

RULE NO.: R161-21.24

NOTICE OF PROPOSED RULE

POSTING DATE: October 6, 2021

The Director of the Department of Public Works proposes to adopt the following rule after _____ November 8, 2021 _____.

A summary of the written comments received will be included in the notice of rule adoption that must be posted for the rule to become effective.

An affordability impact statement regarding the proposed rule has been obtained and is available for inspection or copying by contacting the email noted in the preceding paragraph.

EFFECTIVE DATE OF PROPOSED RULE

A rule proposed in this notice may not become effective before the effective date established by a separate notice of rule adoption. A notice of rule adoption may not be posted before November 8, 2021 (the 33rd day after the date of this notice) or not after December 15, 2021 (the 70th day after the date of this notice).

If a proposed rule is not adopted on or before December 15, 2021 it is automatically withdrawn and cannot be adopted without first posting a new notice of a proposed rule.

REQUEST FOR COMMENTS ON PROPOSED RULES

The City requests comments from the public with respect to the proposed rules included in this Notice. Comments must be submitted in writing to the contact person below no later than November 8, 2021 (the 33rd day after the date of this notice).

Contact Person:

Kristie Spoleti, Public Works Rules Posting Manager

Public Works, Quality Management Division

6800 Burleson Rd, BLDG 312 STE 250

Austin, TX 78744

kristie.spoleti@austintexas.gov

512-974-7992

TEXT OF PROPOSED RULE

A copy of the complete text of the proposed rule is available for public inspection and copying at the following locations. Copies may be purchased at the locations at a cost of ten cents per page:

Department of Public Works, Quality Management Division, located at 6800 Burleson Road, Building 312 Suite 250 Austin, TX 78744;

and

Office of the City Clerk, City Hall, located at 301 West 2nd Street, Austin, Texas.

BRIEF EXPLANATION OF PROPOSED RULE

R161-21.24: Proposed revisions to the Standard Specification Manual 648S:

- 648S Mulch Sock: There is not a Measurement Section in the specification. In addition, a conflict has occurred related to payment for overlaps. There has been confusion if overlaps are included in the linear footage. Solution is to include Measurement Section in Specification and clarify how the overlap is accounted for in the measurement section.

AUTHORITY FOR ADOPTION OF PROPOSED RULE

The authority and procedure for adoption of a rule to assist in the implementation, administration, or enforcement of a provision of the City Code is provided in Chapter 1-2 of the City Code. The authority to regulate construction requirements is established in Sections 25-6-267 and 25-6-268 of the City Code.

CERTIFICATION BY CITY ATTORNEY

By signing this Notice of Proposed Rule (R161-21.24), the City Attorney certifies the City Attorney has reviewed the rule and finds that adoption of the rule is a valid exercise of the Director's administrative authority.

REVIEWED AND APPROVED



Richard Mendoza, Director
Public Works

09/24/2021
Date: _____

/s/Deborah Thomas for

Date: 9/28/2021

Anne L. Morgan, City Attorney

ITEM NO. 648S MULCH SOCK 8-18-10**648S.1 Description**

A mulch sock consists of material encased in a tube of mesh. It is used to intercept, settle, and filter sheet flow and pond runoff. Mulch socks provide an environmentally sensitive and cost-effective alternative to sediment fences.

648S.2 Submittals

The submittal requirements for this specification item shall include the following:

A. Mulch Material.

1. A small sample of mulch material proposed to be used on the site will be provided to the engineer.
2. Provide a designated project stockpile of mulch for sampling and testing at the producer's site.
3. A copy of the lab analysis, performed by an STA-certified lab, verifying that the mulch material meets the requirements of Table 1.

Table 1		
Item	Requirement	Reference Specification
Particle Size	3" minus screening process	Equivalent to TXDOT item 161, Compost, Section 1.6.2.B, Wood Chip requirements
pH	5.5 - 8.5	TMECC 04. 11-A, "1.5 Slurry pH"
Organic Matter Content	≥25%, dry weight basis	TMECC 05.07-A, "Loss-On-Ignition Organic Matter Method"

B. Tube Material.

The CONTRACTOR shall submit a sample of the material that the CONTRACTOR proposes to use on the project. A sample of the material should be accompanied by material data sheet identifying composition, ability of the material to biodegrade, and size of openings in tube at a minimum.

648S.3 Materials**A. Mulching material can be manufactured on or off the project site and may consist of:**

1. Shredded bark
2. Stump grindings
3. Composted bark

B. The mulch shall have the following composition:

1. Wood chips shall be produced from a 3-inch minus screening process (equivalent to TxDOT item 161, Compost, Section 1.6.2.B Wood Chip Requirements).
2. Large portions of silts, clays, or fine sands are not acceptable.
3. The pH of the mulch shall be between 5.5 and 8.5.

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4. The organic matter content shall be greater than or equal to 25% on a dry weight basis.
- C. Mulch material must be free of refuse, physical contaminants, and material toxic to plant growth. It is not acceptable for the mulch material to contain ground construction debris, biosolids, manure, or recyclable material.
 - D. Prior to placement, a representative sample of the mulching material must be tested and certified by the project engineer or his/her designee and accepted by the city inspector.
 - E. The sock material mesh opening shall be equal to or less than $\frac{3}{8}$ inch (10 mm) and the material tensile strength shall be equal to or greater than 202 psi (14.2 kg/cm²).

Source: Rule No. R161-14.29, 12-30-2014 .

648S.4 Installation

- A. Use 12 or 18 inch diameter mulch socks for all sediment control applications. This diameter of mulch sock material has proven to be the most consistent for all sediment control applications (TxDOT, April 2006).
- B. Install mulch socks per Figure 1.4.5.F in the City of Austin Environmental Criteria Manual.
- C. Mulch socks should be used at the base of slopes no steeper than 2:1 and should not exceed the maximum spacing criteria provided in the following table.

Slope	Max. Slope Length Between 18 in. Dia. Sock (ft)	Max. Drainage Area (sf) per 100 ft of Sock
100:1 - 50:1	100	10,000
50:1 - 30:1	75	7,500
30:1 - 25:1	65	6,500
25:1 - 20:1	50	4,800
20:1 - 10:1	25	2,600
10:1 - 5:1	15	1,300
5:1 - 2:1	10	1,000

Slope	Max. Slope Length Between 12 in. Dia. Sock (ft)	Max. Drainage Area (sf) per 100 ft of Sock
100:1 - 50:1	100	6,000
50:1 - 30:1	40	4,000
30:1 - 25:1	30	3,000
25:1 - 20:1	25	2,600
20:1 - 10:1	15	1,300
10:1 - 5:1	10	1,000
5:1 - 2:1	5	500

- D. Place mulch socks at a 5 ft or greater distance away from the toe of the slopes to maximize space available for sediment deposition.
- E. When placed on level contours, sheet flow of water should be perpendicular to the mulch sock at impact and unconcentrated.
- F. Install mulch socks using rebar (#5 minimum with safety caps) a minimum of 48 inches in length placed on 2-ft centers. In order to prevent the movement or floating of the mulch sock during rain events or construction

operations, install steel posts on alternating sides of the sock. Drive the posts into the ground to a minimum depth of 24 inches, leaving less than 12 inches of post above the exposed mulch sock.

- G. In order to prevent water flowing around the ends of the mulch socks, point the ends of the socks up slope.
- H. In order to prevent water from flowing between the gaps at adjacent ends of mulch socks, overlap the ends of adjacent mulch socks a minimum of 12 inches. Never stack mulch socks on top of one another.
- I. Mulch Socks should be placed using 'smiles' and 'j-hooks'. See ECM Section 1.4.5 G (Silt Fence)
- J. For steeper slopes, an additional mulch sock can be constructed on the top of the slope and within the slope area as determined by specific field conditions. Multiple mulch socks are recommended on steeper slopes.
- K. Do not use mulch socks in areas of concentrated flow as they are intended to control sheet flow only.

648S.5 Inspection and Maintenance

- A. Inspect mulch socks after installation for gaps under the mulch socks and for gaps between the joints of adjacent ends of mulch socks. Contractor shall repair gaps such that no water flows under or around sock.
- B. Inspect every seven days and within 24 hours of a rainfall event of 0.5 inches or greater. Replace and repair mulch socks as necessary.
- C. Sediment retained by the mulch socks shall be removed when it has reached one third of the exposed height of the mulch socks.
- D. Mulch socks can be vegetated or un-vegetated. Vegetated mulch socks can be left in place. The vegetation will grow in the slope, further anchoring the sock.

648S.6 Measurement

Installed mulch sock shall be measured along the center line of the installed mulch sock ignoring any overlaps.

648S.6 Payment

648S.7 Payment

The work performed and the materials furnished as prescribed by this item shall be paid for by the linear foot of mulch sock installed .

Payment will be made under:

Pay Item No. 648S:	Mulch Sock	Per Lineal Foot.
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END

<u>SPECIFIC CROSS REFERENCE MATERIALS</u>	
<u>Specification Item No. 648S, "Mulch Sock"</u>	
<u>City of Austin Environmental Criteria Manual</u>	
<u>Designation</u>	<u>Description</u>
1.4.5.F	Mulch Sock
1.4.5.G	Silt Fence

Created: 2021-06-09 20:18:43 [EST]

(Supp. No. 5-2021)

City of Austin Standard Details	
<u>Designation</u>	<u>Description</u>
648S-1	Mulch Sock