

Section 1750

1 **1747-4 MEASUREMENT AND PAYMENT**

2 *LED Blankout Signs* will be measured and paid as the actual number of LED blankout signs
3 with mounting hardware furnished, installed and accepted.

4 *Relocate Existing Blankout Sign* will be measured and paid as the actual number of blankout
5 signs relocated and accepted.

6 Payment will be made under:

Pay Item	Pay Unit
LED Blankout Signs	Each
Relocate Existing Blankout Sign	Each

7

SECTION 1750

8

SIGNAL CABINET FOUNDATIONS

9 **1750-1 DESCRIPTION**

10 Furnish and install signal cabinet foundations and all necessary hardware.

11 Furnish either poured concrete foundations or preformed cabinet pad foundations and all
12 necessary hardware. Obtain approval of foundation type.

13 **1750-2 MATERIAL**

14 Refer to Division 10.

Item	Section
Signal Cabinet Foundation	1098-15
Portland Cement Concrete	1000-4

15 Furnish preformed cabinet pad foundation material, equipment and hardware under this
16 section that is pre-approved on the ITS and Signals QPL.

17 **1750-3 CONSTRUCTION METHODS**

18 Comply with Section 825.

19 When using poured concrete foundations, use procedures, equipment and hardware as
20 follows:

21 **(A)** Locate new cabinets so as not to obstruct sight distance of vehicles turning on red.

22 **(B)** Obtain approval for final cabinet foundation locations before pouring concrete base.

23 **(C)** Do not install foundations over uncompacted fill or muck.

24 **(D)** Hand tamp soil before placing concrete and ensure ground is level.

25 **(E)** Maintain 12" minimum from service pole to closest point on foundation unless otherwise
26 approved.

27 **(F)** Use a minimum of four 1/2" diameter expanding type anchor bolts to secure cabinet to
28 foundation.

29 **(G)** Install minimum 4" above and 4" below finished grade.

30 **(H)** Locate external stubbed out conduit at cabinet foundation so conduit is in middle of
31 cabinet. Provide service conduit as the rightmost conduit coming into cabinet. Provide
32 2 spare conduits stubbed out; one pointed toward service pole and the other toward
33 direction of lead in cable. Inscribe identification arrow in foundation indicating direction
34 of spare conduits.

- 1 **(I)** Give cabinet foundation a broom finish.
- 2 **(J)** Seal space between cabinet base and foundation with permanent, flexible, waterproof
3 sealing material.
- 4 If using a preformed cabinet pad, follow applicable procedures in Subarticles 1750-3(A)
5 through 1750-3(J).

6 **1750-4 MEASUREMENT AND PAYMENT**

7 *Signal Cabinet Foundation* will be measured and paid as the actual number furnished,
8 installed and accepted.

9 Payment will be made under:

Pay Item	Pay Unit
Signal Cabinet Foundation	Each

10

SECTION 1751

11

CONTROLLERS WITH CABINETS

12 **1751-1 DESCRIPTION**

13 Furnish and install controllers with cabinets and all necessary hardware. Furnish all pole or
14 foundation mounting hardware, detector sensor cards, external electrical service disconnects,
15 one Corbin Number 2 cabinet key, one police panel key, conflict monitors or malfunction
16 management units, surge protection, grounding systems, AC/DC isolator cards and all
17 necessary hardware.

18 **1751-2 MATERIAL**

19 Furnish material, equipment and hardware under this section that is pre-approved on the
20 ITS and Signals QPL.

21 **1751-3 CONSTRUCTION METHODS**

22 **(A) General**

23 Remove existing controllers and cabinets where required. Remove maintenance diary
24 from cabinet and place in new cabinet or deliver to the Engineer. Take existing
25 equipment out of service only at the time directed.

26 Locate new cabinets so as not to obstruct sight distance of vehicles turning on red.

27 Install controllers, cabinets, detector sensor units and hardware that provide required
28 phasing, color sequence, flash sequence, interconnection, railroad clearance and
29 preemption and emergency vehicle clearance and preemption.

30 Stencil signal inventory number on cabinet side facing roadway. Use 3" black characters.

31 Provide external electrical service disconnect at all new and existing cabinet locations
32 unless otherwise specified.

33 Do not program controller for late night flashing operation at railroad preemption
34 installations. For all other installations, do not program controller for late night flashing
35 operation unless otherwise directed. Ensure all signal heads for same approach flash
36 concurrently during flashing operation.

37 Provide serial number and cabinet model number for each new controller and controller
38 cabinet installed.

39 Install pole mounted cabinets so height to cabinet middle is 4 ft.

40 Activate controllers with proposed phasing and timing.