



City of Rockville
Rockville, Maryland
INVITATION FOR BIDS #16-22

**THOMAS FARM COMMUNITY CENTER
PERVIOUS PARKING LOT REPLACEMENT PROJECT**

**Bids Due by 2:00 PM ET
JUNE 30, 2022**

ISSUED BY:

Procurement Department
City of Rockville, City Hall
111 Maryland Avenue, 1st Floor
Rockville, Maryland 20850
Phone: (240) 314-8430
Fax: (240) 314-8439

A 5% Bid Bond is required for this Invitation for Bid

Any individual with a disability who would like to receive the information in this publication in another form may contact the ADA Coordinator at 240-314-8100, TDD 240-314-8137

MFD Outreach Program

It is the intent of the City of Rockville to increase opportunities for minority, female and disabled (MFD) owned businesses to compete effectively at supplying goods, equipment, and services to the City, within the constraints of statutory purchasing requirements, departmental needs, availability, and sound economical considerations. Suggested changes and MFD enhancements to this solicitation's requirements for possible consideration and/or inclusion in future solicitations are encouraged. Any questions regarding MFD outreach or questions/concerns regarding the City's bidding process should be addressed to Pat Ryan, pryan@rockvillemd.gov or 240-314-8434.



Statement of "No Bid Submittal"

If you do not intend to submit on this requirement, please complete and return this form prior to date shown for receipt of bids to the buyer listed in this IFB by **email only to pryan@rockvillemd.gov**.

I/WE HAVE DECLINED TO BID ON IFB #16-22, titled **Thomas Farm Community Center Pervious Parking Lot Replacement Project** for the following reason(s): [Please place a check mark (✓) next to the reason(s) as applicable]

(✓)	Reason
<input type="checkbox"/>	Proposal requirements too "restrictive".
<input type="checkbox"/>	Insufficient time to respond to the Invitation for Bids.
<input type="checkbox"/>	We do not offer this service.
<input type="checkbox"/>	Our schedule would not permit us to perform.
<input type="checkbox"/>	Unable to meet requirements.
<input type="checkbox"/>	Unable to meet insurance or bond requirements.
<input type="checkbox"/>	Scope of Services unclear (please explain below).
<input type="checkbox"/>	Other (please specify below).

REMARKS:

Are you a Minority, Female, or Disabled (MFD) business? _____ Yes _____ No

Company Name: _____

Mailing Address: _____

Telephone Number: _____ Email Address: _____

 Authorized Signatory

 Printed Name

 Title

 Date

**CITY OF ROCKVILLE
 ROCKVILLE, MARYLAND**

**INVITATION FOR BIDS #16-22
 THOMAS FARM COMMUNITY CENTER
 PERVIOUS PARKING LOT REPLACEMENT PROJECT
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**INVITATION FOR BID #16-22
THOMAS FARM COMMUNITY CENTER
PERVIOUS PARKING LOT REPLACEMENT PROJECT**

SECTION I: PROJECT OVERVIEW

1.1 SECURED BIDS will be received electronically via a City designated bid receipt software solution until **2:00 PM ET on June 30, 2022**. The bidder assumes full responsibility for the timely delivery of a bid via the designated solution. Bids delivered in any other fashion will not be considered. Properly submitted bids will be opened in a virtual environment after the time set for receipt of bids and will be read aloud via a City telepresence software solution at the phone number and/or web address provided by the City and contained within this solicitation.

Submission of a bid electronically is consent by the bidder to conduct any or all elements of the procurement by electronic means, in accordance with the terms of this invitation for bids.

Bids presented after the bid receiving deadline will not be received for any reason. The official time clock for receiving bids will be that of the City's computer server system, located at Rockville City Hall. In order to be considered, bids must be received on or before 2:00 p.m (Rockville Server Time). Therefore, a bid submitted at 2:00 p.m. is acceptable, where a bid received a fraction of a second after 2:00 p.m. (Rockville Server Time) is late and will not be accepted.

ATTENTION: BIDDERS ARE HEREBY NOTIFIED THAT ROCKVILLE SERVER TIME MAY DIFFER FROM THAT OF OTHER ELECTRONIC DEVICES, COMPUTER SOFTWARE AND COMPUTER HARDWARE THAT MAY BE USED TO ELECTRONICALLY SUBMIT THE BID. BIDDERS ARE RESPONSIBLE FOR ALLOWING ADEQUATE TIME TO SUCCESSFULLY DELIVER THE BID TO THE REQUIRED ELECTRONIC LOCATION BY THE REQUIRED TIME.

1.2 SITE LOCATION

The parking lot replacement project is located at 700 Fallsgrove Drive, Rockville, Maryland 20850. The project limits are shown on Appendix A.

1.3 BACKGROUND

The parking lot was built in 2008 and was the first time a pervious concrete parking lot system was introduced and installed on a City of Rockville project. At the time, this pavement system was very new to our region and since the initial installation, several engineering design requirements have changed with the placement methods, jointing, temperature requirements, curing methods and the qualifications required for installation of this pavement. Over the years, the pervious concrete pavement at the site has experienced distress, some of it severe, including raveling of the surface aggregate, cracking of the pervious concrete, and horizontal separations between the pervious concrete and the abutting curbs.

In 2017, the City of Rockville hired ECS Mid-Atlantic to conduct a geotechnical pavement and subsurface exploration survey at the above referenced location. The purpose of this investigation through field exploration and laboratory testing was to determine what was causing the pervious pavement failures and to provide the

City with recommendations for future repairs and replacement options. The complete subsurface exploration report prepared by ECS has been included as an attachment resource for reference. Based on the City of Rockville's review and facility needs, the City has selected Option 7 from the report for this IFB. The City is now seeking proposals to remove and replace existing pervious pavement per the approved design plans and specifications provided by Charles P Johnson.

1.4 PROJECT DESCRIPTION

City of Rockville intends to enter into a Unit Price Task Order with a qualified firm to provide construction and construction-related services including but not limited to the construction, repair, retrofit, alteration and modernization for:

Thomas Farm Community Center Pervious Parking Lot:

Thomas Farm Community Center Pervious Parking Lot is located at 700 Fallsgrove Drive, Rockville, Maryland. This project consists of removing the existing pervious parking lot and replace it with conventional impervious concrete drive aisle and pervious pavement in the parking stalls to avoid traffic related loading issues and other relevant clogging issues associated with the existing pervious concrete parking lot. The existing (112) standard 9-foot wide by 18-foot-long pervious parking stalls will be replaced with the new pervious pavement system. The existing 5.5" thick stone subbase will remain with over drains added. The existing stone subbase in two parking bays will be removed, excavated and new subbase material installed. In addition, eight existing conventional concrete handicapped parking spaces will be replaced to comply with the current Americans with Disability Act (ADA) requirements. Other amenities of the park, utilities, and surrounding curb and gutter will remain intact and open to the public throughout the construction phase.

1.5 SUMMARY DESCRIPTION OF ADD/ALTERNATE ITEMS:

The contractor shall submit a bid for each add alternate section. The City reserves the right to award, to the lowest responsible bidder, the combination of base plus add/alternate sections that will allow the most work to be completed within the City's budget. Please find the descriptions provided for each Add/Alternates below.

Add/Alternate 1: Removal and replacement of concrete ADA parking spaces adjacent to existing park entrance

Remove and dispose of existing concrete ADA parking space pavement. Install new concrete ADA parking space pavement. Install thermoplastic pavement striping and markings in ADA parking spaces.

Add/Alternate Item 2: Extend concrete drive aisle to public right-of-way line for Fallsgrove Drive.

Remove and dispose of existing asphalt driveway from the end of the concrete drive aisle to public right-of-way line for Fallsgrove Drive. Extend the conventional concrete drive aisle to the public right-of-way line.

Add/Alternate Item 3: Replace Asphalt entrance with a concrete driveway entrance.

Remove and dispose of existing asphalt driveway from the public right-of-way line for Fallsgrove Drive to the curb line for Fallsgrove Drive. Install a commercial driveway entrance per MC-302.01. Restripe crosswalk with non-toxic paint.

Add/Alternate Item 4: Replacement of concrete sidewalk at existing park entrance.

At ADA parking spaces adjacent to existing park entrance, remove and dispose of existing concrete sidewalk connection from ADA parking to park entrance and connections to existing sidewalk. Reinstall ADA compliant landing from ADA parking spaces to park entrance, including detectable warning surface, and ramps to connect to existing sidewalk. Limits shown on Thomas Farm Community Center Maintenance Plan.

Add/Alternate Item 5: Replacement of a portion of concrete sidewalk at western end of ADA parking adjacent to the Community Building to provide an ADA compliant connection to the existing sidewalk..

At ADA parking spaces adjacent to existing Community Building, remove and dispose of existing concrete sidewalk connection from ADA parking to existing sidewalk. Reinstall ADA compliant landing from ADA parking spaces, including detectable warning surface, and ramp to connect to existing sidewalk. Limits shown on Thomas Farm Community Center Maintenance Plan.

Add/Alternate Item 6: Replacement of a portion of concrete sidewalk to provide an ADA compliant connection from eastern end of ADA parking to existing Community Building entrance.

At ADA parking spaces adjacent to existing Community Building, remove and dispose of existing concrete sidewalk connection from the eastern end of the ADA parking to the existing Community Building entrance. Reinstall ADA compliant ramp and landings from ADA parking spaces to the existing Community Building entrance. Limits shown on Thomas Farm Community Center Maintenance Plan.

Add/Alternate Item 7: Installation of ADA ramp at existing traffic circle.

Remove and dispose of existing concrete sidewalk and curb and gutter. Install ADA compliant landing, ramps, detectable warning surface, sidewalk connections, and curb and gutter. Limits shown on Thomas Farm Community Center Maintenance Plan.

1.6 PROJECT DURATION/COMPLETION

Contractor shall begin the project within ten (10) calendar days following issuance of a City of Rockville Purchase Order (Notice to Proceed). All work shall be completed within **6 months (180)** consecutive calendar days. The time allotted for the work is of the essence. Liquidated damages shall be assessed at Four Hundred Dollars (\$400) per day for each calendar day the work exceeds beyond the specified time allotted for this contract.

1.7 PERMITS

The City of Rockville is listed as the applicant for all permits in order to waive permit fees. It is the contractor's responsibility to comply with all permit terms and conditions, including maintenance and warranty requirements. The Contractor is responsible for implementation and compliance with all conditions of all permits as listed below:

- **City of Rockville Sediment Control Permit-** This City permit is issued by the Department of Public Works and is attached in **Appendix B**; Permit Number SCP2022-00009

- **City of Rockville Stormwater Permit-** This City permit is issued by the Department of Public Works and is attached in **Appendix C**; Permit Number SMP2022-00008
- **City of Rockville Forestry Permit-** This City permit is issued by the Department of Public Works and is attached in **Appendix D**; Permit Number FTP2022-00024

The Contractor is responsible for all reporting, inspection requests, documentation and notifications associated with these permits. Compensation for implementation of the requirements of the above permits is to be included in appropriate bid items and no special compensation will be made

1.8 PROPOSED SCHEDULE

- A. IFB release date – Thursday, May 12, 2022
- B. Pre-Bid Conference, on -site – Thursday May 19, 2022 @ 1:00 PM ET
- C. Questions Due – Tuesday June 7, 2022 @ 2:00 PM ET
- D. **IFB closing date – Thursday June 30, 2022 @ 2:00 PM ET**

1.9 PRE-BID/SITE VISIT MEETING

An in-person pre-bid meeting will be held **On-Site, 700 Fallsgrove Drive, Rockville, MD** Thursday, May 19, 2022, AT 1:00 PM ET. This meeting is not mandatory; however, bidders are strongly encouraged to attend. Individuals interested in viewing the vicinity of the work are encouraged to do so independently, and in a socially distanced manner, prior to the pre-bid meeting. Bidders shall assume complete responsibility and liability for any and all visits.

1.10 DEADLINE FOR QUESTIONS

Questions pertaining to this bid may be directed to Pat Ryan, Principal Buyer via City’s Collaboration Portal only at <https://contracts.rockvillemd.gov/gateway/Default.aspx> no later than 2:00 PM ET on Tuesday, June 7, 2022. Oral answers to questions relative to interpretation of specification or the bid process will not be binding on the City.

1.11 BID SECURITY

Bids must be accompanied by an electronic copy of the Bid security made payable to the Mayor and Council of Rockville in an amount of five percent (5%) of Bidder’s Total Bid Price and in the form of a Bid Bond (AIA Bid bond form is acceptable) or a certified check, where the original security instrument must be mailed to City of Rockville, Procurement Division, 111 Maryland Avenue, Rockville, Maryland 20850, referencing the solicitation number. The City reserves the right to disqualify any bid, in any instance, where the City cannot locate the mailed, original security instrument. The City shall not be liable for any certified checks it cannot locate, or in any instance where a certified check is cashed by any individual not employed by the City of Rockville.

1.12 AGREEMENT/PERFORMANCE & PAYMENT BONDS

The successful contractor shall be required to complete and electronically return a copy of the City’s Standard Form of Agreement along with Performance and Payment Bonds in the amount of 100% of the Contract award within fifteen days after the date of issuance (samples attached), where two (2) sets of the original agreement and original bonds must be mailed to City of Rockville, Procurement Division, 111 Maryland Avenue, Rockville, Maryland 20850. No other form of performance or payment security will be permitted. Failure by the contractor to provide both the electronic versions and original versions of the agreement or bonds, as required, shall be just cause for annulment of the award and the forfeiture of the Bid Guarantee which shall become the property of the City, not as a penalty but in liquidation of damages sustained. Any instance where the City cannot locate the mailed versions of the agreement or bonds shall be just cause for

annulment of the award and the forfeiture of the Bid Guarantee which shall become the property of the City, not as a penalty but in liquidation of damages sustained.

1.13 SUBMISSION

All bid forms and documents must be electronically filled out, signed, and submitted via one combined pdf document using the City's Collaboration Portal **only** at:

<https://contracts.rockvillemd.gov/gateway/Default.aspx>

At a minimum the file name of the pdf document must contain the Bid Number, Bidders Name and Bid Due Date.

A virtual, telepresence bid opening will be held a few minutes after the bid submittal due date and time. Individuals interested in attending the virtual bid opening must register below:

Register for Virtual Bid Opening Here: [REGISTER](#)

1.14 SUBMITTALS

The following information must be submitted with the bid, **where failure to submit requested items may result in rejection of the bid:**

- Bid Proposal Forms
- A certified check or bid bond must be in the amount of five percent (5%) of the total bid amount, made payable to the Mayor and Council of Rockville as in General Conditions and Inspections to Bidders, #25.
- If the bidder intends to subcontract any or part of the work, then the bidder must identify and include references for each qualified subcontractor, together with a description of the proposed subcontract work. This evidence shall be submitted with the bid. A minimum of three references shall be provided; additional project references may be required to meet all the requirements.

1.15 ADDENDUM

Oral answers to questions relative to interpretation of specifications or the proposal process will not be binding on the City.

To ensure fair consideration for all offerors, any interpretation made to prospective offerors will be expressed in the form of an addendum to the specifications, if such information is deemed necessary for the preparation of proposals or if the lack of such information would be detrimental to the uninformed offeror. Such addendums, if issued, will be posted at City's Collaboration Portal listed below:

<https://contracts.rockvillemd.gov/gateway/Default.aspx>

Please note, that it is the respondent's responsibility to check this site frequently for Addendums, which may impact pricing, this documents requirements, terms and/or conditions. Failure to sign and return an Addendum with your response may result in disqualification of proposal.

1.15 ENVIRONMENTAL IMPACT

It is the intent of the City of Rockville to purchase goods, equipment, and services having the least adverse environmental impact, within the constraints of its codified purchasing requirements, departmental needs, availability, and sound economical considerations. Suggested changes and environmental enhancements for possible inclusion in future revisions of this specification are encouraged.

1.16 NOTICE TO BIDDERS

"Pursuant to 7-201 et seq. of the Corporations and Associations, Article of the Annotated Code of Maryland corporations not incorporated in the State, shall be registered with the Department of Assessments and Taxation, 301 West Preston Street, Baltimore, Maryland 21201 before doing any interstate or foreign business in this state. Before doing any intrastate business in this state, a foreign corporation shall qualify with the Department of Assessments and Taxation."

1.17 US TREASURY IDENTIFICATION NUMBER

Bidders must supply with their bids their U.S. Treasury Department Employers' Identification Number as such number is shown on their Employer's quarterly Federal Tax Return (U.S. Treasury Department Form No. 941). This number shall be inserted on the Bid Sheet in the space provided.

1.18 QUALIFICATION TO CONTRACT WITH PUBLIC BODY

Bidders must be qualified to bid in the State in accordance with Section 14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland which ordains that any person convicted of bribery (upon acts committed after July 1, 1997) in furtherance of obtaining a contract from the state or any subdivision of the State of Maryland shall be disqualified from entering into a contract with the City.

1.19 DISABILITY INFORMATION

ANY INDIVIDUALS WITH DISABILITIES WHO WOULD LIKE TO RECEIVE THE INFORMATION IN THIS PUBLICATION IN ANOTHER FORM MAY CONTACT THE ADA COORDINATOR AT 240-314-8100 TDD 240-314-8137.



**CITY OF ROCKVILLE
MARYLAND**
**Section II: GENERAL CONDITIONS AND INSTRUCTIONS
TO BIDDERS**
CONSTRUCTION 3/2022

1. **TERMS AND CONDITIONS** The terms and conditions of this document govern in event of conflict with any terms of the bidder's proposal, and are not subject to change by reasons of written or verbal statement by the contractor unless accepted in writing. Words and abbreviations which have well known technical or trade meanings are used in accordance with such meanings.
2. **COVID-19 VACCINATION REQUIREMENT** The Contractor agrees to provide the City's Project Manager or designated City staff proof of vaccination of any employee, subcontractor, or agent prior to such employee, subcontractor, or agent, pursuant to this Agreement, entering a City facility and performing any service or making any delivery in close proximity to one or more City employees, members of the Mayor and Council, members of a City board, commission or task force, or members of the general public in the City. Proof of vaccination means the demonstration of having received a full dose of a COVID-19 vaccine authorized by the Food and Drug Administration in a manner and on a schedule consistent with current United States Centers for Disease Control and Prevention guidelines. This paragraph shall not apply to any deliveries made pursuant to this Agreement by a common carrier.
3. **PRE-BID MEETING** A virtual, telepresence pre-bid meeting may be held for the purpose of describing the project and for answering any questions prospective bidders may have. If applicable, time and date will be shown on the bid announcement page.
4. **SUBMISSION OF BID** All bids are to be submitted electronically, in a pdf format file, via a City designated bid receipt software solution. File name of the pdf document must contain the Bid Number, Bidders Name and Bid Due Date. The following forms must be submitted:
 - Bid proposal page(s) in duplicate
 - Non-collusion/non-conviction affidavit
 - Bid Bond
 - Reference sheet
 - Other forms as required in the bid document.

The bid proposal form must be filled out and submitted electronically. Conditional bids and bids containing escalator clauses will not be accepted. All bids must be regular in every respect and no interlineation, exclusions, or special conditions shall be made or included. Bids must contain an electronic or scanned

signature, in the space provided, of an individual authorized to bind the bidder.

5. **LATE BIDS** It is the bidder's responsibility to assure delivery of the bid at the proper time via the designated electronic, software solution. Bids delivered in any other fashion will not be considered. All bids will be publicly opened in a virtual environment after the time set for receipt of bids and read aloud via a City telepresence software solution. Bidders may attend bid openings at the phone number and/or web address provided by the City.
6. **ADDENDUM** In the event that any addenda to this solicitation are issued, all solicitation terms and conditions will retain in effect unless they are specifically changed in the addendum. It is the responsibility of the bidder to make inquiry as to addenda issued. Oral answers to questions relative to interpretation of specifications or the proposal process will not be binding on the City.

Such addendums, if issued, will be posted via the city's designated electronic, software solution

Please note, that it is the bidder's responsibility to check this site frequently for Addendums, which may impact pricing, this document's requirements, terms and/or conditions. Failure to acknowledge an addendum on the bid proposal form or to sign and return an Addendum with your response may result in disqualification of proposal.

7. **BID OPENING** All bids received in response to an Invitation for Bid will be opened at the date, time and place specified and publicly read via a City telepresence software solution. A tabulation of bids received are posted using the City's designated electronic software solution.
8. **ACCEPTANCE OF BIDS** The City will accept or reject any or all bids or any or all items within ninety (90) days after the date of bid opening. Bids may not be withdrawn during that period.
9. **BID WITHDRAWAL** Bids may be electronically withdrawn (deleted) or modified by deleting the initial file uploaded and replacing it with a modified file using the City's electronic, software solution before the time specified for bid opening. Requests received after bid opening will not be considered.
10. **BID AWARD** Award will be made to lowest responsive and responsible bidder complying with all provisions of the Invitation for Bid, provided the price is reasonable and in the best interest of the City to accept. The City reserves the right to award by individual commodities/services, group, all or none or any combination thereof. When a group is specified, all items in the group must be bid.

In determining the responsibility of a bidder, the following criteria will be considered:

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PERVIOUS PARKING LOT REPLACEMENT PROJECT

- a. The ability, capacity and skill of the bidder to perform the contract or provide the services required;
- b. Whether the bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference;
- c. The character, integrity, reliability, reputation, judgment, experience and efficiency of the bidder;
- d. The quality of performance on previous contracts or services;
- e. The previous and existing compliance by the bidder with laws and ordinance relating to the contract or service;
- f. The sufficiency of the financial resources and ability of the bidder to perform the contract or provide the service;
- g. The quality, availability and adaptability of the goods or services to the particular use required;
- h. The ability of the bidder to provide future maintenance and service for the use of the subject of the contract;
- i. Whether the bidder is in arrears to the City or a debt or contract or is in default on a surety to the City;
- j. Such other information as may be secured by the City having a bearing on the decision to award the contract.

11. ELECTRONIC PAYMENT OPTION

The Vendor ACH Payment Program of the City allows payments to be deposited directly to a designated financial institution account. Funds will be deposited into the account of your choice automatically and on time. All transactions are conducted in a secure environment. The program is totally free as part of the Finance Department's efforts to improve customer services. Program information and registration can be viewed at the following web address:

<https://na3.docuSign.net/Member/PowerFormSignin.g.aspx?PowerFormId=8868c030-9f7e-4b3e-88de-c89fbce65636&env=na3&acct=b56266c3-6d22-426a-8422-e01bcbb466ec&v=2>

12. SENSITIVE DOCUMENTS

All project participants needing either electronic or hardcopy documents dealing with critical facilities or sensitive information will be required to make application with, and receive approval from the City prior to receiving this information. Permission to receive said documents (herein referred to as "sensitive") will pertain only to the individual approved. Sensitive documents (either electronic or hardcopy documents dealing with critical facilities or sensitive information) received from the City must be handled consistent with the terms of non-disclosure required for application. Contractor is responsible to restrict use of sensitive documents to project participants only and shall take appropriate measure

to prevent distribution of sensitive document to anyone inside or outside of the Contractor's company except Contractor's project participants. After completion of the project, all sensitive documents remaining in the Contractor's possession shall continue to be governed under the terms of non-disclosure and must continue to be stored in a secure manner. After such records are no longer needed for record purposes, the records shall be destroyed or returned to the City.

Where services require the Contractor to access the City's electronic information resources and/or its electronic data assets, the Contractor shall adhere to all requirements, terms and conditions of the City's Contractor/Vendor On-Site and Remote Access Confidentiality Agreement, which can be viewed at the following web address:

<https://www.rockvillemd.gov/documentcenter/view/36407>

13. DOCUMENTS, MATERIALS AND DATA

All documents materials or data developed as a result of this contract are the City's property. The City 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 City may use this information for its own purposes, including reporting to state and federal agencies. The contractor warrants that it has title to or right to use 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 City.

14. ERRORS IN BIDS

When an error is made in extending total prices, the unit price will govern. Erasures in bids must be initialed by the bidder. Carelessness in quoting prices or in preparation of the bid will not relieve the bidder from performing the contract. Errors discovered after public opening cannot be corrected and the bidder will be required to perform if the bid is accepted.

15. MISTAKES

Bidders are expected to be thoroughly familiar with all bid documents, including all addenda. No consideration will be granted for any alleged misunderstanding of the intent of the contract documents. In the process of assembling and binding the bid documents individual pages or drawings may have been inadvertently omitted. Each bidder shall carefully and thoroughly examine these bid documents for completeness. No claim of any bidder will be allowed on the basis that these bid documents are incomplete.

16. PRICES

Bids must be submitted on a firm, fixed price, F.O.B. destination basis only unless otherwise specified herein.

17. PROMPT PAYMENT DISCOUNTS

All discounts other than prompt payment are to be included in the bid price. Prompt payment discounts will be considered in the evaluation of your bid if the discount on payment is not conditioned on payment being made in less than thirty (30) days from receipt of invoice.

18. **BIDDER'S PAYMENT TERMS** The City will reject as non-responsive a bid under this solicitation, which is conditioned on payment of proper invoices in less than thirty (30) days. However, this does not preclude a bidder from offering a prompt payment discount for payment of proper invoices in less than thirty (30) days.
19. **INTEREST IN MORE THAN ONE BID AND COLLUSION**
Multiple bids uploaded/received in response to a single solicitation from an individual, firm, partnership, corporation, affiliate, or association under the same or different names will be rejected. Reasonable grounds for believing that a bidder is interested in more than one bid for a solicitation both as a bidder and as a subcontractor for another bidder will result in rejection of all bids in which the bidder is interested. However, a firm acting only as a subcontractor may be included as a subcontractor for two or more bidders submitting a bid for the work. Any or all bids may be rejected if reasonable grounds exist for believing that collusion exists among any bidders. Bidders rejected under the above provisions shall be disqualified if they respond to a re-solicitation for the same work.
20. **QUALIFICATION OF THE BIDDER** The City shall have the right to take such steps as it deems necessary to determine the responsibility of the bidder to perform the obligations under the contract and the bidder shall furnish to the City all such information for this purpose as the City may request. The right is reserved to reject any bid where an investigation of available information does not satisfy the City that the bidder is qualified to carry out the terms of the contract.
21. **PLACING OF ORDERS** Orders against contracts will be placed with the Contractor on a Purchase Order (or Procurement Card – currently Mastercard) executed by the Purchasing Agent or designee. Where Master Agreements have been released by the City, orders may be placed directly with the Contractor by authorized personnel in the ordering Department(s). Issuance of all purchase orders will be contingent upon appropriation of funds by the Mayor and Council and encumbrance of such funds after July 1st of each year, as provided by the City Code.
22. **INSPECTION OF THE WORK SITE** Each bidder shall visit the site of the proposed work and become fully acquainted with the existing conditions and fully informed as to any facility involved, and the difficulties and restrictions attending the performance of this contract. Applicable drawings, technical specifications and contract documents should be thoroughly examined. The successful bidder shall in no way be relieved of any obligation due under the executed contract by the failure to examine any form of legal instrument or to visit the site.
23. **RISK OF LOSS AND CONDITION OF SITE** The City makes no representation and assumes no responsibility for the condition of the site or applicable structures on the site. The contractor shall accept the site and the contents thereon in the condition in which they are represented. Any damages or loss whatsoever while the contract is in effect (whether by reason of fire, theft,

breakage or other happenings) shall not relieve the Contractor from any obligations under this contract. The Contractor shall store any materials on site as not to damage the materials and shall maintain such storage areas, as directed by the City, in hazard free condition.

24. **SUBCONTRACTORS** Nothing contained in the contract documents, shall create any contractual relationship between the City and any subcontractor or sub-subcontractor.

Unless otherwise indicated, the successful contractor who will subcontract the delivery, installation, or portion of the work herein described will submit to the Project Manager, prior to the start of work, the following information: 1) A description of the items to be subcontracted, 2) the subcontractor name, address, and telephone number, and 3) the nature and extent of the work utilized during the life of the contract. Subcontractors shall be considered agents of the Contractor, who shall be held fully accountable for all of the subcontractor services, labor, and materials relative to the contract.

25. **BID BOND** Bids must be accompanied by an electronic copy of a certified check or bid bond for five percent (5%) of the total amount of the bid, made payable to the Mayor and Council of Rockville, where the original security instrument must be mailed to City of Rockville, Procurement Division, 111 Maryland Avenue, Rockville, Maryland 20850, referencing the solicitation number. AIA Bond forms are acceptable. Bonds must be issued by a surety licensed to do business in the State of Maryland. The City reserves the right to disqualify any bid, in any instance, where the City cannot locate the mailed, original security instrument. The City shall not be liable for any certified checks it cannot locate, or in any instance where a certified check is cashed by any individual not employed by the City of Rockville. Bid bonds will not be returned.
26. **EXECUTION OF AGREEMENT/BONDS** Subsequent to award and within fifteen (15) calendar days after the prescribed forms are presented to the Contractor, the Contractor shall execute and electronically deliver to the City the required Agreement and Bonds, where two (2) sets of the original agreement and original bonds must be mailed to City of Rockville, Procurement Division, 111 Maryland Avenue, Rockville, Maryland 20850.

Bonds shall be in effect during the original term of the contract and during the guarantee and warranty period required under the Contract, unless otherwise stated therein.

PERFORMANCE BOND The Contractor shall execute and deliver to the City the required Performance Bond for 100% of the bid amount.

PAYMENT BOND For a contract exceeding One Hundred Thousand Dollars (\$100,000) the payment bond shall be in an amount equal to 100% of the bid amount. For a contract exceeding Twenty-Five Thousand Dollars (\$25,000) but not exceeding One Hundred Thousand Dollars (\$100,000) the payment bond shall be in an amount equal to fifty percent (50%) of the bid amount. Bonds shall be executed by a surety

company authorized to do business in the State of Maryland.

The successful bidder may request that in lieu of bonds, the City accept the equivalent in the form of a certified check or other security. Such requests will be accepted or rejected by the City Manager. If rejected, the successful bidder will be required to furnish the bonds or forfeit the bid bond. The City shall not be liable for any certified checks it cannot locate, or in any instance where a certified check is cashed by any individual not employed by the City of Rockville.

Failure of the successful bidder to execute the agreement and supply both the electronic versions and original versions of the required forms within fifteen (15) calendar days shall constitute a default. Any instance where the City cannot locate the mailed versions of the agreement or bonds shall also constitute a default. The successful bidder shall forfeit to the City as liquidated damages for such failure or refusal an amount in cash equal to the security deposited with the bid.

The City may either award the contract to the next low responsive and responsible bidder or re-advertise the bids, and may charge against the original bidder the difference between the amount of the bid and the amount for which a contract for the work is subsequently executed. If a more favorable bid is received by a re-advertising, the defaulting bidder shall have no claim against the City for a refund.

27. **LEGAL REQUIREMENTS** All materials, equipment, supplies and services shall conform to applicable Federal, State, County and City laws, statutes, rules and regulations. The Contractor shall observe and comply with all Federal, State, County and City laws, statutes, rules and regulations that affect the work to be done. The provisions of this contract shall be governed by the laws of the State of Maryland.
28. **INDEMNIFICATION OF THE COUNCIL** The Contractor shall indemnify and save harmless the Mayor and Council from all suits, actions and damages or costs, of every name and description to which the Council may be subjected or put by reason of injury to persons or property as a result of the work, whether caused by negligence or carelessness on the part of the Contractor, or subcontractors or agents thereof.
29. **DELIVERY** Time is of the essence. The Contractor shall expedite the work and achieve substantial completion within the contract time. If time limits are not specified, state the number of days required to make delivery/completion in the space provided. Defective or unsuitable materials or workmanship shall be rejected and shall be made good by the Contractor, notwithstanding that such materials/workmanship have been previously overlooked and accepted.
30. **CHANGES IN QUANTITIES/ITEMS** The City reserves the right to add or delete any item(s) from the bid in whole or in part at the City's discretion as given in the Bid or Proposal wherever it deems it advisable or necessary so to do and such changes shall in no way vitiate the contract nor affect the bid prices for any item or remaining work. Unit prices submitted in the bid shall not

be increased or decreased regardless of changes in quantity. The City may waive minor differences in specifications in bids provided these differences do not violate the specifications' intent nor materially affect the operation for which the items or services are being purchased

The Contractor will be paid for the actual amount of authorized work done or material furnished under any item of the bid at the price bid and stipulated for such item. In case any quantity is increased, the Contractor shall not be entitled to any increased compensation over and above the unit price bid for such item, or any claim for damages on account of loss of anticipated profits should any quantities be decreased. The Contractor shall be responsible for confirming the accuracy of the specified quantities prior to ordering materials or supplies and the City's payment shall be based on the actual quantities incorporated in the work and not the quantities specified in the bid document. The quantities must not exceed the Contract specified quantities without specific written authorization of the Project Manager and it is the Contractor's responsibility to obtain said authorization.

31. **MATERIALS** All materials shall be new and free from defects. They shall be standard products of current manufacture. Unless otherwise noted in the contract documents, the Contractor shall abide by specific manufacturer instructions and recommendations on installation and operation.
32. **BRAND NAME OR EQUAL** Identification of an item by manufacturer's name, trade or brand name, or catalog number is for information and establishment of a quality level desired and is not intended to restrict competition. Bidders may offer any brand which meets or exceeds the specification, unless 'brand name only' is specified. Bids on other makes and/or models will be considered provided the bidder clearly states on the proposal what is being proposed and forwards with the bid complete descriptive literature indicating how the characteristics of the article being offered will meet the specifications. The City reserves the right to accept or reject items offered as an equal.
33. **DEFECTIVE MATERIALS/WORKMANSHIP** Defective or unsuitable materials or workmanship shall be rejected and shall be made good by the Contractor. If the work shall be found to be defective or to have been damaged before final acceptance, the Contractor shall make good such defect in a manner satisfactory to the City, without extra compensation even though said defect or injury may have not been due to any act or negligence of the Contractor.
34. **TIME OF BEGINNING AND COMPLETION** Unless otherwise stipulated in the bid document, the Contractor shall begin work on the Contract within ten (10) working days after the mailing of a purchase order and shall diligently prosecute the same, so that it shall be fully completed within the time as stated in the contract. The Contractor shall not commence any work under the Contract until a written Purchase Order is received from the Purchasing Agent.

35. **FAILURE TO COMPLETE WORK ON TIME/ LIQUIDATED DAMAGES** The Contractor accepts this contract with the understanding and intention to perform fully and in an acceptable manner within the time stated. Should he fail to complete fully, to all intent and purpose, the work specified in the time specified, or within the time as it may have been extended by the City, the Contractor shall pay, for each calendar day that any work shall remain uncompleted, not including Sundays, the sum of \$400 per calendar day or such other amount as specified in the Special Provisions. This sum is hereby agreed upon, not as a penalty, but as liquidated damages and the City shall have the right to deduct the amount of such damages from any moneys due the Contractor under this Contract.

The City shall recover such Liquidated Damages by deducted the amount thereof out of any moneys due or that may become due the Contractor, and if said moneys are insufficient to cover said damages, then the Contractor or the Surety shall pay the amount due upon demand by the City.

36. **AUTHORITY OF THE CITY MANAGER IN DISPUTES** Except as may otherwise be provided by the final agreement, any dispute concerning a question of fact arising under the agreement signed by the City and the Contractor which is not disposed of by the final agreement shall be decided by the City Manager who shall notify the Contractor in writing of his determination. The Contractor shall be afforded the opportunity to be heard and offer evidence in support of the claim. Pending final decision of the dispute herein, the Contractor shall proceed diligently with performance under the agreement signed by the City and the Contractor. The decision of the City Manager shall be final and conclusive unless an appeal is taken pursuant to the City Purchasing Ordinance.

37. **CONTRACT DELAYS/EXTENSION OF TIME** The Contractor shall pursue the contract so as to complete all work within the time allotted in the bid document. The completion date as set in the bid document allows for inclement weather, holidays and coordination with other companies. If the Contractor is delayed in the delivery of the supplies, equipment or services by any act of neglect of the City or by a separate Contractor employed by the City, or by any changes, strikes, lockouts, fires, unusual delays in transportation or delay authorized by the City, the City shall review the cause of such delay and shall make an extension of time if warranted. All claims for extensions must be in written notice sent to the Project Manager within ten (10) calendar days after the date when such alleged cause for extension of time occurred. All such claims shall state specifically the amount of time of the delay the Contractor believes to have suffered. If written notice is not received within the prescribed time the claim shall be forfeited and invalidated.

38. **CONTRACT DELAYS - NO DAMAGE CLAIMS ACCEPTED** The Contractor shall make no claim for extra monetary compensation for delays, whether ordered by the City or not, caused by delays in funding, governmental approvals, private or public companies' actions, inclement weather, site conditions, or from any cause whatsoever. The Contractor shall adjust its

operation to continue the work at other locations under the contract, if available, and as directed by the City. If it is necessary to discontinue the work temporarily, the Contractor shall resume work within 48 hours of notice from the City. The City may adjust the completion date to compensate for the lost day(s) on a day-for-day basis, if the City finds that the Contractor could not make up for such lost day(s) by reallocating its forces or rescheduling the work, up to the time remaining on the original schedule at the time of shutdown.

39. **PROGRESS SCHEDULE AND SCHEDULE OF OPERATIONS** The construction of this project will be planned and recorded with an Activities Chart Project Schedule (AC) and Written Narrative (WN) unless specifically determined to be unnecessary by the Project Manager. The AC Project Schedule and Written Narrative will break down, in detail, the time (working days or completion date) involved in performing major construction activities for the duration of the project. The AC Project Schedule shall be used for the coordination and monitoring of major work under the contract including the activities of subcontractors, vendors and suppliers. The AC Project Schedule shall be prepared in accordance with the requirements of the Maryland State Highway Administration Standard Specifications for Construction and Materials dated January 1982, and the errata and addend thereto, subsequent supplement(s) and the Special Provisions as set forth in this Invitation for Bids, unless otherwise directed or approved by the Project Manager. The schedule shall be consistent with the contract specified completion date(s) and/or working days. The Contractor is responsible for preparing the initial AC Project Schedule and Written Narrative.

Preparation of Initial Schedule - Within 10 calendar days after notification that the Contractor is the apparent successful bidder, the Contractor will complete development of a initial AC Project Schedule and Written Narrative (describing the logical time representations as proposed in the AC Project Schedule), and submit 2 (two) copies of each AC and WN to the Project Manager for review and approval.

Updating Project Schedule: At any time that it becomes apparent the schedule, created as above and approved by the Project Manager, is not being implemented, either because the work or service is ahead or behind schedule, the Contractor shall immediately notify the Project Manager and shall submit a revised, written, updated AC and WN for the Project Manager's review, revision and approval. The contractor shall make every effort to meet the original completion date and/or working days allowed unless otherwise so directed by the Project Manager.

Payment for Schedule AC/WN: No special compensation will be paid for preparing or revising the above project AC/WN as the cost shall be considered incidental to the contract with compensation incorporated into the bid items(s).

40. **SPECIFICATIONS** The Construction Specifications for this contract will be those shown below and additions included in the bid document, if applicable. In the event of conflict, the City determination shall govern. The following specifications and standards, listed below,

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including all subsequent addenda, amendments and errata are made part of this contract to the extent required by the references thereto:

1. Maryland Department of Transportation, State Highway Administration, "Standard Specifications for Construction and Materials" (Maryland Department of Transportation, State Highway Administration), dated January 2008 and all errata and addenda thereto. MDSHA Book of Standards for Highway and Incidental Structures.
2. Montgomery County Department of Transportation "Montgomery County Road Construction Code and Standard Specifications."
3. Standard Specifications of WSSC dated July 2005.
4. Montgomery County Department of Transportation "Design Standards" August 1991.
5. Maryland Dept of the Environment "1994 Standards and Specifications Soil Erosion and Sediment Control"
6. The U. S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices" latest edition.
7. Montgomery County Noise Ordinance.

41. **CONTRACT DOCUMENTS** The contract documents are complementary and what is required by any one shall be binding as if required by all. Words and abbreviations that have well known technical or trade meanings are used in the contract documents in accordance with such recognized meanings. On drawings, the figured dimensions shall govern in the case of discrepancy between the scales and figures. Anything shown on the construction plans and not mentioned in the specifications or mentioned in the specifications and not shown on the plans shall have the same effect as if shown or mentioned respectively in both.

Prior to bidding, the Contractor should obtain clarification of all questions which may have arisen as to intent of the contract document, or any actual conflict between items in the contract documents. Should the Contractor have failed to obtain such clarification, then the City may direct that the work proceed by any method indicated, specified or required, in the judgment of the City, by the contract documents. Such direction by the City shall not constitute the basis for a claim for extra costs by the Contractor. The Contractor acknowledges that he had the opportunity to request clarification prior to submitting his bid to the City and that he is not entitled to a claim for extra cost as a result of failure to receive such clarification.

Any discrepancies which may be discovered during the execution of work between actual conditions and those represented by the contract documents shall be reported to the City and work shall not proceed until written instruction has been received by the contractor from the City.

42. **INTERPRETATION** Any questions concerning terms, conditions and definitions of the contract and bidding regulations shall be directed in writing to the Contract Officer. Any questions concerning the technical specifications and drawings shall be directed in writing to the Project Manager. The submission of a bid shall be

prima facie evidence that the bidder thoroughly understands the terms of the contract documents. The Contractor shall take no advantage of any error or omission in these contract documents.

43. **PRE-CONSTRUCTION CONFERENCE** A pre-construction conference may be held in person or virtually following contract award. The meeting must be attended by the Contractor. No compensation will be made by the City to the Contractor for meetings.

44. **EMERGENCY CONTACT** The Contractor shall provide at least two local telephone numbers which may be used for contacting an official of the Contractor at all times, 24 hours per day, seven days per week: at which numbers person(s) of responsibility will be available to respond to City directives relative to the contract. The Contractor shall have available sufficient personnel and equipment to immediately respond to emergency needs, as determined by the City. There will be no special compensation paid for this requirement but the cost is to be considered incidental to the other contract pay items.

45. **SUPERVISION AND DIRECTION OF WORK** The work shall be under the general supervision of the Project Manager. While it is intended that the Contractor shall be allowed in general to carry on the contract in accordance with such general plan as may appear to the Contractor most desirable, the Project Manager, at the Project Manager's discretion, may from time to time, direct the order in which, and points at which, the work shall be prosecuted and may exercise such general control over the conduct of the work at a time or place, as shall be required, in the Project Manager's opinion, to safeguard the interests of the City, and the Contractor shall have no claims for damages or extra compensation on account of the fact that it shall have been necessary to carry on the work in different sequence from that which the Contractor may have contemplated. The Contractor shall immediately comply with any and all orders and instructions given by the Project Manager, but nothing herein contained shall be considered such an assumption of control over the work by the City or the Project Manager as to relieve the Contractor of any obligations or liabilities under the contract.

46. **INSPECTION** Work and materials will be inspected promptly to see that the same strictly correspond with the drawings and specifications, but if, for any reason, delay should occur in connection with such inspection, the Contractor shall have thereby no claim for damages or extra compensation. Materials and workmanship shall be always subject to the approval of the Project Manager, but no inspection, approval or acceptance of any part of the work or of the materials used therein, nor any payment on account thereof shall prevent the rejection of said materials or work at any time thereafter, should said work or materials be found to be defective or not in accordance with the requirements of the contract. Any costs for any "re-inspection" of the job shall be the responsibility of the contractor.

47. **TERMINATION FOR DEFAULT** The contract may be cancelled or annulled by the City in whole or in part by written notice of default to the Contractor upon nonperformance or violation of contract terms and an award made to next low Bidder, or, articles specified may

be purchased on the open market similar to those so terminated. In either event, the defaulting Contractor (or his surety) shall be liable to the City for costs to the City in excess of the defaulted contract prices: provided, that the Contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause.

48. **TERMINATION FOR CONVENIENCE** This Contract may be terminated, in whole or in part, upon written notice to the Contractor when the City determines that such termination is in its best interest. The termination is effective 10 days after the notice is issued, unless a different time is given in the notice. The City is liable only for payment for goods and services delivered and accepted or approved by the City prior to the effective date of the termination.
49. **EMPLOYEES** The Contractor shall employ only competent, skillful persons to do the work, and whenever the Project Manager shall notify the Contractor in writing that any person employed on the work is, in his opinion, incompetent, disobedient, disorderly, discourteous or otherwise unsatisfactory, such person shall be discharged from the work and shall not again be employed for this contract except with the consent of the Project Manager.
50. **NON-WORK DAY** The City observes the following holidays: New Year's Day, Martin Luther King's Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Thanksgiving Friday and Christmas Day, all days of general and congressional elections throughout the State, and a five-day work week.

The Contractor will not be permitted to do any work which requires the services of the City's inspection, supervisory or line and grade forces on the days on which the above mentioned holidays are observed by the City or on Saturdays or Sundays, unless otherwise authorized by the Project Manager in writing. However, the Contractor, with verbal permission of the Project Manager, may be permitted to perform clean up and such other items for which no specific payment is involved on Saturdays and holidays.

The normal number of working hours per day on this Contract will be limited to eight, unless otherwise authorized by the Project Manager in writing.

In case of an emergency, which may require the services of the City on Saturdays, Sundays, holidays or longer than eight hours per day, the Contractor shall request permission of the Project Manager to work. If, in the opinion of the Project Manager the emergency is bona fide, he will grant permission to the Contractor to work such hours as may be necessary. Also, if in the opinion of the Project Manager, a bona fide emergency exists, the Project Manager may direct the Contractor to work such hours as may be necessary whether the Contractor requests permission to do so or not.

51. **LANGUAGE** The Contractor shall appoint one or more crewmembers or supervisors to act as liaison with the City and emergency services personnel. All liaisons shall be fluently bilingual in English and the Contractor's

employees' language(s), and at least one liaison shall be present at each work site at all times when any of the Contractor's employees or agents are at the site.

52. IMMIGRATION REFORM AND CONTROL ACT

The Contractor awarded a contract pursuant to this bid shall warrant that it does not and shall not hire, recruit or refer for a fee, for employment under the contract, an alien knowing the alien is an unauthorized alien and hire any individual without complying with the requirements of the Immigration Reform and Control Act of 1986 (the Act), including but not limited to any verification and record keeping requirements. The Contractor shall further assure the City that, in accordance with the Act, it does not and will not discriminate against an individual with respect to hiring, or recruitment or referral for a fee, of the individual for employment or the discharging of the individual from employment because of such individual's national origin or in the case of a citizen or intending citizen, because of such individual's citizenship status.

53. EQUAL EMPLOYMENT OPPORTUNITY

The Contractor will not discriminate against any employee or applicant for employment because of age (in accordance with applicable law), ancestry, color, national origin, race, ethnicity, religion, disability, genetics, marital status, pregnancy, presence of children, gender, sexual orientation, gender identity or expression, or veteran status. The Contractor will take affirmative action to ensure that applicants are employed, and the employees are treated fairly and equally during employment with regard to the above. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment, layoff or termination, rates of pay or other form of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Contractors must also include the same nondiscrimination language in all subcontracts.

If the Contractor fails to comply with nondiscrimination clauses of this contract or fails to include such contract provisions in all subcontracts that subcontractors will not discriminate against any employee or applicant for employment in the manner described above, this contract may be declared void AB INITIO, cancelled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further contracts with the City of Rockville. Any employee, applicant for employment, or prospective employee with information concerning any breach of these requirements may communicate such information to the City Manager who shall commence a prompt investigation of the alleged violation. Pursuant to such investigation, the Contractor will permit access to the Contractor's books, records, and accounts. If the City Manager concludes that the Contractor has failed to comply with nondiscrimination clauses, the remedies set out above may be invoked.

54. ETHICS REQUIREMENTS

In accordance with the City's financial disclosure and ethical conduct policy and/or ordinances a prerequisite for payment pursuant to the terms of this contract is that the Contractor may be

required to furnish explicit statements, under oath, that the City Manager, and/or any other officer, agent, and/or employee of the City, and any member of the governing body of the City of Rockville or any member or employee of a Commission, Board, or Corporation controlled or appointed by the City Council, Rockville, Maryland has not received or has not been promised directly or indirectly any financial benefit by way of fee, commission, finder's fee, or in any other manner, remuneration arising from directly or indirectly related to this contract, and that upon request by the City Manager, or other authorized agent, as a prerequisite to payment pursuant to the terms of this contract, the Contractor will furnish to the Mayor and Council of the City of Rockville, under oath, answers to any interrogatories to a possible conflict of interest has herein embodied.

55. **DRAWINGS TO BE FOLLOWED** The approved drawings, profiles and cross sections on file with the City will show the location, details and dimensions of the work contemplated, which shall be performed in strict accordance therewith and in accordance with the specifications. Any deviations from the drawings or specifications as may be required by the exigencies of construction in all cases will be determined by the Project Manager. There shall be no such deviations without the written authorization of the Project Manager. On all drawings, etc., the figured dimensions shall govern in the case of discrepancy between the scales and figures. The Contractor shall take no advantage of any error or omission in the drawings or specifications. The Project Manager shall make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the specifications and of the drawings as construed by the Project Manager whose decision shall be final.
56. **CERTIFICATION** Under no circumstances will Contractors be paid for materials utilized on any City contract unless certified to by the Project Manager. The Contractor must not incorporate any materials into a City project without prior authorization and certification of the Project Manager, unless necessary to eliminate or avoid hazardous conditions. Under these emergency circumstances the responsibility for notification to the Project Manager and quantity/quality confirmation rests with the Contractor and must be obtained within 24 hours of the work.
57. **DECISIONS AND EXPLANATIONS BY PROJECT MANAGER** The Project Manager shall make all necessary explanations as to the meaning and intent of the specifications and drawings, and shall give all orders and directions, either contemplated therein or thereby, or in every case in which a difficult or unforeseen condition arises during the prosecution of the work. Should there be any discrepancies or should any misunderstanding arise as to the intent of anything contained in the drawings and specifications, the decision of the Project Manager shall be final and binding. The Project Manager shall in all cases determine the amount, quality, acceptability and estimates of the work to be paid for under the Contract, and shall decide all questions in relation to the work. In case any questions arise between parties relating to the Contract, such decision and estimate shall be a condition precedent to the right

of the Contractor to receive payment under that part of the Contract which is in dispute.

58. **WORK TO BE DONE AND MATERIALS TO BE FURNISHED** The Contractor shall do all the work and furnish all the labor, materials, tools, and equipment necessary or proper for performing the work required by the Contract, in the manner called for by the drawings and specifications and within the Contract time. The Contractor shall complete the entire work together with such extra work as may be required, at the prices fixed therefore, to the satisfaction of the Project Manager and in accordance with the specifications and drawings.
59. **NOTIFICATION TO OTHER AGENCIES** The Contractor will be responsible for notifying all concerned agencies affected by the work a minimum of 48 hours in advance of any activity, as prescribed by said agencies, including, but not limited to: the Washington Gas, PEPCO, Verizon Comcast Cable, Transcontinental Gas, City of Rockville Utilities Division, Montgomery County Government, State Highway Administration and the Washington Suburban Sanitary Commission. The Contractor must notify MISS UTILITY at 1-800-257-7777 a minimum of 72 hours and no more than 5 working days prior to removal of any pavement or beginning any excavation. There shall be no measurement or direct payment to the Contractor for such notification, working around, the protection of, or repair of damage to such existing utilities caused by the proposed construction activities directly or indirectly.
60. **PERMITS AND REGULATIONS** Unless stipulated elsewhere in these specifications, the Contractor shall be responsible for obtaining and paying for all applicable permits. Where signatures of the City are required in connection with the obtaining of such permits, certificates, etc., the Contractor shall prepare the proper paperwork and present it to the City for signature. City of Rockville Permit fees shall be waived. If the Contractor ascertains at any time that any requirement of this contract is at variance with applicable laws, ordinances, regulations and/or building codes, notification to the Project Manager shall be made immediately and any necessary adjustment to the contract shall be made. Without proper notice to the Project Manager, the Contractor shall bear all costs arising from the performance of work the Contractor knows to be contrary to such laws, ordinances, etc.
61. **EXCAVATION** Unless specifically provided in the specifications, all trench and roadway excavation is hereby unclassified as to the character of materials. The lump sum or unit price, as specified, for or including excavation shall constitute full payment for removal and disposal of all materials, regardless of type, encountered in trenching and roadway excavation, within the limits of this Contract, as necessary and as shown to be removed on the Contract drawings and/or as directed by the Project Manager, except as otherwise provided for under this Contract. All bidders are hereby directed to familiarize themselves with all site conditions including subsurface and the proximity of adjacent features.
62. **SERVICE OF NOTICES** The mailing a written communication, notice or order, addressed to the Contractor at the business address filed with the City, or

to his office at the site of the work shall be considered as sufficient service upon the Contractor of such communication, notice or order; and the date of said service shall be the date of such mailing. Written notice shall also be deemed to have been duly served if delivered in person to the individual or member of the firm or to any officer of the corporation for whom it was intended if delivered or sent by registered or certified mail to the last known address.

63. **PATENT RIGHTS** Whenever any article, materials, equipment, process, composition, means, or things called for by these specifications is covered by letters of patent, the successful bidder must secure, before using or employing such article, material etc., the assent in writing of the Owner or Licensee of such Letters of Patent and file the same with the City.

The said assent is to cover not only the use, employment, and incorporation of said article, material, equipment, process, composition, combination, means, or thing in the construction and completion of the work but also the permanent use of said article, material, etc., thereafter by or on behalf of the City, in the operation and maintenance of the project for the purposes for which it is intended or adapted. The Contractor shall be responsible for any claims made against the City, its agents and employees or any actual or alleged infringement of patents by the use of any such patented articles, etc., in the construction and completion of the work, and shall save harmless and indemnify the City, its agents and employees from all costs, expenses, and damages, including Solicitor's and Attorney's fees which the City may be obligated to pay by reason of any actual or alleged infringement of patents used in the construction and completion of the work herein specified.

64. **CARE AND PROTECTION OF WORK** From the commencement of the Contract until its completion, the Contractor shall be solely responsible for the care of the work and all injury or damage to the same, from whatever cause, shall be made good by the Contractor at the Contractor's own expense, before the final estimate is made. The Contractor shall provide suitable means of protection for all materials intended to be used in the work and for work in progress, as well as completed work.

65. **ABANDONMENT OF OR DELAY IN WORK** If the work under the Contract shall be abandoned by the Contractor, or if at any time the Project Manager shall be of the opinion and shall so certify, in writing, to the Contractor, that the performance of the Contract is unnecessarily or unreasonably delayed, or that the Contractor has violated any of the provisions of the Contract or is executing the same in bad faith or if the work is not fully completed within the time specified for its completion, together with such extension of time as may have been granted, the City by written notice, may order the Contractor to discontinue all work there under, or any part thereof, within the number of days specified on such notice. At the expiration of said time the Contractor shall discontinue the work, or such part thereof, and the City shall have the power, by Contract, or otherwise, to complete said work and deduct the entire cost thereof from any monies due or to become due the Contractor under the Contract. For such completion of

work the City may, for itself or its Contractor, take possession of and use or cause to be used any or all materials, tools, and equipment found on the site of said work. When any part of the Contract is being carried on by the City, as herein provided, the Contractor shall continue the remainder of the work in conformity with the terms of the Contract and in such manner as not to interfere with the City's workmen.

66. **SUBLETTING OR ASSIGNING OF CONTRACT** The City and the Contractor each bind themselves, their partners, successors, assigns and legal representatives of such other parties in respect to all covenants, agreements, and obligations contained in the contract documents. Neither party to the contract shall sublet, sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of the work provided for therein, or of his right, title or interest therein to any person, firm or corporation without the written consent of the other party, nor shall the Contractor assign any monies due or to become due hereunder without the previous written consent of the City.

67. **NO WAIVER OF CONTRACT** Neither the acceptance by the City or its Project Manager nor any order, measurement, certificate or payment of money, of the whole or any part of the work, nor any extension of time nor possession taken by the City or its Project Manager shall operate as a waiver of any portion of the Contract, or any right to damage therein provided. The failure of the City to strictly enforce any provision of this contract shall not be a waiver of any subsequent breach of the same or different nature.

68. **DUTIES, OBLIGATIONS, RIGHTS AND REMEDIES** The duties and obligations imposed by the contract documents and the rights and remedies available there under shall be in addition to and not a limitation of the duties, obligations, rights and remedies otherwise imposed or available by law, unless so indicated.

69. **IMPLIED WORK** All incidental work required by the drawings or specifications for which no payment is specifically provided and any work or materials not therein specified which are required to complete the work and which may fairly be implied as included in the Contract, and which the Project Manager shall judge to be so included, shall be done or furnished by the Contractor without extra compensation. The intent is to prescribe a complete work or improvement which the Contractor undertakes to do in full compliance with the contract documents together with any authorized alterations, special provisions and supplemental agreements.

70. **MEASUREMENT OF WORK AND MATERIAL** The work and material to be paid for will be measured and determined by the Project Manager according to the specifications and drawings, and the working lines that may be given. No allowance will be made for any excess above the quantities required by the specifications, drawings and lines on any part of the work, except where such excess material has been supplied or work done by order of the Project Manager and in the absence of default or negligence on the part of the Contractor. Should the dimensions of any part of the work or of the materials be less than those required by the drawings or

the directions of the Project Manager, only the actual quantities placed will be allowed in measurement.

71. **EXTRA COSTS** If the contractor claims that any instructions by the contract documents or otherwise involve extra compensation or extension of time, a written protest must be submitted to the Project Manager within ten (10) calendar days after receipt of such instructions and before proceeding to execute the work, stating in detail the basis for objection. No such claim will be considered unless so made.
72. **CONTINGENT ITEMS & QUANTITIES** Items and quantities identified as being contingent are provided in the Contract for use when and as directed by the Project Manager. These items shown on the Plans or in the specifications are established for the purpose of obtaining a bid price. The quantities for these contingent items may be increased or decreased without any adjustment to the Contract unit price bid or the contingent items may be deleted entirely from the Contract by the Project Manager without negotiation. The Contractor shall submit no claim against the City for any adjustment to the Contract unit price bid, should the contingent items be increased, decreased or eliminated entirely. Payment for any contingent items used will be made on the basis of the quantities as actually measured and as specified in the Specifications. Materials, Construction Requirements and Basis of Payment shall be as specified elsewhere in the Specifications, Plans or Special Provisions.
73. **CHANGES IN THE SCOPE OR EXTRA WORK** The City, without invalidating the contract, may issue written changes in the work consisting of additions, deletions, or modifications with the contract sum and completion date being adjusted accordingly. All such changes, or additional work must be authorized in writing by the Purchasing Agent prior to starting such work. Costs shall be limited to the cost of materials, labor, field supervision and field office personnel directly involved in and attributed to the change. All costs and/or credits to the City for a change in the work shall be determined by the unit price bid or by mutual agreement.
- The Contractor shall do all work that may be required to complete the work contemplated at the unit prices bid or at a lump sum price to be mutually agreed upon.
- The Contractor shall perform extra work, for which there is no quantity or price included in the Contract, whenever it is deemed necessary or desirable, to complete fully the work as contemplated, and such work shall be done in accordance with the specifications therefore, or in the best workmanlike manner as directed. Where such a price or sum cannot be agreed upon by both parties, or where this method of payment is impracticable, the Project Manager may order the Contractor to do such work on a force account basis, which will be paid for as follows.
74. **FORCE ACCOUNT WORK** When the Contractor is required to perform work as a result of additions or changes to the contract for which there are no applicable unit prices in the contract, the City and Contractor shall make every effort to come to an agreed upon price for the performance of such work. If an agreement cannot

be reached, the City may require the Contractor to do such work on a force account basis to be compensated in accordance with the following:

- A. **Labor.** For all labor and for foremen in direct charge of the specific operations the Contractor shall receive the actual wages for each and every hour that said labor and foremen are actually engaged in such work.
- B. **Materials.** For materials accepted by the Project Manager and incorporated into the project, the Contractor shall receive the actual cost of such materials, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth). Excess materials delivered to the job site and not incorporated into the project will not be paid for and it is the Contractor's responsibility to remove said excess material from the job site.
- C. **Equipment.** For any machinery or special equipment (other than small equipment tools, whether rented or owned), the use of which has been authorized in writing, by the Project Manager the Contractor shall receive the rates agreed upon in writing before such work is begun which price shall include fuel, oil and miscellaneous necessities, or the Contractor shall receive those rates which may be specified elsewhere in the Special Provisions. For the purpose of definition, equipment with a new cost of \$1000 or less will be considered small tools and equipment.
- D. **Materials and Supplies Not Incorporated in the Work.** For materials and supplies expended in the performance of the work (excluding those required for rented equipment) and approved by the Project Manager, the Contractor shall receive the actual cost of such materials and supplies used.
- E. **Subcontractors.** The Contractor shall receive the actual cost of work performed by a subcontractor. Subcontractor's cost is to be determined as in A., B., C., and D. above, plus the fixed fee for overhead and profit allowance computed as in G.
- F. **Superintendence.** No additional allowance shall be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided
- G. **Contractor's Fixed Fee.** The procurement officer and the Contractor shall negotiate a fixed fee for force account work performed pursuant to this specification by his force and by his subcontractors. The City shall pay 10 percent of A as compensation for overhead and profit for the work performed. The Contractor shall proceed diligently with the performance of the force account work to completion. The Contractor's fixed fee shall include an amount equal to the sum of 65 percent of A, which shall include, but not be limited to the following:

(1) Compensation for all costs paid to, or in behalf of, workmen by reason of subsistence and travel allowances, health and welfare benefits, pension fund benefits or other benefits that may be required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed in the work; and

(2) Bond premiums, property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions and Social Security taxes on the force account work.

In addition, the Contractor's fixed fee may include an amount not to exceed 10 percent of B, unless specifically authorized by the Project Manager in advance of the work; 5 percent of D, and 5 percent of E with the exception of that portion chargeable to equipment as defined above.

H. Compensation. The compensation as set forth above shall be received by the Contractor as payment in full for change order work done on a force account basis. At the end of each day, the Contractor's representatives and the Project Manager, shall compare records of the cost of work as ordered on a force account basis. Differences shall be immediately resolved and any unresolved difference shall be brought to the attention of the Project Manager by written notice from the Contractor within two working days of the occurrence.

I. Statements. No payment will be made for work performed on a force account basis until the Contractor furnishes the Project Manager duplicate itemized statements of the cost of such force account work detailed as to the following:

(1) Name, classification, date, daily hours, total hours, rate, and extension for such workmen. Contractor shall provide certified payrolls

(2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment. Contractor shall provide original receipted invoices.

(3) Quantities of materials, prices and extensions. Contractor shall provide original receipted invoices.

(4) Transportation of materials. Contractor shall provide original receipted invoices.

If, however, the materials used in the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the original invoices the statements shall contain or be accompanied by an affidavit of the Contractor which shall certify that such materials were taken from his stock that the quantity claimed was actually used and

that the price and transportation of the material as claimed represent actual cost. Any request for payment under this Section should be submitted in the order outlined by the above.

The Contractor shall be responsible for all damages resulting from work done on a force-account basis, the same as if this work had been included in the original Contract.

Work performed without previous written order by the Project Manager will not be paid.

75. **ALLOWANCES** Whenever an allowance is mentioned in the specifications, then the contractor shall include in his contract sum the entire amount of such specified allowances. The expenditure of these allowances is to be at the Purchasing Manager's direction. However, the allowance expenditure is limited to items properly inferable from the title and description of the allowance. Unexpended balances are to be credited to the City. Compensation payable to the contractor for expenditure of allowances directed by the Purchasing Manager shall be based on the cost to the contractor as shown by actual invoices or receipts, and no additional overhead or profit shall be payable to the contractor for such allowances.

76. **PROGRESS PAYMENTS AND RETAINAGE** The Contractor shall submit a detailed application for payment on a monthly basis, preferable on an AIA G702 form. Such application for payment, notarized, if required, must be accompanied by supporting data and documents substantiating the Contractor's right to payment and reflecting a five percent (5%) retainage.

Applications for payment shall not include payment for equipment or materials delivered to the site but not installed or for materials or equipment properly stored off-site unless specifically approved by the Project Manager. If such approval is granted, the Contractor must submit with the application for payment, bills of sale or other such documentation satisfactory to the City to establish the City's title to such materials or equipment or otherwise to protect the City's interest, including applicable insurance and transportation to the site for materials and equipment stored off site. Such approvals are typically reserved for "big ticket" items that individually would exceed five percent (5%) of the bid total. The Contractor shall promptly pay each subcontractor and supplier for work completed upon receipt of payment from the City the amount to which said subcontractor is entitled, reflecting any percentage retained from payments to the Contractor on account of each subcontractors work. The Contractor shall, by an appropriate agreement with each subcontractor, require each subcontractor to make prompt payments to his subcontractors in a similar manner.

The City shall be under no obligation to pay or to see to the payment of any moneys to any subcontractor except as may otherwise be required by law.

No Certificate of Payment or partial or entire use of the facility by the City shall constitute an acceptance of any work which is not in accordance with the Contract Documents.

Payments Withheld – The City may decline to certify payment or because of subsequently discovered evidence or observations, nullify the whole or any part of any Certification of Payment previously issued, as may be necessary to protect the City from loss because of: (1) defective work not remedied, (2) third party claim filed or evidence indicating probable filing of such claim, (3) failure of the Contractor to make payments properly to subcontractors or suppliers, (4) reasonable evidence that the work can not be completed for the unpaid balance of the contract sum, (5) reasonable evidence that the work will not be completed within the Contract time, (6) persistent failure to carry out the work.

77. **FINAL PAYMENT REQUEST** Upon reaching substantial completion, as defined by receipt of occupancy permit or when all related punch list items have been completed, whichever date is later, the Contractor may submit a written Application for Final Payment. All supporting documentation and data shall be submitted with the Request for Final Payment as is applicable to the monthly Requests for Payment referenced heretofore.

Out of the amount representing the total of the final payment request the City shall deduct five (5%) percent, which shall be in addition to any and all other amounts which, under the Contract, it is entitled or required to retain and shall hold said sum for a period of one hundred and twenty (120) days after the date of acceptance of the work by the City.

Within thirty (30) days after the approval of the final payment request, the City will pay to the Contractor the amount remaining after deducting from the total amount of the final estimate all such sums as have hereto before been paid to the Contractor under the provision of the Contract and also such amounts as the City has or may be authorized under the Contract to reserve or retain.

Neither the final payment nor the remaining retainage shall become due until the Contractor submits to the Project Manager:

1. An affidavit that all payrolls, bills for materials and equipment and other indebtedness connected with the work for which the City or his property might in any way be responsible, have been paid.
2. Consent of surety to final payment, and
3. If requested, data establishing payment or satisfaction of obligations, such as receipt, release and waivers of liens arising out of the Contract;
4. All punch list items are completed to the satisfaction of the Project Manager.

If any subcontractor refuses to furnish a release or waiver of liens required by the City, the Contractor may furnish a bond satisfactory to the City to indemnify him against any such lien. If any such lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorney fees.

Acceptance by the Contractor of final payment shall operate as a release to the Mayor and Council and every

officer and agent thereof, from all claims and liabilities to the Contractor for anything done or furnished or relating to the work under the contract.

78. **RELEASE OF RETAINAGE** Upon the expiration of the aforesaid period of one hundred and twenty (120) days succeeding the date of acceptance, the City will pay to the Contractor all sums reserved or retained, less such amount as it may be empowered under the provisions of the Contract to retain.
79. **GUARANTEES / WARRANTIES** All guarantees and warranties required shall be furnished by the Contractor and shall be delivered to the Project Manager before final payment is made. The Contractor guarantees that the items conform to the contract documents.

80. **GUARANTEE PERIOD** The Contractor shall warrant and guarantee the work required under this Contract for a period of twelve (12) months from the date of Final Acceptance. The Contractor warrants and guarantees to the City, that materials and equipment furnished under the Contract shall be of good quality and new unless otherwise required or permitted by the Contract Documents, that all work will be in accordance with the Contract Documents, and that all work will be of good quality, free from faults and defects. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the City, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

The Contractor's obligation to perform and complete the work in a workmanlike manner, free from faults and defects and in accordance with the Contract Documents shall be absolute. The Contractor shall remedy, at his own expense, and without additional cost to the Owner, all defects arising from either workmanship or materials, as determined by the City, or City's representative. The obligations of the Contractor under this Paragraph shall not include normal wear and tear under normal usage.

If the Contractor does not, within ten (10) days after notification from the Project Manager, signify his intention in writing or in action to correct work, as described above, then the Project Manager may proceed with the work and charge the cost thereof to the account of the Contract as herein before provided.

81. **Substantial Completion.** Sufficient completion of the project or the portion thereof to permit utilization of the project, or portion thereof for its intended purpose. Substantial completion requires not only that the work be sufficiently completed to permit utilization, but that the City can effectively utilize the substantially completed work. Determination of substantial completion is solely at the discretion of the City. Substantial completion does not mean complete in accordance with the contract nor shall substantial completion of all or any part of the project entitle the Contractor to acceptance under the contract.

At such time as the Contractor has completed the work and prior to requesting a final inspection, the Contractor shall make written request for an inspection for substantial completion. Such request shall be made no

less than seven (7) calendar days prior to the requested date of inspection. An inspection will be made by the City and a determination will be made as to whether or not the work is in fact substantially complete and a "punch list" will be developed. "Punch Lists" containing numerous items or items which may affect the intended use of the work will be considered cause to delay issuance of a document of Substantial Completion. Operation and Maintenance manuals shall be submitted and approved prior to issuance of any document of Substantial Completion.

82. **TRANSFER OF TITLE** The Contractor warrants that title to all work, materials and equipment covered by the Application for Payment will pass to the City either by incorporation in construction or upon the receipt of payment by the Contractor, free and clear of all liens, claims, interests or encumbrances, and that no work, materials, or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any person performing the work at the site or furnishing materials or equipment for the project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other persons.
83. **USE OF PREMISES** Whenever, in the opinion of the Project Manager, any portion of the work is completed or is in an acceptable condition for use, it shall be used for the purpose it was intended, however, such use shall not be held as acceptance of that portion of the work, or as a waiver of any of the provisions of the Contract.
84. **DETERMINATION OF CITY'S LIABILITY** The acceptance by the Contractor of the final payment made as aforesaid shall operate as and be a release to the City and every officer and agent thereof, from all claims by and liabilities to the Contractor for anything done or furnished for or relating to or affecting the work under the contract.
85. **NO LIMITATION OF LIABILITY** The mention of any specific duty or liability of the Contractor in any part of the specification shall not be construed as a limitation or restriction upon any general liability or duty imposed upon the Contractor.
86. **PRESERVATION OF MONUMENTS AND TREES** The Contractor shall be responsible for the preservation of all public and private property, trees, monuments, highway signs, markers, fences, and curbs or other appurtenances, and shall use every precaution to prevent damage or injury thereto. Any expense necessary to provide adequate protection, whether such designated item be on or off the right-of-way, shall be assumed by the Contractor.
87. **PUBLIC ACCESS** The Contractor shall at all times conduct the work in such a manner as to insure the least obstruction to traffic practicable. The convenience and safety of the general public and the residents along the improvement shall be provided for in an adequate and satisfactory manner. Fire hydrants shall be kept accessible to fire apparatus at all times. Handicap access shall remain accessible.

88. **HAZARDOUS AND TOXIC SUBSTANCES**

Manufacturers and distributors are required by Federal "Hazard Communication" provision (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 City with copies of all relevant documents, including Material Safety Data Sheets, prior to performance of services or contemporaneous with the delivery of goods.

89. **MAINTENANCE OF VEHICULAR TRAFFIC (if applicable)**

Unless otherwise directed by the Project Manager, traffic must be maintained on all roadways within the construction area continuously or with the least amount of interruption during the construction period necessary to minimize accidents and accident severity and maintain safety while at the same time minimizing inconvenience to the traveling public and the Contractor. The Project Manager shall have the exclusive right to order a road to be closed or to remain open. No equipment will be stored or permitted to stand within the limits of the roadway right-of-way where traffic must be maintained. Any earth dropped on the surface of the existing road shall be removed immediately to avoid possible hazardous conditions. The Contractor shall prepare and submit a Traffic Control Plan (TCP) for the Project Manager's review, revision, and approval, at least ten days before beginning work, unless otherwise directed.

All Traffic Control Devices shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition (and all revisions). With the approved TCP implemented, the Contractor will be permitted to work with the following provisions: All traffic lanes must be restored at the end of each day unless specifically authorized otherwise, in advance, by the Project Manager:

The City reserves the right to modify or expand on the methods of traffic control specified and to restrict working hours if, in the opinion of the Project Manager, the Contractor's operations are a detriment to traffic during rush hour periods.

Signs on fixed supports shall be mounted on two posts. Signs mounted on portable supports are suitable for temporary conditions. During periods of partial shutdown, or extended periods when no work is being performed, the Contractor shall remove or adequately cover all construction signs as directed by the Project Manager.

The Contractor shall be responsible for removing, storing, covering, and resetting all existing traffic signs and delineators that become inapplicable and will confuse traffic during the various stages of construction, the cost of which shall be included in the price for Maintenance of Traffic or in the absence of such a pay item it shall be accomplished at no additional compensation, as incidental to the contract. Any signs lost or damaged will be replaced by the Contractor at its expense.

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The Contractor shall provide, maintain in new condition, and move when necessary or directed all traffic control devices used for the guidance and protection of vehicles.

The Contractor shall be responsible for providing the appropriate signs to reflect varying traffic patterns prior to the commencement of a new stage of construction.

Traffic must be safely maintained at all times throughout the entire length of the project. No additional compensation shall be paid to the contractor for traffic maintenance, even if the contract time exceeds the contractually specified completion date or working days.

When required lane shifts are implemented, existing painted lane markings no longer applicable shall be removed to the satisfaction of the Project Manager.

Temporary crash cushions are to be installed as shown on the Plans. Unless otherwise specified, sand containers shall be used. The crash cushions shall conform to Subsection 104.10 of the MDSHA Specifications.

Crash cushions shall be reset to reflect changing traffic patterns caused by different stages of Traffic Control. The crash cushions shall be reset at locations shown on the Plans or as directed by the Project Manager.

Should any of the sand container components be damaged during the resetting of the system or during the course of the project, the Contractor shall replace the damaged components at its own expense.

The Contractor shall have flaggers on this Project for the purpose of controlling traffic while maneuvering heavy equipment. This may require a temporary lane closure in any of the specified Traffic Control Phases. These temporary lane shutdowns shall be kept to a minimum and the normal traffic pattern for the Traffic Phase shall be restored as quickly as possible. The Contractor shall comply with Section B-20 of the MUTCD regarding flagger signing.

Prior to stopping work each day the Contractor will be required to reshape all graded areas and eliminate all drop-offs not protected by barriers by filling with compacted stone at maximum of 8:1 slope.

All barriers and barricades shall be adequately illuminated at night, as specified herein, and all lights for this purpose shall be kept operative from sunset to sunrise.

No work shall be commenced in any stage of construction until the barriers and barricades for that stage, indicated on the Plans, or as specified by the Project Manager, are completely in place. The Contractor will be solely responsible for all accidents and damages to any persons and property resulting from its operations. Compliance with prescribed precautions contained herein or in the MDSHA Specifications or Manual On Uniform Traffic and Control shall not relieve the Contractor of its primary responsibility to take all necessary measures to protect and safeguard the work, nor relieve the Contractor from any responsibilities

prescribed by GP-7 of the January 2001 MDSHA Standard Specifications for Construction and Materials.

The Contractor shall notify and obtain approval in writing from the Project Manager, at least 48 hours before changing any Traffic Control Phase.

Any construction materials or debris dropped on the roadway surface shall be removed immediately to avoid possible hazardous conditions.

Materials The Contractor shall provide, maintain in first class condition, replace and move when necessary or directed all materials, devices, flagging, etc., required to maintain traffic in accordance with the Traffic Control Plans or as directed by the Project Manager. Reference is made to the latest edition of the MUTCD, wherein all such items are fully described with regard to use, application, warranties, size, color, placement, etc., and wherein typical traffic control device layouts are shown, as all such devices and techniques planned for use on this project shall strictly conform to the Manual's request except as noted on the Plans.

When any of the following items have been established on the Plans or as directed by the Project Manager, the Specifications will be adhered to in accordance with the respective sections.

Lights, Warnings, Etc. - All banners and imitation barrels shall be adequately illuminated at night, and all lights for this purpose shall be kept operative from sunset to sunrise.

Steady burning warning lights shall be used to delineate channelization through and around obstructions in a construction or maintenance area, on detour curves, on lane closures, and in other similar conditions (MUTCD 6E-4, 6E-5). Flashing warning lights shall be the means for identifying a particular and individual hazard and shall not be used in sequence, in clusters, or for delineation (MUTCD: 6E-5, 6E-6).

Where noted on the plans the first two (2) warning signs shall include a "High Level Warning Device." In addition to the flags the signs shall also be equipped with a Type "B" High Intensity Flag Warning Light. This device must meet the requirements of MUTCD 6C-11 and 6E-5. The device shall be incidental to the Temporary Traffic Sign item if provided for, otherwise the costs shall be considered incidental and no special compensation will be paid.

Barriers: Temporary concrete barriers shall be installed on the roadway approaches as shown on the plans or as approved in writing.

Any permanent facilities damaged as a result of anchoring temporary concrete barriers (anchor holes, etc.) shall be repaired to the satisfaction of the Project Manager using an epoxy grout or other material as may be specified by the Project Manager. Epoxy grout shall consist of sand and epoxy, mixed by volume according to manufacturer's recommendations.

Method of Measurement and Basis of Payment: All work and materials required under the TCP not covered or

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specified as a pay item on the price proposal form will be included in the lump sum price bid for Maintenance of Traffic. In the absence of such an item the Contractor agrees that there will be no special compensation paid for maintenance of vehicular traffic as described above and the cost shall be considered incidental to the contract and compensated as part of other contract bid item(s).

90. **PARKING, STORAGE AND STAGING AREAS**

Parking, storage and staging areas for the Contractor's use during the Project must have prior approval of the Project Manager. All areas used for storage of equipment or material shall be restored to their original condition, immediately upon completion of the work. No additional compensation will be provided for restoring, re-grading, placement of topsoil, and seed and mulch in these areas.

91. **PEDESTRIAN TRAFFIC**

Pedestrians shall be safeguarded by the use of signs lights, barricades and barriers as shown on the traffic control plan and/or directed by the Project Manager. Pedestrian traffic shall be maintained at all times unless specifically authorized otherwise, in advance, by the Project Manager. The Contractor shall submit a pedestrian traffic safety plan in accordance with the MUTCD, incorporating safety measures and other provisions to fully implement the intent of this paragraph. All work and materials required to prepare and implement the pedestrian traffic safety plan shall be considered incidental to the contract and there shall be no special compensation paid for this item unless special pay items are included in the Price Proposal page. No additional compensation shall be paid for maintenance of vehicular and pedestrian traffic if for whatever reason the project time extends beyond the contract specified completion date or working days.

92. **HANDICAP ACCESS**

Where handicap access exists within the line of work under this contract it will be the contractor's responsibility to maintain said access during the life of this contract. This service is considered to be incidental to this contract and no special compensation will be paid for this service unless provided on the Price Proposal page.

93. **TOILET FACILITIES**

Toilet facilities meeting MOSHA standards shall be provided at the job site for all projects exceeding \$100,000 in value and at all other job sites when directed by the City. No special compensation shall be paid unless specifically provided for in the Price Proposal page of this solicitation.

94. **STAKEOUT-CONSTRUCTION CONTROL**

Survey construction control provided by the City shall be limited to the baseline with stations not over 100 feet, and the elevation of the top of each marked point. P.C.s, P.T.s. P.I.s, P.V.T.s, and at least one point on the tangent beyond the end of each curve will be staked. The Contractor shall request baseline stakeout a minimum of five days in advance of construction. Stakeout data other than stated above will be furnished by the construction Contractor per MDSA Section 815 for structures, otherwise per WSSC specs. section 01000(H) and as described in detail below and in these specifications. The City's responsibility for stakeout for the entire project shall be limited to that data described above and this

shall be provided only once. The Contractor shall preserve or otherwise ensure adequate survey controls exist throughout the life of the contract.

Surveys and stakeout shall be accomplished by the Contractor as outlined above and in conformance with WSSC specifications Section 01000-10-I I(H), entitled "Construction Stakeout By Contractor."

The provisions therein are primarily for pipeline stakeout. The Contractor's responsibilities under this contract are hereby expanded to include, in addition to pipeline stakeout, similar responsibilities for all phases of stakeout necessary to construct all facilities under this contract including but not limited to clearing and grubbing excavation, pavement, curbs and gutters, storm drainage pipes and facilities, culverts, structures, storm water management facilities, street lights, traffic signal conduits and components, noise walls, retaining walls, ditches and sediment control features.

The stakeout and survey record data shall be preserved and turned over to the City for filing following completion of specific components of work.

Method of Measurement and Payment Generally, stakeout shall be considered incidental to the contract and no special compensation shall be paid, unless a specific pay item is included in the contract Price Proposal page of this contract. Where payment is provided, progress payments for stakeout shall be made based on the percentage resulting from the price bid for stakeout divided by the total bid, multiplied by the monthly payment exclusive of the stakeout payment, except the final payment shall be adjusted as necessary to equal the total price bid for stakeout.

Grade Sheet by Contractor: Grade sheets showing hub and design elevations for roadway, water mains, drainage structures and piping, walks, lights, infiltration facilities clearing/grubbing, excavation, and related components will be provided by the construction Contractor at least 8 hours in advance of construction and will be subject to approval by the Project Manager. Stakeout for curb and gutter in all vertical and horizontal curves is to be at intervals of 25 feet or less unless otherwise specifically authorized by the Project Manager. This work is considered incidental to the contrast and no extra compensation will be paid.

95. **DEBRIS** Under no circumstance will any open fires be permitted within the City of Rockville. All debris will be removed and hauled from site (except when otherwise specifically authorized in the bid document) and disposed in accordance with Local, State and Federal laws in effect at the disposal site. No special compensation will be paid as all costs for off-site disposal shall be included in the applicable bid prices and considered incidental to the contract.

96. **CLEAN UP** In addition to any provisions regarding clean up in the bid document, clean up, including the restoration of areas of construction, shall proceed as quickly as is practicable. The period between construction and final clean up shall normally not exceed one week. If at any time during the course of the work the cleaning operation in any given area becomes

delinquent in the opinion of the Project Manager he may order that construction be stopped until such cleaning is completed. Any such order shall not extend the Final Completion date under this contract. Unless otherwise indicated, all materials razed, demolished, or otherwise removed from the work site shall become the property of the Contractor and shall be disposed of legally and properly off site at his expense.

Upon Final Completion of the work and before acceptance and final payment shall be made, the Contractor shall clean and remove from the street, footways, lawns, and adjacent property, all surplus and discarded materials, rubbish and temporary structures, restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work and shall leave the work area in a neat and presentable condition throughout the entire length of the project under contract.

If the Contractor fails to clean up at Final Completion of the work, the City may do so and the cost thereof shall be charged to the Contractor.

INSURANCE REQUIREMENTS REV2 (09/08)

Prior to the execution of the contract by the City, the Contractor must obtain at their own cost and expense and keep in force and effect during the term of the contract including all extensions, the following insurance with an insurance company/companies licensed to do business in the State of Maryland evidenced by a certificate of insurance and/or copies of the insurance policies. The Contractor's insurance shall be primary. The Contractor must electronically submit to the Purchasing Division a certificate of insurance prior to the start of any work. In no event may the insurance coverage be less than shown below.

Unless otherwise described in this contract the successful contractor and subcontractors will be required to maintain for the life of the contract and to furnish the City evidence of insurance as follows:

MANDATORY REQUIREMENTS FOR INSURANCE

Contractor's insurance coverage shall be primary insurance as respects the City, its elected and appointed officials, officers, consultants, agents and employees and any insurance or self-insurance maintained by the City, shall be excess of the Contractor's insurance and shall not be called upon to contribute with it.

Type of Insurance	Amounts of Insurance	Endorsements and Provisions
1. <i>Workers' Compensation</i> 2. <i>Employers' Liability</i>	Bodily Injury by Accident: \$100,000 each accident Bodily Injury by Disease: \$500,000 policy limits Bodily Injury by Disease: \$100,000 each employee	Waiver of Subrogation: WC 00 03 13 Waiver of Our Rights to Recover From Others Endorsement signed and dated.
3. Commercial General Liability a. Bodily Injury b. Property Damage c. Contractual Liability d. Premise/Operations e. Independent Contractors f. Products/Completed Operations g. Personal Injury	Each Occurrence: \$1,000,000	City to be listed as additional insured and provided 30 day notice of cancellation or material change in coverage. CG 20 37 07 04 and CG 20 10 07 04 forms to be both signed and dated.
4. Automobile Liability a. All Owned Autos b. Hired Autos c. Non-Owned Autos	Combined Single Limit for Bodily Injury and Property Damage - (each accident): \$1,000,000	City to be listed as additional insured and provided 30 day notice of cancellation or material change in coverage. Form CA20 48 02 99 form to be both signed and dated.
5. Excess/Umbrella Liability	Each Occurrence/Aggregate: \$1,000,000	City to be listed as additional insured and provided 30 day notice of cancellation or material change in coverage.
6. Professional Liability NOT REQUIRED	Each Occurrence/Aggregate: \$1,000,000	

Alternative and/or additional insurance requirements, when outlined under the special provisions of this contract, shall take precedence over the above requirements in part or in full as described therein.

POLICY CANCELLATION

No change, cancellation or non-renewed shall be made in any insurance coverage without a thirty (30) day written notice to the City Purchasing Division. The Contractor shall electronically furnish a new certificate prior to any change or cancellation date. The failure of the Contractor to deliver a new and valid certificate will result in suspension of all payments and cessation of on-site work activities until a new certificate is furnished.

ADDITIONAL INSURED

The Mayor and Council of Rockville, which includes its elected and appointed officials, officers, consultants, agents and employees must be named as an additional insured on the Contractor's Commercial and Excess/Umbrella Insurance for liability arising out of contractor's products, goods, and services provided under this contract. Additionally, The Mayor and Council of Rockville must be named as additional insured on the Contractor's Automobile and General Liability Policies. Endorsements reflecting the Mayor and Council of Rockville as an additional insured are required to be submitted with the insurance certificate.

SUBCONTRACTORS

All subcontractors shall meet the requirements of this Section before commencing work. In addition, Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

CERTIFICATE HOLDER

The Mayor and Council of Rockville
(Contract #, title)
City Hall
111 Maryland Avenue
Rockville, MD 20850

INVITATION FOR BIDS #16-22
THOMAS FARM COMMUNITY CENTER
PERVIOUS PARKING LOT REPLACEMENT PROJECT
SECTION III: SPECIAL PROVISIONS

3.1 Point of Contact

To ensure fair consideration for all Bidders, the City prohibits communication to or with any department, elected official or employee during the submission process, other than the Procurement Division, regarding the requirements for this submittal. Any such contact may be considered grounds for disqualification. The City shall not be responsible for oral interpretations given by any City employee or its representative.

All inquiries concerning clarifications of this solicitation or for additional information shall be submitted in writing by email only and directed as follows:

The sole point of contact at the City for purposes of this RFP, prior to award of any contract, is Pat Ryan, pryan@rockvillemd.gov.

Pat Ryan
City Hall – Procurement Division
111 Maryland Avenue
Rockville, MD. 20850
Telephone: (240) 314-8434
Email: pryan@rockvillemd.gov

All responses to questions/clarifications will be sent to all prospective Bidders in the form of a written addendum. Material changes, if any, to the scope of work, or bid procedures will also be transmitted by written addendum.

3.2 Minimum Qualification Requirements

At a minimum, Bidders must provide written evidence (through references) of five (5) years prior experience with the scope of work as detailed in the plans and specifications.

If the bidder intends to subcontract any or part of the work, then the bidder must identify and include references for each qualified subcontractor, together with a description of the proposed subcontract work. This evidence shall be submitted with the bid, or the City, at its discretion, may determine the bid to be unresponsive. The City reserves the right to require references for such subcontractors.

The City shall have the right to take such steps as it deems necessary to determine the ability of the Bidder to perform the work and reserves the right to request additional information. The right is reserved to reject any bid where an investigation of the evidence or information submitted by such Bidder does not satisfy the City that the Bidder is qualified to properly carry out the terms of the Bid Document.

3.3 Contract Term

The anticipated terms of this contract shall be six (6) months or (180) Calendar days.

3.4 Estimated Quantities

No warranty is given or implied by the City as to any components listed in this Bid and are considered to be estimates for the purpose of information only. The City reserves the right to accept all or any part of the bid and to increase or decrease quantities of Bidder's bid to meet additional or reduced requirements of the City.

3.5 Additional Items/Duties

The City may require additional items/duties of a similar nature, but not specifically listed in the contract. The Contractor agrees to provide such items/duties, and shall provide the City prices on such additional items or duties based upon a formula or method which is the same or similar to that used in establishing the prices in the bid. If the price(s) offered are not acceptable to the City, and the situation cannot be resolved to the satisfaction of the City, the City reserves the right to purchase those items from other vendors, or to cancel the contract upon giving the Contractor thirty (30) days written notice.

3.6 No Exclusive Contract/Additional Services

Contractor agrees and understands that the contract shall not be construed as an exclusive arrangement and further agrees that the City may, at any time, secure similar or identical services at its sole option.

3.7 Exceptions

An exception is any condition, limitation, restriction, term or other deviation from the requirements of the Invitation for Bids that is a condition of the bidder's bid or that the bidder expects to become part of a contract with the City. Bidders are strongly discouraged from taking exceptions to the requirements of the Invitation for Bids. Exceptions may result in the City declaring the bidder's bid to be non-responsive. Any exceptions taken must refer to the specific language of the Invitation for Bids to which the bidder objects and must be included with the bid on a separate page. The City shall be entitled to assume that the absence of any exceptions constitutes the bidder's willingness to comply with all requirements of all parts of the Invitation for Bids.

3.8 Complete Information Required on Bid Form

All bids must be submitted on the attached Bid Form with all sections completed. To be considered a valid bid, the bid form pages and required forms must be returned, properly completed, as outlined in the General Conditions.

3.9 Cooperative Procurement

The Contractor may extend all of the terms, conditions, specifications, and unit or other prices of any award resulting from this solicitation to any and all other public bodies, subdivisions, school districts, community colleges, colleges, and universities. The City assumes no authority, liability or obligation, on behalf of any other public entity that may use any contract resulting from this solicitation.

3.10 License and Support Agreements

In the event a bidder or manufacturer requires an agreement to be signed the agreement must be returned with the bid for review prior to any subsequent award. The City reserves the right to refuse consideration of an agreement and may hold the bidder to any agreement entered into as a result of a purchase order being issued as a result of this IFB without prior knowledge that the bidder and/or manufacturer will require an additional document, contract or agreement to be executed.

**INVITATION FOR BIDS #16-22
THOMAS FARM COMMUNITY CENTER
PERVIOUS PARKING LOT REPLACEMENT PROJECT**

SECTION IV: TECHNICAL SPECIFICATIONS/SCOPE OF WORK

4.1 TECHNICAL SPECIFICATIONS/SCOPE OF WORK

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**CATEGORY 000 – GENERAL REQUIREMENTS, REFERENCES, AND
SPECIFICATIONS**

A. SUMMARY DESCRIPTION OF WORK

City of Rockville intends to enter into a Unit Price Task Order with a qualified firm to provide construction and construction-related services including but not limited to the construction, repair, retrofit, alteration and modernization for:

Thomas Farm Community Center Pervious Parking Lot:

Thomas Farm Community Center Pervious Parking Lot is located at 700 Fallsgrove Drive, Rockville, Maryland. This project consists of removing the existing pervious parking lot and replace it with conventional impervious concrete drive aisle and pervious pavement in the parking stalls to avoid traffic related loading issues and other relevant clogging issues associated with the existing pervious concrete parking lot. The existing (112) standard 9-foot wide by 18-foot long pervious parking stalls will be replaced with the new pervious pavement system. The existing 5.5” thick stone subbase will remain with overdrains added. The existing stone subbase in two parking bays will be removed, excavated and new subbase material installed. In addition, eight existing conventional concrete handicapped parking spaces will be replaced to comply with the current Americans with Disability Act (ADA) requirements. Other amenities of the park, utilities, and surrounding curb and gutter will remain intact and open to the public throughout the construction phase. See Section 002 for further description of the Scope of Work. See Section 003 for description of Alternates.

B. REFERENCED STANDARDS AND SPECIFICATIONS

The following specifications and standards, including addenda, amendments and errata, form a part of this specification to the extent required by the references thereto. The Contractor must adhere to any newer versions of the referenced standards and specifications. The list below is the most frequently used standards that are referenced but other references may be referenced in the standard specifications.

American Association of State Highway and Transportation Officials (AASHTO). Washington D.C. <<http://www.transportation.org/>>. Referenced as “AASHTO”.

American Concrete Institute (ACI), Farmington Hills, Michigan. <<http://www.concrete.org/general/home.asp>>. Referenced as “ACI”.

- ACI-318-11 – “Building Code Requirements for Reinforced Concrete”.
- ACI-350-06 – “Code Requirements for Environmental Engineering Concrete Structures and Commentary”.
- ACI SP-66-04 – “ACI Detailing Manual”. This standard replaced ACI 315-92.

American National Standards Institute (ANSI), Washington D.C.

- A300 – “American National Standard for Pruning”, 2017.
- Z60.1 – “American Standard for Nursery Stock”, 2014.

American Public Health Association (APHA), American Water Works Association (AWWA), and Water Environment Federation (WEF), “Standard Methods for the Examination of Water and Wastewater”. Washington D.C. 2017, 23rd Edition. <<http://www.standardmethods.org/>>. Referenced as “Standard Methods for the Examination of Water and Wastewater”.

American Society of Testing and Materials International, Standards Worldwide. West Conshohocken, PA. <<http://www.astm.org/Standard/index.shtml>>, Referenced as “ASTM”.

Concrete Reinforcing Steel Institute (CRSI). Schaumburg, Illinois. <<http://www.crsi.org/>>. Referenced as “CRSI”

- CRSI “Manual of Standard Practice 2018”, 29th edition.
- CRSI “Placing Reinforcing Bars 2019”, 10th edition,

International Code Council (ICC), International Building Code (IBC) as adopted by Montgomery County. Washington D.C. <<http://www.iccsafe.org/>>. Referenced as “International Building Code”

Maryland Department of the Environment (MDE), Water Management Administration in association with Soil Conservation Service and State Soil Conservation Committee, “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control”. Baltimore, Maryland. 2011. Referenced as “MDE Specifications for Soil Erosion and Sediment Control”.

Maryland Department of Environment, Water Resources Administration, “Maryland’s Guidelines to Waterway Construction”, Baltimore, Maryland. November 2000 revision. Referenced as “MDE Construction Guidelines”.

Maryland Department of Transportation (MDOT), State Highway Administration (MSHA), Hanover, Maryland. <<http://www.roads.maryland.gov/home.aspx/>>. As revised on MSHA website. Referenced as “MSHA”.

- “Book of Standards for Highway and Incidental Structures”. Referenced as “MSHA Standard Details”.
- “Standard Specifications for Construction and Materials”, July, 2019 and all revisions. Referenced as “MSHA Standard Specifications” or “MSHA”.

Montgomery County Department of Transportation (MCDOT), Rockville, Maryland.

- “Design Standards”; <<http://www2.montgomerycountymd.gov/DOT-DTE/Common/Standards.aspx>>
- “Montgomery County Road Code”, 2008.
- “Work Zone Traffic Control Standards (MCWZTCS)”, July 2014.

Montgomery County Government, Noise Control Ordinance.

www.montgomerycountymd.gov/DEP/Resources/Files/downloads/compliance/Noise-control-ordinance.pdf

National Asphalt Pavement Association (NAPA), Lanham, Maryland.

<<http://www.asphaltpavement.org/>>.

- “Design, Construction and Maintenance Guide for Porous Asphalt Pavements for Stormwater Management,” Information Series No. 131, 2008.
- “Design, Construction, and Maintenance of Open-Graded Friction Courses”, Information Series 115, 2002.

NSF International, “NSF/ANSI Standard 61-2019” (NSF 61). Ann Arbor, Michigan.

<<http://www.nsf.org/>>.

United States Department of Agriculture, Natural Resources Conservation Service (NRCS), Maryland, “Conservation Practice Standard, Pond, Code 378”, January 2000. Washington D.C. Referenced as “NRCS MD-378”.

United States Department of Agriculture (USDA), United States Composting Council (USCC),

“Test Methods for the Examination of Composting and Composts (TMECC)”. Washington D.C. 2002.

United States Department of Justice (USDJ), American Disabilities Act (ADA), “ADA Standards for Accessible Design”. Washington D.C. 2010. <<http://www.ada.gov/>>

United States General Services Administration, “Index of Federal Specifications, Standards and Commercial Item Descriptions (FMR 102-27)”. Washington D.C.

<<http://apps.fas.gsa.gov/pub/fedspecs/>>. Referenced as “Federal Specifications”

United States Occupational Safety and Health Administration (OSHA), “Confined Spaces Standard, 2015”. Washington D.C. <<http://www.osha.gov/>>.

Washington Suburban Sanitary Commission (WSSC). Laurel, Maryland. <http://www.wsscwater.com/>

- “General Conditions and Standard Specifications”, 2019. Referenced as “WSSC General Conditions and Standard Specifications”.
- “Standard Details for Construction”, 2016. Referenced as “WSSC Standard Details”.
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C. SPECIFICATIONS/SCOPE OF WORK: NOTE: The specification sections are organized as per Bid Items listed in the Schedule of Unit Prices.

Where applicable, items are cross-referenced to, and incorporate, information and requirements provided in the Part III – Technical Requirements of the Maryland State Highway Administration (MSHA) July 2019 Standard Specifications for Construction and Materials and the MSHA Book of Standards, latest revision.

The link to the Specifications

is: https://www.roads.maryland.gov/ohd2/2019_Standard_Specifications.pdf

Note: The General Provisions and Terms and Conditions of the MSHA Standard Specifications for Construction and Materials **DO NOT APPLY** to, and are not incorporated into, this Contract or Task Order. Refer to the terms and conditions of this Contract or Task Order including the General Conditions of Construction Contract.

Any references in the Specifications to the “Administration” or “Owner” shall be interpreted as referring to “City of Rockville, Maryland”.

Any references in the Specifications shall be interpreted as referring to the “Contract Administrator” as defined in the Contract.

Any references in the Specifications to material testing by the Engineer shall be deemed to be the Contractor’s responsibility. Contractor must utilize the services of accredited material testing laboratories that are acceptable to the Contract Administrator. All field and laboratory testing required by the Contract must be performed by qualified professionals who are licensed to perform such tests. The results of all material tests must be submitted to the Contract Administrator promptly and before requesting payment for the Work being tested for compliance.

Any reference to “Contract Documents” in the Specifications shall be interpreted as referring to “Task Order Documents and/or Contract Documents”.

SECTION 001 – SUMMARY OF WORK

DESCRIPTION:

1.1 Project Description:

- A. See Section 002 Scope of Work, as further described on the drawings and specifications entitled:
“THOMAS FARM COMMUNITY CENTER PERVIOUS PARKING LOT REPLACEMENT – 700 Fallsgrove Drive, Rockville, Maryland 20850”
- B. All work is indicated on the contract documents and includes site work.
- C. Portions of the work of this Project shall comply with the Americans with Disabilities Act (ADA) standards. The Contractor shall review each section of the specification to determine which portions of the work shall comply with these standards, and shall fully inform themselves of the requirements of the Standards. Work required to be completed in compliance with these Standards that is not installed correctly in the opinion of the Engineer shall be removed and replaced at no cost to the Owner.
- D. These specifications are divided into Sections in order to aid the Contractor in awarding portions of it to subcontractors. The division of the work in no way relieves the General Contractor from the responsibility of making the actual division of work between subcontractors if they are employed by the Contractor nor does it relieve him from the responsibility of performing a job complete in all respects.

1.2 Regulatory Requirements:

- A. The following regulations (Most Current Editions) are applicable to this project:
 - 1. The Maryland Accessibility Code, COMAR 05.02.02
 - 2. 2010 American With Disabilities Act (2010 ADA Standards)
 - 3. County, State, and Federal Safety and Health Laws
 - a. State Code & ER 29-87
 - 4. National Electrical Safety Code (NESC)
 - 5. The International Plumbing Code plus the local plumbing code.
 - 6. Governing Fire Department Requirements
 - 7. Utility Company Requirements
- B. Other regulations may also be applicable.

- C. Obtain copies of the regulations listed above and keep at the project site for the use of all parties.
 - 1. Submit copies of all permits, licenses and similar permissions obtained, and receipts for fees paid, to the Owner directly.

1.3 ACCESS TO THE SITE AND USE OF THE PREMISES

- E. The space available to the Contractor for the performance of the work, either exclusively or in conjunction with others performing other construction as part of the project, will be outlined at the pre-Construction meeting
 - 1. Other areas are off limits to all construction personnel.
- F. Limited storage is available on site and will be limited to those areas as outlined at the pre-Construction meeting. Coordinate storage and deliveries with Owner as required.
- G. Signs: Provide signs adequate to direct visitors.
 - 1. Provide construction sign, as approved by the Engineer and Owner, to remain posted throughout duration of the construction project. See Section 012 – Construction Facilities & Temporary Controls, for specific signage information.
 - 2. Do not allow posting of unauthorized signs.

MATERIALS:

Not Used

CONSTRUCTION:

3.1 PRE-CONSTRUCTION MEETING

- A. A pre-construction meeting will be held at a time and place designated by the Owner, for the purpose of identifying responsibilities of the Owner's and the Engineer's personnel and explanation of administrative procedures.
- B. The Contractor shall also use this meeting for the following minimum agenda:
 - 1. Construction schedule
 - 2. Sequence of Construction
 - 3. Use of areas of the site
 - 4. Delivery and storage
 - 5. Safety
 - 6. Security
 - 7. Cleaning up
 - 8. Subcontractor procedures relating to:
 - a. Submittals
 - b. Change orders
 - c. Applications for payment

d. Record documents

C. Attendees shall include:

1. The Owner
2. The Engineer, and any consultants
3. The Contractor and its superintendent
4. Major subcontractors, suppliers, and fabricators
5. Inspectors for the City of Rockville
6. Others interested in the work.

3.2 SECURITY PROCEDURES

- A. Site and Existing building is to remain open for use. Maintain vehicular and pedestrian access.
- B. Provide secure storage for materials for which the Owner has made payment and which are stored on site.
- C. Secure completed work as required to prevent loss.

No additional security will be provided by the Owner for the construction site. From the official Notice to Proceed Date, until the final Use and Occupancy permit is received and all construction materials are removed from the site, the Contractor shall be required to secure the site in order to prevent, theft, damage, vandalism, etc. All damage which occurs to the new work shall be the responsibility of the Contractor for repairs during the entire contract construction period. The Contractor shall be responsible for any additional security.

MEASUREMENT AND PAYMENT:

Cost is incidental to other cost line items and Sections.

SECTION 002 – SCOPE OF WORK

BASE BID SCOPE OF WORK DESCRIPTION:

This project consists of the renovations and improvements of the Thomas Farm Community Center Parking Lot located at 700 Falls Grove Road, Rockville, Maryland. The intent of this project is to remove and replace the parking lot for continued and future use by the City of Rockville. Portion of the work shall comply with the Americans with Disabilities Act (ADA) standards. The Contractor shall be familiar with the ADA Standards and applicable work will be in compliance with these Standards. In the descriptions below, entire groups of work are described as if to be completed as single units of work. The Contractor is solely responsible for the means and methods of safe and secure completion of this work. The Contractor shall provide all features of temporary weather protection necessary; and the Contractor shall secure the work zone during the construction period to prevent damage.

The project scope of work includes but is not limited to the following:

1. Removal and disposal of the existing pervious parking lot pavement within the limits of work as shown on the plans.
2. Reconstruction of the stone subbase in two parking bays.
3. Installation of permeable paver system in all non-ADA parking bays.
4. Installation of conventional concrete drive aisle.
5. Removal and replacement of concrete ADA parking spaces adjacent to the existing community building.
 - a. The existing concrete ADA parking spaces adjacent to the park entrance to remain.
6. Mill and Overlay asphalt entrance.
7. Removal and replacement of sections of curb and gutter as directed by the Owner in the field.
8. Install thermoplastic pavement striping and markings in ADA parking spaces adjacent to existing community building.
9. Restripe the rest of the parking lot spaces and the ADA parking spaces adjacent to the park entrance with non-toxic paint.
10. Repaint all curbs at existing fire lanes with non-toxic paint, throughout the entire parking lot including beyond the limits of disturbance.

SECTION 003 – ALTERNATES

DESCRIPTION:

1.1 DEFINITION

An Alternate is an amount proposed by Bidders and stated on the Bid Form for certain construction activities defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in the Contract Documents.

1.2 COORDINATION

Coordinate Related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the project at no additional cost to that proposed on the Bid Form.

1.3 NOTIFICATION

Immediately following the award of the Contract, prepare and distribute to each party involved notification of the status of each Alternate. Indicate whether Alternates have been accepted, rejected or deferred for consideration at a later date.

- 1.4 Bidder-originated Alternates or qualifying statements will not be considered. The Owner shall have the right to accept Alternates in any order or combination.

SCHEDULE OF ALTERNATES:

- 2.1 Specification Sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each Alternate. Include as part of each Alternate, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

1. Alternate #1 – Removal and replacement of concrete ADA parking spaces adjacent to existing park entrance.

Base Bid: Existing concrete pavement to remain. Restripe ADA parking spaces with non-toxic paint.

Alternate Bid: Remove and dispose of existing concrete ADA parking space pavement. Install new concrete ADA parking space pavement. Install thermoplastic pavement striping and markings in ADA parking spaces.

2. Alternate #2 – Extend concrete drive aisle to public right-of-way line for Fallsgrove Drive.

Base Bid: Mill and Overlay existing asphalt entrance from end of concrete drive aisle to public right-of-way line for Fallsgrove Drive.

Alternate Bid: Remove and dispose of existing asphalt driveway from the end of the concrete drive aisle to public right-of-way line for Fallsgrove Drive. Extend the conventional concrete drive aisle to the public right-of-way line.

3. Alternate #3 – Replace Asphalt entrance with a concrete driveway entrance.

Base Bid: Mill and Overlay existing asphalt entrance from the public right-of-way line for Fallsgrove Drive to the curb line for Fallsgrove Drive.

Alternate Bid: Remove and dispose of existing asphalt driveway from the public right-of-way line for Fallsgrove Drive to the curb line for Fallsgrove Drive. Install a commercial driveway entrance per MC-302.01. Restripe crosswalk with non-toxic paint

4. Alternate #4 – Replacement of concrete sidewalk at existing park entrance.

Base Bid: No work in this area.

Alternate Bid: At ADA parking spaces adjacent to existing park entrance, remove and dispose of existing concrete sidewalk connection from ADA parking to park entrance and connections to existing sidewalk. Reinstall ADA compliant landing from ADA parking spaces to park entrance, including detectable warning surface, and ramps to connect to existing sidewalk. Limits shown on Thomas Farm Community Center Maintenance Plan.

5. Alternate #5 – Replacement of a portion of concrete sidewalk at western end of ADA parking adjacent to the Community Building to provide an ADA compliant connection to the existing sidewalk.

Base Bid: No work in this area.

Alternate Bid: At ADA parking spaces adjacent to existing Community Building, remove and dispose of existing concrete sidewalk connection from ADA parking to existing sidewalk. Reinstall ADA compliant landing from ADA parking spaces, including detectable warning surface, and ramp to connect to existing sidewalk. Limits shown on Thomas Farm Community Center Maintenance Plan.

6. Alternate #6 – Replacement of a portion of concrete sidewalk to provide an ADA compliant connection from eastern end of ADA parking to existing Community Building entrance.

Base Bid: No work in this area.

Alternate Bid: At ADA parking spaces adjacent to existing Community Building, remove and dispose of existing concrete sidewalk connection from the eastern end of the ADA parking to the existing Community Building entrance. Reinstall ADA compliant ramp and landings from ADA parking spaces to the existing Community Building entrance. Limits shown on Thomas Farm Community Center Maintenance Plan.

7. Alternate #7 – Installation of ADA ramp at existing traffic circle.

Base Bid: No work in this area.

Alternate Bid: Remove and dispose of existing concrete sidewalk and curb and gutter. Install ADA compliant landing, ramps, detectable warning surface, sidewalk connections, and curb and gutter. Limits shown on Thomas Farm Community Center Maintenance Plan.

SECTION 006 – COORDINATION

DESCRIPTION:

1.1 PLANNING THE WORK

- A. Planning: Plan activities in advance to coordinate all aspects of following in addition to other coordination activities required
 - 1. Materials, services, and equipment purchasing.
 - 2. Shipping.
 - 3. Receipt and storage at site.
 - 4. Installation, including interface with related items and interference with unrelated items.
 - 5. Inspection and testing, to extent required under Contract Documents.
 - 6. Initial start-up of equipment and operational sites.
 - 7. Completion of Work of Contract including final cleaning.

1.2 COORDINATION

- A. All Trades: Coordinate work of various sections of Specifications to ensure Work of Contract is complete and to ensure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
 - 1. In the event certain parts of work are assigned to subcontractors, be responsible ensure each subcontractor completes work and that all interfaces are properly prepared, connected and function as required.
 - 2. Assignments of Work Among Subcontractors: Sole responsibility of Contractor.
 - 3. Be responsible for assigning and coordinating work and ensuring that suppliers and installers are familiar with all requirements in Contract Documents relating to each item of work regardless of location of information in Contract Documents.
 - 4. Coordinate work of various sections of Specifications having interdependent responsibilities for furnishing, installing, connecting to, and placing in service materials and equipment.
- B. Work of Contract: Provide complete, except where otherwise specifically indicated or specified, even though Drawing or Specification Section, by itself, does not provide complete description of work.
 - 1. Related Section Paragraphs: Included in Specifications as convenience and shall not limit applicability of other requirements unless specifically indicated or specified.
 - 2. Provide all items and services required to carefully interface and to connect with other work.
 - 3. Coordinate all work to be completed in the order of the sequence of construction.

- C. Equipment: Verify characteristics of elements of interrelated operating equipment are compatible; coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Work of Others: Ascertain nature and extent of work by others. Coordinate with their work and cooperate to minimize interference.
- E. In event Work under this Contract obstructs or impedes passage or work of others, remove such obstructions and impediments expeditiously and make provisions to prevent delay and provide access for others.

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

MEASUREMENT AND PAYMENT:

Not Used

SECTION 007 – FIELD ENGINEERING

DESCRIPTION:

1.1 SUMMARY

- A. Section Includes: Field engineering services required for proper execution and completion of work under this Contract.
- B. Related Sections
 - 1. Record Documents: Section 016 - Contract Closeout.

1.2 SITE SURVEY

- A. Survey: Prepared for Owner by his separate consultant.
 - 1. Such data is offered solely for reference and is not part of Contract Documents.
 - 2. Data contained in survey is believed to be reliable; however, Owner and Engineer do not guarantee its accuracy or completeness.
 - 3. Copy of site survey will be provided to Contractor for his use on this Project.

1.3 SUBMITTALS

- A. Quality Control Submittals to comply with the pertinent provisions of Category 000.
 - 1. Documentation and Records: Maintain complete and accurate log of control and survey work as it progresses. On request of Owner, submit documentation to verify accuracy of field engineering work.
 - 2. Completion Certificate: Upon completion of work, submit certificate to Owner signed by Contractor certifying that elevations and locations are in conformance with Contract Documents. Note any items of nonconformance.

1.4 QUALITY ASSURANCE

- A. The contractor is responsible for location of building and major site elements; establishment of building horizontal and vertical controls; installation of control stakes as required; and final certification that finish grading has been completed within tolerances specified.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.5 PROJECT SURVEY REQUIREMENTS

- A. Reference Points
 - 1. Engineer: Identify existing control points indicated on Drawings and site survey.
 - 2. Immediately upon entering project, Contractor shall have bench marks and all other

grades, lines, levels and dimensions located and marked by a certified land surveyor. Report any errors or inconsistencies to Engineer before commencing work.

3. Contractor shall have certified land surveyor verify adequacy of bench marks before construction commences.
- B. Permanent Bench Marks: Establish minimum of two permanent bench marks on site, referenced to data established by survey control points.
- C. Preservation of Monuments and Stakes: Carefully preserve monuments, bench marks, property markers, reference points and stakes.
1. In case of his destruction of these, Contractor shall be charged with expense of replacement and shall be responsible for any mistake of loss of time that may be caused.
 2. Protect permanent monuments or bench marks which must be removed or disturbed until properly referenced for relocation.
 3. Furnish materials and assistance for proper replacement of such monuments or bench marks.
 4. Do not change or relocate reference points or items of the Work without specific approval from the Engineer.
 5. Promptly advise the Engineer when a reference point is lost or destroyed, or requires relocation because of other changes in the Work.
 - a. Upon direction of the Engineer, require the field engineer to replace reference stakes or markers.
 - b. Locate such replacements according to the original survey control.
- D. Layout and Control
1. Site: Establish lines, levels and locations by instrumentation. Set control stakes for finish grading. Reset stakes as required during progress of work.
 2. Completion: Upon completion of work, survey site to verify that locations and elevations required by Contract Documents have been achieved within specified tolerances.

1.6 SUBMITTALS

A. Quality Control Submittals

1. Submit to Project Engineer the name and address of surveyor and data demonstrating qualifications of surveyor to be engaged for field engineering services.
2. Documentation and Records: Maintain complete and accurate log of control and survey work as it progresses.

3. Completion Certificate: Upon completion of work, submit certificate to Owner signed by Contractor certifying that elevations and locations are in conformance with Contract Documents. Note any items of nonconformance.
4. Submit survey data required by County in which work is located.
5. Submit all special certifications required by County in which work is located

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

MEASUREMENT AND PAYMENT:

Not Used

SECTION 008 – PROJECT MEETINGS

DESCRIPTION:

1.1 SCOPE

- A. To enable orderly review during progress of the Work, and to provide for systematic discussion of problems, the Owner and/or Engineer will conduct project meetings throughout the construction period.

1.2 RELATED WORK

- A. The Contractor's relations with his Subcontractors and materials suppliers, and discussions relative thereto, are the Contractor's responsibility and normally are not part of project meetings content.

1.3 QUALITY ASSURANCE

- A. For those persons designated by the Contractor to attend and participate in project meetings, provide required authority to commit the Contractor to solutions agreed upon in the project meetings.

MATERIALS:

Not Used

CONSTRUCTION:

3.1 PRECONSTRUCTION CONFERENCES

- A. Preconstruction and Contract Accomplishment Conference: Meeting will be scheduled by Owner and/or Engineer within 15 working days after the Owner has issued the Purchase Order.
 - 1. Representatives of Owner, Engineer and Contractor (including Contractor's Project Manager and Field Superintendent) shall attend.
 - 2. Administrative requirements such as products lists, schedule of values, payment applications, progress charts, submittal procedures, quality assurance, quality control, change order procedures, testing and acceptance, and project closeout will be reviewed in detail.
 - a. Outstanding submittals required before start of construction shall be submitted at this meeting.
- B. Site Mobilization Conference: Meeting will be scheduled by Owner and/or Engineer at site immediately prior to Contractor move-in. Representatives of Contractor, Geotechnical Engineer, Owner, Engineer and Engineer's Consultants will be present. Job site procedures to include following items will be discussed:
 - 1. Procedures for maintaining Project Record Documents.
 - 2. Owner's requirements.

3. Construction facilities and controls.
4. Security and housekeeping procedures.
5. Materials testing.
6. Services of the Geotechnical Engineer.
7. Requirements of start-up trades.
8. Construction layout.
9. Communications with Engineer's Consultants.
10. Access to and use of site in relation to continued use of existing facilities.

3.2 PROGRESS MEETINGS

- A. Meetings: Contractor, including project manager and field superintendent, shall attend bi-weekly meetings at Contractor's job site field office. Representatives of Owner and Engineer will attend. Also invited as appropriate to items under discussion, will be selected subcontractors and suppliers and Engineer's consultants. Following items will be discussed:
1. Review of work progress since previous meetings.
 2. Field observations, problems, conflicts.
 3. Problems which impede construction schedule.
 4. Review of off-site fabrication, delivery schedules.
 5. Corrective measures and procedures to regain projected schedule.
 6. Revisions to construction schedule.
 7. Plan progress, schedule during succeeding work period.
 8. Coordination of schedules.
 9. Maintenance of quality standards.
 10. Review submittal schedules; expedite as required.
 11. Review proposed changes for effect on subcontractors, construction schedule and completion date.
 12. Coordination of separate contracts.
 13. Other business as required.
- B. Agenda and Minutes: Owner and/or Engineer shall establish agenda, subject to Owner review, and keep and distribute within five working days, minutes of progress meetings and lists of those present and others as directed.
1. Contractor: Advise Owner and Engineer at least 24 hours in advance of meeting regarding items added to agenda.
 2. Persons Representing Contractor at Meetings: Have authority to commit Contractor to solutions agreed upon in meetings. To maximum extent possible, assign same person or persons to represent Contractor at meetings throughout progress of work.
- C. Coordination Meetings: Progress meetings shall in no way be considered substitute for Contractor/subcontractor coordination meetings.

3.3 PAVEMENT COORDINATION MEETING

- A. Pavement Coordination Meeting: Hold coordination meeting at site before demolition begins. Contractor, subcontractors, Owner, Engineer, Geotechnical Engineer and manufacturer's representatives shall attend.

1. Discuss coordination of work with other work including Shop Drawings, Product Data, possible conflicts, compatibility concerns, acceptability of substrates, protection, etc.
2. Record significant discussions at each meeting, agreements, disagreements and final plan of action. Distribute record to those in attendance.
3. Do not proceed with unit of work until pre-installation meeting is successfully concluded with agreed upon plan of action.

SECTION 009 – SUBMITTALS

DESCRIPTION:

1.1 SCOPE

- A. Make submittals required by the Contract Documents to the Engineer, and revise and resubmit as necessary to establish compliance with the specified requirements.

1.2 RELATED WORK

- A. Individual requirements for submittals also may be described in pertinent Sections of these Specifications.
- B. Maintain a record document set of all approved submittal documents under the provisions of Category 000.

1.3 WORK NOT INCLUDED

- A. Submittals not required will not be reviewed by the Engineer.
- B. The Contractor may require his Subcontractors to provide drawings, setting diagrams, and similar information to help coordinate the Work, but such data shall remain between the Contractor and his Subcontractors and will not be reviewed by the Engineer.

1.4 QUALITY ASSURANCE

- A. Coordination of submittals
 - 1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted.
 - 2. Verify that each item and the submittal for it conform in all respects with the specified requirements.
 - 3. Verify all field measurements and conditions prior to submission.
 - 4. By affixing the Contractor's signature to each submittal, certify that this coordination has been performed.
 - 5. Each drawing submittal shall be certified by the Contractor with the following stamp:
 - a. "This is to certify that the specification requirements have been met and all dimensions, conditions and quantities are verified as shown and/or corrected on these drawings.
Signed for _____"
Contractor

1.5 SUBMITTALS

- A. Make submittals of Shop Drawings, Samples, and other items in accordance with the provisions of this Section.

MATERIALS:

2.1 SHOP DRAWINGS

- A. Scale and measurements: Make Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the Work.

- B. Types of prints required
 - 1. Submit Shop Drawings: A PDF of the shop drawing set shall be submitted. If Contractor needs hard copies of the shop drawings, then the number of sets submitted shall be equal to the number required to be returned to the Contractor **plus** three (3), which is the number of sets to be retained by the Engineer and Owner.
 - 2. Unless absolutely necessary, the size of Shop Drawings shall not exceed 24"x36". Provide space on all Drawings for approval stamps and brief review comments.

2.2 MANUFACTURERS' LITERATURE

- A. Manufacturers' data shall be defined to include, but not be limited to, catalogue cuts, technical descriptive brochures, performance charts, test reports, wiring diagrams, details, specifications, and other printed literature or bulletins issued or provided by the product manufacturers. A PDF of data shall be submitted. If Contractor needs hard copies, then the number of sets of data submitted shall be equal to the number required to be returned to the Contractor **plus** three (3), which is the number of sets to be retained by the Engineer and Owner. Upon receipt, the Engineer will mark corrections, stamp copies, and return those additional copies to the Contractor. If resubmittal is necessary, repeat process until approval has been obtained.
- B. Manufacturers' data for equipment: Include materials, type, performance, characteristics, voltage, phase, capacity, and similar data. Provide wiring diagrams when applicable. Submittals indicating catalogue, model, and serial numbers representing specified equipment will be assumed to comply with the Contract Documents in all respects.
- C. Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly show which portions of the contents is being submitted for review.

2.3 SAMPLES

- A. Provide Sample or Samples identical to the precise article proposed to be provided. Identify as described under "Identification of submittals" below.
- B. Number of Samples required
 - 1. Unless otherwise specified, submit Samples in the quantity which is required to be returned, plus two which will be retained by the Engineer and Owner.
 - 2. By prearrangement in specific cases, a single Sample may be submitted for review and, when approved, be installed in the Work at a location agreed upon by the Engineer.

2.4 COLORS AND PATTERNS

- A. Unless the precise color and pattern is specifically called out in the Contract Documents, and whenever a choice of color or pattern is available in the specified products, submit accurate color and pattern charts to the Engineer for selection.

2.5 CERTIFICATIONS

- A. Provide such certification as is required per pertinent sections of these specifications. A minimum of two originals and one copy of the Certification shall be forwarded.

- B. Where Certificates are specified, show on each certification name and location of work, name and address of Contractor, quantity and date or dates of shipment or delivery to which certificate applies, and name of manufacturer.
- C. Certification: In form of letter or company standard forms, signed by officer of manufacturer (not vendor, agent, etc.).
- D. Certification: Certify that materials or equipment meet or exceed specified requirements.
- E. Laboratory Test Reports: Show date of testing, specified requirements for which testing was performed, and results of tests.

2.6 EQUIPMENT OPERATING AND MAINTENANCE DATA

- A. Provide Operating, Maintenance and Product data manuals as described in Category 000 of these Specifications.

2.7 UTILITY APPROVALS

- A. Approval of utilities or other public authorities having jurisdiction shall be obtained and reflected on all affected submittals.

2.8 SCHEDULE OF VALUES

- A. Form: Typed schedule on 8-1/2 inch by 11 inch paper; Contractor's standard form or media-driven printout will be considered upon request.
- B. Format: Table of Contents of Project Manual.
 - 1. Identify each line item with number and title of major specification sections.
 - 2. Unit Cost Allowances: Give quantities measured from Contract Documents multiplied by unit cost to total for item.
 - 3. Include proportional amount of Contractor's overhead and profit in each line item.
 - 4. Provide schedule to list change orders for each application of payment.

2.9 PROGRESS SCHEDULE

- 1. Prepare and submit in accordance with General and Supplementary Conditions.

CONSTRUCTION:

3.1 DEVIATIONS FROM CONTRACT DOCUMENTS

- A. Clearly mark all deviations in a conspicuous manner indicating component and system variations, additions and deletions, revised equipment locations, construction detail variations, substitutions, and similar changes or deviations. Indicate all dimensions affected by proposed deviations. All variations from the Contract Documents not brought to the attention of the Engineer shall be the sole responsibility of the Contractor even though such submittal has been accepted.

3.2 IDENTIFICATION OF SUBMITTALS

- A. Consecutively number all submittals.
 - 1. When material is resubmitted for any reason, transmit under a new letter of transmittal and with the original transmittal number and a revision designation beginning with 00#, where # indicates the resubmittal number.

2. All changes should be clearly designated as to revisions made. No consideration will be allowed for submittal revision labor made to coordinate revised, changed, adjusted details or scope of Work.
- B. Accompany each submittal and resubmittal with a letter of transmittal showing all information required for identification and checking. Letter of transmittal should make reference to the applicable drawing numbers, specification sections and submittal schedule item number to which each submittal applies.
- C. On at least the first page of each submittal, and elsewhere as required for positive identification, show the submittal number in which the item was included.
- D. Each submittal should indicate supplier/installer's name, phone number and the specific location(s) of the submitted product in the project.
- E. Maintain an accurate submittal log for the duration of the Work, showing current status of all submittals at all times. Make the submittal log available to the Owner/Engineer for his review upon request. List submittals and resubmittals together. Contractor shall provide an updated submittal log for review at each progress meeting.

3.3 GROUPING OF SUBMITTALS

- A. Unless otherwise specified, make submittals in groups containing all associated items to assure that information is available for checking each item when it is received.
 1. Partial submittals may be rejected as not complying with the provisions of the Contract.
 2. The Contractor may be held liable for delays so occasioned.

3.4 TIMING OF SUBMITTALS

- A. The Contractor shall submit within thirty (30) calendar days of Contract award a submittal schedule listing all items by number and dates of submittal, and lead time for each item with particular note of priority items to be reviewed. All submittals shall be submitted in an orderly sequence with priority items clearly identified.
- B. A complete listing of materials and their associated costs, broken down by specification section, shall be provided by the Contractor within thirty (30) calendar days after the Notice to Proceed.
- C. All other submittals by the General Contractor should be made within 45 calendar days of the Notice to Proceed or far enough in advance of scheduled dates for installation to provide time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery, whichever comes first.
- D. Where it is shown that the Contractor has neglected to submit shop drawings on a timely basis or to place his orders for materials and labor early enough to conform with materials and labor requirements, color schemes, etc., such failure shall not be deemed as legitimate cause for delay.
- E. In scheduling, allow at least five (5) working days for review by the Engineer following his receipt of the submittal.

3.5 ENGINEER'S REVIEW

- A. Review by the Engineer does not relieve the Contractor from responsibility for errors which may exist in the submitted data.

- B. Revisions
 - 1. Make revisions required by the Engineer.
 - 2. If the Contractor considers any required revision to be a change, he shall so notify the Engineer as provided for in the General Conditions.
 - 3. Make only those revisions directed or approved by the Engineer.

- C. Engineer's approval

- D. Until approval has been given by the Engineer, any materials or items to be so approved must not be fabricated or incorporated in the Work. The Engineer's approval will be only general in nature and shall not be construed as permitting any departure from Contract requirements, or as relieving the Contractor of responsibility for any errors concerning details, dimensions, materials, etc. If drawings show variations from Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variation in his letter of transmittal. If acceptable, the Engineer may approve any or all such variations, subject to proper adjustment in Contract price. If the Contractor fails to describe such variation, he shall not be relieved of the responsibility for executing the Work in accordance with the Contract, even though such drawings have been approved.
 - 1. Acceptance shall not be construed as a complete check but will indicate only that the general method of design, fabrication, and detailing is consistent with the design intent and that errors and discrepancies observed when reviewed have been noted. Acceptance of a separate item shall not be interpreted as an approval of an assembly in which the item functions. The right is reserved by the Engineer to require submission of additional detail, shop, erection or setting drawings and of any schedules for any part of Work, whether or not specifically mentioned in the Project Specifications, where substitutions or modifications are proposed by the Contractor, or where such information is essential to the proper assembly, coordination or execution of Work under the Contract.

 - 2. Review and acceptance shall not relieve the Contractor from responsibility for errors in shop drawings or for proper coordination assembly of materials and equipment with other Work, nor from the responsibility of furnishing materials and labor not indicated on approved shop drawings, but required by the Contract Documents for completion of Work.

3.6 JOB SITE DOCUMENTS

- A. Documents: Keep complete set of accepted Shop Drawings or Product Data at project site.

3.7 FIELD MEASUREMENTS

- A. Field measurements are the responsibility of the Contractor.

SECTION 010 – SUBSTITUTIONS

DESCRIPTION:

1.1 SUMMARY

- A. All requests for product and material substitutions shall be received in writing by the Engineer for approval a minimum of ten (10) calendar days prior to receipt of bids. Requests received after that time will not be considered.

1.2 PRODUCTS NOT CONSIDERED SUBSTITUTIONS

- A. Revisions to Contract Documents requested by the Owner or Engineer.
- B. Specified or listed acceptable product options and alternative construction methods indicated in Contract Documents.
- C. Revisions to Contract Documents required to conform with governing regulations and orders issued by governing authorities.

MATERIALS:

Not Used

CONSTRUCTION:

3.1 REQUESTS FOR SUBSTITUTION

- A. Requests for substitution must be submitted in writing. Requests for substitution shall not be submitted by facsimile ("faxed").
 - 1. Submit two (2) copies of "Request for Substitution" cover letter with the following information:
 - a. Project Name
 - b. Today's date
 - c. Firm/Manufacturer's name with street address and phone number
 - d. Bid Date
 - e. Referenced section of project specifications
 - f. Proposed product
 - g. Brief description of proposed request for substitution listing any required changes to other parts of the work necessary to accommodate proposed substitution.
 - h. Estimated savings or cost increase over specified product(s), including cost of changes to other parts of the work required to accommodate proposed substitution.
 - i. Impact on construction schedule
 - 2. Submit separate cover letters for each "Request for Substitution."
 - 3. Submit three (3) photocopies of referenced section of project specifications with paragraph by paragraph comparison of specified product and proposed substitution product listed on attached sheets of similar format.

4. Submit manufacturer's descriptive literature, copy of guarantee and recommended installation instructions for proposed substitution product.
5. Submit product samples if requested by Engineer. Bidders shall call Engineer to determine if samples are required.
6. If requested by the Engineer as a means of determining whether or not a material or item submitted by the Contractor is equal to the standards established by the Contract Documents, the Contractor shall submit data for both the specified and proposed item or materials in the form of engineering data or calculations; results of tests conducted by the independent testing laboratories; experience records of the material or equipment used under conditions similar to that proposed in the Project; any other means required by the Engineer to establish the fact that the proposed item is equal to the specified.
7. The furnishing of all items above, will be at the expense of the Contractor and without cost to the Owner.

3.2 EVALUATION

- A. The Engineer shall evaluate all information submitted and recommend to Owner acceptance or rejection of request for substitution. Incomplete submittals will not be considered. Owner will make final decision. If proposed substitution is accepted, bidders will be notified by means of an Addendum to the Contract. If a decision on a request for substitution cannot be made or obtained before receipt of bids, bidders must use the product(s) specified by name.

3.3 COORDINATION

- A. The Contractor is responsible for identifying and implementing all requirements, material process or otherwise, which are affected by permissible substitutions or deviations from products or assemblies described in the Contract Documents to complete work as described in the Bid and Contract Documents.

3.4 CONTRACTOR'S REPRESENTATIONS

- A. The undersigned, having thoroughly investigated the proposed substitution, hereby states that (a) the substitution is equal or superior in all respects to the originally specified product, (b) the same warranty or warranties as originally specified will be provided, (c) the Contractor will bear all costs for redesign, re-engineering, and special inspection or testing caused by acceptance of the substitution, (d) the Contractor will coordinate the incorporation of the proposed substitution into the Work, (e) make any and all modifications to other parts of the Work as may be necessary and approved by the Owner and Engineer to make all parts of the Work complete and functioning at no additional cost to the Owner, (f) Contractor waives future claims for added costs to any party caused by the proposed substitution, and (g) Contractor assumes all responsibility for direct or indirect cost and/ or time impacts as a result of the acceptance of the substitution.

3.5 SUBSTITUTION REQUEST FORM

A. Substitution Request Form: See next page.

SUBSTITUTION REQUEST FORM

TO _____ PROJECT _____

We hereby submit for your consideration the following product instead of the specified item for the above project.

Section _____ Paragraph _____ Specified Item _____

Proposed Substitution _____

Attach complete technical data, including laboratory tests, if applicable. Include complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation. Fill in the Blanks below:

A. Reason for substitution: _____

B. Changes to Drawings and/or Specifications required by proposed substitution: _____

C. Will the undersigned pay for changes to the site design, including architectural, engineering and detailing costs caused by the requested substitution? Yes _____ No _____.

D. What effect does substitution have on other trades? _____

E. What effect does substitution have on construction schedule? _____

F. Differences between proposed substitution and specified item? _____

G. Manufacturer's guarantees of the proposed and specified items are:

_____ Same _____ Different (explain on attachment)

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

SUBMITTED by:

For Use by Design Consultant:

Signature _____ Title _____ . ___ Accepted ___ Accepted As Noted
Firm _____ . ___ Not Accepted ___ Received Too Late
Address _____ . By _____
Date _____ . Dated _____
Telephone _____ . Remarks _____

SECTION 011 – QUALITY CONTROL

DESCRIPTION:

1.1 REFERENCES

- A. Reference Standards per Category 000. Comply with following:
 - 1. ASTM D3740- Practice for Evaluation of Agencies Engaged in Testing and/or inspection of Soil and Rock as Used in Engineering Design and Construction.
 - 2. ASTM E329- Standard Recommended Practice for inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as used in Construction.
 - 3. Any other testing standards specified in individual sections.

1.2 QUALITY ASSURANCE

- A. Laboratory: Accredited to operate in State of Maryland & certified by SHA
- B. Laboratory: Carry \$1,000,000 professional liability insurance.

1.3 SELECTION AND PAYMENT

- A. Contractor shall employ and pay for services of independent testing laboratory to perform inspection and testing as directed. Costs for these services shall NOT be included in the Base Bid contract Sum.

1.4 SUBMITTALS

- A. Laboratory: After each inspection and test, promptly distribute copies of test and inspection reports made by testing laboratories as follows:
 - 1 copy- Contractor
 - 1 copy- Applicable Supplier or Subcontractor
 - 1 copy- Owner
 - 1 copy- Engineer
 - Other copies as directed.
 - 1. Test Reports: Include date issued, Project title and number, name of inspector, date and time of sampling or inspection, identification of product and specifications section, location in the Project, type of inspection or test, date of test, results of test, and conformance with Contract Documents.
 - 2. When requested by Engineer, provide interpretation of test results

1.5 RESPONSIBILITIES

- A. Testing Laboratory
 - 1. Test samples submitted by Contractor as requested by the Testing Laboratory
 - 2. Provide qualified personnel at site after due notice; cooperate with Engineer and Contractor in performance of services.
 - 3. Perform specified inspection, sampling, and testing of products in accordance with specified requirements.
 - a. Services: Performed in accordance with requirements of governing

authorities and with Reference Standards.

4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
5. Promptly notify Engineer and Contractor of observed irregularities or nonconformance of work or products.
6. Perform additional inspections and tests required by Owner.
7. Attend preconstruction conferences and progress meetings.

B. Contractor

1. Notification: Notify testing laboratory at least 72 hours in advance of time for need for testing.
2. Furnish required samples without charge and give sufficient notice of placing of orders to permit testing.
3. Cooperate with testing laboratory personnel and provide access to work.
4. Provide incidental labor and facilities to provide access to work to be tested, to obtain and handle samples at site or at source of products to be tested, to facilitate tests and inspections, and for storage and curing of test samples.
5. Do not use materials or equipment represented by samples until tests, if required, have been made and materials or equipment found to be acceptable.
6. Do not incorporate any product into work which becomes unfit for use after acceptance thereof.
7. Equipment Testing and Demonstrations: Provide fuel, accessories, and tools required to operate equipment for tests and demonstrations.

C. Limits on Testing Laboratory Authority

1. May not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. May not approve or accept any portion of the Work.
3. May not assume any duties of Contractor
4. Has no authority to stop work.

1.6 TESTING AND INSPECTIONS - GENERAL

A. Testing and Inspection: Materials or equipment proposed to be used may be tested or inspected at any time during their preparation or use. Products may be sampled either prior to shipment or after being received at site of work.

1. Specific information concerning testing methods, sample sizes, etc., is included under applicable sections of Specifications.
2. Any modification of, or elaboration on, these test procedures included for specific materials under their respective sections in Specifications shall take precedence over these procedures.

1.7 TESTING AND INSPECTIONS PAID FOR BY THE CONTRACTOR

A. Control Tests and Inspections of Fill and Backfill: At such times and in such numbers as specified in Section 201 - Earthwork, with Geotechnical Report and as required by local building authority.

B. Control Tests and Inspections of Asphalt Paving Base and Finish Courses: At such times and in such numbers as specified in Section 504 – Hot Mix Asphalt Pavement.

C. Control Tests and Inspections of Concrete Work: At such times and in such numbers as

specified in Sections 520 – Plain and Reinforced Portland Cement Concrete Pavements, and as required by local building authority.

1.8 OTHER TESTING AND INSPECTION

- A. Following Testing and Inspection: Performed at expense of Contractor:
1. Other Tests and Inspections: Other tests and inspections required by Contract Documents not listed in article above. With the exception of item A.3, below, the Contractor shall not use the same testing company as the Owner for any listed tests.
 2. Tests and inspections required by applicable codes and local public agencies having jurisdiction over Work.
 3. Additional tests and re-inspections required because of tests or inspections that fail subject to following conditions:
 - a. Quantity and Nature of Tests: Determined by Engineer.
 - b. Tests: Taken in presence of Engineer.
 - c. Proof of Noncompliance: Contractor liable for corrective action which Engineer feels is required including complete removal and replacement of defective material
 4. Material Substitution: Tests of materials or equipment offered as substitute for specified item on which test may be required in order to prove its compliance with Specifications.
- B. Contractor: May have tests performed on material and equipment for his own information and job control so long as Owner does not assume responsibility for costs or for giving them consideration when appraising quality of materials.

1.9 MOCK-UPS

- A. Mock-ups: When required by individual sections, erect complete, full scale mock-up of assembly at Project site at location as directed.
1. Remove at completion of Project when accepted by Engineer, unless otherwise specified.

1.10 CONTRACTOR'S QUALITY CONTROL SYSTEM

- A. General: Maintain quality control over suppliers, manufacturers, products, service, site conditions, and workmanship to produce work of specified quality.
1. Workmanship: Comply with industry standards except when more restrictive tolerances or specified requirements require more rigid standards for more precise workmanship.
 2. Perform work by persons qualified to produce workmanship of specified quality.
- B. Quality Control: Establish system to perform sufficient inspection and tests of all items of work, including that of subcontractors, to ensure conformance to Contract Documents for materials, workmanship, construction, finish, functional performance and identification.
1. Control System: Establish for all construction except where Contract Documents provide for specific compliance tests by testing laboratories and engineers employed by Owner.

2. Control System: Specifically include all testing required by various sections of Specifications.
- C. Quality Control System: Means by which Contractor assures himself that construction complies with requirements of Contract Documents.
1. Controls: Adequate to cover all construction operations and keyed to proposed construction Schedule.
- D. Records: Maintain correct records on appropriate form for all inspections and tests performed, Instructions received from Engineer and actions taken as result of those instructions.
1. Records: Include evidence that required inspections or tests have been performed (including type and number of inspections or tests, nature of defects, causes for rejection, etc.) proposed or directed remedial action, and corrective action taken.
 2. Document inspections and tests as required by each section of Specifications

1.11 INSTALLATION - GENERAL

- A. Examination
1. Verification of Conditions: Require installer/applicator/erector of each major unit of work to inspect substrate to receive work and conditions under which work is to be performed.
 2. Installer/Applicator/Erector
 - a. Verify layout of work before beginning installation.
 - b. Report unsatisfactory conditions to General Contractor in writing with copy to Engineer/Owner.
 - c. Do not proceed with work until unsatisfactory conditions have been corrected to satisfaction of installer.
 - d. Beginning of work means acceptance of existing conditions by applicator.
 3. Pre-installation Conferences per Category 000.
- B. Manufacturer's Instructions: Where installations include manufactured products, comply with manufacturer's applicable printed instructions and recommendations for installation, to extent that these instructions and recommendations are more explicit or more stringent than requirements specified or indicated.
- C. Attachment: Provide attachment and connection devices and methods for securing work to withstand stresses, vibration, and racking.
1. Secure work true to line and level, and within specified tolerances, or if not specified, industry recognized tolerances.
 2. Allow for expansion and building movement.
 3. Physically separate, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
 4. Exposed Joints
 - a. Provide uniform joint width.
 - b. Arrange joints to obtain best visual effect.
 - c. Refer questionable visual-effect choices to Engineer for final decision.
- D. Measurements and Dimensions: Recheck as integral step of starting each installation.

- E. Climatic Conditions and Project Status: Install each unit of work under conditions to ensure best possible results in coordination with entire project.
 - 1. Isolate each unit of work from incompatible work as necessary to prevent deterioration.
 - 2. Coordinate enclosure of work with required inspections and tests to minimize necessity of uncovering work for those purposes.

- F. Mounting Heights: Where not indicated, mount individual units of work at industry recognized standard mounting heights for particular application indicated.
 - 1. Comply with ADA mounting height requirements.
 - 2. Refer questionable mounting heights choices to Engineer for final decision.

- G. Manufacturer's Field Service and Reports: When specified in individual sections, require manufacturer's to provide qualified personnel to inspect field conditions, conditions of surfaces and installation, quality of workmanship, to make appropriate recommendations and ensure that specified warranties and bonds shall be provided.
 - 1. Manufacturer's Representative: After each inspection, submit written report to installer, Contractor, and Engineer listing observations and recommendations.

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

SECTION 012 – CONSTRUCTION FACILITIES & TEMPORARY CONTROLS

DESCRIPTION:

1.1 SCOPE

- A. Provide temporary facilities and controls needed for the Work including, but not necessarily limited to:
 - 1. Temporary utilities such as heat, water, electricity, and telephone
 - 2. Field Offices and Sheds
 - 3. Sanitary facilities
 - 4. Enclosures such as tarpaulins, barricades, and canopies
 - 5. Temporary fencing of the construction site
 - 6. Project sign

1.2 RELATED WORK

- A. Except that equipment furnished by subcontractors shall comply with requirements of pertinent safety regulations. Such equipment normally furnished by the individual trades in execution of their own portions of the Work are not part of this Section.
- B. Permanent installation and hookup of the various utility lines are described in other Sections.

MATERIALS:

2.1 UTILITIES

- A. Cold Weather Protection
 - 1. The Contractor shall provide at his own expense all cold weather protection, temporary heat and fuel, and powered ventilation as necessary to carry on the Work during inclement weather, to protect all Work and materials against injury from dampness and cold, to provide suitable conditions for the installation and curing of materials until final acceptance. Equipment for heating shall be U.L. approved and shall have automatic temperature controls.
 - 2. Refer to requirements in other sections of this specification for temperatures to be provided and maintained for installation and curing under the various trades. The method of heating and the type of fuel and equipment used shall be subject to approval by the Engineer. Open flame type heaters will not be permitted after the building is enclosed. The permanent heating system for the building shall be used to provide temporary heating as hereinafter specified.
 - 3. The heating requirements during construction are divided into "Cold Weather Protection" and "Temporary Heat" as hereinafter specified.
 - 4. Cold Weather Protection shall be required from the start of the Project up to the time when the Work is entirely closed in and the heating apparatus is in permanent position, ready for operation on a temporary basis, by the Contractor. This Work shall include protection of Work exposed to the elements against adverse dampness and cold, by covering, enclosing, and heating materials and Work

under construction, and providing suitable working conditions for all trades employed on the Work. This cold weather protection shall be provided by the Contractor at his own expense.

B. Temporary Water Service

1. The Contractor shall provide, and later remove, temporary water service or secure separate water source, as required. The Contractor assumes responsibility for payment of all temporary utilities used. Any costs for meter reading or transferring the account shall be borne by the Contractor.

C. Temporary Electric Service

1. The Contractor shall provide, and later remove, temporary electrical service and/or generator, as required. The Contractor assumes responsibility for payment of all temporary utilities used. Any costs for meter reading or transferring the account shall be borne by the Contractor.

2.2 FIELD OFFICES AND SHEDS

A. Field Offices

1. Contractor shall provide and maintain a suitable temporary field office at the project site for his own use as necessary. Locate office at location approved by Owner. Any temporary electric and telephone connections to this field office will be made by and the sole responsibility of the Contractor.
2. Contractor shall secure all required permits for field offices at its own expense.

B. Sheds

1. Contractor shall provide and maintain such additional offices, storage sheds and other temporary buildings or trailers on the project site as required for his own use. Subcontractors shall provide their own temporary sheds or trailers. Locations of sheds and trailers shall be approved by Owner and Engineer.
2. Contractor shall secure all required permits for sheds at its own expense.

2.3 SANITARY FACILITIES

A. Temporary Toilets

1. The Contractor shall provide and maintain an adequate number of approved prefabricated temporary toilets with proper enclosures as necessary for use of workmen. Keep toilets clean and comply with all applicable health and sanitary regulations.

2.4 ENCLOSURES

- A. Provide and maintain for the duration of construction all scaffolds, tarpaulins, canopies, warning signs, steps, platforms, bridges, egress doors and other temporary construction necessary for proper completion of the Work in compliance with pertinent safety and other regulations. Security, emergency egress, fire alarm and suppression systems shall remain operational in all occupied areas.

2.5 TEMPORARY FENCING

- A. Provide and maintain for the duration of construction a temporary fence of design, type and extent needed to prevent entry onto the Work site including all areas and portions thereof by unauthorized persons.

2.6 TEMPORARY SIGNS

- A. General Contractor's sign may be mounted at the site, 4'x4' maximum size.
- B. Project Identification Sign
 1. One painted sign of construction, design, and content as specified by Owner. Background color shall be blue. Sign shall have an area of 32 sq ft, mounted with its bottom edge 6 feet above ground.
 2. Sign Lettering: Series C of Standard Alphabet for Highway Signs, Public Roads Administration, Federal Works Agency.
- C. Project Informational Signs
 1. Painted informational signs of same colors and lettering as Project Identification sign, or standard products; size lettering for legibility at 100 feet distance.
 2. Provide sign at each field office, storage shed, and directional signs to direct traffic into and within site. Relocate as Work progress requires.
 3. Provide governing traffic agency directional traffic signs to and within site.
 4. No other signs are allowed without Owner permission except those required by law.
- D. Design sign and structure of all signage to withstand 60 miles/hr wind velocity.
- E. Sign Painter: Experienced as professional sign painter for minimum three years.
- F. Finishes, Painting: Adequate to withstand weathering, fading, and chipping for duration of construction.
- G. Show content, layout, lettering, color, foundation, structure, sizes, and grades of members
- H. Sign Materials
 1. Structure and Framing: New, wood, structurally adequate.
 2. Sign Surfaces: Exterior grade plywood with medium density overlay, minimum 3/4 inches thick, standard large sizes to minimize joints.
 3. Rough Hardware: Galvanized or brass.
 4. Paint and Primers: Exterior quality, two coats; sign background of color as selected.
 5. Lettering: Exterior quality paint, contrasting colors as selected.
 - a. Pre-cut vinyl self-adhesive products are acceptable in lieu of painted lettering.
- I. Installation
 1. Install project identification sign within fifteen (15) days after date fixed by Owner- Contractor Agreement.
 2. Erect at location designated by the Owner and Engineer, with high visibility and adjacent to main entrance to site.

3. Erect supports and framing on secure foundation, rigidly braced and framed to resist wind loadings.
 4. Install sign surface plumb and level, with butt joints. Anchor securely.
 5. Paint exposed surfaces of sign, supports, and framing.
- J. Maintenance: Maintain signs and supports clean, repair deterioration and damage.
- K. Removal: Remove signs, framing, supports, and foundations at completion of Project and restore area.
- L. Except as otherwise specifically approved by the Owner/Engineer, do not permit other signs or advertising on the job site.

CONSTRUCTION:

3.1 MAINTENANCE AND REMOVAL

- A. Maintain temporary facilities and controls as long as needed for safe and proper completion of the Work.
- B. Remove such temporary facilities and controls as rapidly as progress of the Work will permit, or as directed by the Engineer

SECTION 013 – SITE PROCEDURES & CONTROLS

DESCRIPTION:

1.1 REQUIREMENTS INCLUDED

- A. Provide site procedures, protection of property, site controls, housekeeping and other work required to complete the project.
- B. Remove temporary materials, equipment and construction by the time of substantial completion.

1.2 CONTROLS

- A. Security: Be responsible for project security. Protect and secure the site, building areas in Contractor's possession, materials and equipment from theft and damage, by whatever reasonable means are effective or as directed by the Owner during construction.
- B. Parking and Traffic Control
 - 1. Comply with local regulations regarding parking and traffic control.
 - 2. Coordinate and comply with local authorities regarding any necessary diversion of streets or sidewalks.
 - 3. No materials or supplies shall be stacked on existing streets or sidewalks without written authorization from the local authority having jurisdiction.
- C. Snow and Ice Removal
 - 1. Keep access to building and work areas clear of snow while work is in progress. Do not allow snow and ice to accumulate over surfaces that can be damaged upon thawing.
 - 2. Do not allow snow and ice to accumulate so as to overload or otherwise endanger any part of the work.
- D. Site Access and Protection
 - 1. Maintain in good and usable condition the necessary access to the premises.
 - 2. Protect all permanent site improvements to remain such as curbs, pavement and utilities.
 - 3. Maintain access for fire-fighting equipment.

1.3 PROTECTION

- A. Protection for Persons and Property
 - 1. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the project.
 - 2. Do not permit trenches to remain open for without adequate board covering or fencing
 - 3. Provide barriers, signs, warning lights, temporary exit lights, and similar safety measures to protect pedestrian traffic from injury from construction process.
 - 4. Adjacent sidewalks and alleys shall remain open for use by the public during demolition work unless permission for closing is obtained from local authorities having jurisdiction.
- B. Winter Construction and Weather Protection: Take special precautions against damage to the materials stored and work installed in freezing weather including existing sprinkler line.

Provide coverings for materials subject to damage by the elements.

- C. Fire Protection During Demolition and Construction
 - 1. Provide and maintain hand fire extinguisher suitable for fire hazards involved at convenient accessible locations during construction. Provide each storage location with at least one all-purpose approved portable fire extinguisher. Place portable extinguisher so that maximum travel distance to the nearest exit shall not exceed 75 feet. Keep CO2 type extinguisher near welding, temporary heaters and other hazardous operations.
 - 2. Avoid accumulations of combustible forms, form lumber and debris within building and vicinity.
 - 3. Store flammable or volatile liquids in the open or in small, detached structures or trailers. Handle liquids with low flash points in approved safety cans. Supervise closely the storage of paint materials and other combustible finishing and cleaning products. Do not permit oily rags to be stored in closets or other tight permanent places.
 - 4. Prohibit smoking in the vicinity of hazardous operations and locations.
 - 5. Closely supervise welding and torch cutting operations near combustible materials.
 - 6. Supervise locations and operation of temporary portable heating units and fuels.
 - 7. Take other precautions suitable for hazardous conditions at the site to prevent fire.
 - 8. Install fire suppression and standpipe system and maintain in operation, as required by authorities having jurisdiction.

1.4 HOUSEKEEPING

- A. Trash Disposal
 - 1. Keep building and site free from accumulations of waste materials. Remove cartons, crates, wrappings, lunch trash and other trash daily.
 - 2. Provide trash receptacles in convenient site locations.
 - 3. Do not burn paper, trash or other material on site
- B. Excess Material
 - 1. Remove excess and temporary materials from Owner's property.
 - 2. Keep paved public streets and thoroughfares clean, by cleaning daily, or more often if necessary, of earth and debris spillage from trucking involved in construction operations.
- C. Rodent Control
 - 1. Rodent extermination materials shall be those approved by the local Health Department or other agency having jurisdiction.
 - 2. Maintain sanitary premises and effective control of rodents during construction.

1.5 ENVIRONMENTAL PROTECTION

- A. Noise Abatement
 - 1. Comply with all local noise abatement ordinances.
 - 2. Equip internal combustion engines and compressors with mufflers to reduce noise to a minimum.

B. Pollution Control

1. Comply with all local and Federal anti-pollution ordinances.
2. Keep areas dampened to prevent dust from rising due to construction.

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

SECTION 014 – MATERIALS AND EQUIPMENT

DESCRIPTION:

1.1 RELATED REQUIREMENTS

- A. General and Supplementary Conditions.

1.2 PRODUCTS

- A. Include material, equipment and systems.
 - 1. Comply with Specifications and referenced standards as minimum requirements.
 - 2. Components Supplied in Quantity within Specification Section: Same, interchangeable, and of one manufacturer.
 - 3. Products shall be new unless otherwise specified, free of defects, and of types specified.

1.3 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- C. Inspect shipments to assure products comply with requirements, quantities are correct, and products are undamaged.
 - 1. Reject damaged and defective items.

1.4 STORAGE AND PROTECTION

- A. Store products in accordance with manufacturer's recommendations, with seals and labels intact and legible. Store sensitive products in weather tight enclosures; maintain within temperature and humidity ranges required by manufacturer's recommendations.
 - 1. Store loose granular materials on solid surfaces in well drained area; prevent mixing with foreign matter.
- B. Exterior Storage Protection
 - 1. Fabricated Products: Place on sloped supports above ground.
 - 2. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- C. Inspection: Arrange storage to provide access and conditions for inspection. Periodically inspect to assure products are undamaged, and are maintained under recommended conditions.

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

SECTION 015 – STARTING OF SYSTEMS

DESCRIPTION:

1.1 SUMMARY

A. Related Sections

1. Category 000 - Contract Closeout: Operation and Maintenance Data

1.2 SYSTEMS DEMONSTRATIONS

A. Equipment Demonstrations: Upon completion of work and before inspection for substantial completion, schedule time with Engineer, and instruct Owner's representative(s) once, in presence of Engineer, on proper operation, adjustment, and maintenance of products, equipment and systems.

1. Participants: As minimum, presenting participants shall include Contractor, appropriate subcontractor, equipment manufacturer's representatives, and appropriate sub-subcontractors.
2. Contractor's Representatives: Thorough knowledge of particular installation.
3. Manufacturer's Representative: Thorough understanding of particular equipment.
4. Use operation and maintenance manuals as basis of instruction. Review contents of manuals in detail to explain all aspects of operation and maintenance.
5. Equipment Testing and Demonstrations: Provide fuel, accessories, and tools required to operate equipment for tests and demonstrations.
6. For equipment requiring seasonal operation, perform demonstration for each type of seasonal operation.
7. Successful completion of equipment demonstrations using accepted operation and maintenance data is a requirement for substantial completion. Coordinate with requirements of Category 000 – Contract Closeout.

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

SECTION 016 – CONTRACT CLOSEOUT

DESCRIPTION:

- 1.1 SCOPE
 - A. Provide and orderly an efficient transfer of the completed Work to the Owner.
- 1.2 RELATED SECTIONS
 - A. Category 000 - Starting of Systems: System Demonstrations.
- 1.3 QUALITY ASSURANCE
 - A. Prior to requesting evaluation by the Engineer, use adequate means to assure that the Work is completed in accordance with the specified requirements and is ready for the requested inspection.

MATERIALS:

Not Used

CONSTRUCTION:

- 3.1 FINAL CLEANING
 - A. Cleaners: Professional cleaners with exception of cleanup of site and cleaning specifically assigned to installers and applicators under various sections of specifications.
 - B. Completion
 - 1. Entire Work Inside and Out: First-class clean condition upon completion before being accepted by Owner.
- 3.2 PROJECT RECORD DOCUMENTS
 - A. Maintain at project site one record copy of following:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Accepted Shop Drawings, Product Data and Samples.
 - 5. Change Orders.
 - 6. Other Modifications to Contract.
 - 7. Field Test Records.
 - 8. Inspection Certificates.
 - 9. Manufacturer's Certificates.
 - B. Record Documents: Do not use record documents for construction purposes. Maintain documents in clean, dry legible condition, apart from documents used for construction. Keep available for inspection.

- C. Record Information: Label each document “Record Document”.
 - 1. Mark information with contrasting colors using ink and different colors for different systems.
 - 2. Keep each record current. Do not permanently conceal any work until required information is recorded.

- D. Drawings: Record following information on Contract Drawings:
 - 1. Depth of foundation elements.
 - 2. Horizontal and vertical location of underground utilities.
 - 3. Location of internal utilities and appurtenances concealed in construction.

- E. Field changes of dimension and detail.
 - 1. Changes by change order or field order.
 - 2. Details not on original Contract Drawings.
 - 3. Reference to related Shop Drawings and Modifications

- F. Specifications: Record following information on specifications:
 - 1. Manufacturer, trade name, catalog number and supplier of products and items of equipment actually installed.

- G. Changes by change order or field order.
 - 1. Other matters not originally specified.

- H. Shop Drawings: Maintain Shop Drawings as record documents recording changes made after review as specified for Drawings above.

- I. Submittal: At completion of project, deliver record documents to Engineer with transmittal letter containing date, project title and number, Contractor’s name and address, title and number of each record document, and certification that each document is complete and accurate. Submittal shall be signed by Contractor.
 - 1. Submittal and acceptance of Project Record documents is requirement for final completion.

3.3 CLOSEOUT PROCEDURES

- A. Procedures: The following project closeout procedure defines responsibilities of Contractor, Owner, and Engineer in closing project:
 - 1. Step 1: Contractor advises Engineer in writing that he has reached “Substantial Completion” and provides list of items to be completed or corrected. Closeout may be conducted by areas or portions of work if requested by Owner.
 - 2. Step 2: Engineer observes work to determine if it is substantially complete, and if substantially complete, issues Certificate of Substantial Completion plus “Punch List” of items to be completed or corrected.
 - a. Prior to the issuance of a Certificate of Substantial Completion, the following actions must be performed.
 - 1. Notify applicable utility companies to terminate temporary services.

2. Obtain applicable Health Department inspections and permits.
 3. Deliver all warranties to the Owner.
 4. Remove all debris and trash from the project site.
3. Step 3: Contractor completes and corrects all punch list items and notifies Engineer in writing that his work is ready for final inspection. At this time, final application for payment is submitted.
- a. Contractor shall certify that:
 1. Contract Documents have been reviewed
 2. Work has been inspected for compliance with the Contract Documents
 3. Work has been completed in accordance with the Contract Documents
 4. Equipment and systems have been tested as required, and are operational.
4. Step 4: Engineer makes final observation. When work is found to be acceptable under Contract Documents, and contract fully performed, Engineer will issue final Recommendation for Payment.

3.4 REOBSERVATION FEES

- A. Reobservation Fees: Should Contractor fail to complete and correct punch list items such that additional observations are required by Engineer, Contractor shall pay Owner for Engineer's additional services at rates as established in Owner/Engineer Agreement. If Contractor has any question with regard to any items on punch list, he shall request clarification before final evaluation.

3.5 FINAL PAPERWORK

- A. Final Paperwork: Prior to release of final payment, Contractor shall deliver following items to Engineer as described in following articles or applicable Sections of these Specifications.
1. Inspection Certificates, as applicable.
 2. Contractor's Warranty of Materials and Workmanship.
 3. Maintenance Manuals and Parts Lists, as specified
 4. All Guarantees, Warranties and Submittals, as specified.
 5. Receipts for Extra Materials Delivered to Owner.
 6. Receipts for Miscellaneous Keys, Keying Schedule, Switches, Etc
 7. Final Application for Payment
 8. Consent of Surety to Final Payment.
 9. Contractor's Affidavit of Release of Liens (AIA Form G-706A).
 10. Project Record Documents.

3.6 INSPECTION CERTIFICATES

- A. Each subcontractor: Upon completion of work, secure in triplicate certificates from any state or local governing bodies having jurisdiction in dictating that work is in accordance with applicable codes and deliver certificates to Contractor for transmittal to Owner.

3.7 OPERATING AND MAINTENANCE DATA

- A. Provide one (1) electronic copy and (2) hardcopies of Operating and Maintenance data.
- B. Equipment Manuals

1. Binders: 8-1/2 inch by 11 inch three ring binder with hardback, cleanable, plastic cover, 2 inch maximum ring size.
 - a. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS, list title of Project, and identify subject matter of contents.
 - b. When multiple binders are used, correlate data into related consistent groupings.
 2. Manual: Have index with tab dividers for each major equipment section to facilitate locating information on specific piece of equipment.
 - a. Identify data within each section with identification numbers as they appear on Drawings and by Specification Section and Article number.
 - b. Text: Manufacturer's printed data or type written data on 20 pound paper.
 - c. Drawings: Provide with reinforced punched binder tab. Bind in text folding larger drawings to size of text pages.
 3. Table of Contents: Title of Project; names, addresses, and telephone numbers of Engineer, Contractor; schedule of products and systems, indexed to content of volume.
 4. Manuals: Use as part of System Demonstrations per Category 000 – Starting of Systems
- C. Data: Include as minimum the following data:
1. Alphabetical list of system components, with name, address and 24-hour phone number of company responsible for servicing each item during first year of operation.
 2. Operating instructions for complete system including:
 - a. Emergency procedures for fire or failure of major equipment.
 - b. Major start, operation and shutdown procedure.
 - c. Manufacturer's printed operation and maintenance instructions.
 - d. Control Manufacturer's sequence of operation.
 3. Maintenance instructions including:
 - a. Proper lubricants and lubricating instructions for each piece of equipment.
 - b. Necessary break-in, cleaning, replacement and adjustment schedule.
 - c. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and any special operating instructions.
 - d. Maintenance Requirements: Include routine procedures and guide for troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
 4. Manufacturer's Product Data on each system and each piece of equipment including:
 - a. Description of system and component parts including function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
 - b. Panelboard Circuit Directories: Provide service characteristics, controls, and communications.
 - c. Installation instructions.
 5. Drawings and specifications.
 - a. Manufacturer's Parts Lists: Include illustrations, assembly drawings, and diagrams required for maintenance.
 - b. Complete color coded wiring diagrams (as-built) including control diagram.
 - c. Marked or changed prints locating all concealed parts and all variation from original system design.
 - d. Contractors Coordination Drawings with as-installed color coded piping diagrams.
 6. Warranties: Bind in copy of each.

7. Schematic diagram showing component parts of system.
8. Simplified system description and preventative maintenance program.

D. Operating and Maintenance Data as specified in individual Sections of these Specifications.

3.8 WARRANTIES

- A. One Year Correction Period: Remedy any defects due to faulty materials or workmanship and pay for any damage to other work resulting therefrom, which shall appear in work within period of one year from date of Notice of Acceptance and in accordance with terms of any special warranties provided in Contract Documents. Owner shall give notice of observed defects with reasonable promptness.
- B. Warranty: Upon completion of work, Contractor shall deliver to Engineer in duplicate, written warranty based on provisions of Contract Documents properly signed and notarized.
 1. Address warranty to Owner.
- C. Subcontractor Warranties: Include labor and material, signed by manufacturer or Subcontractor as case may be and countersigned by Subcontractor.
 1. Address warranties to Owner.
 2. Deliver to Engineer upon completion of project and before or with submission of request for final payment.
- D. Extended Warranties: Deliver in duplicate manufacturer's warranties as specified and dated from date of Notice of Acceptance signed by subcontractors and manufacturers.
- E. Manufacturer Warranties: Deliver in duplicate manufacturer's warranties as specified and dated from date of Notice of Acceptance signed by manufacturer.
 1. Manufacturer's Warranties: Supplement and not replace implied and express warranties provided for by Uniform commercial Code. Any statements in manufacturer's warranties denying or limiting responsibility for such implied and express warranties shall be void.
- F. Form of Submittal
 1. Binders: 8-1/2 inch by 11 inch three ring binder with hardback, cleanable, plastic covers.
 2. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project, name, address, and telephone number of Contractor, and name of responsible principal.
 3. Table of Contents: Neatly typed, in sequence of Table of Contents of Project Manual, with each item identified with the number and title of the Specification Section in which specified and the name of product or work item.
 4. Separate each warranty or bond with index tab sheets keyed to Table of Contents listing. Provide full information using separate type sheets as necessary. List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
 5. Submittal and acceptance of warranties is requirement for final completion

3.9 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Submittal: Provide products, spare parts, and maintenance materials in quantities specified in each section, in addition to that used for construction of work. Coordinate with Owner, deliver to person and location as directed. Obtain receipt prior to final payment.
 - 1. Submittal and acceptance of spare parts and maintenance materials is required for final completion.
- B. Miscellaneous Keys, Switches and Wrenches: At completion of project, account for all loose keys for hose bibs, adjustment keys and wrenches for door closers and panic hardware, keys for electric switches, electrical panels, etc. and turn over to Contractor for transmittal to Owner.

3.10 EQUIPMENT SERVICE AND MAINTENANCE

- A. General: Include complete service and maintenance calls spaced at maximum of three month intervals plus emergency calls throughout one year correction period. During each service and maintenance call as minimum check:
 - 1. Safety devices on each piece of equipment.
 - 2. Lubrication of all moving parts; lubricate where required.
- B. Service and Maintenance as specified in individual Sections of these Specifications.

3.11 END OF WARRANTY REVIEW

- A. The Contractor shall arrange to meet with the Engineer and Owner within 30 calendar days prior to the specified end of the guarantee period for the purpose of assimilating a list of items which require correction under specific guarantees.
- B. Should the Contractor be unable or fail to schedule such a meeting, all guarantees shall be automatically extended until such time as the meeting takes place and the Contractor shall be fully responsible for correcting such deficiencies as if they occurred under the original guarantee period.

CATEGORY 100 – PRELIMINARY (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

SECTION 104 – MAINTENANCE OF TRAFFIC

Line Item 104-01: Maintenance of Traffic (LS)

- Comply with MSHA Subsections 104.01 and 104.02, unless plans are provided by engineer.

DESCRIPTION:

Maintain traffic safely and efficiently through and around the area affected by the work.

MATERIALS:

Traffic Materials MSHA Section 950

CONSTRUCTION:

- A. **Maintenance of Existing Driveway:** Maintain the existing driveway surface and shoulders, including crossroads, ramps, approaches, crossovers, medians, detour roads, entrances, and pavement markings within the project's limits throughout the duration of the Contract. Repair potholes, shoulder defects, and hazardous conditions that exist or develop throughout the Contract period.

- 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 Engineer, 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. Before construction and in the company of the Engineer, 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 Engineer. Employee vehicles shall not be parked within the public right-of-way, without a written exception. Equipment and material shall not be stored or permitted to stand in unprotected areas or open areas within 30 ft of traffic except as follows:
 - 1. An approved traffic barrier is in place prior to the storage of equipment and materials.
 - 2. Equipment and material are at least 4 ft behind the traffic barrier as measured from the bottom, nontraffic side of the 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 Owner. 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.3) 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.3).
 4. Reduced dimension TPMs shall be in accordance with the MdMUTCD and the Pavement Marking Dimension Table following (f.3), except that the dashed center lines and lane lines may consist of 4 ft segments and 36 ft gaps
- F. **Specific Requirements for TPMs**
1. As a minimum, place parking space lines prior to reopening for use.
 2. Contact the Office of Materials Technology (OMT) for the latest approved TPM materials.
 3. For pavement marking dimensions, refer to Contract Documents for Pavement Marking Plan.
- G. **Channelizing Devices.** Install traffic channelizing per the MdMUTCD, the Contract Documents, and the following:
1. Shall conform to MSHA Sections 104.12.01, 104.12.02, 104.12.03
 2. Spacing in feet for channelizing devices in a taper shall be no more than the posted speed limit in mph.
 3. Spacing in feet for channelizing devices in a tangent shall be no more than twice the posted speed limit in mph.
 4. To define interchange gore areas or other unusual alignments, space channelizing devices at 25 ft intervals, unless the Engineer directs a closer spacing.

5. Space channelizing devices at approximately 6 ft intervals at driveways and intersections so that sight distance at these locations is not restricted.
6. 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.

H. Flaggers.

1. Refer to MSHA section 104.15.

- I. Accessible Pedestrian Maintenance of Traffic
 1. Refer to MSHA section 104.31

MEASUREMENT AND PAYMENT:

Unless otherwise specified, Maintenance of Traffic will not be measured but will be paid for at the Contract lump sum price. The payment will be full compensation for relocating, turning, completely covering, and uncovering or removing and resetting, maintaining in like new condition, and cleaning existing and temporary traffic signs and other traffic control devices. Included is the inventory of all existing pavement markings and the treatment of any other traffic control device not included in these Specifications but necessary for the fulfillment of the Contract requirements and implementation of the approved Traffic Control Plan, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. Payment of the Contract lump sum price will be prorated and paid in equal amounts on each monthly estimate. The number of months used for prorating will be the number estimated to complete the work.

1. When additional Contract pay items for Maintenance of Traffic are specified in the Contract Documents, measurement and payment will conform to the pertinent pay items.
2. Drums, cones, reflective collars, anchoring devices, STOP/SLOW paddles, sign flags, and warning lights will not be measured. Still, the cost will be incidental to the Contract price for Maintenance of Traffic unless otherwise specified.
3. Temporary traffic control devices that need replacement shall be replaced immediately. The replacement cost, including all material, labor, equipment, and tools, will not be measured but will be incidental to the Contract price for Maintenance of Traffic except when specifically set up in the Contract Documents as a separate Contract pay item.
4. Drums will not be measured but the cost will be incidental to the Contract price for Maintenance of Traffic.
5. Flagger will not be measured but the cost will be incidental to the Contract price for Maintenance of Traffic.

SECTION 104.11 – TEMPORARY PAVEMENT MARKINGS

Line Item 104.11-01: Removable Pavement Markings (LS)

DESCRIPTION:

Furnish, install, and remove temporary pavement markings as specified or as directed by the Engineer. Markings include lines, letters, numbers, arrows, and symbols.

MATERIALS:

Black Out Tape	MSHA Section 951.02
Removable Pavement Markings	MSHA Section 951.08

CONSTRUCTION:

Comply with Subsection 104.11.03 of MSHA unless noted otherwise on Contract Documents. Install removable pavement markings for parking spaces on newly install parking lot prior to reopening for traffic and maintain until permanent pavement markings are installed. Temporary Pavement Markings shall match size and symbol of permanent pavement markings.

MEASUREMENT AND PAYMENT:

Payment for Removable Pavement Markings, Removal of Removable Pavement Markings, and the Removal of Existing Pavement Markings will be measured and paid for will be paid for at the Contract lump sum price.

Payment will be full compensation for furnishing, placing, complete removal of lines, letters, numbers, arrows, symbols, and the removal of all residue. Payment will also cover maintenance and replacement of the markings during the construction period, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

SECTION 107 – CONSTRUCTION STAKEOUT

Line Item 107-01: Construction Stakeout (LS)

DESCRIPTION:

This work consists of providing a construction layout (stakeout) performed by a licensed surveyor currently registered in the State of Maryland. Also see Article 5.6.2, Construction Stakeout, in the General Conditions of Construction Contract. Furnish, place, and maintain construction layout stakes. Demarcate (flag) the Limit of Disturbance (LOD) and protected resources, including tree preservation areas. The LOD is defined as the maximum allowable limit of the construction work area. No clearing or earth disturbance activity may begin until the LOD, and all protected resources are demarcated as specified.

Note: In addition to the items listed below to be provided by a licensed surveyor, the Contractor must provide construction stakeout as incidental to all related construction work. The Contractor must use competent personnel and appropriate equipment for all work required to set and maintain the elevations and dimensions as specified in the Contract Documents. This stakeout must be installed to the satisfaction of all appropriate permit inspectors before any operation commences. If any discrepancies between plan and field conditions are found, the Contractor must resolve any needed field adjustments with the Owner before starting construction.

MATERIALS:

The surveyor must use marker materials that can be maintained by the Contractor during the course of construction.

When directed, reflag areas where flagging has been destroyed. If the destroyed flagging is not replaced within 48 hours, the Engineer may proceed to reflag the area. The Engineer's reflagging cost will be deducted from any monies due under the Contract. Remove all flagging at the completion of construction. Refer Subsection 107.02 of MSHA unless noted otherwise on Contract Documents.

CONSTRUCTION:

Comply with Subsection 107.03 of MSHA unless noted otherwise on Contract Documents.

The Contractor must have the licensed surveyor provide the following:

1. Project Layout: The Contractor's surveyor shall accurately locate the Work horizontally and vertically – to ensure that the Work is performed in accordance with the Contract and Task Order Documents.
2. Baseline Stakeout
 - a. A licensed surveyor must stakeout all construction baselines with the maximum spacing of stations (stakes, nails, crosses, etc.) of 100 feet unless closer stakeouts are specified in the Task Order Documents.

3. Site Stakeout

- a. Right-of-Way and Easement Lines: Where required by the Contract Documents, the Contractor must have a surveyor define right-of-way and easement lines of the project for adjacent property owners.
- b. The Contractor must perform a surveyed stake out of any alignment centerlines (e.g., embankments or stream) and structure locations.

4. As-built survey

- a. An as-built survey of the completed Work shall be performed and shall include but not limited to: horizontal dimensions, grading limits, elevations, slopes, types/length/height of restoration features, and any new pipes, structures, profiles or typical details. The as-built survey shall include a final as-built topographic survey for all grading and stream measures; a final as-built survey of all storm drain and sewer structures must also be performed for inverts and distances.
- b. See Section 121 for submission of as-built survey information with red-lined drawings.

5. Equipment and Personnel: Where a licensed surveyor is required, the surveyor must be currently registered in the State of Maryland.

6. Control Markers: The Contractor must preserve the center line and bench marks set by the surveyor. When the center line and bench marks are disturbed or destroyed, they must be replaced by the Contractor at no additional cost to the Owner.

7. Control Stakes: For construction baselines, the surveyor must furnish and set stakes at each station as shown on the Contract Documents or offset along one side of the project as site conditions require and per the Owner's approval. As applicable, each of these stakes must be marked with its offset distance from the center line along with key reference elevation(s) needed for proper construction. Maintenance of surveyor stakes and additional stakes needed for the horizontal and vertical controls necessary for the correct layout of the work must be provided by the Contractor at no additional cost to the Owner.

8. Utilities: When applicable, the Contractor must furnish to the utility companies or agencies working within the limits of the project, reference information related to control points, alignment and grade data. These must be furnished promptly upon request, so that the utility companies may properly locate and coordinate their work related to the project.

MEASUREMENT AND PAYMENT:

Construction Stakeout will not be measured but will be paid for at the Contract lump sum price. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work. Payment of the Contract lump sum price will be prorated and paid in equal amounts on each monthly estimate. The number of months used for prorating will be the number estimated to complete the work.

All other stakeout maintenance and flagging of clearing limits, wetlands, etc., shall be incidental to, and included in this line item.

SECTION 108 – MOBILIZATION AND DEMOBILIZATION

DESCRIPTION:

Construction preparatory and closing (clean-up) operations that include the movement of personnel, supplies, materials, tools, equipment, and incidentals to, within, and away from the project site collectively for the project and individual work operations; and the establishment and removal/decommissioning of the Contractor's offices, buildings, and other facilities necessary to commence, continue, and conclude the work. Perform final clean-up as specified in the contract documents.

MATERIALS:

Not applicable.

CONSTRUCTION:

Not applicable.

MEASUREMENT AND PAYMENT:

Cost is incidental to other cost line items and Sections.

SECTION 109 –PROJECT SCHEDULE

Line Item 109-01: Project Schedule (LS)

DESCRIPTION:

Schedule techniques used in the Project Schedule to monitor the work specified in the Contract documents will use retained logic. The Owner will use the Project Schedule to monitor progress and evaluate any schedule impact from change orders during the project duration. Comply with the General Conditions of Construction Contract. In case of conflict, the General Conditions' requirements shall control.

MATERIALS:

Not applicable.

CONSTRUCTION:

Prepare an Initial Schedule using acceptable scheduling software that is capable of export to a compatible version of software used by the owner's reviewer.

Schedule techniques used in the Project Schedule to monitor the work specified in the Contract documents will comply with the precedence diagramming method using retained logic.

The Schedule shall indicate work activities and major material submittals required to complete the Project as shown in the Contract Plans. The Schedule shall include all activities of subcontractors, utilities, railroads, the Administration, and all other parties associated with the construction of the Project.

All work including, but not limited to, submittals, major procurement, delivery, and construction activities shall be included. All activities reasonably necessary to plan the scope of work shown in the Contract plans shall be included. Concurrent work by others, including any indicated in the Contract Utilities Statement, shall also be included. The Schedule shall be based upon the entirety of the Contract Documents.

The Schedule shall include the requirements provided below.

- i. **Milestones.**
The Schedule may include other milestones for planning work, including major interim Contract requirements, starting or ending of Phases of Construction, or other milestones necessary to monitor the work.
- ii. **Project Duration.**
- iii. **Activity Codes and Work Breakdown Structure.** Include activity codes for organizing activities in the Schedule.
- iv. **Activities.** Activities should include tasks necessary to perform the scope of project work and milestones defined in various specifications.

Prepare a complete written narrative with the Schedule. The narrative shall explain the Contractor's plan to construct the project according to Contract requirements, including Sequence of Work, Access Restrictions, Modification to Specification, Crew Composition, Unique Schedule Features. Submit the Schedule along with the written narrative to Procurement Officer in the NTP document, with a copy to the on-site Engineer. The submittal shall include an electronic schedule file in native format.

MEASUREMENT AND PAYMENT:

The accepted initial schedule, project schedule revisions, and all accepted project schedule updates will be paid for at the Contract lump sum price.

SECTION 121 – MAINTENANCE OF REDLINED CONSTRUCTION DRAWINGS

DESCRIPTION:

This work consists of the Contractor’s maintenance and submission of a set of a full-size, redlined Construction Drawings to record any changes to the Work that have occurred during construction. The redlined drawings must be kept on-site and must be available to the Engineer and Owner throughout Project implementation. The drawings must be updated, at a minimum, for each bi-weekly construction progress meeting.

MATERIALS:

At minimum, a full-size set of Construction Drawings with legible redlined edits indicating any modifications or in-field adjustments made to the Project by the Contractor during construction. Redlined drawings must be provided to the Engineer at the time of Project Substantial Completion.

METHODS:

The Contractor shall provide redlined edits to Construction Drawings to reflect any modifications to the plans. Any proposed plan modifications must receive prior approval by the Owner before construction and subsequent redline edits. One set of redlined Construction Drawings must be maintained and kept on-site at all times. Any deviations from approved plans must be marked, in red, on the redlined Construction Drawings.

Redlined information for the project shall consist of any deviation to the approved plan including but not limited to: grading limits, elevations, slopes, types/length/height of restoration features, and any modifications to pipes, structures, profiles or typical details. Redlined Construction Drawings require a final as-built topographic survey for all grading and stream measures; a final as-built survey of all storm drain and sewer structures must also be performed for inverts and distances.

The Contractor is required to maintain current “as-built” (red-lined) Record Drawings throughout the life of the Task Order. At each dimension on each Record Drawing, the Contractor shall either check (√) the design dimension as an actual dimension, or cross out the design dimension and provide the actual dimension. Marks shall be made using red pencil or pen.

Redlined drawings also include as-built planting plans required by Category 700.

At Substantial Completion of the Work, the Contractor must submit legible redlined Construction Drawings, including results of the final as-built survey, to the Engineer for approval. Any missing, erroneous, or incomplete information shall be re-surveyed within 72 hours of Engineer’s request at no additional cost. Retainage shall not be released until redlined Construction Drawings, including the final survey, are approved. The costs for stakeout, survey and maintenance of redlined information shall be considered incidental to the work and no specific payments will be made.

MEASUREMENT AND PAYMENT:

Cost is incidental to other cost line items and Sections.

CATEGORY 200 – GRADING (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

General Description: Work consists of all labor, materials, equipment, dewatering, sheeting and shoring, and services necessary for and incidental to the execution and completion of Grading (Earthwork), as indicated on the Contract Documents and specified herein. The extent of excavation, filling, and grading is shown in the Contract Documents. Preparation of subgrade for slabs and pavements is part of this Work. Backfilling required to establish proposed grade around facilities such as structures, curbs, pavements etc. is included as part of this Work.

All borrow sites and off-site disposal sites utilized by the Contractor to perform work under this Contract must have all necessary State and City permits. The Contractor must identify these sites and provide a copy of appropriate permit(s) to the Owner prior to starting work.

Note: Excavation and backfilling of native material incidental to the installation of in-stream structures and concrete structures should be included as incidental to the Unit Costs for those items provided in these specifications.

Existing Utilities:

1. Notify “Miss Utility” a minimum of 48 hours prior to performing earthwork by calling 1-800-257-7777. Locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations. The Contractor must repair any Contractor damage to utilities shown on the Drawings or identified in the field. All utility work must be done in accordance with specific utility requirements including the use of utility-approved contractors and/or inspectors as appropriate; all costs for utility requirements shall be borne by the Contractor.
2. Should piping or other utilities (not shown on the Drawings) be encountered during excavation, stop work in that area and consult the Owner immediately for direction. Cooperate with the City and utility companies in keeping respective services and facilities in operation. Repair any Contractor-damaged utilities to satisfaction of utility company.
3. Do not interrupt existing utilities serving occupied facilities, except when permitted in writing by the Owner, and only after acceptable temporary utility services have been provided.

General Execution Requirements:

1. Use of Explosives: The use of explosives is prohibited unless authorized in writing by the Owner.

2. Protection:

- a. Safety: Provide protective measures necessary for the safety of the workers, public, and adjacent property. Prevent cave-ins, collapse of walls, structures and slopes, both on and adjacent to the site.
- b. Standards: Comply with regulations of local authorities having jurisdiction, including all applicable OSHA and MOSH requirements.
- c. Repair: Remove damaged materials and replace with new materials (as required by the Contract Documents) where such materials are affected by settlement or other damage caused by improper earthwork.

SECTION 201 – EARTH EXCAVATION

Line Item 201-01: Class 1 Excavation Hauled Offsite for Disposal (CY)

DESCRIPTION:

This Section covers excavation and handling of any soil material not classified elsewhere (e.g., pond dredge material, stream excavation, or topsoil). Excavation will be measured as the difference between an existing and the final design grades (e.g., cut) as shown on the Contract Documents. Earth excavated for reuse as fill on site must be kept in separate stockpiles for top soil and general soil regrading as required by the Contract Documents, Owner, or Permit Inspectors. Refer to Subsection 201.01 of MSHA and Contract Documents for additional information.

MATERIALS:

Referenced Standards:

- American Association of State Highway and Transportation Officials (AASHTO)
- American Society for Testing and Materials (ASTM)
- Maryland Department of Transportation, State Highway Administration “Standard Specifications for Construction and Materials” (MSHA), July, 2019.
- American National Standard for Pruning, ANSI A300 (2017)
- Montgomery County Department of Transportation Standard specifications hereinafter referred to as MCDOT.

Material Storage:

1. Stockpile excavated material suitable for backfill or fill where permitted by the Contract Documents, until required. Place, grade and shape stockpiles for proper drainage.
2. Locate and retain soil materials away from edge of excavations.

3. Dispose of excess and/or unsatisfactory materials as specified herein.
4. Temporarily stabilize or cover the stockpile as required.

CONSTRUCTION:

1. Excavation consists of cutting, removing, stockpiling and grading of material encountered when establishing required grade elevations in accordance with the Contract Documents that are not classified rock excavation, pond dredging or unauthorized excavation. Salvaging, stockpiling and placing topsoil must be in accordance with Section 701, and will be measured and paid separately under that Line Item.
2. Unauthorized excavation consists of site grading that extends beyond the specified bottom elevations or horizontal limits without the direction of the Owner. All remedial work, to correct unauthorized excavation, including backfilling and compacting with earth or gravel, lean concrete fill or any other material to bring elevations to grade as specified and to the satisfaction of the Owner, must be performed at the Contractor's expense.
3. The Owner must be contacted, and work in that area must be stopped, if unsuitable bearing materials, as determined by a qualified Geotechnical Engineer, are encountered at required elevations. Any additional work must be authorized by the Owner **before work continues** including deeper excavation and placement of suitable replacement material. Excavating unsuitable material solely to facilitate performance of other work shall be considered Contractor "means and methods" and shall be done at the Contractor's sole expense.
4. All areas to be paved with conventional impervious pavement must be proof-rolled at sub-grade in the presence of the Owner. If deemed necessary, soils below sub-grade must be undercut and replaced as described below. At the end of each day undercutting is performed, the Contractor must certify in writing the quantity, in cubic yards, of undercutting performed in agreement with the Owner. Both parties must sign the certification which must be submitted to the Owner at the end of the month.
5. Stability of Excavations: Slope sides of excavations to comply with local codes and ordinances having jurisdiction. Shore and brace the excavation where sloping is not possible because of space restrictions or stability of materials excavated.
6. Site Information: Data on indicated subsurface conditions is not intended to be a representation or warrant of continuity of such conditions between soil borings. It is expressly understood that the County will not be responsible for interpretations or conclusions drawn there from by the Contractor. Data is made available for the convenience of the Contractor.
7. Excavation for Structures:

- a. Excavation for structures must conform to elevations and dimensions shown on the Contract Documents within a tolerance of plus or minus 0.1 foot. Excavation should extend sufficient distance from footings and foundations to permit placing and removal of concrete formwork in addition to other utilities or adjacent structures. Excavation must not be backfilled without the Owner's approval.
- b. In excavating for footings and foundations, do not disturb bottom of excavation. Excavate by hand to final grade just before concrete is placed. The horizontal limits of excavation must be within 18 inches of the surface of installed structures unless specified otherwise on the Contract Documents or covered separately for deep excavation.
- c. Abandoned structures, which may exist where footings, foundations, etc., are to be placed, are to be removed to one foot below the elevations of bottoms of such footings, foundations, etc., unless additional excavation is directed in writing by the Owner.

8. Excavation for Stone and Bituminous Pavements:

- a. Cut surface under pavements to comply with cross-section, elevations and grades as shown. All excavated areas which are to be paved must be compacted to 95% of maximum density as determined by AASHTO T-99.
- b. Where rock is encountered, carry excavation 1'-0" below subgrade and backfill with suitable material approved by the Certified Geotechnical Engineer.
- c. All topsoil from under areas to be paved with stone, asphalt or concrete, must be removed, until suitable soil is encountered. At that point, the Contractor must not proceed until the Owner has inspected the soil to determine if the excavated area is deeper than the required elevation for sub-base, sub-grade, etc. The Owner may then determine and/or direct that any replacement material be provided to bring grades up to required specifications for compaction until required density is achieved before proceeding with the next step.

9. Fine Grading

- a. General: Uniformly grade areas within limits of grading under this section, including adjacent transition areas. Smooth finish surface within specified tolerances, with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.
- b. Ditches: Finish ditches to ensure proper flow and drainage. Manage excavation equipment and travel paths as to minimize soil compaction. Stabilize the soil surface with temporary or final stabilization in accordance with sediment control guidelines.
- c. Grass Areas: Finish areas to receive topsoil must conform to within a tolerance of 0.1 foot above or below the required sub-grade elevations.
- d. Walks: Shape surface or areas under walks to line, grade and cross-section, with finish surface not more than ½ inch above or below the required sub-grade elevation, duly compacted.
- e. Pavements: Shape surface of areas under pavement to line, grade and cross-section, with finish surface not more than 1 inch above or below the required subgrade elevation, duly compacted.

10. Maintenance

- a. Protection of Graded Areas: Protect newly graded areas from traffic and erosion in accordance with County and State Sediment Control Standards and keep free of trash and debris. Repair and reestablish grades in settled, eroded, and rutted areas to specified tolerances.

- b. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape, and compact to required density prior to further construction.
- c. Disposal of excess and waste materials: Remove waste materials, including unacceptable excavated material, trash, and debris from the construction site. All excess and waste materials must be disposed of in accordance with local requirements.

11. Rock Excavation

- a. Refer to MSHA 201.03.04.
- b. Rock excavation consists of removal and disposal of materials encountered that cannot be excavated without the use of explosives or pneumatic equipment. Typical materials classified as rock are, solid rock, rock in ledges, and rock hard aggregate deposits. Intermittent drilling performed to increase production and not necessary to permit excavation of material encountered will be classified as earth excavation.
- c. The determination of rock excavation will be determined and measured in the field by the Owner. Rock is defined as that material which cannot be removed by use of a bulldozer blade with a single-tooth ripper and will require blasting or use of pneumatic equipment for breaking. The removal of disintegrated rock is classified as Earth Excavation. The rock excavation as measured in the field must be deducted from the volume of Earth Excavation item provided it is within the grading limits of the area. Rock Excavation outside of these limits must be carried out only at the discretion and direction of the Owner.
- d. Minimum Effort: If rock is not removed during the process of normal digging and ripping, contact the Owner for prior approval, then extend the excavation to expose the rock surface within the limit of original excavation. The Contractor must perform any and all rock excavation required to complete the Work.

In addition to above referenced guidelines, comply with Subsection 201.03 of MSHA unless noted otherwise on Contract Documents.

MEASUREMENT AND PAYMENT:

Excavation will not be measured but will be paid at the Contract lump sum price for each referenced line item. Monthly payments will be prorated based on estimated duration of the excavation work. The payment will be full compensation for all excavation and hauling, temporary stockpiles, formation and compaction of embankments and backfills, disposing of excess and unsuitable materials, preparation and completion of subgrade, preparation of final grade for stabilization, sheeting/shoring, all excavation-related safety measures, 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.

SECTION 205 – TEST PIT EXCAVATION

Line Item 205-01: Test Pit Excavation (CY)

DESCRIPTION:

This work consists of hand excavation of test pits to determine the location and elevation of utilities and other underground facilities as specified in the Contract Documents. The Contractor must determine the location of underground structures, pipes and utilities by use of test pit excavation prior to equipment excavation. Hand excavation is required; if appropriate, the Owner may approve the use of pot-holing equipment to dig the test pits.

MATERIALS:

Not applicable.

CONSTRUCTION:

Test Pits must not exceed one square yard in surface area without the permission of the Engineer's Technical Representative. All test pits must be backfilled with compacted soil and restored to the original site elevation and grades unless otherwise specified. Also, comply with Subsection 205.03 of MSHA unless noted otherwise on Contract Documents.

MEASUREMENT AND PAYMENT:

Test Pit Excavation will be measured and paid for at the Contract unit price per cubic yard for the material removed from within the specified limits. The payment will be full compensation for all excavation, tamped backfill, and all material, labor, equipment, tools, and incidentals necessary to complete the work. Unit cost includes all costs of restoring the site to original conditions except any paving, which would be paid under a separate line item.

SECTION 206 — REMOVAL OF EXISTING PAVEMENT, SIDEWALK, PAVED DITCHES, CURB, OR COMBINATION CURB AND GUTTER

Line Item 206-01: Removal of Existing Curb and Gutter (LF)

Line Item 206-02: Removal of Existing Pervious & Conventional Pavement (CY)

Line Item 206-03: Removal and Disposal of Existing Sidewalk (SF)

DESCRIPTION:

Remove to full depth and dispose of existing pavement, sidewalk, paved ditches, curb, or combination curb and gutter. Materials must be removed down to subgrade or bedding. Material and debris collected as a result of the removal and disposal operation become the property of the Contractor and must be disposed of in accordance with local and state regulations. In addition, comply with Subsection 206 of MSHA unless noted otherwise on Contract Documents.

MATERIALS:

Any saws shall be specifically designed to perform this type of work.

CONSTRUCTION:

Saw cut to full depth the existing pavement, sidewalk, paved ditches, curb, or combination curb and gutter along the lines specified or as directed. When approved, removed materials may be broken and used in the work. Protect all sections designated to remain from being damaged. Repair or replace damaged areas.

The Contractor must submit a report to the Owner any time waste materials resulting from repair or maintenance of a storm water facility have been disposed of off-site. The report must be submitted within 24 hours after disposing the materials, and include the following information along with a copy of the receipt from the disposal facility where the materials are deposited:

1. Date the material was removed;
2. Name, address, and phone number of the person transporting the materials;
3. Types of structures and location from which the materials were removed;
4. Amount and types of waste materials removed;
5. Location of the facility to which the materials were delivered for disposal.

MEASUREMENT AND PAYMENT:

The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work. The work will be measured and paid per linear foot as specified in the Contract Documents. Backfilling and landscaping as directed by the Engineer will not be included in the Contract Unit Price. Payment for this work will be made using the applicable items included in the Contract Documents.

SECTION 208 – SUBGRADE PREPARATION

DESCRIPTION:

Prepare, protect, and maintain the subgrade prior to the construction of succeeding courses.

MATERIALS:

If warranted, comply with Subsection 208.02 of MSHA unless noted otherwise on Contract Documents.

CONSTRUCTION:

Bring the subgrade surface to line and grade and shape it to the specified cross section. Set grade for subgrade control both longitudinally and transversely with fixed controls not exceeding 25 ft spacing. Limit the finish subgrade deviation to 1/2 in. from the established grade.

Subgrade for pervious pavement must be protected from over compaction. Geotechnical Engineer shall inspect and accept subgrade for pervious pavement prior to placement of stone subgrade and/or provide direction for corrections needed.

Prevent damage by heavy loads or equipment. Repair or replace any defects or damage. Do not place subsequent cover material upon a frozen subgrade or any subgrade until it has been checked and approved. Refer to Subsection 208.03 of MSHA unless noted otherwise on Contract Documents for additional clarification.

MEASUREMENT AND PAYMENT:

Cost is incidental to other cost line items.

CATEGORY 300 – DRAINAGE (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

SECTION 306 – UNDERDRAINS, SUBGRADE DRAINS, AND SPRING CONTROL

Line Item 306-01: 4 Inch Polyvinyl Chloride (P.V.C.) Overdrain (Solid and Perforated including Fittings) (LF)

Line Item 306-02: Polyvinyl Chloride (P.V.C.) Connection to Ex. Storm Drain Structures (EA)

DESCRIPTION:

Construct underdrains, subgrade drains, underdrain pipe outlets, and blind drains using pipe, geotextile, and granular material. Clean existing underdrain outlets.

MATERIALS:

Comply with Subsection 306.02 of MSHA unless noted otherwise on Contract Documents. Polyvinyl Chloride (PVC) plastic pipe, drainpipe, and perforated underdrain must meet the requirements of MSHA Section 905, material specification M278 or M278 (a).

PVC plastic pipe to be used as sanitary sewer pipe must be minimum Schedule 40 solid and must meet the applicable requirements of WSSC Standard Specifications Section 02530.

Unless noted otherwise, the perforated pipes used for underdrains or observation wells must have 3/8" inch diameter perforations spaced at 4 inches on center every 90 degrees around the pipe.

For slotted pipe used for underdrains or observation wells, the slot width must be 1/8 inch, slot length 1.9 inches, 4 slots per row, and 4 slots per linear foot.

Observation well caps must be water tight screw type lid. The pipe must have a plastic collar with ribs to prevent rotation when removing cap. The screw top lid must be a "Panella" type (or Owner-approved equal) as per the detail provided on contractor drawings.

CONSTRUCTION:

Stormdrain/underdrain installation must meet the requirements of MSHA Section 303. Sanitary Sewer installation of sewer pipe must meet the requirements of WSSC Standard Specifications Section 02530. All backfill within the public right-of-way, in dam embankments, near structures and in other critical areas identified on the Drawings must be compacted to 95% of the maximum density as determined by AASHTO T-99. Also, comply with Subsection 306.03 of MSHA unless noted otherwise on Contract Documents.

MEASUREMENT AND PAYMENT:

Tees, elbows, etc. will be incidental to the LF cost of the pipe. The payment will be full compensation for all excavation, pipe, coupling bands, aggregate, backfill, geotextile, video inspection, and all material, labor, equipment, tools, and incidentals necessary to complete the work.

SECTION 308 – EROSION AND SEDIMENT CONTROL

- Line Item 308-01: Silt Fence (LF)**
- Line Item 308-02: Sump Pit (EA)**
- Line Item 308-03: Filter Bag (EA)**
- Line Item 308-04: Pumping (DAY)**
- Line Item 308-05: On-Site Concrete Washout Structure (EA)**
- Line Item 308-06: Curb Inlet Protection (EA)**
- Line Item 308-07: At- Grade Inlet Protection (EA)**

GENERAL DESCRIPTION:

This Work consists of the provision and installation of all Sediment Control Devices as indicated in the Contract Documents. Control Devices must comply with the latest version of the Maryland Department of the Environment (MDE) “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control” and “Maryland’s Guidelines to Waterway Construction”.

Work includes measures to prevent erosion and run-off of earth and silt, methods to prevent the transport of sediment off-site by construction vehicles, dust control, and contact and coordination with Sediment Control Inspection staff and any other involved regulatory agencies throughout the project.

The Contractor shall assume all Erosion and Sediment Control obligations and responsibilities placed on the Owner. The Contractor shall perform all layout, construction, scheduling, bookkeeping, notification, review and maintenance.

DESCRIPTION:

Install and maintain erosion and sediment control (ESC) measures throughout the contract's life to control erosion and minimize the release of sediments into adjacent areas and nearby rivers, streams, lakes, reservoirs, bays, and coastal waters. Implement the approved ESC plan and approved modifications. Identify staging and stockpile areas and apply ESC measures as approved.

Erosion and Sediment Control Manager (ESCM). Designate an Erosion and Sediment Control Manager (ESCM) to implement the ESC plan and to oversee the installation, maintenance, and inspection of the ESC measures.

MATERIALS:

All materials must be in accordance to MDE specifications for Soil Erosion and Sediment Control and MDE Construction Guidelines unless otherwise specified in the Contract Documents.

Geotextile fabrics must conform to Section H of the MDE “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control”.

Straw mats (bales) with any type of plastic netting will not be accepted. The Straw/Single Jute Mat must be East Coast Erosion Blanket ECS-1B, Straw Biodegradable Single Net Blanket or Owner-approved

equal and must provide biodegradable ground cover for seeding purposes with an estimated field life of less than 12 months.

Any Soil Reinforcement Matting must be biodegradeable and must be installed per manufacturer’s specifications.

Sand Bags: Sand bags must be made of UV resistant material, resistant to tear and puncture and woven tightly to prevent leakage of the sand. The sand bag must be at least 14” x 26” in size and hold a minimum of 50 pounds of sand.

Temporary HDPE pipe shall be flexible corrugated pipe.

The dewatering bag must be made of non-woven geotextile with a minimum surface area of 225 square feet per side. All structural seams must be sewn with double stitch using a double needle machine with high strength thread. The seam strength must withstand 100 lb/in using ASTM D-4884 test method. The dewatering bag must have a nozzle large enough to accommodate a 4 inch discharge hose. The geotextile fabric must be a nonwoven fabric with the following properties:

Weight:	ASTM D-3776	12oz/yd
Grab Tensile	ASTM D-4632	300 lbs
Puncture	ASTM D-4833	180 lbs
Flow Rate	ASTM D-4491	75 gal/min/sq ft
Permittivity	ASTM D-4491	1/1 sec
UV Resistance	ASTM D-4355	70%
AOS	ASTM D-4751	100

In addition to above guidelines, refer to Subsection 308.02 of MSHA and Contract Documents for further information.

CONSTRUCTION:

Comply with Subsection 308.03 of MSHA unless noted otherwise on Contract Documents. Exclude sections 308.03.06, and 308.03.07.

1. The Contractor must employ, and identify to the Owner, a responsible person involved in the Project who has a Certificate of Attendance at a Maryland Department of the Environment approved training program for the control of sediment and erosion as the Superintendent/Supervisor. At any time, the Owner may request proof of this Certification.

2. Upon issuance of the Notice to Proceed, the Contractor shall layout the Limits of Disturbance and mark utilities via Miss Utility interaction. After these activities are completed, the Contractor shall schedule a pre-construction meeting with: Owner, the Owner’s Inspection staff and the Contractor. The Contractor must not access the Project Site for any reason other than visual observation and surveying prior to this meeting; no land disturbance activities are permitted prior to this pre-construction meeting.

3. Installation of sediment control devices must begin only after the Owner has granted approval. The Owner's Inspector has the authority to make field modifications to the installed sediment controls.
4. All Sediment Control features must be constructed and installed in accordance with the Contract Documents or, if not indicated in the Contract Documents, then in accordance with the appropriate detail as specified in the MDE Specifications for Soil Erosion and Sediment Control and MDE Construction Guidelines. All proprietary sediment control devices must be installed per manufacturer's instructions.
5. Grading must be accomplished such that existing surface drainage is not impaired, a potential hazard is not created, hazardous erosion will not occur, or sediment will not collect in existing drainage systems.
6. All sediment control devices must be maintained, inspected and repaired as necessary at the end of each working day and after each rain event. If sediment leaves the construction area, it must be removed immediately and the area must be cleaned to the satisfaction of the City. Temporary stabilization must be provided.
7. Removal of sediment control devices:

Once the Project has been completed, and all disturbed areas have been restored (seeded, sodded, paved, constructed, etc.) as called for in the Contract Documents and there is a good stand of grass in the seeded/sodded areas, the Contractor must contact the Owner for approval to remove the sediment control devices. The sediment control devices must be removed within 14 days from the date of the Owner's approval.

8. As permitted, after removal of all sediment control devices, the Contractor must re-grade affected areas to proposed designed grades and seed/or sod them as required for stabilization. **The Work is not considered complete until all temporary sediment control devices have been removed and all regrading and seeding/sodding is completed and the Owner has granted approval.**
9. Dust Control: The Contractor must provide water as necessary to reduce airborne dust when directed by the Owner, at no additional cost to the Owner.
10. Dewatering: Prevent surface water and subsurface or groundwater from flowing into excavations and from flooding Project Site and surrounding area. Do not allow water to accumulate in excavations or other areas of the Site. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of sub-grades and foundations. Provide and maintain pumps, sumps, suction and discharge lines, and other dewatering system components necessary to convey water from excavations. Convey water removed from excavations and rainwater to collecting or run-off structures. Provide and maintain temporary drainage ditches and other diversions outside excavations limits for each structure. Do not use trench excavations as temporary drainage ditches. Dewatering activities must be performed at no additional cost to the City unless a separate pay line item has been provided. Any repair to foundations which results from deficient dewatering is the sole responsibility and cost of the Contractor.

Dewatering (Filter) bags: Water encountered within the Site must be pumped through a dewatering (filter) bag before it is allowed to drain away from the Site. Dewatering setup must be made in accordance with the Contract Documents; if not shown; the filter bag must be placed so that the incoming water flowing into the bag will pass through the system and then off site without creating erosion. The neck of the system must be tied off tightly to stop water from flowing out of the system without passing through the walls of the bag. The filter bag must be placed over a wood chip (mulch) bed to allow the water to flow in all directions. The filter bag must be placed on level or gently sloping grade and secured in place by wooden stakes spaced at 5 feet on center.

Contractor shall provide adequate pump(s) for all dewatering. All dewatering installations must be inspected by appropriate permit inspectors and the Owner prior to being placed into operation.

Install standard Stabilized Construction Entrances (SCEs) in accordance with Contract Documents and MSHA 308 and applicable State and City guidelines. The price must include off-site removal of all related materials upon project completion.

Temporary curb inlet protection must be installed around all storm drain curb inlets to control sedimentation into the storm drainage system.

MEASUREMENT AND PAYMENT:

The maintenance, repair, removal and resetting, and final removal of erosion and sediment control measures will not be measured, but the cost will be incidental to the Contract price to construct the device. Each sediment control will be paid for once. Any rework, repair or re-installation of sediment control devices shall be performed at the Contractor's expense.

Sand bags will be paid per each based as size as specified above. Smaller bags will be prorated by size or weight for payment.

Geotextile material will not be paid separately but shall be incidental to, and included in, other line item costs.

CATEGORY 400 – PAVING (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

Unless otherwise described in each Line Item, in general, work performed under this Division is subject to inspection and acceptance by the Owner prior to payment. Any work not accepted must be re-done at no additional cost to the City.

SECTION 421 – REINFORCING STEEL

DESCRIPTION:

Furnish and place uncoated and epoxy coated reinforcing steel.

MATERIALS:

Comply with Subsection 421.02 of MSHA unless noted otherwise on Contract Documents.

CONSTRUCTION:

Comply with Subsection 421.03 of MSHA unless noted otherwise on Contract Documents.

Plan Dimensions. All dimensions related to reinforcing steel are out to out measurement except the spacing is measured center to center.

Shipping, Handling, and Protection of Material. Ship reinforcing steel bars in standard bundles; tagged and marked in accordance with the provisions of the Code of Standard Practice of the Concrete Reinforcing Steel Institute. Keep bundles intact, undamaged, and properly identified until ready for use.

Bundle coated steel together for shipment using excelsior or other approved materials, and banded using plastic or padded metal bands. Perform all lifting with a lifting beam and multiple supports consisting of a sufficient quantity of straps or slings to prevent abrasion within the bundle from excessive bending or distortion.

Store bundles at the site on suitable blocking or platforms at least 4 in. above any type of surface and vegetation. Keep free from vegetation growth, accumulations of dirt, oil, or other foreign material. Keep blocking sufficiently close to avoid bending and distortion of the bars. Correct any distortion of the bars or damage to epoxy coating as directed. Touch up any damage to the epoxy coating as specified in 465.03. Adequately cover epoxy coated bars for protection from ultraviolet rays from the time of delivery when they are to be stored outside for more than 90 days.

Placing and Fastening. Accurately place all reinforcing steel, including dowel bars, in the position specified in the Contract Documents or working drawings, and hold firmly during the depositing and setting of the concrete. Do not insert into the plastic concrete.

Before placing concrete, clean all mortar from the reinforcing. Do not place concrete until the reinforcing bars are inspected and approved. Approval shall not relieve the Contractor of the responsibility for correcting problems caused by any shifting of the bars during the placement of concrete.

Support reinforcing bars and maintain their distances from faces of forms by using approved templates, blocks, ties, hangers, or other supports.

The Engineer will perform a final visual inspection of epoxy coated steel at the construction site after the steel is in place and immediately prior to placing the concrete. Patch designated repair areas using epoxy as specified in 465.03. Do not place concrete on a patched area until the patching material has cured for one hour. Allow four hours of normal working time after the reinforcing and forms are in place for the inspection.

Splicing. Furnish bar lengths and splices as specified in the Contract Documents, and as detailed in the working drawings stamped as accepted by the Engineer. Do not perform additional splicing without approval. Make lap splices with the bars in contact and wired together. Do not weld reinforcing steel or weld attachments to reinforcing steel without approval. Perform welding according to AWS D1.4.

Tying New Concrete into Existing Concrete. Where dowel bars are required to tie new concrete into an existing structure, install as specified in MSHA Subsection 406.03.

Substitution. Low carbon chromium or stainless steel reinforcing may be substituted on a one-for-one basis for the specified epoxy coated or non-epoxy coated deformed steel bar reinforcing, at the option of the Contractor, as approved by the Engineer. Welding of low carbon chromium bars is prohibited. No adjustment shall be allowed in the size, number, spacing, laps and configuration of the reinforcing for any increase in strength or other properties provided by the substitute reinforcing bars. There will be no additional compensation for bars of differing material composition in lieu of the bars specified.

MEASUREMENT AND PAYMENT:

Reinforcing steel bars or epoxy coated reinforcing steel bars will not be measured but the cost will be incidental to other cost line items. The payment will be full compensation for cleaning, coating, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

CATEGORY 500 – PAVING (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

Unless otherwise described in each Line Item, in general, work performed under this Division is subject to inspection and acceptance by the Owner prior to payment. Any work not accepted must be re-done at no additional cost to the City.

SECTION 501 – AGGREGATE BASE COURSES

Line Item 501-01: #57 Stone Subbase (CY)

DESCRIPTION:

Construct base course using Aggregate.

MATERIALS:

Comply with MSHA Subsection 901.01, Size No. 57

CONSTRUCTION:

At least 30 days prior to the start of constructing the base course, submit the proposed plants, equipment, and material sources for approval. Protect the subgrade and base against damage from all causes. Repair or replace damaged areas as per the instruction of the Engineer. Limit excavation for widening to an area that can be backfilled the same working day using aggregate base.

Provide a mixture containing 35 percent to 40 percent coarse material as measured by dry weight of the total mix. Transportation, handling, compaction, and associated tasks should be carried out as specified in Subsection 501.03 of MSHA unless noted otherwise on Contract Documents.

Stone subbase for pervious pavements shall not be overly compacted. Follow Geotechnical Engineer's direction.

MEASUREMENT AND PAYMENT:

Aggregate Base Course will be measured and paid for at the Contract unit price per cubic yard. The payment will be full compensation for all aggregate, furnishing, hauling, placing, curing, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

SECTION 508 – MILLING AND OVERLAY OF EXISTING HOT MIX ASPHALT PAVEMENT

Line Item 508-01: 2” Mill and Overlay for Asphalt Pavement, 9.5 mm, PG64-22 Level 2 (SY)

DESCRIPTION:

Mill and Overlay Asphalt Pavement. Comply with Subsections 504.01 & 508.01 of MSHA unless noted otherwise on Contract Documents.

MATERIALS:

Comply with Subsection 504.02 of MSHA unless noted otherwise on Contract Documents.

CONSTRUCTION:

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 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. Additionally, comply with Subsections 504.03 & 508.03 of MSHA unless noted otherwise on Contract Documents. The requirement for Quality Control Plan is not applicable.

MEASUREMENT AND PAYMENT:

Milling and Overlay Asphalt Pavement will be measured and paid for at the Contract unit price per square yard for the pertinent depth of milling asphalt pavement. The amount will be computed from the width and length measurements of the actual milled areas. The payment will be full compensation for milling, measurement, testing, milled material disposal, overlay, furnishing, hauling, placing all materials including anti-stripping additive, tack coat, control strip, pot hole and spall repairs, setting of lines and grades where specified, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

SECTION 520 – PLAIN AND REINFORCED PORTLAND CEMENT CONCRETE PAVEMENTS

Line Item 520-01: Unreinforced 6” Plain Portland Cement Concrete Paving Section, MSHA Mix No.6 (For Drive Aisle and ADA Parking) (SY)

Line Item 520-02: Unreinforced 4” Plain Concrete Sidewalk (SY)

Line Item 520-03: Handicap Ramp, All Types (EA)

Line Item 520-04: Concrete Driveway Entrance (SY)

DESCRIPTION:

Construct plain and reinforced Portland cement concrete pavements.

MATERIALS:

Portland Cement Concrete and Related Products per MSHA Section 902

Reinforcing Steel per MSHA Section Section 908

Joints per MSHA Section Section 911

Portland Cement Concrete Plant per MSHA Subsection 915.03

Fusion Bonded Epoxy Powder Coatings for Steel per MSHA Subsection 917.02

Reinforcement, including load transfer assemblies, tie bars, deformed steel bars, and longitudinal tie devices, shall meet Section 908 and be epoxy coated.

CONSTRUCTION:

Comply with Subsection 520.03 of MSHA unless noted otherwise on Contract Documents.

Unless noted otherwise on the Contract Documents, sidewalks must be a minimum of 4 inches thick and constructed in accordance with MSHA Standard Specifications Section 603 (and related sections) and MCDOT Standard 110.01. Handicap ramp installation (new or replacement) must be in accordance with MSHA Standard 655.12 or as specified on Contract Documents.

Weather Restrictions:

- (a) Temperature and Surface Conditions. Begin concrete placement when the ambient air and surface temperatures are at least 40 F and rising. Discontinue placement whenever the temperature falls below 40 F. These requirements may be waived for incidental concrete construction. Do not place concrete on a frozen base.
- (b) Precipitation. Have sufficient approved material on hand to cover freshly placed concrete as protection against precipitation.
- (c) Wind. Cease placement when the Engineer 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.

Opening to Traffic. The pavement may be opened to vehicular traffic after having attained a compressive strength as outlined in the Contract Documents. Field samples will be tested according to T 23.

MEASUREMENT AND PAYMENT:

Plain and reinforced Portland cement concrete pavements will be measured and paid for at the Contract unit price per square yard for the pertinent Portland Cement Concrete Pavement item. The payment will be full compensation for all concrete, forms, reinforcement steel, chairs, epoxy coating, finishing, curing, joints, joint construction, saw cutting, and joint sealing, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. Refer to Subsection 520.04 of MSHA for additional information.

SECTION 549 – PAVEMENT MARKINGS

- Line Item 549-01: 5 Inch Wide White Permanent Non-toxic Paint Pavement Marking for Parking Spaces (LF)**
- Line Item 549-02: Yellow Permanent Non-toxic Paint Pavement Marking for Fire Lanes – Any Width (LF)**
- Line Item 549-03: 5 Inch Wide Thermoplastic Pavement Markings for ADA Parking Spaces (LF)**
- Line Item 549-04: Thermoplastic Pavement Markings Symbols for ADA Parking Spaces (EA)**
- Line Item 549-05: 12 Inch Wide White Permanent Non-toxic Paint Pavement Marking for Cross Walk (LF)**

DESCRIPTION:

Provide permanent pavement markings for following work as indicated on Contract Documents: vehicular parking spaces and ADA symbols, direction arrows and/or stop bars, striping for a vehicular lane, and permanent on-street markings (signs).

MATERIALS:

Material shall be non-toxic lead-free waterborne pavement markings and Thermoplastic Pavement Markings, legend, and symbols for ADA Parking Spaces as specified in the Contract Documents.

Non-toxic pavement marking paint shall comply with MSHA Section 550.
Thermoplastic Pavement Markings shall comply with MSHA Section 554.

CONSTRUCTION:

Comply with Subsections 550.03 and 554.03 of MSHA unless noted otherwise on Contract Documents.

MEASUREMENT AND PAYMENT:

Payment for furnishing and applying pavement marking (lines, letters, numbers, arrows and symbols) will be measured and paid at the Contract unit price under the pertinent pavement markings items. Quality control will not be measured, but the cost will be incidental to the other pertinent items specified. Provide corrective actions for markings unsatisfactorily installed or that fail during the observation period as determined and at no additional cost, including Maintenance of Traffic.

CATEGORY 600 – SHOULDERS (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

Unless otherwise described in each specification section, in general, work performed under this Division is subject to inspection and acceptance by the Owner prior to payment. Any defective work not accepted must be re-done at no additional cost to the Owner.

SECTION 602 – CURB, COMBINATION CURB AND GUTTER AND MONOLITHIC MEDIAN

Line Item 602-01: Standard Type A Concrete Combination Curb and Gutter (LF)

DESCRIPTION:

Construct concrete curb, concrete combination curb and gutter, concrete curb openings, and concrete monolithic median

MATERIALS:

Crusher Run Aggregate CR-6 per MSHA 901.01
Aggregate per MSHA 901.01, Size No. 57
Curing Materials per MSHA 902.07
Form Release Compound per MSHA 902.08
Portland Cement Concrete per MSHA 902.10, Mix No. 3
Asphalt Mix per MSHA Section 904
Tack Coat per MSHA 904.03
Reinforcement Steel per MSHA 908.01
Joint Sealer per MSHA 911.01
Prefomed Joint Filler per MSHA 911.02
Borrow Excavation per MSHA 916.01

Also, comply with Subsection 602.02 of MSHA unless noted otherwise on Contract documents

CONSTRUCTION:

In addition to meeting the requirements of MSHA Standard Specifications Section 602, concrete curb and gutters must meet the following requirements (unless noted otherwise):

1. Unless noted otherwise, replacement curb and gutter must match the configuration of the curb and gutter that was removed.
2. Curb and gutter must meet the latest Montgomery County Standard Type “A” (MC-100.01) or MSHA Standard Type “A” (620.02) unless noted otherwise in the Contract Documents.

3. All curb transitions, nose downs and depressed curb (gutter sections) through sidewalk ramps and driveways are included in the work.
4. In the course of work, the Contractor must take care to protect existing curb and gutter, driveway apron or other structures as required in the Contract Documents. Any Contractor-caused damage must be reported to the Owner and must be repaired to the satisfaction of the Owner at no additional cost to the Owner.
5. Slope requirements for sidewalk ramp curb openings must be in accordance with the American Disabilities Act (ADA).
6. Formwork for curb and gutter work within the public Right-of-Way shall be approved by the Right-of-Way Inspector prior to concrete placement.
7. All construction waste and debris must be swept and removed from the Site. **Construction waste and debris must not be swept or washed into the inlets or storm sewer system.**

MEASUREMENT AND PAYMENT:

The payment will be full compensation for all concrete, forms, excavation, backfill, disposal of excess material, drainage openings, joint sealer, tack coat, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

Curb, Combination Curb and Gutter, and Monolithic Median will be measured and paid for at the Contract unit price per linear foot. Asphalt Curbs, Concrete Curbs, and Concrete Combination Curb and Gutter will be measured along the front face of the curb. Monolithic Concrete Median will be measured along the centerline of the finished top of median.

Turfgrass Establishment and Turfgrass Sod Establishment will be measured and paid for separately and incidental to other line items.

SECTION 611 – DETECTABLE WARNING SURFACE

Line Item 611-01: Detectable Warning Surfaces (SF)

DESCRIPTION:

Furnish and install detectable warning surfaces. Ensure that the detectable warning surface is per the most recent accessibility guidelines of the Americans with Disabilities Act (ADA).

MATERIALS:

Select the detectable warning surface as per the requirements of City of Rockville, Montgomery County, and state guidelines. Ensure that detectable warning surface materials meet certification requirements prior to use. Submit the proposed source of supply and the specific product for approval. Refer to MSHA Section 925 for additional assistance for the selection of detectable warning surfaces.

CONSTRUCTION:

The detectable warning system may be either surface applied or cast in place. However, use only Type I, III, or IV detectable warning systems for new or replacement concrete installations. Install the system according to the manufacturer's recommendations. Unless specifically addressed in the manufacturer's recommendations, remove the existing surface texturing by grinding or other means. At a minimum, prepare the concrete surface in accordance with SSPC-SP 13. Remove all old adhesives and sealants.

The detectable warning surface shall be 24 in. 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 in. above the adjacent surfaces. Place a 2:1 or flatter bevel on edges that are more than 0.25 in. above the adjacent surface. The same edge requirements apply to cut material.

MEASUREMENT AND PAYMENT:

Detectable Warning Surfaces will be measured and paid for at the Contract unit price per square foot. The payment will be full compensation for removing and disposing of old treatments, including adhesives and sealants, reapplying, and 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.

CATEGORY 700 – LANDSCAPING (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Task Order Documents. In case of conflict between MSHA specifications and other Contract or Task Order Documents, the requirements of the other Contract or Task Order Documents shall apply.

Unless specifically specified otherwise in the individual Specification Sections below, the following minimum acceptance and maintenance requirements apply to all plant and seeding installations:

Initial Watering: The Contractor must provide at least one initial watering after planting, sodding or seeding. All watering must be accomplished using a hose with nozzle end breaker or a sprinkler. Water must be applied in sufficient quantities to maintain moist soil to a depth of at least 4 inches. Water must be applied at low water pressure directly to each plant, allowing water to be absorbed into the planting area until saturated, but without runoff. The Contractor must avoid the application of too much water.

The Contractor must water plantings as necessary until Initial Acceptance.

Contractor must be able to supply the required water from a water truck or from a nearby hydrant. When a hydrant is used, the Contractor is responsible for all regulations, permits or expenses necessary to use the public water supply.

Final Cleanup: Prior to Initial Acceptance, the Contractor must remove all trash and materials incidental to the project and dispose of it off-site. All rejected materials must be immediately removed from the site.

Inspection and Initial Acceptance: The Contractor must notify the Owner in writing that the Plantings, sod and/or seeds are installed in accordance with these specifications. The Contractor must request an inspection by the Owner. The inspection shall be performed by the Owner and Contractor within two weeks of written notification from the Contractor. If the installation and plantings are satisfactory, the Owner will provide a Certificate of Initial Acceptance to the Contractor. The Warranty period will begin from the date of the Certificate.

WARRANTY (ESTABLISHMENT AND MAINTENANCE) PERIOD WORK

After Initial Acceptance of any Planting work, and before receiving complete payment for any planting installations, the Contractor must provide a written Warranty to the Owner for the planting work. The Warranty must be provided using the Owner's form or other form acceptable to the Owner. The Warranty must acknowledge the Contractor's responsibility to: establish and maintain all plantings, sodding, and/or seeding, and to replace all deficient work at the Contractor's sole cost. The length of the warranty will vary depending on the nature of the work; see the individual Specification Sections for information on Warranty length. Work to be performed during the Warranty period shall include, but not be limited to:

Maintenance Watering: The Contractor must provide sufficient watering as necessary to maintain the plantings, sodding, and/or seeding in good health throughout the Warranty period. This maintenance watering of planted trees, shrubs, herbaceous plants, sod, and/or seeded areas shall be as required for proper growth and health of the plantings. Water used on plants must be free of any substance harmful to the plants.

During the Warranty period, the Contractor must monitor the water needs of all plant material at least once per month between March 31 and October 31. Additionally, the Contractor shall perform more frequently water monitoring visits in periods of low rain (defined as any two-week period with less than an inch of rain at the Site). When the Contractor identifies the need for watering, the Contractor must notify the Owner of the timing of the Contractor's planned watering. After Owner notification, the Contractor shall proceed with its planned watering – whether the Owner attends the watering or not.

While the Owner has no obligation to monitor watering, the Owner may notify the Contractor if the Owner feels that the Contractor has failed to properly water plantings. If so notified, the Contractor must start watering within 24 hours of that notification. The Contractor must provide watering until all plant material has been properly watered as approved by the Owner. All required watering must be completed within five calendar days of Owner notification.

Contractor must be able to supply the required water from a water truck or from a nearby hydrant. When a hydrant is used, the Contractor is responsible for all regulations, permits or expenses necessary to use the public water supply.

Maintenance: The Contractor shall be responsible for all maintenance during the Warranty period including but not limited to: watering, invasive plant control, fence maintenance, stake and guy maintenance, and mowing (as applicable). See individual Sections for additional requirements.

Final Inspection: The Contractor will conduct a Final Inspection with the Owner at the end of each Warranty period. It will be the Contractor's responsibility to notify the Owner at least two weeks before the anticipated meeting. Any planting installation that does not meet the Task Order Documents and/or the Warranty must be corrected or replaced by the Contractor at its own expense.

Replacements and Conditions: The Contractor must meet the required Warranties for replacement of deficient plantings. During the Warranty period, the Contractor will not be responsible for plant material that has been damaged due to vandalism, fire, relocation or other activities beyond the Contractor's control as determined by the Owner. The Contractor is responsible for maintaining adequate protection against deer (and other animal) damage, as specified in the specifications, during the Warranty period.

SECTION 705 – TURFGRASS ESTABLISHMENT (BY SEEDING)

Line Item 705-01: Turfgrass Establishment (by Seeding and Mulch) (SY)

DESCRIPTION:

This section specifies the establishment of turf by seeding as specified in the Task Order Documents. The work includes soil preparation, seeding, fertilizing, liming as required, mulching, overseeding and re-fertilizing of all areas designated for turf establishment.

MATERIALS:

Submittals:

1. At least one month prior to proposed seeding date, the Contractor must submit: proposed seeding schedule, manufacturer’s certificates of seed purity and guarantees of germination in accordance with Maryland Seed Law, and soil test results to the Owner for review and approval. Proposed seed must be approved by the Owner prior to installation.
2. Before the seed is applied to the site, the Contractor must provide the Owner the seed tickets and manufacturer’s invoice for the seed to be installed. The seed tickets and seed mixture being installed must match the mixture approved by the Owner.
3. Warranty: After the Contractor receives a Certificate of Initial Acceptance from the Owner, the Contractor must submit a written Warranty covering the establishment and maintenance of turfgrass installation. The Warranty period shall begin from the date of the Certificate of Initial Acceptance.

Seed and other Materials:

1. Seed must be fresh, clean, new seed crop composed of the following varieties mixed in the proportion shown and tested to the following minimum percentages of purity and germination.

Minimum standards for percent purity and percent germination of turfgrass:

Turfgrass species	% Purity	% Germination
Kentucky bluegrass	90	80
Perennial ryegrass	95	85
Tall fescue	95	80
Fine fescues	95	80

APPROVED BLUEGRASS		APPROVED PERENNIAL RYE		APPROVED FESCUE TALL	
Merit	Limosine	Opni	Greenland	Amigo	Houndog
Fairfax	Liberty	Bright Star	Prizm	Apache	Jaguar
Blacksburg	Julia	Cutter	Assure	Bonanza	Mesa
Preakness	Midnight	Repell II	Affinity	Chieftain	Mustang
Cynthia	Penn Pro	Prelude II	Seville	Finelawn I	I Olympic
Eclipse	Touchdown	APM	Rivera II	Finelawn 5GL	Rebel II
Georgetown	Dawn	Palmer II	Advent	Guardian	Shenandoah Tribute

2. Limestone applications must be determined by the soil test results and recommendations as approved by the Owner. Pulverized limestone must contain 50% calcium oxide equivalent (CaO or Ca Mg O) and ground to such fineness that at least 50% will pass through a 100 mesh sieve and 90% will pass through a 20 mesh sieve.

3. Fertilizer applications must be determined by soil test results and recommendations as approved by the Owner. Fertilizer must be 100 percent organic-based fertilizer and meet the following specifications:
 - a. Organic Fertilizer (5-3-4) – The organic fertilizer must be 100% organic based fertilizer (free of synthetic materials). The fertilizer may be derived of fish by-products, cottonseed meal, alfalfa meal, feather meal, rock phosphate, kelp meal, cocoa meal, blood meal, dried whey, natural nitrate of soda, natural sulfate of potash, and magnesium sulfate, and must meet the following chemical requirements:

Total Nitrogen (N)	5.00%
Water Soluble Nitrogen	1.50%
Water Insoluble Nitrogen	3.50%
Available Phosphate (P ₂ O ₅)	3.00%
Soluble Potash (K ₂ O)	4.00%

4. Mulch
 - a. Straw: Straw must meet the requirements of MSHA Section 920.04.01.
 - b. Wood Cellulose Fiber: Wood cellulose fiber must meet the requirements of MSHA Section 920.04.02.
5. Straw Mulch Binder must be bound with a suitable binder or straw must be rolled thoroughly with a crimping roller in several directions to prevent erosion of the soil and/or mulch.
6. Any erosion control blanket, installed to facilitate soil stabilization and grass growth, must be comprised of natural, biodegradable (in less than 9 months), material. Acceptable materials include: 1) straw matting with jute netting and 2) wood fiber matting with no netting (example: Curlex). The use of plastic, polypropylene or nylon netting is not acceptable.

CONSTRUCTION:

Comply with Subsection 705.03 of MSHA unless noted otherwise on Task Order Documents.

1. All areas disturbed by construction must be seeded unless noted otherwise in the Task Order Documents and as directed by the Owner. Areas that are not disturbed must NOT be seeded.
2. Soil must be tested by an accredited soil testing laboratory for acidity (pH), phosphorous (P₂O₅), potassium (K₂O), soluble salts concentrations and organic matter.
3. All areas to be seeded must conform to the finished grades as specified on the Task Order Documents and be free of all weeds, trash, debris, brush, clods, stones and other foreign materials larger than 3 inches in diameter or length that would interfere with seeding, or future grass maintenance. All gullies, washes or disturbed areas that develop subsequent to final dressing must be repaired prior to seeding.

4. Seeding must be performed from March 1 through May 15 or August 1 through October 20 unless otherwise approved by the Owner.
5. Seeding must not be performed on frozen ground or when the temperature is 32°F (0°C) or lower.
6. Before seeding, all soils must be loosened with rototillers, disk harrows, chisel plows, or other Owner-approved equipment, to a minimum depth of 4 inches. All stones over ¾ inch in any dimension must be removed from the top 4 inches of soil by use of a “Rock Hound” or other means. Fertilizer and limestone application may be accomplished at this time according to the results of the soil test. Fertilizer and limestone must be evenly distributed on the seed bed areas and worked into ground to a depth of 3 inches.
7. All seeding equipment must be calibrated before application to the satisfaction of the Owner so that the materials are applied accurately and evenly to avoid misses and overlaps. Seed installed by a broadcast spreader capable of placing seed at the specified rate. The minimum seed application rate is 250 pounds per acre.

Hydroseeding applications must meet MSHA Section 705.

8. Seed must be applied within the top ¼ inches of the soil in two different directions. The Contractor must maximize the seed/soil contact by firming soil around the seed with a cultipacker or other similar equipment.
9. Initial Watering must be provided as described in Category 700.
10. The Contractor must mulch and tack all seeded areas within 24 hours after seeding in accordance with MSHA Sections 705.03.09 and 705.03.10.

Initial Acceptance: After the Contractor has completed its initial seeding (including soil preparation, seeding, fertilizing, liming as required, mulching and initial watering), the Contractor shall submit a request for Initial Acceptance. An Owner Inspection will be conducted to verify completion. If complete, an Initial Acceptance Certificate will be issued by the Owner at that time.

Warranty:

1. The Contractor must provide a written establishment, maintenance, and replacement Warranty on all permanent turf seeding. The length of the Warranty shall be the longer of: a) one year or b) until adequate grass coverage is obtained. The Warranty must guarantee a 95% survival rate per 1000 square foot area.
2. The Warranty period shall begin upon the date of the Initial Acceptance Certificate.
3. As necessary, the Contractor must reseed all areas experiencing a less than an ninety-five percent (95%) survival rate at its sole cost. As practicable, reseeding shall be performed prior to May 15 of the year following Initial Acceptance.
4. If Soil Stabilization matting is used (per Section 709), it shall be included as part of the turfgrass seeding Warranty. See Section 709 for further information.

Establishment and Maintenance of Newly Seeded Areas:

1. Establishment and Maintenance of grass areas requires fertilizing, watering, mowing, weeding, and re-seeding as necessary to obtain an Owner-approved stand of grass. It must continue until the end of the Warranty period. Until Final Acceptance, the Contractor shall refertilize all of the grassed areas during each seeding seasons. The actual timing and rate of application of the refertilization shall be decided by the Owner, consistent with MSHA 705.03.16. Proper maintenance of the turf will continue until the project is finally accepted.
2. Flooded, washed-out, rilled or otherwise damaged or defective areas of seeding, mulch, grade, swales or berms must be reconstructed and all grades re-established in accordance with the grade plans or other specifications.
3. The Contractor is responsible for all mowing until Final Acceptance. Mowing must not remove more than one-half of the grass blade length. Heavy mowing, resulting in grass piles, must be “double mowed” or piles must be removed by the Contractor. Height of the grass must be maintained at 3 inches, unless otherwise specified by the Owner.
4. The following are examples of deficiencies that will result in the Owner’s non-acceptance of the work:
 - a. Improper Grades:
 - Low or high spots on flat ball field-type areas.
 - Improper drainage such as swales, low areas, rip-rapped outlets and paved areas.
 - Washed out or rilled areas.
 - Exposed rock and log debris
 - b. Turf Grass Conditions:
 - Poor or thin stand; improper application of seed, dead grass; use of seed mixtures other than specified in the specifications.
 - Improper fertilizer application – Uneven spreading, insufficient amounts, or failure to re-fertilize during extended acceptance.
 - Persistent weeds established in turf areas.

Final Acceptance: When: 1) the Contractor has established adequate (at least 95%) turfgrass establishment, and 2) a minimum of 11 months has elapsed since the date of the Initial Acceptance Certificate, the Contractor shall submit a request for Final Acceptance. Owner and/or Regulatory Inspections will be conducted to verify completion. If complete, a Final Acceptance Certificate will be issued by the Owner at that time.

If Establishment is not complete at the time of the Inspection, the Contractor shall take immediate steps to establish adequate coverage during the next planting season. Re-inspections will occur until Final Acceptance.

MEASUREMENT AND PAYMENT:

Turfgrass establishment shall be measured and paid for at the Task Order Unit Price shown on the Schedule of Unit Prices. Payment must be full compensation for furnishing and incorporating seed including all, materials, labor, equipment, tools, maintenance and Warranty and incidentals necessary to complete the work as specified in the Task Order Documents.

Turfgrass Establishment including preparing soil, preparing seed bed, applying fertilizer, seed mixes, seed additives, overseeding, reseeding, mulching, securing mulch, and repairing unacceptable areas will be measured and paid for at the Task Order unit price per square yard.

The Contractor shall be paid 100% of the Unit Price after Initial Acceptance and the Owner's receipt of the Contractor's written Warranty.

The cost of all Warranty work is incidental to the Unit Price; the Contractor shall perform all Warranty work at no additional cost. **If the Contractor fails to perform any Warranty work, the Owner has the right to perform the work and back-charge the Contractor.**

Any stabilization matting or mulching is incidental to the price of seeding.

CATEGORY 800 – TRAFFIC (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

SECTION 813 – SIGNS

Line Item 813-01: Metal Signs and Supports (EA)

DESCRIPTION:

Provide wooden or metal signs for Project identification and other information, including support post per contract documents.

MATERIALS:

Metal shall be sheet aluminum or extruded aluminum panels, all with reflective or non-reflective sheeting background and direct-applied or silk-screened copy with bolts and fittings to erect signs in conformance with the requirements of MSHA Section 813.

CONSTRUCTION:

Comply with Subsection 813.03 of MSHA unless noted otherwise on Contract Documents.

A Project sign must be installed at a prominent location at each Project Site and must be prepared in accordance with any standard details provided in the Contract Documents. The Contractor must protect and maintain the sign in good condition throughout the life of the Project.

Metal signs for information must be in compliance with MSHA and MCDOT for road signs and with any details in Contract Documents.

MEASUREMENT AND PAYMENT:

Signs shall be measured and paid for at the Task Order Unit Price shown on the Schedule of Unit Prices. The payment will be full compensation for all material, labor, equipment, tools and incidentals necessary to complete the work.

CATEGORY 900 – MATERIALS (MSHA-BASED)

GENERAL NOTE: The material specifications of MSHA Category 900 shall apply as referenced in other Specification Sections. The material specifications of MSHA Category 900 are not repeated below. Following are only modifications to the referenced MSHA material specifications:

SECTION 901 – AGGREGATES

- In addition to conformance with MSHA Section 901 (Tables 901 A and B), aggregate must conform to the following ASTM/AASHTO gradation table (M 43). Washed aggregate and river rock/gravel must also conform to ASTM C-33.

SIZES OF COARSE AGGREGATE, (AASHTO M 43) (inches)																
Size number	Nominal size square openings ⁽¹⁾	Amounts finer than each laboratory sieve (square openings), percentage by weight														
		4	3-½	3	2-½	2	1-½	1	¾	½	3/8	No. 4	No. 8	No. 18	No. 50	No. 100
1	3-½ to 1-½.	100	90 to 100		25 to 60		0 to 15		0 to 5							
2	2-½ to 1-½.			100	90 to 100	35 to 70	0 to 15		0 to 5							
24	3-½ to ¾.			100	90 to 100		25 to 60		0 to 10	0 to 5						
3	2 to 1.				100	90 to 100	35 to 70	0 to 15		0 to 5						
357	2 to No. 4.				100	95 to 100		35 to 70		10 to 30		0 to 5				
4	1-½ to ¾.					100	90 to 100	20 to 55	0 to 15		0 to 5					
467	1-½ to No. 4.					100	95 to 100		35 to 70		10 to 30	0 to 5				
5	1 to ½.						100	90 to 100	20 to 55	0 to 10	0 to 5					
56	1 to 3/8						100	90 to 100	40 to 75	15 to 35	0 to 15	0 to 5				
57	1 to No. 4.						100	95 to 100		25 to 60		0 to 10	0 to 5			
6	¾ to 3/8.							100	90 to 100	20 to 55	0 to 15	0 to 5				
67	¾ to No. 4.							100	90 to 100		20 to 55	0 to 10	0 to 5			
68	¾ to No. 8.							100	90 to 100		30 to 65	5 to 25	0 to 10	0 to 5		
7	½ to No. 4.								100	90 to 100	40 to 70	0 to 15	0 to 5			
78	½ to No. 8.								100	90 to 100	40 to 75	5 to 25	0 to 10	0 to 5		
8	3/8 to No. 8.									100	85 to 100	10 to 30	0 to 10	0 to 5		
89	3/8 to No. 16.									100	90 to 100	20 to 55	5 to 30	0 to 10	0 to 5	
9	No. 4 to No. 16.										100	85 to 100	10 to 40	0 to 10	0 to 5	
10	No. 4 to 0 (?).											100	85 to 100			10 to 30

(1) In inches, except where otherwise indicated. Numbered sieves are those of the United States Standard Sieve Series.
 (2) Screenings. Where standard sizes of coarse aggregate designated by two or three digit numbers are specified, the specified gradation may be obtained by combining the appropriate single digit standard size aggregates by a suitable proportioning device which has a separate compartment for each coarse aggregate combined. Blending must be done as directed by the Laboratory.

- SUBMITTALS:** The Contractor must submit, for Owner approval, sample aggregate material a minimum of thirty days prior to starting work.

3. Sand (Fine Aggregate): In addition to conformance with MSHA Section 901 (Tables 901 A and B), sand for bioretention facilities and other applicable infiltration facilities must be double-washed and otherwise conform to ASTM Standard C33 for fine aggregate.

CATEGORY 1000 – GENERAL (NON MSHA-BASED)

GENERAL NOTE: The specification sections in this Category are not based on the MSHA.

SECTION 1002 – TEMPORARY TREE PROTECTION FENCING

Line Item 1002-01: Temporary Tree Protection Fencing (LF)

DESCRIPTION:

This section specifies the requirements for fencing needed to keep equipment away from tree root protection areas.

MATERIALS:

Fencing must be a 14 gauge, welded-wire mesh fence (woven, 2” x 4”). Fence must be 8 feet long metal “T” posts spaced at 10 feet (maximum) and embedded a minimum of 24” into the ground.

CONSTRUCTION:

Install wire mesh fencing for protection of trees. The fence must be removed from the site with all related materials upon project completion.

MEASUREMENT AND PAYMENT:

The Unit Price cost for fence on the Schedule of Unit Prices includes all labor, tools, equipment, materials including hardware, and incidentals necessary to construct the fence. The price must include off site removal of all related materials.

SECTION 1007 – CERTIFIED TESTING AND INSPECTION SERVICES

Line Item 1007-01: Certified Testing and Inspection Services (LS)

DESCRIPTION:

The Contractor must provide Certified Inspection and Testing services as required to determine all material compliance with Contract and Task Order Document requirements including testing and inspection services required by Task Order permits. These services include and are limited to: subgrade compaction tests, verification of adequacy of stone subbase material, and concrete material testing as specified on the Contract and Task Order Documents.

MATERIALS: NA

CONSTRUCTION:

The provider(s) of all inspection and testing services, including geotechnical and/or structural inspection and testing services, must be approved by the Owner prior to commencement of the Work. All inspection and testing reports, including geotechnical and material reports must be clearly produced and submitted by the Contractor to the Owner and Engineering Consultant as part of the construction Record Documents.

The Contractor must provide compaction and geotechnical analysis of fill material placed under this Contract.

This Section requires the services of a Certified Engineer registered in the State of Maryland as well as the technical staff under the supervision of the Certified Engineer conducting soil tests in accordance with the requirements of the Contract Documents.

MEASUREMENT AND PAYMENT:

Certified Testing and Inspection Services will be measured and paid for at the Contract unit price per lump sum.

**SECTION 1039 – PERMEABLE ARTICULATING CONCRETE BLOCK (P-ACB)
SPECIFICATION FOR PARKING LOTS, DRIVEWAYS, ALLEYS AND ROADWAYS**

Line Item 1039-01: Pavedrain (or approved equal) (SF)

DESCRIPTION:

The work under this section consists of the installation of Pavedrain Permeable Articulating Concrete Block (P-ACB) in accordance with the lines, grades, design and dimensions shown on the Contract Documents or Task Order Documents and as specified herein.

MATERIALS:

A. GENERAL

Permeable Articulating Concrete Blocks (P-ACB) shall be premanufactured of individual concrete blocks with specific stormwater runoff and storage capacities. Blocks shall be hand-placed or mechanically installed with the use of a clamping or suction lifting device.

Individual blocks in the P-ACB shall be staggered, beveled, and interlocked for enhanced stability. The blocks shall be constructed of closed cell blocks with an arched storage chamber for additional stormwater runoff as shown on the contract drawings. Each row of blocks shall be laterally offset by one-half block width from the adjacent row so that any given block is interlocked to four other blocks (two in the row above and two in the row below). Six adjacent blocks shall also surround each block.

Each block shall incorporate interlocking surfaces that prevent lateral displacement of the blocks. The interlocking surfaces shall not protrude beyond the perimeter of the blocks to such an extent that they reduce the flexibility or articulating capability of the system. Backfilling of the joints between the P-ACB with rock chips or sand is not required and shall not be done or included in the Work.

Infiltration Performance: The P-ACB will only be accepted when accompanied by documented third party infiltration performance characteristics based on ASTM C1701/C1701M-09, or C1781. The infiltration rate shall be no less than 1,000 inches per hour on an outdoor working surface, with typical base material utilized for the test.

Structural Performance: The design of the P-ACB shall be capable of supporting AASHTO H-25 and HS-25 truck loading. The blocks shall be analyzed as unreinforced concrete arches supporting a uniform truck tire load with impact per AASHTO standards. The subgrade soil, geosynthetic and base preparation for the P-ACB shall be properly designed by a Registered Professional Engineer and inspected by the ENGINEER or the Resident Project Representative during and following the installation of the Work.

B. Cellular Concrete Blocks

Materials

Cementitious Materials - Materials shall conform to the following applicable ASTM specifications:

Portland Cements - Specification C 150, for Portland Cement.

Blended Cements - Specification C 595, for Blended Hydraulic Cements.

Hydrated Lime Types - Specification C 207, for Hydrated Lime Types.

Pozzolans - Specifications C 618, for Fly Ash and Raw or Calcinated Natural Pozzolans for use in Portland Cement Concrete.

Aggregates shall conform to the following ASTM specifications.

Normal Weight - Specification C 33, for Concrete Aggregates.

Visual Inspection

All units shall be sound and free of defects that would interfere with the proper placing of the unit or impair the strength or permanence of the construction. Surface cracks incidental to the usual methods of manufacture, or surface chipping resulting from customary methods of handling in shipment and delivery, shall not be deemed grounds for rejection. Cracks exceeding 0.25 inches in width and/or 1.0 inch in depth shall be deemed grounds for rejection.

Physical Requirements

At the time of delivery to the work site, the units shall conform to the physical requirements prescribed in Table 1, Physical Characteristics.

TABLE 1: PHYSICAL CHARACTERISTICS

Item	Description	Values
Dimensions	Length x Width x Height	12" x 12" x 5.65" (+/- 1/8")
Compressive Strength	ASTM D-6684 / C-140	Avg. of Three: 4,000 psi min. Individual units: 3,500 psi min.
Block Weight		Arched Block: 45-50 lbs/sf Solid Block: 55-60 lbs/sf
Loading Capabilities	Truck Load Traffic Rating	AASHTO H-20, HS-20, HS-25
Joint Filler Between Blocks	Material Used	NONE Required
Percent Open Space		Surface: 7% Storage: 20%
Water Absorption (%)		9.1% Avg. of Three, 11.7%
Density (lbs/cf)	ASTM D-6684 Table 1 / ASTM C-140	Individual 130 Avg of Three, 125 Individual

Storage Capacity	Above Aggregate Within Arch	0.0833 cf/block
Post-Installation, Verified Surface Infiltration Rate	ASTM C1701/C1701M-09 ASTM C1781	Ave of three tests: 1,000 inches/hour/sf (MIN. 3 tests)

Sampling and Testing

The OWNER, ENGINEER or their authorized representative shall be accorded proper access to the manufacturer to inspect and obtain samples of the Permeable Articulating Concrete Blocks at the place of manufacture from lots ready for delivery.

Expense of Tests

Additional testing and associated costs, other than that provided by the manufacturer, shall be borne by the Owner.

Manufacturer

The Permeable Articulating Concrete Blocks shall be PaveDrain® or pre-approved equal, as represented or distributed by:

NATIONAL
 PaveDrain, LLC
 PH. (888) 575-5339
info@pavedrain.com
www.pavedrain.com

"Or-Equal" Items: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. A proposed item of material or equipment will be considered functionally equal to an item so named if:

- a. in the exercise of reasonable judgment ENGINEER determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, (iii) it is approved by Maryland Department of the Environment, Montgomery County and City of Rockville as permeable paver and;
- b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

CONSTRUCTION:

A. Pavement Coordination Meeting

A pavement coordination meeting must be held prior to installation as specified in the Contract Documents to establish a working understanding among the parties as to the Work and to discuss the schedules, procedures for handling shop drawings and other submittals, and maintaining required records.

B. Foundation and Preparation

General. Areas on which permeable articulating concrete blocks are to be placed shall be constructed to the lines and grades shown on the Drawings and to the tolerances specified in the Contract Documents. Any proposed changes shall be reviewed and approved by the ENGINEER.

References. *Insert the state specifications.* (Example; State Specifications: Standard Specifications for Highway and Structure Construction, State of “TBD” Department of Transportation.)

Subgrade. Unless required on the Drawings, compaction of underlying subgrade soil shall be avoided or minimized in order to encourage infiltration of stormwater. A Geotechnical Engineer should be consulted to determine the CBR values of the subgrade prior to the installation of the subbase materials and geotextile stabilizing fabrics and grids.

Geotextile Separator or Geogrid Stabilization. Monofilament or multifilament geotextile, that include Mirafi RS380i or its equivalent, or other geotextile material as shown on the Drawings shall be installed on the sides of the excavation to prevent in – situ soil contamination of the clean aggregate subbase if specified on the Contract Documents. A geogrid is required for sub base stabilization, but is not recommended on the sides of the aggregate sub base to separate the in-situ soils from the clean sub base aggregate.

Aggregate Subbase. Aggregate subbase shall be size and depth as specified on the Contract Documents. Do not use rounded river gravel or fractured river gravel for any application.

Compaction: Standard compaction.

95 percent maximum density determined by Modified Proctor.

Allow Geotechnical Engineer to inspect prepared base course and to witness proof roll test by a fully loaded dump truck. Reconstruct where deflection is greater than ½ inch.

Allowable deviation from design grade: ½ inch.

The base course shall be firm and non-yielding, compacted until it does not creep or weave in front of the roller or compacting vehicle.

The aggregate bedding layer shall be compacted to a smooth plane surface to ensure intimate and positive contact is achieved between the legs of the permeable articulating concrete blocks and the compacted aggregate subbase layer and the Geogrid Separator.

The AASHTO #57 aggregate leveling subbase shall be rolled and then compacted in 6" lifts with a minimum 10,000 psi plate compactor in both the perpendicular and parallel directions in the area of coverage.

Geogrid Separator. Install Miragrid BXG110, Tensar BX-1100, (or equal) geogrid separator shall be directly on top of the compacted leveling course. The geogrid separator may be installed prior to the compaction of the leveling course. This will create a "snow shoe" effect and minimize damage from foot traffic prior to placement of the P-ACB.

Inspection. Immediately prior to placing the P-ACB the prepared area shall be inspected by the Geotechnical ENGINEER or Resident Project Representative, the OWNER's representative, and or by the manufacturer's representative. No blocks shall be placed thereon until that area has been approved by the Geotechnical ENGINEER.

C. Placement of Permeable Articulating Concrete Blocks

General. Permeable articulating concrete blocks shall be constructed within the specified lines and grades shown on the Drawings.

Placement. The P-ACB shall be placed on the geogrid separator so as to produce a smooth plane surface. No individual block within the plane of placed articulating concrete mats shall protrude more than one-quarter of an inch unless otherwise specified by the ENGINEER.

Consultation. The Supplier will provide design and construction advice during the design and installation phases of the project. The Supplier will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work.

Concrete Sealant: A concrete sealant shall be applied once the P-ACB has been installed. A sealant is an economical way to assist the P-ACB System to resist the damage caused by salting of adjacent hardscape surfaces. It will also assist in maintaining the color of P-ACB System.

Finishing. The joints between the P-ACB shall not be backfilled with smaller aggregates or sand in order to function properly. The joints shall be left open. This includes following maintenance of the P-ACB. If the joints are filled with smaller aggregates or sand, the CONTRACTOR shall be responsible for the removal of the material and perform infiltration tests to assure that the P-ACB meets the minimum infiltration tests described in this specification.

Post Installation Certification. Upon completion of the P-ACB installation, the surface infiltration rate of the pavement shall be verified by ASTM C1701M-09 or ASTM C1781 to confirm the required infiltration rate of the pavement (per Table 1). If the system fails to perform as required in section Table 1 of this spec, it shall be removed and replaced at the supplier's cost.

D. Maintenance of Permeable Articulating Concrete Blocks

General. The maintainability of the permeable articulating concrete blocks shall be based on a maintenance study of at least 24 months conducted by an independent or third party representation.

- The study shall include multiple pre and post testing documentations in multiple locations of infiltration rates according to ASTM C1701 or a modified version of ASTM C1701 where the infiltration rate is recorded without a head pressure.
- Subsurface aggregate performance of pre and post testing shall also be documented over a 24 month period.
- The study shall show that following proper maintenance the original performance of the P-ACB can effectively be restored to at least 90% of its original performance.

Inspection & Maintenance. The manufacturer's representative of the P-ACB shall provide a minimum 36 month maintenance program; including a visual inspection report with photos and a recommended cleaning schedule with a Vacuum truck such as the Elgin® Whirlwind® or Megawind® or with the PaveDrain® Vac Head and associated combination sanitation vac truck. The visual inspection and recommended cleaning schedule shall be included with the price of the system.

Maintenance utilizing a combination sanitation vacuum truck with the PaveDrain vac head will be quoted and supplied by others based on the maintenance program.

Maintenance shall be required when either of the following are reached:

- a. The surface infiltration rates of more than 75% of the surface area fall below 10% of the rate required in Table 1.
- b. Surface ponding remains for 24 hours in an area larger than 10 square feet.

PAYMENT:

PaveDrain shall be measured and paid for at the Task Order Unit Price shown on the Schedule of Unit Prices. The payment will be full compensation for furnishing and installing all material, labor, equipment, tools and incidentals necessary to complete the work.

CATEGORY 2000 – ALLOWANCES

SECTION 2001 – GENERAL ALLOWANCE

DESCRIPTION: This Section provides administrative and procedural requirements for a General Allowance for additional work within the general scope of the Work.

An Allowance is a monetary contingency amount established in the Task Order Documents and included in the Task Order Sum to compensate the Contractor for its performance of additional Unit Price Work, if any, consistent with the Task Order Documents, upon written direction from the Contract Administrator.

An Allowance shall only be used for Work already defined by Unit Prices in the Task Order. Reference the Contract for other Change Work.

EXECUTION: Additional work, utilizing the General Allowance, must be approved in writing by the Contract Administrator prior to the performance of any additional work.

The General Allowance shall be adjusted (reduced) based on the increase of line item quantities, above the Task Order quantity, multiplied by pre-determined Unit Prices in the Contract.

The Contractor, upon its discovery of an overrun in the quantities of any line item(s) in the Task Order Sum must notify the Contract Administrator of its discovery and must, upon request, provide all supporting documentation justifying the overrun. The work covered by an Allowance must be purchased on the basis of the Unit Price(s) specified in the Contract Documents. Upon the Owner's verification and approval of the overrun and overrun amount, the Owner will direct the Contractor, in writing, to reduce the Allowance by the amount of the overrun. **All invoices submitted after such written direction must indicate the reduction in the Allowance and the change (increase) in referenced line item quantities.**

The Contractor must submit all invoices and/or delivery slips to justify actual quantities of line item work.

All time required for the performance of work covered by the General Allowance is conclusively presumed to be included in the Contract (or Task Order) Time. For other Change Work, the Contractor must demonstrate a Delay and request an extension of time in writing in accordance with the Contract.

At the end of the Contract (or Task Order), the Contract (or Task Order) Sum must be reduced by an appropriate Contract (or Task Order) Modification to reflect the deletion of any remaining value in the Allowance.

Use any contingency allowance only as directed in writing by the Contract Administrator.

Section V: Special Provisions

NOTICE TO PROCEED AND COMPLETION SCHEDULE

The specified completion date and time shown herein below is to be strictly adhered to unless authorized or directed otherwise in writing by the City's Project Manager. The completion date, where specified, has an allowance for inclement weather and holidays. Time extensions for unusual conditions causing project delays not covered in these special provisions will be subject to the conditions covered under the GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS; however, no compensation above that indicated herein for specific items shall be paid to the Contractor for any delay, regardless of the source of delay.

The Contractor shall provide a bar-chart schedule at the Project Kick-Off Meeting or at such time as directed by the Chief of Construction Management, but not more than once per month or with any change order. In addition, the contractor shall verbally provide updates to the Project Inspector as requested.

CONSTRUCTION WORK HOURS

Work is permitted between 7:00 am to 5:00 pm, Monday through Friday except on adopted City Holidays. Working outside of these hours must first be approved in writing by the City. Work on any street, other than secondary residential (generally 26' in width) shall be limited to 9:00 am to 3:00 pm Monday through Friday. No work shall be permitted outside these hours unless written approval is obtained from the City Project Manager or his designee.

CONTRACT DOCUMENTS

In addition to the requirements of GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS, Item No. 40, in the case of discrepancies in the Contract Documents and need for interpretation, the documents shall be given precedence in the following order:

- Change Orders
- Addenda
- Drawings
- Special Provisions
- Technical Specifications
- General Conditions and Instructions to Bidders (City of Rockville)
- Standard Details by others
- City of Rockville Standard Details for Construction
- Applicable Standards listed below

Any questions, requests for information or revisions to the specifications must first be reviewed and approved by the City of Rockville.

APPLICABLE STANDARDS

As a minimum standard of quality workmanship, all work is to comply with the latest provisions and recommendation of the following documents in the following order of precedence. In the event of conflict, the City's determination shall govern.

- City of Rockville Standards and Details for Construction, dated January 1988.
- Current Montgomery County Department of Public Works and Transportation Design Standards

- Maryland Department of Transportation, State Highway Administration’s (MDSHA) “Standard Specifications for Construction and Materials” dated May 2017 including all errata and addenda thereto and additions included in these special provisions.
- MDE, WMA and SCS 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control
- American Society for Testing and Materials, “ASTM Standards”, latest edition.
- American Water Works Association Standards (AWWA Standards), latest edition
- [American Association of State Highway and Transportation Officials](#), “AASHTO Standards”, latest edition
- American Concrete Institute (ACI) Standards, latest edition.
- US Access Board Americans with Disabilities Act (ADA)
- The Pave Drain Systems Installation Standards

PROJECT KICK-OFF MEETING AND PRE-CONSTRUCTION MEETINGS

Upon issuance of the Notice to Proceed, the City may arrange a project kick-off meeting with all appropriate City staff and the Contractor. This will be an on-site meeting to review the project requirements. The City will decide which City staff will attend. The Contractor shall arrange any pre-construction meetings required by associated permits. These pre-construction meetings shall be held on the project site between the Contractor, the design engineer’s representative, and appropriate City staff, including the Project Inspector, Sediment Control Inspector, and Engineering Project Manager. In addition, the contractor shall invite the following agency representatives to the pre-construction meeting and shall provide at least four (4) business days’ notice.

All subsequent notifications for inspection and coordination with the City and all other agencies are the responsibility of the Contractor.

MOBILIZATION/DEMOBILIZATION

Mobilization shall include all activities and costs for transportation of personnel, equipment, and operating supplies to and from the site; establishment of offices, and other necessary facilities for the Contractor’s operations at the site; premiums paid for performance and payment bonds, including coinsurance and reinsurance agreements as applicable; and other items as specified in this specification. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not included in the contract from the site; including the disassembly, removal and site cleanup/repair of offices, buildings, and other facilities assembled on the site for this contract. This work includes mobilization and any additional mobilization and demobilization activities, and costs as required during the performance of the contract. The Contractor shall provide and pay all the cost for temporary utilities including electricity, telephone and water. All temporary facilities shall be available for the duration of the project. The Contractor shall be responsible for compliance with code ordinances and requirements of local officials for temporary facilities, controls, and related health and safety requirements. It shall be the responsibility of the Contractor to provide all necessary electrical service. In the event electrical power will not be available, it shall be the Contractor’s responsibility to provide any necessary generator to continue construction. The Contractor shall provide and pay all the cost for toilet facilities for all workmen, as required by local ordinances for complete and adequate sanitary arrangements. Sanitary facilities and the surrounding shall be kept clean and neat at all times. They shall be located on the project site as approved by the City.

The cost of mobilization shall be considered as incidental to the cost of the entire project. No separate bid item is provided.

EMERGENCY CONTACT INFORMATION

The Contractor shall provide the name(s) and phone number(s) of a representative(s) of the Contractor who can be reached in case of an emergency. This shall be submitted to the City prior to the start of construction.

EMERGENCY INFORMATION

The Contractor shall post information concerning emergency medical, fire, rescue and hazardous waste phone numbers from which personnel on the site can obtain information if needed. The Contractor shall also list the name and number of at least two representatives of the Contractor who can be reached in case of an emergency. The representatives must be fluent in English. The emergency information shall be in a central position, so it is visible and accessible 24 hours a day. The emergency information shall be posted for the entire length of the Contract.

PROJECT SIGNS

Prior to the start of construction the contractor shall provide and erect a project sign at a prominent location at the construction site. The signs shall be prepared in accordance with the instructions below and as shown on the construction plans:

- Submit 8.5"x11" or greater size scaled shop drawings or sketch indicating dimensions, layout, content and materials for each sign, for approval by the Chief of Construction Management.
- Locations to be flagged and approved or otherwise verified with DPW Project Inspector.
- The sign shall be 4' x 8' in size, constructed of 3/4" exterior density overlaid plywood or equal, and shall have a smooth white finish.
- Lettering shall be black latex or adhesive vinyl firmly affixed to the plywood surface, and each letter shall be a minimum of 3" in height. Letters shall be legible graphic type, as approved by the DPW Project Inspector.
- The sign shall be mounted on two 4" x 4" timber posts with adequate bolts and fittings to ensure proper stability. If unacceptable reflection or other viewing or safety issues are identified by the DPW Project Inspector, the sign's positioning shall be adjusted by the Contractor.
- The sign shall be posted at a proper location and erected at a height where the bottom of the sign is a minimum of 5' from the ground or as directed to permit public viewing.
- If applicable, the MDE decal shall be provided by the Maryland Department of the Environment.
- If peeling or damage occurs due to weather, construction activity or vandalism, it shall be the Contractor's responsibility to restore the sign to its original condition at no cost to the City.
- At the completion of the project, the Contractor shall remove the sign from the project site and restore the area to original condition.

Costs associated with project signs shall be incidental to the work and no specific payments will be made.

PUBLIC UTILITIES

Comply with MDSHA Specifications under Sections GP 5.05, and GP 7.17 regarding public utilities.

It shall be the Contractor's responsibility to cooperate to the fullest extent possible with the utility owners in their work of adjusting the existing utilities to suit the proposed construction under this contract. All utilities, unless provided for on the Engineering Drawings, shall be relocated or constructed by their respective owners.

The location of existing utilities shown on the plans and profiles are approximate only and it shall be the Contractor's responsibility to determine the exact location of the utilities prior to commencing work in all areas of

possible conflict. All test pits must be completed in coordination with the City and the affected utility companies. The existence of utilities other than those shown on the plans is not known. If, during construction operations, the Contractor should encounter additional utilities, he shall immediately notify the City and take all necessary and proper steps to protect the continuance of service of such facilities.

The Contractor shall notify the utility owner and City when previously unknown or different utilities are encountered. The Contractor shall support and protect existing utilities whether or not shown on the plans at no additional cost to the City. The Contractor shall not receive compensation for the temporary relocation of or temporary installation of utilities that are constructed for the convenience of the Contractor.

In case of any damage to utilities by the Contractor, either above or below ground, the owner shall be immediately notified. The Contractor shall arrange for restoration of such utilities to a condition satisfactory to the utility company at the Contractor's entire cost and expense.

The Contractor shall take into consideration when preparing his bid the costs associated with the coordination during construction with various utility companies for any relocation or installation by the utility companies which may be necessary in areas within, or adjacent to, the limits of his contract. No additional compensation or time extensions will be allowed the Contractor for work interruptions, changes in construction sequences, changes in methods of handling excavation and drainage, and changes in types of equipment used, made necessary by others performing work within, or adjacent to, the limits of this contract. The contract time as stated in this contract includes the time needed for utility adjustments and no extension of time will be granted for delays caused by utility adjustments.

All other expenses likely to be incurred by the Contractor as a result of working around and protecting utilities, as well as cooperating with the owners of same during the relocating of such facilities, will not be measured or compensated for under any stipulated pay item.

CONTACTS

The following utility companies and City departments may be affected by this project. It shall be the Contractor's responsibility to notify all utilities and/or City departments and coordinate his construction operations with them to avoid unnecessary delays.

- **City of Rockville**
Forestry Division
Mrs. Paula Perez
240-314-8705
Mrs. Natasha Shangold
240-3148205
- **City of Rockville**
Project Manager/Parks and Facilities Development Coordinator
Mr. Mauricio Daza
240-314-8608
- **City of Rockville**
Superintendent of Parks
Mr. Steve Mader
240 -314-8702
- **City of Rockville**
Project Inspector

Mr. Dan Stevens
240-314-8552

- **City of Rockville**
Sediment Control Inspector

Mr. Arthur Simpson
240-314-8700

- **City of Rockville**
Stormwater Management Inspector

Mr. Ethan Chappell
240-314-8541

- **City of Rockville**
Engineering Project Manager

Mr. David Waterman
240-314-8523

- **City of Rockville**
Water and Sewer Utilities

240-314-8567

- **MISS UTILITY**
1-800-257-7777 or 811

- **Transcontinental Gas**
410-465-0960

For Locations of Utilities, call "MISS UTILITY", at 811, 1-800-257-7777 or <http://www.missutility.net/>
Before interfering with any utility service, the Contractor shall notify the affected utility companies and affected property owners in advance and coordinate any required service interruption with the owner and City. For any water service shutdown, the Contractor must provide at least 21 calendar days' notice such that the City can provide proper notification.

The Contractor shall be responsible for contracting Miss Utility for the location of all utilities prior to the start of work.

PROTECTION OF WORK, PROPERTY AND PERSONS

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with this project. All necessary precautions shall be taken: to prevent injury to the Contractor's employees and other persons who may be affected by the project; to prevent damage to or loss of materials or equipment incorporated into the project; and to protect other property at or adjacent to the site including but not limited to trees, shrubs, lawns, walks, fences, pavements, roadways, utilities, structures, buildings, playgrounds and park facilities not designated for removal, relocation, or replacement in the course of construction; to provide warning signs as directed by the City for personnel and the public. Costs associated with this work are incidental to the work and no specific payments will be made.

WEATHER PROTECTION/LIMITATIONS

Weather Protection means the temporary protection of that Work adversely affected by moisture, wind, and cold by covering, enclosing, and/or heating. This protection shall provide adequate working areas during the months of November through March as determined by the City and consistent with the construction schedule to permit the continuous progress of all Work necessary to maintain an orderly and efficient sequence of construction operations. The Contractor shall furnish and install "Weather Protection" material and be responsible for all costs, including heating required to maintain

a minimum of 40 degrees F. at the working surface. This provision does not supersede any specific requirements for methods of construction, curing of materials, or the applicable conditions set forth in the Contract Documents with added regard to performance obligations of the Contractor. Weather protection costs associated with this work are incidental to the project and no specific payments will be made. The City reserves the right to stop work if the weather does not meet specifications, manufacturers recommendations and industry standards to complete the work scheduled on a daily basis.

SITE ACCESS

Access to the site is by public streets and thoroughfares. After the completion of the project, all roads, driveways, parking lots, sidewalks, landscaping, fences, utilities, structures, buildings, lawns and other facilities not designated for removal, relocation or replacement that are damaged by the Contractor's actions shall be restored to the same condition or better. Prior to any construction activities, it is the Contractor's responsibility to document any existing damage or conditions indicative of substandard facilities. Costs associated with this work shall be included with the appropriate Pay Item.

Access to parks, easements across private property and other City-owned property in wooded areas must be coordinated with the City and the private property owners prior to the Contractor entering the property. Due to the proximity of public park property, private property and natural resources, the Contractor shall exercise extreme care in their construction operations. All work must be kept within these limits and within the "Limits of Disturbance" as shown on the Engineering Drawings.

It should be noted that the park will be open to the public during construction. The Contractor shall exercise prudence regarding site security, storage, staging, safety, worker identification/background and other matters that may impact the public. The Contractor must be sensitive to the community and adjacent property owners. The Contractor shall immediately advise the Engineer and/or the City Project Manager of any problems involving the community.

Due to project location, the potential for trespassers is high. The job site will need to be secured every day. The Contractor shall be held responsible for securing their own equipment.

ACCESS TO ADJACENT PROPERTIES

Access must be maintained to all properties abutting this project at all times. All work affecting private properties is to be coordinated with the property owner by the Contractor. The Contractor shall maintain access to private driveways at all times unless specifically approved in advance by the City.

PRESERVATION AND RESTORATION OF PROPERTY, & MONUMENTS

The Contractor is to carefully examine the plans provided with the Engineering Drawings to ensure a clear understanding of the private property limits and work limits. The Contractor shall not enter upon private property for any purpose without first obtaining permission from the City and written permission from the property owner. The Contractor shall be responsible for the preservation of all public and private property, including but not limited to plants (trees, shrubs, and seasonal vegetation), lawns, walks, fences, pavements, roadways, utilities, structures, buildings, playgrounds and park facilities not designated for removal, relocation, or replacement, along and adjacent to the work areas, and shall use every precaution necessary to prevent damage or injury thereto. The Contractor shall take suitable precaution to prevent damage to underground or overhead public utility structures and must protect carefully from disturbances or damages all land monuments and property markers until the Project Inspector has witnessed or otherwise referenced their locations. All disturbed monuments and markers must be reset to their correct location by the Contractor at no additional compensation.

The Contractor shall be responsible for all damages or injury to public or private property of any character during the prosecution of the work, resulting from any act, omission, neglect or misconduct in his manner or method of executing said work satisfactorily, or due to the non-execution of said work, or at any time due to defective work or materials. When or where any direct or indirect damage or injury is done to public or private property or on account of any act, omission, neglect or misconduct in the execution of the work or in consequence of the non-execution thereof on the part of the Contractor, the Contractor must restore, at its own expense, such property to a condition similar or equal to rebuilding or otherwise restoring as may be directed by the City, or he shall 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 in a reasonable amount of time, or make good such damage or injury the City may, upon 24 hours' notice, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary and the cost thereof will be deducted from any monies due or which may become due the Contractor under this Contract. City crews or another Contractor may accomplish said work.

After the completion of the project, all plants (trees, shrubs, and seasonal vegetation), lawns, walks, fences, pavements, roadways, utilities, structures, buildings, playgrounds and park facilities and other facilities not designated for removal, relocation or replacement that are damaged by the Contractor's actions shall be restored to the same condition or better. Prior to any construction activities, it is the Contractor's responsibility to document any existing damage or conditions indicative of substandard facilities. The Contractor shall provide pre-project photographs or videotape of the project work areas to the DPW Project Inspector. Costs associated with this work are incidental to the work and no specific payments will be made.

All of the requirements outlined above shall be considered incidental to this contract and no special compensation shall be paid.

SITE CONDITIONS

The Contractor shall visit each work site prior to performing the work to verify the existing conditions.

The geotechnical data on the Engineering Drawings is provided for the Contractor's information only. The City does not warrant or guarantee the accuracy or completeness of the data. The Contractor should note the date and method(s) of data collection. The interpretation of the data and its applicability to the project is the responsibility of the Contractor and they are responsible for satisfying themselves as to the actual conditions and/or confirming the data provided prior to submitting their bid. There is no warranty or guarantee that geotechnical conditions other than those identified will not be encountered.

The topography shown on the Engineering Drawings represents the existing conditions at the time of the survey. However, the Contractor shall satisfy themselves as to all conditions at the time of bidding this project and include in their proposal any changes necessary to accomplish a complete and functional project. The Contractor will only be permitted to bring discrepancies in earthwork quantities to the attention of the City at the time of bidding. After award of Contract, payment for Earthwork pay items will be considered fixed.

Should there be any discrepancies between Engineering Drawings, specifications and/or field conditions after bidding and prior to the beginning of work, the Contractor shall bring such discrepancies to the attention of the City of Rockville at the pre-construction meeting.

The Contractor shall use the horizontal and vertical survey control points shown on the Engineering Drawings to layout the lines of work, stake out the location of all proposed structures, and test the levels of all construction. No other datum or control points will be accepted.

The Contractor shall create a video record of the project areas prior to beginning work. The City shall be notified 48 hours prior to the scheduled video recording of the site and will have a representative present to identify other areas that may be affected by the proposed construction. The Contractor shall be responsible for the repair, replacement and/or reconstruction of any property destroyed or damaged as a result of this Contract. This shall include all public and/or privately constructed driveways, fences, gates, buildings, landscaping, utility lines and other permanent items. All claims will be verified by the City through the video record of the area. The video record shall be submitted to the City prior to mobilization of any equipment for the Contract.

CONTRACTORS STAGING AND STORAGE

The Contractor will establish temporary staging areas as approved by the City. Cleanup of each staging area shall occur daily. Contractor shall cover topsoil, stone, and aggregate stockpiles with tarps to prevent sedimentation of the street.

Submit a sketch (a marked up set of plans is acceptable) and brief description for approval by the City's Project Manager showing the location of equipment and materials, location of portable sanitary toilet, and means and methods to protect pedestrians and existing public facilities (including trees) within the area as shown on the plans. This plan may have to be approved by the City Forester, if any grassed or tree areas will be utilized.

There shall be no payment for this work. It shall be considered incidental to the contract.

TEMPORARY UTILITIES

The Contractor shall pay all fees, obtain necessary permits, and have meters installed for temporary utilities as may be required for the execution of this contract. As needed, the Contractor through direct local arrangements must obtain temporary electric service for the purpose of this contract with the electric company, PEPCO. The Contractor shall furnish and install all necessary temporary service drops, wiring, connections, etc., necessary for temporary service required by the Contractor. All costs associated with any temporary electric service required by the Contractor are considered incidental to other pertinent pay items. This item shall not be measured for payment.

The Contractor shall, at the beginning of the project, provide suitable temporary sanitary toilet facilities on the premises, in accordance with the GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS. The City shall approve the location of the sanitary toilet.

CONSTRUCTION STAKEOUT AND AS-BUILTS

Construction Stakeout shall be in accordance with Section 107 of the MDSHA "Standard Specifications for Construction and Materials", dated July 2018, with the following exceptions:

The Contractor shall be responsible for all construction stakeout. The Contractor shall complete project as shown on approved plans. The City will not provide any construction stakeout for this project. Contractors are to use benchmark and layout information as shown on the plans.

The Contractor shall provide as-built information. One set of redline as-builts shall be maintained and kept on-site at all times. Any deviations from approved plans shall be marked, in red, on the as-builts. As-built information shall consist of any deviation to the approved plan such as grading limits, slopes, types/length/height of restoration features, and any modifications to typical details. As-built requirements do not include any topographic survey.

Upon completion of project, submit as-builts for approval. Retainage shall not be released until as-builts are approved.

A copy of the Department of Public Works As-built Plan Requirements is attached in Appendix G.

The City will provide an electronic CAD file of the layout information for the Contractor. The Contractor must complete an agreement for receipt of the electronic file.

AERIAL ELECTRIC LINES

The Contractor shall be aware that State law requires that a 10-foot radial clearance shall be maintained for all construction equipment and materials in relation to electric lines carrying 750 volts or more. Because the State law is more stringent than the Federal laws, the State law shall be considered the minimal distance.

NOISE CONTROL MEASURES

All work must comply with the noise ordinance requirements for Montgomery County. A copy of the ordinance enforced by the Department of Environmental Protection (DEP) is attached to these contract documents in Appendix E for observation and compliance. With City approval, the Contractor may request a waiver through Montgomery County. The Contractor is fully responsible to submit the request and comply with any conditions of the waiver approval. The Contractor shall consider the processing time of this request, which includes a public notice element, when scheduling their work.

WATER POLLUTION CONTROL MEASURES

The Contractor shall not discharge or permit discharge into the waters, canals, ditches, or drainage system any fuels, oil, bitumen, garbage, sewage or other materials which may be harmful to fish, wildlife or vegetation or that may be detrimental to outdoor recreation. The Contractor shall be responsible for investigation and complying with all applicable federal, state and local laws and regulations governing pollution of water. All work under this Contract shall be performed in such a manner that objectionable conditions will not be created in waters through or adjacent to the project areas.

AIR POLLUTION CONTROL MEASURES

All fine-grained, loose materials hauled to or from this project shall be covered to prevent spillage and blowing. Material, which is not covered after notification by the City, will not be accepted for use on this project. This material will not be included in measurement for payment.

Burning will not be permitted.

ENVIRONMENTAL PROTECTION MEASURES

Impervious barriers, (i.e., plastic, metal drip pans, etc.) shall be placed under any compressors, generators, welding machines, etc., to prevent oils, solvents, organic compounds, or other contaminants from leaching into the soil. Any oils, solvents, organic compounds, or contaminants spilled on the site during the process of the work shall be immediately removed and cleaned up by the Contractor. Any earth contaminated by a spill shall also be removed and replaced with new certified clean material to the satisfaction of the City and the Maryland Department of the Environment (MDE). If the City has to remove the oils, solvents, organic compounds, contaminants, or earth, the City may deduct the costs of removal and clean up from the total contract amount owed the Contractor.

EROSION AND SEDIMENT CONTROLS

The Contractor is responsible for adhering to the City's laws and ordinances regarding sediment control. The Contractor shall be responsible for coordinating all work, and for notifying the City:

- Upon installation of all erosion and sediment control devices to schedule a “Notice to Proceed” inspection prior to commencing work.
- Prior to removing sediment control devices; and
- Upon completion of final grading, establishment of ground covers and approved land stabilization.
- During the progression of all work, the Contractor shall make periodic inspections and maintain sediment control devices, including cleaning and routine maintenance as directed or necessary, to ensure that the intended purpose is accomplished. Under no circumstances shall sediment be allowed to enter private properties, stormdrains, or City waterways.

When directed in the field by the Project Inspector, the Contractor shall be required to make adjustments in location and/or increase or decrease quantities of sediment control measures and provide temporary stabilization measures.

All sediment control measures shall be installed and maintained as shown on the Contract Documents, City Notes in Section VII, approved plans and details per latest City of Rockville Standards, Maryland Department of the Environment’s 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control, in compliance with the MDE/WMA Notice of Intent (NOI) General Permit for construction activities, and as directed by the Project Inspector. Please refer to Maryland Department of Transportation, State Highway Administration’s Specifications entitled, “Standard Specifications for Construction and Material” dated May 2017, revisions thereof, or additions thereto. Comply with MSHA specifications section 308.02 Material and section 308.03 Construction.

Furnish and install temporary erosion and sediment controls. The Contractor is to protect the integrity of the erosion control measures installed. The erosion control measures shall be provided until such times as the temporary ground cover is sufficiently developed, and the Project Inspector gives written authorization to remove said measures. The Contractor shall comply with all local, state and federal laws, ordinances, and regulations pertaining to erosion, sediment and pollution control, including those promulgated by the State of Maryland, and shall indemnify and hold harmless the City from and against all claims, damages, losses and expenses resulting from such work.

The Contractor shall have an employee present on site at all times who has met the requirements for certification of the Responsible Personnel training in erosion and sediment control according Maryland State Law. This employee shall have sufficient authority to install, maintain, adjust or otherwise implement approved sediment control measures.

The Contractor shall take all measures to control erosion and sedimentation at construction site, including borrow and waste areas and temporary access roads, and at off-site areas especially vulnerable to damage from erosion and sedimentation. All erosion and sediment control measures will be subject to approval by the City. All erosion and sediment control measures shall be implemented prior to any construction occurring. All temporary erosion and sediment control measures shall be removed within thirty (30) days after completion of construction and establishment of permanent erosion control.

Work shall be scheduled so that areas subject to erosion are exposed for the shortest possible time. Only those trees, shrubs and grasses shall be removed that are necessary for construction as designated by the forest conservation plan and/or approved plans; those remaining shall be protected to preserve their aesthetic and erosion control values. Temporary on-site structures and buildings shall be located to preserve the existing landscape and to minimize erosion, including that from construction traffic. If practicable, work shall be scheduled in seasons when erosion is less of a hazard, particularly for sites with steep slopes and erodible soils.

Temporary protection shall be required for disturbed areas until final grading is completed, and permanent vegetation is established, and shall consist of planting temporary grass cover or other vegetation when feasible. Other short-term protection shall include covering disturbed areas, stockpiles, and topsoil piles with a mulch of hay, straw or wood chips, stabilizing with netting, or covering with plastic sheets. Graded slopes and fills shall be limited to an angle and to lengths that will maintain stability and allow easy maintenance. Construction equipment shall not be operated in a way to make the land more susceptible to erosion, such as leaving tracks up and down slopes. Access roads shall be located and constructed so as to prevent erosion.

Controls for surface water runoff shall be constructed as early as possible to prevent the formation of gullies or rills. These controls shall be maintained during the entire construction period or until permanent storm drains/revetments are completed. Diversion channels or berms, slope drains, flow barriers, dikes or other structures, which retard or spread water flow, shall control runoff. Compacted embankments, ditches, furrows or temporary diversions across slopes shall be provided to intercept runoff before it reaches erodible areas. Diversions and drains shall be directed into stabilized areas where the discharge can be spread out and dissipated.

If unusually intense storms cause planned control measures to fail, prompt restoration and cleanup of sediment deposits shall be made, including damage to adjacent property. If construction is delayed or shut down, temporary cover of exposed and disturbed areas shall be provided.

FOREST AND TREE CONSERVATION REQUIREMENTS –

The Contractor shall complete all forest and tree conservation requirements according to the approved. contract documents:

- All forestry related work shall be under the direct supervision of someone who is both certified by the International Society of Arboriculture and registered in the State of Maryland as Licensed Tree Expert. Provide proof of both prior to on-site Forestry pre-construction meeting.
- Promptly replace any existing trees designated to remain that are damaged or destroyed in the course of development.
- Perform all site preparation, including removal of pavements, structures, and inclusion of soil amendments, PRIOR to installing plantings.
- Maintain and monitor all tree plantings in accordance with the contract documents, for a period of two years from the date the plantings are inspected and approved by the City Forester. Such maintenance shall include when appropriate, but not necessarily be limited to:
 - Watering, fertilizing and control of competing vegetation during the initial planting and through the two (2) year maintenance period as may be necessary.
 - Pruning, mulching, tightening and removal of guys and stakes within six (6) months, resetting of plants to proper grades or upright position, and furnishing and applying such sprays or other items necessary to thwart damage from insects and disease.
 - Providing protection measures such as fencing and interpretive signs as necessary, to prevent destruction or degradation of the planting site.
 - Eradicate, suppress and control non-native invasive plant species, as approved by the City Forester, in order to maintain the health of the trees planted.
 - Guarantee survival of 100% of landscape tree plantings and 85% of forest plantings under 2” caliper in good health and in flourishing condition of active growth for a minimum period of two years from the date that the plantings are inspected and approved by the City Forester.
 - Replace, as soon as weather permits, any dead plantings to ensure compliance with the above minimum survival requirements; provided, however, that dead trees and plantings shall be removed immediately.

Special attention must be given the existing landscape features and special care taken to protect the natural surroundings. The roots of such trees or shrubbery will not be cut unnecessarily. The Contractor will be required to root prune the tree roots, which extend into grading limits and/or from trees intended to be left in an undamaged state or otherwise prevent damage to roots of trees. 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.

Any tree that in the opinion of the City, may be defaced, bruised, injured or otherwise damaged by the Contractor's equipment or operations must be protected prior to the start of work by means acceptable to the City. Contractor must verify all saved trees prior to construction. Prior to commencing construction, all tree protection techniques must be approved by the City Forester's office.

Any tree, or landscape features scarred or damaged by the Contractor's operations must be removed, correctively pruned, restored or replaced as nearly as possible to the original conditions, as required by the Project Inspector and at the Contractor's expense. No ropes, cables or guys are to be fastened to or attached to any nearby trees for anchorage or in lieu of placing of dead men.

CARE OF WATER DURING CONSTRUCTION

The Contractor shall furnish, install, test, operate, monitor, and maintain dewatering systems of sufficient scope, size, and capacity to control water flow into excavations and permit construction to proceed on dry, stable sub-grades. Dewatering operations shall be maintained to ensure erosion control, stability of excavations and constructed slopes, prevent excavation from flooding, and prevent damage to sub-grades and permanent structures.

The Contractor shall provide a suitable watercourse (i.e. fire hose, etc.) to direct the flow of water so as to have minimal impact upon the environment, private property, roadway and pedestrian traffic. Any damage caused by discharge of water is the responsibility of the Contractor. The Contractor shall not discharge any water so as to cause sediment to reach any storm drain inlet or water course.

The Contractor shall provide shoring, bracing and cofferdams during construction as necessary to protect personnel, structures and equipment. No special payment will be made for shoring, bracing or cofferdams. The Contractor is responsible for ensuring the safety of his employees and sub-contractors, and for complying with all applicable provisions of Maryland Occupational Safety and Health Administration.

The Contractor shall protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by dewatering operations. The Contractor shall provide an adequate system to lower and control water to permit excavation, construction of structures, and placement of fill materials on dry sub-grades. The Contractor shall install sufficient dewatering equipment to drain water-bearing strata above and below bottom of ponds and other excavations.

Work areas shall be dewatered in a manner that avoids endangering public health, property, and portions of work under construction or completed. The Contractor shall provide sumps, sedimentation tanks, dewatering basins or non-woven dewatering bags as required by the Project Inspector. Standby equipment shall be provided on-site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of the system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, the Contractor shall restore damaged structures and foundation soils at no additional expense to the City. The Contractor shall remove all dewatering systems from project site on completion of dewatering.

All pumps and generators utilized for bypass and dewatering operations shall be “quiet” rated with a full-load noise level of less than 63 dB at a distance of 23 feet or as approved by the Chief of Construction Management. The City may require additional measures, such as the use of straw bale baffle walls, for work approved outside of normal working hours.

Care of water during construction shall be considered incidental to the appropriate pay item.

DAILY CLEAN-UP

The Contractor shall at all times keep the work areas clean and orderly and shall promptly remove all waste and rubbish. The daily debris shall be collected in covered containers and disposed of in proper fashion. All directions from authorized public officials having jurisdiction over health and safety shall be obeyed. The site will be “broom cleaned” at the end of each working shift. Open excavations may not be left unattended. Site must be secured each night.

The Contractor shall clean every street upon which any work has been performed under this contract on a daily basis. The cleanup shall be accomplished by use of a vacuum assisted sweeper truck, manual (push) broom sweeping or other method as directed and or approved by the Project Inspector. Under no circumstance shall the contractor use compressed air or jet water sprays for cleanup purposes.

SAMPLING AND TESTING OF MATERIALS

Unless provided elsewhere in the contract documents, all required sampling and material testing shall be the responsibility of the Contractor. Testing shall be in accordance with the Specifications and applicable design criteria standards.

The City reserves the right to test all materials and construction separate from and in addition to the specific requirements dictated in this contract. Testing shall be generally limited to:

- Taking and/or collecting samples of soil and/or other backfill materials for proctor tests;
- Performing proctor tests in a lab;
- Performing compaction tests on site;
- Taking concrete cylinder samples and testing compression strength;
- Asphalt sampling and compaction testing.

Employment of a testing agency in no way relieves the Contractor of his responsibility and obligation to comply with all aspects of this contract and to perform all work in a proper, acceptable and workman like manner and doing all such work in full compliance with these contract documents.

SAMPLING AND TESTING OF ASPHALT MATERIALS

A Maryland State Highway (SHA) Certified Asphalt Plant must provide all asphalt supplied for this contract. Mix designs for the various types of material to be supplied must be submitted to the Project Inspector a minimum of 14 calendar days before beginning work. Under no circumstances will the contractor be allowed to begin supplying asphalt for this contract without the City and the Contractor having received written approval of the mix designs from the City or the City’s Asphalt Testing Consultant. The Contractor shall deliver to the City Project Inspector, a box sample of the material to be supplied, each day prior to lay down operations beginning. Any material laid down without having a box sample delivered to the City Project Inspector, will be subject to complete removal and replacement at the Contractors expense. Any box sample failing testing by the City’s Asphalt Testing Consultant will cause that days placed asphalt to be completely removed and replaced at the Contractors expense.

SUBMITTALS OF MATERIALS

The Contractor shall submit two (2) copies of all delivery tickets, shop drawings, inspection, testing or certification reports, obtained approvals or permits, and other submittals required for this project to the City Project Manager.

INSPECTION AND CERTIFICATION

All materials shall be subject to inspection or test by the City prior to installation and no previous certification or inspection shall bar rejection if the material is found to be inferior, damaged or defective. The certification requirements may be waived for any or all of the materials at the discretion of the City.

INSPECTION AND REPAIRS

The City reserves the right to inspect any and all work either in progress or completed. All work shall be inspected prior to backfill. Any portion of the work that is backfilled prior to inspection shall be uncovered at the contractor's expense to enable the Project Inspector to adequately inspect. If the work is found to be unsatisfactory or in conflict with the provisions in these specifications the City may hold back payment for work completed. The City's Recreation and Parks Project Manager will give written notification of the unsatisfactory work to the contractor. The Contractor shall have no more than 10 days to correct the condition.

CONTRACTOR'S EMPLOYEES

Contractor's employees are to present a professional appearance, shall be neat, clean, well groomed, courteous, and conduct themselves in a respectable manner while performing duties and while on City and/or private property.

The Contractor's employees shall conduct themselves in a professional manner. They shall minimize their impacts to the surrounding properties, including when they arrive to the site, take breaks, eat lunch and depart the site. Contractor's employees shall be respectful and polite to inquiries from residents or individuals not associated with the project. Any inquiries beyond basic information should be referred to the City. The Contractor shall inform the City of any inquiries that occur that is beyond providing basic information.

The Contractor shall provide the City with a listing of all personnel assigned to the contract. In addition, the Contractor shall provide a listing of names, and emergency telephone numbers of supervisory personnel assigned to the contract. It will be the Contractor's responsibility to keep this list up to date.

The City reserves the right to request that the contractor remove any employee if it is determined that services are not being performed in accordance with the terms and conditions of the contract.

SUB-CONTRACTORS

The Contractor shall have the right to sub-contract but shall be fully responsible and cannot be relieved of any liability under this contract on account of any sub-contractor. All sub-contracting must have prior written City approval. The City reserves the right to approve or reject any sub-contractor.

Nothing contained in the contract documents shall create any contractual relationship between the owner and any subcontractor or sub-subcontractor. Vendors who will subcontract the delivery, installation, or any other portion of the work herein described will submit, prior to construction, the following information:

A description of the items to be subcontracted, and the subcontractor's name, address, and telephone number. During the life of the contract, the Contractor shall provide the name, nature, and extent of all subcontractors. Subcontractors shall be considered an agent of the Contractor, who shall be held fully accountable for all of the subcontractor services, labor, and materials relative to the contract.

CHANGES IN WORK

If an event arises which the contractor considers may result in the addition, deletion or modification to the contract, the Contractor shall notify the City prior to commencing work under that change.

All such changes, or additional work must be authorized in writing by the City Project Manager prior to starting such work.

INVOICES AND PAYMENT

The Contractor shall submit a detailed invoice to the City’s Project Manager, for payment at the end of each month for all work completed and accepted by the City during that month. The Contractor shall attach to each monthly invoice, all required documentation of testing results.

CONDITIONS FOR APPROVAL FOR ACCESS TO CITY OF ROCKVILLE FACILITIES

All Contractor and subcontractor employees that will work on the job site or who have access to sensitive information are to have initial background checks performed by the City to assure the City information used and generated by this project will not end up in unauthorized hands. The initial background checks are valid for one year and subject to annual renewal for employees continuing to work on the project. The Contractor shall allow 4 weeks, from date of submission of personnel information or from the date of Notice to Proceed, whichever is later, for the City to perform background checks.

“Sensitive” documents and information are defined as those that could reasonably be used to aid in or plan for contaminating or damaging the City’s system or City customers. Examples of such documents include, but are not limited to:

- plans/blueprints, as-built drawings, or contract documents of City facilities
- plans/blueprints, as-built drawings, contract documents, or 200-foot sheets of the water distribution system or the wastewater collection system

For any document or information to be provided to the Contractor where there is uncertainty whether it is “sensitive”, the City shall have sole discretion to make such determination.

The contractor shall issue contractor’s project participants photo identification cards. Identification cards must be worn at all times while on any City property. Contractor employees found on-site without proper identification will be immediately removed from City property. The design of identification cards shall be reviewed and approved by the City prior to issuance. Identification cards for employees who are no longer associated with the project, for any reason, will be immediately recovered by the Contractor. The Contractor is responsible to control and inventory all identification cards issued so those cards are not obtained or used by unauthorized individuals.

TECHNICAL CONTACT/PROJECT ENGINEER

Robyn Barnhart, P.E. – Design Civil Engineer
Charles P. Johnson & Associates, Inc.
1751 Elton Road, Suite 300
Silver Spring, MD 20903
Telephone 301-434-7000
Email: rbarnhart@cpja.com

**COMPLETE AND RETURN WITH BID
 INVITATION FOR BIDS #16-22
 THOMAS FARM COMMUNITY CENTER
 PERVIOUS PARKING LOT REPLACEMENT PROJECT**

SECTION V: BID PRICING FORM/BID PACKET

**THIS FORM MUST BE COMPLETED AND INCLUDED WITH THE BID SUBMITTAL. FAILURE TO SUBMIT
 THIS FORM SHALL DEEM THE BIDDER NON-RESPONSIVE.**

IN ACCORDANCE WITH ALL TERMS, SPECIFICATIONS AND REQUIREMENTS, WE PROPOSE TO FURNISH ALL LABOR, EQUIPMENT, MATERIALS AND SERVICES AND THE PERFORMANCE OF ALL WORK NECESSARY FOR THE PROJECT. PROVIDE PRICING BELOW TO INCLUDE OVERHEAD, PROFIT, TAXES, INSURANCE AND OTHER APPLICABLE FEES AND COSTS. ALTERATIONS TO THIS FORM OR BID ALTERNATES (UNLESS OTHERWISE SPECIFIED) ARE NOT ACCEPTABLE. LINE ITEMS LEFT BLANK OR MARKED "\$0" SHALL DEEM THIS BID NON-RESPONSIVE.

Spec ID	Description	Unit	Quantity	Unit Bid Price	Total Bid Price
104-01	Maintenance of Traffic	LS	1		
104.11-01	Removable Pavement Markings	LS	1		
107-01	Construction Stakeout	LS	1		
109-01	Project Schedule	LS	1		
201-01	Class 1 Excavation Hauled Off-Site for Disposal	CY	130		
205-01	Test Pit Excavation	CY	10		
206-01	Removal of Existing Curb and Gutter	LF	300		
206-02	Removal of Existing Pervious & Conventional Pavement	CY	750		
306-01	4 Inch Polyvinyl Chloride (P.V.C.) Overdrain (Solid and Perforated including Fittings)	LF	310		
306-02	Polyvinyl Chloride (P.V.C.) Connection to Ex. Storm Drain Structures	EA	5		
308-01	Silt Fence	LF	1,708		
308-02	Sump Pit	EA	1		
308-03	Filter Bag	EA	3		
308-04	Pumping	DAY	10		
308-05	Onsite Concrete Washout Structure	EA	1		
308-06	Curb Inlet Protection	EA	5		
308-07	At-grade Inlet Protection	EA	1		
501-01	#57 Stone Subbase	CY	130		
508-01	2 Inch Mill and Overlay For Asphalt Pavement, 9.5 mm, PG64-22 Level 2	SY	241		
520-01	Unreinforced 6" Plain Portland Cement Concrete Paving Section, MSHA Mix No.6 (For Drive Aisle & ADA Parking)	SY	2,410		
549-01	5 Inch Wide White Permanent Non-toxic Paint Pavement Marking for Parking Spaces	LF	2,300		
549-02	Yellow Permanent Non-toxic Paint Pavement Marking for Fire Lanes – Any Width	LF	1,000		
549-03	5 Inch Wide Thermoplastic Pavement Markings for ADA Parking Spaces	LF	760		
549-04	Thermoplastic Pavement Markings Legend and Symbols for ADA Parking Spaces	EA	8		
602-01	Standard Type A Concrete Combination Curb and Gutter	LF	300		
705-01	Turfgrass Establishment (by Seeding and Mulch)	SY	380		
813-01	Metal Signs and Supports	EA	1		
1002-01	Temporary Tree Protection Fencing	LF	500		
1007-01	Certified Testing and Inspection Services	LS	1		
1039-01	Pavedrain (or approved equal)	SF	16,207		

Base Bid Grand Total		
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GRAND TOTAL IN WORDS _____

_____ (\$ _____)

EXCEPTIONS

All exceptions taken to the specifications contained in this document must be clearly indicated in the space provided below. Unless noted as an exception, the bidder will be held responsible for providing each component or standard called for.

The City Manager for the City of Rockville, Maryland retains the exclusive right to approve or reject any exception taken to the specifications contained in this bid. It is hereby agreed that if this bid is rejected due to an exception taken to a specification by the bidder, the rejection taken will be final and no further action may be taken.

Do you claim an exception to any specification to this bid? If yes, please explain.

COMPLETE AND RETURN WITH BID
Add / Alternates

Spec ID	Description	Unit	Quantity	Unit Bid Price	Total Bid Price
Add/Alternate Item 1: Removal and Replacement of Concrete ADA Parking Spaces adjacent to Existing Park Entrance					
206-02	Removal of Existing Pervious & Conventional Pavement	CY	8		
520-01	Unreinforced 6" Plain Portland Cement Concrete Paving Section, MSHA Mix No.6 (For ADA Parking)	SY	48		
549-03	5 Inch Wide Thermoplastic Pavement Markings for ADA Parking Spaces	LF	160		
549-04	Thermoplastic Pavement Markings Symbols for ADA Parking Spaces	EA	2		
Total Add/Alternate 1					
Add/Alternate Item 2: Extend Concrete Drive Aisle to Public Right-of-Way Line for Falls Grove Drive					
206-02	Removal of Existing Pervious & Conventional Pavement	CY	90		
520-01	Unreinforced 6" Plain Portland Cement Concrete Paving Section, MSHA Mix No.6 (For Drive Aisle)	SY	250		
Total Add/Alternate 2					
Add/Alternate Item 3: Replace Asphalt Entrance with a Concrete Driveway Entrance					
206-02	Removal of Existing Pervious & Conventional Pavement	CY	20		
520-04	Concrete Driveway Entrance	SY	100		
549-05	12 Inch Wide White Permanent Non-toxic Paint Pavement Marking for Cross Walk	LF	100		
Total Add/Alternate 3					
Add/Alternate Item 4: Replacement of Concrete Sidewalk at Existing Park Entrance					
206-03	Removal and Disposal of Existing Sidewalk	SF	310		
520-02	Unreinforced 4" Plain Concrete Sidewalk	SY	10		
520-03	Handicap Ramp	EA	1		
611-01	Detectable Warning Surfaces	SF	17		
Total Add/Alternate 4					
Add/Alternate Item 5: Replacement of a Portion of Concrete Sidewalk at Western End of ADA Parking adjacent to the Community Building to provide an ADA Compliant Connection to the Existing Sidewalk					
206-03	Removal and Disposal of Existing Sidewalk	SF	175		
520-03	Handicap Ramp	EA	1		
611-01	Detectable Warning Surfaces	SF	20		
Total Add/Alternate 5					
Add/Alternate Item 6: Replacement of a Portion of Concrete Sidewalk to provide an ADA Compliant Connection from Eastern End of ADA Parking to Existing Community Building Entrance					
206-03	Removal and Disposal of Existing Sidewalk	SF	435		
520-02	Unreinforced 4" Plain Concrete Sidewalk	SY	50		
Total Add/Alternate 6					
Add/Alternate Item 7: Installation of ADA Ramp at Existing Traffic Circle					
206-01	Removal of Existing Curb and Gutter	LF	20		
206-03	Removal and Disposal of Existing Sidewalk	SF	316		
520-02	Unreinforced 4" Plain Concrete Sidewalk	SY	25		
520-03	Handicap Ramp	EA	1		
602-01	Standard Type A Concrete Combination Curb and Gutter	LF	20		
611-01	Detectable Warning Surfaces	SF	10		
Total Add/Alternate 7					

ADDENDUM In the event that any addenda to this solicitation are issued, all solicitation terms and conditions will retain in effect unless they are specifically changed in the addendum. It is the responsibility of the bidder to make inquiry as to addenda issued. Oral answers to questions relative to interpretation of specifications or the proposal process will not be binding on the City.

Such addendums, if issued, will posted via the city's designated electronic, software solution:

<https://contracts.rockvillemd.gov/gateway/Default.aspx>

Please note, that it is the bidder's responsibility to check this site frequently for Addendums, which may impact pricing, this document's requirements, terms and/or conditions. Failure to acknowledge an addendum on the bid proposal form or to sign and return an Addendum with your response may result in disqualification of proposal.

Acknowledgment is hereby made of the following Addenda (identified by number) received since the issuance of this bid:

Addendum # _____	Date _____	Addendum # _____	Date _____
Addendum # _____	Date _____	Addendum # _____	Date _____

THE BIDDER IS HEREBY NOTIFIED THAT THIS DOCUMENT SHALL BE SIGNED IN INK IN ORDER FOR THE BID TO BE ACCEPTED. BY SIGNING, THE BIDDER CERTIFIES THAT HE/SHE WILL COMPLY IN EVERY ASPECT WITH THESE SPECIFICATIONS.

The bid, if submitted by an individual, shall be signed by an individual; if submitted by a partnership, shall be signed by such member or members of the partnership as have authority to bind the partnership; if submitted by a corporation the same shall be signed by the President and attested by the Secretary or an Assistant Secretary. If not signed by the President as aforesaid, there must be attached a copy of that portion of the By-Laws, or a copy of a Board resolution, duly certified by the Secretary, showing the authority of the person so signing on behalf of the corporation. In lieu thereof, the corporation may file such evidence with the Administration, duly certified by the Secretary, together with a list of the names of those officers having authority to execute documents on behalf of the corporation, duly certified by the Secretary, which listing shall remain in full force and effect until such time as the Administration is advised in writing to the contrary. In any case where a bid is signed by an Attorney in Fact the same must be accompanied by a copy of the appointing document, duly certified.

IF AN INDIVIDUAL:

NAME: _____

_____ Street and/or P.O. Box _____

_____ City _____	_____ State _____	_____ Zip Code _____	_____ Fed ID or SSN _____
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_____ (SEAL) _____

_____ Signature _____	_____ Date _____
-----------------------	------------------

_____ Print Signature _____

WITNESS: _____

Signature

_____ Print Signature _____

IF A PARTNERSHIP:

NAME OF PARTNERSHIP: _____

_____ Street and/or P.O. Box

_____ City State Zip Code Fed ID or SSN

BY: _____ (SEAL) _____ Date
Member Signature

_____ Print Signature

TITLE: _____ WITNESS: _____ Signature

_____ Print Signature

IF A CORPORATION:

NAME OF CORPORATION: _____

_____ Street and/or P.O. Box

_____ City State Zip Code Fed ID or SSN

STATE OF INCORPORATION: _____

BY: _____ (SEAL) _____ Date
Signature

_____ Print Signature

TITLE: _____ WITNESS: _____ Secretary's Signature

Print Signature

CONTACT FOR ADMINISTRATION

NAME: _____

PHONE: _____ FAX: _____

E-MAIL ADDRESS: _____

EMERGENCY SERVICE (24hr.) PHONE: _____

REMITTANCE ADDRESS (if different than above)

Street and/or P.O. Box

City

State

Zip Code

RESPONDENT'S QUESTIONNAIRE

In order to be considered for award the bidder must complete in its entirety and submit with the bid. The bidder must answer all questions. If additional space is required, attach continuation sheets and clearly indicate the question being answered. The City reserves the right to verify any information contained within this report and to request additional information or clarification. The City 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 unable to perform the requirements of the Contract or if the bidder fails to complete and submit the Respondent's Questionnaire in its entirety. If additional sheets are necessary please attach to this form and reference the applicable number.

Submitted by _____
Signature of Authorized Representative: _____
Name of Firm: _____
Address _____
Organized under the laws of State of: _____
DUNS #: _____

1. ORGANIZATION

- 1.1 How many years has your organization been in business as a Contractor?
- 1.2 How many years has your organization been in business under its present business name?
- 1.3 Under what **other** or former names has your organization operated?
- 1.4 If your organization is a corporation, answer the following:

- Date of incorporation:
- State of incorporation:
- President's name:
- Vice-president's name(s):
- Secretary's name:
- Treasurer's name:

- 1.5 If your organization is a partnership, answer the following:

- Date of organization:
- Type of partnership (if applicable):
- Name(s) of general partner(s):

- 1.6 If your organization is individually owned, answer the following:

- Date of organization:
- NAME OF BIDDER _____

Name of owner:

1.7 If the form of your organization is other than those listed above, describe it and name the principals:

2. LICENSING

2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

3. EXPERIENCE

3.1 List the categories of work that your organization normally performs with its own forces.

3.2 Has your organization ever failed to complete any work awarded to it? If yes, please provide details on a separate sheet.

3.3 Are there any judgment, claims, arbitration, proceedings or suits pending or outstanding against your organization or its officers?

3.4 Within the past five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? If yes, please provide details.

3.5 Within the last two years, has any owner of any project threatened to impose or imposed liquidated damages against your organization? If yes, provide details.

3.6 Within the last two years, has your organization constructed any projects where the date of substantial completion was more than 30 days after the contract completion date as determined by the contract and any changes orders? If yes, provide details.

3.7 Within the last 2 years, has your organization constructed any projects where the change orders exceeded 10% of the contract price? If yes, provide details.

3.8 State the total worth of work in progress and under contract:

3.9 State the average annual amount of construction work performed during the past five years:

4. FINANCIAL

4.1 State that you will provide a copy of your company’s audited financial statements for the past two (2) years, if requested, by the City of Rockville.

4.2 Is your company currently for sale or involved in any transaction to expend or to become acquired by another business entity? If yes, please explain the impact both in organizational and directional terms.

4.3 Is your company currently in default on any loan agreement or financing agreement with any bank, financial institution, or other entity? If yes, specify date(s), details, circumstances, and prospects for resolution.

CERTIFICATION

The above statements are certified to be true and accurate.

BY: _____
Signature

Date

Print Signature/Title

ATTACHMENT A AFFIDAVIT

I hereby affirm that: I am the _____ and the duly authorized representative of the firm of _____ whose address is _____

and that I possess the legal authority to make this affidavit on behalf of myself and the firm for which I am acting.

I further affirm:

AFFIDAVIT OF QUALIFICATION TO CONTRACT WITH A PUBLIC BODY

1. Except as described in Paragraph 2 below, neither I nor the above firm no, to the best of my knowledge, any of its controlling stockholders, officers, directors, or partners, performing contracts with any public body (the State or any unit thereof, or any local governmental entity in the state, including any bi-county or multi-county entity), has:

A. been convicted under the laws of the State of Maryland, any other state, or the United States of any of the following:

- (1) bribery, attempted bribery, or conspiracy to bribe.
- (2) a criminal offense incident to obtaining, attempting to obtain, or performing a public or private contract.
- (3) fraud, embezzlement, theft, forgery, falsification or destruction of records, or receiving stolen property.
- (4) a criminal violation of an anti-trust statute.
- (5) a violation of the Racketeer Influenced and Corrupt Organization act, or the Mail Fraud Act, for acts in connection with the submission of bids or proposals for a public or private contract.
- (6) a violation of Section 14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland.
- (7) conspiracy to commit any of the foregoing.

B. pled nolo contendere to, or received probation before verdict for, a charge of any offense set forth in subsection A of this paragraph.

C. been found civilly liable under an anti-trust statute of the State of Maryland, another state, or the United States for acts or omissions in connection with the submission of bids or proposals for a public or private contract.

D. during the course of an official investigation or other proceeding, admitted, in writing or under oath, an act or omission that would constitute grounds for conviction or liability under any law or statute described in subsection A or C of this paragraph.

2. [State "none," or as appropriate, list any conviction, plea or admission as described in Paragraph 1 above, with the date, court, official or administrative body, the individuals involved and their position with the firm, and the sentence or disposition, if any]. _____

3. I further affirm that neither I nor the above firm shall knowingly enter into a contract with the Mayor and Council of Rockville under which a person or business debarred or suspended from contracting with a public body under Title 16 of the State Finance and Procurement Article of the Annotated Code of Maryland, will provide, directly or indirectly, supplies, services, architectural services, construction related services, leases of real property, or construction.

I acknowledge that this Affidavit is to be furnished to the Mayor and Council of Rockville and, where appropriate, to the State Board of Public Works and to the Attorney General. I acknowledge that I am executing this Affidavit in compliance with the provisions of Title 16 of the State Finance and Procurement Article of the Annotated Code of Maryland which provides that persons who have engaged in certain prohibited activity may be disqualified, either by operation in law or after a hearing, from entering into contracts with the Mayor and Council of Rockville. I further acknowledge that if the representations set forth in this Affidavit are not true and correct, the Mayor and Council of Rockville may terminate any contract awarded and take any other appropriate action.

NON—COLLUSION AFFIDAVIT

1. Am fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such bid;

2. Such bid is genuine and is not a collusive or sham bid

3. Neither the said bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the Contract for which the attached bid has been submitted or to refrain from bidding in connection with Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other bidder, firm or person to fix the price or prices in the attached bid or of any other bidder, or to fix any overhead, profit or cost element of the bid price or the bid price of any other bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Mayor and Council of Rockville, Maryland (Local Public Agency) or any person interested in the proposed Contract; and

4. The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant. I do solemnly declare and affirm under the penalties of perjury that the contents of these affidavits are true and correct.

Signature and

Title _____

Date _____

**ATTACHMENT B
INVITATION FOR BID 16-22**

THOMAS FARM COMMUNITY CENTER
PERVIOUS PARKING LOT REPLACEMENT PROJECT

CITY OF ROCKVILLE BIDDER REFERENCE FORM

The City of Rockville reserves the right to reject bids from any company not meeting the minimum qualifications. The Bidder shall be a competent and experienced contractor with an established reputation within the community performing the type of work required for this contract. The bidder shall have performed similar work for **a minimum period of five (5) years**. Indicate below a listing of three recent projects completed by your firm that can substantiate past work performance and experience in the type of work required for this contract. The City may make such investigations as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the City all such information and data for this purpose as the City may request.

1. Company Name _____
Address: _____
Contact Person: _____ Current phone #: _____
Email Address: _____
Contract Amount: _____ Name of your project supervisor: _____
Description of Work Performed: _____

2. Company Name _____
Address: _____
Contact Person: _____ Current phone #: _____
Email Address: _____
Contract Amount: _____ Name of your project supervisor: _____
Description of Work Performed: _____

3. Company Name _____
Address: _____
Contact Person: _____ Current phone #: _____
Email Address: _____
Contract Amount: _____ Name of your project supervisor: _____
Description of Work Performed: _____

4. Company Name _____

Address: _____

Contact Person: _____ Current phone #: _____

Email Address: _____

Contract Amount: _____ Name of your project supervisor: _____

Scheduled completion date: _____ Percent complete: _____

Percent of work by own forces: _____ Actual completion date: _____

Description of Work Performed _____

5. Company Name _____

Address: _____

Contact Person: _____ Current phone #: _____

Email Address: _____

Contract Amount: _____ Name of your project supervisor: _____

Scheduled completion date: _____ Percent complete: _____

Percent of work by own forces: _____ Actual completion date: _____

Description of Work Performed _____

CITY OF ROCKVILLE SUB-CONTRACTOR REFERENCE FORM
(submit reference sheet for each subcontractor)

The City of Rockville reserves the right to reject bids from any company not meeting the minimum qualifications. If any proposed sub-Contractor's experience is not deemed acceptable to the City, the City shall inform the Contractor and the Contractor must identify an acceptable substitute prior to award or during construction without effecting the prices bid. Sub-Contractor shall be a competent and experienced firm with an established reputation within the community. Each Sub-Contractor shall have performed similar work for a minimum period of **five (5)** years. Furnish a representative list of three (3) projects.

SUBCONTRACTOR'S NAME: _____

ADDRESS: _____

TELEPHONE: _____

CONTACT NAME: _____

DESCRIPTION OF ITEM(S) TO BE SUBCONTRACTED: _____

1. Company Name _____

Address: _____

Contact Person: _____ Current phone #: _____

Email Address: _____

Contract Amount: _____ Name of your project supervisor: _____

Scheduled completion date: _____ Percent complete: _____

Description: _____

2. Company Name _____

Address: _____

Contact Person: _____ Current phone #: _____

Email Address: _____

Contract Amount: _____ Name of your project supervisor: _____

Scheduled completion date: _____ Percent complete: _____

Description: _____

3. Company Name _____

Address: _____

Contact Person: _____ Current phone #: _____

Email Address: _____

Contract Amount _____ Name of your project supervisor: _____

Scheduled completion date: _____ Percent complete: _____

Description: _____



STANDARD FORM OF AGREEMENT BETWEEN THE CITY OF ROCKVILLE
AND CONTRACTOR

This Agreement, made this *[insert day]* day of *[insert month, year]*, by and between THE MAYOR AND COUNCIL OF ROCKVILLE, MARYLAND, hereinafter referred to as the "COUNCIL" and

(A) *[insert contractor's full legal name]* hereinafter referred to as the "CONTRACTOR".

WITNESSETH, that the CONTRACTOR and the COUNCIL for the consideration hereinafter named, agree as follows:

ARTICLE 1. The COUNCIL agrees to pay the CONTRACTOR for the performance of the contract the sum

Of _____ dollars(\$ _____)

ARTICLE 2. The CONTRACTOR agrees to furnish performance and payment bonds in such form as shall be acceptable to the COUNCIL, where required in the invitation for bid or the request for quotation, or where required by Maryland Law.

ARTICLE 3. The CONTRACTOR agrees to furnish all of the machines, equipment, material, and/or labor described in the specifications entitled *[insert description]*.

ARTICLE 4. The COUNCIL may make any alterations, deviations, additions or omissions from the aforesaid specifications, which it may deem proper, without affecting or making void this contract; and in such cases the COUNCIL shall value or appraise such alterations and recommend the amount added to or deducted from the amount herein agreed to be paid to the CONTRACTOR for the excess or deficiency occasioned by such alterations. In case any alterations or deviations are made, such further time may be allowed for completion of the work, caused by such alterations or deviations as the purchasing agent or an appropriate department head of the City of Rockville shall decide to be reasonable.

ARTICLE 5. If the CONTRACTOR shall be adjudged bankrupt or if he shall make a general assignment for the benefit of its creditors, or if a Receiver shall be appointed on account of its insolvency, or if he shall persistently or repeatedly refuse or shall fail, except in case where extension of time is provided, to supply enough properly skilled workmen or proper materials or if he should fail to make prompt payment to subcontractors for materials or labor, or disregard law, ordinances or the instructions of the COUNCIL or otherwise be guilty of substantial violation of any provision of this Agreement, then the COUNCIL may, without prejudice to any other right or remedy, and after giving the CONTRACTOR reasonable notice, terminate the employment of the CONTRACTOR and take possession of the machines, equipment and material already delivered or in process of delivery.

ARTICLE 6. The CONTRACTOR and the COUNCIL agree that this Agreement, the Invitation for Bid or the request for quotation and all of the specifications therewith and all modifications thereof constitute the Contract, and that they are fully a part of the Contract as if hereto attached or herein repeated and that for themselves and each of them, their successors, personal representatives and assigns hereby agree to the performance of the covenants herein contained.

ARTICLE 7. The CONTRACTOR, with the execution of this Contract, makes assurance that all materials necessary for the completion of this project are now available to it or will be available so as not to cause delay in the time specified for completion, nor will there be any further expense to the COUNCIL by reason of any special expense imposed by its supplier or fabricator after this Contract is executed.

ARTICLE 8. The CONTRACTOR at all times shall observe and comply with all Federal and State Laws and local laws, ordinances and regulations in any manner affecting the conduct of the work; and all such other orders or decrees as exist at present and those which may be enacted later, of bodies or tribunals having any jurisdiction or authority over the work, and shall indemnify and save harmless the Mayor and Council and all of its officers, agents, and servants against any claim or liability arising from or based on the violation of any such laws, by-laws, ordinances, regulations, orders or decrees whether by itself or its employees.

ARTICLE 9. The CONTRACTOR shall indemnify and save harmless the Mayor and Council of Rockville, Maryland, and all its officers, agents and servants from all suits, actions and damages and costs, of every name and description to which the COUNCIL may be subjected or put by reason of injury to persons or property as a result of the work, whether caused by negligence or carelessness on the part of the CONTRACTOR, its servants or agents or to other cause.

ARTICLE 10. The CONTRACTOR will not discriminate against any employee or applicant for employment because of age (in accordance with applicable law), ancestry, color, national origin, race, ethnicity, religion, disability, genetics, marital status, pregnancy, presence of children, gender, sexual orientation, gender identity or expression, or veteran status. The Contractor will take affirmative action to ensure that applicants are employed, and the employees are treated fairly and equally during employment with regard to the above. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment, layoff or termination, rates of pay or other form of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Contractors must also include the same nondiscrimination language in all subcontracts.

If the Contractor fails to comply with nondiscrimination clauses of this contract or fails to include such contract provisions in all subcontracts that subcontractors will not discriminate against any employee or applicant for employment in the manner described above, this contract may be declared void AB INITO, cancelled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further contracts with the City of Rockville. Any employee, applicant for employment, or prospective employee with information concerning any breach of these requirements may communicate such information to the City Manager who shall commence a prompt investigation of the alleged violation. Pursuant to such investigation, the Contractor will permit access to the Contractor's books, records, and accounts. If the City Manager concludes that the Contractor has failed to comply with nondiscrimination clauses, the remedies set out above may be invoked.

ARTICLE 11. The CONTRACTOR agrees to provide the City's Project Manager or designated City staff proof of vaccination of any employee, subcontractor, or agent prior to such employee, subcontractor, or agent, pursuant to this Agreement, entering a City facility and performing any service or making any delivery in close proximity to one or more City employees, members of the Mayor and Council, members of a City board, commission or task force, or members of the general public in the City. Proof of vaccination means the demonstration of having received a full dose of a COVID-19 vaccine authorized by the Food and Drug Administration in a manner and on a schedule consistent with current United States Centers for Disease Control and Prevention guidelines. This paragraph shall not apply to any deliveries made pursuant to this Agreement by a common carrier.

IN WITNESS WHEREOF, the said [\[insert contractor's full legal name\]](#) and the COUNCIL have caused these presents to be signed and sealed.

For Corporations.

[\[insert contractor's full legal name\]](#)

By signature: _____ *(Seal)

Printed Name: _____

Title: _____

Date: _____ 2022

IFB 16-22
THOMAS FARM COMMUNITY CENTER
PERVIOUS PARKING LOT REPLACEMENT PROJECT

(Either president or vice-president. If other person is authorized, authorization in form of corporate resolution must be attached.)

Witness: _____
Printed Name: _____
Title: _____
Date: _____ 2018
(Should be secretary or Asst. secretary.)

***Corporate seal must be impressed through name of person signing for corporation.**

For individuals or partnerships.
(Either owner or partner)

By signature: _____
Printed Name: _____
Title: _____
Date: _____ 2018

Witness: _____
Printed Name: _____
Title: _____
Date: _____ 2018

MAYOR AND COUNCIL OF ROCKVILLE, MARYLAND

By: _____
City Manager

Date: _____

ATTEST

By: _____
City Clerk/Director of Council Operations

Date: _____

Approved as to form and legality:

City Attorney

Date: _____

NOTE (A): The CONTRACTOR shall enter the exact name of the business. An individual trading as a company shall enter: John Doe dba Doe Masonry Company.



CONTRACT PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we (1) _____
_____ a (2) _____
hereinafter called "Principal" and (3) _____
of _____, State of _____ hereinafter called the "Surety", are held
and firmly bound unto (4) The Mayor and Council of Rockville, Maryland, hereinafter called "Owner", in the
penal sum of (*100% of Contract Amount*) _____
Dollars (\$ _____) in lawful money of the United States, for the payment of which sum well and truly
to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally,
firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain
contract with the Owner, dated the ___ day of _____, 20_____, a copy of which is hereto
attached and made a part hereof for the construction of: _____

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the
undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof,
and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if
he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save
harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall
reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any
default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no
change, extension of time, alteration or addition to the terms of the contract or to the work to be performed
thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond,
and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of
the contract or to the work or to the specifications.

CONTRACT PERFORMANCE BOND

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IT WITNESS WHEREOF, this instrument is executed in two (2) counterparts, each one of which shall be deemed an original, this the day of _____, 20__.

ATTEST:

Corporate Secretary or Asst. Secretary

(Print or Type Name and Title)

Principal
By _____ (Seal)
President or Vice President

(Print or Type Name and Title)

(Address)

ATTEST:

Witness as to Surety

(Print or Type Name and Title)

Surety
By _____ (Seal)
Attorney-in-Fact

(Print or Type Name)

(Address)

NOTE: Date of Bond must not be prior to date of Contract.

- (2) Correct name of Contractor
- (3) A Corporation, a Partnership or an Individual
- (4) Name of Surety
- (5) Name of Owner
- (6) If Contract is Partnership, all partners should execute bond



CONTRACT PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That we (1) _____
_____ a (2) _____
hereinafter called "Principal" and (3) _____
of _____, State of _____ hereinafter called the
"Surety", are held and firmly bound unto (4) The Mayor and Council, of Rockville, Maryland, hereinafter
called "Owner", in the penal sum of *(100% of Contract Amount)* _____
_____ Dollars (\$ _____
_____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind
ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain
contract with the Owner, dated the _____ day of _____ 20____, a copy of which is hereto
attached and made a part hereof for the construction of: _____

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms,
subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work
provided for in such contract, and any authorized extension or modification thereof, including all amounts
due for materials, lubricants, oil, gasoline, coal, repairs on machinery, equipment and tools, consumed or
used in connection with the construction of such work, and all insurance premiums on said work, and for
all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void;
otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no
change, extension of time, alteration or addition to the terms of the contact or to the work to be performed
thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond,
and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms
of the contact or to the work or to the specifications

CONTRACT PAYMENT BOND

PAGE 2

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in two (2) counterparts, each one of which shall be deemed an original, this the ____ day of _____ 20__.

ATTEST:

Corporate Secretary or Asst. Secretary

(Print or Type Name and Title)

Principal
By _____ (Seal)

President or Vice President

(Print or Type Name and Title)

(Address)

ATTEST:

Witness as to Surety

(Print or Type Name and Title)

(Address)

Surety
By _____ (Seal)

Attorney-in-Fact

(Print or Type Name)

(Address)

NOTE: Date of Bond must not be prior to date of Contract.

- (1) Correct name of Contractor
- (2) A Corporation, a Partnership or an Individual
- (3) Name of Surety
- (4) Name of Owner
- (5) If Contract is Partnership, all partners should execute bond

APPENDIX A SITE PLAN AERIAL

A. Project Limits



SEDIMENT CONTROL PERMIT (SCP)

PERMIT#: SCP2022-00009

DATE OF ISSUE: 05/04/2022

DATE OF EXPIRATION: 5/4/2024

PWK PERMIT:

TYPE OF SEDIMENT CONTROL PERMIT: SC

APPLICANT: CITY OF ROCKVILLE DEPT OF R&P
ADDRESS: ATTN: STEVE MADER
111 MARYLAND AVENUE
ROCKVILLE MD 20850
DAYTIME PHONE: 240-314-8702

SITE ADDRESS: 700 FALLSGROVE DR

SUBDIV: FALLSGROVE LOT: BF BLK: R

TYPE OF WORK: Thomas Farm Community Center - Parking Lot Improvements

CONDITIONS:

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved: Craig Simoneau 05/04/2022
Director of Public Works

rev: fscp2pmt 05/04/2022

DJW 05/04/2022
DJW Staff Contact

SEDIMENT CONTROL PERMIT (SCP)

PERMIT#: SCP2022-00009

DATE OF ISSUE: 05/04/2022

DATE OF EXPIRATION: 5/4/2024

PWK PERMIT:

TYPE OF SEDIMENT CONTROL PERMIT: SC

APPLICANT: CITY OF ROCKVILLE DEPT OF R&P
ADDRESS: ATTN: STEVE MADER
111 MARYLAND AVENUE
ROCKVILLE MD 20850
DAYTIME PHONE: 240-314-8702

SITE ADDRESS: 700 FALLSGROVE DR

SUBDIV: FALLSGROVE LOT: BF BLK: R

1. This permit is for sediment control only. All work must comply with the approved plans dated 4/27/2022 and any subsequent revisions. Plan revisions, including field changes, must be reviewed and approved by the Rockville Department of Public Works.
2. The Applicant (Permittee) is the entity for which the City of Rockville Department of Public Works (DPW) has issued a permit. The Applicant is responsible for all contractors, agents, subcontractors or other entities completing work under this permit. The Applicant may authorize a person/entity in writing to serve as general contractor to perform work under this permit.
3. The permittee must schedule a pre-construction meeting with a minimum notice of 48 hours prior to meeting. Only one pre-construction meeting is necessary when multiple permits for the same project are issued. Failure to schedule a pre-construction meeting may result in the issuance of fines, revocation of permit(s) and/or the posting of a stop work order. The following representatives must be invited:

- City Project Inspector, Robert Queen at 240-314-8548 (rqueen@rockvillemd.gov)
- City Stormwater Management Inspector, Ethan Chappell at 240-314-8541 (echappell@rockvillemd.gov)
- City Sediment and Erosion Control Inspector, Arthur Simpson at 240-314-8879 (asimpson@rockvillemd.gov)
- Permittee, Owner, or Owner's Representative
- General Contractor

The following items must be discussed, as needed, during the pre-construction meeting:

- Elements that require construction inspection, as determined by the City Inspector, must be completed during normal working hours, Monday through Friday, 7:00 am to 3:00 pm.
 - Existing SWM facilities downstream of project
 - SWM Construction Inspection and As-built process
4. A copy of the permit MUST be on the job-site.
 5. Permittee must contact MISS UTILITY at 811, 1 800 257-7777, or www.missutility.net for marking of existing utilities. MISS UTILITY requires two full business days notice. Existing utilities must be marked prior to the pre-construction meeting.
 6. Provide any additional sediment control measures as directed by the City Inspector.
 7. Contractor is to comply with the Montgomery County Noise Ordinance. Apply for a waiver if needed.
 8. If required, permittee must supply the Chief, Construction Management, with lab results (from a Maryland State Certified Lab) to confirm that all construction work and materials comply with project specifications. This includes acceptable certification for compaction and backfill.
 9. No storage of materials or equipment will be permitted in public right-of-way.
 10. No slopes shall be greater than 3:1 unless an approved low maintenance ground cover is planted. Under no circumstance shall a slope exceed 2:1. Approved low maintenance ground cover types include: Trumpet Honeysuckle, Virginia Creeper, Trumpet Vine or other plant species as approved by the City Horticulturist or City Forester.
 11. Construction shall only disturb that area which can be completed and stabilized by the end of each working day. For areas to be paved, stabilization shall be the application of stone base. For areas to be vegetatively stabilized: permanent seed and soil stabilization matting or sod for all steep slopes, channels and swales; and permanent seed and mulch for all other areas. Any areas which cannot be stabilized by the end of each working day must have silt fence installed on the downslope side. In areas where existing trees are to be protected, filter logs shall be used instead of silt fence.

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved: Craig Simoneau 05/04/2022
Director of Public Works

rev: fscp2pmt 05/04/2022

DJW 05/04/2022
DJW Staff Contact

SEDIMENT CONTROL PERMIT (SCP)

PERMIT#: SCP2022-00009

DATE OF ISSUE: 05/04/2022

DATE OF EXPIRATION: 5/4/2024

PWK PERMIT:

TYPE OF SEDIMENT CONTROL PERMIT: SC

APPLICANT: CITY OF ROCKVILLE DEPT OF R&P
 ADDRESS: ATTN: STEVE MADER
 111 MARYLAND AVENUE
 ROCKVILLE MD 20850
 DAYTIME PHONE: 240-314-8702

SITE ADDRESS: 700 FALLSGROVE DR

SUBDIV: FALLSGROVE LOT: BF BLK: R

- 12. Any damage to public improvements must be repaired or replaced in accordance with City standards at the direction of the City Project Inspector.
- 13. All work covered by this permit must be completed by the expiration date which is two (2) years from date of permit issuance. Requests for permit extensions must be submitted in writing to the Department of Public Works 30 days prior to the expiration date, justifying the extension in accordance with Chapter 19, Section 29.

WATER SHED: TOTAL AREA OF PROPERTY:
 FLOODPLAIN VARIANCE REQ'D: TOTAL AREA TO BE DISTURBED:
 USE PERMIT NUMBER: TOTAL IMPERVIOUSNESS PROPOSED:

(INCLUDE 30' CONTIGUOUS RIGHTS OF WAY)

ESTIMATED COST OF WORK:

PERMIT FEES:

AMOUNT OF SECURITY:

S/C:	TOTAL FEES	S/C: BOND: L OF C: CASH:
------	------------	---------------------------------------

ENGINEER: CHARLES P. JOHNSON & ASSOCIATES
 ADDRESS: 1751 ELTON ROAD
 SUITE 300
 SILVER SPRING MD 20903
 DAYTIME PHONE: 301-434-7000

OWNER/DEVELOPER: MAYOR AND COUNCIL OF ROCKVILLE
 ADDRESS: 111 MARYLAND AVE
 ROCKVILLE MD 208502364
 DAYTIME PHONE:

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved: Craig Simoneau 05/04/2022
 Director of Public Works

rev: fscp2pmt 05/04/2022

DJW 05/04/2022
 DJW Staff Contact

STORMWATER MANAGEMENT PERMIT (SMP)

PERMIT#: **SMP2022-00008**

DATE OF ISSUE: **05/04/2022**
 DATE OF EXPIRATION: **5/4/2024**

PWK PERMIT: SCP2022-00009

SCP PERMIT:

SITE ADDRESS: **700 FALLSGROVE DR**

SUBDIV: **FALLSGROVE**

LOT: **BF**

BLK: **R**

This permit is for the Stormwater Management Facilities checked below:

- | | |
|----------------------------|---|
| Surface Sand Filter | Infiltration |
| Underground Sand Filter | MDE - Approved Proprietary |
| Perimeter Sand Filter | Filtering System (see notes) |
| Bioretention | Shallow Wetland |
| Underground Concrete Vault | ED Wetland |
| Underground Pipe | Pond/Wetland System |
| Micropool ED | Swale (Dry/Wet) |
| Wet Pond | Non Structural |
| Wet ED Pond | <input checked="" type="checkbox"/> Monetary Contribution |
| Multiple Pond | <input checked="" type="checkbox"/> Other |
| Dry ED Pond | |

FACILITIES:

TOTAL AREA OF PROPERTY:

0.96

Facility Type	Drainage Area	Impervious Area	Ownership	Recharge Volume	Quality (WQV)	Quantity (Cpv)	Quantity (Qp)
Other	0.86	0.86	Private	No			

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved: *Craig Simoneau* 05/04/2022
 Director of Public Works

rev: fsmpprmt 05/04/2022

DJW 05/04/2022
 DJW Staff Contact

STORMWATER MANAGEMENT PERMIT (SMP)

PERMIT#: SMP2022-00008

DATE OF ISSUE: 05/04/2022
DATE OF EXPIRATION: 5/4/2024

PWK PERMIT: SCP2022-00009

SCP PERMIT:

SITE ADDRESS: 700 FALLSGROVE DR

SUBDIV: FALLSGROVE

LOT: BF

BLK: R

CONDITIONS:

1. This permit is for the construction of stormwater management facilities associated with parking lot improvements to include approximately 1.1 acres of pervious paving (PaveDrain). All work must comply with the approved plans dated 4/27/2022 including any subsequent plan revisions. Plan revisions, including field changes, must be approved by the Rockville Department of Public Works.
2. The Applicant (Permittee) is the entity for which the City of Rockville Department of Public Works (DPW) has issued a permit. The Applicant is responsible for all contractors, agents, subcontractors or other entities completing work under this permit. The Applicant may authorize a person/entity in writing to serve as general contractor to perform work under this permit.
3. The permittee must schedule a pre-construction meeting with a minimum notice of 48 hours prior to meeting. Only one pre-construction meeting is necessary when multiple permits for the same project are issued. Failure to schedule a pre-construction meeting may result in the issuance of fines, revocation of permit(s) and/or the posting of a stop work order. The following representatives must be invited:

- City Project Inspector, Robert Queen at 240-314-8548 (rqueen@rockvillemd.gov)
- City Stormwater Management Inspector, Ethan Chappell at 240-314-8541 (echappell@rockvillemd.gov)
- City Sediment and Erosion Control Inspector, Arthur Simpson at 240-314-8879 (asimpson@rockvillemd.gov)
- Permittee, Owner, or Owner's Representative
- General Contractor

The following items must be discussed, as needed, during the pre-construction meeting:

- Elements that require construction inspection, as determined by the City Inspector, must be completed during normal working hours, Monday through Friday, 7:00 am to 3:00 pm.
 - Existing SWM facilities downstream of project
 - SWM Construction Inspection and As-built process
4. A copy of the permit MUST be on the job-site.
 5. Permittee must contact MISS UTILITY at 811, 1 800 257-7777, or www.missutility.net for marking of existing utilities. MISS UTILITY requires two full business days notice. Existing utilities must be marked prior to the pre-construction meeting.
 6. Contractor to comply with procedure and required inspections per the MDE's Contractor's Construction Inspection Checklist. Elements that require construction inspection, as determined by the City Project Inspector, must be completed during normal working hours, Monday through Friday, 7:00 am to 3:00 pm.
 7. Comply with all conditions per SCP2022-00009 and the approved SCP plans dated 4/27/2022.

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved:

Craig Simoneau

Director of Public Works

05/04/2022

rev: fsmpprmt 05/04/2022

DJW 05/04/2022
DJW Staff Contact

STORMWATER MANAGEMENT PERMIT (SMP)

PERMIT#: **SMP2022-00008**

DATE OF ISSUE: **05/04/2022**
DATE OF EXPIRATION: **5/4/2024**

PWK PERMIT: SCP2022-00009

SCP PERMIT:

SITE ADDRESS: **700 FALLSGROVE DR**

SUBDIV: **FALLSGROVE**

LOT: **BF**

BLK: **R**

- 8. **PaveDrain must be installed per manufacture's specifications. No substitutions of the approved and permitted proprietary SWM structure is allowed unless Rockville's Department of Public Works approve the substitution.**
- 9. **Prior to bond release, on-site grading must demonstrate safe conveyance of stormwater per the approved plan.**
- 10. **Contractor is to comply with the Montgomery County Noise Ordinance. Apply for a waiver if needed.**
- 11. **If required, permittee must supply the Chief of Construction Management with lab results (from a Maryland State Certified Lab) to confirm that all construction materials and work comply with project specifications. This includes acceptable certification for compaction and backfill.**
- 12. **All excavation performed under this permit must be done in strict compliance with Maryland Occupational Safety and Health Administration (MOSH) excavation policies and practices. Failure to comply with MOSH requirements will result in a Stop Work Order being issued by the City in addition to possible action taken by MOSH.**
- 13. **No excavation to be left open overnight. At the end of each day, all trenches shall be backfilled, all equipment secured, and the area left in a safe condition. Steel plates are allowed to remain no longer than seven days. Plates are to be notched (recessed) and pinned to the roadway. Plates must be large enough to allow a minimum of one-foot bearing on all four sides of the pavement surrounding the excavation. The steel plate requirements only apply to public streets.**
- 14. **No storage of materials or equipment will be permitted in public right-of-way.**
- 15. **Stormwater management as-built plans, material tickets, and a scanned copy of the as-built, sealed by a licensed Maryland Professional Engineer or Professional Land Surveyor, must be submitted and approved by the City prior to release of the permit and bond. The as-built of the stormwater management facilities must include at a minimum: the bottom elevation; critical dimensions; volume; pipe size, material and invert; outlet structure opening dimensions and elevations.**
- 16. **All work covered by this permit must be completed by the expiration date which is two (2) years from date of permit issuance. Requests for extensions must be submitted in writing to the Department of Public Works 30 days prior to the permit expiration date justifying the permit extension in accordance with Chapter 19, Section 29.**

WATER SHED: **Watts Branch**

FLOODPLAIN VARIANCE REQ'D: **N** TOTAL DRAINAGE AREA : **0.96**

USE PERMIT NUMBER: TOTAL IMPERVIOUSNESS PROPOSED: **0.86**

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved: *Craig Simoneau* 05/04/2022
Director of Public Works

rev: fsmpprmt 05/04/2022

DJW 05/04/2022
DJW Staff Contact

STORMWATER MANAGEMENT PERMIT (SMP)

PERMIT#: **SMP2022-00008**

DATE OF ISSUE: **05/04/2022**

DATE OF EXPIRATION: **5/4/2024**

PWK PERMIT: SCP2022-00009

SCP PERMIT:

SITE ADDRESS: **700 FALLSGROVE DR**

SUBDIV: **FALLSGROVE**

LOT: **BF**

BLK: **R**

ESTIMATED COST

OF WORK:

PERMIT FEES:

AMOUNT OF SECURITY:

SMP:

SMP:

TOTAL FEES:

BOND:
LOF C:
CASH:

PROPERTY OWNER: **MAYOR AND COUNCIL OF ROCKVILL**
ADDRESS: **111 MARYLAND AVE**
ROCKVILLE MD 208502364

DAYTIME PHONE:

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved:

Craig Simoneau

05/04/2022

Director of Public Works

rev: fsmpprmt 05/04/2022

DJW 05/04/2022

DJW Staff Contact

FORESTRY PERMIT

PERMIT #: **FTP2022-00024** **DATE OF ISSUE:** 02/18/22
EXPIRATION DATE: 2/18/2024
PERMITEE: CITY OF ROCKVILLE
ADDRESS: 111 MARYLAND AVENUE
 ROCKVILLE MD 20850

PHONE: Primary: 240-314-8500

Project Name: THOMAS FARM COMMUNITY CEN **SITE ADDRESS:** 700 FALLSGROVE DR
SUBDIVISION: FALLSGROVE **LOT:** BF **BLK:** R

PROJECT DESCRIPTION:

Forestry Permit for previous parking lot replacement

THIS PROJECT REQUIRES THE FOLLOWING:

- | | |
|-----------------------------------|-------------------------------------|
| PRECONSTRUCTION MEETING | SIGNIFICANT TREE PLANTING |
| SIGNIFICANT TREE REMOVAL | ON-SITE PLANTING |
| ROOT PRUNING | OFF SITE PLANTING |
| TREE PRUNING | POST PLANTING INSPECTION |
| AERATION SYSTEM | POST CONSTRUCTION MEETING |
| TREE PROTECTION FENCE | TWO YEAR WARRANTY |
| TREE PROTECTION SIGNAGE | FIVE YEAR WARRANTY |
| PERMANENT PROTECTION FENCE | FOREST CONSERVATION EASEMENT |
| PREPLANTING MEETING | TREE COVENANTS |
| | OTHER |

CONDITIONS:

- Schedule a pre-construction meeting with the Forestry Inspector, Natasha Shangold (240 314-8233 or nshangold@rockvillemd.gov) and the Senior Sediment and Erosion Inspector, Arthur Simpson (240 314-8879 or ddrudul@rockvillemd.gov). The ISA certified arborist/MD LTE must be present. You must provide at least 48 hours notice before meeting and the limits of disturbance must be staked prior to the meeting. No clearing, grading, or tree removals may be done prior to this meeting. No installation of tree protection fence or sediment control devices may be installed prior to this meeting.
- Provide any additional tree save measures as directed by the Forestry Inspector.
- Pursuant to Section 10.5-34 of the Forest and Tree Preservation Ordinance (FTPO), a fine in the amount of \$1,000 may be imposed for each violation. Each day the violation continues is a separate violation. In addition, a stop work order may be issued until the violation has been abated and the fine has been paid or an appeal has been filed pursuant to Section 10.5-35 of the FTPO. Additional punitive measures as stated under Section 10.5-34 of the FTPO may be imposed.

ENGINEER: Primary:
ADDRESS: (W) (H) (F)

PHONE:

ESTIMATED COST OF WORK:	PERMIT FEES:	AMOUNT OF SECURITY:
PLANTING:	Permit Fee \$0.00	PLANTING:
OTHER:	TOTAL FEES: \$0.00	OTHER:
		BOND:
		L OF C:
		CASH:
		OTHER:

THIS PERMIT AUTHORIZES THE ABOVE DESCRIBED CONSTRUCTION SUBJECT TO ALL APPLICABLE LAWS, REGULATIONS, TERMS, AND CONDITIONS HEREIN AND ELSEWHERE

APPROVED: _____ 02/18/22
 Principal Planner - Landscape Architect

REV: FFTPPRM 02/22/22 MFD 02/22/22

APPENDIX E
MONTGOMERY COUNTY NOISE ORDINANCE
Notice to Contractors

The Montgomery County Council recently 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.

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.

- "Daytime" means from 7 a.m. to 9 p.m. weekdays and 9 a.m. to 9 p.m. weekends and holidays.
- "Nighttime" means from 9 p.m. to 7 a.m. weekdays and 9 p.m. to 9 a.m. weekends and holidays.
- "Receiving Property" means any property where people live or work and where noise is heard.

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' from the noise source.

From 7 a.m. to 5 p.m. 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 reasonably available for a particular type of construction.

At all times other than 7 a.m. to 5 p.m. weekdays, the general standards specified above must be met.

For example: Assuming a residential or mixed-use receiving property, construction noise levels from 5 p.m. to 9 p.m. weekdays and from 9 a.m. to 9 p.m. weekends and holidays must not exceed 65 dBA. From 9 p.m. to 7 a.m. weekdays and 9 a.m. 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.

Summary - Construction Noise

Measured at nearest receiving property, but no closer than 50' from the noise source.

Weekdays (Monday - Friday), 7 a.m. to 5 p.m.

Without Suppression Plan: **75 dBA**

With Suppression Plan: **85 dBA**

5 p.m. to 9 p.m.: **65 dBA**

9 p.m. to 7 a.m.: **55 dBA**

Saturday, Sunday, Holidays

9 a.m. to 9 p.m.: **65 dBA**

9 p.m. to 9 a.m.: **55 dBA**

In the majority of 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 a.m. to 5 p.m. 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 the **Nighttime Hours**. The most common complaint involves back-up beepers, and can be avoided by employing lawful alternatives to audible devices.

The Department of Environmental Protection is currently developing Regulations for Noise Suppression Plans, as required by the revised Ordinance. In general, such plans will involve equipment selection and maintenance, scheduling and reasonable care in planning and conducting operations. Often, noise suppression measures can be fabricated on-site using materials at hand.

As a point of reference, two persons, speaking in normal tones of voice at a distance of three feet, will generate about 63 dBA between them. Therefore, normal, fully intelligible conversation would be possible at the receiving property line of a site generating 65 dBA or less. By comparison, for normal, intelligible speech at a distance of about ten feet between speakers, the background sound would have to be 55 dBA or less.

Most equipment manufacturers, and especially those who produce or market in Europe or Asia, 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. If there are any questions or comments, please do not hesitate to contact the [Office of Environmental Policy and Compliance](#) at 240-777-7770.

APPENDIX F: PAVE DRAIN INSTALLATION REQUIREMENTS



PALLETIZED/HAND-PLACED Installation Manual

PaveDrain® Installation Manual

Table of Contents

Section 1: Base Preparation (pages 3 – 7)

Section 2: Hand-Placement of individual PaveDrain Blocks (pages 8 – 11)

Section 3: Edge Restraints (pages 12 – 15)

Section 4: PaveDrain End Block (page 15)

Section 5: Finishing the PaveDrain System (page 16)

The Confidential Information to be disclosed can be described as and includes:

Invention description(s), technical and business information relating to proprietary ideas and inventions, ideas, patentable ideas, trade secrets, drawings and/or illustrations, patent searches, existing and/or contemplated products and services, research and development, production, costs, profit and margin information, finances and financial projections, customers, clients, marketing, and current or future business plans and models, regardless of whether such information is designated as “Confidential Information” at the time of its disclosure.

2. The Recipient agrees not to disclose the confidential information obtained from the discloser to anyone unless required to do so by law.

3. This Agreement states the entire agreement between the parties concerning the disclosure of Confidential Information. Any addition or modification to this Agreement must be made in writing and signed by the parties.

4. If any of the provisions of this Agreement are found to be unenforceable, the remainder shall be enforced as fully as possible and the unenforceable provision(s) shall be deemed modified to the limited extent required to permit enforcement of the Agreement as a whole.

Section 1

Base Preparation

Open Graded Base & Bedding Course Aggregate: **If more than 6" of base stone is required, only the top 4-6" shall be Typ. AASHTO/ASTM #57 Stone bedding layer** (*clean, angular on all sides, no fines*). The final depth to be determined by Engineer. This layer is used as a leveling/bedding course directly beneath the blocks (see Fig. 1). Additional stone depth should consist of either AASHTO/ASTM #2 or #3 stone (*clean, angular on all sides, no fines*). The final depth to be determined by Engineer.

Edge Restraint: Defining the edges of the PaveDrain system is important (see examples on page 12). Concrete curbing is the most commonly used material. However, using other materials such as plastic strip edging (commonly used in typical pavers) is not advisable.

Separation Fabric: A high strength woven monofilament or multi-filament geotextile is highly recommended to be installed as a base reinforcement and separation layer between the aggregate storage bedding layer (depth to be determined) an the native sub-grade. Please check with your local PaveDrain representative to determine the appropriate geosynthetic required. The geosynthetic is a key component of the PaveDrain system. Negating its use could be detrimental to the function, **performance and life cycle of the PaveDrain system.** The "vertical walls" of your prepared area should also be lined with an appropriate geosynthetic to prevent soil and aggregate migration (see Fig. 2, 3 and 4).

Fig. 1



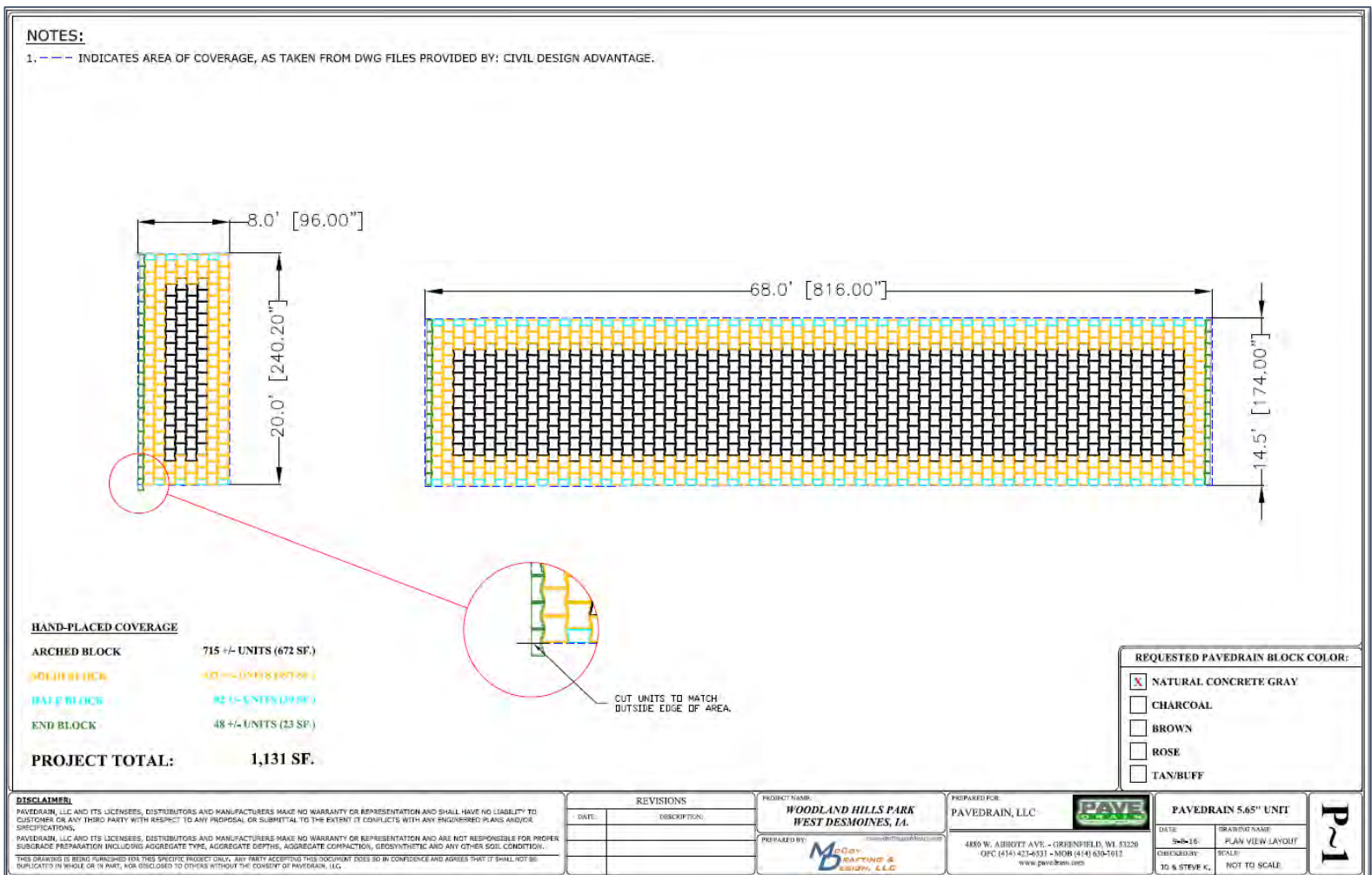
Fig. 2



LAYOUT & PREPARATION

If individual units are to be installed, they will arrive wrapped on pallets. Pallets will weigh approximately 4,000 lbs or less. Please make sure to print out the approved layout drawings on the large jobsite engineer sized paper. It is crucial to see where all the required block are to be laid within the approved area of coverage.

NOTE: Before digging, always call your local utility companies to locate any underground utilities.



PREPARE SUBGRADE SOILS

For best results, the finished subgrade should be flat, smooth and stable. A California Bearing Ratio (CBR) should be established well in advance of the installation. The appropriate geosynthetic is critical and should prevent rutting. If the subgrade appears weak or damp following the installation of the appropriate geosynthetic, contact a professional geotechnical engineer or local PaveDrain representative for further assistance.

Fig. 3



Fig. 4

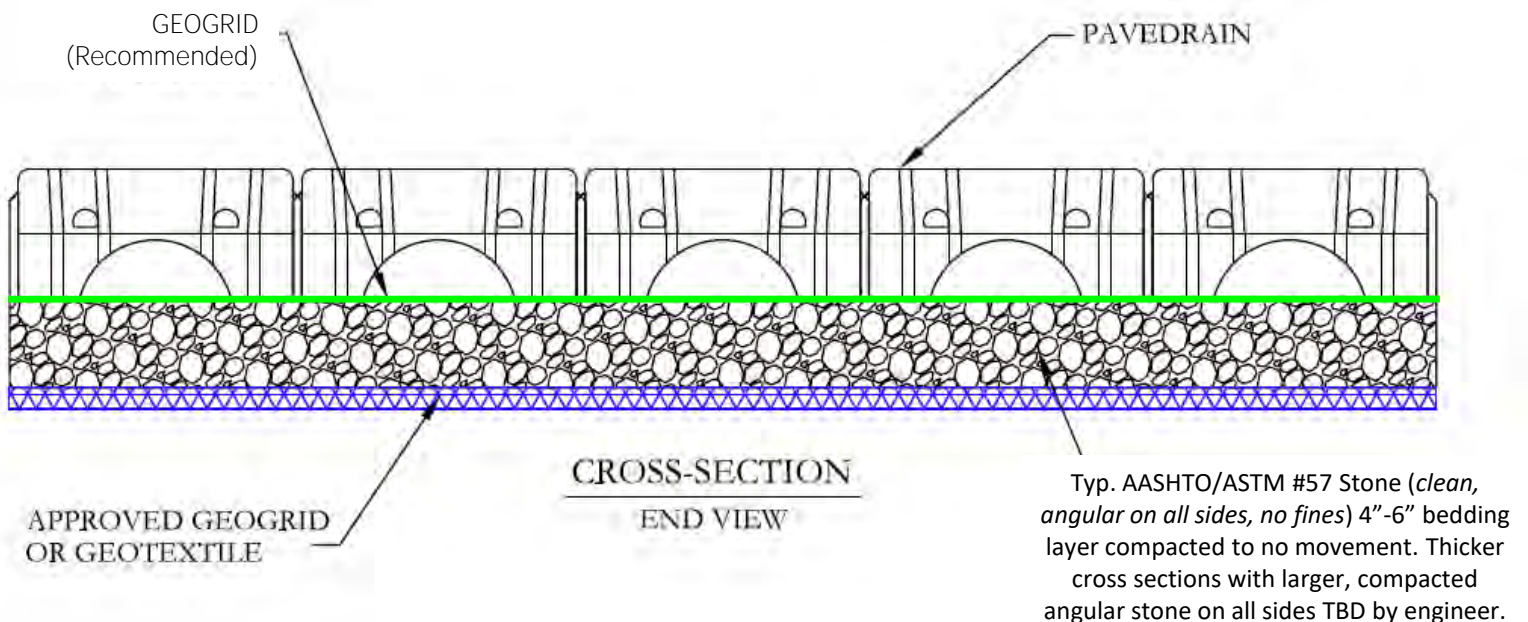


PREPARATION OF OPEN GRADED BASE

The depth of stone should be determined well in advance of the installation of the PaveDrain system by the engineer of record, based on the CBR and storm water storage requirements.

Open graded base materials must be free of fines. Take care not to track soil onto the geosynthetic or allow sediment to wash into the excavation during construction.

Typ. #57 stone is recommended as the bedding layer of stone (see description below). Place the stone on the appropriate geosynthetic in 4-6" lifts and compact with a vibratory roller. The use of a vibratory plate compactor in both directions is best for final compaction of the bedding layer of AASHTO #57 stone that will be in direct contact with the bottom of the PaveDrain units unless the optional geogrid is used (see FIG. 5 on next page). There should be no visible movement of the material once compacted and the base should be smooth when completed.

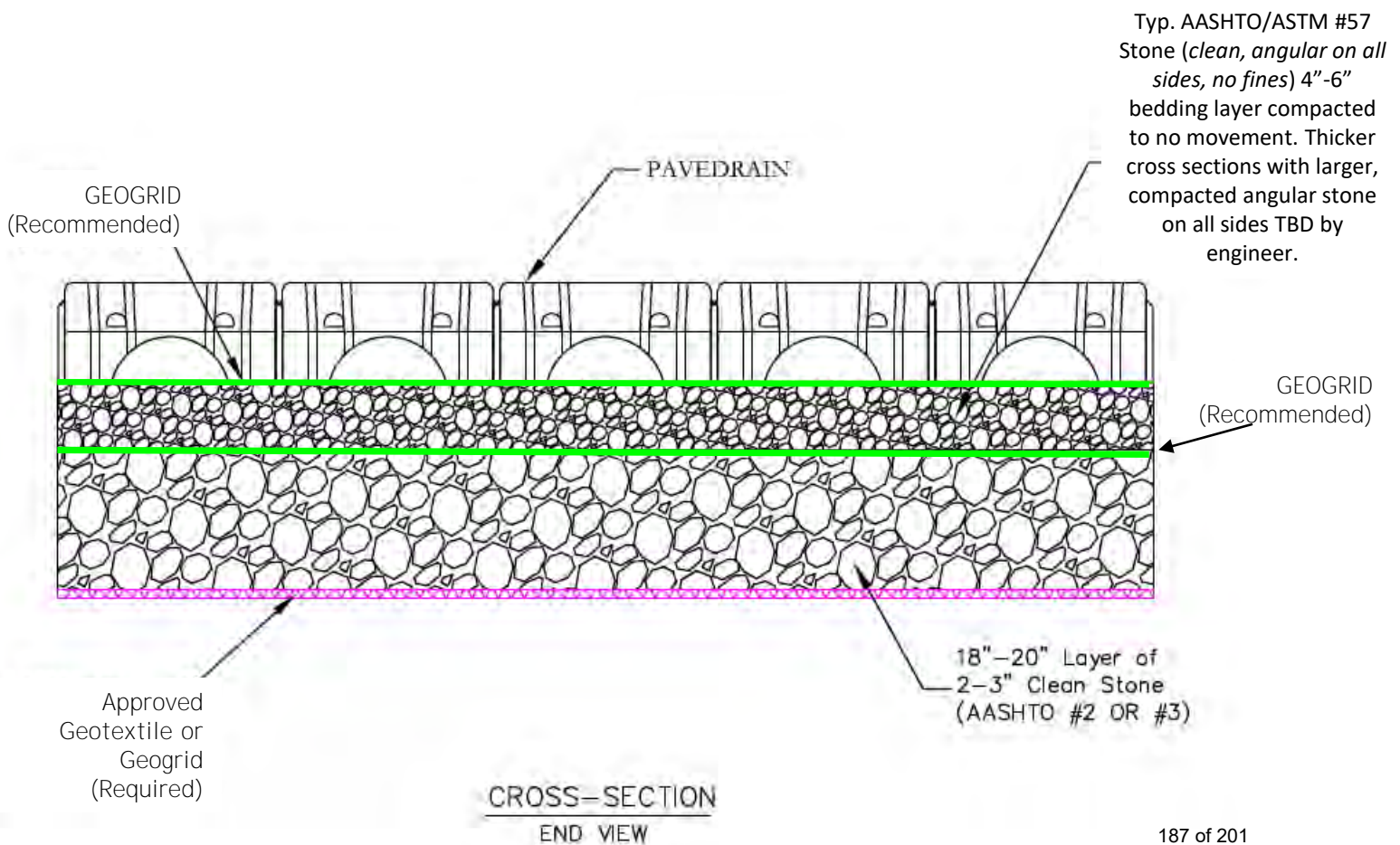


REMEMBER: Subgrade preparation is CRITICAL! The PaveDrain system will mirror any grade changes or discrepancies made with the subgrade.

Fig. 5

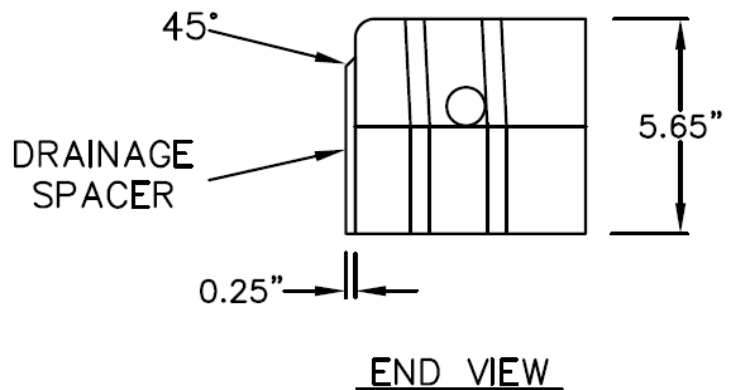
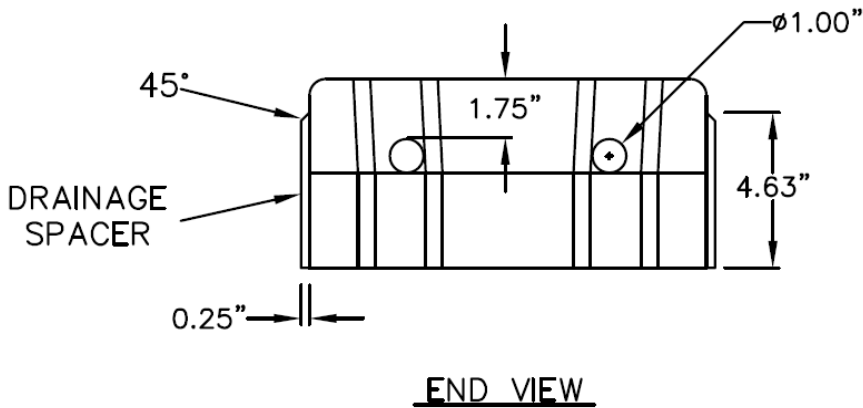
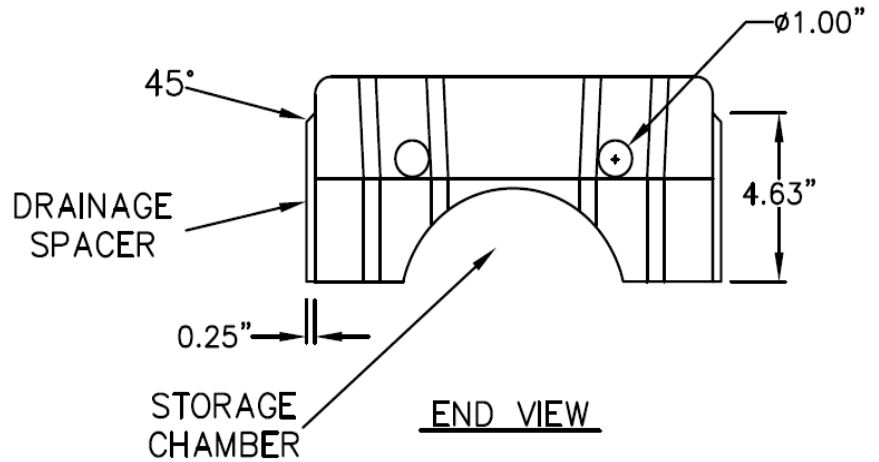


If it is determined by the engineer of record that a rock depth in excess of 12" is required, then the cross-section below should be followed.



CRUCIAL TOOLS

Professional survey equipment is always recommended; other suggested materials are pipe lasers (if available), marking paint, tape measure, chalk line, block markers/crayons, string line, survey stakes, **rubber mallets, 4'-5' pry bars, 4 1/2" angle grinder with concrete cutting blade, masonry saw (wet/dry) with diamond cutting blade, spade and flat shovel, hard-tooth garden rake, Geosynthetic, "peanut" or double roller and plate compactor.**



Section 2

Hand-Placement of PaveDrain Blocks

Hand placing of individual PaveDrain units is an option when your project poses certain problems, such as low over-head power/telephone lines, tight areas between buildings and any other area you cannot operate a crane or excavator to install mats. This method of installation typically requires a foreman (with minimal experience and/or minimal training of the PaveDrain system) and 3 general laborers. The 4 man crew will be able to install roughly 1,500 SF per day. The amount of SF they install will increase as their experience grows. The foreman will be able to operate any of the necessary equipment (i.e. forklift, bobcat or mini-excavator) **while directing the laborers. It's also** recommended to choose this option of installation when your project is 7,000 SF or smaller.

Step #1: If existing hardscapes are to remain (i.e. asphalt or concrete) the prepared area **needs to be 3"** (three inches) larger than the area receiving the individual units. In some applications a concrete collar can be poured before the units are installed (see Fig. 6 & 7).

Fig. 6



Fig. 7



Step #2:

Base preparation is CRITICAL!!!

Undulations and grade changes in the rock base will be reflected in the PaveDrain system. A plate compactor is the best way to level and flatten the base rock before and during installation (see Fig. 5). A well prepared rock base is shown in Figures 8 and 9 below.

Fig. 8



Fig. 9



Step #3: **STARTING POINT.** It is beneficial to take the entire area into consideration and lay your first unit in the middle or in one corner. String lines will help facilitate your placement. If you decide to place your first unit in the middle, you must mark that unit in the middle with a "+". Then use your string lines to find the exact middle of your open area. Place the unit with the "+" under the intersection of your string lines and you are ready to begin (see Fig. 10). If you start in one corner, you want to use your string line to make an exact 90° corner where you will lay your first unit (see Fig. 11).

Fig. 10



Fig. 11



Step #4: Keep the units tight during installation and follow the string lines. Rubber mallets can help you “seat” the units after they are placed (see Fig. 12 & 13).

Fig. 12



Fig. 13



NOTE: *Foot traffic should be kept to a minimum on the rock. If the rock is compacted correctly, little movement should be apparent once stepped on. Use the plate compactor to fix any major damage.*

Step #5: The individual PaveDrain units can be cut or tailored to accommodate a variety of different shaped working areas or obstacles. Using a concrete block masonry saw with a diamond tipped blade will allow you to custom fit your site (see Fig. 14 & 15).

Fig. 14



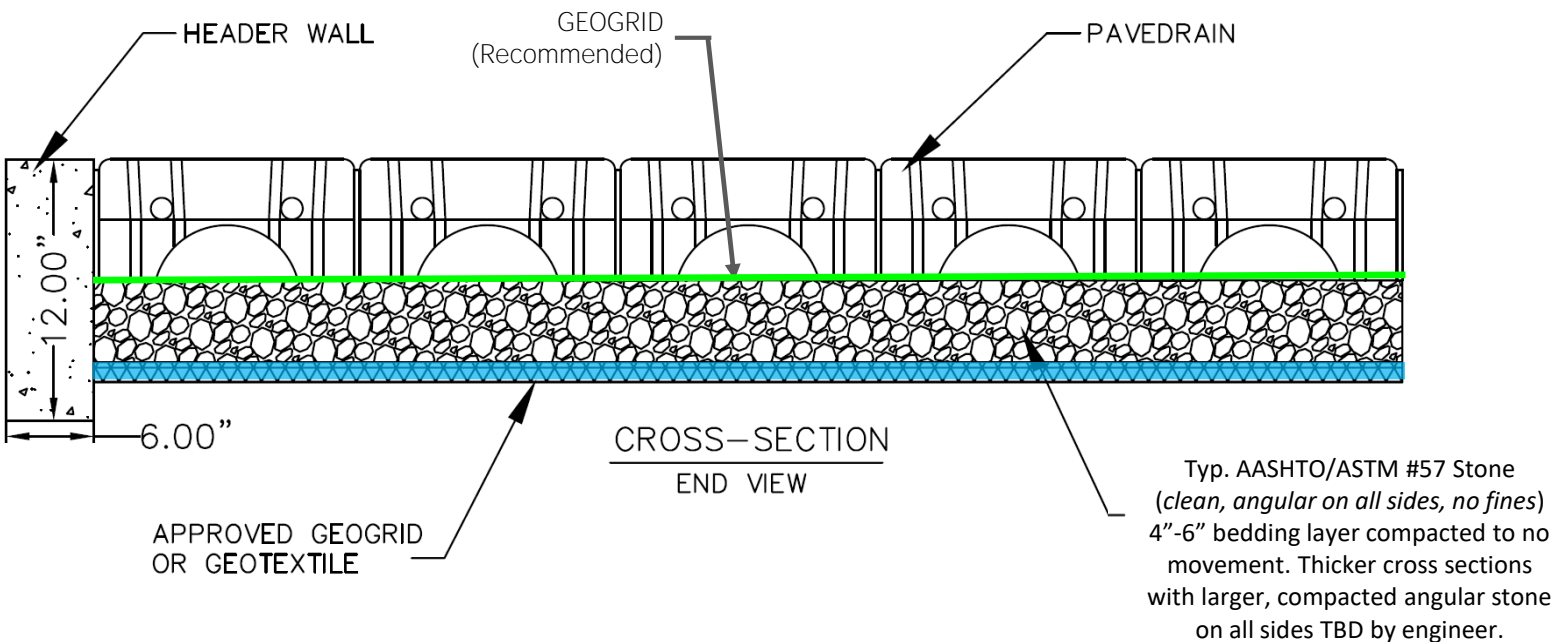
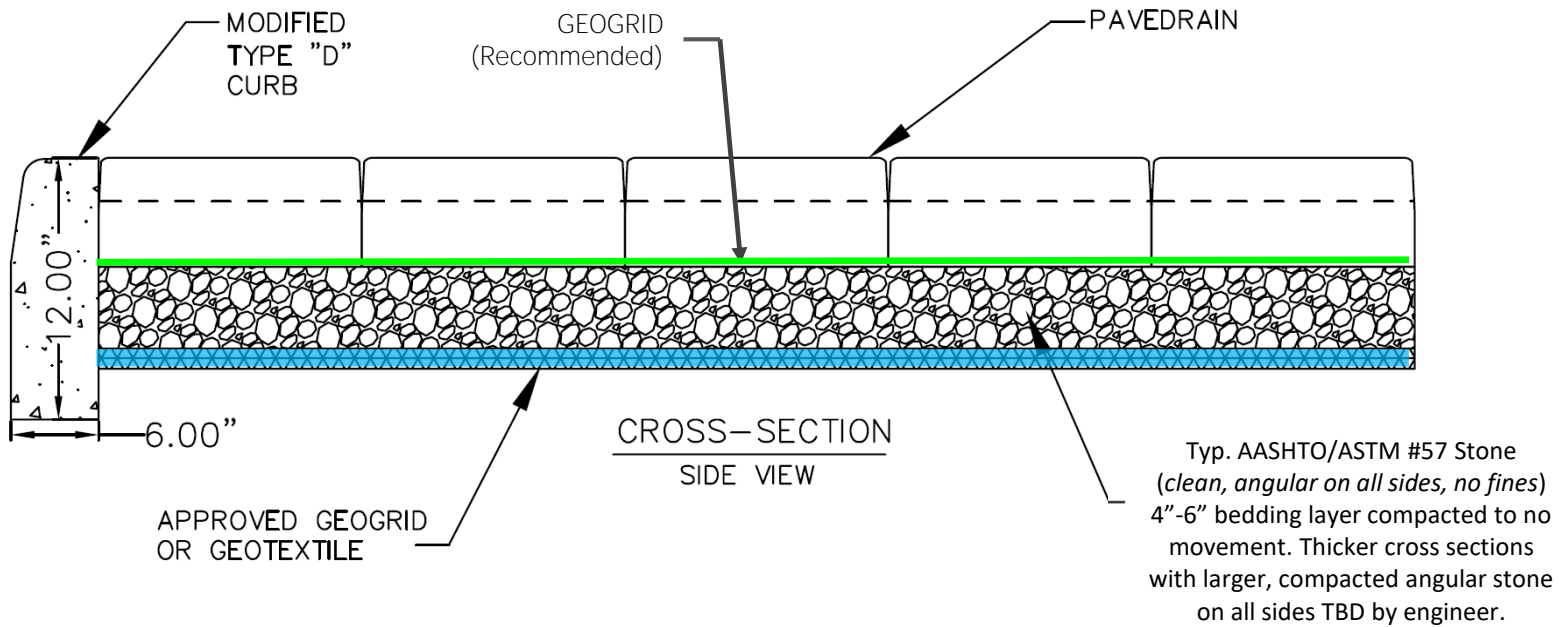
Fig. 15



Section 3

Edge Restraints

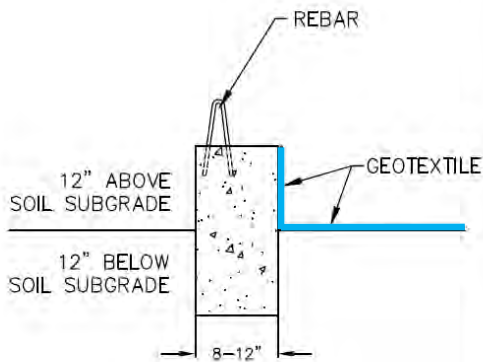
Edge restraints are used to delineate and confine a PaveDrain system and are highly recommended whenever vehicular loads are present. There are many acceptable options for edge restraints with the PaveDrain System. The details below show the most common methods utilizing a poured-in-place concrete flush curb. If you wish to consider other alternates, please contact your local sales representative for support.



The Two Stage Curb detail below is an edge restraint solution that can be used when the PaveDrain System terminates on a curve or radius. The Two Stage Curb detail eliminates the need for field cutting of the PaveDrain blocks to match the required curve or radius.

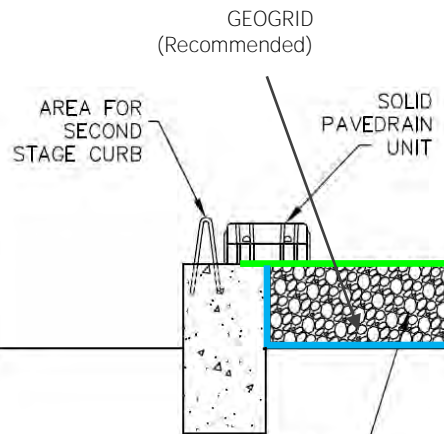
Two Stage Curb Installation Detail

STEP #1



* EXCAVATE AREA OF COVERAGE AND POUR LOWER SECTION OF CURB WALLS ACCORDING TO DEPTH REQUIRED BY ENGINEER. (TYPICAL 12" DEPTH). MINIMUM HEIGHT ABOVE SUBGRADE IS 6" (TYPICAL HEIGHT IS 12"). INSTALL BENT REBAR WHILE CONCRETE IS WET.

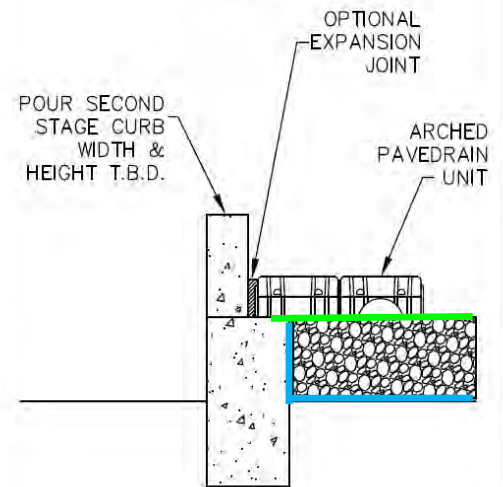
STEP #2



Typ. AASHTO/ASTM #57 Stone (clean, angular on all sides, no fines) 4"-6" bedding layer compacted to no movement. Thicker cross sections with larger, compacted angular stone on all sides TBD by engineer.

* INSTALL SPECIFIED GEOTEXTILE AND AGGREGATE BASE. COMPACT AGGREGATE ACCORDINGLY. INSTALL PAVEDRAIN SYSTEM.

STEP #3



* ONCE EDGE OF PAVEDRAIN SYSTEM HAS BEEN ESTABLISHED, THE 6" CURB AROUND THE PAVEDRAIN CAN BE FORMED AND Poured. AN OPTIONAL EXPANSION JOINT CAN BE INSTALLED AGAINST THE PAVEDRAIN UNITS, ACTING AS A FORM. ROUGH CUTS ON INDIVIDUAL PAVEDRAIN UNITS MAY BE NECESSARY, BUT WILL BE HIDDEN IN THE FINISHED CURB.

PATENTED **PAVEDRAIN**
STANDARD DETAIL
TWO STAGE CURB
SCALE NTS

**PAVE
DRAIN**
TECHNOLOGY AND SOLUTIONS
PH: (888) 575-3339
WWW.PAVEDRAIN.COM
Email: info@pavedrain.com



1. Minimal cutting of the PaveDrain blocks.
2. Compacted rock is brought to proper height.
3. Exposed rebar is for securing poured curb after the block are installed.

Two Stage Curb Photos



Curb is poured ON TOP of the PaveDrain.

Completed Two Stage Curbs

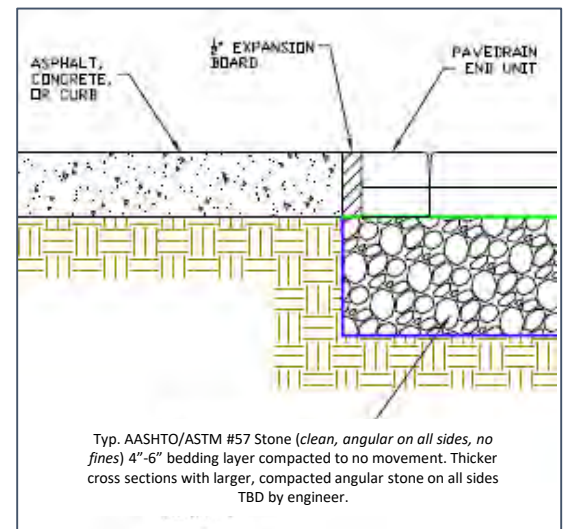
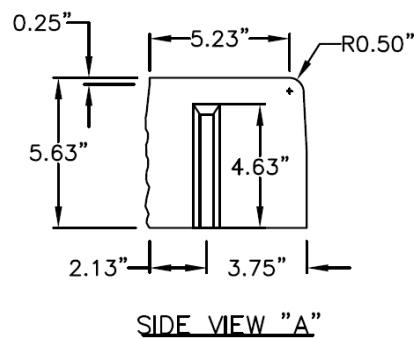


Section 4

PaveDrain End Block

The PaveDrain End Block is designed to give a smooth transition between the PaveDrain system and the existing surfaces. Installation of the End Block can be done in conjunction with all 3 types of installation methods used on the PaveDrain system.

Conventional materials, such as rock, 1/2" expansion board, asphalt or concrete, are easily placed directly between the PaveDrain® End Block and the existing structure.



Section 5

Finishing the PaveDrain System

As always, the joints within the PaveDrain system are designed to be left open. Placing sand or small rock chips within the open joints is not recommended. Following the installation of the PaveDrain system, slight unevenness between the individual blocks may be evident. To resolve this, a (non-vibrating) double-drum roller or paver roller may be run over the top (see Fig. 16 & 17 below).

Fig. 16

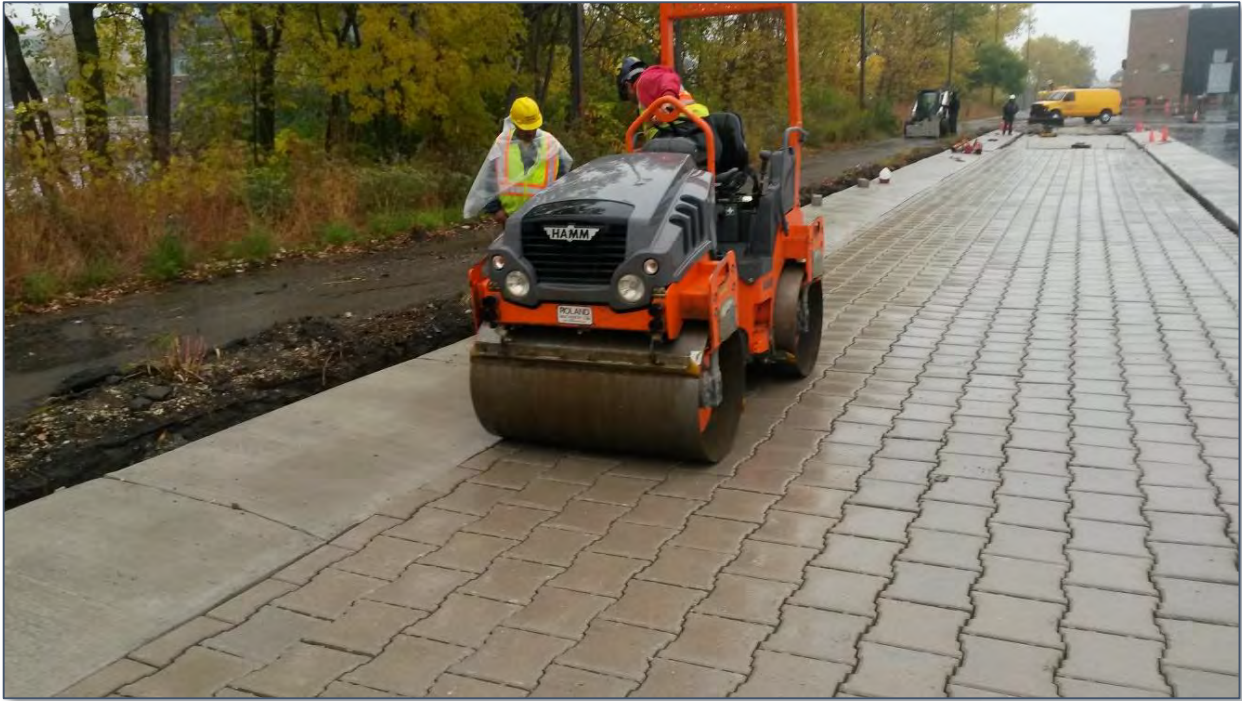


Fig. 17





AS-BUILT PLAN REVIEW CHECKLIST

October 2021

CITY OF ROCKVILLE

DEPARTMENT OF PUBLIC WORKS (DPW)

111 Maryland Avenue

Rockville, Maryland 20850

240-314-8500

www.rockvillemd.gov

Project Information:

Project Name: _____

Legal Description: Subdivision: _____ Lot(s) and Block(s): _____ Parcel(s): _____

Property Address: _____

Tax Acct. ID(s): _____

Engineering Firm: _____

Contact Person: _____

Phone Number: _____

Email Address: _____

DPW PWK Permit No.: _____ (assigned by DPW)

DPW SMP Permit No.: _____ (assigned by DPW)

DPW SCP Permit No.: _____ (assigned by DPW)

DPW Project Manager: _____

How to Use this Checklist:

This checklist has been developed to provide the engineer with guidance in preparing and submitting As-Built Plans. All items in this checklist must be addressed. The engineer must complete each item in the checklist prior to submittal and indicate the status by completing the left hand column entitled "Initial Submission." Use the legend below to complete this column. Any items that are marked INC (incomplete) must be explained. The engineer must sign this checklist indicating that it has been completed in accordance with this guidance and the Submission Acceptance Policy below.

Legend: = Complete or Provided, N/A = Not Applicable, INC = Incomplete (provide explanation)

Submission Acceptance Policy:

Correctly filling out this checklist will assist in the acceptance, review and approval process. All of the items in SECTION A - APPLICATION SECTION must be provided with the initial submission for the City to accept the package and forward it to the Reviewer. Incomplete submissions may be rejected. Once forwarded to the Reviewer, the Reviewer will have one week to review the package for the items listed in SECTION B - SUBMISSION REQUIREMENTS. Failure to include the required items or to explain items not included may result in the rejection of the submission without review.

Name of Firm

Date

Signature of Responsible Person

Responsible Person's Name

Title

AS-BUILT PLAN REVIEW CHECKLIST - PAGE 2

Initial Submission	Rockville's Review			
	1st	2nd	3rd	
A) APPLICATION SECTION (Submissions shall be made using the City's Virtual Permit Application portal available at www.rockvillemd.gov)				
1 _____	One digital (PDF) copy of the proposed plans. Plans must be on 24" x 36" sheets and must utilize the standard City base sheet. Vector-Based PDF files are required for all plans, calculations, reports and other supporting documentation. It is recommended that drawings created in AutoCAD are converted to Vector-Based PDF by using the Autodesk Vector Graphic Converter "DWG to PDF.pc3 plotter driver."	_____	_____	_____
B) SUBMISSION REQUIREMENTS				
1 _____	Transmittal explaining the purpose of submission including plan type and associated permit numbers	_____	_____	_____
2 _____	One set of a red-lined digital (PDF) As-Built plan. As-Built information shall be prepared using the most current, revised construction drawings approved by the City and with original P.E. seal. Placing As-Built information upon a scanned image or other reproduction of the original construction drawings is acceptable so long as the quality, integrity, and legibility of the original drawings are substantially preserved without undue compromise	_____	_____	_____
3 _____	Construction inspection checklists signed by the Owner/Developer and City Inspector for each facility. Completed checklists may be superimposed on approved plans or included with supporting documentation	_____	_____	_____
4 _____	State of MD Professional Engineer or Professional Land Surveyor As-Built certification on the first sheet of the plan set (see Section G below)	_____	_____	_____
5 _____	Completed Stormwater Management Database Form summarizing the on-site treatment provided and listing each SWM facility constructed	_____	_____	_____
6 _____	One copy of each supporting document in electronic (PDF) format, as necessary (see Section H below)	_____	_____	_____
7 _____	AutoCAD file of all public improvements and stormwater management facilities, suitable for use in ESRI ArcMap. Required upon City's request prior to as-built approval	_____	_____	_____
C) GENERAL INFORMATION				
1 _____	Scale 1" = 30' or larger with Legend, North arrow and Datum (NAD 83/91, NGVD 88) unless otherwise approved. Provide two benchmarks with location, elevation and description. Provide two graticular tick marks per plan view sheet for georeferencing	_____	_____	_____
2 _____	All As-Built information shall be blocked in and shown on the original construction drawings in red. A red check mark must be made beside design values/items if they were actually the constructed values/items	_____	_____	_____
3 _____	Horizontal variations greater than one (1.0) foot should be shown dimensionally or through plus stations. Horizontal variations greater than ten (10.0) feet should also show the graphic relocation of the object	_____	_____	_____
4 _____	Vertical elevation variations greater than one-tenth (0.1) foot shall be provided for all shown design elevations	_____	_____	_____
5 _____	Elevations measured to the nearest one-tenth (0.1) foot are sufficient	_____	_____	_____
6 _____	Constructed public streets and alleys labeled with finished centerline profile grade elevations, horizontal and vertical curve data, finished grade slope, etc.	_____	_____	_____
7 _____	All sheets included in the permit set must be submitted in the final as-built set	_____	_____	_____
8 _____	Original seal and signature, license number of qualified preparer on all sheets	_____	_____	_____
9 _____	Add 'As-Built' label to all sheets, preferably in the lower right-hand corner of the drawing	_____	_____	_____

AS-BUILT PLAN REVIEW CHECKLIST - PAGE 3

Initial Submission		Rockville's Review			
		1st	2nd	3rd	
D) STORM DRAIN, SANITARY SEWER AND WATER PLANS					
1	_____	Invert elevations (inlet, outlet, weir, etc.) measured to the nearest tenth-foot (0.1) for structures and field connections	_____	_____	_____
2	_____	Pipe diameter, distance between structures (measured centerline to centerline), pipe slope and structure stationing labeled on profile view	_____	_____	_____
3	_____	Rim elevation of structures	_____	_____	_____
4	_____	Any changes in type of structure noted in the structure schedule	_____	_____	_____
5	_____	Any changes in type or class of pipe noted in the pipe schedule	_____	_____	_____
6	_____	Water valve tie drawings	_____	_____	_____
7	_____	Length, width, depth and outfall elevation of rip rap and other outfall protection as specified	_____	_____	_____
E) STORMWATER MANAGEMENT PLAN					
1	_____	Grading, storage volume and hydrology must be approved by DPW prior to landscaping/planting. All plantings must be added to the As-Built plans after plant installation. As-Built plans will not be approved without required plantings	_____	_____	_____
2	_____	Profile along the centerline of the embankment	_____	_____	_____
3	_____	Profiles and/or cross sections of the stormwater management facilities with associated details	_____	_____	_____
4	_____	Elevations of the "water quality", 2, 5, 10 and 100-year storms as appropriate	_____	_____	_____
5	_____	Profile along the centerline of the principal spillway/outfall pipe extending below the protected outfall or to the downstream manhole structure	_____	_____	_____
6	_____	Length, width, slope information and depth or contours (one-foot intervals) of the pond area along with a verification of the original design volume	_____	_____	_____
7	_____	Profile along the centerline of the emergency spillway	_____	_____	_____
8	_____	Design and As-Built Stage versus Storage Table on the plan view sheet	_____	_____	_____
9	_____	Establishment of a benchmark on the riser/control structure or inlet headwall to the nearest one-tenth (0.1) foot	_____	_____	_____
10	_____	As-Built information for concept condition items (i.e. SVI reforestation, grading requirements, bio-sensitive stream crossing, etc.)	_____	_____	_____
11	_____	Infiltration rate test results as required by SWM construction inspection checklists	_____	_____	_____
12	_____	Include SWM Drainage Area Map. Modify delineated drainage areas if constructed is different than approved. Use modified areas in as-built computations	_____	_____	_____
F) MATERIALS USED (Material/delivery tickets for materials used in the construction must be provided to the DPW Construction Inspector at the time of construction)					
1	_____	Dimensions and type of material for the riser/control structure	_____	_____	_____
2	_____	Diameter, length and type of material for the principal spillway, underdrains, and observation wells/cleanouts	_____	_____	_____
3	_____	Trash rack device(s): Size, location and type	_____	_____	_____
4	_____	Anti-seep collars, precast collars and concrete cradles: Number, size and location	_____	_____	_____
5	_____	Low stage orifice: Invert, size and length	_____	_____	_____
6	_____	High stage weir/riser crests: Invert, size and length	_____	_____	_____
7	_____	Manhole covers/facility access: Vented/non-vented delineation, with steps/ladders provided for maintenance access	_____	_____	_____
8	_____	Flow splitter: Diversion pipe/weir invert, size and location	_____	_____	_____
9	_____	Storm drain pipes/appurtenances: Incoming and outgoing sizes, inverts and outfall dimensions	_____	_____	_____
10	_____	Aggregates and planting soil: Coarse/fine type and thickness	_____	_____	_____
11	_____	Filter (geotextile) fabric: Type and location (vertical and horizontal)	_____	_____	_____

AS-BUILT PLAN REVIEW CHECKLIST - PAGE 4

Initial Submission		Rockville's Review			
		1st	2nd	3rd	
G) CERTIFICATIONS					
1	_____	Certifications from suppliers which are not included as material tickets (e.g., filter cartridge information or secondary as-built of plumbing system from contractor)	_____	_____	_____
2	_____	As-built certification statement, signed by a Professional Engineer or Professional Land Surveyor indicating, "I hereby certify that the information shown on this record drawing is an accurate and complete representation of data established from field information obtained under the direction of a Professional Engineer or a Professional Land Surveyor, and that the physical dimensions or elevations shown thus 37.55' are as-built information and the facility was constructed according to the approved plans, except as otherwise noted hereon"	_____	_____	_____
3	_____	As-built certification statements for green roofs only, signed by the Owner / Developer indicating, Green Roof Bearing Capacity Certification "I hereby certify that the constructed roof meets the load bearing capacity specified on the approved plans" Green Roof Waterproofing Certification "I hereby certify that the waterproofing membrane has been installed and has been tested to ensure water tightness"	_____	_____	_____
4	_____	As-built certification statement for ponds only, signed by a Professional Engineer indicating, "This record drawing is accurate and complete and the pond is constructed as per the approved stormwater management plan or subsequent approved revisions and substantially meets and/or exceeds the requirements of the Soil Conservation Service MD-378 Standards and Specifications for ponds"	_____	_____	_____
5	_____	As-built certification statement for single-family development only, signed by the Owner/Developer AND City Inspector indicating, "This record drawing accurately and completely represents the stormwater management practices as they were constructed. All stormwater management practices were constructed per the approved Sediment Control/Stormwater Management plans or subsequent approved revisions"	_____	_____	_____
6	_____	Geotechnical engineer's inspection and testing reports verifying that the materials used (i.e. soils, concrete, reinforcing steel, etc) meet the project specifications of the approved plan	_____	_____	_____
7	_____	Landscape plan included with as-built plan set. Number and location of landscape/wetland plantings shown, as-built planting schedule and details, certified by a Maryland licensed design professional	_____	_____	_____
H) SUPPORTING DOCUMENTATION					
1	_____	Completed "Contractor's Construction Inspection Checklist" with supporting documentation for all SWM facilities (one checklist per facility)	_____	_____	_____
2	_____	Revised design computations verifying the functionality of SWM facilities. One copy of a red-lined electronic (PDF) SWM Report shall include a stormwater summary sheet comparing the approved and as-built critical design parameters, shown by values and percent change	_____	_____	_____
3	_____	Storage deviation verification (i.e., TR-20 model to show adequate storage if the available storage does not agree with the original design)	_____	_____	_____
4	_____	Verify easements, covenants and any other legal agreements are recorded and provide the Liber and Folio reference. Verify the SWM facility was constructed within the recorded easement area	_____	_____	_____
5	_____	Verify structural computations and approved shop drawings are submitted	_____	_____	_____