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PDN - CHAPTER 10

INDEX OF

STANDARD

DRAWINGS

Revised: 04/30/25

CHAPTER 10 - INDEX OF STANDARD DRAWINGS

Table of Contents

INTRODUCTION		1
SECTION 1 - ST	ANDARD ROADWAY DRAWINGS	3
10-100.00 ST	TANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND LEGENDS	3
10-100.01	STANDARD ROADWAY DRAWINGS TITLE SHEET	3
10-100.02	STANDARD ABBREVIATIONS AND LEGENDS	3
10-101.00 ST	TANDARD ROADWAY DRAWINGS	4
10-101.01	RD18 ROUNDABOUT TYPICAL SECTIONS AND DESIGN CRITERIA	4
10-101.02	RD11 TYPICAL SECTIONS AND DESIGN CRITERIA	4
10-101.03	RD11 SLOPE DEVELOPMENT AND RUNOFF LENGTHS	6
10-101.04	RD11 INTERSECTION SIGHT DISTANCE	6
10-101.05	UNDERDRAINS	7
10-102.00 PI	PE CULVERTS, ENDWALLS, AND ENERGY DISSIPATERS	7
10-102.01	PIPE CULVERTS AND FLUME	7
10-102.02	SAFETY CROSS DRAIN ENDWALLS	8
10-102.03	SAFETY SIDE DRAIN ENDWALLS	9
10-102.04	PROTECTED ENDWALLS*	9
10-102.05	ENERGY DISSIPATERS	10
10-103.00 CA	ATCH BASINS AND MANHOLES	10
	CATCH BASINS	
PRECAST ROU	ND STRUCTURES (48" THRU 120")	16
PRECAST ROU	ND STRUCTURES REINFORCEMENT DETAILS	16
MISCELLANEOU	JS DETAILS FOR ROUND STRUCTURES	16
10-103.03	MANHOLES	16
10-103.04	PRECAST RISERS	17
10-103.05	SPRING DRAIN BOXES	17
10-103.06	SLOTTED AND TRENCH DRAINS	17
10-104.00 RG	OADWAY, PAVEMENT APPURTENANCES, AND FENCES	18
10-104.01	CONCRETE PAVEMENT	18

English	<u>K</u>	<u>(evised: 04/30/25</u>
10-104.02	INTERSECTIONS	19
10-104.03	CURBS	19
10-104.04	WALLS	19
10-104.05	FENCES AND RIGHT-OF-WAY MARKERS	20
10-105.00 N	//ULTIMODAL	21
10-105.01	CURB RAMPS	21
10-105.02	PAVEMENT MARKINGS	22
10-105.03	SAFETY RAIL	22
10-105.04	SIDEWALK	22
10-105.05	TYPICAL SECTION	23
10-106.00 S	SAFETY DESIGN AND GUARDRAILS	23
10-106.01	CLEAR ZONE AND SAFETY PLANS	23
10-106.02	CABLE BARRIER	24
10-106.03	CRASH CUSHIONS	24
10-106.04	GUARDRAIL DETAILS	24
10-106.05	GUARDRAIL CONNECTIONS	24
10-106.06	GUARDRAIL (SPECIAL CASES)	25
10-106.07	GUARDRAIL TERMINALS	26
10-106.08	GUARDRAIL ANCHORS	26
10-106.09	CONCRETE MEDIAN BARRIERS	27
10-106.10	GUARDRAIL MAINTENANCE	28
10-107.00 E	ROSION PREVENTION AND SEDIMENT CONTROL	29
10-107.01	DEWATERING DEVICES	29
10-107.02	SLOPE DEVICES	29
10-107.03	DITCH DEVICES	29
10-107.04	INLET PROTECTION	30
10-107.05	DETAINING DEVICES	31
10-107.06	IN-STREAM DEVICES	32
10-108.00 N	IATURAL STREAM DESIGN	32
10-108.01	DEFLECTORS, VANES, AND ENERGY DISSIPATORS	32
SECTION 2 – S	TANDARD TRAFFIC DESIGN DRAWINGS	33
10-200.00 S	SIGNS	33
10-201.00 S	SIGNALS	35

English	Revised: 04/30/25
10-202.00 LIGHTING AND UTILITY POLES	37
10-203.00 RAILROAD CROSSING	37
10-204.00 DESIGN - TRAFFIC CONTROL	38
10-204.01 PAVEMENT MARKINGS	38
10-204.02 WORK ZONES	39
SECTION 3 – STANDARD STRUCTURE DRAWINGS	42
10-300.00 NEW STRUCTURES	42
10-301.00 LRFD BOX CULVERTS	44
10-302.00 BRIDGE REPAIRS	52

English Revised: 04/30/25

INTRODUCTION

ROADWAY DESIGN GUIDELINES AND STANDARD DRAWINGS

Roadway Design Guidelines (RDG) and Standard Drawings have been created to ensure that there is consistency in TDOT projects across the state. The Roadway Design Guidelines and Standard Drawings indicate the current recognized design standards for new construction or reconstruction of existing highways and shall be utilized while giving due regard to topography, natural conditions, availability of road material, and prevailing traffic conditions.

Throughout these guidelines you will see the following terms used. To clarify the meanings intended in this guide, the following definitions apply:

- **Designer** Preconstruction Roadway Designer, or Consultant Designer
- **Design Manager** Preconstruction Design Lead, or Consultant Design Manager
- Project Team Preconstruction Team consisting of a Discipline Manager, members of Roadway, Structure, Survey, Environmental, ROW, and Utilities (either TDOT staff or consulting staff), overseen by a Project Manager.
- **Concept Report** Report developed by the Engineering Concepts Section of the Project Management Division during Stage 0 of a project.

All forms mentioned throughout this chapter can be found on the <u>Roadway Design -TDOT</u> <u>Documents</u> webpage.

3 Phases of Project Development 1. Preliminary 2. Right-of-Way 3. Construction 4 Stages of Project Delivery Network 1. Context/Scoping 2. Footprint Established 3. Plan-in-Hand 4. PS&E

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SECTION 1 - STANDARD ROADWAY DRAWINGS

10-100.00 STANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND LEGENDS

10-100.01	STANDARD R	OADWAY DRAWINGS TITLE SHEET
DRAWING	REVISION DATE	DESCRIPTION
RD-TP-1	10-01-24	STANDARD ROADWAY DRAWINGS TITLE SHEET
10-100.02	STANDARD A	BBREVIATIONS AND LEGENDS
DRAWING	REVISION DATE	DESCRIPTION
RD-A-1	02-20-20	STANDARD ABBREVIATIONS A THROUGH L
RD-A-2		STANDARD ABBREVIATIONS M THROUGH Z
RD-L-1	02-20-20	STANDARD LEGEND
RD-L-1A		STANDARD LEGEND
RD-L-2	02-20-20	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	03-01-23	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	10-01-24	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-5	07-30-24	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	02-20-20	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	02-20-20	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-8	02-20-20	STANDARD LEGEND FOR NATURAL STREAM DESIGN

English Revised: 04/30/25

10-101.00 STANDARD ROADWAY DRAWINGS

10-101.01 RD18 ROUNDABOUT TYPICAL SECTIONS AND DESIGN CRITERIA

DRAWING	REVISION DATE	DESCRIPTION
RD18-RTS-1		DESIGN STANDARDS FOR SINGLE LANE URBAN AND RURAL ROUNDABOUTS
RD18-RTS-2		DESIGN STANDARDS FOR MULTI-LANE URBAN AND RURAL ROUNDABOUTS
RD18-RTS-3	04-30-25	STANDARD CONSTRUCTION DETAILS FOR ROUNDABOUTS
RD18-RSD-1		SIGHT DISTANCE FOR URBAN AND RURAL ROUNDABOUTS

10-101.02 RD11 TYPICAL SECTIONS AND DESIGN CRITERIA

DRAWING	REVISION DATE	DESCRIPTION
RD11-SE-1		TRANSITION AND CROSS SLOPE DETAILS
RD11-SE-2		SUPERELEVATION TRANSITION DETAILS FOR UNDIVIDED ROADWAYS
RD11-SE-2A		SUPERELEVATION TRANSITION SECTIONS FOR UNDIVIDED ROADWAYS
RD11-SE-3		SUPERELEVATION TRANSITION DETAILS FOR DIVIDED ROADWAYS
RD11-SE-3A		SUPERELEVATION TRANSITION SECTIONS FOR DIVIDED ROADWAYS
RD11-TS-1	06-28-19	DESIGN STANDARDS FOR LOW-VOLUME ROADS
RD11-TS-1A	06-28-19	DESIGN STANDARDS FOR LOCAL ROADS AND STREETS
RD11-TS-2		DESIGN STANDARDS FOR COLLECTORS, 2-LANE ROADS AND STREETS
RD11-TS-2A		DESIGN STANDARDS FOR COLLECTOR HIGHWAYS WITH DEPRESSED MEDIAN (4 AND 6 LANE)

English		Revised: 04/30/25
RD11-TS-2B		DESIGN STANDARDS FOR COLLECTOR HIGHWAYS WITH FLUSH MEDIAN (4 AND 6 LANE)
RD11-TS-3		DESIGN STANDARD FOR ARTERIAL HIGHWAYS (2-LANE)
RD11-TS-3A	06-28-19	DESIGN STANDARDS FOR ARTERIAL HIGHWAYS WITH DEPRESSED MEDIAN (4 AND 6 LANE)
RD11-TS-3B		DESIGN STANDARDS FOR ARTERIAL HIGHWAYS WITH FLUSH MEDIAN (4 AND 6 LANE)
RD11-TS-3C		DESIGN STANDARDS FOR ARTERIALS WITH INDEPENDENT ROADWAYS (4 AND 6 LANE)
RD11-TS-4	10-01-24	DESIGN STANDARDS FOR ARTERIAL AND FREEWAY RAMPS (1, 2 AND 3 LANE)
RD11-TS-5	06-28-19	DESIGN STANDARDS FOR FREEWAYS WITH DEPRESSED MEDIAN (4 AND 6 LANE)
RD11-TS-5A		DESIGN STANDARDS FOR FREEWAYS WITH INDEPENDENT ROADWAYS (4 AND 6 LANE)
RD11-TS-5B		DESIGN STANDARDS FOR FREEWAYS WITH MEDIAN BARRIER (4 AND 6 LANE)
RD11-TS-5W	06-15-21	TYPICAL DETAILS FOR INSIDE LANE WIDENING OF FREEWAYS
RD11-TS-6		TYPICAL CURB & GUTTER SECTIONS WITH SHOULDERS AND WITH GRASS STRIPS
RD11-TS-6A		TYPICAL CURB & GUTTER SECTIONS WITHOUT SHOULDERS AND WITH GRASS STRIPS
RD11-TS-6B		TYPICAL CURB & GUTTER SECTIONS WITH SHOULDERS AND WITHOUT GRASS STRIPS
RD11-TS-6C		TYPICAL CURB & GUTTER SECTIONS WITHOUT SHOULDERS AND WITHOUT GRASS STRIPS
RD11-TS-7	07-17-20	DESIGN STANDARDS 2-LANE CURB & GUTTER WITH CONTINUOUS 2-WAY LEFT-TURN LANE WITHOUT GRASS STRIPS
RD11-TS-7A	07-17-20	DESIGN STANDARDS 2-LANE CURB & GUTTER WITH CONTINUOUS 2-WAY LEFT-TURN LANE WITH GRASS STRIPS

Enalish	CHAPTER 10 – INDEX OF STANDARD DRAWINGS English Revised: 04/30/25			
RD11-TS-7B	07-17-20	DESIGN STANDARDS 2-LANE HIGHWAYS WITH CONTINUOUS 2-WAY LEFT-TURN LANE		
10-101.03	RD11 SLOPE	DEVELOPMENT AND RUNOFF LENGTHS		
DRAWING	REVISION DATE	DESCRIPTION		
RD11-LR-1		MINIMUM RUNOFF LENGTHS (L_R) FOR URBAN HIGHWAYS		
RD11-LR-2		MINIMUM RUNOFF LENGTHS (L_R) FOR RURAL HIGHWAYS		
RD11-S-11		DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT		
RD11-S-11A		ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION		
RD11-S-11B		DESIGN AND CONSTRUCTION DETAILS FOR ROCK CUT SLOPE AND CATCHMENT		
RD11-SA-1	01-09-24	SAFETY APPROACH TO UNDERPASSES GRADING DESIGN AND SLOPE PROTECTION		
10-101.04	RD11 INTERS	ECTION SIGHT DISTANCE		
DRAWING	REVISION DATE	DESCRIPTION		
RD11-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES		
RD11-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION		
RD11-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS		
RD11-SD-4		INTERSECTION SIGHT DISTANCE 4-LANE AND 5-LANE UNDIVIDED ROADWAYS		
RD11-SD-5		INTERSECTION SIGHT DISTANCE 4-LANE DIVIDED HIGHWAYS		
RD11-SD-6		INTERSECTION SIGHT DISTANCE 6-LANE DIVIDED HIGHWAYS		
RD11-SD-7		INTERSECTION SIGHT DISTANCE FOR PASSIVE RAILROAD HIGHWAY GRADE CROSSINGS		

English	CHAPIE	<u> Revised: 04/30/25</u>
10-101.05	UNDERDRAIN	
DRAWING	REVISION DATE	DESCRIPTION
RD-UD-3	01-09-24	UNDERDRAIN DETAILS
RD-UD-4	06-28-19	UNDERDRAIN LATERAL DETAILS
RD-UD-6	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 1:1 & 2:1 SLOPES
RD-UD-7	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 3:1 & 4:1 SLOPES
RD-UD-8	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 5:1 SLOPES
RD-UD-9	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1 SLOPES
10-102.00	PIPE CULVE	ERTS, ENDWALLS, AND ENERGY DISSIPATERS
10-102.01	PIPE CULVER	TS AND FLUME
DRAWING	REVISION DATE	DESCRIPTION
D-FLU-1	06-28-19	FLUME DETAILS
D-FLU-2		BRIDGE END DRAIN FLUME DETAILS
D-FLU-2A		BRIDGE END DRAIN FLUME DETAILS
D-FLU-3	04-01-25	BRIDGE END DRAIN FLUME DETAILS
D-PB-1	03-01-23	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
D-PB-2	03-01-23	STANDARD DETAILS FOR FLEXIBLE PIPE INSTALLATION
D-PB-3	11-30-20	INDUCED TRENCH SOIL EMBANKMENT FOR PIPE CULVERT INSTALLATION
D-PB-4	01-09-24	PIPE COLLAR DETAILS
	01-03-24	

English	CHAPTI	Revised: 04/30/25
D-PG-4	06-28-19	FERROUS AND ALUMINUM CORRUGATED METAL PIPE ARCHES
D-PO-1	06-28-19	STANDARD OVAL AND REINFORCED CONCRETE ARCH PIPE CULVERT
D-PS-1	06-28-19	STRUTTING DETAILS FOR CORR. METAL & STRUCTURAL PLATE ROUND PIPE
10-102.02	SAFETY CRO	SS DRAIN ENDWALLS
DRAWING	REVISION DATE	DESCRIPTION
D-PE-15A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 15" PIPE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-15B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 15" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-18A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 18" PIPE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-18B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 18" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-24A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 24" PIPE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-24B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 24" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-30A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 30" PIPE WITH STEEL PIPE GRATE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-30B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 30" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-36A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 36" PIPE WITH STEEL PIPE GRATE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-36B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 36" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-42A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 42" PIPE WITH STEEL PIPE GRATE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-42B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 42" PIPE, BILL OF STEEL AND PRECAST NOTES

English	CHAPTE	Revised: 04/30/25
D-PE-48A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 48" PIPE WITH STEEL PIPE GRATE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-48B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 48" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-99	03-04-21	TYPE "U" CROSS DRAIN ENDWALL DETAILS, PIPE GRATE & SKEWED CONNECTION
10-102.03	SAFETY SIDE	DRAIN ENDWALLS
DRAWING	REVISION DATE	DESCRIPTION
D-SEW-1A	07-07-23	TYPE "SAFETY" SIDE DRAIN ENDWALL WITH STEEL PIPE GRATE, FOR 15" THRU 48" PIPES, 6:1 SLOPE
D-SEW-12D	07-07-23	TYPE "SAFETY" SIDE DRAIN ENDWALL WITH STEEL PIPE GRATE, FOR 18" PIPES, 12:1 SLOPE
SD-MSE-1	06-28-19	SIDE DRAIN MITERED END SECTION
10-102.04	PROTECTED	ENDWALLS*
DRAWING	REVISION DATE	DESCRIPTION
D-PE-4	06-28-19	STRAIGHT CONCRETE ENDWALLS (PIPE SIZES 18" TO 30")
D-PE-5	06-28-19	STRAIGHT CONCRETE ENDWALLS FOR HORIZONTAL OVAL CONCRETE PIPES (ALL SIZES AND SKEWS)
D-PEW-1		PROTECTED ENDWALLS FOR ROUND & OVAL PIPES (PIPE SIZES 18" TO 72", ALL SKEWS, 2:1 & 3:1 SLOPES)
D-PEW-2		PROTECTED ENDWALLS FOR ROUND PIPES DETAILS & QUANTITIES (PIPE SIZES 18" TO 72", ALL SKEWS, 2:1 & 3:1 SLOPES)
D-PEW-3		PROTECTED ENDWALLS FOR OVAL PIPES DETAILS & QUANTITIES (EQU. PIPE SIZES 18" TO 72", ALL SKEWS, 2:1 & 3:1 SLOPES)
D-PEW-4		PROTECTED STRAIGHT ENDWALLS (PIPE SIZES 18" TO 30" & EQU. OVAL PIPES)

English	Revised: 04/30/25
D-PEW-5	RIP-RAP END TREATMENT FOR CORRUGATED METAL PIPE, OVAL AND PIPE ARCH CULVERTS WITH BEVELED ENDS (PIPE SIZES 42" & LARGER)

*NOTE: THE PROTECTED ENDWALLS MAY NOT BE USED INSIDE THE CLEAR ZONE UNLESS SHIELDED BY GUARDRAIL OR OTHER SAFETY DEVICE.

10-102.05 ENERGY DISSIPATERS

DRAWING	REVISION DATE	DESCRIPTION
D-ED-1		CONCRETE FLUME ENERGY DISSIPATER

10-103.00 CATCH BASINS AND MANHOLES

10-103.01 CATCH BASINS

DRAWING	REVISION DATE	DESCRIPTION
D-CB-DI		ALTERNATE CATCH BASIN DROP INLET DETAILS
D-CB-10LPC	02-20-20	LOW PROFILE LOWERED CURB 32" X 26" RECTANGULAR CONCRETE NO. 10LPC CATCH BASIN
D-CB-10RA	01-28-22	STANDARD PRECAST 48" CIRCULAR NO. 10 CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-10S	02-20-20	STANDARD RECTANGULAR CONCRETE NO. 10 CATCH BASIN
D-CB-10SB	02-20-20	STANDARD 4' X 4' SQUARE CONCRETE NO. 10 CATCH BASIN
D-CB-12LP	02-20-20	LOW PROFILE 32" X 32" SQUARE CONCRETE NO. 12LP CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-12LPA		ALTERNATE REINFORCEMENT FOR PRECAST CONCRETE 32" X 32" NO. 12LP CATCH BASIN
D-CB-12P	02-20-20	STANDARD PRECAST RECTANGULAR CONCRETE NO.12 CATCH BASIN
D-CB-12RA	01-28-22	STANDARD PRECAST 48" CIRCULAR NO. 12 CATCH BASIN FOR USE WITH 6" VERTICAL CURB

English		Revised: 04/30/25
D-CB-12RB	02-20-20	STANDARD PRECAST 60" AND 72" CIRCULAR NO. 12 CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-12RC	02-20-20	STANDARD PRECAST 84" THRU 120" CIRCULAR NO. 12 CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-12S	02-20-20	STANDARD RECTANGULAR CONCRETE NO. 12 CATCH BASIN
D-CB-12SB	02-20-20	STANDARD 4' X 4' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SC	02-20-20	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SD	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SE	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-13P	02-20-20	STANDARD PRECAST RECTANGULAR CONCRETE NO. 13 CATCH BASIN
D-CB-13RA	01-28-22	STANDARD PRECAST 48" CIRCULAR NO. 13 CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-13RB	02-20-20	STANDARD PRECAST 60" AND 72" CIRCULAR NO. 13 CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-13RC	02-20-20	STANDARD PRECAST 84" THRU 120" CIRCULAR NO. 13 CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-13S	02-20-20	STANDARD RECTANGULAR CONCRETE NO. 13 CATCH BASIN
D-CB-14P	02-20-20	STANDARD PRECAST RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-14RB	02-20-20	STANDARD PRECAST CIRCULAR NO. 14RB CATCH BASIN
D-CB-14S	02-20-20	STANDARD RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-14SE	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 14 CATCH BASIN
D-CB-16S	07-17-20	STANDARD RECTANGULAR CONCRETE NO. 16 CATCH BASIN

English	<u>JIIAI II</u>	Revised: 04/30/25
D-CB-17S	02-20-20	STANDARD RECTANGULAR CONCRETE NO. 17 CATCH BASIN
D-CB-25LP	02-20-20	LOW PROFILE 32" X 32" SQUARE CONCRETE NO. 25LP CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-25P	02-20-20	STANDARD PRECAST RECTANGULAR CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-25RA	01-28-22	STANDARD PRECAST 48" CIRCULAR NO. 25 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-25RB	02-20-20	STANDARD PRECAST CIRCULAR NO. 25 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-25S	02-20-20	STANDARD RECTANGULAR CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-25SB	02-20-20	STANDARD 4' X 4' SQUARE CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-25SC	02-20-20	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-25SD	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-25SE	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-26P	02-20-20	STANDARD PRECAST RECTANGULAR CONCRETE NO. 26 CATCH BASIN
D-CB-26S	02-20-20	STANDARD RECTANGULAR CONCRETE NO. 26 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-27S	02-20-20	STANDARD RECTANGULAR CONCRETE NO. 27 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-31R	02-20-20	STANDARD PRECAST CIRCULAR NO. 31 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-31SD	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 31 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-31SE	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 31 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)

English	CHAPTI	Revised: 04/30/25
D-CB-32LP	02-20-20	STANDARD 80" X 32" RECTANGULAR CONCRETE NO. 32 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-38RB	03-04-21	STANDARD PRECAST CIRCULAR NO. 38 CATCH BASIN
D-CB-38S	03-04-21	STANDARD 32" X 32" SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-38SB	03-04-21	STANDARD 4' X 4' SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-38SC	03-04-21	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-39RB	03-04-21	STANDARD PRECAST CIRCULAR NO. 39 CATCH BASIN
D-CB-39S	03-04-21	STANDARD 4' X 4' SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-39SC	03-04-21	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-39SD	03-04-21	STANDARD 7' X 7' SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-39SE	03-04-21	STANDARD 9' X 9' SQUARE CONCRETE NO. 39 CATCH BASIN
D-CB-40S	03-04-21	STANDARD 4' X 8' RECTANGULAR CONCRETE NO. 40 CATCH BASIN
D-CB-40SE	03-04-21	STANDARD 9' X 9' SQUARE CONCRETE NO. 40 CATCH BASIN
D-CB-41LP	02-20-20	LOW PROFILE 32" X 32" SQUARE CONCRETE NO. 41LP CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41P	02-20-20	STANDARD 4' X 3' PRECAST RECTANGULAR CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41RB	02-20-20	STANDARD PRECAST CIRCULAR NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41S	02-20-20	STANDARD 4' X 3' RECTANGULAR CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)

English	CHAPTE	<u>Revised: 04/30/25</u>
D-CB-41SB	02-20-20	STANDARD 4' X 4' SQUARE CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41SC	02-20-20	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41SD	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-41SE	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-42RB	02-20-20	STANDARD PRECAST CIRCULAR NO. 42 CATCH BASIN
D-CB-42S	02-20-20	STANDARD 32" X 32" SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SB	02-20-20	STANDARD 4' X 4' SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SC	02-20-20	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SD	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-43R	02-20-20	STANDARD PRECAST CIRCULAR NO. 43R CATCH BASIN
D-CB-43SB	02-20-20	STANDARD 8' X 4' RECTANGULAR CONCRETE NO. 43SB CATCH BASIN
D-CB-43SC	02-20-20	STANDARD 8' X 5' 2" RECTANGULAR CONCRETE NO. 43SC CATCH BASIN
D-CB-44SE	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 44 CATCH BASIN
D-CB-45S	02-20-20	STANDARD 8' X 4' RECTANGULAR CONCRETE NO. 45 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-46SE	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 46 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)

English	СПАРТ	Revised: 04/30/25
D-CB-51SC	02-20-20	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 51 CATCH BASIN (FOR USE IN FRONT OF CONCRETE RETAINING WALL)
D-CB-51SD	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 51 CATCH BASIN (FOR USE IN FRONT OF CONCRETE RETAINING WALL)
D-CB-51SE	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 51 CATCH BASIN
D-CB-52SE	02-20-20	STANDARD 9' x 9' SQUARE CONCRETE NO. 52 CATCH BASIN
D-CB-99	02-20-20	MISCELLANEOUS DETAILS FOR RECTANGULAR STRUCTURES
D-CB-99GS		CATCH BASIN DETAILS FOR GRADE SEPARATION WALL
D-CB-99R	01-28-22	MISCELLANEOUS DETAILS FOR ROUND STRUCTURES
D-CB-99RA	10-29-21	BILL OF STEEL FOR ROUND CATCH BASIN LIDS
D-CB-99RB	02-20-20	ROUND JUNCTION BOX SPRING DRAIN BOX
D-CBB-12A	06-28-19	TYPE 'B' CAST IRON FRAME, GRATE & VERTICAL INLET DETAILS FOR NOS. 10, 12, 14, 16, & 17 TYPE CATCH BASINS
D-CBB-12B	06-28-19	TYPE 'B' CAST IRON FRAME, GRATE & 6" SLOPING INLET DETAILS FOR NOS. 25, 26 & 27 TYPE CATCH BASINS
D-CBB-12D	07-07-23	TYPE "B" CAST IRON FRAME, GRATE & CURB HOOD DETAILS FOR NOS. 10, 12, 14, 16 & 17 TYPE CATCH BASINS
D-CBB-13	06-28-19	TYPE 'B' CAST IRON FRAME, GRATE & VERTICAL INLET DETAILS FOR NO. 13 TYPE CATCH BASINS
D-CBB-31	02-20-20	TYPE 'B' CAST IRON FRAME, GRATE & INLET DETAILS FOR NOS. 31, 41, 45, 46, & 51 TYPE CATCH BASINS
D-CBB-42	10-29-21	CAST IRON GRATE DETAILS FOR NOS. 42, 43 & 44 TYPE CATCH BASINS
D-RL-1		ROUND LID DETAILS FOR SINGLE CURB AND WALL INLET
D-RL-2		ROUND LID DETAILS FOR DOUBLE CURB AND WALL INLET

English	-	Revised: 04/30/25
D-RL-3		ROUND LID DETAILS FOR SINGLE OPENING AREA DRAIN
D-RL-4		ROUND LID DETAILS FOR DOUBLE OPENING AREA DRAIN
D-RS-1		PRECAST ROUND STRUCTURES (48" THRU 120")
D-RS-2		PRECAST ROUND STRUCTURES REINFORCEMENT DETAILS
D-RS-3		MISCELLANEOUS DETAILS FOR ROUND STRUCTURES
10-103.02	JUNCTION BO	DXES
DRAWING	REVISION DATE	DESCRIPTION
D-JBS-1	02-20-20	STANDARD 32" X 32" SQUARE CONCRETE NO. 1 JUNCTION BOX
D-JBS-2	02-20-20	STANDARD 4' X 4' SQUARE CONCRETE NO. 2 JUNCTION BOX
D-JBS-3	02-20-20	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 3 JUNCTION BOX
D-JBS-4	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 4 JUNCTION BOX
D-JBS-5	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 5 JUNCTION BOX
D-RJB-1		PRECAST ROUND JUNCTION BOX STRUCTURES (48" THRU 120")
10-103.03	MANHOLES	
DRAWING	REVISION DATE	DESCRIPTION
D-MH-2	02-20-20	STANDARD PRECAST NO. 3 MANHOLE
D-MH-3	02-20-20	TYPICAL DESIGN OF LIDS FOR NO. 3 MANHOLE
D-MH-4	02-20-20	STANDARD NO. 3 MANHOLE CASTINGS AND STEPS
D-MH-5	02-20-20	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 3 MANHOLE
D-MH-6	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 3 MANHOLE

English	CHAPTE	ER 10 – INDEX OF STANDARD DRAWINGS Revised: 04/30/25
D-MH-7	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 3 MANHOLE
D-RMH-1		PRECAST MANHOLE STRUCTURES (48" THRU 120")
10-103.04	PRECAST RI	SERS
DRAWING	REVISION DATE	DESCRIPTION
D-RF-1	07-30-24	STANDARD PRECAST RISER
10-103.05	SPRING DRAI	N BOXES
DDAMING	DEVISION	DESCRIPTION
DRAWING	REVISION DATE	DESCRIPTION
D-SDS-1	02-20-20	STANDARD 32" X 32" SQUARE CONCRETE NO. 1 SPRING DRAIN BOX
D-SDS-2A	02-20-20	STANDARD 4' X 4' SQUARE CONCRETE NO. 2A SPRING DRAIN BOX
D-SDS-2B	02-20-20	STANDARD 4' X 4' SQUARE CONCRETE NO. 2B SPRING DRAIN BOX
D-SDS-3A	02-20-20	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 3A SPRING DRAIN BOX
D-RSB-1		PRECAST ROUND SPRING DRAIN BOX STRUCTURES (48" THRU 120")
10-103.06	SLOTTED AND	D TRENCH DRAINS
DRAWING	REVISION DATE	DESCRIPTION
D-SLD-1	02-20-20	SLOTTED DRAINS
D-SLD-2	02-20-20	SLOTTED DRAINS
D-SLD-3	02-20-20	SLOTTED DRAINS
D-TD-1	07-07-23	TRENCH DRAIN

English Revised: 04/30/25

10-104.00 ROADWAY, PAVEMENT APPURTENANCES, AND FENCES

10-104.01	CONCRETE PAVEMENT	
DRAWING	REVISION DATE	DESCRIPTION
RP-CS-1	05-01-20	CONCRETE SHOULDER RUMBLE STRIP DETAIL (FOR 4 LANE DIVIDED HWY)
RP-CS-2	05-01-20	CONCRETE SHOULDER RUMBLE STRIP DETAIL (FOR 6- LANE OR WIDER DIVIDED HIGHWAY)
RP-CS-3		CONCRETE SHOULDER MILLED RUMBLE STRIP DETAILS
RP-J-1	05-01-20	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J-3	05-01-20	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J-5	05-01-20	TYPICAL ACCELERATION AND DECELERATION LANE JOINT TYPES AND SPACING FOR CONCRETE RAMPS
RP-J-7	05-01-20	CONCRETE RAMP JOINT TYPES AND SPACING
RP-J-9	05-01-20	CONTRACTION AND CONSTRUCTION JOINTS FOR CONCRETE PAVEMENT
RP-J-11	05-01-20	3/4" AND 1 3/4" EXPANSION AND EDGE PAVEMENT JOINTS
RP-J-13	05-01-20	3/4" AND 1 3/4" ELASTOMERIC COMPRESSION JOINT SEALS
RP-J-15	05-01-20	LONGITUDINAL CONTRACTION AND CONSTRUCTION JOINTS
RP-J-17	05-01-20	DOWEL ASSEMBLY DEVICES
RP-J-18	01-28-22	DOWEL ASSEMBLY DEVICES
RP-J-19	05-01-20	DOWEL ASSEMBLY DEVICES
RP-J-23	01-28-22	CONCRETE PAVEMENT REPAIR DETAILS
RP-J-24	05-01-20	CONCRETE PAVEMENT SPALL AND RANDOM CRACK REPAIR DETAILS
RP-J-25	05-01-20	CONCRETE PAVEMENT JOINT REPAIR DETAILS

RP-EPO-1 EMERGENCY PULL OVER AREA

10-104.02	INTERSECTIONS	
DRAWING	REVISION DATE	DESCRIPTION
RP-D-15	04-01-25	DETAILS OF STANDARD CONCRETE DRIVEWAYS
RP-D-16	04-01-25	DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS
RP-I-5	05-01-20	EXAMPLES OF STREET & ALLEY INTERSECTIONS
RP-DHO-1	07-07-23	MEDIAN OPENINGS ON 4-LANE DIVIDED HIGHWAY
RP-DHO-2	07-30-24	MEDIAN OPENING DETAILS FOR RESTRICTED CROSSING & J-TURN INTERSECTIONS
RP-PMR-1	05-01-20	STANDARD DETAILS FOR PROPOSED PERMANENT MAINTENANCE RAMP
RP-R-1	04-21-25	STANDARD RAMP DETAILS FOR ROADWAYS AND DRIVEWAYS
RP-R-1A	04-21-25	STANDARD RAMP DETAILS FOR LOW VOLUME RURAL ROADWAYS
10-104.03	CURBS	
DRAWING	REVISION DATE	DESCRIPTION
RP-SC-1	05-04-22	SLOPING CONCRETE CURB AND CURB AND GUTTER
RP-VC-10	03-04-21	VERTICAL CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-VC-11	03-04-21	VERTICAL CONCRETE CURBS AND GUTTERS 6" AND 7" DEPTH
10-104.04	WALLS	
DRAWING	REVISION DATE	DESCRIPTION

English	OHALTE	Revised: 04/30/25
W-CIP-1	05-01-20	ROADWAY FEATURES AT CAST IN PLACE RETAINING WALL
W-MSE-1	05-01-20	ROADWAY FEATURES FOR MSE SEGMENTAL PRECAST FACING RETAINING WALL
W-MSE-2	05-01-20	ROADWAY FEATURES FOR MSE MODULAR BLOCK FACING RETAINING WALL
W-SG-1	07-30-24	STANDARD GRAVITY-TYPE RETAINING WALLS
W-SP-1	05-01-20	ROADWAY FEATURES AT SOLDIER PILE AND SOIL ANCHORED RETAINING WALLS
10-104.05	FENCES AND	RIGHT-OF-WAY MARKERS
DRAWING	REVISION DATE	DESCRIPTION
S-F-1	03-01-23	HIGH VISIBILITY FENCE
S-F-10	07-17-20	STANDARD RIGHT-OF-WAY STOCK FENCE
S-F-10A	06-28-19	STANDARD RIGHT-OF-WAY STOCK FENCE WITH TIMBER POSTS
S-F-10B	06-28-19	STANDARD RIGHT-OF-WAY CHAIN LINK FENCE
S-F-10C	06-28-19	RIGHT-OF-WAY FENCE AT BRIDGE AND BOX CULVERTS
S-F-10D	06-28-19	RIGHT-OF-WAY FENCE LOCATIONS AT INTERCHANGES
S-FG-11	07-30-24	STOCK FENCE GATES AND CHAIN LINK FENCE
S-FG-20	06-28-19	EXAMPLES OF WATER GATES AND WATER CROSSINGS
S-RP-2	06-28-19	STANDARD CONCRETE RIGHT-OF-WAY MARKERS

English Revised: 04/30/25

10-105.00 MULTIMODAL

10-105.01 CURB RAMPS

DRAWING	REVISION DATE	DESCRIPTION
CR-GN-1		GENERAL NOTES CURB RAMPS
CR-GN-2		CURB RAMP NUMBERING
CR-DWS-1		DETECTABLE WARNING SURFACE DETAIL
CR-PLL-1		PUSH BUTTON LOCATION LAYOUT
CR-CRT-1		CURB RAMP TYPES
CR-GTL-1		GUTTER TRANSITION LAYOUT
CR-GTL-2		GUTTER TRANSITION LAYOUT
CR-PL-1		PERPENDICULAR CURB RAMP PLACEMENT LAYOUT
CR-10		PERPENDICULAR CURB RAMP
CR-11		PERPENDICULAR CURB RAMP WITH BRICK DETAILS
CR-PL-2		PARALLEL CURB RAMP PLACEMENT LAYOUT
CR-20		PARALLEL CURB RAMP 5 – FT SIDEWALK
CR-21		COMBINATION RAMP USED WITH WIDE SIDEWALK
CR-22		COMBINATION CURB RAMP
CR-23		PARALLEL CURB RAMP WITH EXISTING BRICK
CR-30		CURB RAMPS IN CURVE BI-DIRECTIONAL DUAL CROSSING
CR-31		BLENDED TRANSITION BI-DIRECTIONAL
CR-32		LOWERED CORNER RAMP
CR-33		SINGLE CROSSING CURB RAMP IN CURVE
CR-34		SINGLE CROSSING CURB RAMP IN CURVE
CR-40		MONO-DIRECTIONAL SINGLE CROSSWALK CURB RAMP DETAILS

English	CHAPI	ER 10 – INDEX OF STANDARD DRAWINGS Revised: 04/30/25
<u>=11911011</u>		HOVIOURI U II/UU/ZU
CR-41		SINGLE CROSSING CURB RAMP IN CURVE
CR-50		PEDESTRIAN REFUGE
CR-51		PEDESTRIAN REFUGE
10-105.02	PAVEMENT N	MARKINGS
DRAWING	REVISION DATE	DESCRIPTION
MM-PM-1		SIGNING AND PAVEMENT MARKINGS AT INTERSECTION CROSSINGS FOR SHARED-USE PATHS
MM-PM-2	07-30-24	SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANE OR ROUTES
MM-PM-3	06-15-21	SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES ON URBAN ROADWAYS
MM-PM-4		SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES
MM-PM-5	05-04-22	SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES AT INTERSECTIONS
10-105.03	SAFETY RAIL	-
DRAWING	REVISION DATE	DESCRIPTION
MM-BPR-1	04-01-25	BIKE AND PEDESTRIAN SAFETY RAIL
MM-BPR-2	10-16-20	BIKE AND PEDESTRIAN MEDIAN BARRIER RAIL
MM-BPR-3	04-01-25	BARRIER SLOPED END TREATMENT
MM-VPR-1		VEHICLE AND PEDESTRIAN SAFETY RAIL
10-105.04	SIDEWALK	
DRAWING	REVISION DATE	DESCRIPTION
MM-PS-1		DETAILS FOR PEDESTRIAN STEPS AND HANDRAILS

	<u>CHAPTI</u>	ER 10 – INDEX OF STANDARD DRAWINGS
English		Revised: 04/30/25
MM-SW-1	07-07-23	DETAILS FOR CONCRETE SIDEWALK
MM-SW-2		ALTERNATE DETAILS FOR CONCRETE SIDEWALK (REHABILITATION)
10-105.05	TYPICAL SEC	TION
DRAWING	REVISION DATE	DESCRIPTION
MM-BS-1		TYPICAL BUS STOP LOCATION
MM-TS-1	06-15-21	BIKE ACCOMMODATION DESIGN GUIDANCE
MM-TS-2	06-15-21	LATERAL OFFSETS FOR SIDEWALK AND SHARED USE PATH
MM-TS-3	07-30-24	SEPARATED SHARED USE PATH TYPICAL SECTIONS
MM-PM-3	06-15-21	SIGNING AND PAVEMENT MARKING FOR BIKE LANES ON URBAN ROADWAYS
10-106.00	SAFETY DE	SIGN AND GUARDRAILS
10-106.00 10-106.01		SIGN AND GUARDRAILS AND SAFETY PLANS
10-106.01	CLEAR ZONE	AND SAFETY PLANS
10-106.01 DRAWING	CLEAR ZONE REVISION DATE	AND SAFETY PLANS DESCRIPTION
10-106.01 DRAWING S-CZ-1	CLEAR ZONE REVISION DATE 06-28-19	AND SAFETY PLANS DESCRIPTION CLEAR ZONE CRITERIA
10-106.01 DRAWING S-CZ-1 S-PL-1	CLEAR ZONE REVISION DATE 06-28-19 03-01-23	AND SAFETY PLANS DESCRIPTION CLEAR ZONE CRITERIA SAFETY PLAN AT ROADSIDE HAZARDS SAFETY PLAN FOR BARRIER LENGTH OF NEED (FOR
10-106.01 DRAWING S-CZ-1 S-PL-1 S-PL-1A	CLEAR ZONE REVISION DATE 06-28-19 03-01-23 03-01-23	AND SAFETY PLANS DESCRIPTION CLEAR ZONE CRITERIA SAFETY PLAN AT ROADSIDE HAZARDS SAFETY PLAN FOR BARRIER LENGTH OF NEED (FOR RIGID OBJECTS) SAFETY PLAN FOR BARRIER LENGTH OF NEED ON
10-106.01 DRAWING S-CZ-1 S-PL-1 S-PL-1A S-PL-1B	CLEAR ZONE REVISION DATE 06-28-19 03-01-23 03-01-23	DESCRIPTION CLEAR ZONE CRITERIA SAFETY PLAN AT ROADSIDE HAZARDS SAFETY PLAN FOR BARRIER LENGTH OF NEED (FOR RIGID OBJECTS) SAFETY PLAN FOR BARRIER LENGTH OF NEED ON CURVED ROADWAYS
10-106.01 DRAWING S-CZ-1 S-PL-1 S-PL-1A S-PL-1B S-PL-3	CLEAR ZONE REVISION DATE 06-28-19 03-01-23 03-01-23 03-01-23	DESCRIPTION CLEAR ZONE CRITERIA SAFETY PLAN AT ROADSIDE HAZARDS SAFETY PLAN FOR BARRIER LENGTH OF NEED (FOR RIGID OBJECTS) SAFETY PLAN FOR BARRIER LENGTH OF NEED ON CURVED ROADWAYS SAFETY PLAN MINIMUM INSTALLATION AT BRIDGE ENDS

English	<u>ona n</u>	Revised: 04/30/25
S-PL-6	07-30-24	SAFETY PLAN SAFETY HARDWARE PLACEMENT ON OUTSIDE EDGE
S-PL-6A	06-28-19	SAFETY PLAN SAFETY HARDWARE PLACEMENT IN MEDIAN
S-PL-7		SAFETY PLAN HARDWARE PLACEMENT AT INTERSECTIONS
10-106.02	CABLE BARR	IER
DRAWING	REVISION DATE	DESCRIPTION
S-CB-1	01-09-24	CABLE BARRIER PLACEMENT
S-CB-2	07-07-23	HIGH TENSION CABLE BARRIER
10-106.03	CRASH CUSH	IIONS
DRAWING	REVISION DATE	DESCRIPTION
S-CC-1	10-01-24	CRASH CUSHION
S-CC-2	06-28-19	CRASH CUSHION (GATING) BARREL ARRAY
10-106.04	GUARDRAIL I	DETAILS
DRAWING	REVISION DATE	DESCRIPTION
S-GR31-1	03-13-25	GUARDRAIL DETAILS
S-GR31-1A	06-28-19	GUARDRAIL AND BLOCK-OUT DETAILS
S-GR31-1B		GUARDRAIL FASTENING HARDWARE
S-GR31-1C	07-07-23	GUARDRAIL GENERAL NOTES AND POST DETAILS
S-GR31-1D	03-01-23	GUARDRAIL POST PLACEMENT IN ROCK
10-106.05	GUARDRAIL (CONNECTIONS
DRAWING	REVISION DATE	DESCRIPTION

English		Revised: 04/30/25
S-AGT-1		LONG SPAN APPROACH GUARDRAIL TRANSITION
S-AGT-2		LONG SPAN APPROACH GUARDRAIL TRANSITION
S-AGT-3		LONG SPAN APPROACH GUARDRAIL TRANSITION
S-AGT-4		LONG SPAN APPROACH GUARDRAIL TRANSITION
S-AGT-5		LONG SPAN APPROACH GUARDRAIL TRANSITION
S-AGT-6		LONG SPAN APPROACH GUARDRAIL TRANSITION
S-AGT-7		LONG SPAN APPROACH GUARDRAIL TRANSITION
S-GRC-4	01-30-25	GUARDRAIL CONNECTION TO BRIDGE RAILING CONCRETE PARAPET
S-GRC-5	02-28-20	GUARDRAIL CONNECTION TO BRIDGE ENDS (TRAILING ENDS)
S-GRC-6	01-30-25	GUARDRAIL CONNECTION TO BRIDGE ENDS FOR LOW SPEED ROADWAYS
10-106.06	GUARDRAIL (SPECIAL CASES)
10-106.06 DRAWING	GUARDRAIL (REVISION DATE	SPECIAL CASES) DESCRIPTION
	REVISION	•
DRAWING	REVISION	DESCRIPTION
DRAWING S-CPW-1	REVISION DATE	DESCRIPTION CURVED PARAPET WALL ≤40 M.P.H. SPECIAL CASE LONG SPAN GUARDRAIL ONE POST
DRAWING S-CPW-1 S-GRS-1	REVISION DATE 06-15-21	DESCRIPTION CURVED PARAPET WALL ≤40 M.P.H. SPECIAL CASE LONG SPAN GUARDRAIL ONE POST OMITTED SPECIAL CASE GUARDRAIL ATTACHMENT TO CONCRETE
DRAWING S-CPW-1 S-GRS-1 S-GRS-2	REVISION DATE 06-15-21 01-28-22	DESCRIPTION CURVED PARAPET WALL ≤40 M.P.H. SPECIAL CASE LONG SPAN GUARDRAIL ONE POST OMITTED SPECIAL CASE GUARDRAIL ATTACHMENT TO CONCRETE DECKS
DRAWING S-CPW-1 S-GRS-1 S-GRS-2 S-GRS-3	REVISION DATE 06-15-21 01-28-22 06-28-19	DESCRIPTION CURVED PARAPET WALL ≤40 M.P.H. SPECIAL CASE LONG SPAN GUARDRAIL ONE POST OMITTED SPECIAL CASE GUARDRAIL ATTACHMENT TO CONCRETE DECKS SPECIAL CASE GUARDRAIL FOOTING
DRAWING S-CPW-1 S-GRS-1 S-GRS-2 S-GRS-3 S-GRS-4	REVISION DATE 06-15-21 01-28-22 06-28-19	DESCRIPTION CURVED PARAPET WALL ≤40 M.P.H. SPECIAL CASE LONG SPAN GUARDRAIL ONE POST OMITTED SPECIAL CASE GUARDRAIL ATTACHMENT TO CONCRETE DECKS SPECIAL CASE GUARDRAIL FOOTING SPECIAL CASE GUARDRAIL HEIGHT TRANSITION DETAIL SPECIAL CASE WEAK-POST GUARDRAIL ATTACHMENT TO

English	OHAFTI	Revised: 04/30/25
S-GRS-6	01-30-25	SPECIAL CASE FLEXIBILITY ON GUARDRAIL POST INSTALLATIONS
S-GRS-7	01-09-24	SHORT – RADIUS - GR SYSTEM (SRGS) CONNECTION TO BRIDGE END
S-GRS-7A	07-30-24	SHORT – RADIUS – GUARDRAIL SYSTEM (SRGS) ANCHOR DETAILS
S-GRS-7B		SHORT RADIUS – GR SYSTEM (SRGS) EYE-BOLT SPACING DETAILS
S-GRS-8		SAFETY PLAN AT SIDEROADS OR DRIVEWAYS FOR LOW SPEED ROADWAYS
10-106.07	GUARDRAIL 1	TERMINALS
DRAWING	REVISION DATE	DESCRIPTION
S-GRT-1	10-29-21	TYPE 12 GUARDRAIL TERMINAL BURIED-IN-BACKSLOPE
S-GRT-1A		LAYOUT OF FLARED GUARDRAIL (TL-3)
S-GRT-1B		LAYOUT OF FLARED GUARDRAIL (TL-2)
S-GRT-2	06-28-19	TYPE 38 GUARDRAIL END TERMINAL
S-GRT-2P	10-16-20	EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL
S-GRT-2R	06-28-19	EARTH PAD FOR TYPE 38 AND 21 TERMINALS (RETROFIT)
S-GRT-3	06-28-19	TYPE 21 GUARDRAIL END TERMINAL
S-GRT-4	01-30-25	TYPE 21 GATING END TERMINAL
S-GRT-4A		TYPE 21 GATING END TERMINAL ANCHOR DETAILS
S-GRT-4B		GATING TERMINAL POST & RAIL DETAILS
10-106.08	GUARDRAIL A	ANCHORS
DRAWING	REVISION DATE	DESCRIPTION
S-GRA-1	06-28-19	TYPE 12 GUARDRAIL ANCHOR

English	<u> </u>	ER 10 – INDEX OF STANDARD DRAWINGS Revised: 04/30/25
S-GRA-1A	06-28-19	GUARDRAIL ANCHOR FOR TYPE 12 TERMINAL (ALTERNATIVE)
S-GRA-3	01-09-24	TYPE 13 GUARDRAIL ANCHOR
S-GRA-4	03-01-23	IN-LINE GUARDRAIL ANCHOR
S-GRA-5	06-28-19	FLARED GUARDRAIL ANCHOR
10-106.09	CONCRETE N	IEDIAN BARRIERS
DRAWING	REVISION DATE	DESCRIPTION
S-SSMB-1	01-28-22	32" SINGLE SLOPE CONCRETE BARRIER WALL
S-SSMB-1A	10-29-21	36" SINGLE SLOPE CONCRETE BARRIER WALL
S-SSMB-2	10-29-21	51" SINGLE SLOPE CONCRETE BARRIER WALL
S-SSMB-3	10-29-21	51" HALF SIZE SINGLE SLOPE CONCRETE BARRIER WALL
S-SSMB-4	07-17-20	FLARED SINGLE SLOPE CONCRETE MEDIAN BARRIER WALL (VERTICAL BACK)
S-SSMB-5	05-01-20	SINGLE SLOPE MEDIAN BARRIER WALL CATCH BASIN DETAIL
S-SSMB-6	06-28-19	32" CONCRETE SINGLE SLOPE BARRIER WALL WITH SINGLE GUARDRAIL ATTACHMENT
S-SSMB-6A		36" CONCRETE SINGLE SLOPE BARRIER WALL FOR ATTACHING GUARDRAIL
S-SSMB-6B		DUAL GUARDRAIL ATTACHMENT TO SINGLE SLOPE 36" BARRIER WALL
S-SSMB-6C		SINGLE GUARDRAIL ATTACHMENT TO SINGLE SLOPE 36" BARRIER WALL
S-SSMB-6D		51" CONCRETE SINGLE SLOPE BARRIER WALL FOR ATTACHING GUARDRAIL
S-SSMB-6E		DUAL GUARDRAIL ATTACHMENT TO SINGLE SLOPE 51" BARRIER WALL
S-SSMB-6F		SINGLE GUARDRAIL ATTACHMENT TO SINGLE SLOPE 51"

BARRIER WALL

English		Revised: 04/30/25
S-SSMB-7	05-01-20	FOOTING DETAILS FOR OVERHEAD SIGN STRUCTURE 32" MEDIAN BARRIER WALL
S-SSMB-8	05-01-20	FOOTING DETAILS FOR OVERHEAD SIGN STRUCTURE 51" MEDIAN BARRIER WALL
S-SSMB-9	10-29-21	SINGLE SLOPE BARRIER WALL FOR GRADE SEPARATED MEDIAN
S-SSMB-10	01-09-24	SPECIAL DETAIL FOR CONCRETE MEDIAN BARRIER WALL TRANSITION FROM 32" OR 36" TO 51"
10-106.10	GUARDRAIL N	MAINTENANCE
DRAWING	REVISION DATE	DESCRIPTION
S-GR28-1M	06-15-21	W-BEAM & THRIE BEAM BARRIER RAIL AND RUB RAIL DETAILS
S-GR28-2M	06-28-19	GUARDRAIL HARDWARE DETAILS
S-GR28-3M	01-28-22	GUARDRAIL HEIGHT ADJUSTMENT
S-GR28-4M	06-28-19	GUARDRAIL TERMINAL ANCHOR TYPE 13
S-GR28-5M	06-28-19	MEDIAN DIVIDER GUARDRAIL
S-GR28-6M	10-29-21	GUARDRAIL ATTACHMENT TO CONCRETE DECKS
S-GR28-7M	06-28-19	GUARDRAIL ATTACHMENT TO BRIDGE ENDS DETAILS
S-GRC-1M		GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL
S-GRC-2M		GUARDRAIL CONNECTION TO BRIDGE END FOR LOCAL ROADS (ADT<2000)
S-GRC-3M		MEDIAN DIVIDER GUARDRAIL TRANSITION TO CONCRETE MEDIAN BARRIER
S-PL-2M		SAFETY PLAN AT SIDE ROADS OR PRIVATE DRIVES
S-SSMB-6M		GUARDRAIL ATTACHMENT TO EXISTING SINGLE SLOPE CONCRETE BARRIER WALL

English Revised: 04/30/25

10-107.00 EROSION PREVENTION AND SEDIMENT CONTROL

10-107.01	DEWATERING	DEVICES
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DRAWING	REVISION DATE	DESCRIPTION
EC-STR-1	08-01-12	DEWATERING STRUCTURE
EC-STR-2	08-01-12	SEDIMENT FILTER BAG

10-107.02 SLOPE DEVICES

DRAWING	REVISION DATE	DESCRIPTION
EC-STR-3B	06-15-21	SILT FENCE
EC-STR-3C	03-01-23	SILT FENCE WITH WIRE BACKING
EC-STR-3D	03-01-23	ENHANCED SILT FENCE
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-8	06-10-14	FILTER SOCK
EC-STR-27	08-01-12	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-29	08-01-12	PERMANENT SLOPE DRAIN PIPE
EC-STR-34	05-04-22	EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
EC-STR-35	08-01-12	FILTER BERMS
EC-STR-37	06-10-14	SEDIMENT TUBE

10-107.03 DITCH DEVICES

DRAWING	REVISION DATE	DESCRIPTION
EC-STR-4	07-30-24	ENHANCED SILT FENCE CHECK (TRAPEZOIDAL DITCH)
EC-STR-4A	07-30-24	ENHANCED SILT FENCE CHECK (V-DITCH)
EC-STR-4B	08-01-12	ENHANCED SILT FENCE CHECK DETAILS
EC-STR-6	11-30-20	ROCK CHECK DAM

English	CHAPTE	Revised: 04/30/25			
EC-STR-6A	05-06-16	ENHANCED ROCK CHECK DAM			
EC-STR-7	05-04-22	SEDIMENT TRAP WITH CHECK DAM			
EC-STR-55	08-01-12	GABION CHECK DAM			
EC-STR-56	04-01-08	GABION CHECK DAM DESIGN TABLES			
EC-STR-57	04-01-08	GABION ASSEMBLY DETAILS			
EC-STR-58	04-01-08	GABION ASSEMBLY DETAILS			
EC-STR-59	08-01-12	GABION CHECK DAM GENERAL NOTES AND COMPONENT PROPERTIES			
EC-STR-61	03-16-17	LEVEL SPREADERS			
10-107.04 INLET PROTECTION					
DRAWING	REVISION DATE	DESCRIPTION			
EC-STR-11	03-16-17	CULVERT PROTECTION TYPE 1			
EC-STR-19	04-01-08	CATCH BASIN PROTECTION			
EC-STR-39	08-01-12	CURB INLET PROTECTION TYPE 1 & 2			
EC-STR-39A	08-01-12	CURB INLET PROTECTION TYPE 3 & 4			
EC-STR-40		CATCH BASIN FILTER ASSEMBLY FOR CIRCULAR STRUCTURES			
EC-STR-41		CATCH BASIN FILTER ASSEMBLY (TYPE 1)			
EC-STR-41A		CATCH BASIN FILTER ASSEMBLY (TYPE 1) SLIPCOVER DETAILS			
EC-STR-42		CATCH BASIN FILTER ASSEMBLY (TYPE 2)			
EC-STR-42A		CATCH BASIN FILTER ASSEMBLY (TYPE 2) SLIPCOVER DETAILS			
EC-STR-43		CATCH BASIN FILTER ASSEMBLY (TYPE 3)			
EC-STR-43A		CATCH BASIN FILTER ASSEMBLY (TYPE 3) SLIPCOVER DETAILS			
EC-STR-44		CATCH BASIN FILTER ASSEMBLY (TYPE 4)			

English	Revised: 04/30/25
EC-STR-44A	CATCH BASIN FILTER ASSEMBLY (TYPE 4) SLIPCOVER DETAILS
EC-STR-45	CATCH BASIN FILTER ASSEMBLY (TYPE 5)
EC-STR-45A	CATCH BASIN FILTER ASSEMBLY (TYPE 5) SLIPCOVER DETAILS
EC-STR-46	CATCH BASIN FILTER ASSEMBLY (TYPE 6)
EC-STR-46A	CATCH BASIN FILTER ASSEMBLY (TYPE 6) SLIPCOVER DETAILS
EC-STR-47	CATCH BASIN FILTER ASSEMBLY (TYPE 7)
EC-STR-47A	CATCH BASIN FILTER ASSEMBLY (TYPE 7) SLIPCOVER DETAILS
EC-STR-48	CATCH BASIN FILTER ASSEMBLY (TYPE 8)
EC-STR-48A	CATCH BASIN FILTER ASSEMBLY (TYPE 8) SLIPCOVER DETAILS
EC-STR-49	CATCH BASIN FILTER ASSEMBLY (TYPE 9)
EC-STR-49A	CATCH BASIN FILTER ASSEMBLY (TYPE 9) SLIPCOVER DETAILS
EC-STR-50	CATCH BASIN FILTER ASSEMBLY (TYPE 10)
EC-STR-50A	CATCH BASIN FILTER ASSEMBLY (TYPE 10) SLIPCOVER DETAILS
EC-STR-51	CATCH BASIN FILTER ASSEMBLY (TYPE 11)
EC-STR-51A	CATCH BASIN FILTER ASSEMBLY (TYPE 11) SLIPCOVER DETAILS

10-107.05 DETAINING DEVICES

DRAWING	REVISION DATE	DESCRIPTION
EC-STR-12	08-01-12	ROCK SEDIMENT DAM
EC-STR-13	08-01-12	ROCK AND EARTH SEDIMENT EMBANKMENT
FC-STR-15	08-01-12	SEDIMENT BASIN

English	CHAPTE	ER 10 – INDEX OF STANDARD DRAWINGS Revised: 04/30/25			
EC-STR-16	08-01-12	SEDIMENT BASIN RISER AND COLLAR APPURTENANCES			
EC-STR-17	08-01-12	SEDIMENT BASIN EMBANKMENT DETAILS			
EC-STR-18		SEDIMENT BASIN FLOATING OUTLET STRUCTURE			
EC-STR-21	05-04-22	PERMANENT RIPRAP BASIN ENERGY DISSIPATORS			
10-107.06	IN-STREAM D	FVICES			
DRAWING	REVISION DATE	DESCRIPTION			
EC-STR-11A	08-01-12	CULVERT PROTECTION TYPE 2			
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD			
EC-STR-30		INSTREAM DIVERSION (WITHOUT TRAFFIC)			
EC-STR-30A		INSTREAM DIVERSION (WITH TRAFFIC)			
EC-STR-31	05-04-22	TEMPORARY DIVERSION CHANNEL			
EC-STR-31A	04-01-08	TEMPORARY DIVERSION CHANNEL DESIGN			
EC-STR-32	08-01-12	TEMPORARY DIVERSION CULVERTS			
EC-STR-33	08-01-12	SUSPENDED PIPE DIVERSION (DOWNSTREAM)			
EC-STR-33A	08-01-12	SUSPENDED PIPE DIVERSION (UPSTREAM)			
EC-STR-36	05-04-22	TURF REINFORCEMENT MAT FOR CHANNEL INSTALLATION			
EC-STR-38	08-01-12	FLOATING TURBIDITY CURTAIN			
10-108.00 NATURAL STREAM DESIGN					
10-108.01	DEFLECTORS	s, VANES, AND ENERGY DISSIPATORS			
DRAWING	REVISION DATE	DESCRIPTION			

D-NSD-13 05-01-20 LONGITUDINAL STONE TOE

English		Revised: 04/30/25
D-NSD-21	05-01-20	BOULDER CLUSTERS
D-NSD-22	05-01-20	BOULDER CROSS VANE
D-NSD-23	05-01-20	BOULDER CROSS VANE WITH STEP
D-NSD-24	05-01-20	BOULDER W-WEIR
D-NSD-25	05-01-20	BOULDER VANES AND J-HOOK
D-NSD-26	11-30-20	LOG VANES, ROOT WADS, AND BOULDER J-HOOK
D-NSD-27	11-30-20	LOG AND BOULDER STEP POOLS
D-NSD-28	05-01-20	BOULDER RIFFLES
D-NSD-28A	11-30-20	LOG RIFFLES
D-NSD-29	05-01-20	CONSTRUCTED ALLUVIAL RIFFLE
D-NSD-30	05-01-20	SUBSTRATE RESTORATION
D-NSD-31	05-01-20	CLAY CHANNEL PLUG
D-NSD-32	05-01-20	WOOD TOE WITH GEO-LIFTS
D-NSD-32A	05-01-20	BOULDER TOE WITH GEO-LIFTS
D-NSD-33	05-01-20	COIR FIBER EROSION CONTROL BLANKET AND COIR FIBER ROLLS
D-NSD-34	05-01-20	LIVE STAKES AND LIVE SILTATION
D-NSD-35	05-01-20	LIVE FASCINES
D-NSD-36	05-01-20	BRUSH MATTRESS
D-NSD-37	05-01-20	SPECIAL NOTES FOR NATURAL STREAM DESIGN

SECTION 2 – STANDARD TRAFFIC DESIGN DRAWINGS

10-200.00 SIGNS

DRAWING REVISION DESCRIPTION DATE

English		Revised: 04/30/25
T-S-6	02-12-91	STANDARD MOUNTING DETAILS - BOLTED EXTRUDED PANELS
T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
T-S-8	07-15-91	HIGHWAY SHIELDS USED ON STATE NUMBERED ROUTES AND ARROWS
T-S-9	06-10-14	STANDARD LAYOUT - GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS, ALUMINUM-STEEL DESIGN
T-S-11	06-06-11	DELINEATOR AND MILEPOST DETAILS
T-S-12	07-10-17	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-13	10-21-19	I-BEAM BREAK-AWAY LARGE SIGN SUPPORT DETAILS
T-S-14	10-21-19	WF-BEAM BREAK-AWAY LARGE SIGN SUPPORT DETAILS
T-S-15	12-07-90	STANDARD CONDUIT & GROUND DETAILS FOR OVERHEAD & CANTILEVER SIGN STRUCTURES
T-S-16	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-16A	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	07-11-17	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-18	02-14-14	END OF ROADWAY, DEAD END SIGNS, AND METAL BARRICADES (TYPE III)
T-S-19	06-12-20	STANDARD STEEL SIGN SUPPORTS
T-S-20	07-11-17	SIGN DETAILS
T-S-21	04-10-19	DETAILS FOR SIGNS MOUNTS ON CONCRETE MEDIAN BARRIERS
T-S-22	04-10-19	SIGN LAYOUT FOR HOV LANES
T-S-23A	07-11-17	MULTI-DIRECTIONAL SLIP BASE BREAKAWAY P-POST SIGN SUPPORT
T-S-23B	07-19-13	MULTI-DIRECTIONAL SLIP BASE BREAKAWAY STRUCTURAL PIPE SIGN SUPPORT

English	CHAPTE	Revised: 04/30/25
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T-S-23C	07-02-15	BREAKWAY POST SIGN SUPPORTS
T-S-24	08-02-13	DETAILS OF SIGN WITH SOLAR FLASHING ASSEMBLY
T-S-25		SIGNING PLAN DETAILS FOR ROUNDABOUTS
T-S-26	01-09-24	SIGNING PLAN FOR RESTRICTED CROSSING & J-TURN INTERSECTIONS
10-201.00	SIGNALS	
DRAWING	REVISION DATE	DESCRIPTION
T-SG-1	06-27-16	WOOD POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-SG-2	06-27-16	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3	07-11-17	STANDARD NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG-3A	06-27-16	ALTERNATE DETECTION DETAILS
T-SG-4	06-27-16	SPAN WIRE AND MESSENGER CABLE DETAILS
T-SG-5	06-27-16	CONTROLLER CABINET DETAILS
T-SG-6	10-21-19	PEDESTRIAN SIGNAL DETAILS
T-SG-7	10-21-19	SIGNAL HEAD ASSEMBLIES
T-SG-7A		TYPICAL SIGNAL HEAD PLACEMENT APPROACHES WITH NO THROUGH MOVEMENTS
T-SG-7B	10-21-19	TYPICAL SIGNAL HEAD PLACEMENT APPROACHES WITH NO THROUGH MOVEMENTS
T-SG-7C		TYPICAL SIGNAL HEAD PLACEMENT ONE-LANE AND TWO-LANE APPROACHES
T-SG-7D	09-12-23	TYPICAL SIGNAL HEAD PLACEMENT TWO-LANE APPROACHES
T-SG-7E		TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE APPROACHES
T-SG-7F	07-13-17	TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE APPROACHES

English		Revised: 04/30/25
T-SG-7G		TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE APPROACHES
T-SG-7H	10-21-19	TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE AND FOUR-LANE APPROACHES
T-SG-7HH	07-13-17	TYPICAL SIGNAL HEAD PLACEMENT FOUR-LANE APROACHES
T-SG-7J		TYPICAL SIGNAL HEAD PLACEMENT FOUR-LANE APPROACHES
T-SG-7K	11-17-20	TYPICAL SIGNAL HEAD PLACEMENT FOUR-LANE APPROACHES
T-SG-7L	10-21-19	TYPICAL SIGNAL HEAD PLACEMENT FOUR-LANE APPROACHES
T-SG-7M		TYPICAL SIGNAL HEAD PLACEMENT FIVE-LANE APPROACHES
T-SG-7N		TYPICAL SIGNAL HEAD PLACEMENT FIVE-LANE APPROACHES
T-SG-7NN	07-13-17	TYPICAL SIGNAL HEAD PLACEMENT FIVE-LANE APPROACHES
T-SG-7P		TYPICAL SIGNAL HEAD PLACEMENT FIVE-LANE APPROACHES
T-SG-7PP	07-13-17	TYPICAL SIGNAL HEAD PLACEMENT FIVE-LANE APPROACHES
T-SG-7R		TYPICAL SIGNAL HEAD PLACEMENT SIX-LANE APPROACHES
T-SG-7S	10-21-19	TYPICAL SIGNAL HEAD PLACEMENT SIX-LANE AND SEVEN-LANE APPROACHES
T-SG-8	06-27-16	STRAIN POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-SG-9	07-15-24	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-9A	07-12-17	MISCELLANEOUS SIGNAL DETAILS
T-SG-10	09-12-23	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-11	07-12-17	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION

CHAPTER 10 - INDEX OF STANDARD DRAWINGS		
Enalish	•	Revised: 04/30/25
T-SG-12	12-20-19	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
T-SG-13	06-27-16	FLASHING BEACON DETAIL
T-SG-14	09-10-24	PEDESTRIAN HYBRID BEACON DETAIL, 2 OR 3 LANE FACILITIES
T-SG-15	09-10-24	PEDESTRIAN HYBRID BEACON DETAIL, MULTILANE FACILITIES
10-202.00	LIGHTING A	ND UTILITY POLES
DRAWING	REVISION	DESCRIPTION

DRAWING	REVISION DATE	DESCRIPTION
T-FO-1		FIBER OPTIC AERIAL ENTRANCE DETAILS
T-FO-2		FIBER OPTIC UNDERGROUND ENTRANCE DETAILS
T-FO-3		FIBER OPTIC AERIAL CONNECTION DETAILS
T-FO-4		FIBER OPTIC PULL BOX, CABINET & POLE DETAILS
T-L-1	07-15-24	STANDARD LIGHTING FOUNDATION DETAILS
T-L-1SA	07-15-24	STANDARD LIGHTING DETAILS FOR SINGLE ARM SUPPORTS
T-L-1TM	07-15-24	STANDARD LIGHTING DETAILS TENON MOUNTED OFFSET LIGHTING SUPPORTS
T-L-2	07-15-24	FOUNDATION DETAIL FOR LUMINAIRE MOUNTED ON CONCRETE MEDIAN BARRIER
T-L-3	07-15-24	STANDARD LIGHTING DETAILS PULL BOXES
T-L-4	07-15-24	STANDARD LIGHTING DETAILS CONDUIT, CABLE INSTALLATION

10-203.00 RAILROAD CROSSING

DRAWING REVISION DESCRIPTION DATE

English		Revised: 04/30/25
T-RR-1	11-01-11	TYPICAL PAVEMENT MARKING AT RAILROAD ACTIVE HIGHWAY GRADE CROSSINGS AND RAILROAD ADVANCE WARNING SIGN
T-RR-2	11-01-11	STANDARD DRAWING FOR RAILROAD AND HIGHWAY CROSSING SIGNAL WITH GATE
T-RR-3	11-01-11	STANDARD DRAWING FOR RAILROAD-HIGHWAY CROSSING SIGNAL
T-RR-4	11-01-11	STANDARD DRAWING FOR TYPICAL CURB & GUTTER PLAN FOR RAILROAD-HIGHWAY CROSSING WITH OR WITHOUT GATES
T-RR-5	11-01-11	RAILROAD-HIGHWAY CROSSING SIGNAL WITH CANTILEVER SPAN
T-RR-6	10-25-13	TYPICAL SIGNING AND MARKING AT PASSIVE RAILROAD HIGHWAY GRADE CROSSINGS

10-204.00 DESIGN - TRAFFIC CONTROL

10-204.01 PAVEMENT MARKINGS

DRAWING	REVISION DATE	DESCRIPTION
T-M-1	01-24-25	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-24-25	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	01-24-25	MARKING STANDARDS FOR TRAFFIC ISLANDS, PAVED SHOULDERS AND MEDIANS ON CONVENTIONAL ROADS
T-M-4	01-24-25	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-4A	01-24-25	STANDARD UNSIGNALIZED MID-BLOCK CROSSING
T-M-4A2		STANDARD RRFB COMMERCIAL AND STREET ENTRANCES
T-M-4B	01-24-25	STANDARD PEDESTRIAN HYBRID BEACON AT MID- BLOCK CROSSING
T-M-4B2		STANDARD PEDESTRIAN HYBRID BEACON AT COMMERCIAL AND STREET ENTRANCES

English		Revised: 04/30/25
T-M-4C	01-24-25	PEDESTRIAN GATEWAY TREATMENT
T-M-5	01-24-25	MARKING DETAIL FOR EXPRESSWAY AND FREEWAYS
T-M-6	01-24-25	MARKING DETAIL FOR EXPRESSWAY AND FREEWAY INTERCHANGES
T-M-7	01-24-25	GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-8	01-24-25	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-9	01-24-25	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-M-9A	01-24-25	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-M-9B	01-24-25	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-M-15	01-24-25	ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR INTERSTATES AND ACCESS CONTROLLED ROUTES
T-M-15A	01-24-25	ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR NON-ACCESS CONTROLLED RURAL ROUTES
T-M-16	01-24-25	RUMBLE STRIPE INSTALLATION LAYOUT
T-M-16A	01-24-25	RUMBLE STRIPE DETAILS FOR EDGE OF PAVEMENT AND CENTERLINE
T-M-16B		MUMBLE STRIP/STRIPE DETAILS FOR EDGE OF PAVEMENT
T-M-17	01-24-25	PAVEMENT MARKING DETAILS FOR ROUNDABOUTS
T-M-18	01-24-25	FLEXIBLE DELINEATOR DETAILS
T-M-18A	01-24-25	DELINEATOR MOUNTING DETAILS
T-M-19	01-24-25	PAVEMENT MARKING DETAILS FOR RESTRICTED CROSSING & J-TURN INTERSECTIONS
10-204.02	WORK ZONES	S
DRAWING	REVISION DATE	DESCRIPTION

English	CHAPI	Revised: 04/30/25
T-WZ-10	03-26-25	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-11	03-26-25	ONE LANE CLOSURE DETAIL FOR DIVIDED HIGHWAYS
T-WZ-12	03-26-25	ONE LANE CLOSURE DETAIL FOR BRIDGES ON DIVIDED HIGHWAYS
T-WZ-13	03-26-25	TWO-OUTSIDE LANE CLOSURE FOR EXPRESSWAYS AND FREEWAYS
T-WZ-14	03-26-25	TWO-OUTSIDE LANE CLOSURE FOR INTERSTATES AND EXPRESSWAYS
T-WZ-15	03-26-25	INTERIOR LANE CLOSURE FOR EXPRESSWAYS AND FREEWAYS
T-WZ-16	03-26-25	LANE SHIFT FOR DIVIDED HIGHWAYS AND FREEWAYS
T-WZ-18	03-26-25	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
T-WZ-19	03-26-25	MEDIAN CROSS-OVER DETAIL ON FREEWAYS
T-WZ-20	03-26-25	GEOMETRIC MEDIAN CROSS-OVER DETAIL ON DIVIDED HIGHWAYS
T-WZ-21	03-26-25	LANE CLOSURE WITH LEFT HAND MERGE AND LANE SHIFT
T-WZ-30	03-26-25	TRAFFIC CONTROL 2-LANE, 2-WAY DIVERSION (40 MPH OR LESS)
T-WZ-31	03-26-25	TRAFFIC CONTROL 2-LANE, 2-WAY DIVERSION (GREATER THAN 40 MPH)
T-WZ-32	03-26-25	TRAFFIC CONTROL PLAN SIGNAL LAYOUT FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-33	03-26-25	TRAFFIC CONTROL PLAN FOR CLOSE INTERSECTION CONDITIONS USING TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-34	03-26-25	TRAFFIC CONTROL PLAN GENERAL NOTES FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE

English		Revised: 04/30/25
T-WZ-35	03-26-25	TRAFFIC CONTROL PLAN PAY ITEM AND SIGN DETAILS FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-36	03-26-25	LANE CLOSURE ON LOW-VOLUME 2-LANE HIGHWAY
T-WZ-40	03-26-25	RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-41	03-26-25	LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-42	03-26-25	CENTER LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-55	03-26-25	SIDEWALK TRAFFIC CONTROL
T-WZ-56	03-26-25	TRANSVERSE RUMBLE STRIP USE WITHIN WORK ZONES
T-WZ-60	03-26-25	FREEWAY RESURFACING SIGNING PROCEDURES
T-WZ-61	03-26-25	ROLLING ROADBLOCK DETAIL FOR DIVIDED HIGHWAYS
T-WZ-62	03-26-25	CONSTRUCTION ACCESS/EMERGENCY PULL-OFF ON FREEWAYS
T-WZ-63	03-26-25	WORK ZONE IN THE VICINITY OF AN ENTRANCE RAMP
T-WZ-64	03-26-25	WORK ZONE IN THE VICINITY OF AN EXIT RAMP
T-WZ-65	03-26-25	LANE CLOSURE WITH LATE MERGE
T-WZ-FAB1	03-26-25	FLASHING YELLOW ARROW BOARD (Replaced T-FAB-1)
T-WZ-PBR1	03-26-25	INTERCONNECTED PORTABLE BARRIER RAIL (Replaced T-PBR-1)
T-WZ-PBR2	03-26-25	DETAILS FOR WORK ZONE CHANNELIZATION DEVICES
T-WZ-PCB1	03-26-25	10 FOOT PORTABLE CONCRETE BARRIER RAIL
T-WZ-PCB2	03-26-25	20 FOOT PORTABLE CONCRETE BARRIER RAIL
T-WZ-PCB2A	03-26-25	20 FOOT PORTABLE CONCRETE BARRIER RAIL STIFFENER TUBE
T-WZ-PCB3	03-26-25	PORTABLE CONCRETE BARRIER RAIL DETAILS
T-WZ-PCB4	03-26-25	PORTABLE CONCRETE BARRIER RAIL ANCHOR PIN DETAILS

English Revised: 04/30/25

SECTION 3 – STANDARD STRUCTURE DRAWINGS

10-300.00 NEW STRUCTURES

DRAWING	REVISION DATE	DESCRIPTION
STD-1-1SS	07-24-24	BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET
STD-1-2SS	05-31-24	STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS
STD-1-3SS	05-10-21	STANDARD SINGLE SLOPE CONCRETE MEDIAN BARRIER
STD-1-4SS	05-10-21	STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE MEDIAN BARRIER
STD-1-5	06-05-23	REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS
STD-1-6	05-10-21	BRIDGE END DRAIN DETAILS 2' X 8'-7" & 4' X 8'-7" WITH PAVEMENT AT BRIDGE ENDS
STD-1-7	05-10-21	BRIDGE END DRAIN DETAILS 2' X 8'-7" & 4' X 8'-7" WITH PAVEMENT AT BRIDGE ENDS
STD-1-8	05-10-21	BRIDGE END DRAIN DETAILS 2' X 8'-7" WITH PAVEMENT AT BRIDGE ENDS
STD-1-9	05-10-21	BRIDGE END DRAIN DETAILS 4' X 8'-7" WITH PAVEMENT AT BRIDGE ENDS
STD-1-10	05-10-21	BRIDGE END DRAIN DETAILS 2' X 8'-7" & 4' X 8'-7" WITHOUT PAVEMENT AT BRIDGE ENDS
STD-1-11	05-10-21	BRIDGE END DRAIN DETAILS 2' X 8'-7" & 4' X 8'-7" WITHOUT PAVEMENT AT BRIDGE ENDS
STD-1-12	05-10-21	BRIDGE END DRAIN DETAILS 2' X 8'-7" WITHOUT PAVEMENT AT BRIDGE ENDS
STD-1-13	05-10-21	BRIDGE END DRAIN DETAILS 4' X 8'-7" WITHOUT PAVEMENT AT BRIDGE ENDS
STD-2-1	11-01-10	BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL
STD-2-2		VERTICAL PANEL DETAILS

English		Revised: 04/30/25
STD-2-3		BRIDGE MOUNTED INTERCONNECTED PORTABLE BARIER RAIL ALTERNATE CONNECTION DETAIL
STD-3-1	11-01-10	STRIPSEAL EXPANSION JOINT NEW CONSTRUCTION
STD-3-2	11-01-10	STRIPSEAL EXPANSION JOINT NEW CONSTRUCTION
STD-4-1	04-08-05	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS
STD-4-2	04-08-05	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA
STD-4-3	03-02-02	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS
STD-4-4	06-10-96	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS CONSTRUCTION DETAILS
STD-5-1		STANDARD PILE DETAILS
STD-5-2		STANDARD PILE DETAILS
STD-6-1	12-08-23	STANDARD SEISMIC DETAILS
STD-6-2	11-07-94	STANDARD SEISMIC DETAILS
STD-7-1	04-15-20	STANDARD CONCRETE RAIL
STD-8-2SS		SINGLE SLOPE PARAPET STANDARD LIGHT SUPPORT DETAILS
STD-8-3SS	06-15-20	SINGLE SLOPE MEDIAN BARRIER STANDARD LIGHT SUPPORT DETAILS
STD-8-4	02-26-25	SIGN, LUMINAIRE, AND TRAFFIC SIGNAL SUPPORTS
STD-8-5	5-10-21	STANDARD PROTECTIVE FENCE DETAILS
STD-8-6	10-03-18	TRI-STAR STATE EMBLEM FINISH DETAILS
STD-9-1	10-07-08	STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS
STD-10-1	06-05-23	MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS
STD-10-2	06-05-23	MISC. ABUTMENT & PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS

English		Revised: 04/30/25
STD-10-3	01-10-24	MISC. ABUTMENT & PAVEMENT AT BRIDGE ENDS DITCH DETAILS
STD-11-1	04-15-20	BRIDGE RAILING CONCRETE PARAPET WITH STRUCTURAL TUBING
STD-11-2	04-15-20	STANDARD CONCRETE CLASSIC RAIL
STD-11-3	04-15-20	STANDARD CONCRETE PEDESTRIAN CLASSIC RAIL
STD-11-4		CONCRETE CLASSIC RAIL (42" TALL)
STD-11-4A		CONCRETE CLASSIC RAIL (42" TALL)
STD-14-1	06-05-23	STANDARD DETAILS AND INTERMEDIATE DIAPHRAGM DETAILS FOR BULB-TEE BEAMS
STD-14-2	03-06-24	STANDARD DETAILS AND INTERMEDIATE DIAPHRAGM DETAILS FOR I-BEAMS
STD-14-3	03-06-24	STANDARD DETAILS FOR PRESTRESSED BOX BEAMS

10-301.00 LRFD BOX CULVERTS

(See Section 2-600.01)

DRAWING	REVISION DATE	DESCRIPTION
STD-17-1		INDEX OF DRAWINGS
STD-17-2		TERMINOLOGY OF DRAWINGS
STD-17-3		GENERAL NOTES
STD-17-4		DESIGN SECTION LIMITS
STD-17-5		TYPICAL SECTIONS AND DETAILS
STD-17-6		TYPICAL ELEVATION
STD-17-7		CURB, RAIL & EDGE BEAM DETAILS - SKEW NOT LESS THAN 45 DEG.
STD-17-8		EDGE BEAM DETAILS FOR FILLS GREATER THAN 3' - 6"
STD-17-9		INTERIOR WALL END TREATMENTS
STD-17-10		TYPICAL WINGWALL DETAILS AND NOTES

Enalish	CHAPII	ER 10 – INDEX OF STANDARD DRAWINGS Revised: 04/30/25
STD-17-11		WINGWALL DIMENSIONS AND QUANTITIES
STD-17-12		WINGWALL DIMENSIONS AND QUANTITIES
STD-17-13		WINGWALL DIMENSIONS AND QUANTITIES
STD-17-14		WINGWALL DIMENSIONS AND QUANTITIES
STD-17-15		WINGWALL AND SPECIAL RETAINING WALL DESIGN SECTIONS
STD-17-16		WINGWALL DESIGN SECTIONS
STD-17-17	06-01-11	BACKFILL AND DRAINAGE DETAILS
STD-17-18		BACKFILL DETAILS
STD-17-19	06-20-18	PAVED OUTLET DETAIL
STD-17-20		LOW FLOW CHANNEL CONSTRUCTION DETAILS FOR CULVERT INLET AND OUTLET
STD-17-21		DEBRIS DEFLECTION WALL FOR BOX BRIDGE
STD-17-22		DEBRIS DEFLECTION WALL FOR SLAB BRIDGE
STD-17-23		SIDEWALK AND MISCELLANEOUS DETAILS
STD-17-24		WARPED SLOPE DETAIL
STD-17-25		STAGE CONSTRUCTION JOINT DETAIL (FILL ABOVE TOP OF SLAB NOT GREATER THAN 3'-6")
STD-17-26		EXTENSION DETAILS
STD-17-27		EXTENSION DETAILS FOR SCOURED OUTLET
STD-17-28		END SECTION DETAILS
STD-17-29		PRECAST BOX CULVERT DETAILS
STD-17-34		STANDARD INTERNAL ENERGY DISSIPATOR FOR BOX AND PIPE CULVERTS
STD-17-51	05-01-14	BOX BRIDGE, 1 BARREL AT 6', CLEAR HTS. 3' - 6', 0 - 60' FILL
STD-17-52		BOX BRIDGE, 1 BARREL AT 8', CLEAR HTS. 3' - 5', 0 - 60' FILL

English	Revised: 04/30/25
STD-17-53	BOX BRIDGE, 1 BARREL AT 8', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-54	BOX BRIDGE, 1 BARREL AT 10', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-55	BOX BRIDGE, 1 BARREL AT 10', CLEAR HTS. 7' - 10', 0 - 60' FILL
STD-17-56	BOX BRIDGE, 1 BARREL AT 12', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-57	BOX BRIDGE, 1 BARREL AT 12', CLEAR HTS. 7' - 9', 0 - 60' FILL
STD-17-58	BOX BRIDGE, 1 BARREL AT 12', CLEAR HTS. 10' - 12', 0 - 60' FILL
STD-17-59	BOX BRIDGE, 1 BARREL AT 14', CLEAR HTS. 5' - 7', 0 - 60' FILL
STD-17-60	BOX BRIDGE, 1 BARREL AT 14', CLEAR HTS. 8' - 11', 0 - 60' FILL
STD-17-61	BOX BRIDGE, 1 BARREL AT 14', CLEAR HTS. 12' - 14', 0 - 60' FILL
STD-17-62	BOX BRIDGE, 1 BARREL AT 16', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-63	BOX BRIDGE, 1 BARREL AT 16', CLEAR HTS. 9' - 12', 0 - 60' FILL
STD-17-64	BOX BRIDGE, 1 BARREL AT 16', CLEAR HTS. 13' - 16', 0 - 60' FILL
STD-17-65	BOX BRIDGE, 1 BARREL AT 18', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-66	BOX BRIDGE, 1 BARREL AT 18', CLEAR HTS. 9' - 11', 0 - 60' FILL
STD-17-67	BOX BRIDGE, 1 BARREL AT 18', CLEAR HTS. 12' - 14', 0 - 60' FILL
STD-17-68	BOX BRIDGE, 1 BARREL AT 18', CLEAR HTS. 15' - 18', 0 - 60' FILL

<u>English</u>		Revised: 04/30/25
STD-17-71	05-01-14	BOX BRIDGE, 2 BARRELS AT 6', CLEAR HTS. 3' - 6', 0 - 60' FILL
STD-17-72		BOX BRIDGE, 2 BARRELS AT 8', CLEAR HTS. 3' - 5', 0 - 60' FILL
STD-17-73		BOX BRIDGE, 2 BARRELS AT 8', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-74		BOX BRIDGE, 2 BARRELS AT 10', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-75		BOX BRIDGE, 2 BARRELS AT 10', CLEAR HTS. 7' - 10', 0 - 60' FILL
STD-17-76		BOX BRIDGE, 2 BARRELS AT 12', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-77		BOX BRIDGE, 2 BARRELS AT 12', CLEAR HTS. 7' - 9', 0 - 60' FILL
STD-17-78		BOX BRIDGE, 2 BARRELS AT 12', CLEAR HTS. 10' - 12', 0 - 60' FILL
STD-17-79		BOX BRIDGE, 2 BARRELS AT 14', CLEAR HTS. 5' - 7', 0 - 60' FILL
STD-17-80		BOX BRIDGE, 2 BARRELS AT 14', CLEAR HTS. 8' - 11', 0 - 60' FILL
STD-17-81		BOX BRIDGE, 2 BARRELS AT 14', CLEAR HTS. 12' - 14', 0 - 60' FILL
STD-17-82		BOX BRIDGE, 2 BARRELS AT 16', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-83		BOX BRIDGE, 2 BARRELS AT 16', CLEAR HTS. 9' - 12', 0 - 60' FILL
STD-17-84		BOX BRIDGE, 2 BARRELS AT 16', CLEAR HTS. 13' - 16', 0 - 60' FILL
STD-17-85		BOX BRIDGE, 2 BARRELS AT 18', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-86		BOX BRIDGE, 2 BARRELS AT 18', CLEAR HTS. 9' - 11', 0 - 60' FILL
STD-17-87		BOX BRIDGE, 2 BARRELS AT 18', CLEAR HTS. 12' - 14', 0 - 60' FILL

Castiah	CHAPTER 10 – INDEX OF STANDARD DRAWINGS
<u>English</u>	Revised: 04/30/25
STD-17-88	BOX BRIDGE, 2 BARRELS AT 18', CLEAR HTS. 15' - 18', 0 - 60' FILL
STD-17-91	BOX BRIDGE, 3 BARRELS AT 6', CLEAR HTS. 3' - 6', 0 - 60' FILL
STD-17-92	BOX BRIDGE, 3 BARRELS AT 8', CLEAR HTS. 3' - 5', 0 - 60' FILL
STD-17-93	BOX BRIDGE, 3 BARRELS AT 8', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-94	BOX BRIDGE, 3 BARRELS AT 10', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-95	BOX BRIDGE, 3 BARRELS AT 10', CLEAR HTS. 7' - 10', 0 - 60' FILL
STD-17-96	BOX BRIDGE, 3 BARRELS AT 12', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-97	BOX BRIDGE, 3 BARRELS AT 12', CLEAR HTS. 7' - 9', 0 - 60' FILL
STD-17-98	BOX BRIDGE, 3 BARRELS AT 12', CLEAR HTS. 10' - 12', 0 - 60' FILL
STD-17-99	BOX BRIDGE, 3 BARRELS AT 14', CLEAR HTS. 5' - 7', 0 - 60' FILL
STD-17-100	BOX BRIDGE, 3 BARRELS AT 14', CLEAR HTS. 8' - 11', 0 - 60' FILL
STD-17-101	BOX BRIDGE, 3 BARRELS AT 14', CLEAR HTS. 12' - 14', 0 - 60' FILL
STD-17-102	BOX BRIDGE, 3 BARRELS AT 16', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-103	BOX BRIDGE, 3 BARRELS AT 16', CLEAR HTS. 9' - 12', 0 - 60' FILL
STD-17-104	BOX BRIDGE, 3 BARRELS AT 16', CLEAR HTS. 13' - 16', 0 - 60' FILL
STD-17-105	BOX BRIDGE, 3 BARRELS AT 18', CLEAR HTS. 6' - 8', 0 - 60' FILL

English	Revised: 04/30/25
STD-17-106	BOX BRIDGE, 3 BARRELS AT 18', CLEAR HTS. 9' - 11', 0 - 60' FILL
STD-17-107	BOX BRIDGE, 3 BARRELS AT 18', CLEAR HTS. 12' - 14', 0 - 60' FILL
STD-17-108	BOX BRIDGE, 3 BARRELS AT 18', CLEAR HTS. 15' - 18', 0 - 60' FILL
STD-17-111	SLAB BRIDGE, 1 BARREL AT 6', CLEAR HTS. 3' - 6', 0 - 60' FILL
STD-17-112	SLAB BRIDGE, 1 BARREL AT 8', CLEAR HTS. 3' - 5', 0 - 60' FILL
STD-17-113	SLAB BRIDGE, 1 BARREL AT 8', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-114	SLAB BRIDGE, 1 BARREL AT 10', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-115	SLAB BRIDGE, 1 BARREL AT 10', CLEAR HTS. 7' - 10', 0 - 60' FILL
STD-17-116	SLAB BRIDGE, 1 BARREL AT 12', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-117	SLAB BRIDGE, 1 BARREL AT 12', CLEAR HTS. 7' - 9', 0 - 60' FILL
STD-17-118	SLAB BRIDGE, 1 BARREL AT 12', CLEAR HTS. 10' - 12', 0 - 60' FILL
STD-17-119	SLAB BRIDGE, 1 BARREL AT 14', CLEAR HTS. 5' - 7', 0 - 60' FILL
STD-17-120	SLAB BRIDGE, 1 BARREL AT 14', CLEAR HTS. 8' - 11', 0 - 60' FILL
STD-17-121	SLAB BRIDGE, 1 BARREL AT 14', CLEAR HTS. 12' - 14', 0 - 60' FILL
STD-17-122	SLAB BRIDGE, 1 BARREL AT 16', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-123	SLAB BRIDGE, 1 BARREL AT 16', CLEAR HTS. 9' - 12', 0 - 60' FILL
STD-17-124	SLAB BRIDGE, 1 BARREL AT 16', CLEAR HTS. 13' - 16', 0 - 60' FILL

English	CHAPTER 10 - INDEX OF STANDARD DRAWINGS Revised: 04/30/25
Eligiloli	1101100di 0-1/00/20
STD-17-125	SLAB BRIDGE, 1 BARREL AT 18', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-126	SLAB BRIDGE, 1 BARREL AT 18', CLEAR HTS. 9' - 11', 0 - 60' FILL
STD-17-127	SLAB BRIDGE, 1 BARREL AT 18', CLEAR HTS. 12' - 14', 0 - 60' FILL
STD-17-128	SLAB BRIDGE, 1 BARREL AT 18', CLEAR HTS. 15' - 18', 0 - 60' FILL
STD-17-131	SLAB BRIDGE, 2 BARRELS AT 6', CLEAR HTS. 3' - 6', 0 - 60' FILL
STD-17-132	SLAB BRIDGE, 2 BARRELS AT 8', CLEAR HTS. 3' - 5', 0 - 60' FILL
STD-17-133	SLAB BRIDGE, 2 BARRELS AT 8', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-134	SLAB BRIDGE, 2 BARRELS AT 10', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-135	SLAB BRIDGE, 2 BARRELS AT 10', CLEAR HTS. 7' - 10', 0 - 60' FILL
STD-17-136	SLAB BRIDGE, 2 BARRELS AT 12', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-137	SLAB BRIDGE, 2 BARRELS AT 12', CLEAR HTS. 7' - 9', 0 - 60' FILL
STD-17-138	SLAB BRIDGE, 2 BARRELS AT 12', CLEAR HTS. 10' - 12', 0 - 60' FILL
STD-17-139	SLAB BRIDGE, 2 BARRELS AT 14', CLEAR HTS. 5' - 7', 0 - 60' FILL
STD-17-140	SLAB BRIDGE, 2 BARRELS AT 14', CLEAR HTS. 8' - 11', 0 - 60' FILL
STD-17-141	SLAB BRIDGE, 2 BARRELS AT 14', CLEAR HTS. 12' - 14', 0 - 60' FILL
STD-17-142	SLAB BRIDGE, 2 BARRELS AT 16', CLEAR HTS. 6' - 8', 0 - 60' FILL

English	Revised: 04/30/25
STD-17-143	SLAB BRIDGE, 2 BARRELS AT 16', CLEAR HTS. 9' - 12', 0 - 60' FILL
STD-17-144	SLAB BRIDGE, 2 BARRELS AT 16', CLEAR HTS. 13' - 16', 0 - 60' FILL
STD-17-145	SLAB BRIDGE, 2 BARRELS AT 18', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-146	SLAB BRIDGE, 2 BARRELS AT 18', CLEAR HTS. 9' - 11', 0 - 60' FILL
STD-17-147	SLAB BRIDGE, 2 BARRELS AT 18', CLEAR HTS. 12' - 14', 0 - 60' FILL
STD-17-148	SLAB BRIDGE, 2 BARRELS AT 18', CLEAR HTS. 15' - 18', 0 - 60' FILL
STD-17-151	SLAB BRIDGE, 3 BARRELS AT 6', CLEAR HTS. 3' - 6', 0 - 60' FILL
STD-17-152	SLAB BRIDGE, 3 BARRELS AT 8', CLEAR HTS. 3' - 5', 0 - 60' FILL
STD-17-153	SLAB BRIDGE, 3 BARRELS AT 8', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-154	SLAB BRIDGE, 3 BARRELS AT 10', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-155	SLAB BRIDGE, 3 BARRELS AT 10', CLEAR HTS. 7' - 10', 0 - 60' FILL
STD-17-156	SLAB BRIDGE, 3 BARRELS AT 12', CLEAR HTS. 4' - 6', 0 - 60' FILL
STD-17-157	SLAB BRIDGE, 3 BARRELS AT 12', CLEAR HTS. 7' - 9', 0 - 60' FILL
STD-17-158	SLAB BRIDGE, 3 BARRELS AT 12', CLEAR HTS. 10' - 12', 0 - 60' FILL
STD-17-159	SLAB BRIDGE, 3 BARRELS AT 14', CLEAR HTS. 5' - 7', 0 - 60' FILL
STD-17-160	SLAB BRIDGE, 3 BARRELS AT 14', CLEAR HTS. 8' - 11', 0 - 60' FILL
STD-17-161	SLAB BRIDGE, 3 BARRELS AT 14', CLEAR HTS. 12' - 14', 0 - 60' FILL

English	Revised: 04/30/25
STD-17-162	SLAB BRIDGE, 3 BARRELS AT 16', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-163	SLAB BRIDGE, 3 BARRELS AT 16', CLEAR HTS. 9' - 12', 0 - 60' FILL
STD-17-164	SLAB BRIDGE, 3 BARRELS AT 16', CLEAR HTS. 13' - 16', 0 - 60' FILL
STD-17-165	SLAB BRIDGE, 3 BARRELS AT 18', CLEAR HTS. 6' - 8', 0 - 60' FILL
STD-17-166	SLAB BRIDGE, 3 BARRELS AT 18', CLEAR HTS. 9' - 11', 0 - 60' FILL
STD-17-167	SLAB BRIDGE, 3 BARRELS AT 18', CLEAR HTS. 12' - 14', 0 - 60' FILL
STD-17-168	SLAB BRIDGE, 3 BARRELS AT 18', CLEAR HTS. 15' - 18', 0 - 60' FILL

10-302.00 BRIDGE REPAIRS

DRAWING	REVISION DATE	DESCRIPTION
SBR-2-115	06-15-16	GENERAL NOTES AND DETAILS FOR EXPANSION JOINT REPLACEMENT CONSTRUCTION TYPES "A" THRU "J" – 1991
SBR-2-116	01-04-96	GENERAL DETAILS FOR STRIPSEAL EXPANSION JOINT REPLACEMENT CONSTRUCTION DETAILS TYPES "A" THRU "J" – 1991
SBR-2-117	05-30-96	STRIPSEAL EXPANSION JOINTS - REPLACEMENT CONSTRUCTION DETAILS TYPE "A" AND TYPE "B" – 1991
SBR-2-118	05-30-96	STRIPSEAL EXPANSION JOINT REPLACEMENT CONSTRUCTION DETAILS TYPE "C" AND TYPE "D" – 1991
SBR-2-119	05-30-96	STRIPSEAL EXPANSION JOINT REPLACEMENT CONSTRUCTION DETAILS TYPE "E" AND TYPE "F" – 1991
SBR-2-120	05-30-96	STRIPSEAL EXPANSION JOINT REPLACEMENT CONSTRUCTION DETAILS TYPE "G" AND "H" – 1991

English		Revised: 04/30/25
SBR-2-121	01-04-96	STRIPSEAL EXPANSION JOINT REPLACEMENT CONSTRUCTION DETAILS TYPE "J" – 1991
SBR-2-122	01-04-96	DETAILS FOR PRECAST SLAB BRIDGE CHANNELS, SPANS 16' - 0" THRU 34' - 0", DEGREE OF SKEW 90 - 75 - 60 - 45 – 1992
SBR-2-123	01-04-96	DETAILS FOR PRECAST SLAB BRIDGE CHANNELS, SPANS 16' - 0" THRU 34' - 0", DEGREE OF SKEW 90 - 75 - 60 - 45 – 1992
SBR-2-124	01-04-96	DETAILS SHOWING REPLACEMENT OF EXISTING BRIDGERAIL SYSTEM WITH NEW JERSEY SHAPE CONCRETE PARAPET AND NEW 10' -2" ENDPOST – 1988
SBR-2-125	11-05-01	DETAILS SHOWING REPLACEMENT OF EXISTING BRIDGERAIL SYSTEM WITH NEW JERSEY SHAPE CONCRETE PARAPET AND NEW 10' -2" ENDPOST – 1988
SBR-2-126	01-04-96	DETAILS SHOWING REPLACEMENT OF EXISTING BRIDGERAIL SYSTEM WITH NEW JERSEY SHAPE CONCRETE PARAPET AND NEW 10' -2" ENDPOST – 1988
SBR-2-127	11-05-01	DETAILS SHOWING PIER PROTECTION WITH NEW CONCRETE BARRIER WALL – 1988
SBR-2-128	01-04-96	DETAILS SHOWING PIER PROTECTION WITH NEW CONCRETE BARRIER WALL – 1988
SBR-2-129	11-05-01	DETAILS SHOWING PIER PROTECTION WITH NEW VERTICAL CONCRETE BARRIER – 1988
SBR-2-130	01-04-96	DETAILS SHOWING PIER PROTECTION WITH NEW VERTICAL CONCRETE BARRIER – 1988
SBR-2-131	01-22-02	DETAILS SHOWING GUARDRAIL ATTACHMENT AT BRIDGE ENDS TO EXISTING CONCRETE SLOPE FACE ENDPOST – 1989
SBR-2-132	01-04-96	DETAILS SHOWING GUARDRAIL ATTACHMENT AT BRIDGE ENDS TO EXISTING CONCRETE SLOPE FACE ENDPOST – 1989
SBR-2-133	01-22-02	DETAILS SHOWING GUARDRAIL ATTACHMENT AT BRIDGE ENDS TO EXISTING CONCRETE VERTICAL FACE ENDPOST – 1989
SBR-2-134	01-04-96	DETAILS SHOWING GUARDRAIL ATTACHMENT AT BRIDGE ENDS TO EXISTING CONCRETE VERTICAL FACE ENDPOST – 1989

English		Revised: 04/30/25
SBR-2-135	01-22-02	GUARDRAIL ATACHMENT TO EXISTING PIER PROTECTION – 1991
SBR-2-136	11-05-01	STANDARD DRAWING FOR REPLACING EXISTING CONCRETE ENDPOST AND GUARDRAIL AT EXISTING BRIDGE ENDS – 1992
SBR-2-137	11-05-01	STANDARD SHOWING DETAILS FOR ATTACHING NEW GUARDRAIL TO EXISTING END OF BRIDGE – 1992
SBR-2-138	11-05-01	STANDARD SHOWING DETAILS FOR ATTACHING NEW GUARDRAIL AT EXISTING BRIDGE END AND ALONG EXISTING BRIDGE RAIL – 1992
SBR-2-140	11-05-01	STANDARD SHOWING DETAILS FOR ATTACHING NEW GUARDRAIL ALONG EXISTING BRIDGE RAILS – 1992
SBR-2-144	01-22-02	STANDARD SHOWING DETAILS OF ATTACHING GUARDRAIL BRIDGERAIL TO TOP OF EXISTING CURBS – 1992