



## 8. DRAINAGE

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a b

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sheet a: *Anchor Post Assembly Top-Mounted - Layout and Mounting Details*

sheet b: *Anchor Post Assembly Top-Mounted - Assembly Details*

sheet c: *Anchor Post Assembly Top-Mounted - Fill, Joint Placement and Bill of Materials*

[14B52](#) Cable Barrier Type 1

sheet a: *Cable Barrier Type 1 - Layout, Material List*

sheet b: *Cable Barrier Type 1 - Rock Excavation, Cross Section, Line Post Details*

sheet c: *Cable Barrier Type 1- Layout, Bill of Materials*

[14B53](#) Short Radius MGS

- sheet a: *Short Radius Beam Guard and Terminal (MGS) - Layout*
- sheet b: *Short Radius Beam Guard and Terminal (MGS) - Short Radius Terminal Views, Detail A*
- sheet c: *Short Radius Beam Guard and Terminal (MGS) - Terminal Detail B, Detail C and Detail D*
- sheet d: *Short Radius Beam Guard and Terminal (MGS) - Terminal Anchor Bracket and Anchor Bracket Bearing Details*
- sheet e: *Short Radius Beam Guard and Terminal (MGS) - End Section Buffer, Terminal Connector, Reflector Sheeting Parts*
- sheet f: *Short Radius Beam Guard and Terminal (MGS) - Washer, Post, Tube, Plate and Terminal Post Details, Cable Assembly Detail*
- sheet g: *Short Radius Beam Guard and Terminal (MGS) - Part List*
- sheet h: *Short Radius Beam Guard and Terminal (MGS) - Part List*
- sheet i: *Short Radius Beam Guard and Terminal (MGS) - Part List*

**14C. RECREATIONAL FACILITIES**

- [14C1](#) Timber Rail Guard Fence, Curb and Guard Post and Marker Post
- [14C2](#) Historical Marker Construction
- [14C3](#) Roadside Picnic Table
- [14C6](#) Wayside Well Shelter and Pump and Well Platform
  - a b
- [14C7](#) Picnic Tables, Single Pedestal
  - a b

**15. RW, ACCESS CONTROL AND TRAFFIC CONTROL**

**15A. MARKER POSTS**

- [15A1](#) Marker Post for Right-of-Way
  - sheet a: *Marker Post for Right-of-Way*
  - sheet b: *Flexible Marker Post for Right-of-Way*
- [15A3](#) Flexible Marker Post for Culvert End
  - a b
- [15A4](#) Delineator and Delineator Post
  - sheet a: *Flexible Delineator Post*
  - sheet b: *Barrier Wall Delineator with Reflective Sheeting*
  - sheet c: *Delineator Post with Reflective Sheeting*
  - sheet d: *Channelizing Devices, Permanent Flexible Tubular Marker Post*
  - sheet e: *Delineator with Reflective Sheeting*
- [15A7](#) Object Marker for Hazardous Culverts

**15B. FENCING**

- [15B1](#) Fence Woven Wire
  - a b
- [15B3](#) Chain Link Fence
  - a b
- [15B10](#) Wood Gate, Double Leaf
  - a b c
- [15B11](#) Wood Gate, Single Leaf
  - a b
- [15B12](#) Pipe Gate Details
  - a b

## 15C. MARKING AND SIGNING

- [15C2](#) Barricades and Signs for Mainline, Detour, On Ramp, Off Ramp Closures and Advanced Width Restriction
  - sheet a: *Barricades and Signs for Mainline Closures*
  - sheet b: *Barricades and Signs for Various Closures*
  - sheet c: *Detour Signing for Mainline Closures*
  - sheet d: *On-Ramp Lane Closure*
  - sheet e: *Traffic Control, Guidance Signing for Off-Ramp Lane Closure*
  - sheet f: *Advanced Width Restriction Signing*
- [15C3](#) Barricades and Signs for Sideroad Closures
- [15C4](#) Traffic Control, Advance Warning Signs 45 M.P.H. or Greater, Two Way Undivided Road Open to Traffic
- [15C5](#) Traffic Control, Advance Warning Signs 40 M.P.H. or Less, Two Way Undivided Road Open to Traffic
- [15C6](#) Signing and Marking for Two Lane Bridges
- [15C7](#) Pavement Marking Words, Symbols and Arrows
  - sheet a: *Pavement Marking Symbols*
  - sheet b: *Pavement Marking Words*
  - sheet c: *Pavement Marking Arrows*
  - sheet d: *Roundabout Marking Arrows*
  - sheet e: *Pavement Marking for Bike Lanes*
- [15C8](#) Pavement Marking, Mainline and Turn Lanes
  - sheet a: *Longitudinal Marking (Mainline)*
  - sheet b: *Pavement Marking (Turn Lanes)*
  - sheet c: *Pavement Marking (Turn Lanes)*
  - sheet d: *Pavement Marking (Turn Lanes)*
- [15C9](#) Signing and Pavement Crossing, RR Truck Stopping Lane Marking Railroad Grade
  - sheet a: *Signing and Pavement Marking Details for Railroad - Highway Grade Crossings*
  - sheet b: *Railroad Truck Stopping Lane Pavement Markings*
- [15C11](#) Channelizing Devices
  - sheet a: *Channelizing Devices - Flexible Tubular Marker Post*
  - sheet b: *Channelizing Devices - Drums, Cones, Barricades and Vertical Panel*
- [15C12](#) Traffic Control for Lane Closure with Flagging Operation
  - a b
- [15C14](#) Aerial Enforcement Bars Pavement Marking Details
- [15C18](#) Median Island Marking
  - sheet a: *Pavement Markings, Median Islands*
  - sheet b: *Pavement Markings, Median Island Nose*
  - sheet c: *Median Pavement Markings, Double Arrow Warning Sign Placement*
- [15C19](#) Moving Pavement Marking Operations
  - sheet a: *Moving Pavement Marking Operation - Two-Lane Two-Way Roadway*
  - sheet b: *Moving Pavement Marking Operation – Multi-lane Undivided Roadway*
  - sheet c: *Moving Pavement Marking Operation - Multi-Lane Divided Roadway*
- [15C20](#) Yield Markings
- [15C21](#) Signing and Marking for Two Lane to Four Lane Divided Transitions
- [15C26](#) End-of-Roadway Signing
- [15C29](#) Bicycle Lane Pavement Marking
  - sheet a: *Bicycle Lane Marking*
  - sheet b: *Bicycle Lane – Pavement Marking for Shared Lane 35 MPH or Less*
- [15C31](#) Pavement Marking (Ramps and Gores)
  - sheet a: *Pavement Marking Exit Ramp and Parallel Exit Ramp*

- sheet b: *Pavement Marking Major Split Freeway to Freeway*
- sheet c: *Pavement Marking Entrance Ramp and Parallel Entrance Ramp*
- sheet d: *Pavement Marking, Lane Drop and Lane Reduction*

[15C33](#) Stop Line and Crosswalk Pavement Marking

[15C34](#) Standard Application for Temporary Raised Pavement Markers, Type II

[15C35](#) Pavement Marking

- sheet a: *Pavement Marking (Intersections)*
- sheet b: *Pavement Marking (Climbing and Passing Lanes)*
- sheet c: *Pavement Marking (Climbing and Passing Lanes)*

[15C36](#) Parking Stall Marking

**15D. TRAFFIC CONTROL**

[15D4](#) Traffic Control, Ramp Construction Staging

[15D5](#) Traffic Control, Single Lane Crossover Entrance with Barrier

[15D6](#) Traffic Control, Two-Lane Two-Way Operation

[15D7](#) Traffic Control, Temporary Exit Ramp Crossover

[15D8](#) Traffic Control, Temporary Entrance Ramp Crossover

[15D9](#) Traffic Control, Single Lane Crossover Exit

[15D10](#) Traffic Control, Single Lane Crossover Exit with Barrier

[15D11](#) Traffic Control, Single Lane Crossover

[15D12](#) Traffic Control

- sheet a: *Traffic Control, Lane Closure*
- sheet b: *Traffic Control, Lane Closure, Speed Reduction*
- sheet c: *Traffic Control, Lane Closure, Dynamic Late Merge System*
- sheet d: *Traffic Control, Lane Closure, Basic Traffic Queue Warning System*
- sheet e: *Traffic Control, Lane Closure, Traffic Queue Warning System*

[15D13](#) Temporary Emergency Pullouts

[15D14](#) Traffic Control, Two Lane Closure on Freeway or Expressway

[15D15](#) Traffic Control, Ramp within Lane Closure

- sheet a: *Traffic Control, Parallel Entrance Ramp within Right Lane Closure*
- sheet b: *Traffic Control, Entrance Ramp within Left Lane Closure*
- sheet c: *Traffic Control, Tapered Entrance Ramp within Right Lane Closure*
- sheet d: *Traffic Control, Tapered Entrance Ramp within Left Lane Closure*
- sheet e: *Traffic Control, Parallel Exit Ramp within Lane Closure*

[15D16](#) Traffic Control, Exit Ramp Closure

[15D20](#) Traffic Control, Single Lane Closure, Non-Freeway/Expressway

- sheet a: *Traffic Control, Single Lane Closure, Divided Non-Freeway/Expressway*
- sheet b: *Traffic Control, Single Right Lane Closure Undivided Non-Freeway/Expressway*
- sheet c: *Traffic Control, Single Left Lane Closure Undivided Non-Freeway/Expressway*

[15D21](#) Traffic Control, Intersection within Single Lane Closure

- sheet a: *Traffic Control, Intersection within Single Right Lane Closure*
- sheet b: *Traffic Control, Intersection within Single Left Lane Closure*

[15D22](#) Traffic Control, Two Lane Closure, Non-Freeway/Expressway

[15D23](#) Traffic Control, Intersection within Two Lane Closure

- sheet a: *Traffic Control, Intersection within Two Right Lane Closure*
- sheet b: *Traffic Control, Intersection within Two Left Lane Closure*

[15D27](#) Traffic Control, Shoulder Closure on Divided Roadway, Speeds Greater than 40 M.P.H.

[15D28](#) Traffic Control, Work on Shoulder or Parking Lane, Undivided Roadway

- [15D29](#) Traffic Control, Vehicle Entrance/Exit or Haul Road
- [15D30](#) Traffic Control, Pedestrian Accommodation
  - sheet a: *Traffic Control, Pedestrian Accommodation*
  - sheet b: *Traffic Control, Temporary ADA Compliant Pedestrian Accommodation*
  - sheet c: *Traffic Control, Temporary Pedestrian Accommodation*
  - sheet d: *Traffic Control, Pedestrian Accommodation*
  - sheet e: *Traffic Control, Pedestrian Accommodation*
  - sheet f: *Traffic Control, Pedestrian Accommodation*
  - sheet g: *Traffic Control, Pedestrian Accommodation*
  - sheet h: *Traffic Control, Pedestrian Accommodation*
  - sheet i: *Traffic Control, Pedestrian Accommodation*
  - sheet j: *Traffic Control, Pedestrian Accommodation*
  - sheet k: *Traffic Control, Pedestrian Accommodation*
- [15D31](#) Traffic Control, Temporary Bypass Roadway
- [15D32](#) Traffic Control, One Lane Road Stop Condition
- [15D33](#) Traffic Control, One Lane Road with Temporary Signals
- [15D35](#) Ramp Gate
  - a b c
- [15D36](#) Barricade Rack
- [15D37](#) Traffic Control, Flagging Operation, Roundabout
- [15D39](#) Traffic Control for Drop-off Signing
- [15D40](#) Traffic Control, Lane Shift, Multi-Lane Divided or One-Way Road
  - sheet a: *Traffic Control, Full Lane Shift, Non-Freeway/Expressway or Multilane Divided 45MPH or Under*
  - sheet b: *Traffic Control, Full Lane Shift Multilane Divided 50MPH and Greater*
  - sheet c: *Traffic Control, Partial Lane Shift, Non-Freeway/Expressway or Multilane Divided 45MPH or Under*
  - sheet d: *Traffic Control, Partial Lane Shift Multilane Divided 50MPH and Greater*
- [15D41](#) Traffic Control, Lane Shift, Multi-lane Divided
- [15D42](#) Traffic Control, Two Lane Full Freeway Closure
- [15D43](#) Traffic Control, Short Duration Mobile Operations
- [15D44](#) Traffic Control, Signing on Roadways with Milled Surfaces
- [15D45](#) Traffic Control, Signing on Roadways with Loose Gravel
- [15D46](#) Traffic Control, One-Way Signing
- [15D47](#) Traffic Control, Ingress/Egress
  - sheet a: *Ingress/Egress with Barrier*
  - sheet b: *Ingress/Egress without Barrier*
- [15D48](#) Traffic Control, Lane Shift in Flagging Operation
- [15D49](#) Traffic Control, System Ramp Closure
- [15D50](#) Traffic Control, Added Lane Closure
  - sheet a: *Added Lane Closure without Lane Shift*
  - sheet b: *Added Lane Closure with Lane Shift*
- [15D51](#) Traffic Control, Mobile Operations on an Undivided Roadway

## 16. SURVEYING

### 16A. MONUMENTS

- [16A1](#) Landmark Reference Monuments and Covers