

PART 1 GENERAL

1.1 SCOPE:

- A. This Section identifies requirements for erosion prevention and sediment control. The emphasis of this Section is to prevent and reduce adverse impacts to the drainage system in the City Of Woodburn, OR.
- B. The Contractor shall inform himself of any and all state, county or federal regulations in this matter and ensure he is in compliance.

1.2 EXISTING VEGETATION:

- A. The Contractor shall as far as is practicable, protect and leave in place the existing vegetation. Strict adherence to the limits of the approved Erosion Prevention Control Plan and as flagged in the field is required.
- B. Where existing vegetation has been removed, new vegetation shall be established as soon as is practicable.

PART 2 MATERIALS

2.1 CHECK DAMS:

- A. SAND BAGS may be used for check dams when constructed of clean, washed sand and placed in bags, which will contain 100-percent of the fill sand. Bags shall be 24 x 12 x 6-inch and made of weather resistant tightly woven Geotextile fabric. Filled bags shall not weigh less than 75-lbs each.
- B. ROCK – Shall be well-graded gravel or crushed rock, 2-inch max. diameter and less than 5-percent fines reasonably free of all organic material. Rock shall be graded so as to allow for maximum permeability while slowing water to allow for particle settlement.
- C. PREFABRICATED SYSTEM – A manufactured system specifically designed to, settle out suspended particles, slow water and is approved by the Engineer. Field fabricated systems are not allowed.
- D. BIO-FILTER BAGS – Bio-filter bags shall be clean 100-percent recycled wood product waste. Standard size 10 x 8 x 30-inches, weight approximately 45-lbs, with ½-inch plastic netting. Provide (2)-1 x 2-inch fir or pine stakes per bag.

2.2 SEDIMENT FENCE:

- A. FABRIC FENCE - Standard or heavy-duty sediment fence, woven filter fabric having a manufactured stitch, only, shall be allowed. Woven filter fabric shall meet the requirements for, Type 2, Drainage Geotextile in Section 2200 (2.4)(Table A-1).
- B. FENCE POSTS - Barrier post shall be (2 x 2)-inches x 4-foot fir, pine or steel fence posts.

2.3 TEMPORARY/PERMENANT SEEDING:

- A. Contractor shall supply a standard grass and/or legume seed mix for erosion control purpose specific to this type of application and region, as follows, or equal.
1. Dwarf Grass Mix:
Dwarf Perennial Ryegrass, 80% by wt.
Creeping Red Fescue, 20% by wt.
Application rate: 100 lbs min. per acre
 2. Standard Height Grass Mix:
Annual Ryegrass, 40% by wt.
Turf-type Fescue, 60% by wt.
Application rate: 100 lbs min. per acre
- B. Seed supplied shall be by Pure Live Seed (PLS) weight and certified as outlined in the OSU Extension Certified Seed Handbook (latest revision). Certification ticket or bag label shall have the following information on it to be accepted at the site.
1. Origin
 2. Kind and varieties of 3% or more by weight.
 3. Percent of germination.
 4. Percent of pure seed – free of dirt, dust, chaff, straw, empty kernels, weeds, other crops and/or etc.
 5. Percent of other crop – seed other than as labeled.
 6. Percent inert matter – by wt.
 7. Percent weed seed – legally defined weed seed, by wt.
 8. Percent noxious weed seed – legally defined noxious by wt.
 9. Percent hard seed – percent not germinated by end of test period.
 10. Test date – month/year.
 11. Name and address of labeler.
 12. Name and number per pound of restricted noxious weed seeds present.
 13. Lot weight.
- C. Lots showing Oregon prohibited weeds are not approved.

PART 3 EXECUTION**3.1 GENERAL:**

- A. Inspect all erosion control measures once weekly on active sites, bi-weekly on inactive sites, and immediately following a rain event with rainfall greater then 0.5-inches.

3.2 CHECK DAMS:

- A. Construct check dams in accordance with the Plans and details provided herein.
- B. Overlap check dams on the downstream side of flow.

- C. Never allow sediment to accumulate more than 1/3 of the check dam height.
- D. Sand bags shall NOT be staked.
- E. Replace/repair damaged check dams as soon as damage is observed.

3.3 SEDIMENT FENCE:

- A. Shall be installed 3-feet minimum, measured horizontally, from the toe of slope.
- B. Place support posts a maximum of 6-feet apart and drive at least 12-inches, into the ground.
- C. Sediment shall not accumulate more than 1.5-feet behind fence.
- D. Bury fabric 6-inches below grade in a trench along support post line.

3.4 TEMPORARY/PERMANENT SEEDING:

- A. Seeding shall be placed prior to September 1.
- B. Apply seed immediately after seedbed preparation has been completed.
- C. Roughen soil by harrowing, tracking, grooving or furrowing.
- D. Seedbed shall be firm but not compacted and the top 6-inches shall be loose, moist and free of large clods and stones.
- E. Harrowing, tracking or furrowing shall be done parallel to contours across the face of the slope.
- F. Apply seed using calibrated seed spreaders to ensure uniform and specified rate.
- G. When seed and mulch are applied concurrently, double the application rate of the seed.
- H. Apply mulch to slopes of 3:1 or flatter when soils are highly erodible or grass growth is expected to be slow.

3.5 SURFACE ROUGHING:

- A. All slopes 3:1 or flatter shall be roughened by mechanical means.
- B. Track cleats/grousers shall be 1.5-inches in height or greater.
- C. Tracking shall be accomplished by driving equipment up and down the slope to create horizontal depressions or grooves.

3.6 HYDROSEEDING:

- A. Seed, fertilizer, mulch, tackifier, soil amendments, bond fiber matrix, and chemical stabilization can be applied in a one step procedure.

- B. Apply wood or cellulose fiber mulch, dyed green, without growth inhibiting factors, at a rate of 2,000 lbs/acre with a hydromulcher.
- C. Apply Bonded Fiber Matrix (BFM) on slopes up to 1:1 at a rate of 3,000 to 4,000 lbs/acre, depending upon soil type and irregularities.
- D. Re-tack and re-seed areas damaged by runoff or other detrimental attack.

3.7 DEWATERING:

- A. Dewatering shall conform to Article H.6 as outlined in the General Conditions of the City of Woodburn, OR.

3.8 GROUND COVER (MULCH):

- A. Apply mulch to newly seeded areas.
- B. Divert any concentrations of runoff from mulched areas.
- C. Mulch shall be applied at normal BMP rates and conditions for the soil type, terrain and seed used for this region and as defined by DEQ.

3.9 MEASUREMENT AND PAYMENT:

- A. Erosion control measures shall be paid for at the unit price as outlined in the proposal and for the work accomplished and measured in the field.
- B. Silt fence, hydro-seeding, seeding, and/or mulching may be separate bid items and shall be paid for at the unit price as outlined in the proposal for the work accomplished and measured to the nearest 0.1 units in the field.

3.13 SUBMITTALS:

- A. Submit the following along with submittals required in appendix "A";
 1. Manufacturer's data for grass seed.
 2. Manufacturer's data for Hydro-seed
 3. Manufacturer's data for mulch.
 4. Manufacturer's data for sediment fence materials.
 5. Manufacturer's data for check dam materials.
 6. Dewatering Plan with copy of permit issued by permitting agency.

PART 4 TESTING

4.1 GENERAL:

- A. The Engineer shall have access to any material for independent testing for conformance to these Specifications and DEQ BMPs.

- B. Contractor shall supply to the Engineer all test conformance data available from the manufacturer upon request.

END OF SECTION