## SPSRW-XX: LIVE FASCINES

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### Description

ENGINEER TO UPDATE PLANTING SEASON. THIS WARRANTY SECTION IS BASED ON A PLANTING SEASON BEING DEFINED.

The work covered by this section consists of furnishing, preparation, excavation and installation of all materials required for proper installation of fascines, as specified in the Contract Document or as directed by the Engineer. Fascines are long bundles of live branch cuttings that are bound together in cylindrical structures. They are bioengineered slope stabilization placed in shallow trenches along the channel banks to help reduce erosion and provide a medium for rapid vegetative growth.

The quantity of fascines to be constructed will be affected by actual conditions that occur during the construction of the project. The type and quantity of fascines may be increased or decreased at the direction of the Engineer. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work.

### Materials

ENGINEER TO UPDATE IF THEY FEEL THAT THIS SPECIFICATION IS INADEQUATE FOR SITE CONDITIONS.

Fascines shall be fabricated onsite from live dormant cuttings of woody plant species (trees and/or shrubs) specified by the Engineer on the Planting Plan. The cuttings shall be of a specified length and diameter, tied together with biodegradable twine to form a bundle the same length as the cutting.

Dead stout stakes should be untreated hardwood, with a size and length, as specified in the Contract Documents. Live stakes may be used in lieu of stakes pending review and approval by the Engineer.

The twine shall be 100% biodegradable and in accordance with the Contract Documents.

All harvesting of plant material and planting shall be executed during the dormant season for each species (November 15 thru March 15).

### Methods

ENGINEER TO UPDATE IF THEY FEEL THAT THIS SPECIFICATION IS INADEQUATE FOR SITE CONDITIONS.

Materials shall be installed the same day as prepared or stored in a refrigerated area and kept moist for no longer than two weeks. Bundles of harvested live material should be kept with cut ends submerged in water to keep cut ends moist at all times.

Protect plants at all times from sun, drying winds, and frost. Plants that cannot be planted immediately on delivery shall be kept well protected from winds and frost. Bundles of harvested live material should be kept with cut ends submerged in water to keep cut ends moist at all times. Care shall be taken to keep bundles moist during transportation from the harvest site to the planting site. Live cuttings that appear to be dried out or damaged during transportation will not be accepted. Rejected live cuttings may be marked by the Engineer.

Fascines shall be fabricated in accordance with the Contract Documents.

No planting shall be done in soil that, in the opinion of the Engineer, is too wet, too dry or not properly conditioned as provided in these specifications. No planting shall be done on channel banks that have not been seeded and stabilized with erosion control matting (coir matting), unless otherwise directed by the Engineer.

Excavate linear trenches, parallel to the water surface or on an angle on the stream bank as specified in the Contract Documents or as directed by the Engineer. The fascine installation trench width shall be such that the fascine fits snugly within. Fascine installation trench depth shall allow approximately ¼ of the fascine to protrude above the ground.

Install dead stout stakes with one stake perpendicular to the slope of the bank and the other perpendicular to the channel bed. Extra stakes should be used at connections or bundle overlaps. The top of the stakes should be flush with the installed bundle.

Place moist soil along the sides of the fascine. The top of the live fascine should be slightly visible when the installation is complete.

Site conditions may require slight deviation from the planting plan and shall be approved by the Engineer.

### Warranty

All fascines installed by the Contractor shall be assessed by the Engineer or representative thereof at the end of the same planting season they were installed. One hundred percent of the fascines must be installed correctly and still be alive at the time this assessment is completed. If dead plant material is found, the Contractor is responsible for replacing that material before the end of that planting season. At the end of one full growing season following planting, each fascine installed by the Contractor will be assessed by the Engineer or representative thereof again. The fascines must have at least 70 percent of the surface area covered with healthy, established (green) live cuttings. If a fascine does not meet these criteria as determined by the Engineer, the Contractor shall remove the existing fascines and install a new fascine at the Contractor’s expense. The new fascines will also be under warranty, and be assessed at the conclusion of the next full growing season.

The Contractor shall be responsible for furnishing equipment, materials, labor, incidentals and water to maintain plant survival in accordance with these specifications during the construction contract and during the warranty period.

The Contractor shall be responsible for traffic control through the construction contract and warranty period.

### Measurement

The quantity of fascines to be measured for payment will be the actual linear feet of fascines installed and accepted by the Engineer. The payment will be considered as full compensation for all material, labor, equipment and related expenses. Material not properly installed shall not be paid. All measurement for fascines shall be made horizontally along the surface of the bundle, for each individual bundle that has been installed and accepted.

There shall be no separate measurement for wood stakes, live stakes, twine, amendments to soil, and/or soil.

### Payment

The quantity of fascines, measured as provided above, will be paid for at the contract unit price per linear foot of fascines installed and accepted by the City. Such payment will be full compensation for all work covered in this special provision, including, but not limited to trenching, installation, staking, repair, replacements, maintenance, and for furnishing all materials, labor, equipment, tools and incidentals necessary to complete the work as specified in the Contract Documents or as directed by the Engineer.

Payment will be made under:

LIVE FASCINES LF