

Design and Tabulation Forms

Estimate of Quantities

NO.	DATE	TITLE
100-0A	10-28-97	Estimated Roadway Quantities (1 Division Project)
100-1A	09-20-22	Estimated Project Quantities
100-1C	04-17-12	Estimated Project Quantities (Up to a 5 Division Project)
100-1D	10-18-05	Project Description
100-4A	06-02-23	Estimate Reference Information
100-5	10-17-23	Curb and Gutter
100-7	01-13-23	Fencing
100-8	08-15-22	Removal of Fence
100-9	08-15-22	Transition Mat
100-10	08-15-22	Floating Silt Curtains
100-11	04-16-24	Erosion Control for Intake or Manhole Well
100-12A	08-15-22	Estimated Erosion Control Project Quantities P.S. & E. Only
100-13	08-15-22	Silt Ditches
100-14	08-15-22	Silt Basins
100-15	08-15-22	Silt Dikes
100-16	08-15-22	Tabulation of Intercepting Ditches
100-17	08-15-22	Tabulation of Silt Fences
100-18	08-15-22	Silt Fences for Ditch Checks
100-19	10-15-24	Perimeter and Slope Sediment Control Device
100-20	08-15-22	Planting Quantities Listing
100-21	08-15-22	Fill For Culverts Used in Bridge Replacements
100-22	08-15-22	Rolled Erosion Control
100-23	08-15-22	Rock Erosion Control
100-24	10-15-24	PCC Pavement
100-25	10-15-24	HMA Pavement
100-26	08-15-22	Incidental Items
100-27	08-15-22	Proposed Posted Speed Limit
100-28	08-15-22	Longitudinal Grooving
100-32	08-15-22	Rock Check Dam
100-33	08-15-22	Temporary Sediment Control Basin

Estimate of Quantities

NO.	DATE	TITLE
100-34	08-15-22	Stormwater Drainage Basin
100-36	08-15-22	Open-Throat Curb Intake Sediment Filter
100-37	04-16-24	Grate Intake Sediment Filter Bag

<div>ESTIMATED ROADWAY QUANTITIES (1 DIVISION PROJECT)</div>					100-0A 10-28-97
Item No.	Item Code	Item	Unit	Total	As Built Qty.

ESTIMATED PROJECT QUANTITIES
(UP TO A 5 DIVISION PROJECT)

100_01C
4/15/24

Line No.	Item No.	Item Code	Item	Unit	Division 1	Division 2	Division 3	Division 4	Division 5	Total	As Built Division 1	As Built Division 2	As Built Division 3	As Built Division 4	As Built Division 5
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100_01D
8/15/22

PROJECT DESCRIPTION

CURB AND GUTTER Refer to PV-102																	100_05 10/17/23
Line No.	Station From	Station To	Side	Length (LF)	Width (LF)	Width 1.5 (LF)	Width 2.0 (LF)	Width 2.5 (LF)	Width 3.0 (LF)	Width 3.5 (LF)	Width 4.0 (LF)	Width 4.5 (LF)	Width 5.0 (LF)	Width 5.5 (LF)	Modified Subbase (CY)	Special Backfill (TON)	Remarks
FILE NO.	ENGLISH	DESIGN TEAM	Methods					STORY COUNTY			PROJECT NUMBER NHSX-222-2(22)-22-22				SHEET NUMBER C.0		

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* Bid Item										100_07 1/13/23	
FENCING											
Line No.	Station From	Offset	Station To	Offset	Side	Fence Type	Fence Feature	Height (FT)	Quantity (EA) *	Length (LF) *	Remarks

FILE NO.	ENGLISH	DESIGN TEAM	Methods	STORY COUNTY	PROJECT NUMBER	NHSX-222-2(22)-22-22	SHEET NUMBER	C.0
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REMOVAL OF FENCE								100_08 8/15/22
Removal of Field Fence is incidental to Clearing and Grubbing.								
Line No.	Station From	Offset	Station To	Offset	Side	Type	Length (LF)	Remarks

<div>100_09 8/15/22</div> <div>TRANSITION MAT</div> <div>Refer to EC-105</div>						
Line No.	Station	Side	Length (LF)	Width (LF)	Area (SF)	Remarks

100_10
8/15/22

FLOATING SILT CURTAINS

Refer to EC-202

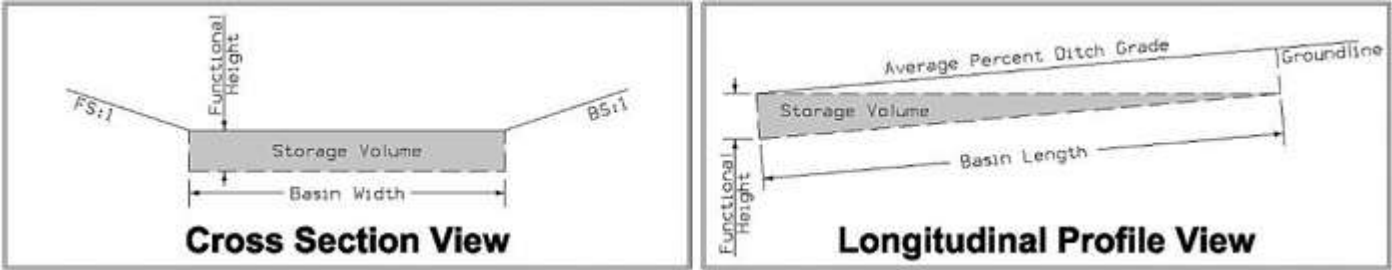
Line No.	Station	Hanging (LF)	Containment (LF)	Clean-out (Containment) (LF)	of Floating Silt Curtain (LF)	Remarks

EROSION CONTROL FOR INTAKE OR MANHOLE WELL					100_11 4/16/24
Possible Standard Road Plan : EC-603					
Line No.	Location Station	Side	Cover Assembly Type	Quantity (EA)	Remarks

ESTIMATED EROSION CONTROL PROJECT QUANTITIES P.S. & E. ONLY					100_12A 8/15/22
Line No.	Item No.	Item	Unit	Division	Total

<div>SILT DITCHES</div> <div>Refer to EW-403</div>						100_13 8/15/22
Line No.	Station From	Station To	Side	LF	Remarks	

SILT BASINS
Possible Standard: EW-403



* The functional height used in the volume equation is 95% of effective height. Effective height is 3 feet as shown in EW-403.
* Volume equation: $(0.5 * \text{Length} * (\text{Width} * \text{Height} + \text{Width} * (\text{Height} - \text{Length} * \text{Avg} \% \text{Slope})))$

Line No.	Basin No.	Station	Side	Installation (Each)	Removal (Each)	Basin Width (FT)	Basin Length (FT)	Height (FT)	Avg. % Slope	Volume (CF)	Remarks

<div><div>100_15</div><div>8/15/22</div><div>SILT DIKES</div><div>Refer to EW-403</div></div>					
Line No.	Station From	Station To	Side	Length (LF)	Remarks

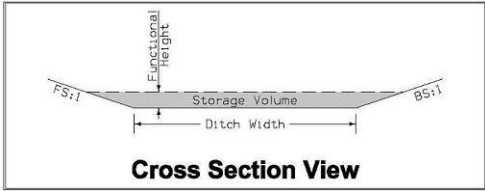
100_16 8/15/22					
TABULATION OF INTERCEPTING DITCHES					
Line No.	Station From	Station To	Side	Length (LF)	Remarks

TABULATION OF SILT FENCES					100_17 8/15/22
Refer to EC-201					
Line No.	Station From	Station To	Side	Length (FT)	Remarks

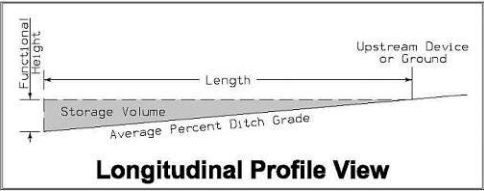
100_18
8/15/22

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201



Cross Section View



Longitudinal Profile View

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.

* Volume equation: $[0.5 * \text{Spacing} * (0.5 * H^2 * FS + DW * H + 0.5 * H^2 * BS)]$

Line No.	Basin No.	Type	Station	Side	Installation (LF)	Maintenance (LF)	Removal (LF)	Foreslope (FS:1)	Backslope (BS:1)	Ditch Width (FT)	Avg. % Slope Ditch Grade	Volume (CF)	Remarks

FILE NO.

ENGLISH

DESIGN TEAM

Methods

STORY COUNTY

PROJECT NUMBER

NHSX-222-2(22)-22-22

SHEET NUMBER

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<div>PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE</div> <div>Possible Standards: EC-204</div>							100_19 10/15/24
Line No.	Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks

PLANTING QUANTITIES LISTING							100_20 8/15/22
Line No.	Code	Botanical Names	Common Name	Size	Unit	Total	As Built Quantity

<p style="text-align: right;">100 21 8/15/22</p> <p style="text-align: center;">FILL FOR CULVERTS USED IN BRIDGE REPLACEMENTS</p> <p style="text-align: center;">Possible Details: 4317 and 4318</p> <p>* Not a bid item.</p>	
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<p style="text-align: right;">100 21 8/15/22</p> <p style="text-align: center;">FILL FOR CULVERTS USED IN BRIDGE REPLACEMENTS</p> <p style="text-align: center;">Possible Details: 4317 and 4318</p> <p>* Not a bid item.</p>	
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<p style="text-align: right;">100 21 8/15/22</p> <p style="text-align: center;">FILL FOR CULVERTS USED IN BRIDGE REPLACEMENTS</p> <p style="text-align: center;">Possible Details: 4317 and 4318</p> <p>* Not a bid item.</p>	
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<div>ROLLED EROSION CONTROL</div> <div>Refer to EC-101, EC-103 and EC-104.</div>											100_22 8/15/22
Line No.	Road Identification	Station From	Station To	Side	Length (FT)	Width (FT)	TRM Type (EC-104)	TRM Quantity (Squares)	Slope Protection (EC-103) (Squares)	Special Ditch Control (EC-101) (Squares)	Remarks

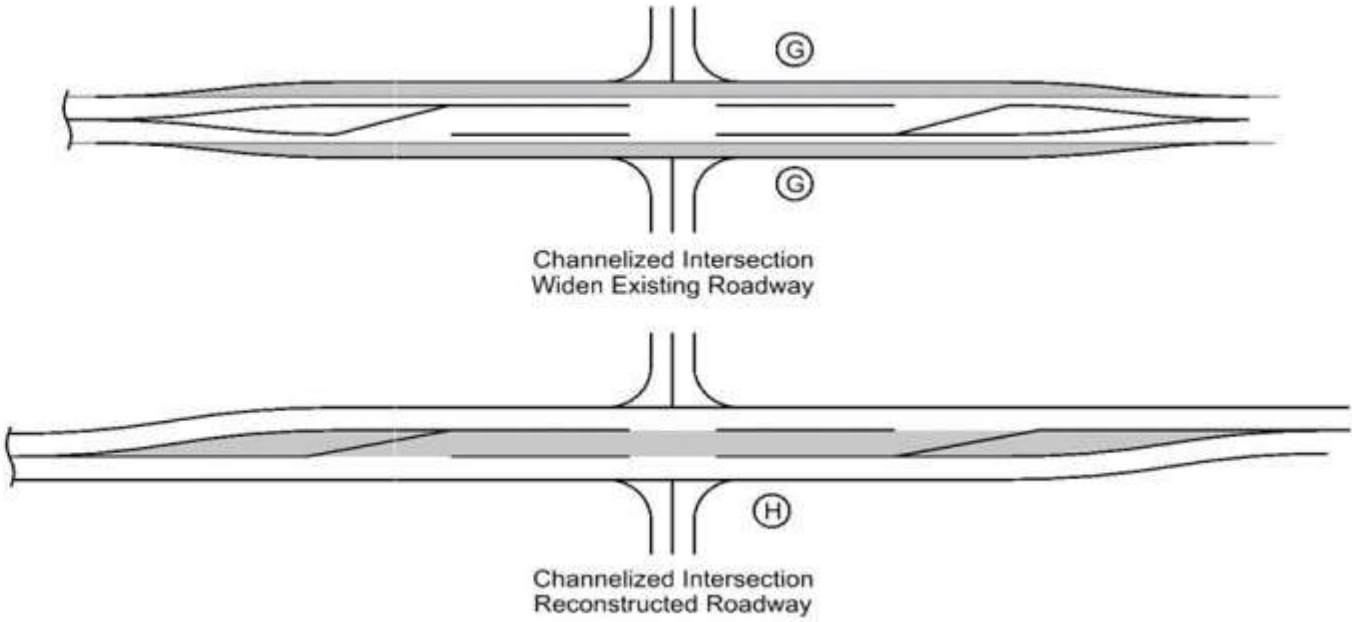
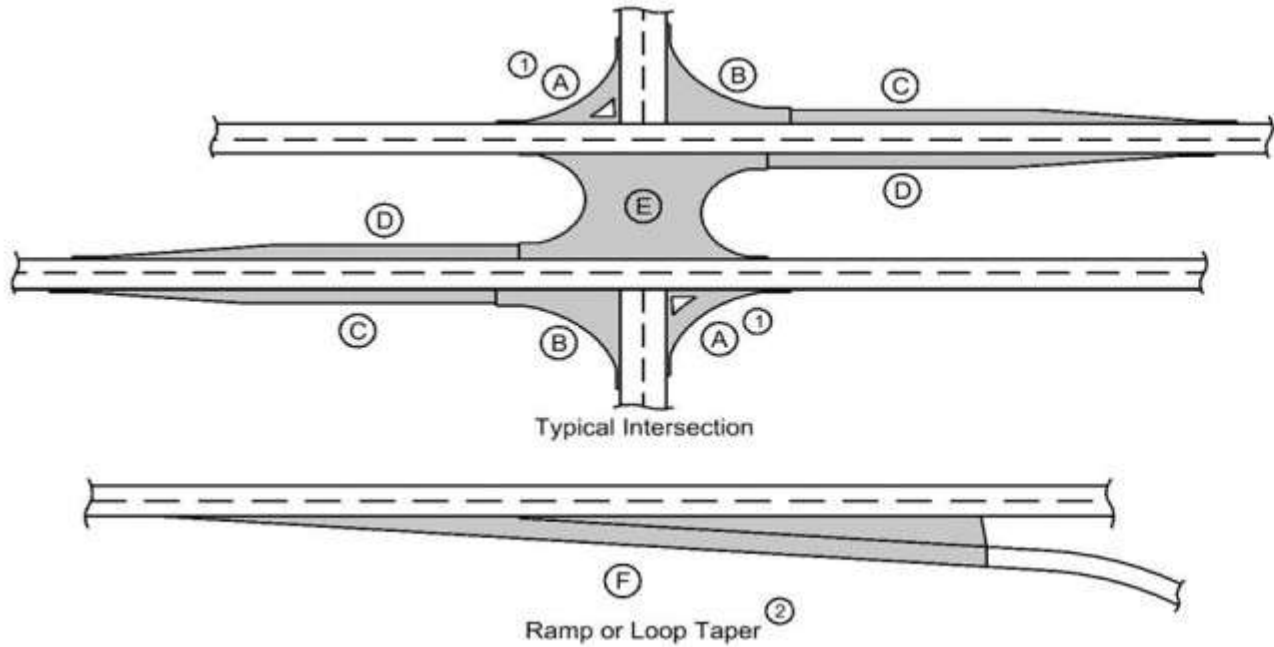
ROCK EROSION CONTROL

Refer to EC-301 and Detail 570-8

100_23
8/15/22

Line No.	Road Identification	Station From	Station To	Side	Length (FT)	Width (FT)	Rock Erosion Control Type	Engineering Fabric (SY)	Class E Revetment (TON)	Erosion Stone (TON)	Remarks
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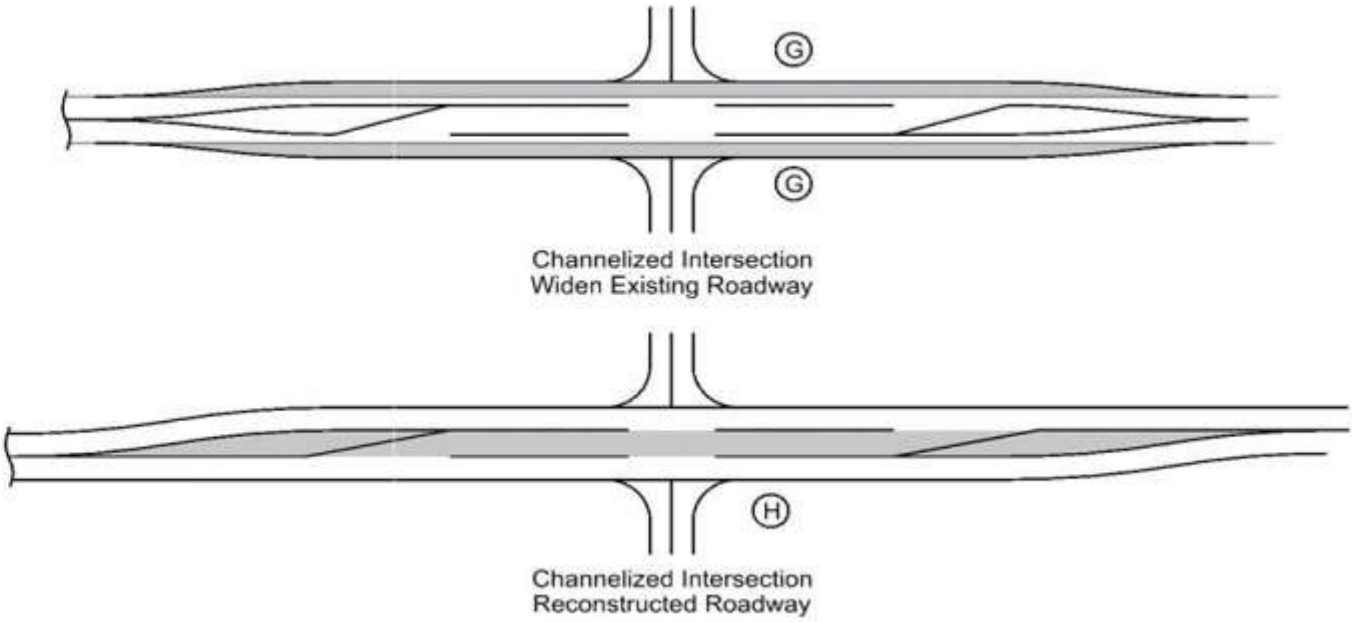
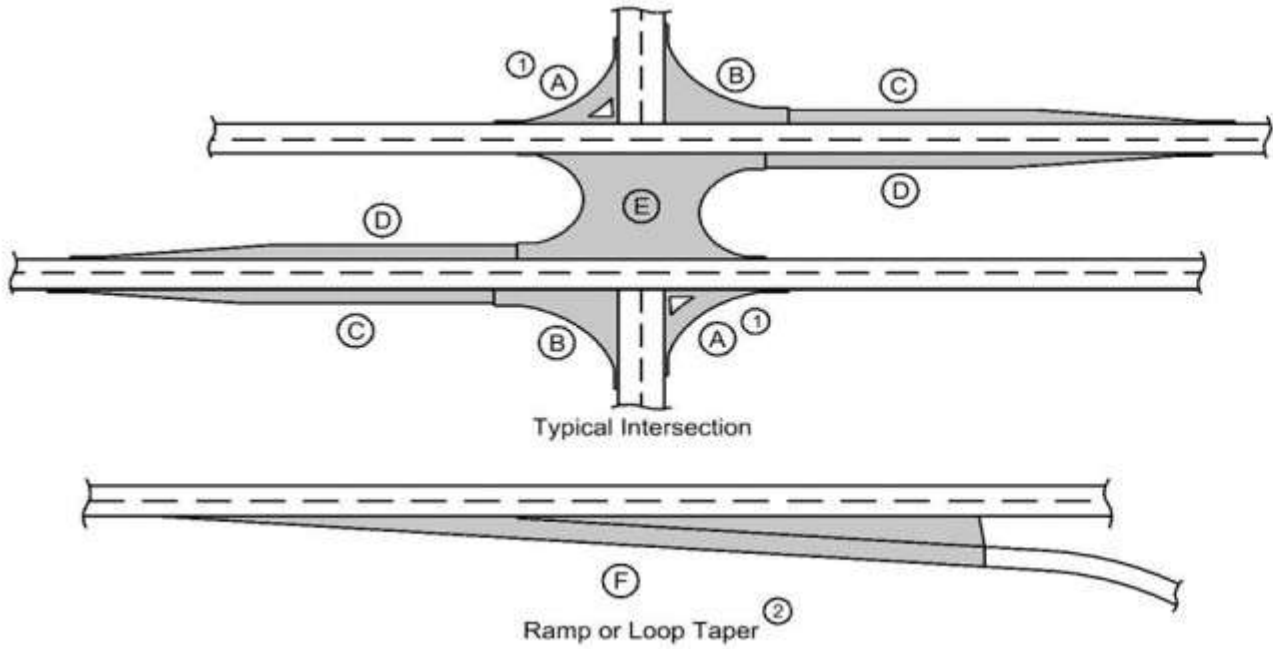
PCC PAVEMENT



(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
(2) Refer to PV-410, PV-411, PV-412, and PV-414.
(3) Quantity includes Pavement Header.

Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	Area D (SY)(3)	Area E (SY)(3)	Area F(2) (SY)(3)	Area G (SY)(3)	Area H (SY)(3)	Area by Thickness - Thickness(IN)	Area by Thickness - Area (SY)	Polymer Grid (SY)	Special Backfill (TON)	Modified Subbase (CY)	Granular Subbase (SY)	Remarks
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HMA PAVEMENT



(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
(2) Refer to PV-410, PV-411, PV-412, and PV-414.
(3) Quantity includes Pavement Header.

Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	Area D (SY)(3)	Area E(2) (SY)(3)	Area F (SY)(3)	Area G (SY)(3)	Area H (SY)(3)	HMA Pavement Surface (TONS)	HMA Pavement Surface (SY)	HMA Pavement Intermediate (TONS)	HMA Pavement Intermediate (SY)	HMA Pavement Base (TONS)	HMA Pavement Base (SY)	Binder Surface (TONS)	Binder Intermediate (TONS)	Binder Base (TONS)	Polymer Grid (SY)	Special Backfill (TONS)	Modified Subbase (CY)	Granular Subbase (SY)	Pavement Scarification (SY)	Remarks

<div>INCIDENTAL ITEMS</div> <div>Special or unique items where method of measurement / basis of payment is not indicated in the specifications or other contract documents.</div>						100_26 8/15/22
Line No.	Incidental Item	Unit	Quantity	Incidental to Item Code	Incidental to Item	Remarks

100_27 8/15/22					
PROPOSED POSTED SPEED LIMIT					
Line No.	Roadway Identification	Station From	Station To	Proposed Posted Speed	Remarks

LONGITUDINAL GROOVING				100_28 8/15/22
Line No.	Location	Total (SY)	Remarks	

100_32
8/15/22

ROCK CHECK DAM

Possible Standard: EC-302

Functional Height

FS:1

Ditch Width

BS:1

Functional Height

Slope Length

Storage Volume

Average Percent Slope

Upstream device or ground

* The functional height used in the volume equation is 90% of effective height. Effective height is 2 feet as shown in EC-302.

* Volume equation: $[0.5 \times \text{Spacing} \times (0.5 \times H^2 \times FS + DW \times H + 0.5 \times H^2 \times BS)]$

Line No.	Basin No.	Station	Side	Offset	Installation (LF)	Maintenance (Each)	Removal (Each)	Foreslope (FS:1)	Backslope (BS:1)	Ditch Width (FT)	Avg. % Slope	Volume (CF)	Remarks

FILE NO.

ENGLISH

DESIGN TEAM

Methods

STORY

COUNTY

PROJECT NUMBER

NHSX-222-2(22)-22-22

SHEET NUMBER

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100_33
8/15/22

TEMPORARY SEDIMENT CONTROL BASIN

Possible Standard: EC-601

The diagram illustrates the design of a temporary sediment control basin. It includes a cross-section view on the left showing the 'Functional Height' from the top of the ditch to the ground level, with slopes labeled 'FS:1' (fore-slope) and 'BS:1' (back-slope). The 'Ditch Width' is indicated at the base. A plan view on the right shows the 'Slope Length' from the ditch edge to the 'Upstream device or ground', the 'Storage Volume' area, and the 'Average Percent Slope'.

* The functional height used in the volume equation is 95% of effective height. Effective height is 2.5 feet as shown in EC-601.

* Volume equation: $[(1/4 * (FS * H^2)) + (1/2 * DW * H) + (1/4 * (BS * H^2))] * (H / Avg \% Slope)$

Line No.	Basin No.	Station	Side	Installation (Each)	Maintenance (Each)	Removal (Each)	Foreslope (FS:1)	Backslope (BS:1)	Ditch Width (FT)	Average % Slope	Volume * (CF)	Remarks

FILE NO.

ENGLISH

DESIGN TEAM

Methods

STORY COUNTY

PROJECT NUMBER

NHSX-222-2(22)-22-22

SHEET NUMBER

C.0

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100_34 8/15/22														
STORMWATER DRAINAGE BASIN Refer to EC Standards and 570s Details.														
Line No.	Basin No.	Station From	Station To	Side	Discharge Station	Discharge Side	Total Disturbed Area (ACRES)	Disturbed Area with Storage Provided (ACRES)	Disturbed Area without Storage Provided (ACRES)	Best Management Practice	Total Storage Volume Provided (CF)	Total Storage Volume Required (CF)	Storage Volume Met	Remarks
FILE NO.		ENGLISH	DESIGN TEAM Methods					STORY COUNTY			PROJECT NUMBER NHSX-222-2(22)-22-22		SHEET NUMBER C.0	

<div>100_36 8/15/22</div> <div>OPEN-THROAT CURB INTAKE SEDIMENT FILTER</div> <div>Possible Standard: EC-602</div>						
Line No.	Station	Side	Installation (LF)	Maintenance (Each)	Removal (Each)	Remarks

<div>100_37 4/16/24</div> <div>GRATE INTAKE SEDIMENT FILTER BAG</div> <div>Possible Standard Road Plan : EC-604</div>						
Line No.	Location Station	Side	Installation (Each)	Maintenance (Each)	Removal (Each)	Remarks

Design Information

NO.	DATE	TITLE
101-4	04-30-02	Rural Design Designation
101-5	04-30-02	Urban Design Designation
101-6	04-30-02	Rural Urban (Combination) Design Designation
101-7	04-30-02	Interstate Design Designation
101-8	10-21-14	Wedge Course for Superelevated Curves
101-10	04-21-15	Painted Islands
101-16	10-20-09	Alignment Coordinates
101-17	04-19-11	Spiral/Circular Curve Data
101-18	04-19-22	Superelevation Data

101-4			
04-30-02			
DESIGN DATA RURAL			
20	AADT	_____	V.P.D.
20	AADT	_____	V.P.D.
20	DHV	_____	V.P.H.
TRUCKS		_____	%
Total			
Design ESALs		_____	

101-5			
04-30-02			
DESIGN DATA URBAN			
20	AADT	_____	V.P.D.
20	AADT	_____	V.P.D.
20	DHV	_____	V.P.H.
TRUCKS		_____	%
Total			
Design ESALs		_____	

101-6 04-30-02									
DESIGN DATA									
RURAL					URBAN				
20	AADT	_____	V.P.D.		20	AADT	_____	V.P.D.	
20	AADT	_____	V.P.D.		20	AADT	_____	V.P.D.	
20	DHV	_____	V.P.H.		20	DHV	_____	V.P.H.	
TRUCKS		_____	%		TRUCKS		_____	%	
Total					Total				
Design ESALs		_____			Design ESALs		_____		

101-7			
04-30-02			
DESIGN DATA			
_____ HIGHWAY			
20	AADT	_____	V.P.D.
20	AADT	_____	V.P.D.
20	DHV	_____	V.P.H.
TRUCKS		_____	%
Total			
Design ESALs		_____	

WEDGE COURSE FOR SUPERELEVATED CURVES

Refer to Detail 560-4.

101_08
1/17/24

* Bid Item

Line No.	PC Station	PT Station	Radius (FT)	g Cross Slope at PC/PT (%)	Wi (FT)	Wo (FT)	e (%)	L (FT)	x (FT)	Y (IN)	m (FT)	PC Station Section A-A	PC Station Section B-B	PC Station Section C-C	PC Station Section D-D	PC Station Section E-E	PT Station Section E-E	PT Station Section D-D	PT Station Section C-C	PT Station Section B-B	PT Station Section A-A	Omit Base Widening Unit	HMA Wedge* (TONS)	Shoulder Fill Incl. 60% Shrink (CY)	Remarks
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<div>PAINTED ISLANDS</div> <div>Refer to PM-110, 560-5, and 108-22.</div> <div>Offsets are located from mainline.</div>										101_10 1/17/24
Line No.	Road Identification	Point A Station	Point A Offset (FT)	Point B Station	Point B Offset (FT)	Point C Station	Point C Offset (FT)	Remarks		

FILE NO.	ENGLISH	DESIGN TEAM	Methods	STORY COUNTY	PROJECT NUMBER	NHSX-222-2(22)-22-22	SHEET NUMBER	G.0	
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ALIGNMENT COORDINATES									
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Line No.	Name	Location	Poin on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting
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[illegible]

SPIRAL OR CIRCULAR CURVE DATA																	101_17 1/17/24
Line No.	Name	Location	SCS	S	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	C	T	L	R	E	Remarks

101_18 2/28/24																				
SUPERELEVATION DATA See PV-300 Series																				
Line No.	Road Identification	Circular Curve or Spiral Curve Name	Radius (FT)	e (%)	L (FT)	x (FT)	Standard Road Plan	Section A-A	Section A'-A'	Section B-B	Section C'-C'	Section C-C	Section D-D	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
FILE NO.	ENGLISH	DESIGN TEAM	Methods					STORY COUNTY				PROJECT NUMBER NHSX-222-2(22)-22-22				SHEET NUMBER G.0				

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Access and Maintenance Data

NO.	DATE	TITLE
102-3	10-15-24	Access Points and Safety Ramps
102-4	08-15-22	Locations of Road Closure Barricades
102-5	09-29-23	Existing Pavement
102-5A	09-29-23	Existing HMA Pavement for Recycling
102-6C	11-14-23	Full Depth Patches
102-10	10-15-24	Partial Depth PCC Finish Patches
102-11	09-29-23	Partial Depth Regular HMA Finish Patches
102-12	08-15-22	Partial Depth Irregular HMA Finish Patches
102-14	08-15-22	Partial Depth HMA or PCC Repair Patches
102-16	08-15-22	Notches and Runouts for Resurfacing
102-17	10-15-24	Cross Stitching

102_03
10/15/24

ACCESS POINTS AND SAFETY RAMPS
Refer to Cross-Sections

Length of Unclassified Pipe calculated is based on using Corrugated Metal Pipe.
(1) Refer to MI-210.
(2) Refer to EW-501.
(3) Refer to EW-501 or EW-502.
*Predetermined for access point not constructed with this project.

Line No.	Station	Side	Access Type	Descriptor	Case	Curb Type	Curb Length (1) (LF)	Width (FT)	PR (1) (2) (FT)	SR (2) (FT)	Pipe Culvert (H) (3) (FT)	Pipe Culvert Size (3) (IN)	Culvert Length (3) (LF)	Pipe Culvert Lt. (3) (LF)	Pipe Culvert Rt. (3) (LF)	Culvert Aprons (3) (No.)	Driveway Surface Type	Driveway Surface Area (SY)	Driveway Surfacing Material (TON)	Remarks

102_04
8/15/22

LOCATIONS OF ROAD CLOSURE BARRICADES						
Refer to SI-181 and SI-182.						
Line No.	No.	Station	Width (LF)	SI-181 (LF)	SI-182 (No.)	Remarks

EXISTING PAVEMENT

Line No.	County	Route	Direction of Travel	Begin Ref. Location Sign	End Ref. Location Sign	Year	Type	Project Number	Surface Type	Surface Depth (IN)	Base Type	Base Depth (IN)	Subbase Type	Subbase Depth (IN)	Removal Type	Removal Depth (IN)	Coarse Aggregate Source	Coarse Aggregate Type	Course Aggregate Durability Class	Reinforcement Type	Remarks
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102 05A

EXISTING HMA PAVEMENT FOR RECYCLING

For informational purposes only. When designed RAP is specified, process the RAP to control the uniformity of the final mixture.

Line No.	Route No.	Location	Year Placed	Layer	Thickness	Asphalt Binder Grade	Asphalt Binder Content	Description	Quality Type	Size	Content	% of -4 that is Type 2	% of +4 that is Type 2	% of +4 that is Type 3	% of +4 that is Type 4	% Crushed	% Limestone
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PARTIAL DEPTH PCC FINISH PATCHES

Possible Standard: PR-107

102_10
10/15/24

Line No.	Road Identification	Station From	Station To	Lane	Side	Patch Length (FT)	Patch Width (FT)	Finish Patches (No.)	Finish Patches (SF)	Joint and Crack Repair Patches (No.)	Joint and Crack Repair Patches (LF)	Remarks
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PARTIAL DEPTH REGULAR HMA FINISH PATCHES								102_11 9/29/23
Line No.	Station	Reference Location Sign	Lane	Patch Length (FT)	Patch Width (FT)	Estimated Area (SY)	Estimated Quantities (TONS)	Remarks

PARTIAL DEPTH IRREGULAR HMA FINISH PATCHES									102_12 8/15/22
Line No.	Station From	Station To	Begin Ref. Location Sign	End Ref. Location Sign	Lane	Est. Number of Patches	Est. Area (SY)	Est. Quantity (TON)	Remarks

PARTIAL DEPTH HMA OR PCC REPAIR PATCHES												102_14 8/15/22
Line No.	Station From	Station To	Begin Ref. Location Sign	End Ref. Location Sign	Lane	Type	Patch Length (FT)	Patch Width (FT)	Estimated PCC Area (SF)	Estimated HMA Area (SY)	Estimated HMA (TONS)	Remarks

<div>102_16 8/15/22</div> <div>NOTCHES AND RUNOUTS FOR RESURFACING</div> <div>Refer to PR-201 and PR-202.</div> <div>(1) Bid item. Applies only to Types 'N1' and 'N3' on PR-202. Refer to 100-25 for remaining values.</div> <table><tr><th>Line No.</th><th>Station</th><th>Type of Notch or Runout</th><th>S (IN)</th><th>I (IN)</th><th>DI (IN)</th><th>L (FT)</th><th>M (IN)</th><th>Pavement Scarification (SY) (1)</th><th>Remarks</th></tr><tr><td colspan="10"></td></tr></table>										Line No.	Station	Type of Notch or Runout	S (IN)	I (IN)	DI (IN)	L (FT)	M (IN)	Pavement Scarification (SY) (1)	Remarks										
Line No.	Station	Type of Notch or Runout	S (IN)	I (IN)	DI (IN)	L (FT)	M (IN)	Pavement Scarification (SY) (1)	Remarks																				
FILE NO.	ENGLISH	DESIGN TEAM	Methods				STORY COUNTY	PROJECT NUMBER	NHSX-222-2(22)-22-22	SHEET NUMBER	C.0																		

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102_17 10/15/24							
CROSS STITCHING							
Refer to PR-109							
Line No.	Roadway Identification	Side	Station From	Station To	Length (FT)	Existing Pavement Thickness (T) (IN)	Cross-Stitched Tie Bar (EA)
Remarks							

Soils Data

NO.	DATE	TITLE
103-1	08-15-22	Embankment with Moisture and Density Control
103-3	08-15-22	Proposed Subgrade Treatment
103-5	08-15-22	Settlement Plates
103-6	08-15-22	Embankment with Moisture Control
103-7	08-15-22	Shrinkage Data
103-10	08-15-22	Topsoil Stripping and Placement
103-11	08-15-22	Select Treatment
103-12	08-15-22	Slide Repair

Drainage Structure Data

NO.	DATE	TITLE
104-3	08-15-22	Drainage Structure By Road Contractor
104-4	08-15-22	Roadway Items for Drainage Structures Installed by Culvert Contractor
104-5A	08-15-22	Intakes and Utility Accesses
104-5B	08-15-22	Storm Sewer
104-5C	08-15-22	List of Subdrain Work
104-6	08-15-22	Wick Drain or Sand Drain Fields
104-8	08-15-22	Bridge End Drains
104-8A	08-15-22	Scour Protection or Rock Flume for Bridge End Drain
104-8B	08-15-22	Bridge End Drains (with Letdown)
104-9A	12-08-22	Longitudinal Subdrain Shoulder
104-9B	09-14-23	Longitudinal Subdrain Backslope
104-9C	08-15-22	Longitudinal Subdrain Bridge Berm
104-10	04-16-24	Adjustment of Fixtures
104-11	08-15-22	Rebuilding of Intakes and Utility Accesses
104-12	08-15-22	Subdrain and Grading at Side Piers
104-13	08-15-22	Foreslope Flattening and Drainage Structures by Road Contractor (Mainline Pipes)
104-14	08-15-22	Linear Trench Drain

EMBANKMENT WITH MOISTURE AND DENSITY CONTROL						103_01 8/15/22
Line No.	Station From	Station To	Lane	Depth (FT)	Compact (CY)	Remarks

103_03
8/15/22

PROPOSED SUBGRADE TREATMENT
For Additional Details see Soils Survey CS Sheets.

Line No.	Station From	Station To	Side	Type	Width (FT)	Depth (FT)	Area (SF)	Material Type	Shrink %	Quantity (CY)	Quantity (TON)	Polymer Grid (SY)	Available Quantity (CY)	Available Location or Station to Station	Remarks
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103_05
8/15/22

SETTLEMENT PLATES

Refer to Standard Road Plan EW-212

Line No.	Station	Side	Offset	Remarks

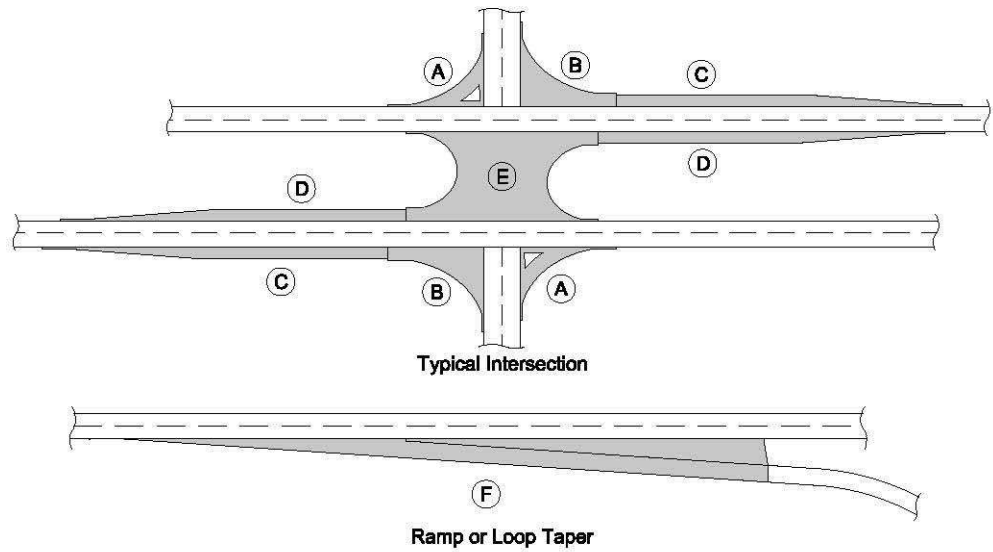
103_07
8/15/22

SHRINKAGE DATA

Material	%	Remarks

TOPSOIL STRIPPING AND PLACEMENT							103_10 8/15/22
Line No.	Road Identification	Dir. of Traffic	Station From	Station To	Topsoil Stripping Thickness (IN)	Topsoil Placement Thickness (IN)	Remarks

SELECT TREATMENT
Possible Detail: G_4D_Grade_Delay_S



Moisture control is required for select soils treatment and is incidental to placement of the material.

Line No.	Roadway Identification	Direction of Travel	Station From	Station To	Length (FT)	Total Width (FT)	Width Median Side (GM) (FT)	Width Median Side (PM) (FT)	Shoulder Width Outside (PO) (FT)	Shoulder Width Outside (GO) (FT)	and Subgrade Thickness (X) (IN)	Total Mainline Area (SF)	Section Area (A)	Section Area (B)	Section Area (C)	Section Area (D)	Section Area (E)	Section Area (F)	Section Area (G)	Section Area (H)	Total Section Area (SF)	Total Area ML+Section (SF)	Select Treatment Thickness (Y1) (IN)	Furnished Select Treatment (CY)	Remarks
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SLIDE REPAIR															103_12 8/15/22	
Line No.	Site No.	Station From	Station To	Side	Class 13 Excavation Waste (CY)	Embankment-in- Place (CY)	Excavation Class 10 Roadway and Borrow (CY)	Excavation Class 10 Waste (CY)	Class "E" Revetment (TON)	Engineering Fabric (SY)	Erosion Stone (TON)	Gra. Material Blankets and Subdrain (CY)	Macadam Stone Slope Protection (SY)	Topsoil Furnish and Spread (CY)	Topsoil Strip Salvage and Spread (CY)	Remarks
FILE NO.		ENGLISH	DESIGN TEAM Methods					STORY COUNTY			PROJECT NUMBER NHSX-222-2(22)-22-22			SHEET NUMBER C.0		

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DRAINAGE STRUCTURE BY ROAD CONTRACTOR

104_03
3/18/24

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.
* Not a bid item
(1) Diameter or equivalent diameter
(2) UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe
(3) Backfill according to DR-101

Drainage Area (ACRE)	Location	Type	Size (IN) (1)	Pipe Classification	Kind of Pipe (2)	Length New Const. (LF)	Length of total that is Trenchless Bedding Class	Design Cover (H) (FT)	Camber* (DR-102) (FT)	Apron No. (IN)	Apron No. (OUT)	Apron Guard* (DR-213) (No.)	Elbow* (DR-141) (No.)	Diaphragm* (DR-501) (No.)	Tee Section* (DR-142) (No.)	"D" Section* (DR-141) (No.)	Reducer* (No.)	Type 'C' Conn.* (DR-122)	Type 'C' Conn.* (No.)	Connected Pipe Joint* (DR-121)	4" Perforated Subdrain* (FT)	Flow Line Elevation LT.	Flow Line Elevation RT.	Flow Line Elevation Other	Flow Line Elevation Other	Dimensions Lineal Feet Total (Left)	Dimensions Lineal Feet Total (Right)	Dimensions Lineal Feet Extensions	Dimensions Lineal Feet Extensions	Skew Ahead Degrees (Left)	Skew Ahead Degrees (Right)	Dike Location	Dike Station	Dike Elevation	Dike Type	Class 20 (CY)	Flowable Mortar	Floodable Backfill* (A)	Porous Backfill* (B)	Flooded Backfill (A+B)	Remarks
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104 04

8/15/22

ROADWAY ITEMS FOR DRAINAGE STRUCTURES INSTALLED BY CULVERT CONTRACTOR

* Not a Bid Item

(1) Backfill according to DR-111

Location	Design No.	Size	Kind	Dike Lt.	Dike Rt.	Dike Station	Dike Top Elevation	Dike Type	Compacting Backfill Adjacent (CY)	Compaction w/ Moisture Control (CY)	Compaction w/ Moisture and Density (CY)	Floodable Backfill* (A) (CY)	Porous Backfill* (B) (CY)	Flooded Backfill (1) (A+B) (CY)	Excavation Type	Excavation Quantity (CY)	Revetment Type	Revetment Quantity (TONS)	Engineering Fabric (SY)	Remarks

104_05A
8/15/22

INTAKES AND UTILITY ACCESSES

* Not a Bid Item

** For SW-545

Line No.	Location	Type or Standard Road Plan*	Form Grade Elev.	Bottom Well Elev.	Extension Length** (FT)	Remarks

104_05B
8/15/22

STORM SEWER

(1) Diameter or equivalent diameter
* Bid Item
** For SW-54
Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 2 ft length is added to each end of the Design Length to account for estimated length to center of structures.

No.	Location Station	Offset	Type or Standard Road Plan*	Form Grade Elev.	Bottom Well Elev.	Extension Length**	Notes	Line Number	Intake / Utility Access No. From	Intake / Utility Access No. To	Class 'D'	Pipe Size (1) (IN)	Bid Length* (FT)	Design Length (FT)	Slope %	Connected Pipe Joint (DR-121)	Flow Line Inlet Elev.	Flow Line Outlet Elev.	Flow Line Other Elev.	Pipe Profile Sheet No.	Notes
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104_05C
8/15/22

LIST OF SUBDRAIN WORK

Possible Standards: DR-121, DR-201, DR-203, DR-301, DR-302, DR-303, DR-305 and DR-306. Possible Detail: 500-10.

* Not a bid item

Line No.	Station From	Station To	Type of Installation	Pipe Type	Pipe Diameter (IN)	Pipe Length (LF)	Apron Type	Apron Quantity	Outlet Type	Outlet Quantity	Connected Pipe Joints Type* (DR-121)	Connected Pipe Joints No.* (DR-121)	Trench Drain (LF)	Granular Blanket Material (CY)	Porous Backfill* (CY)	Class ""A"" Crushed Stone* (CY)	Remarks

FILE NO.

ENGLISH

DESIGN TEAM

Methods

STORY COUNTY

PROJECT NUMBER

NHSX-222-2(22)-22-22

SHEET NUMBER

C.0

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104_06

8/15/22

WICK DRAIN OR SAND DRAIN FIELDS

Possible Standards: DR-301 and DR-305, Detail 500-10, and Tabulation 104-5C.

* Not a bid item.

Line No.	Station From	Station To	Drain Type	Drain Total (LF)	Horizontal Strip Drain Longitudinal (LF)	Horizontal Strip Drain Transverse (LF)	Horizontal Strip Drain Total (LF)	Granular Material for Blanket and Subdrain (CY)	Drain DR-301 Type 2 (LF)	Porous Backfill* (CY)	Outlet Type	Outlet Quantity	Remarks

104_08
8/15/22

BRIDGE END DRAINS

1. Refer to Standard Road Plan SW-538

Line No.	Bridge Station	Bridge Corner	Distance DI-1 or DI-2 (1) (FT)	Form Grade Elevation	A Elevation	B Elevation	C Elevation	L1 Length	L2 Length	Remarks

SCOUR PROTECTION OR ROCK FLUME FOR BRIDGE END DRAIN

Refer to Standard Road Plan DR-401 and DR-402

104_08A
8/15/22

Line No.	Bridge Station	Bridge Corner	Distance DI-1 or DI-2 (FT)	Bridge End Drain Type	Special Ditch Control, Wood Excelsior Mat EC-101 (SQ)	Turf Reinforced Mat (TRM) Type 2 EC-104 (SQ)	Transition Mat EC-105 (SF)	Macadam Stone Base (TONS)	Engineering Fabric (SY)	Erosion Stone (TON)	Remarks
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FILE NO.	ENGLISH	DESIGN TEAM Methods	STORY COUNTY	PROJECT NUMBER NHSX-222-2(22)-22-22	SHEET NUMBER C.0	
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104_08B
8/15/22

BRIDGE END DRAINS (WITH LETDOWN)

1. Refer to Standard Road Plan SW-539

Line No.	Bridge Station	Bridge Corner	Distance DI-1 or DI-2 (1) (FT)	Form Grade Elevation	A Elevation	B Elevation	C Elevation	D Elevation	E Elevation	L1 Length	L2 Length	L3 Length	L4 Length	Remarks

LONGITUDINAL SUBDRAIN SHOULDER											104_09A 12/8/22
* Not a bid item.											
Line No.	Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks

104_09B
9/14/23

LONGITUDINAL SUBDRAIN BACKSLOPE

Refer to Soils Sheets

* Not a bid item.

Line No.	Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks

LONGITUDINAL SUBDRAIN BRIDGE BERM												104_09C 8/15/22
Line No.	Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous* Backfill (CY)	Class "A" Crushed Stone (CY)	Remarks

ADJUSTMENT OF FIXTURES						104_10 4/16/24
Line No.	Item No.	Location Station	Side	Distance	Type of Fixture	Adjustment

REBUILDING OF INTAKES AND UTILITY ACCESSES					104_11 8/15/22
Line No.	Item No.	Location Station	Type	Adjustment	

Refer to DR-306 and EW-211

1. Lane(s) to which the pier is adjacent
2. Not a Bid Item. Quantities assume a trench depth of 24 inches.

Line No.	Item No.	Direction of Traffic (1)	Station	Type No.	AL (LF)	TL (LF)	W (LF)	Outlet Location A	Outlet Location B	Precast Concrete Headwall DR-306 (No.)	4" Plastic Pipe (LF)	Porous Backfill (2) (CY)	Class "A" Crushed Stone (2) (CY)	Remarks

104_13
8/15/22

FORESLOPE FLATTENING AND DRAINAGE STRUCTURES BY ROAD CONTRACTOR (MAINLINE PIPES)
Refer to Standard Road Plans DR-121, DR-122, and DR-213.

* Not a bid item

Line No.	Location	Existing Size of Culvert	Existing Type of Culvert	New Size of Culvert (IN)	New Type of Culvert	Length of New Construction (LF)	Flow Line Elevation Left	Flow Line Elevation Right	Dimension Total Left (LF)	Dimension Total Right (LF)	Dimension Extension Left (LF)	Dimension Extension Right (LF)	Remove and Reinstall Aprons Left (No.)	Remove and Reinstall Aprons Right (No.)	Remove and Reinstall Culvert Left* (No.)	Remove and Reinstall Culvert Left (FI)	Remove and Reinstall Culvert Right* (No.)	Remove and Reinstall Culvert Right (FI)	New Apron In (No.)	New Apron Out (No.)	Apron Guard DR-213 (No.)	Type 'C' Connection DR-122 (Type)	Type 'C' Connection DR-122 (No.)	Pipe Joint DR-121* (Type)	Embank.- In-Place (CY)	Class 20 (CY)	Remarks

FILE NO.

ENGLISH

DESIGN TEAM

Methods

STORY COUNTY

PROJECT NUMBER

NHSX-222-2(22)-22-22

SHEET NUMBER

C.0

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104_14
8/15/22

LINEAR TRENCH DRAIN

Possible Standard: SW-521

1. Bid Item.

2. Not a bid item. Assumes a 6" wide by 8" deep trench.

Line No.	Station From	Station To	Direction of Travel	Side	Length (1) (LF)	Curb	Curb Type	T (IN)	TC (IN)	PCC (2) (CY)	Remarks

SECTION

105**Title Sheet Data**

NO.	DATE	TITLE
105-1	09-27-94	Mileage Summary
105-3	10-18-05	Index of Sheets
105-4	04-16-24	Standards

SECTION

106**Widening and Resurfacing (Stage Improvement)**

NO.	DATE	TITLE
106-1	04-03-23	Strengthening Courses
106-2	08-15-22	Leveling Courses
106-4	08-15-22	Shoulders for Widening & Resurfacing
106-5	06-13-23	Areas For Pavement or Base Widening
106-7	08-15-22	Tabulation of Fabric Reinforcement for Control of Reflective Cracking
106-8	08-15-22	Longitudinal Joint Repair

MILEAGE SUMMARY				105-1
				09-27-94
Div.	Location	Lin. Ft.	Miles	

INDEX OF SHEETS	
No.	Description

105-3
10-18-05

<div><div>STANDARDS</div><div>The following Standards apply to construction work on this project.</div></div>			105_04 4/16/24
Number	Date	Title	

STRENGTHENING COURSES								106_01 4/3/23
Line No.	Begin Ref. Location Sign	End Ref. Location Sign	Station From	Station To	Runouts Back (LF)	Runout Ahead (LF)	HMA Thickness (IN)	HMA (Tons)

This Data Entry Sheet fills Tab 106-2.

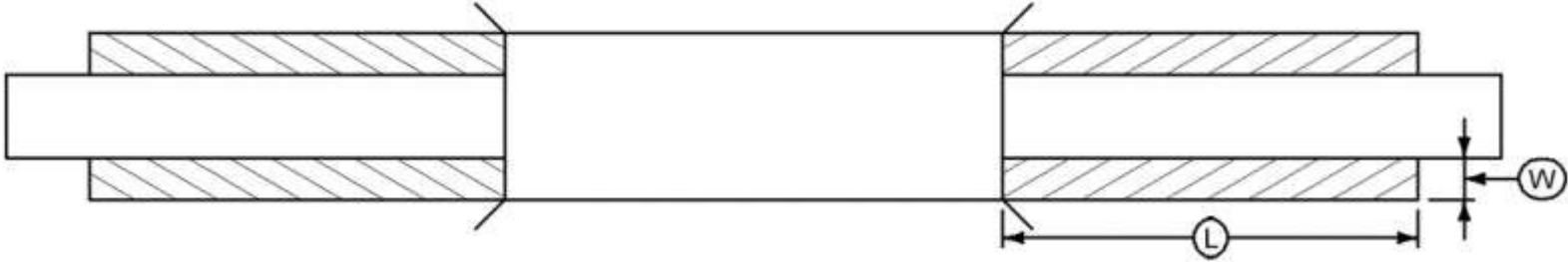
106_02
8/15/22

LEVELING COURSES

Line No.	Begin Ref. Location Sign	End Ref. Location Sign	Station From	Station To	HMA Average Thickness (IN)	HMA (TONS)	Remarks

<div>106_04 8/15/22</div> <div>SHOULDERS FOR WIDENING & RESURFACING</div> <div>*Not a Bid Item</div>					
Line No.	Station From	Station To	Side	Shoulder Type	Length (STA)

AREAS FOR PAVEMENT OR BASE WIDENING



- (1) Bid Item
- (2) Estimated for two applications to achieve lifts and one application of 0.10 Gal/SY adjacent to existing pavement. Priming of subgrade or finished base is not required.

Line No.	Station From	Station To	Side	Pavement Type	Length (LF)	Width (LF)	Thickness (IN)	HMA Unit Wt. (lbs/cf)	HMA Base Widening (1) (TONS)	HMA Base Widening (1) (SY)	PCC Base Widening (1) (SY)	PCC Pavement Widening (1) (SY)	Tack Coat Unit Wt. (gal/sy)	Tack Coat Lifts (GAL)	Tack Coat Vertical Edge (GAL)	Tack Coat (2) (GAL)	Asphalt Binder (TON)	Class 13 Excavation Widening (1) (CY)	Special Backfill Unit Weight (lbs-cf)	Special Backfill (1) (TONS)	Remarks

106_07 8/15/22 <div>TABULATION OF FABRIC REINFORCEMENT FOR CONTROL OF REFLECTIVE CRACKING</div>					
Line No.	Station From	Station To	Side	Width (LF)	Area (SY)

LONGITUDINAL JOINT REPAIR							106_08 8/15/22
Line No.	Station From	Station To	Length (FT)	Side	Width (IN)	Pay Length (LF)	Remarks

Earthwork and Excavation Data

NO.	DATE	TITLE
107-7	08-15-22	Shoulder Material Availability
107-22	08-15-22	Wing Dikes
107-23	08-15-22	Grading for Guardrail Installations
107-24	08-15-22	Grading for High Tension Cable Guardrail Installations
107-25	08-15-22	Tabulation of Rock Splitting
107-28	08-15-22	Tabulation of Template Quantities and Adjustments
107-31	08-15-22	Plowing and Shaping

107.07 8/15/22				
SHOULDER MATERIAL AVAILABILITY AREAS				
Line No.	Station From	Station To	Side	Estimated Quantity Availability (CY)

107_22 8/15/22					
WING DIKES					
Refer to Standard Road Plan EW-210.					
Line No.	Station	Top Elevation	Length (FT)	Bridge Skew	Earthwork (CY)

107_23
8/15/22

GRADING FOR GUARDRAIL INSTALLATIONS

Refer to EW-301.

(1) Lane(s) to which the installation is adjacent.

Line No.	Direction of Traffic (1)	Station	Side	Foreslope at Guardrail	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	X3 (FT)	Y3 (FT)	X4 (FT)	Y4 (FT)	Z (FT)	Excavation Class 10 (CY)	Embankment-in-Place (CY)	Remarks

<div>107_24 8/15/22</div> <div>GRADING FOR HIGH TENSION CABLE GUARDRAIL INSTALLATIONS</div> <div>Refer to Standard Road Plan EW-302</div> <div>(1) Lane(s) to which installation is adjacent.</div>										
Line No.	Direction of Traffic (1)	Station	Side	Foreslope at Guardrail	CA (FT)	CO (FT)	CT (FT)	Protection Length (CA+CO+CT) (FT)	Earthwork Type (CY)	Remarks

FILE NO.	ENGLISH	DESIGN TEAM	Methods	STORY COUNTY	PROJECT NUMBER	NHSX-222-2(22)-22-22	SHEET NUMBER	C.0
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TABULATION OF ROCK SPLITTING				
No.	Station From	Station To	Side	Remarks

107_25
8/15/22

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28

04-21-15

	Cut								Fill							Checks		Topsoil			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]
				[3]/1.3	[1]-[2]-[3]	[5]/1.3	[4]+[6]	[3]+[5]		[18]-[2]	[9]+[10]			[11]+[12]+[13]	[14]-[7]					[19]/1.40	[20]-[18]

107_31

8/15/22

PLOWING AND SHAPING

Refer to Standard Road Plan EW-101

Line No.	Station From	Station To	D (FT)	Remarks

Lighting-Signing-Guardrail

NO.	DATE	TITLE
108-1	08-15-22	Lighting Installations
108-2	08-15-22	Electrical Ducts
108-2A	08-15-22	Listing of Lighting and Signal Work
108-8A	10-15-24	Steel Beam Guardrail at Concrete Barrier or Bridge Rail End Section
108-8B	08-15-22	Steel Beam Guardrail for Side Obstacle (Two-Way Protection)
108-8C	06-22-23	Steel Beam Guardrail for Side Obstacle (One-Way Protection)
108-8D	08-15-22	Steel Beam Guardrail at Railroad Signals
108-9A	08-15-22	High Tension Cable Guardrail
108-11A	08-15-22	Highway Lighting Data
108-12	08-15-22	Wire, Cable, and Connectors
108-13A	10-04-23	Safety Closures
108-15	08-15-22	Concrete Steps and Combined Concrete Steps and Retaining Wall Construction
108-16	08-19-22	Combined Concrete Sidewalk and Retaining Wall
108-18	08-15-22	Concrete Barrier at Median Locations
108-18B	10-17-23	Concrete Barrier at Side Locations
108-20	08-15-22	Concrete Barrier with MSE Wall
108-22	10-15-24	Pavement Marking Line Types
108-23A	08-15-22	Traffic Control Plan
108-23B	01-27-23	Traffic Control Closure Table(s)
108-24	08-15-22	Safety Grate Treatment
108-25	01-18-23	511 Travel Restrictions
108-26A	08-15-22	Staging Notes
108-27	08-15-22	Temporary Floodlighting Luminaries
108-28	08-15-22	Temporary Traffic Signals
108-29	08-15-22	Pavement Marking Symbols and Legends
108-30	04-16-24	Crash Cushions
108-33	08-15-22	Temporary Barrier Rail
108-34	08-15-22	Chevrons
108-35	08-15-22	Temporary Lane Separator System

LIGHTING INSTALLATIONS							108_01 8/15/22
Line No.	Location No.	Station	LI-101 Type	A	E (FT)	LI-201 Type	Remarks

ELECTRICAL DUCTS					108_02 8/15/22
Line No.	Location	Conduit Type	Diameter (IN)	Length (FT)	Remarks

LISTING OF LIGHTING AND SIGNAL WORK										108 02A 8/15/22
Line No.	Handhole No.	Handhole Station	Handhole Type	Conduit Line No.	Station From	Station To	Conduit Type	Diameter (IN)	Length (LF)	Remarks

108_08A
10/15/24

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION

Possible Standards: BA-200, BA-201, BA-202, BA-205, BA-206, BA-210, BA-211, BA-221, BA-225, BA-250, BA-260, LS-625, LS-626, LS-630, LS-635, SI-172, SI-173 and SI-211.

(1) Lane(s) to which the obstacle is adjacent.
(2) Not a bid item. Incidental to guardrail installation.

Line No.	Direction of Travel (1)	Side	Station	Offset (FT)	Barrier Transition Section	Barrier Transition Section (EA)	End Terminal	End Terminal Count (EA)	VT1 (LF)	VF (LF)	VT2 (LF)	ET (LF)	BA-211 Station	BA-211 (Type)	SI-211 (Type) (2)	Delineator SI-172 Type 1 (EA) (2)	Object Marker Type 2 (EA) (2)	Object Marker Type 3 Lt (EA)(2)	Object Marker Type 3 Rt (EA)(2)	Bolted End Anchor BA-202 (Type)	Bolted End Anchor BA-202 (EA)	Post Adapter BA-210 (EA)	Steel Beam Guardrail BA-200 (LF)	Remarks

FILE NO.

ENGLISH

DESIGN TEAM

Methods

STORY COUNTY

PROJECT NUMBER

NHSX-222-2(22)-22-22

SHEET NUMBER

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108_08B
1/30/24

STEEL BEAM GUARDRAIL FOR SIDE OBSTACLE (TWO-WAY PROTECTION)
Possible Standards: BA-200, BA-205, BA-206, BA-210, BA-211, BA-251, LS-625, LS-626, LS-631, SI-172, SI-173, and SI-211.

1. Lane(s) to which the obstacle is adjacent.

Line No.	Item No.	Lane (1)	Side	Station	OL (FT)	DO (FT)	ET (LF)	VT2A (LF)	VFA (LF)	VT1A (LF)	VT1T (LF)	VFT (LF)	VT2T (LF)	ET (LF)	BA-211 Station	BA-211 (Type)	SI-211 (Type)	SI-172 Type 1 White (EA)	SI-173 Type 2 OM2-2 (EA)	SI-173 Type 3 OM3-L (EA)	SI-173 Type 3 OM3-R (EA)	Steel Beam Guardrail BA-200 (LF)	Standard End Terminal (Type)	Standard End Terminal Count (EA)	Post Adapter BA-210 (EA)	Remarks

FILE NO.

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Methods

STORY COUNTY

PROJECT NUMBER

NHSX-222-2(22)-22-22

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108_08C
3/14/24

STEEL BEAM GUARDRAIL FOR SIDE OBSTACLE (ONE-WAY PROTECTION)

1. Lane(s) to which the obstacle is adjacent.

Line No.	Item No.	Lane (1)	Side	Station	OL (FT)	DO (FT)	ET (LF)	VT2A (LF)	VFA (LF)	VT1A (LF)	VT1T (LF)	EA (LF)	BA-211 Station	BA-211 (Type)	SI-211 (Type)	SI-172 Type 1 White (EA)	SI-173 Type 2 OM2-2 (EA)	SI-173 Type 3 OM3-L (EA)	SI-173 Type 3 OM3-R (EA)	Steel Beam Guardrail BA-200 (LF)	W-Beam End Anchor BA-203 (EA)	Standard End Terminal (Type)	Standard End Terminal Count (EA)	Post Adapter BA-210 (EA)	Remarks

FILE NO.

ENGLISH

DESIGN TEAM

Methods

STORY COUNTY

PROJECT NUMBER

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108_08D
8/15/22

STEEL BEAM GUARDRAIL AT RAILROAD SIGNALS

Possible Standards BA-200, BA-204, BA-205, BA-253, LS-625, LS-633, SI-172, SI-173 and SI-211.

1. Lane(s) to which the obstacle is adjacent.

Line No.	Item No.	Lane (1)	Station	DO (FT)	VT 34.375' (LF)	ET (LF)	SI-211 (Type)	SI-172 Type 1 White (EA)	SI-173 Type 2 OM2-2 (EA)	SI-173 Type 3 OM3-L (EA)	SI-173 Type 3 OM3-R (EA)	Thrie-Beam End Anchor BA-204 (EA)	Standard End Terminal (EA)	Remarks

108_09A
12/15/23

HIGH TENSION CABLE GUARDRAIL

Refer to BA-351.

1. Lane(s) to which the installation is adjacent.

Line No.	Item No.	Lane (1)	Station	Side	Offset DO (FT)	Approach CA (FT)	Obstacle CO (FT)	Trailing CT (FT)	Protection Length (CA+CO+CT) (FT)	End Anchor (EA)	Remarks

108_11A
8/15/22

HIGHWAY LIGHTING DATA

108_12
8/15/22

WIRE, CABLE AND CONNECTORS																				
Line No.	Circuit Number	Connector Type	Quantity (EA)	Connector Type	Quantity (EA)	Connector Type	Quantity (EA)	Connector Type	Quantity (EA)	Phase Line Size (AWG)	Quantity (LF)	Phase Line Size (AWG)	Quantity (LF)	Phase Line Size (AWG)	Quantity (LF)	Phase Line Size (AWG)	Quantity (LF)	Ground Size (AWG)	Quantity (LF)	Remarks

<div><div>108_13A 10/4/23</div><div><div><div>SAFETY CLOSURES</div><div>Refer to Section 2518 of the Standard Specifications</div></div></div></div>			
Station	Road Closure Qty.	Hazard Closure Qty.	Remarks

CONCRETE STEPS AND COMBINED CONCRETE STEPS AND RETAINING WALL CONSTRUCTION

108_15
8/15/22

Line No.	Station	Side	Step Width	Step Height	Required Steps	Lugs (No.)	Landings (No.)	Landings (LF)	Retaining Wall (No.)	Concrete (CY)	Steel (LB)	Handrail Length (LF)	Handrail Post Number	Remarks
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FILE NO.	ENGLISH	DESIGN TEAM Methods	STORY COUNTY	PROJECT NUMBER NHSX-222-2(22)-22-22	SHEET NUMBER C.0	
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COMBINED CONCRETE SIDEWALK AND RETAINING WALL														108_16 8/19/22
Line No.	Station From	Station To	Side	Retaining Wall Type	Retaining Wall Height 1 (FT)	Retaining Wall Height 2 (FT)	Retaining Wall Thickness (FT)	Sidewalk Width 1 (FT)	Sidewalk Width 2 (FT)	Sidewalk Thickness (FT)	Retaining Wall Concrete (CY)	Sidewalk & Footing Concrete (CY)	Porous Backfill (CY)	Reinforcing Steel (LB)

108_18
8/15/22

8/15/22

Line No.	Item No.	Station From	Station To	Standard Road Plan	BA-100 or BA-102 (LF)	BA-101 (EA)	Footing (LF)	Remarks	Expansion Joint Station	Expansion Joint Side	Expansion Joint Remarks

108_18B
10/17/23

CONCRETE BARRIER AT SIDE LOCATIONS

Refer to BA-102, BA-103, BA-104, BA-105, BA-106, BA-107, BA-108 and BA-150.

1. Lane(s) to which the installation is adjacent.

2. Refer to the Shoulders tabulation (112-9) for quantities.

* Bid Item

Line No.	Item No.	Station From	Station To	Side	L2 Offset (FT)	Side Barrier Type	L Barrier Length* (LF)	BA-105 Transition Section* (No.)	BA-107 End Section* (No.)	Reinforced Paved Shoulder Required?(2)	Remarks	Expansion Joint Station	Expansion Joint Side	Expansion Joint Remarks

FILE NO.

ENGLISH

DESIGN TEAM

Methods

STORY COUNTY

PROJECT NUMBER

NHSX-222-2(22)-22-22

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<div>108_20 8/15/22</div> <div>CONCRETE BARRIER WITH MSE WALL</div> <div>Refer to Road Design Detail 8208</div>					
Line No.	Station From	Station To	Side	W (IN)	Remarks

108_22

10/15/24

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.

*BCY4 - Place on the same side of the roadway to match existing markings near the project.

**NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.

***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17

CBW6: Crosswalk Bar (White) @ 10.00

CLW6: Crosswalk Line (White) @ 2.00

DLW4: Dotted Line (White) @ 0.22

ELW6: Edge Line Right (White) @ 1.00

MNY6: Median Nose (Yellow) @ 1.00

RLY4: Ramp Edge Line Left (Yellow) @ 0.67

SPW4: Sloped Curb 4" (White) @ 2.16

BCY6: Broken Centerline (Yellow) @ 0.25

CHW8: Channelizing Line (White) @ 1.33

DCY4: Double Centerline (Yellow) @ 1.34

DLW6: Dotted Line (White) @ 0.33

ELY4: Edge Line Left (Yellow) @ 0.67

NPY4: No Passing Zone Line (Yellow) @ 0.84

RLY6: Ramp Edge Line Left (Yellow) @ 1.00

SPW6: Sloped Curb 6" (White) @ 2.28

BLC6: Broken Line Contrast (White/Black) @ 0.50

CHW10: Channelizing Line (White) @ 1.67

DCY6: Double Centerline (Yellow) @ 2.00

DLY4: Dotted Line (Yellow) @ 0.22

ELY6: Edge Line Left (Yellow) @ 1.00

NPY6: No Passing Zone Line (Yellow) @ 1.25

SLW2: Stop Line (White) @ 4.00

SPY4: Sloped Curb 4" (Yellow) @ 2.16

BLW4: Broken Lane Line (White) @ 0.17

CHY8: Channelizing Line (Yellow) @ 1.33

DDY4: Double Dotted Line (Yellow) @ 0.44

DLY6: Dotted Line (Yellow) @ 0.33

LDW8: Lane Drop (White) @ 0.33

RLW4: Ramp Edge Line Right (White) @ 0.67

SLW4: Solid Lane Line (White) @ 0.67

SPY6: Sloped Curb 6" (Yellow) @ 2.28

BLW6: Broken Lane Line (White) @ 0.25

CHY10: Channelizing Line (Yellow) @ 1.67

DDY6: Double Dotted Line (Yellow) @ 0.67

ELW4: Edge Line Right (White) @ 0.67

LDW10: Lane Drop (White) @ 0.42

RLW6: Ramp Edge Line Right (White) @ 1.00

SLW6: Solid Lane Line (White) @ 1.00

Line No.	Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY4* Factored (STA)	BLW4 Factored (STA)	DCY4 Factored (STA)	ELY4 Factored (STA)	Remarks

108_23A
8/15/22

TRAFFIC CONTROL PLAN

TRAFFIC CONTROL CLOSURE TABLE(S)

* This is to only be used in conjunction with Tabulation 108-23A.
"X" area indicates times that lane closures are not allowed.

Roadway Name	Day
	12:00 AM
	12:30
	1:00
	1:30
	2:00
	2:30
	3:00
	3:30
	4:00
	4:30
	5:00
	5:30
	6:00
	6:30
	7:00
	7:30
	8:00
	8:30
	9:00
	9:30
	10:00
	10:30
	11:00
	11:30
	12:00 PM
	12:30
	1:00
	1:30
	2:00
	2:30
	3:00
	3:30
	4:00
	4:30
	5:00
	5:30
	6:00
	6:30
	7:00
	7:30
	8:00
	8:30
	9:00
	9:30
	10:00
	10:30
	11:00
	11:30

SAFETY GRATE TREATMENT

Refer to DR-503.

108_24
3/13/24

(1) Lane(s) to which the installation is adjacent.

Line No.	Lane (1)	Station	Side	Type	Culvert Skew Degrees Left	Culvert Skew Degrees Right	A (FT)	B (FT)	C (FT)	D (FT)	E (FT)	F (FT)	G (FT)	H (FT)	J (FT)	Midspan Support Required Case	Wingwall Flare Degrees Ahead	Wingwall Flare Degrees Back	Remarks
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511 TRAVEL RESTRICTIONS

Line No.	Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No. or Structure ID or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
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[illegible]

108_26A
8/15/22

STAGING NOTES

<div>108_27 8/15/22</div> <div>TEMPORARY FLOODLIGHTING LUMINAIRES</div> <div>Possible Standard: LI-130</div>					
Line No.	Item No.	Station	Offset (FT)	Number Luminaires	Remarks

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TEMPORARY TRAFFIC SIGNALS				108_28 8/15/22
Line No.	Item No.	Station	Signal Type	Remarks

FILE NO.	ENGLISH	DESIGN TEAM	Methods	STORY COUNTY	PROJECT NUMBER	NHSX-222-2(22)-22-22	SHEET NUMBER	C.0
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PAVEMENT MARKING SYMBOLS AND LEGENDS						108_29 8/15/22
Refer to PM-111						
Line No.	Roadway Identification	Station	Side	Pavement Symbol	Quantity (EA)	Remarks

CRASH CUSHIONS

108_30
4/16/24

- * Bid Item
1. Lane(s) to which the installation is adjacent.
2. Complete this section when using the Temporary Crash Cushion bid item and Earthwork is needed for Sand Barrel placement. Refer to BA-500.

Line No.	Lane	Station	Side	Obstacle Width (FT)	Crash Cushion Type	Crash Cushion Quantity	V (FT) (2)	W (FT) (2)	X (FT) (2)	Y (FT) (2)	Z (FT) (2)	Excavation Class 10* (CY)	Embankment in Place* (CY)	Obstacle Description	Remarks

108_33
8/15/22

TEMPORARY BARRIER RAIL

Possible Standard: BA-401 Possible Detail: 560-7

* Not a bid item. Anchorage requirements are based on TBR locations shown in the plans. TBR alignments that vary from what is shown in the plans may result in additional TBR sections requiring anchorage.

Line No.	No.	Station From	Station To	Length (FT)	Barrier Rail Type	Anchored*	Modular Glare Screen System	Remarks

<div><div>CHEVRONS</div><div>Refer to Standard Road Plan SI-175.</div></div>					108_34 8/15/22
Line No.	Station From	Station To	Guidance Marker - Chevron (EA)	S (FT)	Remarks

<div>108_35 8/15/22</div> <div>TEMPORARY LANE SEPARATOR SYSTEM</div> <div>See TC-61</div>				
Line No.	Station From	Station To	Length (LF)	Remarks

Removal and Disposition

NO.	DATE	TITLE
110-1	01-12-23	Removal of Pavement
110-2	08-15-22	Removal of Existing Structures
110-3	08-15-22	Flume Removal
110-4	08-15-22	Curb Removal
110-5	08-15-22	Sidewalk Removal
110-6	08-15-22	Breaking Up Pavement
110-7A	08-15-22	Removal of Steel Beam Guardrail
110-7B	08-15-22	Removal of Cable Guardrail
110-8	08-15-22	Removal of Concrete Drives
110-9	08-15-22	Culvert Abandonment
110-10	08-15-22	Salvage and Removal of Buildings
110-11	08-15-22	Asbestos Removal in Buildings
110-12	01-13-23	Pollution Prevention Plan
110-12L	08-15-22	Pollution Prevention Plan
110-13	08-15-22	Delivery and Stockpiling
110-14	08-15-22	Sanitary or Storm Sewer Abandonment or Removal
110-15	08-15-22	Removal of Intakes and Utility Accesses
110-16	08-15-22	Removal of Light Poles and Concrete Footings
110-17	06-12-23	Clearing and Grubbing
110-18	04-18-23	Removal of Existing Longitudinal Subdrains
110-19	04-18-23	Removal of Existing Longitudinal Subdrains when Existing Pavement is Removed

<div>REMOVAL OF PAVEMENT</div> <div>Refer to Tabulation 102-5.</div>							110_01 4/5/24
* Not a bid item.							
Line No.	Station From	Station To	Side	Pavement Type	Area (SY)	Saw Cut* (LF)	Remarks

REMOVAL OF EXISTING STRUCTURES				110_02 8/15/22
Line No.	Location	Description	Remarks	

FLUME REMOVAL							110_03 8/15/22
Line No.	No.	Station	Drain Removal Concrete Left (LF)	Drain Removal Concrete Right (LF)	Drain Removal Metal Left (LF)	Drain Removal Metal Right (LF)	Remarks

CURB REMOVAL					110_04 8/15/22
Line No.	Station From	Station To	Side	Length (STA)	Remarks

SIDEWALK REMOVAL					110_05 8/15/22
* Not a bid item					
Line No.	Station From	Station To	Area (SY)	Saw Cut* (LF)	Remarks

BREAKING UP PAVEMENT					110_06 8/15/22
Line No.	Station From	Station To	Width (FT)	Area (SY)	Remarks

110_07A
8/15/22

REMOVAL OF STEEL BEAM GUARDRAIL

- (1) Lane(s) to which the installation is adjacent.
- (2) Includes length of End Terminals and End Anchors.

Line No.	No.	Direction of Traffic (1)	Station From	Station To	Side	Removal of Guardrail (2) (LF)
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110_07B
2/5/24

REMOVAL OF CABLE GUARDRAIL

* Not a bid item
(1) Lane(s) to which the installation is adjacent.

Line No.	No.	Direction of Traffic (1)	Station From	Station To	Side	Cable Type	Cable Remove (LF)	Post Footings, Concrete Remove* (Yes/No)	End Terminal Remove* (No.)	Remarks

110_08
8/15/22

REMOVAL OF CONCRETE DRIVES

* Not a Bid Item.

Line No.	Station	Side	Area (SY)	Saw Cut* (LF)	Remarks

<div>CULVERT ABANDONMENT</div> <div>Refer to Details 4315 and 4316</div>					<div>110_09</div> <div>8/15/22</div>	
<div>* Not a bid item</div>						
Line No.	Station	Description	Flowable Mortar (CY)	Granular Backfill* (TON)	4" Perforated Subdrain* (LF)	Remarks

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SALVAGE AND REMOVAL OF BUILDINGS									110_10 8/15/22
Line No.	Item No.	Parcel No.	Address	Item	Foundation	Former Owner	Use of Building Previous/Present	Age of Building	Asbestos Content in Building

ASBESTOS REMOVAL IN BUILDINGS										110_11 8/15/22
Line No.	Parcel No.	Address	Item	Age of Building	Use of Building Previous/Present	Asbestos Type	Location and Identification	Percent & Type of Asbestos	Quantity	Quantity Units

DELIVERY AND STOCKPILING							110_13 8/15/22
Line No.	Item Description	Quantity	Quantity Units	Delivery Location	Contact Name	Contact Number	Remarks

SANITARY OR STORM SEWER ABANDONMENT OR REMOVAL							110_14 3/11/24
* Not a bid item							
Line No.	Location Description	Sewer Type	Work Type	Diameter of Pipe	Length of Pipe (LF)	* Flowable Mortar or CLSM (CY)	Remarks

REMOVAL OF INTAKES AND UTILITY ACCESSES				
Line No.	Item No.	Location Description	Type	Remarks

110_15
8/15/22

REMOVAL OF LIGHT POLES AND CONCRETE FOOTINGS						110_16 8/15/22
Line No.	No.	Station	Side	Offset (FT)	Removal Type	Remarks

110_18
4/18/23

REMOVAL OF EXISTING LONGITUDINAL SUBDRAINS

See Tab 104-9 for tabulation of longitudinal subdrains

Existing Shoulder

Existing Pavement

Existing Longitudinal Subdrain

Existing Foreslope

Min. 1'

D (Var.)

Min. 2.5'

EXCAVATION DEPTH REQUIRED FOR REBUILDING (VARIABLE)

① Backfill with cohesive Class 1B.

② Length includes outlets. Excavate outlets in same manner as subdrains with a 2.5 foot wide trench. Backfill with cohesive Class 1B.

Line No.	Road Identification	Station From	Station To	Side	Length (2) (LF)	Depth (D) (FT)	Excavation Quantity (CY)	Remarks

FILE NO.

ENGLISH

DESIGN TEAM

Methods

STORY

COUNTY

PROJECT NUMBER

NHSX-222-2(22)-22-22

SHEET NUMBER

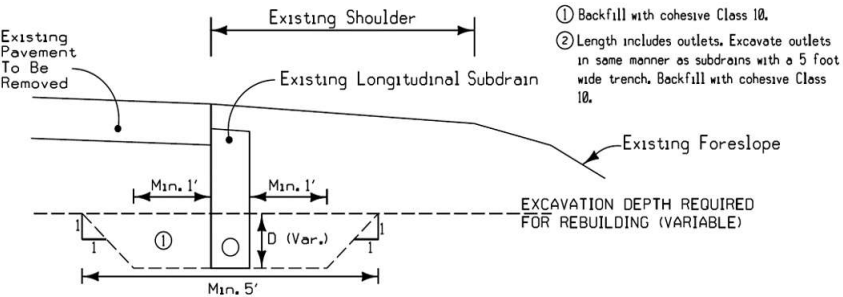
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REMOVAL OF EXISTING LONGITUDINAL SUBDRAINS WHEN EXISTING PAVEMENT IS REMOVED

See Tab 104-9 for tabulation of longitudinal subdrains



Line No.	Roadway Identification	Station From	Station To	Side	Length (2) (LF)	Depth (D) (FT)	Excavation Quantity (CY)	Remarks

SECTION

111**Miscellaneous Construction Forms**

NO.	DATE	TITLE
111-1	10-14-22	Coordinated Operations
111-2	08-15-22	Tabulation of Revisions
111-23	08-15-22	Listing of Project Revisions
111-25	03-30-23	Index of Tabulations

SECTION

112**Pavement Construction Forms**

NO.	DATE	TITLE
112-3	08-15-22	Railroad Approach Sections
112-4	08-15-22	Curbs and Raised Islands
112-5	08-15-22	Concrete Medians
112-6	08-15-22	Bridge Approach Section
112-7	08-15-22	Rumble Strip Panels
112-8	08-15-22	Median Crossovers
112-9	10-15-24	Shoulders
112-10	10-05-23	Milled Rumble Strips

10-15-24

111_01
10/14/22

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work

TABULATION OF REVISIONS

RAILROAD APPROACH SECTIONS

Line No.	Station	Angle	Pavement Type	Pavement Area (SY)	Remarks

<div><div>112_04 8/15/22</div><div><div>CURBS AND RAISED ISLANDS</div><div>Refer to PV-20, PV-102, and 6000s Detail Series.</div></div></div>									
(1) Bid Item									
Line No.	Point No.	Station	Offset (FT)	Island Interior Area (1) (SY)	Curb Type	Curb Height (IN)	Gutter Width (FT)	Length (1) (FT)	Remarks

CONCRETE MEDIANS							112_05 8/15/22
* Bid item							
Line No.	Station From	Station To	Type	Area* (SY)	Modified Subbase (CY)	Special Backfill (CY)	Remarks

112_06
2/22/24

BRIDGE APPROACH SECTION
Refer to the BR Series.

* Not a bid item

Line No.	Bridge Station	End	Skew Ahead Left (Degrees)	Skew Ahead Right (Degrees)	(T) Thickness (IN)	Pay Length (FT)	Non-Reinf. Area (SY)	Single-Reinf. Area (SY)	Double-Reinf. Area (SY)	SRP Approach	SRP Abutment Type	SRP Abutting Pavement	Perforated * 4" Subdrain (LF)	Subdrain * Outlet (STA)	Subdrain * Outlet Side	Porous * Backfill (CY)	Class 'A' * Crushed Stone Backfill (CY)	Modified * Subbase (TON)	Polymer * Grid (SY)	Special * Backfill (TON)	Remarks

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<div><div>RUMBLE STRIP PANELS</div><div>Refer to Standard Road Plan PV-10.</div></div>					112_07 8/15/22
Line No.	Roadway Identification	Station	Side	Pavement Type	Remarks

112_08

8/15/22

MEDIAN CROSSOVERS

Refer to PV-500 Series.

* Not a bid item

Line No.	Road Identification	Station	Standard Road Plan	Detour Pavement (SY)	Special Backfill (TON)	Granular Shoulder (TON)	Embankment in Place (CY)	Class 10 Excavation (CY)	Class 13 Excavation (CY)	Removal of Pavement (SY)	Saw Cut* (LF)	18" Unclassified Roadway Pipe (LF)	36" CMP Slotted Drain/6" Grate (LF)	Beveled Pipe and Guard (No.)	Remarks

112_09
10/15/24

SHOULDERS

(1) Lane(s) to which the shoulder is adjacent.
(2) See Typ. 7156, 7157, or 7158.
(3) Bid Item.
(4) Applies only for Paved Shoulders constructed on project with existing granular shoulders.
(5) Bid Item. Typ. 7156, 7157, or 7158.
(6) Does not include shrink.
(7) Paved shoulder thickness specified in Remarks.
(8) Subbase type specified in Remarks.

Roadway Identification	Direction of Travel (1)	Station From	Station To	Side	P Width (FT)	P SG Width (2) (FT)	G Width (FT)	L Length (FT)	Class 13 Excavation (CY)(3)(4)	HMA (TON)	HMA (TON/STA)	Binder (TONS)	Paved Shoulder (3) (SY)	Shoulder at Grd rail (5)(7)	Reinforced Paved Shoulder(3) (SY)	Special Backfill HMA Alt. (3) (TON)	Special Backfill HMA Alt. (TON/STA)	Special Backfill PCC Alt. (3) (TON)	Special Backfill PCC Alt. (TON/STA)	Polymer Grid (SY)	Subbase (3) (8) (CY)	Granular Shoulder (3) (TON)	Granular Shoulder (TON/STA)	Shoulder Const. Alt (3) (STA)	Shoulder Const. Alt HMA (6) (CY)	Shoulder Const. Alt PCC (6) (CY)	Remarks
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MILLED RUMBLE STRIPS													112_10 10/5/23
* Calculated at 18" width for Shoulder.													
Line No.	Road Identification	Station From	Station To	Shoulder Pavement Type	Rumble Strip Type	L (IN)	PCC Length (STA)	HMA Length (STA)	Fog Seal* Shoulder (GAL)	Effective Shoulder Width PCC (FT)	Effective Shoulder Width HMA (FT)	Effective Shoulder Width Granular\Earth (FT)	Remarks

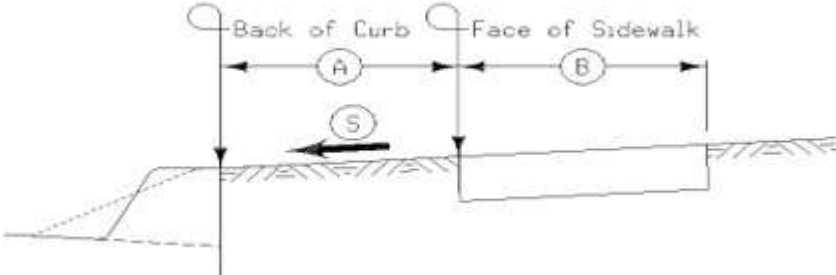
Sidewalks

NO.	DATE	TITLE
113-1	08-15-22	Sidewalks
113-1A	08-15-22	Sidewalks
113-2	08-15-22	Pedestrian Path Closures
113-3	08-15-22	Pedestrian Channelizers
113-10	04-18-17	Sidewalk Compliance
113-10A	04-21-20	Sidewalk Compliance

113_01
3/29/24

SIDEWALKS

See MI-220 and S Sheets



Line No.	Intersection/Road	Quadrant/Side	A (FT)	B (FT)	S (%)	Sidewalk Thickness (IN)	Sidewalk Length (FT)	Sidewalk Width (FT)	Sidewalk Area (SY)	4" PCC Sidewalk (SY)	6" PCC Sidewalk (SY)	8" PCC Sidewalk (SY)	10" PCC Sidewalk (SY)	Detectable Warnings (SF)	Remarks

113_01A
8/15/22

SIDEWALKS

See MI-220 and S Sheets

The diagram illustrates the layout of a sidewalk relative to a road curb. A vertical line represents the 'Back of Curb'. A horizontal line represents the 'Face of Sidewalk'. The distance between these two lines is labeled 'A' (in feet). The distance from the 'Face of Sidewalk' to the end of the sidewalk is labeled 'B' (in feet). The sidewalk is shown as a rectangular area with a diagonal line indicating its width. A circle labeled 'S' is shown on the sidewalk, representing a sidewalk section. The sidewalk is shown as a rectangular area with a diagonal line indicating its width.

Line No.	Road Identification	Station From	Station To	Side	A (FT)	B (FT)	S %	Sidewalk Thickness (IN)	Sidewalk Length (FT)	Sidewalk Width (FT)	Sidewalk Area (SY)	4" PCC Sidewalk (SY)	6" PCC Sidewalk (SY)	8" PCC Sidewalk (SY)	10" PCC Sidewalk (SY)	Detectable Warnings (SF)	Remarks

113_02
8/15/22

PEDESTRIAN PATH CLOSURES

Refer to TC-601.

*Assumes 6 foot wide barricade.
Closures may need to be removed and re-established.

Line No.	Location	Side	Width of Closure (FT)	Type III Barricades* (No.)	Remarks

PEDESTRIAN CHANNELIZERS				
Line No.	Station From	Station To	Length (FT)	Remarks

113_03
8/15/22

SIDEWALK COMPLIANCE

See S Sheets

113_10
4/15/24

- * Does not include curb
1. Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
2. Refer to tabulation 113-01 for bid quantities.

From Point	Ending Point	Sidewalk Designation	Sidewalk Thickness (IN)	Distance* (FT)	Change in Elevation (FT)	Slope (%)	Acceptable Constructed Range	Staking Required? (1)	Measured Slope (%)	Initials	Remarks

113-10A
04-21-20

04-21-20

* Does not include curb
 (1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
 (2) Refer to tabulation 113-01 for bid quantities.

Signing

NO.	DATE	TITLE
190-01	08-15-22	Sign Support Structures
190-10	08-15-22	Overhead Bridge Mounted Sign Bracket Assemblies
190-11	08-15-22	Signing Materials for At-Grade Crossovers
190-25	02-10-23	Reference Location Signs and Delineators
190-50	09-29-23	Materials for Type 'B' Signs
190-51	02-10-23	Materials for Type 'A' Signs
190-52	10-15-24	Materials for Overhead Sign Support Structures
190-54	02-10-23	Signing Materials for Expressway At-Grade Intersections
190-61	02-10-23	Existing Signs to be Reinstalled
190-62	02-13-23	Existing Signs to be Removed
190-65	08-15-22	Special Sign Mounting Brackets
190-66	09-29-23	Summary of Type 'A' Signs
190-67	02-13-23	Catwalks and Lighting to be Removed

Dynamic Message Signing

NO.	DATE	TITLE
192-01	08-15-22	Materials for Steel Roadside DMS Sign Support

SIGN SUPPORT STRUCTURES				190.01 8/15/22
Line No.	Number	Date	Title	

OVERHEAD BRIDGE MOUNTED SIGN BRACKET ASSEMBLIES						190_10 8/15/22
Line No.	Sign Number	For Traffic	Bridge Location	2 Bracket (EA)	3 Bracket (EA)	4 Bracket (EA)

SIGNING MATERIALS FOR AT-GRADE CROSSEVERS							190_11 8/15/22
Line No.	Station	Typical Signing Detail	Type 'A' Sign Area (SF)	Wood Posts 4" x 4" (LF)	Wood Posts 4" x 6" (LF)	Type II Delineator Yellow (EA)	Remarks

REFERENCE LOCATION SIGNS AND DELINEATORS

Refer to SI-171, SI-172 and SI-173.

190_25
2/10/23

Line No.	Station From	Station To	Location	Reference Location Sign Type	Quantity (EA)	Enhanced Reference Location Sign Type	Quantity (EA)	Intermediate Reference Location Sign Type	Quantity (EA)	Type I Delineator White (EA)	Type I Delineator Yellow (EA)	Type IA Delineator White (EA)	Type IA Delineator Yellow (EA)	Type II Delineator White (EA)	Type II Delineator Yellow (EA)	Type III Delineator White (EA)	Type III Delineator Yellow (EA)	Object Marker Type 1 (EA)	Object Marker Type 2 (EA)	Object Marker Type 3 (EA)	Installation Type	Installation Offset
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[illegible]

Line No.	Number	Route	County	Exit Number	Road ID	Seq. No.	Dir of Travel	Sign Location Station	Fab Info	Sign Width (FT)	Sign Height (FT)	New Area (SF)	4x6 L (FT)	4x6 M (FT)	4x6 R (FT)	Perf. Sq. Steel L (FT)	Perf. Sq. Steel M (FT)	Perf. Sq. Steel R (FT)	Perf. Sq. Anchor Type	Anchor Quantity (EA)	W8x21 L (FT)	W8x21 M (FT)	W8x21 R (FT)	Footing 2'8"x7'6" (EA)	W12x26 L (FT)	W12x26 M1 (FT)	W12x26 M2 (FT)	W12x26 R (FT)	Footing 2'8"x9' (EA)	Install Type	Install Dim 'X'	Install Dim 'Y'	See Signing Notes	Remarks
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FILE NO.	ENGLISH	DESIGN TEAM	Methods	STORY	COUNTY	PROJECT NUMBER	NHSX-222-2(22)-22-22	SHEET NUMBER	C.0
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MATERIALS FOR TYPE 'A' SIGNS

Refer to SI-101, SI-111, SI-119 and N Sheets.

Line No.	Type A Signing Typicals	Sign Number	Dir. of Travel	Sign Location Station	Wood Posts (No.)	4 x 6 Leg 1 (FT)	4 x 6 Leg 2 (FT)	Perf. Sq. Steel Leg 1 (FT)	Perf. Sq. Steel Leg 2 (FT)	Perf. Sq. Steel Leg 3 (FT)	Perf. Sq. Anchor Type	Anchor Quantity (EA)	Steel Rect. Tube (No)	Steel Rect. Tube (FT)	Rect. Tube Anchors (EA)	Type A Bracket One Post	Type A Bracket Two Post	Type A Bracket Auxiliary	Type A Bracket (H)	Type A Bracket (F)	Type A Bracket (F1)	Install. Type	Install. Dim X (FT)	Install. Signing Notes	Remarks
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FILE NO.	ENGLISH	DESIGN TEAM	Methods		STORY	COUNTY	PROJECT NUMBER	NHSX-222-2(22)-22-22	SHEET NUMBER	C.0	
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																	190.52	
																	10/15/24	
MATERIALS FOR OVERHEAD SIGN SUPPORT STRUCTURES																		
Line No.	Roadway	Reference Location Sign	Station	State Plane North	State Plane South	Direction of Travel	Span Length	Structure Designation	Sign Truss Standard Series	Inside Foundation Offset (FT)	Outside Foundation Offset (FT)	Additional Stem Height 'L' Inside (FT)	Additional Stem Height 'L' Outside (FT)	Class 20 Excavation (CY)	Reinforcing Epoxy Coated Steel (LB)	Structural Concrete (CY)	Anchor Bolt Assembly (EA)	Anchor Bolt Assembly (LB)

190_54
2/10/23

SIGNING MATERIALS FOR EXPRESSWAY AT-GRADE INTERSECTIONS																							
Line No.	No.	County	Jurisdiction	Route 1	Route 2	Reference Location Sign	Station	Typical	R1-1B	R1-2	R5-1A	R6-1A	R6-1C	R6-3B	R6-3C	OM-1	Post Type	Posts 20 FT (EA)	Posts 24 FT (EA)	PSST Post Anchor (EA)	Special Mounting Brackets	Stop Islands Present	Remarks

190 61 2/10/23										
EXISTING SIGNS TO BE REINSTALLED										
Line No.	Sign Description	Direction of Travel	Location Station	Number of Posts	Square Tube Steel Posts	Wood Posts 4"x4" (L F)	Wood Posts 4"x6" (L F)	Installation Type	Installation Dim 'X'	See Signing Notes

190_65 8/15/22		
SPECIAL SIGN MOUNTING BRACKETS		
Line No.	Bracket Type	Quantity (EA)

190_66 9/29/23					
SUMMARY OF TYPE 'A' SIGNS					
Line No.	Sign Number	Non-Standard Sign Number or Name	Quantity (EA)	Size (IN)	Total Sign Area (SF)

CATWALKS AND LIGHTING TO BE REMOVED									190_67 2/13/23
Line No.	Structure No.	Route	County	Station	Reference Location Sign	Direction of Travel	Road ID	Removal of Catwalk and Lighting (EA)	Remarks

