Portland Golf Club Brush Trimming (Nov. 2024)
for Sediment Bag Placement Area and Staging Area

Portland Golf Club (PGC) is preparing for a pond dredging project in Spring 2025, which involves placement of sediment bags on upland west of a wetland swale (aka Wetland A). The dredging project also involves creating a staging area southeast of the Wetland A. This wetland is located in extreme southern edge of their property and it is bordered by golf course to the north, residential housing/pedestrian trail to the south, and vacant land to the east and west. See attached exhibits. The dredging work is regulated by U.S. Army Corps of Engineers (Corps) and Oregon Department of State Lands (DSL) and currently under review. The areas needed for sediment bag placement and staging are currently overgrown old fields that now support a mixture of red hawthorn, paper birch, hazelnut, cherry, apple, and Himalayan blackberry. PGC seeks to trimming brush (<6 in. diameter) and dead trees in preparation of the sediment bag placement. There are several photographs at the end of this narrative that show existing conditions of the brush trimming areas, as well as the adjacent vegetated corridors, Wetland A and a former railroad ditch that intercepts Wetland A.

While the subject area has access from S.W. 83rd Avenue, PGC will conduct the brush trimming areas via Fairway 15 to avoid interrupting bike and pedestrian use on Fanno Creek Trail. There is a narrow upland corridor that connects the east and west sides of Wetland A. For installation of fence fabric, this corridor was cleared of the understory vegetation (species previously mentioned), but large trees were not removed. Such clearing was surgical and did not scarify the ground – the vegetation was shredded (mulched) in place (see Photo 6). The brush trimming for the fence fabric installation was inspected by Lindsey Obermiller of CWS on August 23, 2024 with wetland consultant Phil Scoles. It was mentioned in that site meeting that vegetated corridor (VG) enhancements surrounding Wetland A would be needed as a component of the dredge project. PGC will be coordinating with Ms. Obermiller on such matters (a request separate from this erosion control matter).

Two areas are proposed for brush trimming – a staging area southeast of Wetland A and sediment bag placement area west of Wetland A. Both areas are situated outside of the 50-foot CWS vegetated corridor. The trimming activity will first cut down non-native (and invasive) brush (less than 6-inch diameter volunteer red hawthorn and cherry) and dead trees. Chainsaws and similar hand equipment will be used for cutting stems just above ground surface (hence leaving roots and soils intact). The cut material will be hand-placed in portable shredders, which will distribute wood chips across a broad area. The wood chips will be most 2 inches diameter and smaller, so it would form a mulch layer atop the soil surface. As such, erosion control measures are anticipated to minimal due to lack of ground disturbance.

Contingency Erosion Controls

While the brush trimming will be approximately 1.64 acres, the trimming activity is not expected to expose bare ground. In the event that repeated foot traffic creates some bare ground, the field crew will use the wood chips and broadcast them atop such areas. The field team will also have several bales of straw available for hand-spreading if there is not sufficient volume of wood chips available. The straw cover would be spread manually. Field conditions will be monitored after the brush trimming to determine if seeding and compost berms are needed. If seeding is needed, the hand-broadcast application rates is expected to be 0.02 lbs. per square yard to achieve sufficient cover. A fescue and rye grass mixture are appropriate genus for growth in cooler autumn weather. Such application will be done within a few working days of identifying exposed ground or sediment-laden runoff.

If needed along the perimeter of the brush trimmed areas, a compost berm (see attached detail) will also be installed along the outer edge of the vegetated corridor (current marked with orange pin flagging). Such berms are typically 1 foot high and 2 to 3 feet wide. Straw or coconut-fiber waddles are a suitable substitute if compost berm installation is not feasible. The weight of the berms, when naturally moistened by rain, forms sufficient contact with the soil to slow runoff and filter fine sediment. If waddles are substituted, they will be countersunk into the soil as shown on the attached detail. The compost berm will be placed concurrently with seeding and straw cover. In the event of hydromulching, the compost berm will be installed first at the interface of the brush trimming area and avoided vegetated corridor.

Post-Application Inspections

The seeded and straw covered areas will be inspected weekly to ensure effectiveness and prompt grass germination. Early autumn rains are often small and bi-weekly, so germination may be initially slow, but likely to be very effective due to mild day and night temperatures. During inspections, any barren areas will be re-seeded by hand and straw cover added as needed. When winter rains arrive in November (more frequent/more rainfall) and runoff occurs, the inspection will also examine the compost berm to look for failures (breach) or excessive seepage under the material (piping effect). Reconstructing the berm with shovel is often effective for corrective action. In the event of accumulated sediment (greater than 1 inch thick), it may be necessary to either remove such sediment, or enlarge the compost berm to assure effectiveness.

Contact Information

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Terra Science, Inc.
Soil, Water, & Wetland Consultants

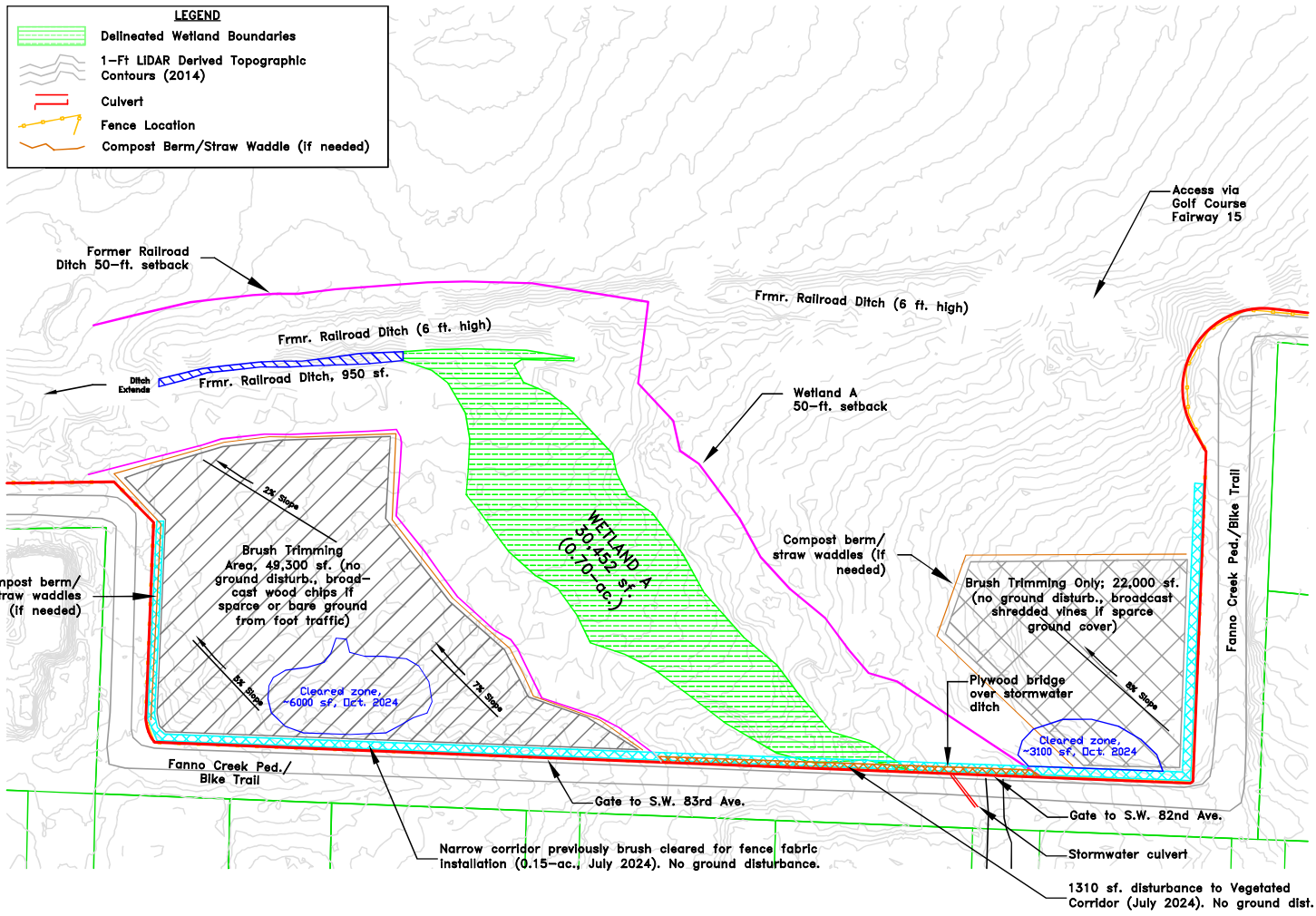
GRAPHIC SCALE
250 0 250 500 1000
1 inch = 1000feet

CLEAN WATER SERVICES EROSION CONTROL PERMIT
FOR PORTLAND GOLF CLUB BRUSH CLEARING & TRIMMING;
SOUTH PART of TAX LOT 1700, T. 1S, R. 1W, Sec. 24 (BC)
Washington County, Oregon

December 2024 (Updated)

PORTLAND GOLF COURSE
AND BRUSH CLEARING AREA

VICINITY



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Soil, Water, & Wetland Consultants

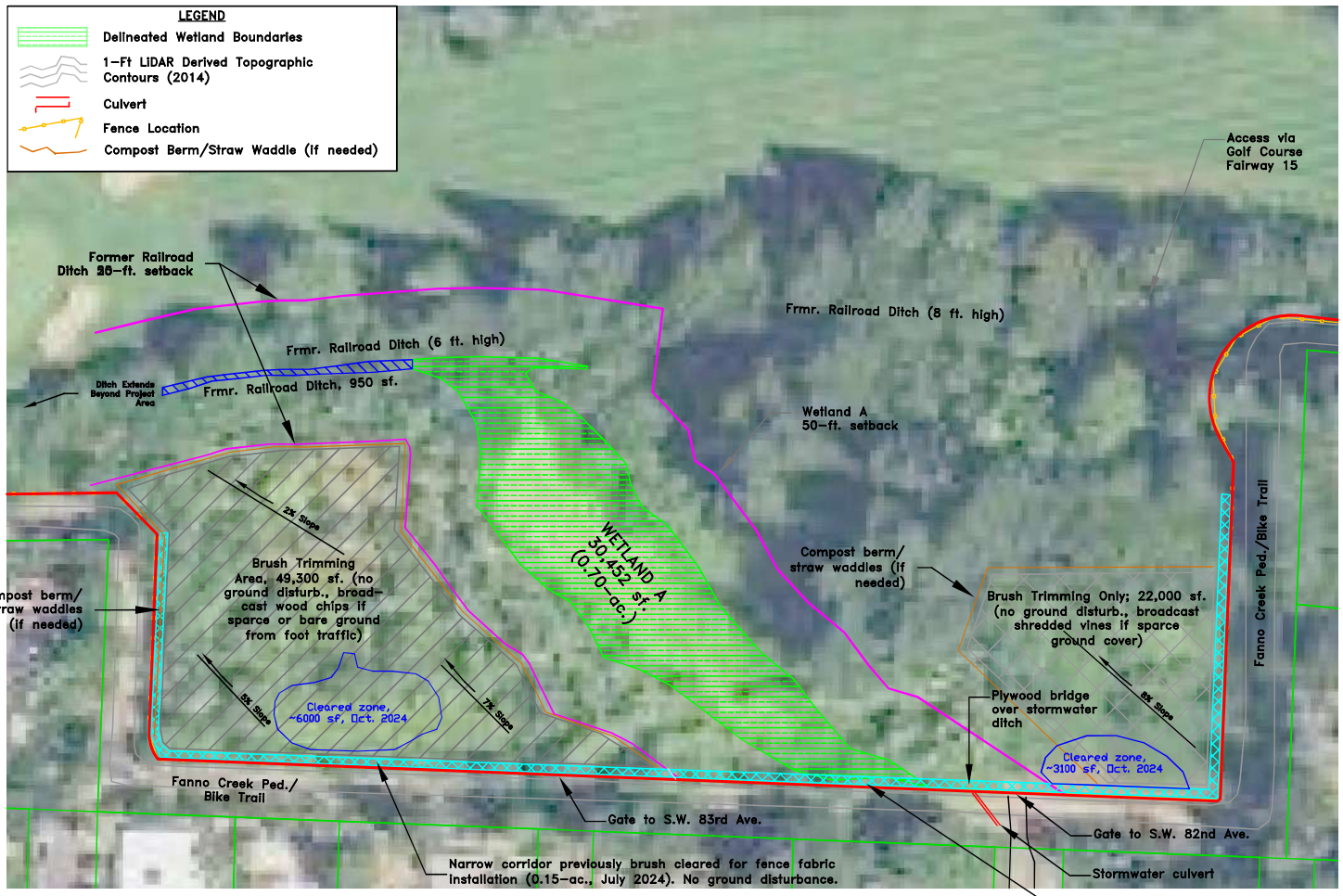
GRAPHIC SCALE
50 0 50 100 200
1 inch = 100 feet

CLEAN WATER SERVICES EROSION CONTROL PERMIT
FOR PORTLAND GOLF CLUB BRUSH CLEARING & TRIMMING;
SOUTH PART of TAX LOT 1700, T. 1S, R. 1W, Sec. 24 (BC)
Washington County, Oregon

December 2024 (Revised)

SITE PLAN AND EXISTING FEATURES

EXHIBIT A



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Washington County, Oregon

December 2024 (Revised)

SITE PLAN AND EXISTING FEATURES (2019 Aerial)

EXHIBIT B

Portland Golf Club Trimming Areas and Avoided Vegetated Corridors Photographs

Photo 1. View north from upper part of Wetland A. Brush in background growing on former railroad berm (no disturbance proposed). Fir trees in background located outside of project area. Wetland A would not be subject to brush trimming.

Photo 2. View west at ditch located on south of the former railroad berm. The ditch diverts runoff from Wetland A to the west (historically flowed to northwest where golf course is located). This area would not be disturbed by brush trimming.

PGC Brush Trimming Areas and Avoided Vegetated Corridors Photographs (cont'd.)

Photo 3. View northwest of 50-foot vegetated corridor on west side of Wetland A. Vegetated corridor between orange pin flag and right edge of photo. English ivy, Canada thistle, and Himalayan blackberry on ground, while wild cherry and red hawthorn are shrubs and trees.

Photo 4. View southwest of 50-foot vegetated corridor on south side of former railroad ditch. Vegetated corridor dominated by red hawthorn, Himalayan blackberry and English ivy.

PGC Brush Trimming Areas and Avoided Vegetated Corridors Photographs (cont'd.)

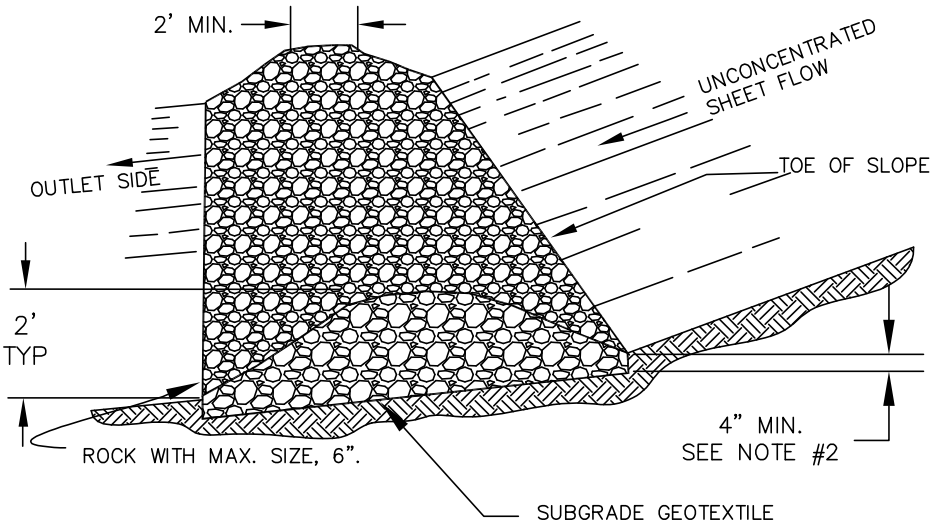
Photo 5. Typical view of upland brush growing in the sediment bag placement area. Dominant trees/shrubs are red hawthorn, cherry, plus a few hazelnut and paper birch. Herbaceous plants in Canada thistle, English ivy, fescue, sweet vernalgrass, and blackberry. Fir trees not in project area.

Photo 6. A narrow corridor was cleared when the black fence fabric was installed in July 2024. The clearing avoided larger trees/shrubs (many with multiple stems) and shredded the vegetation into a mulch (no ground disturbance).

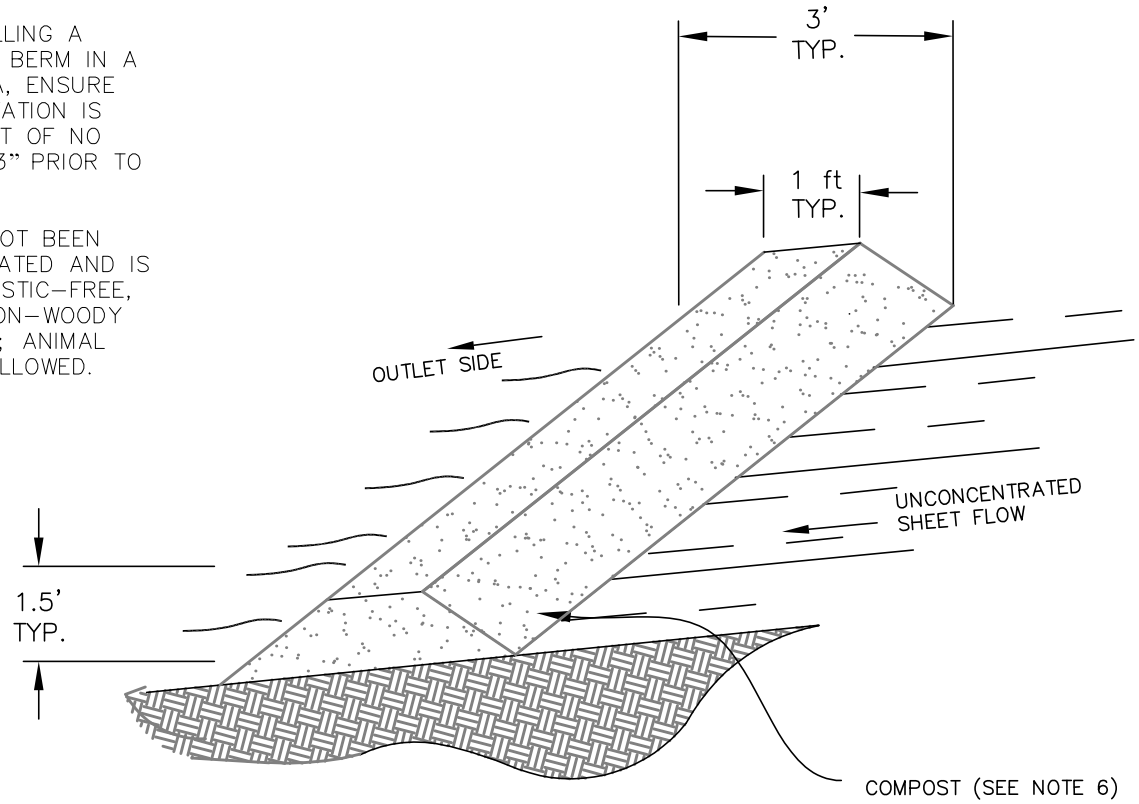
FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

NOTES:

1. DIRECT THE OUTLET SIDE OF THE ROCK/COMPOST FILTER BERMS ONTO A STABILIZED AREA, SUCH AS VEGETATION AND/OR ROCK.
2. EMBED ROCK FILTER BERM A MIN. OF 4" INTO THE EXISTING GROUND/EMBANKMENT.
3. USE ROCK FILTER BERM ON 3H:1V OR FLATTER SIDE SLOPES. WITHIN THE SAFETY CLEAR ZONE. USE 6H:1V OR FLATTER ON SIDE SLOPES.
4. PLACE COMPOST FILTER BERMS ALONG OR ON THE GROUND CONTOUR WITH THE ENDS TURNED UP SLOPE.
5. PRIOR TO INSTALLING A COMPOST FILTER BERM IN A VEGETATED AREA, ENSURE THAT THE VEGETATION IS CUT TO A HEIGHT OF NO GREATER THAN 3" PRIOR TO INSTALLATION.
6. COMPOST HAS NOT BEEN CHEMICALLY TREATED AND IS WEED-FREE, PLASTIC-FREE, DECOMPOSED, NON-WOODY PLANT MATERIAL; ANIMAL WASTE IS NOT ALLOWED.



ROCK FILTER BERM



COMPOST FILTER BERM

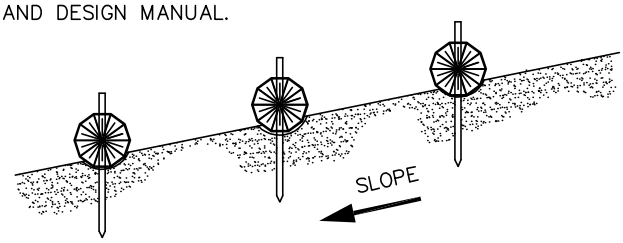
FILTER BERMS ROCK/COMPOST

DRAWING NO. 890

REVISED 10-31-19

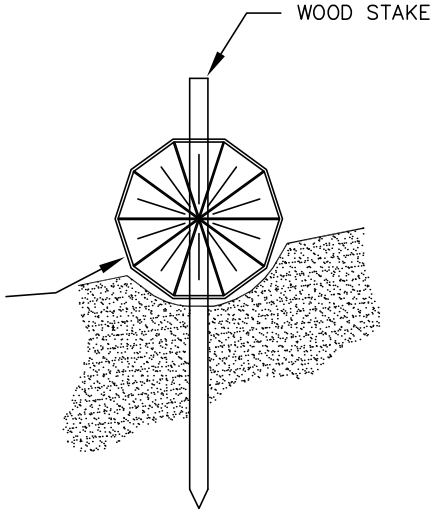
Clean Water Services

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

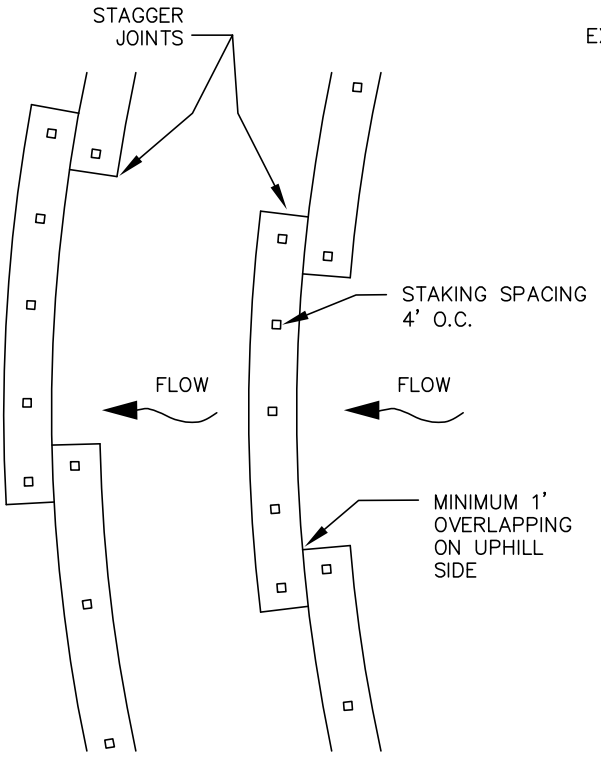


PLACE WATTLES ALONG SLOPE CONTOURS.

PROFILE



SECTION



PLAN VIEW

NOTES:

1. STAKING SPECIFICATIONS:
   a. 1"X2" WOODEN STAKES
   b. ADDITIONAL STAKES MAY BE INSTALLED ON DOWNHILL SIDE OF WATTLES, ON STEEP SLOPE OR HIGHLY EROSIVE SOILS.
2. SPACING IN ACCORDANCE WITH DETAIL 940.
3. REMOVE ALL ROCKS, CLODS, VEGETATION OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED WATTLES WILL HAVE DIRECT CONTACT WITH THE SOIL.
4. INSTALL THE WATTLES IN A 2" DEEP TRENCH, INSURING THAT NO GAPS EXIST BETWEEN THE SOIL AND THE BOTTOM OF THE WATTLE. THE ENDS OF ADJACENT WATTLES SHALL BE OVERLAPPED 1 FT. MINIMUM TO PREVENT SEDIMENT PASSING THROUGH THE FIELD JOINT.

WATTLES

DRAWING NO. 880

REVISED 10-31-19

Clean Water Services

Erosion Control Inspection Log

Project Name: _____

Date:_____Time:_____Weather:_____Rainfall In the Last 24 Hours: Yes_____No _____

Site Active: Yes_____No_____ Days Since Last Inspection: _____

Inspection Type: Initial Inspection_____Regular Inspection_____Final_____Active Storm Water Runoff_____Other_____

Observations: _____

_____

_____

_____(More Space on Back)

Corrective Actions Taken/Needed: _____

_____

_____

_____(More Space on Back)

Have Any Changes Been Made to the ESCP: Yes____No_____

If Yes, What Changes Have Been Made: _____

_____

Have The Changes Been Documented: Red Lines: Yes_____No_____Action Plan: Yes_____No_____

Inspected By: Print Name:_____Title:_____

Signature:_____

Additional Comment Space on Back