## **SECTION 41**

## **UTILITY TRENCH RESURFACING**

#### 41.1 DESCRIPTION

#### A. General:

This work consists of furnishing and installing surface patching of utility trenches. This includes all equipment, tools, materials, labor, and other incidentals to provide utility trench patching, complete and ready for continuous use.

Patching of trenches will be matching the in-place surface material with asphalt, concrete, gravel, grass, etc. or as specified by the Engineer.

#### B. Related Work:

Section 20	Granular Materials
Section 31	Asphalt Concrete - General
Section 33	Asphalt Concrete - Class G
Section 39	Cold Mix Asphalt Concrete
Section 40	Portland Cement Concrete Pavement
Section 70	Seeding
Section 73	Sodding
Section 90	Traffic Control
Section 117	Aggregates for Granular Bases and Surfacing
Section 202	Engineering Fabric

### C. Submittals:

Submittals shall be required unless otherwise specified in the Detailed Specifications.

The term "Submittals" includes manufacturer's product data sheets of pipe and fittings and supplier certification for asphalt mix, concrete mix, gravel base, granular backfill to be used on the project.

At least five (5) working days before his need for approval, the Contractor shall forward to the Engineer three (3) copies of submittals for all products. Submittals will be accepted only from the Contractor.

The Engineer will indicate his approval or disapproval of each submittal and, if he does not approve the submittal as submitted, will indicate his reasons therefore. Any work done prior to approval shall be at the Contractor's own risk. Approvals shall not relieve the Contractor from responsibility for complying with the requirements of the contract documents.

Re-submittals shall be made the same as for original submittals, with changes from the previous submittal clearly shown.

## **41.2 MATERIALS** (Not specified)

#### 41.3 CONSTRUCTION REQUIREMENTS

## A. Sub grade Preparation:

Contractor shall not resurface the trench until all density tests have been met and the Engineer gives approval.

The sub grade shall be brought to proper grade elevation, for the specified depth of surfacing to be placed. The sub grade surface shall be smooth and level, with no loose material.

## B. Resurfacing:

## 1. Saw cut of pavement edges:

Initial saw cuts shall be placed a minimum of one foot outside the proposed trench wall width on both sides. The width between initial pavement saw cuts should not be less than six feet. The second, or final, saw cuts shall be a minimum of one foot outside of any pavement damage beyond the initial saw cuts..

#### 2. Asphalt street:

The asphalt patch shall be placed to a minimum depth of five (5) inches. If the existing pavement is greater than five (5) inches thick, the patch shall be placed to a depth matching the existing pavement. The asphalt base shall be Class G, Type 1, and/or class G type II, as approved by the Engineer. The asphalt patching shall be in accordance with Sections 33 and 39.

## 3. Cold Mix Asphalt:

A temporary asphalt patch shall be placed when hot asphalt is not available and/or the Engineer gives approval. The Contractor shall be responsible for maintenance of the temporary patch at no extra cost to the City. The depth of the temporary patch shall be a minimum of five (5) inches. The cold mix shall be in accordance with Section 39.

# 4. Concrete street with asphalt overlay:

After saw cutting per specifications, the concrete base patch shall be poured to the depth of the existing concrete. The concrete shall be allowed to attain a compressive strength of 4000 psi, or the Engineer has given approval, before the asphalt overlay can be accomplished. The asphalt overlay shall be Class G, Type I and/or Class G, type II as approved by the Engineer. The concrete and asphalt patch shall be in accordance with Sections 31, 33, and 40.

#### 5. Concrete street:

After saw cutting as per specifications, the concrete pavement patch shall be installed in accordance with Section 40.3T. The pavement patch shall not be opened to traffic until the concrete has attained a compressive strength of 4000 psi. The concrete patch shall be in accordance with Section 40.

## 6. Asphalt blotter street:

The specifications for asphalt street shall apply, except the depth of the asphalt patch shall be the depth of the existing blotter, or three inches whichever is greater, or as approved by the Engineer.

### 7. Gravel resurfacing:

The gravel shall be placed to a thickness equal to the in-place gravel thickness or five inches, whichever is greater, or as approved by the Engineer. The gravel surface material and placement shall be in accordance with Section 20 and Section 117.

### 8. Seeding:

The area to be seeded shall be as specified on the plans and specifications and/or by the Engineer. The seeding shall be in accordance with Section 70.

#### 9. Sodding:

The area to be sodded shall be as specified on the plans and specifications and/or by the Engineer. The sodding shall be in accordance with Section 73.

## 10. Engineering Geogrid/Fabric:

If Engineering fabric is encountered during excavation, the Contractor shall immediately notify the Engineer. Damaged fabric shall be repaired as shown on the appropriate standard detail or as directed by the Engineer. Final saw cuts shall be as specified above in 41.2.,B.1. Also see Section 202 Engineering Fabric.

## 11. Under-drains:

If subsurface or edge drains are encountered during excavation, the Contractor shall immediately notify the Engineer. Subsurface or edge drains shall be repaired as shown on the appropriate standard detail or as directed by the

Engineer. Final saw cuts shall be as specified above in 41.2.B.1. Also see section 64 Under-drains.

## 41.4 METHOD OF MEASUREMENT

## A. Asphalt patch:

All asphalt patching shall be measured to the nearest tenth (0.1) ton of material placed.

## B. Concrete patch:

All concrete patching shall be measured to the nearest whole square yard of patch surface.

# C. Gravel surface:

All gravel replacement shall be in accordance with Section 20.

## D. Seeding:

All seeding shall be measured to the nearest whole square yard of area seeded.

## E. Sodding:

All sodding shall be measured to the nearest whole square yard of area sodded.

#### F. Engineering Fabric:

All engineering fabric shall be measured to the nearest whole square yard of surface covered, exclusive of overlap.

## 41.5 BASIS OF PAYMENT

All resurfacing shall be paid for in accordance with the respective section as indicated in the "Basis of Payment" in that section.

## **END OF SECTION**