

1 Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Right-of-Way Markers	Each
Control-of-Access Markers	Each

2

## SECTION 808

3

### OBLITERATION OF EXISTING ROAD

#### 4 **808-1 DESCRIPTION**

5 The work covered by this section consists of the obliteration of an existing road outside of the  
6 construction limits.

#### 7 **808-2 CONSTRUCTION METHODS**

8 Remove any existing pavement as directed. Fill or grade and shape the entire roadway to  
9 a degree that will blend with the adjacent topography and suitable for the application of  
10 vegetative cover.

#### 11 **808-3 MEASUREMENT AND PAYMENT**

12 *Removal of Existing Asphalt Pavement and Removal of Existing Concrete Pavement* will be  
13 measured and paid in accordance with Article 250-3. The work includes, but is not limited to,  
14 all breaking up, removing, and disposing of pavement; all plowing of the roadbed; and all  
15 grading and excavation necessary to reshape the roadway.

16 *Removal of Existing Concrete Pavement* will be measured and paid in accordance with the  
17 requirements of Article 250-3. Such price includes, but is not limited to, all breaking up,  
18 removing and disposing of pavement; all plowing of the roadbed; and all grading and  
19 excavation necessary to reshape the roadway.

20 All materials excavated in obliterating the abandoned roadway will be paid at the contract  
21 price for *Unclassified Excavation* in accordance with Article 225-7.

22 Any additional material that is required to complete the reshaping of the roadway will be paid  
23 at the contract unit price for *Unclassified Excavation* in accordance with Article 225-7 or at  
24 the contract unit price for *Borrow Excavation* in accordance with Article 230-5, depending on  
25 the source of the material.

26 All seeding and mulching performed on obliterated areas will be paid at the contract unit  
27 prices for the items established in the contract.

28

## SECTION 815

29

### SUBSURFACE DRAINAGE

#### 30 **815-1 DESCRIPTION**

31 Construct subsurface drains, underdrains, blind drains and other types of drains in accordance  
32 with the contract or as directed. Install markers to locate concrete pads for drains as shown in  
33 the plans. This section does not apply to shoulder drains; see Section 816.

#### 34 **815-2 MATERIALS**

35 Refer to Division 10.

<b>Item</b>	<b>Section</b>
Geotextile for Subsurface Drains, Type 1	1056
Pavement Marker Paint	1087
Portland Cement Concrete, Class B	1000
Select Material, Class V	1016
Steel Marker Paint	1080-12
Steel Markers	1072-2

## Section 815

### Item

Subsurface Drainage Materials

### Section

1044

1 Use Class B concrete for concrete pads. Provide Type 1 geotextile for filtration geotextiles.  
2 Provide subdrain coarse aggregate (standard size No. 78M) for subsurface drains and subdrain  
3 fine aggregate (standard size No. 2S or 2MS) for underdrains and blind drains. For PVC  
4 drain pipes, use pipes with perforations that meet AASHTO M 278.

#### 5 **815-3 CONSTRUCTION METHODS**

6 Excavate trenches as necessary in accordance with the contract or as directed. Install blind  
7 drains at a depth of 4 to 6 feet below subgrade elevation. Install subdrain pipes for subsurface  
8 drains and underdrains at a depth of 4 to 6 feet below subgrade elevation unless the subgrade  
9 will be proof rolled. For subsurface drains and underdrains in subgrades that will be proof  
10 rolled, install subdrain pipes at a depth of 6 feet below subgrade elevation.

11 Do not leave filtration geotextiles exposed for more than 7 days before covering with  
12 material. For subsurface drains, line trench with filtration geotextiles and overlap adjacent  
13 geotextiles at least 18 inches. Overlap geotextile closures on top of subdrain coarse aggregate  
14 at least 6 inches and secure with mechanical ties.

15 Install continuous perforated PVC drain pipes with perforations point down. Provide subdrain  
16 pipes with positive drainage towards outlets. Firmly connect subdrain pipes together as  
17 needed. Place perforated subdrain pipes with perforations down except for pipes in dry  
18 materials, in which case turn perforations up or use non-perforated pipes. For concrete pipes  
19 in dry materials, construct joints that meet Subarticle 300-6(A).

20 Place subdrain aggregate beneath, around and over subdrain pipes such that pipes are covered  
21 by at least 6 inches of aggregate unless shown otherwise in the plans. Do not displace or  
22 damage subdrain pipes while placing and compacting subdrain aggregate. Lightly compact  
23 backfill material such that settlement is minimized.

24 Use solvent cement for connecting Schedule 40 PVC outlet pipes and fittings such as wyes,  
25 tees and elbows. Provide connectors for outlet pipes and fittings that are watertight and  
26 suitable for gravity flow conditions. Cover open ends of outlet pipes with rodent screens as  
27 shown in the plans.

28 Connect drains to concrete pads or existing drainage structures at ends of outlet pipes.  
29 Construct concrete pads and provide an ordinary surface finish in accordance with  
30 Section 825. Install steel and pavement markers at concrete pads as shown in the plans.

31 Allow drains to function for up to 30 days or a sufficient time as determined by the Engineer  
32 before undercutting, proof rolling or constructing embankments over drains.

#### 33 **815-4 MEASUREMENT AND PAYMENT**

34 *Subdrain Excavation* will be measured and paid in cubic yards. Excavation will be measured  
35 based on the trench width shown in the plans or approved by the Engineer and the actual  
36 trench depth as determined by the Engineer. The contract unit price for *Subdrain Excavation*  
37 will be full compensation for excavating trenches and backfilling above subdrain aggregate.

38 *Geotextile for Subsurface Drains* will be measured and paid in square yards. Filtration  
39 geotextiles in a trench will be measured in place based on the subdrain aggregate width shown  
40 in the plans or approved by the Engineer and the actual aggregate depth as determined by the  
41 Engineer. No additional payment will be made for overlapping geotextiles. The contract unit  
42 price for *Geotextile for Subsurface Drains* will be full compensation for supplying,  
43 transporting and installing filtration geotextiles and mechanical ties.

**Section 816**

1 *Subdrain Fine Aggregate and Subdrain Coarse Aggregate* will be measured and paid in cubic  
2 yards. Subdrain aggregate in a trench will be measured in place based on the aggregate width  
3 shown in the plans or approved by the Engineer and the actual aggregate depth as determined  
4 by the Engineer. When subdrain aggregate is not placed in a trench, aggregate will be  
5 measured in place based on the aggregate dimensions shown in the plans or as determined by  
6 the Engineer. The contract unit prices for *Subdrain Fine Aggregate* and *Subdrain Coarse*  
7 *Aggregate* will be full compensation for furnishing, hauling, handling, placing, compacting  
8 and maintaining subdrain aggregate.

9 \_\_\_" *Perforated Subdrain Pipe* and \_\_\_" *Outlet Pipe* will be measured and paid in linear feet.  
10 Pipes will be measured in place as the pipe length, including fittings, to the nearest 0.1 feet  
11 with no deduction for fittings. The contract unit prices for \_\_\_" *Perforated Subdrain Pipe* and  
12 \_\_\_" *Outlet Pipe* will be full compensation for supplying, transporting and installing pipes,  
13 fittings and rodent screens and making joint connections.

14 *Subdrain Pipe Outlets* will be measured and paid in units of each. Outlets will be measured  
15 as the number of concrete pads or connections to existing drainage structures. The contract  
16 unit price for *Subdrain Pipe Outlets* will be full compensation for concrete pads including  
17 furnishing concrete, constructing pads and providing and placing markers and connecting  
18 pipes to existing drainage structures including cutting into structures, removing existing paved  
19 ditches and grouting around connections.

20 Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Subdrain Excavation	Cubic Yard
Geotextile for Subsurface Drains	Square Yard
Subdrain Fine Aggregate	Cubic Yard
Subdrain Coarse Aggregate	Cubic Yard
___" Perforated Subdrain Pipe	Linear Foot
___" Outlet Pipe	Linear Foot
Subdrain Pipe Outlet	Each

21  
22

**SECTION 816  
SHOULDER DRAINS**

23 **816-1 DESCRIPTION**

24 Construct shoulder drains and furnish and install painted pavement markers and vertical  
25 markers to locate concrete pads for the drains in accordance with the requirements of the  
26 contract.

27 **816-2 MATERIALS**

28 Refer to Division 10.

<b>Item</b>	<b>Section</b>
Corrugated Plastic Pipe and Fittings	1044-7
Corrugated Steel Pipe and Fittings	1044-5
Geotextile for Shoulder Drains, Type 1	1056
Outlet Pipe	1044-8
Pavement Marker Paint	1087
PVC Pipe	1044-6
Portland Cement Concrete, Class B	1000
Shoulder Drain Aggregate, No. 57 Stone	1005
Steel Marker	1072-2
Steel Marker Paint	1080-12