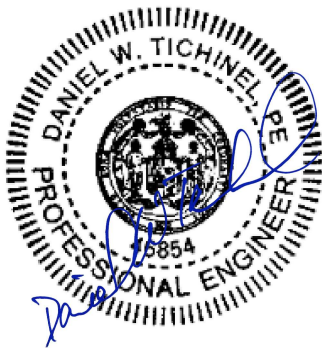


FINZEL PARK IMPROVEMENT PROJECT SPECIFICATIONS

GARRETT COUNTY GOVERNMENT PLANNING & LAND MANAGEMENT DIVISION
203 South Fourth Street, Room 207
Oakland, Maryland 21550

I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME, AND
THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE OF
MARYLAND, LICENSE NO. 46854, EXPIRATION
DATE: 06/07/2027.



Date: 2026.02.11
18:38:02-05'00'



Sand Flat Engineering, LLC (MD, VA)
685 Mosser Rd, Suite 124
McHenry, MD 21541

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SECTION 01 00 00 – GENERAL REQUIREMENTS

1.0 PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes general requirements applicable to all work under the Finzel Park Improvement Project.
- B. The Contractor shall furnish all labor, materials, equipment, supervision, and incidentals necessary to complete the work shown on the Plans and specified herein.
- C. Work may include, but is not limited to:
 - 1. Site preparation and demolition
 - 2. Earthwork and grading
 - 3. Concrete, asphalt, or paved improvements
 - 4. Walking Path Installation & Paving
 - 5. Drainage and minor utility work
 - 6. Park amenities (benches, signage, playground features, etc.)
 - 7. Landscaping and restoration

1.02 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions, apply to this section.
- B. Contractor shall review all Plans and Specifications prior to bid. Where conflicts occur between Plans and Specifications, the more stringent requirement shall govern, unless otherwise directed by the Engineer or Owner.
- C. Specifications apply to all trades unless noted otherwise.

1.03 CODES, STANDARDS, AND PERMITS

- A. All work shall comply with applicable federal, state, and local codes, ordinances, and regulations.
- B. Contractor shall obtain and pay for all required permits unless otherwise specified.
- C. Applicable standards may include:
 - 1. Garrett County Public Works – Standards and Specifications
 - 2. Maryland Department of Transportation (MDOT SHA)
 - 3. Maryland Department of Environment (MDE) Standards
 - 4. American Water Works Association (AWWA)
 - 5. National Fire Protection Association (NFPA)
 - 6. ASTM Standards
 - 7. AASHTO Specifications
 - 8. OSHA Safety Regulations
 - 9. ADA Accessibility Guidelines

1.04 SITE CONDITIONS

- A. Contractor shall visit the site prior to bidding and verify existing conditions.
- B. No additional compensation will be provided for conditions that could have been reasonably observed prior to construction.
- C. Contractor shall protect existing improvements, vegetation, utilities, and park facilities.



1.05 EXISTING UTILITIES

- A. Contractor shall coordinate with utility companies and the Owner prior to excavation.
- B. Contractor shall contact the state One-Call system before any digging.
- C. Damage to utilities shall be repaired immediately at Contractor expense.

1.06 SUBMITTALS

- A. Contractor shall submit shop Plans, product data, and material samples as required.
- B. Submittals shall be reviewed by the Engineer for general conformance only.
- C. Work shall not proceed until required submittals are approved.

1.07 MATERIALS AND WORKMANSHIP

- A. All materials shall be new and of the best grade specified unless otherwise permitted.
- B. Work shall be performed by skilled tradespersons in accordance with accepted industry standards.
- C. Defective work or materials shall be removed and replaced at Contractor expense.

1.08 CONSTRUCTION LAYOUT

- A. Contractor shall be responsible for all layout, lines, grades, and elevations.
- B. Contractor shall verify dimensions and report discrepancies before proceeding.

1.09 SAFETY AND PROTECTION

- A. Contractor shall comply with OSHA and all applicable safety laws.
- B. Contractor shall maintain safe access for park users where required.
- C. Barricades, signage, and temporary fencing shall be provided as needed.

1.10 TEMPORARY FACILITIES

- A. Contractor shall provide temporary utilities, controls, and protection necessary for construction.
- B. Temporary erosion and sediment controls shall be installed prior to earth disturbance.

1.11 INSPECTION AND TESTING

- A. Owner may provide testing and inspection services.
- B. Contractor shall cooperate and provide access to the work.
- C. Failed materials or work shall be corrected at Contractor expense.

1.12 CLEANING AND PROJECT CLOSEOUT

- A. Contractor shall keep the site clean and free of debris throughout construction.
- B. Final cleanup shall include removal of excess materials, equipment, temporary facilities, and erosions and sediment controls.
- C. Contractor shall restore disturbed areas and leave the park in a neat, finished condition.
- D. Contractor shall schedule and complete a site walkthrough with Engineer and Owner before submission for final payment to develop a punch list of deficient/incomplete work. Contractor shall complete the items noted in the punch list prior to submitting for final payment. The Owner reserves the right to withhold final payment until such the punch list is complete.



1.13 WARRANTY

- A. Contractor shall warrant all work for a minimum of one (1) year from date of final acceptance unless otherwise specified.
- B. Warranty includes correction of defective workmanship or materials.

2.0 PART 2 – PRODUCTS

(Not Used)

3.0 PART 3 – EXECUTION

(Not Used)

END OF SECTION 01 00 00



SECTION 01 20 00 – MEASUREMENT AND PAYMENT

1.0 PART 1 – GENERAL

1.01 SUMMARY

- A. This section defines the basis of measurement and payment for the Bid Items included in the Finzel Park Improvement Project.
- B. Payment shall constitute full compensation for furnishing all labor, materials, equipment, tools, supervision, and incidentals necessary to complete the work in accordance with the Plans and Specifications.
- C. No separate payment will be made for work incidental to a pay item unless specifically identified as a separate Bid Item.

1.02 GENERAL

- A. Quantities shown in the Bid Schedule are estimated. Payment will be made for actual quantities installed and accepted unless otherwise noted.
- B. The Contractor shall be responsible for verifying all field conditions prior to construction.
- C. All work shall be subject to inspection and acceptance by the Owner and Engineer.

1.03 DEPTH OF INSTALLATION

- A. Depth categories shown in the Bid Schedule (e.g., “< 6-FT DEPTH” or “< 8-FT DEPTH”) shall be defined as the vertical distance measured from the proposed finished grade directly above the structure or pipe to the invert of the pipe at the location installed.
- B. Depth classification shall include all excavation required to construct the trench, bedding, and pipe installation.
- C. No additional payment will be made for variations in trench width, shoring, dewatering, or incidental excavation unless a separate Bid Item is provided.

2.0 PART 2 – PRODUCTS

(Not Used)

3.0 PART 3 – EXECUTION

3.04 BID ITEM MEASUREMENT AND PAYMENT

A. ITEM 1 – MOBILIZATION (LUMP SUM)

- 1. Measurement: Mobilization will be measured as one Lump Sum item.
- 2. Payment: Payment shall include full compensation for all preparatory work and costs required to begin construction, including but not limited to:
- 3. Transportation of personnel, equipment, and materials
- 4. Setup of staging areas
- 5. Temporary facilities
- 6. Preconstruction coordination

B. ITEM 2 – EROSION & SEDIMENT CONTROL (LUMP SUM)

- 1. Measurement: Measured as one Lump Sum item.
- 2. Payment: Includes all labor, materials, equipment, and tools necessary to install, maintain, and remove erosion and sediment control measures, including:



- a. Silt Fence (SF – Detail E-1)
 - b. Diversion Fence Perimeter Controls (DF – Detail C-9)
 - c. Plunge Pool (PP – Detail D-4-2)
 - d. Sediment Trap I – Stone/Riprap Outlet Sediment Trap (ST-II – Detail G-1-2)
 - e. Temporary Stone Outlet Structure (TSOS – Detail E-7)
 - f. Temporary Soil Stabilization Matting Channel (TSSMC – Detail B-4-6-C) During Swale Grading Operations
 - g. Temporary Soil Stabilization Matting Slope (TSSMS – Detail B-4-6-D) During Slope Grading Operations
 - h. Stockpile Area (B-4-8 Standards and Specifications)
 - i. Same Day Stabilization for Storm Drainage Installations
 - j. Standard Inlet Protection Type B (SIP – E-9-1)
 - k. Temporary stabilization
 - l. Maintenance throughout construction
 - m. Final removal after stabilization
 - n. MDE NPDES Reporting and Compliance
 - o. All other incidentals for complete erosion & sediment control
- C. ITEM 3 – LACROSSE SIXES FIELD GRADING & SEEDING (LUMP SUM)
- 1. Measurement: Measured as one Lump Sum item.
 - 2. Payment: Includes all work required to complete grading and seeding of the lacrosse field and Swale 4 & 6, including:
 - a. Earthwork and shaping
 - b. Fine grading
 - c. Topsoil placement (if required)
 - d. Seeding and mulching
 - e. Restoration of disturbed areas
 - f. All other incidentals for complete a playing surface
- D. ITEM 4 – BASEBALL FIELD GRADING & SEEDING (LUMP SUM)
- 1. Measurement: Measured as one Lump Sum item.
 - 2. Payment: Includes all work required to complete grading and seeding of the baseball field and Swale 1, 2, 3, 5, including:
 - a. Excavation and embankment
 - b. Finish grading
 - c. Seeding and mulching
 - d. Surface restoration
 - e. Inlet rip rap rock protection
 - f. All other incidentals for complete a playing surface
- E. ITEM 5 – NYLOPLAST INLET W/ GRATE < 6-FT DEPTH (EACH)
- 1. Measurement: Measured per Each inlet installed and accepted.
 - 2. Payment: Includes full compensation for furnishing and installing ADS Nyloplast inlets complete with:
 - a. Frames and grates
 - b. Excavation and bedding
 - c. Connections to storm drain piping



- d. Backfill and compaction
- e. Setting grate to final grade
- f. Shoring (if required)
- g. All other incidentals for a complete installation

F. ITEM 6 – 10" N-12 HDPE PIPE < 8 FT DEPTH (LINEAR FEET)

1. Measurement: Measured in Linear Feet installed. Storm drainpipe pipe shall be measured along the centerline of the pipe as installed. Measurement shall include the full length of pipe between structures, fittings, or end treatments. Pipe fittings, couplings, and standard connections required to complete the system shall be considered incidental to the Linear Foot pay item unless specifically listed as a separate Bid Item. Payment per Linear Foot shall constitute full compensation for furnishing and installing complete pipe systems as shown on the Plans. No separate payment will be made for:
 - a. Fittings
 - b. Couplings
 - c. Bands
 - d. Joint materials
 - e. Minor alignment adjustments
2. Payment: Includes furnishing and installing ADS N-12 HDPE pipe, including:
 - a. Trench excavation
 - b. Bedding and haunching
 - c. Pipe joints and fittings
 - d. Backfill and compaction
 - e. Testing and cleanup
 - f. All other incidentals for a complete installation

G. ITEM 7 – 12" N-12 HDPE PIPE < 8 FT DEPTH (LINEAR FEET)

1. Measurement: Measured in Linear Feet along pipe centerline installed.
2. Payment: Includes all work described under Item 6, for 12-inch pipe.

H. ITEM 8 – 12" N-12 HDPE FLARED END SECTION (EACH)

1. Measurement: Measured per Each unit installed and accepted.
2. Payment: Includes furnishing and installing flared end section including:
 - a. Excavation and bedding
 - b. Pipe connection
 - c. Backfill and compaction
 - d. Rip Rap end treatment stabilization and outlet protection
 - e. All other incidentals for a complete installation

I. ITEM 9 – 6" HEAVY DUTY HDPE PERFORATED PIPE W/ FITTINGS (LINEAR FEET)

1. Measurement: Measured in Linear Feet installed. Storm perforated underdrain pipe shall be measured along the centerline of the pipe as installed. Measurement shall include the full length of pipe between structures, fittings, or end treatments. Pipe fittings, couplings, and standard connections required to complete the system shall be considered incidental to the Linear Foot pay item unless specifically listed as a separate Bid Item. Payment per Linear Foot shall constitute full compensation



for furnishing and installing complete pipe systems as shown on the Plans. No separate payment will be made for:

- a. Fittings
 - b. Couplings
 - c. Bands
 - d. Joint materials
 - e. Minor alignment adjustments
 - f. All other incidentals for a complete installation
2. Payment: Includes furnishing and installing perforated underdrain pipe including:
- a. Trench excavation
 - b. Required fittings and connections
 - c. Gravel bedding and backfill
 - d. Filter fabric wrap (if required)
 - e. Backfill and restoration
 - f. Shoring (if required)
 - g. All other incidentals for a complete installation

J. ITEM 10 – 4" HEAVY DUTY HDPE PERFORATED PIPE W/ FITTINGS (LINEAR FEET)

1. Measurement: Measured in Linear Feet installed. Storm perforated underdrain pipe shall be measured along the centerline of the pipe as installed. Measurement shall include the full length of pipe between structures, fittings, or end treatments. Pipe fittings, couplings, and standard connections required to complete the system shall be considered incidental to the Linear Foot pay item unless specifically listed as a separate Bid Item. Payment per Linear Foot shall constitute full compensation for furnishing and installing complete pipe systems as shown on the Plans. No separate payment will be made for:
 - a. Fittings
 - b. Couplings
 - c. Bands
 - d. Joint materials
 - e. Minor alignment adjustments
 - f. All other incidentals for a complete installation
2. Payment: Includes all work described under Item 9 for 4-inch pipe.

K. ITEM 11 – AGGREGATE FOR BACKFILL (CUBIC YARDS)

1. Measurement: Measured in Cubic Yards of aggregate placed and accepted.
2. Payment: Includes furnishing, hauling, submitting weigh tickets to the Owner, placing, and compacting aggregate backfill material as noted on the plans or where unsuitable backfill is available.

L. ITEM 12 – ASPHALT BASE COURSE (TON)

1. Measurement: Measured by the Ton of asphalt base course placed and compacted to at least 110 lbs/square yard/inch and accepted.
2. Payment: Includes full compensation for:
 - a. Asphalt material
 - b. Tack coat (if required)
 - c. Placement and compaction



- d. Surface preparation
- e. Submitting weigh tickets to the Owner

M. ITEM 13 – ASPHALT WEARING COURSE (TON)

- 1. Measurement: Measured by the Ton of asphalt wearing course placed and compacted to at least 110 lbs/square yard/inch and accepted.
- 2. Payment: Includes full compensation for:
 - a. Asphalt surface mix
 - b. Placement and compaction
 - c. Finished surface grading
 - d. Cleanup and protection
 - e. Submitting weigh tickets to the Owner

END OF SECTION 01 20 00



SECTION 31 20 00 – EARTHWORK

1.0 PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes requirements for excavation, grading, fill placement, and compaction necessary to complete site improvements for the Finzel Park Improvement Project.
- B. Work includes, but is not limited to:
- C. Clearing and grubbing in areas of disturbance
- D. Excavation and embankment
- E. Rough and finish grading
- F. Placement of structural and common fill
- G. Subgrade preparation for pavements, walks, and drainage features
- H. Disposal of unsuitable materials
- I. Restoration of disturbed areas

1.02 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions, apply to this section.
- B. Contractor shall coordinate earthwork operations with erosion and sediment control measures, drainage installation, and paving operations.

1.03 SITE CONDITIONS

- A. Contractor shall visit the site prior to construction and verify existing conditions.
- B. No additional compensation will be provided for conditions that could have been reasonably observed prior to bidding.
- C. Contractor shall protect existing utilities, vegetation, park features, and adjacent property during earthwork operations.

1.04 CODES, STANDARDS, AND PERMITS

- A. All work shall comply with applicable federal, state, and local codes, ordinances, and regulations.
- B. Earthwork operations shall conform to:
- C. Garrett County Public Works Standards and Specifications
- D. Maryland Department of Transportation (MDOT SHA) requirements, where applicable
- E. Maryland Department of the Environment (MDE) requirements
- F. OSHA excavation safety standards

1.05 SUBMITTALS

- A. Contractor shall submit, if requested by the Engineer:
- B. Source and type of proposed fill material
- C. Compaction testing reports
- D. Proposed disposal location for unsuitable or excess material

2.0 PART 2 – PRODUCTS

2.06 FILL MATERIALS

- A. Fill material shall consist of clean soil, sand, or aggregate free of:
- B. Organic matter
- C. Trash, debris, or frozen material



- D. Rocks larger than 3 inches
- E. Unsuitable or unstable material
- F. Structural fill beneath pavements, walks, and structures shall be suitable for compaction and long-term stability.

2.07 AGGREGATE BACKFILL

- A. Aggregate for trench backfill or drainage applications shall be clean, durable stone meeting the gradation shown on the Plans or specified in related sections.

3.0 PART 3 – EXECUTION

A. CLEARING AND GRUBBING

- 1. Contractor shall clear and grub only within approved limits of disturbance.
- 2. Trees, vegetation, and park improvements designated to remain shall be protected from damage.

B. EXCAVATION

- 1. Excavation shall be performed to the lines and grades shown on the Plans.
- 2. Unsuitable materials encountered shall be removed and replaced with suitable fill as directed by the Engineer.
- 3. Excavation shall comply with OSHA trench safety requirements.

C. FILL PLACEMENT

- 1. Fill shall be placed in uniform lifts not exceeding 8 inches in loose thickness.
- 2. Each lift shall be compacted prior to placement of the next lift.
- 3. Fill shall not be placed on frozen ground or when excessively wet.

D. COMPACTION

- 1. Fill and subgrade materials shall be compacted to a firm, stable condition suitable for the intended use to 90 percent of maximum dry density unless otherwise directed.
- 2. Structural fill beneath pavements, walks, and structures shall be compacted to a minimum of 95 percent of maximum dry density unless otherwise directed.

E. GRADING

- 1. Rough grading shall establish the required subgrades for all site improvements.
- 2. Finish grading shall provide smooth, uniform surfaces and positive drainage.
- 3. Contractor shall prevent ponding and direct runoff to drainage structures as shown on the Plans.

F. PROTECTION AND RESTORATION

- 1. Contractor shall maintain erosion and sediment control measures throughout earthwork operations.
- 2. Disturbed areas shall be stabilized immediately following grading.
- 3. Final restoration shall include topsoil placement, seeding, and mulching in accordance with the Landscaping and Restoration section.

END OF SECTION 31 20 00



SECTION 31 23 33 – TRENCHING AND BACKFILL

1.0 PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes requirements for trench excavation, bedding, backfill, and compaction for storm drain piping, underdrains, and related structures shown on the Plans.
- B. Work includes, but is not limited to:
 - 1. Trench excavation
 - 2. Pipe bedding and haunching
 - 3. Aggregate or select backfill
 - 4. Compaction and restoration
 - 5. Protection of existing utilities

1.02 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract apply to this section.
- B. Contractor shall coordinate trenching operations with Section 33 40 00 – Storm Drainage Piping and Structures.

1.03 CODES, STANDARDS, AND PERMITS

- A. All trenching and backfill work shall comply with:
- B. OSHA excavation safety requirements
- C. Garrett County Standards and Specifications
- D. Maryland Department of the Environment (MDE) requirements where applicable

2.0 PART 2 – PRODUCTS

2.04 BEDDING MATERIAL

- A. Pipe bedding shall consist of clean, granular material free of debris, frozen material, and large stones.
- B. Bedding material shall provide uniform support along the full length of pipe.

2.05 BACKFILL MATERIAL

- A. Backfill shall consist of suitable excavated material or aggregate as shown on the Plans.
- B. Backfill shall be free of organic matter, trash, frozen soil, or stones larger than 3 inches.

2.06 AGGREGATE BACKFILL

- A. Where aggregate backfill is specified, material shall be clean, durable crushed stone meeting Garrett County or MDOT SHA gradation requirements.

3.0 PART 3 – EXECUTION

3.07 TRENCH EXCAVATION

- A. Trenches shall be excavated to the lines and grades shown on the Plans.
- B. Trench bottoms shall be firm and stable prior to pipe placement.
- C. Unsuitable material shall be removed and replaced with approved bedding.

3.08 BEDDING AND PIPE SUPPORT

- A. Pipe shall be installed on prepared bedding and haunched properly to prevent settlement or displacement.
- B. Bedding shall be placed and compacted carefully around pipe.



3.09 BACKFILL AND COMPACTION

- A. Backfill shall be placed in uniform lifts not exceeding 8 inches and compacted prior to placement of additional lifts.
- B. Backfill shall be compacted to a stable condition suitable for the intended surface use and to a minimum 90 percent maximum dry density unless otherwise directed.
- C. Backfill beneath paved areas shall be compacted to a minimum of 95 percent maximum dry density unless otherwise directed.

3.10 RESTORATION

- A. Trenched areas shall be restored to finished grade and stabilized immediately following installation.

END OF SECTION 31 23 33



SECTION 31 25 00 – EROSION AND SEDIMENT CONTROL

1.0 PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes requirements for temporary and permanent erosion and sediment control measures for the Finzel Park Improvement Project.
- B. Work includes, but is not limited to:
 - 1. Installation of perimeter controls
 - 2. Stabilized construction entrances
 - 3. Sediment traps and outlet structures
 - 4. Inlet protection
 - 5. Temporary and permanent stabilization
 - 6. Maintenance and removal of controls
- C. All erosion and sediment control measures shall be installed in accordance with the approved Erosion and Sediment Control Plans.

1.02 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions, apply to this section.
- B. Contractor shall coordinate erosion and sediment control measures with earthwork, drainage, and paving operations.

1.03 CODES, STANDARDS, AND PERMITS

- A. All erosion and sediment control work shall comply with:
- B. 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control
- C. Garrett County Soil Conservation District requirements
- D. Applicable Garrett County Ordinances
- E. Maryland Department of the Environment (MDE) requirements
- F. The approved Erosion and Sediment Control Plan shall be maintained on-site at all times.

1.04 EROSION AND SEDIMENT CONTROL MEASURES

- A. Temporary erosion and sediment control measures shall be installed prior to any earth disturbance and maintained throughout the duration of construction.
- B. The Contractor shall provide, at a minimum, the following controls as shown on the Plans:
 - 1. Stabilized Construction Entrances (SCE – Detail B-1)
 - 2. Silt Fence (SF – Detail E-1)
 - 3. Diversion Fence Perimeter Controls (DF – Detail C-9)
 - 4. Plunge Pool (PP – Detail D-4-2)
 - 5. Sediment Trap I – Stone/Riprap Outlet Sediment Trap (ST-II – Detail G-1-2)
 - 6. Temporary Stone Outlet Structure (TSOS – Detail E-7)
 - 7. Temporary Soil Stabilization Matting Channel (TSSMC – Detail B-4-6-C) during swale grading operations
 - 8. Temporary Soil Stabilization Matting Slope (TSSMS – Detail B-4-6-D) during slope grading operations
 - 9. Stockpile Area Controls (B-4-8 Standards and Specifications)



- 10. Same Day Stabilization for Storm Drainage Installations
- 11. Standard Inlet Protection Type B (SIP – Detail E-9-1)

1.05 ADDITIONAL EROSION AND SEDIMENT CONTROL REQUIREMENTS

- A. The erosion and sediment control measures shown on the Plans represent the minimum requirements for this project.
- B. The Contractor shall be solely responsible for providing any additional controls necessary to prevent sediment from leaving the project limits or entering adjacent properties, roadways, waterways, or storm drainage systems.
- C. If, in the opinion of the Engineer, Garrett County, or the Maryland Department of the Environment, additional measures are required due to field conditions, weather events, or construction sequencing, the Contractor shall install such measures immediately at no additional cost to the Owner.
- D. Failure to implement required controls may result in work stoppage until corrective actions are completed and approved.

2.0 PART 2 – PRODUCTS

- 2.06 Erosion and sediment control materials shall conform to the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- 2.07 Materials shall be new, free from defects, and installed in accordance with approved details.
- 2.08 Stone for construction entrances and sediment traps shall be clean, durable aggregate of the size specified in the approved plans.
- 2.09 Geotextile fabric shall meet Maryland Standards for erosion control applications.

3.0 PART 3 – EXECUTION

3.10 INSTALLATION

- A. Erosion and sediment control measures shall be installed prior to any clearing, grading, or excavation.
- B. Controls shall be installed in accordance with the approved details and Maryland Standards.
- C. No earth disturbance shall occur until perimeter controls are in place.

3.11 INSPECTION AND MAINTENANCE

- A. The Contractor shall inspect erosion and sediment control measures regularly and after each rainfall event.
- B. Damaged, undermined, or ineffective controls shall be repaired or replaced immediately.
- C. Sediment shall be removed from traps, inlets, and other control measures when accumulation reaches one-half of the design capacity or as directed by the Engineer.

3.12 REMOVAL

- A. Temporary erosion and sediment control measures shall remain in place until final stabilization is achieved.
- B. Controls shall not be removed without approval from the Engineer or applicable regulatory authority.
- C. Disturbed areas resulting from removal shall be stabilized immediately.

END OF SECTION 31 25 00



SECTION 32 05 23 – RIPRAP OUTLET PROTECTION

1.0 PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes requirements for furnishing and installing riprap stone and scour protection at storm drain outlets, flared end sections, and other locations shown on the Plans.
- B. Work includes:
 - 1. Riprap placement
 - 2. Filter fabric installation
 - 3. Inlet and Outlet stabilization and erosion protection

1.02 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract apply to this section.
- B. Riprap outlet protection shall be coordinated with Section 33 40 00 – Storm Drainage Piping and Structures.

1.03 CODES, STANDARDS, AND PERMITS

- A. Riprap work shall conform to:
- B. Maryland Department of the Environment (MDE) requirements
- C. MDOT SHA Standards
- D. Garrett County requirements

2.0 PART 2 – PRODUCTS

2.04 RIPRAP STONE

- A. Riprap shall consist of clean, durable, angular stone free of dirt, shale, or other unsuitable material.
- B. Stone size shall be as shown on the Plans or as required for outlet protection.

2.05 FILTER FABRIC

- A. Geotextile filter fabric shall be provided beneath riprap where shown or required to prevent soil migration.

2.06 Fabric shall meet Maryland Standards for erosion control applications.

3.0 PART 3 – EXECUTION

3.07 SUBGRADE PREPARATION

- A. Areas receiving riprap shall be excavated and shaped to the lines and grades shown on the Plans.

3.08 FILTER FABRIC INSTALLATION

- A. Filter fabric shall be placed beneath riprap with overlaps sufficient to prevent separation or displacement.

3.09 RIPRAP PLACEMENT

- A. Riprap shall be placed to the thickness and extent shown on the Plans.
- B. Stone shall be placed to form a stable, well-keyed blanket providing effective erosion protection.
- C. Voids shall not be filled with soil or fine material.

3.10 FINAL STABILIZATION



- 3.11 Riprap outlets shall be left in a neat and stable condition to prevent scour, erosion, or undermining.

END OF SECTION 32 05 23



SECTION 32 11 23 – AGGREGATE BASE COURSE

1.0 PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes requirements for furnishing and installing aggregate base course beneath asphalt walking paths and other paved areas shown on the Plans.
- B. Work includes:
 - 1. Subgrade preparation
 - 2. Placement of aggregate base
 - 3. Compaction and grading
 - 4. Proof-rolling as required

1.02 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract apply to this section.
- B. Aggregate base course shall be coordinated with Section 32 12 16 – Asphalt Paving and Section 32 17 23 – Walking Path Construction.

1.03 CODES, STANDARDS, AND PERMITS

- A. Aggregate base shall conform to:
- B. MDOT SHA Standard Specifications
- C. AASHTO and ASTM standards
- D. Garrett County requirements

2.0 PART 2 – PRODUCTS

2.04 AGGREGATE BASE MATERIAL

- A. Aggregate base shall consist of crushed stone or gravel, clean, durable, and well graded.
- B. Material shall be free of clay lumps, organic matter, and debris.
- C. Gradation shall meet MDOT SHA requirements for aggregate base course unless otherwise shown on the Plans.

3.0 PART 3 – EXECUTION

3.05 SUBGRADE PREPARATION

- A. Subgrade shall be shaped, graded, and compacted prior to placing aggregate base.
- B. Soft or unsuitable areas shall be corrected before proceeding.

3.06 PLACEMENT

- A. Aggregate base shall be placed in uniform lifts and spread evenly.
- B. Material shall be placed to the thickness shown on the Plans.

3.07 COMPACTION

- A. Aggregate base shall be compacted with appropriate rollers to provide a firm, stable surface.
Finished base shall be smooth, dense, and capable of supporting asphalt paving operations.

3.08 FINISH TOLERANCES

- A. Aggregate base shall be graded to proper line, grade, and cross slope to provide positive drainage.

END OF SECTION 32 11 23



SECTION 32 12 16 – ASPHALT PAVING

1.0 PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes requirements for furnishing and installing asphalt base course and asphalt wearing course for walking paths and other paved areas shown on the Plans.
- B. Work includes, but is not limited to:
 - 1. Preparation of subgrade
 - 2. Placement of asphalt base course
 - 3. Placement of asphalt wearing course
 - 4. Compaction and surface finishing

1.02 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract apply to this section.
- B. Contractor shall coordinate paving operations with earthwork and drainage installation.

1.03 CODES, STANDARDS, AND PERMITS

- A. Asphalt paving shall conform to:
 - 1. Maryland Department of Transportation (MDOT SHA) Specifications
 - 2. AASHTO Standards
 - 3. ASTM Standards
 - 4. Garrett County requirements, where applicable

1.04 SUBMITTALS

- A. Contractor shall provide asphalt mix design and material certifications upon request.

2.0 PART 2 – PRODUCTS

2.05 ASPHALT BASE COURSE

- A. Asphalt base course shall conform to MDOT SHA specifications for hot mix asphalt base.
- B. Material shall be delivered at proper temperature and placed in accordance with approved practices.

2.06 ASPHALT WEARING COURSE

- A. Asphalt wearing course shall conform to MDOT SHA specifications for surface mix.
- B. Material shall provide a smooth, uniform, and durable finished surface.

2.07 TACK COAT

- A. Tack coat shall be applied between lifts where required to ensure proper bond.

3.0 PART 3 – EXECUTION

3.08 SUBGRADE PREPARATION

- A. Subgrade shall be graded, shaped, and compacted prior to asphalt placement.
- B. Unsuitable or soft areas shall be corrected before paving operations begin.

3.09 PLACEMENT

- A. Asphalt shall be placed at proper temperature and spread uniformly.
- B. Base course shall be placed to the thickness shown on the Plans and compacted.
- C. Wearing course shall be placed after base course has been properly compacted and approved.

3.10 COMPACTION



- A. Asphalt shall be compacted using appropriate rollers to achieve a dense, uniform surface.
- B. Surface shall be smooth and free of segregation, ruts, or depressions.

3.11 PROTECTION

- A. Newly placed asphalt shall be protected from traffic until adequately cooled and stable.

END OF SECTION 32 12 16



SECTION 32 84 00 – TURF AND SEEDING

1.0 PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes requirements for topsoil placement, seeding, mulching, and establishment of turf in disturbed areas and athletic field areas.
- B. Work includes:
 - 1. Final grading
 - 2. Topsoil placement
 - 3. Seeding
 - 4. Mulching
 - 5. Watering and maintenance

1.02 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract apply to this section.
- B. Seeding operations shall be coordinated with earthwork and erosion control requirements.

1.03 CODES AND STANDARDS

- A. Seeding and stabilization shall comply with:
- B. 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control
- C. Garrett County requirements

2.0 PART 2 – PRODUCTS

A. TOPSOIL

- 1. Topsoil shall be fertile, friable, and free of stones, debris, and organic waste.

B. SEED

- 1. Seed mix shall be suitable for athletic field and park applications.
- 2. Seed shall be certified and free of noxious weeds and in accordance with the seeding specifications and seeding tables (temporary and permanent) shown in the Plans.

C. MULCH

- 1. Mulch shall in accordance with specifications shown in the Plans.

3.0 PART 3 – EXECUTION

A. PREPARATION

- 1. Areas to be seeded shall be fine graded and free of debris.
- 2. Topsoil shall be placed to the depth shown on the Plans and in accordance with the preparation specifications shown on the Plans.

B. SEEDING

- 1. Seed shall be applied at in accordance with the application specifications and seeding tables (temporary and permanent) shown in the Plans.
- 2. Mulch shall be applied immediately following seeding.

C. MAINTENANCE

- 1. Contractor shall maintain seeded areas until a uniform stand of grass is established. Cost of irrigation to promote growth if required is incidental to the work and at no additional cost.
- 2. Areas that fail to establish shall be reseeded at no additional cost.

END OF SECTION 32 84 00



SECTION 32 17 23 – WALKING PATH CONSTRUCTION

1.0 PART 1 – GENERAL

1.01 SUMMARY

- A. This section includes requirements for construction of walking paths as shown on the Plans.
- B. Work includes:
 - 1. Subgrade preparation
 - 2. Aggregate base installation
 - 3. Asphalt paving
 - 4. Finish grading along edges

1.02 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract apply to this section.
- B. Walking path construction shall be coordinated with drainage installation and erosion control.

1.03 CODES AND STANDARDS

- A. Construction shall conform to:
 - 1. MDOT SHA Specifications
 - 2. ADA Accessibility Guidelines
 - 3. Garrett County requirements

2.0 PART 2 – PRODUCTS

2.04 AGGREGATE BASE

- A. Aggregate base shall consist of compacted crushed stone suitable for paved path applications.
- B. Material shall be clean, durable, and well graded.

2.05 ASPHALT SURFACE

- A. Asphalt surface shall conform to Section 32 12 16 – Asphalt Paving.

3.0 PART 3 – EXECUTION

3.06 SUBGRADE

- A. Subgrade shall be graded and compacted to provide stable support.
- B. Soft areas shall be removed and replaced with suitable material.

3.07 BASE INSTALLATION

- A. Aggregate base shall be placed in uniform lifts and compacted.
- B. Finished base shall provide proper cross slope for drainage.

3.08 ASPHALT INSTALLATION

- A. Asphalt shall be placed in accordance with Section 32 12 16.
- B. Finished path shall be smooth, properly sloped, and free of irregularities.

3.09 EDGE RESTORATION

- A. Adjacent disturbed areas shall be restored and stabilized following path construction.

END OF SECTION 32 17 23



SECTION 33 40 00 – STORM DRAINAGE PIPING AND STRUCTURES

1.0 PART 1 – GENERAL

1.01 SUMMARY

1.02 This section includes requirements for furnishing and installing storm drainage piping, drainage structures, grates, and appurtenances as shown on the Plans.

1.03 Work includes, but is not limited to:

- A. Storm drain piping
- B. ADS Nyloplast drain basins with grates
- C. Flared end sections
- D. Perforated underdrain piping
- E. Bedding, backfill, and installation accessories
- F. Storm drain inlet heights, inverts, and grate elevations shall be in accordance with the Storm Drain Profiles and Inlet Schedule.

1.04 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions, apply to this section.
- B. Contractor shall coordinate installation with all related sitework, grading, and paving operations.

1.05 CODES, STANDARDS, AND PERMITS

- A. All work shall comply with applicable federal, state, and local codes, ordinances, and regulations.
- B. Applicable standards may include:
 - 1. ASTM D2321 – Installation of Thermoplastic Pipe
 - 2. ASTM F667 – Corrugated Polyethylene Pipe
 - 3. Maryland Department of the Environment (MDE) drainage requirements

1.06 SUBMITTALS

- A. Contractor shall submit product data and manufacturer specifications for the following:
 - 1. ADS N-12 storm drainage pipe
 - 2. ADS Nyloplast 18-inch drain basins
 - 3. Grates and load ratings
 - 4. ADS heavy duty perforated drain pipe
 - 5. ADS flared end sections

2.0 PART 2 – PRODUCTS

2.07 STORM DRAINPIPE

- A. Storm drainage pipe shall be ADS N-12 Corrugated HDPE Pipe meeting applicable ASTM standards.
- B. Pipe size and type shall be as shown on the Plans.
- C. Joints shall be watertight unless otherwise indicated.

2.08 DRAINAGE STRUCTURES

- A. Provide ADS Nyloplast 18-inch Drain Basins complete with frames and grates.
- B. Structures shall be installed as shown on the Plans and Storm Drain Profiles.

2.09 GRATES AND LOAD RATINGS

- A. Grates shall be provided in accordance with the Storm Drain Inlet Schedule.
- B. Provide the following classifications:
 - 1. Pedestrian Grates, H-10 Rated:



- a. SD-1
- b. SD-2
- c. SD-3
- 2. Standard Grates, H-20 Rated:
 - a. SD-5
 - b. SD-6
- C. Grates shall be corrosion-resistant and set flush with finished surfaces.

2.10 FLARED END SECTION

- A. Provide ADS 12-inch Flared End Section at:
 - 1. SD-4
 - 2. Grate is not required.

2.11 UNDERDRAIN PIPE

- A. Provide ADS Heavy Duty Single Wall Perforated Drainpipe where shown on the Plans.
- B. Pipe shall be installed with proper aggregate bedding and filter fabric wrap where indicated.

3.0 PART 3 – EXECUTION

3.12 INSTALLATION

- A. Contractor shall verify trench alignment, grade, and subgrade conditions prior to ordering materials and installation.
- B. Install storm drainage pipe in accordance with ASTM standards and manufacturer recommendations.
- C. Provide proper bedding and backfill to prevent settlement.
- D. Drainage structures shall be set plumb and flush with finished grade.
- E. Grate load ratings shall match the Storm Drain Inlet Schedule. Substitution is not permitted without Engineer approval.
- F. Underdrains shall be installed with perforations oriented downward unless otherwise recommended.

3.13 FIELD QUALITY CONTROL

- A. Contractor shall verify alignment, grade, and connections prior to backfilling.
- B. Damaged or defective materials shall be replaced at Contractor expense.

END OF SECTION 33 40 00

