

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes but is not limited to the implementation and maintenance of a comprehensive erosion control plan that complies with the City of Burien Clearing and Grading regulations. The contractor is responsible for implementing Best Management Practices (BMP's) in accordance with City of Burien requirements. The information provided on the contract plans should be considered a minimum for the anticipated construction and conditions. The contractor shall be responsible for adding additional BMP's as conditions change at no additional cost to the Owner as required by the City Inspector or the Architect if warranted by site stability. The Contractor shall coordinate installation and inspections of the BMP's with the City of Burien Clearing and Grading Inspector. Additional BMP's shall be stockpiled on site as requested by the Clearing and Grading Inspector.
- B. This Section includes the following:
 - 1. Silt Control Measures
 - 2. Temporary Stormwater Runoff Control
 - 3. Measures to keep streets clean
 - 4. P.E. sheeting cover for exposed soil
 - 5. Maintaining, monitoring, and supplementing silt control, storm water runoff control measures and additional BMP's as required by the City of Burien.
 - 6. Leave behind conditions for site following demolition.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Section 02400 "Site Preparation and Demolition"

1.3 REFERENCES

- A. This Section incorporates by reference the latest revisions of the following documents. They are part of this section insofar as specified and modified herein. The Contractor shall have one copy of the each of the following documents at the job site. The bidder in submitting a bid acknowledges that he is familiar with the documents named in References and that they are incorporated into this document by reference. The Standard Plans and Policies apply only to performance and materials and how they are to be incorporated into the work. The legal/contractual relationship sections and the measurements and payment sections do not apply to this document.
 - 1. King County: 2005 Surface Water Design Manual (KCSWDM)
 - 2. Washington State Department of Transportation (WSDOT):
 - a. 2006 Standard Specifications for Road, Bridge, and Municipal Construction.
 - b. Standard Plans for Road, Bridge, and Municipal Construction, Current Edition
 - 3. Geotechnical Report: Burien Town Square – Private Development prepared by AMEC Earth & Environmental, Inc. dated April 6, 2006.

1.4 SUBMITTALS

- A. Product Submittals: Product catalog cuts for silt fence, and silt sac inserts. Aggregate Materials: Coarse aggregate (quarry spalls) for gravel construction entrance or site stabilization.

1.5 REGULATORY REQUIREMENTS

- A. Work to comply with City of Burien standards. The Contractor shall coordinate with the City of Burien Clearing and Grading Inspector.
- B. The Contractor is responsible for providing all information required by the NPDES Permit for construction, including but not limited to turbidity log as required and SWPPP (updated to reflect construction progress/phasing).

1.6 SEQUENCING AND SCHEDULING

- A. Install erosion control measures in work areas prior to any clearing, grubbing, demolition, general site grading, or other construction in the area. Erosion control items shall be installed and removed at various times through out the duration of the project.

1.7 MAINTENANCE

- A. Maintain erosion control through the duration of the project.
- B. Maintain erosion control until after substantial completion per this Section and as approved by the City Inspector and the Architect.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Filter Fabric Fence: In accordance with Standard Specifications Section 9-33 of WSDOT/APWA, Permanent Erosion Control, High Serviceability, Class B.
- B. Straw Mulching: In accordance with WSDOT Standard Specifications Section 9-14.4(1)
- C. Filter Fabric: Mirafi 140N or equal.
- D. Filter Bag Inserts: Commercially manufactured filter bags specifically manufactured for silt filtering and which will provide filtering performance required. Filter bags shall be equipped with high flow bypass and shall be in accordance with City of Burien standards.
- E. Polyethylene (PE) Sheeting: Per Section 9-14.5(3) of WSDOT Standard Specifications.
- F. Quarry spalls: Per Section 9-13.6 of WSDOT Standard Specifications.
- G. Crushed Surfacing Base Course: Per Section 9-03.9(3) of WSDOT Standard Specifications.
- H. Gravel Borrow: Per Section 9-03.14(1) of WSDOT Standard Specifications.
- I. Asphalt Paving: Per WSDOT Standard Specifications for Class B ACP.

PART 3 - EXECUTION

3.1 GENERAL

- A. The implementation of the Erosion Control system and the maintenance, replacement and upgrading of these facilities is the responsibility of the Contractor until all construction is approved. The Temporary Erosion and Sediment Control (TESC) facilities must be maintained in conjunction with all clearing and grading activities, and in such a manner as to ensure that sediment laden water does not enter the drainage system or violate applicable water standards in accordance with City of Burien requirements and the contract documents..
- B. The TESC facilities shown on the plans are the minimum requirements for anticipated site conditions. During the construction period, the erosion control facilities installed may require maintenance, relocation or upgrading (e.g. additional sumps, relocation of ditches and silt fences, etc.) as shown on the plans or as needed. Contractor shall pay for all costs associated with the construction, maintenance, upgrading and removal of the erosion control system throughout project duration.
- C. Adequate temporary and permanent control of surface water runoff and subsurface seepage will be required in order to allow site access, grading, and construction of underground utilities to proceed. Site preparation and initial construction activities should be planned to minimize disturbance to the existing ground surface particularly during extended wet weather periods when the presence of excess moisture will render the site soils more prone to disturbance. During wet site conditions, equipment traffic should not be allowed on exposed sub grade areas. Erosion of the soil will occur as exposed surfaces are disturbed due to construction activity and exposure to climatic conditions. The Contractor shall be responsible for protecting disturbed or prepared surfaces by some form of weather cover if left exposed for more than 2 days or if wet weather is forecasted. Contractor shall also protect disturbed or prepared surfaces from surface ponding, storm water runoff, and construction traffic. The Contractor will be solely responsible for any repairs required to these surfaces at no additional cost to the owner.
- D. Access Streets and Roadways: Provide wheel cleaning stations to clean wheels and undercarriage of trucks before leaving site, as necessary to prevent dirt from being carried onto public streets. If streets are fouled, clean immediately in conformance with City of Burien and all governing requirements and regulations.
- E. Provide a dedicated concrete wash out collection area for the rinsing of mixer trucks. This water is to be removed from the site and not discharged onto the ground, into the storm drainage system or the sanitary sewer system.

3.2 EXAMINATION

- A. Verify locations of existing catch basins and related storm drainage features that may be impacted by construction activities.
- B. Record Drawing information indicates an existing storm drain line running beneath the south "courtyard" portion of the existing building, as shown on the documents. Contractor is to locate this line and protect it throughout building demolition, providing pot-holing if necessary to ensure continued operation of the line.

3.3 PREPARATION

- A. Locate existing utilities, avoid damage or disturbance. For aid in utility location call "Dial a Dig 1-800-424-5555, 48 hours (two working days) prior to beginning construction. Provide and pay for additional marking as required.
- B. Survey limits of work to install silt fence.

- C. Perform clearing or other work required to installing erosion control.

3.4 CONSTRUCTION

- A. Filter Fabric Fence:
 - 1. Field adjust location to perimeter of clearing and stripping. Location shown on drawings is schematic.
 - 2. Cast all trench excavation soils from fence installation to the Construction side of fence.
 - 3. Overlap filter fabric fence joints minimum 1 foot prior to backfilling trench.
- B. Polyethylene Sheeting:
 - 1. Overlap joints minimum 28 inches. Overlap in direction of drainage and prevent water from draining onto material being protected.
 - 2. Secure in place to prevent movement and damage.
 - 3. Provide sandbags at 2.5 feet spacing and tie the sand bags together with rope on slopes greater than 3:1. Minimize driving stakes through plastic.
- C. Filter Bag Inserts:
 - 1. Install on all new and existing catch basins within project limits, or downstream of project subject to possible sedimentation.
 - 2. Install per manufacturer's recommendations, City of Burien requirements and as shown in the documents.
- D. Quarry Spalls:
 - 1. Install as necessary for site stabilization during construction in heavy traffic areas.
 - 2. Install in minimum thickness of 8 inches and as indicated in the documents.
- E. Crushed Surfacing:
 - 1. Install as shown in the documents and as base course for required pavement restoration.
- F. Gravel Borrow:
 - 1. Install as necessary to achieve finish sub-grade below 6 inch finish crushed surfacing or base course. Compact to 95% minimum compaction in maximum of 12-inch lifts.
- G. Mulch
 - 1. Mulch exposed soils not protected by other means. Provide continuous covering minimum depth 4 inches. Apply mulch with tackifier to prevent blowing. Mulch is not to be used as permanent cover method.

3.5 ADJUSTMENTS AND REVISIONS

- A. Adjust or move TESC measures as necessary during construction to accommodate site work.

3.6 LEAVE BEHIND CONDITION

- A. Following the completion of site demolition, grade all areas of disturbance to the elevations shown in the documents and cap with crushed surfacing as indicated.
- B. Provide temporary pavement and sidewalk patching as indicated on the documents. All pavement and concrete work is to comply with WSDOT Standard Specifications and to be coordinated with City of Burien Inspectors.

3.7 PROTECTION AND MAINTENANCE

A. Protection

1. Where possible, maintain natural vegetation for additional silt control in addition to the measures indicated in the documents.
2. Prevent silt-laden water from leaving site or from entering off-site storm sewer systems.
3. All slopes, cut, or fill areas where work has stopped for more than 30 days in dry season or more than 2 days in wet season shall be stabilized by mulching, polyethylene sheeting or other method to prevent erosion and sediment transport.
4. Keep all off-site parking areas and streets clean from construction activities. Paved surfaces shall be kept clean by the use of vacuum and sweeping equipment, hand shovels and brooms or other accepted methods suitable of removing dirt, rock, silt and sand. No street washing will be allowed.

B. Supplementary measures:

1. Provide additional silt control and temporary erosion control measures as required to protect soils and prevent silt laden runoff from leaving project site at no additional cost to the Owner.

C. Maintenance:

1. Monitor and maintain silt control measures. Remove accumulations of sediment when more than 50 percent of silt storage capacity is filled.
2. Maintain all temporary erosion control facilities until need for each facility has been superseded by other stabilization methods or until Engineer authorizes removal.
3. Inspect and repair temporary erosion control facilities. Inspect entire system to ensure proper operation a minimum of once per week, before forecasted storms, during and after storms, and prior to weekends and holidays.
4. Remove all temporary measures following approval to do so from the City of Burien Inspector.

END OF SECTION