener.

708.03.09 Firming...Tamp or roll turfgrass sod after installation and securing sod to close press the sod firmly into the soil. Hand tampers shall weigh approximately 15 pounds with a flat surface of approximately 100 square inches. Rollers shall weigh approximately 40 pounds per foot of width.

708.03.10 Initial Watering. Gently apply water with a sprinkler or water-breaker nozzle over the surface of the sod. Do not allow water to cause erosion or to displace the sod. Perform the first watering within 4 hours after placing sod. Wet the soil to a depth at least 2 inches below the sod.

708.03.11 Installation Acceptance. Submit a request for Installation Phase Acceptance when operations are completed. Inspection will be conducted to verify completion. Installation Phase Acceptance will be granted at that time.

708.03.12 Establishment Phase. The Establishment Phase will begin upon Installation Phase Acceptance. Perform the following during the Establishment Phase.

(a) Period of Maintenance. Maintain areas of sod until Final Acceptance.

(b) Required Maintenance. Perform the following during the Establishment Phase.

Watering. Apply water to ensure survival of sod in good condition. Apply water with approved machinery. Do not allow water to cause erosion, or to displace the sod.

Reset Sod. When sod is not firmly fastened to the soil, repair the unsecured areas using fasteners as needed or as directed.

Sod Replacement. When sod does not meet acceptance standards, remove the unacceptable sod and install new sod as needed or as directed.

Mowing. Mow sod before it grows to a height of 12 in. when directed. Use approved machinery to cut to a height of 3 to 5 in.

(c) Refertilizing. Refer to Section708.03.05 and apply 37-0-0 SCU Refertilizing as specified in Table 1 at least 1 month after initial fertilizer was applied. Do not apply Refertilizing from November 15 thru March 1.

708.03.13 Final Acceptance. The Contract Administrator or Designee will complete an inspection of sod height, color, and percent groundcover. When it is not possible to perform the inspection, Final Acceptance will be delayed until inspection is possible. Any deficiencies found during the inspection shall be included in the Punch List requirements for the project. Complete the Punch List requirements as directed.

Final Acceptance will be granted after all operations have been completed, and when the turfgrass sod has grown at least 4 inches tall, exhibits dark green color, is firmly rooted into the soil, and is at least 99 percent groundcover.

708.04 MEASUREMENT AND PAYMENT.

Turfgrass Sod Establishment will be measured and paid for at the Contract unit price for one or more of the items specified in the Contract Documents. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work

ITEM No. 7015 – Turfgrass Sod Establishment - will be measured and paid for at the Contract unit price per square yard. Preparing soil, applying fertilizer in conformance with the Nutrient Management Plan, installing sod and staples, and initial watering, resetting sod, sod replacement, and mowing is incidental to this item and will not be measured for payment.

708.04.01 Applying Limestone to Non-topsoiled Areas will not be measured for payment but shall be considered incidental to Turfgrass Sod Establishment item.

708.04.02 Applying Sulfur to Nontopsoiled Areas will not be measured for payment but shall be considered incidental to Turfgrass Sod Establishment item.

708.04.03 Applying Gypsum to Non-topsoiled Areas per ton will not be measured for payment but shall be considered incidental to Turfgrass Sod Establishment item.

708.04.04 Applying Compost to Non-topsoiled Areas will not be measured for payment but shall be considered incidental to Turfgrass Sod Establishment item.

708.04.05 Amending furnished topsoil will not be measured but the cost will be incidental to the Contract unit price for the Placing Furnished Topsoil item specified in the Contract Documents.

708.04.06 Applying Fertilizer to Non-topsoiled Areas will not be measured for payment but shall be considered incidental to the Turfgrass Sod Establishment item.

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SECTION 709 – SOIL STABILIZATION MATTING
(this task is incidental to Item 7016 and Item 7017)

DELETE: **SECTION 709 - SOIL STABILIZATION MATTING** of the Maryland Department of Transportation, State Highway Administration's latest edition of "Standard Specifications for Construction and Materials" and all additions and revisions thereto.

INSERT: The Following:

SECTION 709 - SOIL STABILIZATION MATTING

709.01 DESCRIPTION.
For areas that are at final grade, install soil stabilization matting in conjunction with permanent vegetation groundcover per Section 705 and/or 706 and/or 707), or as specified.

For areas that are not at final grade or that will be redisturbed at least 6 months after seeding operations are completed, install soil stabilization matting in conjunction with Section 704 or 705.

Performance of Soil Stabilization Matting as specified herein complies with all requirements of the Maryland Department of the Environment for permanent seeding.

Only the Soil Stabilization Matting Specifications pertinent to this Contract are included in this Section.

709.02 MATERIALS.

Topsoil	Section 920
Turfgrass Sod	Section 920.06.03
Soil Stabilization Matting	Section 920.05.01
Fasteners	Section 920.05.02
Water	Section 920.09.01

709.03 CONSTRUCTION.

709.03.01 Modification Request. Certain types of matting may be substituted for other matting when the substitution provides improved erosion protection.

Submit a written Modification Request to substitute one type of soil stabilization matting for another type in areas where specific types of matting have been specified.

The Contract Administrator or Designee will evaluate the Request. If granted, a notice of approved modification will be returned within 14 days after the request is received.

The following modifications and others may be approved.

(a) Turfgrass Establishment: Type D SSM in lieu of Type A SSM.

(b) Turfgrass Establishment: Type A SSM in lieu of Type E SSM.

709.03.02 Soil Preparation. Perform operations when soil moisture and weather conditions are suitable. Cease operations when soil is frozen, saturated, or when conditions are otherwise unsuitable. For Type A and Type B Soil Stabilization Matting, firm the soil with a roller as specified in Section 708.03.10 after seeding. Perform operations for the SSM type as follows.

(a) Type A. Prepare soil and seedbed for Turfgrass Establishment per Section 705, or for other specified vegetation, but do not apply mulch.

Install SSM as specified in Section 709.03.03 through 709.03.06. immediately after seeding and fertilizing.

(b) Type B. Prepare soil and seedbed for Turfgrass Establishment per Section 705, or for other specified vegetation, but do not apply mulch.

Firm soil with an approved roller to ensure uniform soil surface and firmness. The roller shall weigh approximately 40 lb. per ft of width.

Install SSM as specified in Section 709.03.03 through 709.03.06 immediately after seeding, fertilizing and rolling are completed.

(c) Type C. Prepare soil and firm with an approved roller to ensure uniform soil surface and firmness.

Install Type C SSM as specified in Section 709.03.03 through 709.03.06 and infill with soil per Section 709.03.07.

(1) Immediately perform Turfgrass Sod Establishment per Section 708, but do not till; or

(2) Immediately perform Turfgrass Establishment per Section 705, but do not till or apply mulch, and then cover with Type B SSM; or

(3) Immediately install other specified material and vegetation.

(d) Type D. Prepare soil and seedbed for Meadow establishment per Section 707, but do not apply mulch.

Install SSM as specified in Sections 709.03.02 through 709.03.05 immediately after seeding and fertilizing.

(e) Type E. Prepare soil and seedbed for Meadow establishment per Section 707, or for other specified vegetation, but do not apply mulch.

Install SSM as specified in Sections 709.03.03 through 709.03.06 immediately after seeding and fertilizing.

709.03.03 Unrolling. Unroll SSM in the direction of the flow of water. Lay matting smoothly in firm, uniform contact with the soil surface, without stretching or tenting.

709.03.04 Overlapping. Overlap SSM with the upslope portion on top. Overlap longitudinal edges at least 2 inches and ends at least 6 inches. Do not install longitudinal overlaps in channel bottoms.

709.03.05 Keying-in. Key-in matting by digging a trench, fastening and backfilling one or more edges of the matting into the bottom of the trench.

(a) Type of Matting. Key-in the areas described in Table 1 for each type of matting:

SOIL STABILIZATION MATTING TABLE 1 - AREAS OF MATTING TO KEY-IN	
MATTING TYPE	**AREA OF MATTING**
A, B	Uppermost or leading-edge.
A, B, D	Edges adjacent to pavement, catch basins, and structures.
B	Lowermost or toe-edge.
B	Check trenches; folds of matting perpendicular to water flow every 40-45 ft.
C	All edges.
C	Check trenches; folds of matting perpendicular to water flow every 20-25 ft.
D	Edges exposed to flow in BSM, ponds, swales, channels, slopes. All edges when installed in streams.
E	As directed.

(b) Trenching. Trench into the soil perpendicular to the flow of water to at least 6 in. depth.

(c) Fastening. Install fasteners per Section 709.03.06 through SSM into the bottom of the trench.

(d) Backfilling. Backfill the trench with firmly tamped soil and secure the matting over the backfilled area.

709.03.06 Fastening. Secure SSM with fasteners driven perpendicular to the soil grade, and flush with the surface of the matting.

(a) Fastener Selection. Refer to Section 920.05.02 and use fasteners of the shape and length approved for the matting type according to Table 2.

When more than one fastener is acceptable for a type of matting per Table 2, install the fastener type and length best suited to the installation conditions to ensure that the matting is securely installed, or as directed.

(b) Placement of Fasteners. Install fasteners at the specified distance apart as required for the matting type and the area of matting according to Table 3.

SOIL STABILIZATION MATTING TABLE 2 - FASTENER SELECTION					
MATTING TYPE	**FASTENER SHAPE**	**FASTENER LENGTH [1]**			
		6 inches	**8 inches**	**12 inches**	**18 inches**
A & E	U-Shaped Staple	X	X		
	Circle-Top Pin	X	X		
	Round Head Pin	X	X		
	T-Head Pin	X	X		
B	U-Shaped Staple		X	X	
	Fabric Pin			X	X
C	U-Shaped Staple			X	X
	Fabric Pin			X	X
D	U-Shaped Staple in BSM, Ponds, Swales, Slopes	X	X	X	
	U-Shaped Staple or Fabric Pin in Channels, Streams		X	X	X
Note: [1]X = Denotes fasteners acceptable for the matting type.					

FASTENER PLACEMENT		
MATTING TYPE	**AREA OF MATTING**	**MAXIMUM DISTANCE BETWEEN FASTENERS (Inches)**
A, B, C, D	Uppermost or Leading-Edge of Matting	6
A, B, C, D, E	Overlapping Edges of Matting	18
A, B, C, D	Center of channel/ditch	18
A, B, C, D	Lowermost or Toe-Edge of Matting	18
A, B, C, D, E	Throughout Matting	24
B	In Folds Every 40 to 45 ft	12
C	In Folds Every 20 to 25 ft	12

709.03.07 Watering. Gently apply water with a sprinkler or water-breaker nozzle immediately after installation is completed as follows.

(a) For Types A, B, and D SSM, apply water over the surface of the matting to wet the soil at least 2 inch depth or as directed.

(b) For Type C SSM, apply water over the sod, or over other specified material, to wet the soil at least 2-inch depth.

(c) For Type E SSM, apply water over the surface of the matting as needed to settle the matting and soil.

709.03.08 Installation Phase Acceptance. Inspection will be conducted to verify that matting and vegetation installation operations were completed as specified. Installation Phase Acceptance will be granted at that time.

709.03.09 Establishment Phase. The Establishment Phase will begin upon Installation Phase Acceptance. Perform the following during the Establishment Phase.

(a) Period of Maintenance. Maintain areas of soil stabilization matting until Final Acceptance.

(b) Required Maintenance. Perform the following during the Establishment Phase.

Watering. Apply water to ensure survival of the seeded species or sod as needed. Apply water with approved machinery. Do not allow water to cause erosion or to displace the matting, seed, or sod.

Reset Matting. When matting is not firmly fastened to the soil, or if keyed-in areas or check trenches are not secure, repair the unsecured areas using fasteners as needed or as directed.

Seeding Repair. When Turfgrass Establishment or other seeded vegetation has not met acceptance standards, remove Type A, B, C, D, or E SSM and refer to Section 705.03.09 and perform over seeding or reseeding as directed. Prepare soil, reseed the specified vegetation, and apply water. Install new matting unless the original matting is approved for reuse.

Sod Replacement. When Turfgrass Sod Establishment does not meet acceptance standards, refer to Section 708.03.12 and remove the unacceptable sod and install new sod.

709.03.10 Final Acceptance. The Contract Administrator or Designee will complete an inspection of the installed soil stabilization matting and vegetation establishment in conformance with the pertinent specifications. When it is not possible to perform the Inspection, Final Acceptance will be delayed until Inspection is possible.

Any deficiencies found during the inspection shall be included in the Punch List requirements for the project. Complete the Punch List requirements as directed. Final Acceptance will be granted when the SSM is secure, and when the specified vegetation has met acceptance standards.

709.04 MEASUREMENT AND PAYMENT.

The payment will be full compensation for all material, fasteners, water, labor, equipment, tools, disposal fees and incidentals necessary to complete the work. The measurement will be the area actually covered by matting. Payment for Turfgrass Establishment or other specified vegetation will be measured and paid for separately.

(a) ITEM No. 7016 – Soil Stabilization Matting: Type A - will be measured and paid for at the Contract unit price per square yard.

(b) ITEM No. 7017 – Soil Stabilization Matting: Type B - will be measured and paid for at the Contract unit price per square yard.

SECTION 714 – TREE FELLING AND STUMP REMOVAL
(this task is incidental to Item 7023)

SECTION 714 – TREE FELLING AND STUMP REMOVAL - as specified in SECTION 714 of the Maryland Department of Transportation, State Highway Administration's latest edition of the "Standard Specifications for Construction and Materials" as amended below:

CHANGE: **714.03 Construction.**

714.03.06 Equipment.

ADD: The following to end of paragraph:

Tree stumps shall be removed by using a self-propelled mechanical grinder.

7.14.03.08 Operations.

ADD: The following:

(f) Stumps – General. Grind all tree stumps and any exposed root system to a minimum dept of eight inches (8") below finished grade. Remove and dispose off-site all wood debris and stump grindings. Within 24 hours after grinding, backfill the stump hole and tree root slots with furnished topsoil including seed mulch and fertilizer to the finished grade. Compact backfill as directed by the Contract Administrator or Designee.

DELETE: **Section 714.04 MEASUREMENT AND PAYMENT** in its entirety.

INSERT: Tree Removal will be measured for payment under the item listed below.

Tree Stump Removal will be measured for payment under the items listed below.

The tree size (in inches) will be determined by measuring the circumference of the tree six inches (6") above the ground line. This measurement is to be divided by 3.1416 to determine the diameter of the stump. The payment shall be full compensation for furnishing the appropriate size stump grinder, removal and disposal off-site or all wood debris and stump grindings, grinding of the exposed root system, and for all labor, material, equipment, tools and incidentals necessary to complete the work.

(a) ITEM No. 7023 – Tree Stump Removal Using Stump Grinder – Tree Size: Up to 12 Inches in Diameter Measured at 6 Inches Above Ground Line - will be measured for payment at the Contract unit price per each.

714.04.01 Placing Furnished Topsoil Including Seed, Mulch and Fertilizer will be measured for payment as specified in Section 701.

714.04.02 Tree Stump removal by excavation shall not be permitted.

714.04.03 Under no circumstances is **Item 7027** – **Tree Root Pruning** to be used as payment for removal of the surface root system for any of the Tree Stump Removal items. Removal of the surface root system made necessary due to the removal of the tree stump is incidental to the Contract unit price paid under the pertinent Tree Stump Removal Using Stump Grinder item.

SECTION 715 – TREE ROOT PRUNING
(this task is incidental to Item 7027)

DELETE: Section 715 – TREE ROOT PRUNING of the current Maryland Department of Transportation, State Highway Administration's "Standard Specifications for Construction and Materials", in its entirety.

INSERT: The following:

SECTION 715 – TREE ROOT PRUNING

715.01 DESCRIPTION.
Prune tree roots as specified and directed by the Contract Administrator or Designee.

715.02 MATERIALS.
Furnished Topsoil Section 920.01.02 and Section 705.

715.03 CONSTRUCTION.

715.03.01 Permits. Tree Root Pruning performed by the Contractor is under a permit granted by the Maryland State Forester's Office issued to the Department of Transportation's Division of Highway Services. Under the Maryland Roadside Tree Law, all trees growing on a publicly maintained right of way are considered part of the State Forest. Tree Root Pruning shall be performed as directed by the Contract Administrator or Designee, and by the Tree Maintenance Section of the Division of Highway Services.

715.03.02 Maryland Licensed Tree Expert (LTE). A LTE shall perform or directly supervise the Operations in conformance with the Maryland Roadside Tree Law, the Forest Conservation Act, and accepted arboricultural practices.

715.03.03 Meetings. Meet with the Contract Administrator or Designee, the LTE, and a representative from the Tree Maintenance Section prior to commencing with any work.

715.03.04 Utilities Marking and Conflicts. Refer to Section 875 when included in the Contract Documents.

(a) Utilities Marking. Contact 'Miss Utility' or another approved service to identify and mark utilities in the rights-of-way.

(b) Conflicts. Notify the Contract Administrator or Designee of conflicts that may affect operations.

715.03.05 Equipment. Use a trenching machine, vibratory knife, rock saw, or other equipment and tools that conform to accepted arboricultural practices.

715.03.06 Operations. Meet ANSI A300 standards for Tree Care Operations. Cleanly cut tree roots to a depth of 24 in. along the approved line, and immediately backfill trenches with excavated soil.

715.03.07 Cleanup and Restoration. Promptly remove and dispose off-site all wood debris and other waste materials. Existing structures, plants, and turfgrass must not be damaged. Keep turfgrass areas, paved surfaces, and sidewalks clean. Restore ruts and damaged turfgrass areas by seeding as specified in Section 705. Restore areas of root pruning, ruts and damaged turfgrass areas by seeding in conformance with Section 705 or perform Turfgrass Sod Establishment in conformance with Section 708 when directed, before beginning other landscape operations.

715.03.08 Damage Repair. Do not injure vegetation to be preserved. Injuries to bark, trunks, or limbs shall be repaired by cutting, smoothing, and tracing the bark in accordance with ANSI A300 Standards for Tree Care Operations.

715.03.09 Damage Compensation. Monetary compensation assessed against the Contractor for damage or loss of trees will be calculated and assessed in conformance with the current Guide for Plant Appraisal of the Council of Tree & Landscape Appraisers.

715.04 MEASUREMENT AND PAYMENT.

ITEM No. 7027 – Tree Root Pruning - will be measured and paid for at the Contract unit price per linear foot. The payment will be full compensation for all labor, material, equipment, tools, and incidentals necessary to complete the work.

715.04.01 Backfill. The furnishing and placing of any necessary topsoil backfill will be measured for payment as specified in Section 701 of this Contract Document.

715.04.02 Under no circumstances is Item 7027– Tree Root Pruning to be used as payment for removal of the surface root system for any of the Tree Stump Removal items. Removal of the surface root system made necessary due to the removal of the tree stump is incidental to the Contract unit price paid under the pertinent Tree Stump Removal Using Stump Grinder item.

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SECTION 721 – MCDOT ADDITIONAL WATERING OF SOD AND SEED
(this task is incidental to Item 7028)

721.01 DESCRIPTION.
This work is for the additional watering of seed and sod planted material, areas once the specified initial watering requirement has been satisfactorily completed.

721.02 MATERIALS.

Water	Section 920.09.01

721.03 CONSTRUCTION.
The Contractor shall maintain all plant material in conformance with the Specifications in Section 705 and Section 708 and the following:

(a) The Contractor shall monitor the condition of the sod and/or seeded areas to maintain adequate moisture in the upper 4 in. of soil. When additional watering is necessary, the Contract Administrator or Designee is to be notified. If the Contract Administrator or Designee concurs, the Contractor shall begin watering immediately.

(b) If the Contractor fails to water when and as required, the Contract Administrator or Designee will notify the Contractor that watering shall begin within 24 hours. The Contractor shall continue to water daily until all plant material in the Contract has been watered unless otherwise directed by the Contract Administrator or Designee.

721.04 MEASUREMENT AND PAYMENT.
Water will be measured by means of satisfactorily installed meters, by measurements of tank capacities, or by acceptable documentation of tanks of predetermined capacity. The Contractor shall furnish the Contract Administrator or Designee with measurements and capacities to provide a complete and accurate record of the quantity of water furnished and applied. The payment will be full compensation for all water, material, labor, equipment, tools, and incidentals necessary to complete the work. No compensation will be allowed for water wasted or excess watering as determined by the Contract Administrator or Designee.

ITEM No. 7028 – Additional Watering of Sod and Planted Seed Areas - will be measured and paid for at the Contract unit price per 1,000-gallon units of water applied to the plant material.

721.04.01 Any Sod or Seeded Areas that do not survive due to lack of sufficient watering, as determined by the Contract Administrator or Designee, must be satisfactorily reestablished by the Contractor at no cost to the County.

721.04.02 No payment shall be made if the Contractor fails to notify the Contract Administrator or Designee 48 hours in advance of applying additional watering. Prior notification must be provided to allow the Contract Administrator or Designee sufficient opportunity to monitor and verify the quantity of additional watering applied to the sod and/or seeded areas.

END OF SECTION