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- sheet c: *Thrie Beam Approach Retrofit Installation of Missing Post -Post Details, Bill of Materials*

[14B51](#) Anchor Post Assembly Top Mounted

- 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*
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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. R/W, 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

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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*

sheet g: *Traffic Control for Entrance Ramp Closure*

sheet h: *Modified Route Assembly for Detour 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: *Permanent Longitudinal Markings*

sheet b: *Temporary Longitudinal Pavement Marking*

sheet c: *Pavement Marking (Turn Lanes)*

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[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: *Median Island Pavement Markings*

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
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 - sheet a: *Pavement Marking (Intersections)*
 - sheet b: *Pavement Marking (Climbing and Passing Lanes)*
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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
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- [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*
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- [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*
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- [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, Divided 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*
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- sheet g: *Traffic Control, Pedestrian Accommodation*
- sheet h: *Traffic Control, Pedestrian Accommodation*
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[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 Over*
- sheet c: *Traffic Control, Partial Lane Shift, Non-Freeway/Expressway or Multilane Divided 45MPH or Under*
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[15D41](#) Traffic Control, Multiple Lane Shift, Multi-lane Divided Road

[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