



## INTERSECTION DESIGN

### GEOMETRIC LAYOUTS

- v.13 [9A1](#) At-Grade Side Road Intersections  
[sheet a](#): *At-Grade Side Road Intersection, Types B1, B2, C and D and Tee Intersection Bypass Lane*  
[sheet b](#): *At-Grade Side Road Intersection, Type A1 and A2*

### CONDUIT

- v.10 [9B2](#) Conduit  
v.11 [9B4](#) Pull Box  
v.1 [9B16](#) Pull Boxes Non-Conductive

### BASES

- v.9 [9C2](#) Concrete Bases Types 1, 2, 5 and 6  
v.4 [9C3](#) Transformer/Pedestal Bases  
v.4 [9C4](#) Concrete Base Bolt Repair  
v.10 [9C5](#) Concrete Control Cabinet Bases  
v.7 [9C6](#) Concrete Control Cabinet Base, Type 9, Special  
v.5 [9C8](#) Concrete Base, Type 7  
v.5 [9C9](#) Concrete Base, Type 8  
v.3 [9C10](#) Transformer Base for 15-Inch Bolt Circle  
v.10 [9C11](#) Concrete Base Type 10  
v.9 [9C12](#) Concrete Base Type 13  
[a](#) [b](#)  
v.2 [9C13](#) Concrete Base Type 10 and Type 13 Extension  
v.3 [9C14](#) Concrete Control Cabinet Base, Type L

### CONTROL CABINETS

- v.5 [9D1](#) Cabinet Service Installation (Meter Breaker Pedestal)  
v.3 [9D2](#) Signal Control Cabinet  
v.3 [9D3](#) Post Mounted Controller Service Installation  
v.3 [9D4](#) Lighting Control Cabinet 120/240 Volt  
v.2 [9D5](#) L30 Lighting Control Cabinet 240/480 Volt

### POLE MOUNTINGS FOR TRAFFIC SIGNALS & LIGHTING UNITS

- v.15 [9E1](#) Pole Mountings  
[sheet a](#): *Pole Mountings for Traffic Signals Type 2*  
[sheet b](#): *Pole Mountings for Traffic Signals and Lighting Units Type 3 (Heavy Duty)*  
[sheet c](#): *Pole Mountings for Traffic Signals and Lighting Units Type 4*  
[sheet d](#): *Pole Mountings for Traffic Signals and Lighting Units Type 5 (30 feet)*  
[sheet e](#): *Pole Mountings for Traffic Signals and Lighting Units Type 6 (35 feet)*

[sheet f](#): Pole Mountings for Lighting Unit, Type 17 (40 feet)  
[sheet g](#): Hardware Details for Pole Mountings

v.5 [9E2](#) Freeway Lighting Unit Pole Wiring  
v.6 [9E3](#) Non-Freeway Lighting Unit Pole Wiring  
v.6 [9E4](#) Walkway Lighting Unit and Concrete Base, Type 11  
v.6 [9E5](#) Traffic Signal Standard Ornamental Bracket Mountings (Typical) for 13 ft. or 15 ft.  
v.5 [9E6](#) Traffic Signal Standard Poly Bracket Mountings (Typical) 13 ft. or 15 ft.  
v.6 [9E7](#) Traffic Signal Standard Pedestrian and Flasher Typical Mounting Details  
v.8 [9E8](#) Type 9, 10, 12 and 13 Poles with Monotube Arms  
[sheet a](#): Type 9 Pole 15'-30' Monotube Arm  
[sheet b](#): Type 10 Pole 15'-30' Monotube Arm  
[sheet c](#): Type 12 Pole 35'-55' Monotube Arm  
[sheet d](#): Type 13 Pole 35'-55' Monotube Arm  
[sheet e](#): General Notes and Hardware Details for Type 9, 10, 12 and 13 Poles with Monotube Arms

v.1 [9E12](#) Over Height Poles and Monotube Arms  
[sheet a](#): Over Height Type 9 Pole 15 - 30' Monotube Arm  
[sheet b](#): Over Height Type 10 Pole 15' - 30' Monotube Arm  
[sheet c](#): Over Height Type 12 Pole 35' - 55' Monotube Arm  
[sheet d](#): Over Height Type 13 Pole 35' - 55' Monotube Arm  
[sheet e](#): General Notes and Hardware Details for Over Height Type 9, 10, 12 and 13 Poles with Monotube Arms

## LOOP DETECTORS

v.4 [9F1](#) Details for the Installation of Temporary Traffic Signal Loop Detector Wires in any Existing Pavement  
v.5 [9F4](#) Loop Detector Installed in New Concrete Pavement Round CSCP Pullbox  
v.5 [9F7](#) Loop Detector Installed in New Concrete Base with new Asphaltic Overlay Round CSCP Pullbox  
v.4 [9F8](#) Loop Detector Placed in Crushed Aggregate Base (New Asphaltic Pavement)  
v.5 [9F9](#) Loop Detector Placed in Crushed Aggregate Base (New Concrete Pavement)  
v.4 [9F10](#) Loop Detector Installed in Existing or New Asphaltic Pavement with New Asphaltic Overlay  
v.4 [9F11](#) Loop Detector Installed in Existing Concrete Pavement with New Asphaltic Overlay  
v.4 [9F12](#) Loop Detector Installed in Existing Concrete Pavement  
v.4 [9F13](#) Loop Detector Installed in Existing Asphaltic Pavement  
v.3 [9F14](#) Loop Detector Installed in New Concrete Pavement Round CSCP Pull Box 45 Degree Elbows to Pull Box  
v.4 [9F15](#) Loop Detector Installed in Base Course with Pull (Splice) Box Off Roadway (Options)  
[sheet a](#): Loop Detector Installed in Base Course with Pull (Splice) Box Off Roadway (Option 1)  
[sheet b](#): Loop Detector Installed in Base Course with Pull (Splice) Box Off Roadway (Option 2)  
v.2 [9F16](#) Two Loop Detectors Installed in New Concrete Pavement Round CSCP Pull Box 45 Degree Elbows to Pull Box

## TEMPORARY TRAFFIC SIGNALS

v.4 [9G1](#) Span Wire Temporary Traffic Signal  
[a b c d e f g](#)

v.5 [9G2](#) Bridge Temporary Traffic Signal Installation  
[a b c](#)

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

v.1	<a href="#">9H1</a>	Base ITS Controller Cabinet
v.1	<a href="#">9H3</a>	2 Circuit Meter Breaker Pedestal
v.1	<a href="#">9H4</a>	2 Circuit Electrical Service Meter Breaker Pedestal and Breaker Disconnect Box
v.1	<a href="#">9H5</a>	Cabinet Breaker Disconnect Box Installation
v.2	<a href="#">9H6</a>	Signal Assembly Advance Flasher Type 1
v.1	<a href="#">9H7</a>	Signal Assembly Ramp Control Sidemount
v.3	<a href="#">9H8</a>	Communications Manhole Detail
v.2	<a href="#">9H9</a>	Communication Vault Type 1
v.1	<a href="#">9H10</a>	Communication Vault Type Round
v.1	<a href="#">9H11</a>	Identification Plaque Requirements and Placement
v.1	<a href="#">9H14</a>	Wireless Detection Sensor Mounting Installation
v.1	<a href="#">9H15</a>	Microwave Detector Assembly and Mounted Controller Installation
v.1	<a href="#">9H16</a>	Wireless Antenna Installation