

TABLE OF CONTENTS
 FY 2021-22 STANDARD PLANS FOR ROAD CONSTRUCTION

<i>Standard Plans Index</i>	<i>Index Title</i>
<u>Miscellaneous</u>	
000-510	<i>Superelevation Transitions - High Speed Roadways</i>
000-511	<i>Superelevation Transitions - Low Speed Roadways</i>
000-525	<i>Ramp Terminals</i>
<u>General Construction Operations</u>	
<u>Maintenance of Traffic</u>	
102-100	<i>Temporary Barrier</i>
102-110	<i>Type K Temporary Concrete Barrier System</i>
102-120	<i>Low Profile Barrier</i>
102-600	<i>General Information for Traffic Control Through Work Zones</i>
102-601	<i>Two-Lane and Multilane Roadway, Work Beyond Shoulder</i>
102-602	<i>Two-Lane and Multilane, Work on Shoulder</i>
102-603	<i>Two-Lane, Two-Way, Work Within the Travel Way</i>
102-604	<i>Two-Lane, Two-Way, Intersection Work</i>
102-606	<i>Two-Lane Roadway, Lane Closure Using Temporary Traffic Signals</i>
102-607	<i>Mobile Operations</i>
102-608	<i>Two-Lane, Two-Way, Temporary Diversion Connection</i>
102-613	<i>Multilane Roadway, Lane Closures</i>
102-615	<i>Multilane Roadway, Intersection Work</i>
102-620	<i>Multilane Roadway, Temporary Diversion</i>
102-625	<i>Temporary Road Closure</i>
102-628	<i>Two-Way Left-Turn Lanes</i>
102-655	<i>Traffic Pacing</i>
102-660	<i>Sidewalk Closure</i>
102-661	<i>Bicycle Lane Closures</i>
102-665	<i>Limited Access Temporary Opening</i>
102-680	<i>Haul Road Crossing</i>
<u>Clearing Construction Site</u>	
<u>Clearing and Grubbing</u>	
110-100	<i>Tree Protection and Preservation</i>
110-200	<i>Mailboxes</i>
<u>Earthwork and Related Operations</u>	
120-001	<i>Embankment Utilization</i>
120-002	<i>Subsoil Excavation</i>
125-001	<i>Utility Adjustments thru Existing Pavement</i>
141-T01	<i>Settlement Plate</i>
160-001	<i>Miscellaneous Earthwork Details</i>

<i>Standard Plans Index</i>	<i>Index Title</i>
<u>Bituminous Treatments, Surface Courses, and Concrete Pavement</u>	
<u>Concrete Pavement</u>	
330-001	<i>Paved and Graded Driveways</i>
350-001	<i>Concrete Pavement Joints</i>
353-001	<i>Concrete Slab Replacement</i>
370-001	<i>Bridge Approach Expansion Joint - Concrete Pavement with Special Select Soil Base</i>
<u>Structures</u>	
<u>Concrete Structures</u>	
400-010	<i>Cantilever Retaining Wall (C-I-P)</i>
400-011	<i>Gravity Wall</i>
400-021	<i>Concrete Steps</i>
<u>Inlets, Manholes and Junction Boxes</u>	
425-001	<i>Supplementary Details for Manholes and Inlets</i>
425-010	<i>Structure Bottoms - Type J and P</i>
425-020	<i>Curb Inlet Tops - Types 1, 2, 3 and 4</i>
425-021	<i>Curb Inlet Tops - Types 5 and 6</i>
425-022	<i>Curb Inlet - Type 7</i>
425-023	<i>Curb Inlet - Type 8</i>
425-024	<i>Curb Inlet Top - Type 9</i>
425-025	<i>Curb Inlet Top - Type 10</i>
425-030	<i>Median Barrier Inlets Types 1 and 2</i>
425-031	<i>Adjacent Barrier Inlet</i>
425-032	<i>Curb and Gutter Barrier Inlet</i>
425-040	<i>Gutter Inlet - Type S</i>
425-041	<i>Gutter Inlet - Type V</i>
425-050	<i>Ditch Bottom Inlet - Type A</i>
425-051	<i>Ditch Bottom Inlet - Type B</i>
425-052	<i>Ditch Bottom Inlets - Types C, D, E and H</i>
425-053	<i>Ditch Bottom Inlets - Types F and G</i>
425-054	<i>Ditch Bottom Inlet - Type J</i>
425-055	<i>Ditch Bottom Inlet - Type K</i>
425-060	<i>Back of Sidewalk Drainage</i>
425-061	<i>Closed Flume Inlet</i>
425-070	<i>Skimmer for Outlet Control Structures</i>
425-080	<i>Utility Conflicts thru Drainage Structures</i>
425-090	<i>Safety Modifications for Inlets In Box Culverts</i>

TABLE OF CONTENTS
FY 2021-22 STANDARD PLANS FOR ROAD CONSTRUCTION

Standard Plans Index	Index Title	Standard Plans Index	Index Title
Pipe Culverts - End Treatments		Concrete Barriers, Traffic Railings, and Parapets	
430-001	Miscellaneous Drainage Details	521-001	Concrete Barrier
430-010	U-Type Concrete Endwalls With Grates - 15" to 30" Pipe	521-002	Pier Protection Barrier
430-011	U-Type Concrete Endwalls - Baffles and Grate Optional - 15" to 30" Pipe	521-010	Opaque Visual Barrier
430-012	U-Type Concrete Endwall - Energy Dissipator - 30" to 72" Pipe	521-510	Concrete Barrier/Noise Wall (8'-0")
430-020	Flared End Section	521-511	Concrete Barrier/Noise Wall (14'-0")
430-021	Cross Drain Mitered End Section	521-512	Concrete Barrier/Noise Wall-Junction Slab
430-022	Side Drain Mitered End Section	521-513	Concrete Barrier/Noise Wall T-Shaped Spread Footing
430-030	Straight Concrete Endwalls - Single and Multiple Pipe	521-514	Concrete Barrier/Noise Wall L-Shaped Spread Footing
430-031	Straight Concrete Endwalls - Single and Double 60" Pipe	521-515	Concrete Barrier/Noise Wall Trench Footing
430-032	Straight Concrete Endwalls - Single and Double 66" Pipe	521-600	MSE Wall Coping (Precast or C-I-P)
430-033	Straight Concrete Endwalls - Single and Double 72" Pipe	521-610	Concrete Barrier/Junction Slab - Wall Coping
430-034	Straight Concrete Endwalls - Single 84" Pipe	521-611	Concrete Barrier/Junction Slab-Wall Coping (FRP)
430-040	Winged Concrete Endwalls	521-620	Concrete Barrier/Raised Sidewalk - Wall Coping
430-090	Safety Modifications for Endwalls	521-630	Parapet with C-I-P Sidewalk - Wall Coping
Structures - Miscellaneous Drainage		521-640	Drainage Inlet Openings in Junction Slab - Wall Coping
436-001	Trench Drain	521-650	Light Pole Pedestal - Wall Coping
440-001	Underdrain	Concrete Sidewalk and Driveways	
440-002	Underdrain Inspection Box	522-001	Concrete Sidewalk
443-001	French Drain	522-002	Detectable Warnings and Sidewalk Curb Ramps
443-002	Skimmers for French Drain Outlets	522-003	Concrete Flared Driveways
444-T01	Deep Well Injection Box	Ditch and Slope Pavement	
446-001	Concrete Pavement Subdrainage	524-001	Ditch Pavement and Sodding
Structures Foundations - Sheet Pile Wall		Noise and Perimeter Walls	
455-400	Precast Concrete Sheet Pile Wall (Conventional)	534-200	Noise Walls (Precast)
455-440	Precast Concrete Sheet Pile Wall (CFRP/GFRP & HSSS/GFRP)	534-250	Perimeter Walls
Incidental Construction		Guardrail	
Miscellaneous		536-001	Guardrail
508-T01	Traffic Control Devices for Movable Span Bridge Signals	536-002	Guardrail Transitions and Connections for Existing Bridges
509-070	Railroad Grade Crossing Traffic Control Devices	Crash Cushions	
509-100	Advance Warning for R/R Crossing	544-001	Crash Cushion Transition Details
Metal Pedestrian/Bicycle Railings, Guiderails and Handrails		Rumble Strips	
515-052	Pedestrian/Bicycle Railing (Steel)	546-001	Raised Rumble Strips
515-062	Pedestrian/Bicycle Railing (Aluminum)	546-010	Ground-In Rumble Strips
515-070	Pipe Guiderail (Aluminum)	Retaining Wall Systems	
515-080	Pipe Guiderail (Steel)	548-020	MSE Retaining Wall Systems - Permanent
Concrete Gutter, Curb Elements and Traffic Separator		548-030	MSE Retaining Wall Systems - Temporary
520-001	Curb and Gutter	Fencing	
520-005	Concrete Shoulder Gutter Spillway	550-001	Fence - Type A
520-010	Median Opening Flume	550-002	Fence - Type B
520-020	Traffic Separators	550-003	Cantilever Slide Gate - Type B Fence
		550-004	Fence Location

TABLE OF CONTENTS
FY 2021-22 STANDARD PLANS FOR ROAD CONSTRUCTION

Standard Plans Index	Index Title
Performance Turf	
570-001	Permanent Erosion Control
570-010	Shoulder Sodding and Turf on Existing Facilities
Landscape	
580-001	Landscape Installation
Traffic Control Signals and Devices	
630-001	Conduit Installation Details
634-001	Signal Cable and Span Wire Installation Details
634-002	Aerial Interconnect
635-001	Pull and Splice Boxes
639-001	Service Point Details
639-002	Electric Power Service
641-010	Concrete Poles
641-020	Concrete CCTV Pole
646-001	Aluminum Post and Pedestal Mounted Pedestrian Detectors and Signals
649-010	Steel Strain Pole
649-020	Steel CCTV Pole
649-030	Standard Mast Arm Assemblies
649-031	Mast Arm Assemblies
653-001	Pedestrian Control Signal Installation Details
654-001	Rectangular Rapid Flashing Beacon Assembly
659-010	Span Wire Mounted Sign Details
659-020	Camera Mounting Details
660-001	Vehicle Loop Installation Details
665-001	Pedestrian Detector Assembly Installation Details
671-001	Standard Signal Operating Plans
676-010	Cabinet Installation Details
695-001	Traffic Monitoring Site
Signing, Pavement Markings and Lighting	
Highway Signing	
700-010	Single Column Ground Signs
700-011	Single Column Cantilever Ground Mounted Sign
700-012	Single Post Bridge Mounted Sign Support
700-013	Single Post Median Barrier Mounted Sign Support
700-020	Multi-Column Ground Sign
700-030	Wind and Hanger Beams for Overhead Signs
700-031	External Lighting for Signs
700-040	Cantilever Sign Structure
700-041	Span Sign Structure

Standard Plans Index	Index Title
Highway Signing (Cont.)	
700-050	Free-Swinging, Internally-Illuminated Street Sign Assemblies
700-090	Dynamic Message Sign Walk-In
700-091	Catwalk Details
700-101	Typical Sections for Placement of Single and Multi-Column Signs
700-102	Special Sign Details
700-104	Signing for Motorist Services
700-105	Welcome Center Signing
700-106	Rural Narrow Bridge Treatment
700-107	Bridge Weight Restrictions
700-108	Typical Signing for Truck Weigh and Inspection Stations
700-109	Traffic Controls for Street Terminations
700-110	Mounting Exit Number Panels to Signs
700-120	Enhanced Highway Signing Assemblies
Pavement Markings	
706-001	Typical Placement of Raised Pavement Markers
711-001	Pavement Markings
711-002	Bicycle Markings
711-003	Interchange Markings
Highway Lighting Systems	
715-001	Conventional Lighting
715-002	Standard Aluminum Lighting
715-010	High Mast Lighting
Railroad Crossing	
830-T01	Railroad (Grade) Crossings