### **MAINE TURNPIKE AUTHORITY**

#### ADDENDUM NO. 2

#### **CONTRACT 2018.19**

# BRIDGE REPLACEMENT CUMMINGS ROAD UNDERPASS MILE 44.6

### The bid opening date is Tuesday 10/23/2018 at 11:00 am.

The following changes are made to the Notice to Contractors, Proposal, Specifications, and Plans.

#### **GENERAL**

Addendum No. 3, if necessary, is scheduled to be issued on October 19, 2018 (Friday). All questions regarding Contract 2018.19 should be submitted by the 5:00 pm on October 17, 2018 (Wednesday) to be answered in this addendum. Questions received after that time may not be answered. All questions and inquiries regarding proposed material substitutions shall be in writing and shall be directed to Nate Carll, Purchasing Manager, of the Maine Turnpike Authority. Fax No. (207) 871-7739. Email ncarll@maineturnpike.com

#### **NOTICE TO CONTRACTORS**

Page N-1, the proposal opening date in the first sentence shall be changed from October 16, 2018 to October 23, 2018.

#### **PROPOSAL**

Proposal Sheets P-5, P-11, P-12 and P-13 are deleted and replaced with P-5 (Revised 10/11/18), P-11 (Revised 10/11/18), P-12 (Revised 10/11/18) and P-13 (Revised 10/11/18) attached hereto. The revisions to these proposal sheets is to modify the quantity of Item 503.17, Mechanical/Welded Splice and add Item 645.109, Remove and Reset Sign.

#### **SPECIFICATIONS**

• Page SP-2 Special Provision Section 103.4 Notice of Award is removed in its entirety and replaced with the following:

The following sentence is added:

The Maine Turnpike Authority is scheduled to consider the Contract Award on October 25, 2018.

• Page SP-7 Special Provision Section 104.4.7 Cooperation with Other Contractors, the entire section shall be removed and replaced with the following:

### 104.4.7 Cooperation with Other Contractors

This Subsection is amended by the addition of the following:

Adjacent contracts currently under construction or tentatively scheduled for the 2019 - 2021 construction seasons include:

- MTA Contract 2016.08 Interchange 44 Barrier Toll Plaza ORT Conversion, MM44.3
- MTA Contract 2018.02 Rand Road Intersection Improvements, MM 47.3
- MTA Contract 2018.13 Guide Sign Modifications, Phase III Maine Turnpike Exits 32, 36, 42, 44 and 45. Mile 16.9 to 50.5.
- MTA Contract 2019.01 Scarborough/South Portland/Portland Mainline Pavement Rehabilitation, MM 42 44.3
- MTA Contract 2019.09 Stroudwater River Overpass Bridge and MCRR Overpass Bridge Widening and Rehabilitation, MM 46.7 and MM 47.9
- MTA Contract 2019.13 Exit 45 Interchange Reconstruction Pre-Load, MM 44.9
- MTA Contract 2020.XX Exit 45 Interchange Reconstruction, MM 44.9
- MTA Contract 2020.XX Saco/Scarborough Mainline Pavement Rehabilitation, MM 35.5 42.0
- MTA Contract 2020.XX Mainline Widening and Median Safety Improvements, MM 43
   46 and Exit 44 NB Ramp Improvements
  - o Note: The Exit 45 Interchange Reconstruction project(s) (2019.13 and 2020.XX) will entail construction of a realigned southbound on-ramp that extends beneath the north span of the proposed bridge. Embankment construction and preload related to the Exit 45 interchange project may occur at the same time as the Cummings Road Bridge Replacement Project resulting in overlapping work zones. The Contractors shall be responsible for the cooperative scheduling and sequencing of their respective activities, and for providing reasonable access and accommodations for the proposed work activities.
- Page SP-14 Special Provision Section 107.4.6 Prosecution of Work, the following shall be added as an additional bullet at the end of the section: Existing piers and abutments shall be removed to the limits shown on the Plans and the resulting voids backfilled and graded in accordance with project requirements by May 22, 2020.
- Page SP-16 Special Provision Section 107.4.7 Limitations of Operations, the second to last bullet beginning with "Turnpike median lane shifts, lane closures,..." shall be deleted in its entirety.
- Page SP-16 Special Provision Section 107.4.7 Limitations of Operations, the following shall be added as an additional bullet at the end of the section: Temporary pavement and shoulder widening,

along the Turnpike adjacent to the Northbound Off-Ramp and Existing Pier No. 1 as depicted on Plan Sheets MOT-01 and MOT-11, was performed by the Authority, separate from this 2018.19 Contract. Upon Contract Execution with the successful bidder, the Contractor will immediately become responsible for maintenance of this temporary widened shoulder and will be responsible for removal when no longer required for maintenance of traffic. Payment for maintenance and removal of the temporary pavement and shoulder widening material will not be made separately and will be incidental to related Contract Items. No reduction to associated, estimated bid quantities are made in this Addendum.

- Page SP-16 Special Provision Section 107.4.7 Limitations of Operations, the following shall be added as an additional bullet at the end of the section: Temporary Concrete Barrier and a Work Zone Crash Cushion, owned by the Authority, is currently installed along the Turnpike adjacent to the Northbound Off-Ramp and Existing Pier No. 1 between approximately STA 2205+87 and 2208+00, 59' RT, and as depicted on Plan Sheet MOT-01. These devices shall be used by the Contractor in accordance with Project requirements. Upon Contract Execution with the successful bidder, the Contractor will immediately become responsible for maintenance of the Temporary Concrete Barrier and the Work Zone Crash Cushion. The Contractor will be responsible for removal of these devices when no longer required for use on the Project. Removal and delivery of the Temporary Concrete Barrier and Work Zone Crash Cushion shall be in general accordance with Special Provision Section 526.01. Payment for maintenance, resetting, and removal of the Temporary Concrete Barrier and Work Zone Crash Cushion will not be made separately and will be incidental to related Contract Items. No reduction to associated, estimated bid quantities are made in this Addendum.
- Page SP-44 Special Provision Section 403 Hot Mix Asphalt Pavement is modified by replacing Item Number "403.08" with "403.208" in the table beneath the header "Temporary Pavement – Main Turnpike and Cummings Road."
- Page SP-44 Special Provision Section 403 Hot Mix Asphalt Pavement is modified by replacing the header "Temporary Pavement – Maine Turnpike and Cummings Road" with "Temporary Pavement – Cummings Road."
- Page SP-117 Special Provision Section 652 Maintenance of Traffic, Specific Project Maintenance of Traffic Requirements, Cummings Road Traffic Control Requirements, the first paragraph shall be deleted and is replaced with the following:

Maintenance of traffic plans have been developed for the work on the Cummings Road bridge and approach roadways. Two lanes of traffic (one lane in each direction) shall be maintained at all times with the exception of the hours between 7:00 PM and 7:00 AM Sunday through Thursday nights. During this overnight period, traffic may be reduced to a single lane of alternating one-way traffic. In addition, for installation of temporary earth support system(s) along Cummings Rd and paving operations, traffic may be reduced to a single lane of alternating one-way traffic between 9:00 AM and 3:00 PM Monday through Friday. Two lanes of traffic shall be maintained at all times between Thanksgiving and Christmas.

 Page SP-118 Special Provision Section 652 Maintenance of Traffic, Specific Project Maintenance of Traffic Requirements, Maine Turnpike Traffic Control Requirements, the following new paragraphs are added after the second paragraph: Loading/Unloading Trucks shall not be closer than six feet from an open travel lane when being loaded or unloaded within the work zone.

Temporary Shoulder Closures shall maintain a minimum of four (4) feet of lateral buffer from an open travel lane when in place between 6:00 a.m. and 9:00 a.m. and between 3:00 p.m. and 6:00 p.m. During July and August, the four-foot minimum lateral buffer applies from 6:00 a.m. to 8:00 p.m.

#### **PLANS**

Plan Sheet EQ-01, sheet 2 Estimated Quantities, is being reissued for a revision to Item 503.17, Mechanical/Welded Splice and to add Item 645.109, Remove and Reset Sign.

Plan Sheet S-01, sheet 76 General Notes, Index and Quantities, is being reissued for a revision to Item 503.17, Mechanical/Welded Splice.

Plan Sheets S-50, S-51, and S-53, sheets 125,126, and 128, are being reissued for bar quantity revisions and for improved print quality.

Plan Sheets S-52, S-54, and S-55, sheets 127, 129, and 130 Reinforcing Steel Schedules are reissued with improved print quality.

#### **OUESTIONS**

The following are questions submitted to the Maine Turnpike Authority in writing. Answers to the questions are noted. Bidders shall utilize this information in preparing their bid.

Question 1: How will the temporary pavement for both Cummings Road and on the turnpike be paid for?

<u>Answer:</u> Temporary pavement will be paid under Item 403.208, Hot Mix Asphalt, 12.5 mm Nominal Maximum Size. The Item Number in Special Provision 403 was incorrectly identified and is corrected with this Addendum.

Question 2: After visiting the site, it appears that the shoulder widening on the Turnpike under the Cummings Road Bridge that required temporary pavement has already been installed. Would you please verify if the shoulder widening shown on Sheet 7/135 of the plans is still required?

Answer: Shoulder widening and temporary pavement installation adjacent to the Northbound Off-Ramp and Existing Pier No. 1 was recently completed separate from this 2018.19 Cummings Road Underpass Bridge Improvement Project. However, no adjustments to associated estimated bid quantities are made with this Addendum.

Question 3: Are temporary sheets from STA 72+75-STA75+50 to remain in place?

<u>Answer:</u> A requirement, similar to Note 4 on sheet 9 of 135 (MOT-03), does not apply to this station range. However, the Contractor shall assess the need to abandon temporary earth support systems in accordance with the remaining notes on sheet 9 of 135 (MOT-03) and their specific means and methods.

Question 4: A On page 9 of 135, Note 4: Does the bottom of sheet Elevation 35, only apply to the stay in place sheets or all sheets required?

<u>Answer:</u> This requirement only applies to the temporary earth support system installed between STA 67+50 and the back of Abutment No. 1.

Question 5: If the design of Temporary Sheeting that is to remain in place can be shorter than to Elevation 35, will that be allowed?

<u>Answer:</u> See response to Question 4. All other temporary earth support system designs, extents, limitations, and requirements are the responsibility of the contractor.

Question 6: For the Distribution slab. What is the reasoning behind the 6" overhang detail?. This detail adds a lot of extra work, if not needed for the Geofoam. Please consider changing this detail.

<u>Answer:</u> This detail ensures the edge of the distribution slab does not create a concentrated load on the geofoam and membrane and also aids in protection of the geofoam from guardrail posts installation and from movement of the guardrail post during vehicular collision. The detail shall remain as shown.

Question 7: On sheet 4. Sign note 2 calls for removing and resetting signs as incidental. This is incorrect. Please Clarify. Please add pay item and SF of signs for this. Thank you

Answer: Sign note 2 on sheet 4 is in regard to Regulatory, Warning, Confirmation, Route Marker Assembly signs that need to be removed and reset for Contractor access. These signs will not be paid for and shall be incidental to the Contract. Pay item 645.109 has been added to the proposal sheets to account for signs within the Project limits that are required to be reset to perform the contract work and in conformance with the Special Provisions.

Question 8: Can you review BI#508.17 mechanical coupler count

<u>Answer:</u> A revised quantity to Item No. 508.17, Mechanical/Welded Splice is included with this Addendum.

- Question 9: Will clearer drawings be issued for the reinforcing bar schedules (sheets 125-130)

  Answer: The noted Plan sheets are reissued with greater print resolution with this Addendum.
- Question 10: Are there shear studs/spirals or any other shear connections from Deck to girders that are on the existing bridge?

<u>Answer:</u> As-built drawings do not appear to indicate the presence of shear connectors or spirals on the existing bridge.

Question 11: Are there any touch up needed at the splices?

<u>Answer:</u> Surface coating touch-ups and repairs shall be in accordance with Standard Specification Sections 506.27 and 506.39, as applicable.

# **ATTACHMENTS**

• Proposal Sheets P-5 (Revised 10/1/18), P-11 (Revised 10/11/18), P-12 (Revised 10/11/18), and P-13 (Revised 10/11/18)

• Revised Plan Sheets (8 pages)

**Notes:** The above items shall be considered as part of the bid submittal.

The total number of pages included with this addendum is nineteen (19).

All bidders are requested to acknowledge the receipt of the Addendum No. 2 by signing below and faxing this sheet to Nathaniel Carll, Purchasing Department, Maine Turnpike Authority at 207-871-7739. Bidders are also required to acknowledge receipt of this Addendum No. 2 on Page P-14 of the bid package.

Business Name	-
Print Name and Title	-
Signature	-
Date October 11, 2018	-
OCTOOCI 11, 2016	
	Very truly yours,
	MAINE TURNPIKE AUTHORITY
	Nathaniel Carll
	Purchasing Department  Maina Tumpika Authority
	Maine Turnpike Authority

	T		1	COI	NTRACT NO: 2018.19
Item No	Item Description	Units	Approx.  Quantities	Unit Prices in Numbers	Bid Amount in Numbers
	, , , , , ,			Dollars Cents	Dollars Cents
				BROUGHT FORWARD:	
503.17	Mechanical/Welded Splice	Each	416		
504.702	Structural steel fabricated and delivered, welded (1190000 LB)	Lump Sum	1		
504.71	Structural steel erection (1190000 LB)	Lump Sum	1		
505.08	Shear Connectors (8176 EA)	Lump Sum	1		
506.9104	Thermal Spray Coating (Shop Applied)	Lump Sum	1		
507.091	Aluminum Bridge Railing, 1 Bar (882 LF)	Lump Sum	1		
508.14	High Performance Waterproofing Membrane (2700 SY)	Lump Sum	1		
511.091	Temporary Earth Support Systems	Lump Sum	1		
513.09	Slope Protection - Portland Cement Concrete	Square Yard	400		
513.22	Crushed Stone Slope Protection	Square Yard	320		
514.06	Curing Box for Concrete Cylinders	Each	1	     	
515.202	Clear Protective Coating for Concrete Surfaces	Square Yard	1,800		

513.22	Crushed Stone Slope Protection	Square Yard	320				     
514.06	Curing Box for Concrete Cylinders	Each	1				     
515.202	Clear Protective Coating for Concrete Surfaces	Square Yard	1,800				
				CARRIED FORW	ARD:		
			P-5	REVISED (10/11	/18)		
						Page 8	of 19

	T		1	COI	NTRACT NO: 2018.19
Item No	Item Description	Units	Approx.  Quantities	Unit Prices in Numbers	Bid Amount in Numbers
	nom 2000.p.ion	<b>5</b> 15		Dollars Cents	Dollars Cents
				BROUGHT FORWARD:	
631.171	Truck - small (including operator)	Hour	35	]   	
631.172	Truck - large (including operator)	Hour	35		
631.22	Front end loader (Including Operator)	Hour	35		
631.32	Culvert Cleaner (including Operator)	Hour	10		
631.36	Foreman	Hour	20		
639.18	Field Office, Type A	Each	1		
639.26	Instrumentation - Geotechnical	Lump Sum	1		
645.109	Remove and Reset Sign	Each	1		
645.272	Regulatory, Warning and Bridge Number Signs, Type I - Supplied by Authority	Each	2		
645.292	Regulatory, Warning, Confirmation and Route Marker Assembly Signs Type II	Each	2		
645.503	Remove and Reset Bridge Mounted Guide Sign to Ground Mounted	Lump Sum	1		
645.504	Remove and Reset Mainline Sign	Lump Sum	1		

	Confirmation and Route Marker Assembly Signs Type II				   		
645.503	Remove and Reset Bridge Mounted Guide Sign to Ground Mounted	Lump Sum	1				
645.504	Remove and Reset Mainline Sign	Lump Sum	1				
				CARRIED FORW	ARD:		
			P-11	REVISED (10/1	I/18)		
						Page 9	of 19

	T		I		NTRACT NO: 2018.19	1
Item No	Item Description	Units	Approx.  Quantities	Unit Prices in Numbers	Bid Amount in Numbers	
				Dollars Cen	ts Dollars (	Cents
				BROUGHT FORWARE	):	
646.091	Settlement Platforms	Lump Sum	1			
652.30	Flashing Arrow	Each	2			
652.312	Type III Barricades	Each	18			
652.33	Drum	Each	170			
652.34	Cone	Each	80			
652.35	Construction Signs	Square Foot	1,200			
652.361	Maintenance of Traffic Control Devices	Lump Sum	1			
652.38	Flaggers	Hour	1,400			
652.41	Portable-Changeable Message Sign	Each	3			
652.45	Truck Mounted Attenuator	Calendar Day	130			
652.452	Automated Trailer Mounted Speed Limit Sign	Each	2			
656.50	Baled Hay, in place	Each	25			

652.45	Truck Mounted Attenuator	Calendar Day	130				
652.452	Automated Trailer Mounted Speed Limit Sign	Each	2				
656.50	Baled Hay, in place	Each	25				
				CARRIED FORW	ARD:		
			P-12	REVISED (10/11	/18)		
						Page 10	of 19

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers  Dollars Cents		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
				BROUGHT FORV	VARD:		
656.60	Temporary Berms	Linear Foot	2,100				
656.62	Temporary Slope Drains	Linear Foot	200				
656.632	30 inch Temporary Silt Fence	Linear Foot	6,000				
659.10	Mobilization	Lump Sum	1				   
				TC	OTAL:		     

ITEM NO.	ITEM DESCRIPTION	UNIT	CIVIL QUANTITY	BRIDGE QUANTITY	TOTAL QUANTITY	
201.11	Clearing	AC	2		2	
202.19	Removing Existing Bridge (Structural Steel = 112 Tons, Concrete = 580 CY)	LS		1	1	
202.202	Removing Pavement Surface	SY	1120		1,120	
203.20	Common Excavation	CY	18,600		18,600	
203.24	Common Borrow	CY	10,000		10,000	
203.25	Granular Borrow	CY	850	650	1,500	
203.43	Geofoam Lightweight Fill	CY	5,400		5,400	//\
203.45	Leveling Sand	CY (	1,450		1,450	<u> </u>
203.46	Sand Drainage Blanket	CY	3,800		3,800	[
206.082	Structural Earth Excavation - Major Structures, Plan Quantity	CY		600	600	
206.10	Structural Earth Excavation - Piers	CY		690	690	
209.29	Prefabricated Vertical Drains	LF	183,000		183,000	//\
304.10	Aggregate Subbase Course - Gravel	CY (	4,900		4,900	<del>/                                    </del>
304.14	Aggregate Base Course - Type A	CY	800		800	ĺ
403.207	Hot Mix Asphalt, 19.0 mm Nominal Maximum Size	TON	950		950	
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	TON	760	400	1,160	
403.2084	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals)	TON	40		40	
403.212	Hot Mix Asphalt, 4.75 mm Nominal Maximum Size	TON	30		30	
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Course)	TON	570		570	
409.15	Bituminous Tack Coat, Applied	GAL	430	160	590	
419.30	Sawing Bituminous Pavement	LF	990		990	
501.231	Dynamic Loading Test	EA		4	4	
501.54	Steel H-beam Piles 117 lb/ft, delivered	LF		11,300	11,300	
501.541	Steel H-beam Piles 117 lb/ft, in place	LF		10,600	10,600	
501.90	Pile Tips	EA		112	112	
501.91	Pile Splices	EA		336	336	
501.92	Pile Driving Equipment Mobilization	LS		1	1	
502.219	Structural Concrete, Abutments and Retaining Walls (635 CY)	LS		1	1	
502.239	Structural Concrete, Piers (593 CY)	LS		1	1	
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (737 CY)	LS		1	1	
502.264	Structural Concrete, Parapet (102 CY)	LS		1	1	
502.31	Structural Concrete Approach Slab (107 CY)	LS		1	1	
502.452	Structural Concrete Distribution Slab (350 CY)	LS		1	1	
503.14	Epoxy-Coated Reinforcing Steel, Fabricated and Delivered	LB		479,900	479,900	$\wedge$
503.15	Epoxy-Coated Reinforcing Steel, Placing	LB		479,900	479,900	/ 2 \
503.17	Mechanical/Welded Splice	EA (		416	416	
504.702	Structural steel fabricated and delivered, welded (1190000 LB)	LS		1	1	
504.71	Structural steel erection (1190000 LB)	LS		1	1	
505.08	Shear Connectors (8176 EA)	LS		1	1	
506.9104	Thermal Spray Coating (Shop Applied)	LS		1	1	
507.091	A luminum Bridge Railing, 1 Bar (882 LF)	LS		1	1	
508.14	High Performance Waterproofing Membrane (2700 SY)	LS		1	1	<del> </del> 
511.091	Temporary Earth Support Systems	LS		1	1	1
513.09	Slope Protection - Portland Cement Concrete	SY		400	400	

ITEM NO.	ITEM DESCRIPTION	UNIT	CIVIL QUANTITY	BRIDGE QUANTITY	TOTAL QUANTITY
513.22	Crushed Stone Slope Protection	SY		320	320
514.06	Curing Box for Concrete Cylinders	EA		1	1
515.202	Clear Protective Coating for Concrete Surfaces	SY		1,800	1,800
520.21	Expansion Device - Gland Seal (150 LF)	EA		2	2
523.52	Bearing Installation	EA		28	28
523.5401	Laminated Elastomeric Bearings, Fixed	EA		7	7
523.5402	Laminated Elastomeric Bearings, Expansion	EA		21	21
524.40	Protective Shielding - Steel Girders	SY		2,050	2,050
526.304	Temporary Concrete Barrier, Anchored (440 LF)	LS		1	1
526.306	Temporary Concrete Barrier, Type I - Supplied by Authority (2,860 LF)	LS	1		1
527.341	Work Zone Crash Cushions - TL-3	UN	2		2
527.342	Work Zone Crash Cushions - TL-2	UN	2		2
603.169	15 Inch Culvert Pipe Option III	LF	20		20
604.184	Rebuild Catch Basin to Grade - Type II	EA	1		1
604.301	Special Catch Basin - Bioscape Vault Basin	EA	1		1
604.302	Special Catch Basin - Standard Offline Basin	EA	2		2
605.10	6 inch Underdrain Outlet	LF	20		20
	31" W-Beam Guardrail - Mid-Way Splice (7' Steel Post, 8"				
606.13	Offset Blocks, Single Faced)	LF	970		970
606.1306	31" W-Beam Guardrail - Mid-Way Splice Tangential Terminal (31" Height)	EA	2		2
606.1351	Terminal End - Anchored End - 31" W-Beam Guardrail	EA	2		2
606.1723	Bridge Transition Type III	EA	4		4
606.178	Guardrail Beam	LF	820		820
606.24	Guardrail Type 3d - Single Rail	LF	50		50
606.278	Terminal End - Anchored End	EA	2		2
606.352	Reflectorized Beam Guardrail Delineator	EA	7		7
606.356	Underdrain Delineator Post	EA	2		2
606.3561	Delineator Post - Remove and Reset	EA	9		9
606.3605	Guardrail - Remove, Modify and Reset Single Rail	LF	390		390
606.3606	Guardrail - Remove, Modify and Reset Double Rail	LF	220		220
606.47	Single Wood Post	EA	1		1
606.48	Single Galvanized Steel Post	EA	96		96
607.17	Chain Link Fence – 6 foot	LF	690		690
607.23	Chain Link Fence Gate	EA	2		2
607.32	Bracing Assembly Type I - Metal Posts	EA	6		6
607.33	Bracing Assembly Type II - Metal Posts	EA	8		8
609.11	Vertical Curb Type 1	LF	62		62
609.12	Vertical Curb Type 1 - Circular	LF	43		43
609.15	Slope Curb Type 1	LF		950	950
609.234	Terminal Curb Type 1 - 4 foot	EA	1	700	1
609.2341	Terminal Curb Type 1 - 4 foot - Circular	EA	1		1
609.31	Curb Type 3	LF	950		950
609.38	Reset Curb Type 1	LF	80		80
610.08	Plain Riprap	CY	250		250
610.181	Temporary Stone Check Dam	CY	2		2
613.319	Erosion Control Blanket	SY	6,150		6,150
010.017	<u> </u>	1 ~ 1	1 3,120	<u> </u>	1 0,100

ITEM NO.	ITEM DESCRIPTION	UNIT	CIVIL QUANTITY	BRIDGE QUANTITY	TOTAL QUANTITY	
615.07	Loam	CY	1,200		1,200	1
618.13	Seeding Method Number 1	UN	9		9	1
618.14	Seeding Method Number 2	UN	87		87	1
619.1201	Mulch, Plan Quantity	UN	96		96	1
619.1202	Temporary Mulch	LS	1		1	-
620.58	Erosion Control Geotextile	SY	140		140	
620.70	HDPE Geomembrane	SY	4,950		4,950	
626.33	30 Inch Foundation, 8 feet or less Foundation	EA	2		2	1
627.712	White or Yellow Pavement Marking Line	LF	10,700		10,700	1
627.73	Temporary 6 Inch Pavement Marking Tape	LF	1,300		1,300	1
627.75	White or Yellow Pavement & Curb Marking	SF	130		130	1
627.77	Removing Existing Pavement Marking	SF	9,600		9,600	•
627.78	Temporary Pavement Marking Line, White or Yellow	LF	22,100		22,100	1
627.812	Temporary Raised Pavement Markers	EA	2,600		2,600	1
629.05	Hand Labor, Straight Time	HR	60		60	1
631.10	Air Compressor (including operator)	HR	20		20	1
631.11	Air Tool (including operator)	HR	40		40	1
631.12	All Purpose Excavator (including operator)	HR	10		10	-
631.171	Truck - small (including operator)	HR	35		35	-
	Truck - large (including operator)					-
631.172	Front end loader (Including Operator)	HR	35		35	-
631.22	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	HR	35		35	-
631.32	Culvert Cleaner (including Operator)	HR	10		10	-
631.36	Foreman T. A.	HR	20		20	-
639.18	Field Office, Type A	EA	1		1	1
639.26	Instrumentation - Geotechnical	LS			1	] /
645.109	Remove and Reset Sign	EA	1		المليم	1
645.272	Regulatory, Warning and Bridge Number Signs, Type I - Supplied by Authority	EA	2		2	
645.292	Regulatory, Warning, Confirmation and Route Marker Assembly Signs Type II	EA	2		2	
645.503	Remove and Reset Bridge Mounted Guide Sign to Ground Mounted	LS	1		1	
645.504	Remove and Reset Mainline Sign	LS	1		1	1
646.091	Settlement Platforms	LS	1		1	-
652.30	Flashing Arrow	EA	2		2	1
652.312	Type III Barricades	EA	18		18	
652.33	Drum	EA	170		170	1
652.34	Cone	EA	80		80	1
652.35	Construction Signs	SF	1,200		1,200	1
652.361	Maintenance of Traffic Control Devices	LS	1,200		1,200	1/
652.38	Flaggers	HR	1,400	<u> </u>	1,400	上
652.41	Portable-Changeable Message Sign	EA	1,400	<del> </del>	1,400	1
652.45	Truck Mounted Attenuator	CD	130		130	-
	Automated Trailer Mounted Speed Limit Sign					1
652.452		EA	25		2 25	-
656.50	Baled Hay, in place	EA	25		25	-
656.60	Temporary Berms	LF	2,100		2,100	-
656.62	Temporary Slope Drains	LF	200		200	-
656.632	30 inch Temporary Silt Fence	LF	6,000		6,000	1
659.10	Mobilization	LS	1		1	

Sca	ıle:			Designed by	<i>י</i> :				
						HN	ITR		
No.	Revision	Ву	Date						
/	QUANTITY CHANGES	LZD	10/18						
2	ADDED AND REVISED QUANTITI	'ES JKO	10/18	CONSULTANT	PROJEC	T MANAGER:	Tim Cote, P.E.		
					Ву	Date		Ву	Date
				Designed	LSK	08\18	Checked	LZD	08\18
				Drawn	LSK	08\18	In Charge of	RAL	08\18

HNTB CORPORATION

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# THE GOLD STAR MEMORIAL HIGHWAY

BRIDGE REPLACEMENT CUMMINGS ROAD UNDERPASS

ESTIMATED QUANTITIES

CONTRACT:2018.19

SHEET NUMBER: EQ-01

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION

**CONSTRUCTION** 

STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES, REVISION OF NOVEMBER 2014.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARD DETAILS FOR HIGHWAYS AND BRIDGES, REVISION OF NOVEMBER 2014, WITH ALL REVISIONS THERETO.

AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 4TH EDITION.

# DESIGN LOADING

<u>LIVE LOAD</u> - HL-93 MODIFIED FOR STRENGTH I

# MATERIALS

<u>CONCRETE</u>

DECK CONCRETE - CLASS AAA-DECK ALL OTHER CONCRETE SHALL BE CLASS AAA, U.O.N.

# REINFORCING STEEL

AASHTO M31, GRADE 60

ALL REINFORCING SHALL BE EPOXY-COATED.

ANCHOR RODS SHALL MEET THE REQUIREMENTS OF ASTM F1554, GRADE 105 AND SHALL BE SWEDGED OR THREADED ON THE EMBEDDED PORTION OF THE ROD.

### STRUCTURAL STEEL

WELDED GIRDERS: FLANGES, WEBS, SPLICE PLATES, FILLER PLATES, CONNECTION PLATES, CROSS FRAMES AND BEARING STIFFENERS SHALL BE AASHTO M270, GRADE 50.

H-PILE MATERIAL SHALL BE ASTM A572, GRADE 50.

ALL OTHER STRUCTURAL STEEL SHALL BE AASHTO M270, GRADE 50 U.O.N.

HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM F3125, GRADE A325, TYPE 1.

# PROTECTIVE COATING

GIRDER PLATES, INCLUDING FLANGES, WEBS, CONNECTION PLATES, BEARING STIFFENERS, FIELD SPLICE PLATES, AND INTERMEDIATE STIFFENERS, SHALL BE METALLIZED AFTER FABRICATION IN ACCORDANCE WITH SPECIAL PROVISION SECTION 506, SHOP APPLIED PROTECTIVE COATING - STEEL (THERMAL SPRAY COATING - SHOP APPLIED), CROSSFRAMES SHALL EITHER BE METALLIZED OR HOT-DIPPED GALVANIZED AFTER FABRICATION, PAYMENT FOR METALLIZING AND/OR GALVANIZING, AS APPLICABLE, SHALL BE MADE UNDER ITEM 506,9104, THERMAL SPRAY COATING (SHOP APPLIED).

# BASIC DESIGN STRESSES

# <u>CONCRETE</u>

CLASS AAA-DECK, f'c = 4,500 P.S.I. CLASS AAA, f'c = 4,500 P.S.I.

# REINFORCING STEEL

STRUCTURAL STEEL

AASHTO M270 (ASTM 709) GRADE 50, Fy = 50,000 P.S.I., U.O.N.

# NOTES:

I, FOR ADDITIONAL DETAILS REFERENCED OR NOT SHOWN IN THESE DRAWINGS, SEE THE STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, HIGHWAYS AND BRIDGES, NOVEMBER 2014 WITH UPDATES.

2. COPIES OF THE AS-BUILT PLANS ARE ON FILE AT THE MAINE TURNPIKE AUTHORITY. A PORTION OF THESE PLANS ARE INCLUDED IN THIS CONTRACT FOR THE CONTRACTOR'S CONVENIENCE. THE COMPLETENESS AND ACCURACY OF THESE PLANS IS NOT GUARANTEED.

- 3. REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2", UNLESS OTHERWISE NOTED,
- 4. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.
- 5. THE CONTRACTOR SHALL SURVEY THE TOPS OF THE GIRDERS BEFORE DECK FORMWORK ERECTION BEGINS FOR DETERMINATION OF BLOCKING HEIGHTS. THE CONTRACTOR SHALL SUBMIT SURVEYED ELEVATIONS AND PROPOSED BLOCKING HEIGHT VALUES TO THE RESIDENT FOR APPROVAL A MINIMUM OF FIVE (5) WORKING DAYS BEFORE ERECTING DECK FORMWORK.
- 6. ALL SUBSTRUCTURE SHEAR KEY'S SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DETAIL 502(01).
- 7. COVER JOINTS WHERE WATERSTOPS ARE NOT REQUIRED IN ACCORDANCE WITH 502(01).

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81	BORING LOGS IV	S-06
82	BORING LOGS V	S-07
83	BORING LOGS VI	S-08
84	BORING LOGS VII	S-09
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86	BORING LOGS IX	S-II
87	CONSTRUCTION PHASING I	S-12
88	CONSTRUCTION PHASING II	S-13
89	CONSTRUCTION PHASING III	S-14
90	CONSTRUCTION PHASING IV	S-15
9/	CONSTRUCTION PHASING V	S-16
92	SUBSTRUCTURE DEMOLITION PLAN	S-17
93	FOUNDATION PLAN	S-18
94	ABUTMENT I FOUNDATION	S-19
95	ABUTMENT I PLAN AND ELEVATION	S-20
96	ABUTMENT   REINFORCEMENT	S-2I
97	ABUTMENT 2 FOUNDATION	S-22
98	ABUTMENT 2 PLAN AND ELEVATION	S-23
99	ABUTMENT 2 REINFORCEMENT	S-24
100	ABUTMENT AND WINGWALL DETAILS	S-25
101	WINGWALL DETAILS	S-26
102	APPROACH SLAB DETAILS	S-27
103	PIER FOUNDATION	S-28
104	PIER I PLAN AND ELEVATION	S-29
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106	PIER REINFORCEMENT	S-3/
107	PIER SECTIONS AND DETAILS	S-32
108	BEARING DETAILS I	S-33
109	BEARING DETAILS II	S-34
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///	STRUCTURAL STEEL DETAILS I	S-36
112	STRUCTURAL STEEL DETAILS II	S-37
//3	STRUCTURAL STEEL DETAILS III	S-38
114	TRANSVERSE SECTION AND SUPERSTRUCTURE PLAN	S-39
1/5	SUPERSTRUCTURE REINFORCING PLAN I	S-40
1/6	SUPERSTRUCTURE REINFORCING PLAN II	S-4I
1/7	SUPERSTRUCTURE REINFORCING DETAILS	S-42
118	SUPERSTRUCTURE DETAILS I	S-43
119	SUPERSTRUCTURE DETAILS II	S-44
120	ALUMINUM BRIDGE RAILING (IBAR)	S-45
121	EXPANSION JOINT DETAILS I	S-46
122	EXPANSION JOINT DETAILS II	S-47
123	EXPANSION JOINT DETAILS III	S-48
124	SLOPE PROTECTION PLAN AND DETAILS	S-49
125	REINFORCING STEEL SCHEDULE I	S-50
126	REINFORCING STEEL SCHEDULE II	S-5/
127	REINFORCING STEEL SCHEDULE III	S-52
128	REINFORCING STEEL SCHEDULE IV	S-53
129	REINFORCING STEEL SCHEDULE V	S-54
130	REINFORCING STEEL SCHEDULE VI	S-55
130	INCINI UNUINO SIELE SUMEDULE VI	<u> </u>

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133 OF 135	SUPERSTRUCTURE	1952									
134 OF 135	DECK REINFORCING	1990									
135 OF 135	WINGWALL & BACKWALL MODIFICATIONS	1990									

	QUANTITY TABLE			
ITEM NO.	DESCRIPTION	REFERENCE QUANTITY	UNIT	STRUCTURAL QUANTITY
202.19	REMOVING EXISTING BRIDGE	<i>II2 TONS STEEL,</i> 580 CY CONCRETE	LS	/
<i>203.25</i>	GRANULAR BORROW		CY	650
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES, PLAN QUANTITY		CY	600
206.10	STRUCTURAL EARTH EXCAVATION - PIERS		CY	690
403.208	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE		TON	400
409.15	BITUMINOUS TACK COAT, APPLIED		GAL	160
501 <b>.</b> 231	DYNAMIC LOADING TEST		EA	4
501 <b>.</b> 54	STEEL H-BEAM PILES IIT LB/FT, DELIVERED		LF	11,300
501 <b>.</b> 541	STEEL H-BEAM PILES 117 LB/FT, IN PLACE		LF	10,600
501 <b>.</b> 90	PILE TIPS		EΑ	112
501 <b>.</b> 91	PILE SPLICES		EΑ	336
501.92	PILE DRIVING EQUIPMENT MOBILIZATION		LS	1
<i>502.219</i>	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	635 CY	LS	1
<i>502.239</i>	STRUCTURAL CONCRETE, PIERS	593 CY	LS	1
<i>502.26</i>	STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGES	737 CY	LS	1
<i>502.264</i>	STRUCTURAL CONCRETE, PARAPET	102 CY	LS	/
<i>502.31</i>	STRUCTURAL CONCRETE APPROACH SLAB	107 CY	LS	1
<i>502.452</i>	STRUCTURAL CONCRETE DISTRIBUTION SLAB	3II CY	LS	/
503.14	EPOXY-COATED REINFORCING STEEL, FABRICATED AND DELIVERED		LB	479,900
503.15	EPOXY-COATED REINFORCING STEEL, PLACING		LB	479,900
<i>503.</i> /7	MECHANICAL/WELDED SPLICE		EΑ	(4/6)
504,702	STRUCTURAL STEEL FABRICATED AND DELIVERED, WELDED	1,190,000 LB	LS	7 7
<i>504.71</i>	STRUCTURAL STEEL ERECTION	1,190,000 LB	LS	/
505 <b>.</b> 08	SHEAR CONNECTORS	8176 EA	LS	/
506.9104	THERMAL SPRAY COATING (SHOP APPLIED)		LS	/
507.091	ALUMINUM BRIDGE RAILING, I BAR	882 LF	LS	/
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE	2700 SY	LS	/
5//.09/	TEMPORARY EARTH SUPPORT SYSTEMS		LS	1
<i>5/3.09</i>	SLOPE PROTECTION - PORTLAND CEMENT CONCRETE		SY	400
5/3 <b>.</b> 22	CRUSHED STONE SLOPE PROTECTION		SY	320
514 <b>.</b> 06	CURING BOX FOR CONCRETE CYLINDERS		EΑ	1
5/5.202	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES		SY	1,800
520.21	EXPANSION DEVICE - GLAND SEAL	150 LF	EΑ	2
<i>523.52</i>	BEARING INSTALLATION		EΑ	28
523 <b>.</b> 540/	LAMINATED ELASTOMERIC BEARINGS, FIXED		EΑ	7
<i>523.5402</i>	LAMINATED ELASTOMERIC BEARINGS, EXPANSION		EΑ	21
<i>524.40</i>	PROTECTIVE SHIELDING - STEEL GIRDERS		SY	2,050
526.304	TEMPORARY CONCRETE BARRIER, ANCHORED	440 LF	LS	/
609.15	SLOPE CURB TYPE I		LF	950

# LIST OF ABBREVIATIONS

ABUT. - ABUTMENT ADDL. - ADDITIONAL ALT. - ALTERNATE APPROX. - APPROXIMATELY BOT. - BOTTOM BRG. - BEARING CL. - CLEAR

€ - CENTERLINE CONC. - CONCRETE CONSTR. - CONSTRUCTION C.Y. - CUBIC YARD DEMO. - DEMOLITION DIA. - DIAMETER EA. - EACH EB - EASTBOUND

E.F. - EACH FACE EL. - ELEVATION EQ. - EQUAL

F.F. - FAR FACE JT. - JOINT MAX. - MAXIMUM MEDOT - MAINE DEPARTMENT OF TRANSPORTATION MIN. - MINIMUM MTA - MAINE TURNPIKE AUTHORITY NB - NORTHBOUND

N.F. - NEAR FACE N.T.S. - NOT TO SCALE PED. - PEDESTAL PGL - PROFILE GRADE LINE P - PLATE

EXIST. - EXISTING

EXP. - EXPANSION

PROP. - PROPOSED P.S.I. - POUNDS per SQUARE INCH RDWY. - ROADWAY

CONTRACT:2018.19

SHLDR. - SHOULDER SB - SOUTHBOUND SF - SQUARE FEET SP. - SPACES STA. - STATION T.&B. - TOP & BOTTOM TPKE. - TURNPIKE TYP. - TYPICAL

U.O.N. - UNLESS OTHERWISE NOTED VERT. - VERTICAL

WB - WESTBOUND W.P. - WORKING POINT WW - WINGWALL

Scale: Designed by:

HNTB By Date Revision JKO 10/18 REVISED QUANTITY CONSULTANT PROJECT MANAGER: Tim Cote, P.E. By Date JKO 08\18 08\18 Checked TJP I Designed PEB 08\18 In Charge of RAL 08\18

HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909



# THE GOLD STAR MEMORIAL HIGHWAY

# BRIDGE REPLACEMENT CUMMINGS ROAD UNDERPASS

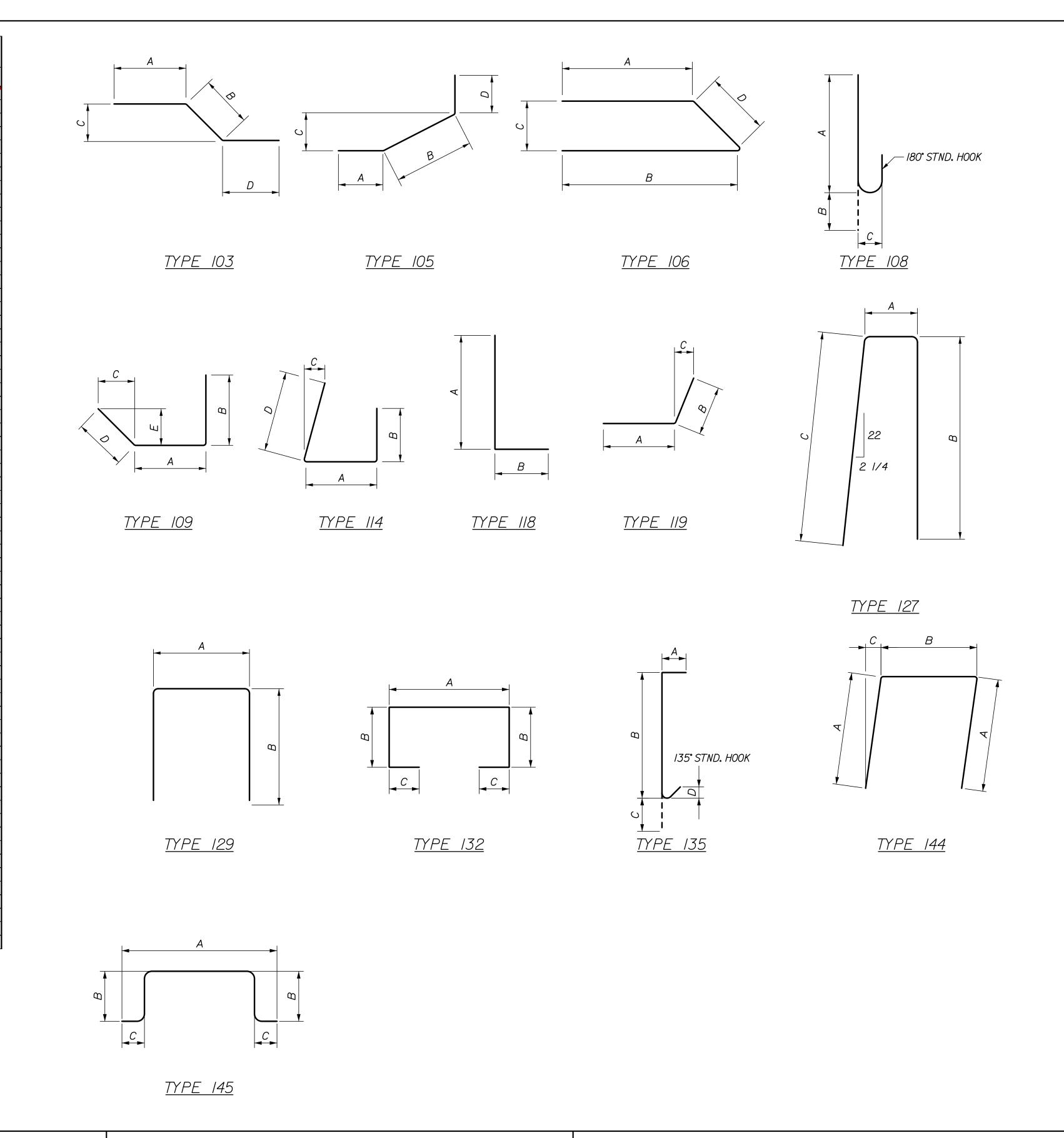
GENERAL NOTES, INDEX AND QUANTITIES

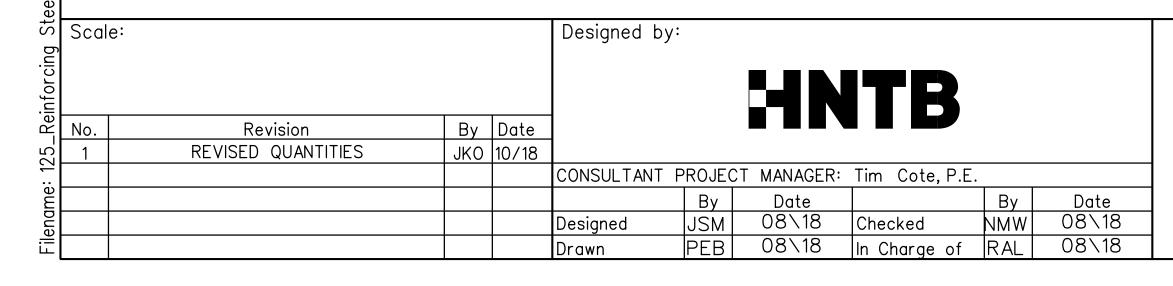
SHEET NUMBER: S-01

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

Page 13 of 19

MARK	SIZE	NO.	LENGTH	TYPE	A	В	С	D	E	REMARKS		
ABUTMEN												
A500	5	12	45' - 0''	STR						Backwall Horizontal, Phase 1		
4500 4501 /	5 (	20	3' - 6"	STR						Backwall Horizontal, Phase 1 Coupler		
4501 4502 /	5	12	28' - 8"	STR						Backwall Horizontal, Phase 2		
4502 / / 4503	5 (	(20)	3' - 6"	STR						Backwall Horizontal, Phase 2 Coupler		
<del>503</del> 4504	5	4	43' - 3"	STR						Header Horizontal, Phase 1		
4505	5	4	30' - 2"	STR						Header Horizontal, Phase 2		
1000			00 2							Floador Florizoniai, Friado Z		
4550	5	49	16' - 1"	129	1'-8"	7'-2"				Backwall Vertical, Phase 1		
4551	5	49	7' - 11"	106	3'-4"	3'-5"	1'-2"	1'-2"		Backwall Vertical, Above Approach Slab Seal Phase 1		
\552	5	45	6' - 8''	119	3'-2"	3'-6"	2'-6"			Approach Slab, Phase 1		
A553	5	24	9' - 6"	103	3'-5"	6'-1"	4'-0"	0'-0"		Backwall to WW Corner, Phase 1		
<b>4554</b>	5	31	7' - 11"	106	3'-4"	3'-5"	1'-2"	1'-2"		Backwall Vertical above Approach Slab Seal Phase 1		
A555	5	31	16' - 1"	129	1'-8"	7'-2"				Backwall Vertical, Phase 2		
<b>4556</b>	5	28	6' - 8''	119	3'-2"	3'-6"	2'-6"			Approach Slab, Phase 2		
<b>4</b> 557	5	24	11' - 6"	114	5'-5"	0'-0"	3'-11"	6'-1"		Backwall to WW Corner, Phase 2		
1.000		44	401 511	OTD						Faction Longitudinal Dhaga 4. Tan		
A600	6	41	12' - 5"	STR						Footing Longitudinal, Phase 1, Top		
\601 \602	6	1 1	11' - 6"	STR						Footing Longitudinal, Phase 1, Top		
\602 \603	6	1 1	10' - 4" 9' - 2"	STR						Footing Longitudinal, Phase 1, Top Footing Longitudinal, Phase 1, Top		
	6	1	9' - 2" 8' - 0"	STR STR								
A604	1	1		-						Footing Longitudinal, Phase 1, Top		
A605 A606	6	1	6' - 10'' 5' - 8''	STR STR						Footing Longitudinal, Phase 1, Top  Footing Longitudinal, Phase 1, Top		
4606 4607	6	1	<u>3 - 6</u> 4' - 6''	STR						Footing Longitudinal, Phase 1, Top		
4608	6	1	3' - 4"	STR						Footing Longitudinal, Phase 1, Top		
4609	6	1	2' - 2"	STR						Footing Longitudinal, Phase 1, Top		
4610	6	1	16' - 4"	STR						Footing Longitudinal, Phase 1, Construction Joint, Top		
<del>3610</del> 3611	6	28	49' - 5"	STR						Footing Transverse, Phase 1, Top and Bottom		
4612	6	28	3' - 8"	STR						Footing Transverse, Phase 1, Top and Bottom Coupler		
4613	6	23	12' - 5"	STR						Longitudinal, Phase 2, Top		
A614	6	1	11' - 11"	STR						Footing Longitudinal, Phase 2, Top		
A615	6	1	10' - 9"	STR						Footing Longitudinal, Phase 2, Top		
A616	6	1	9' - 7''	STR						Footing Longitudinal, Phase 2, Top		
A617	6	1	8' - 5"	STR						Footing Longitudinal, Phase 2, Top		
A618	6	1	7' - 3"	STR						Footing Longitudinal, Phase 2, Top		
A619	6	1	6' - 1"	STR						Footing Longitudinal, Phase 2, Top		
A620	6	1	4' - 11"	STR						Footing Longitudinal, Phase 2, Top		
A621	6	1	3' - 9"	STR						Footing Longitudinal, Phase 2, Top		
A622	6	1	2' - 7"	STR						Footing Longitudinal, Phase 2, Top		
A623	6	1	16' - 4"	STR						Footing Longitudinal, Phase 2, Construction Joint, Top		
A624	6	1	11' - 10"	STR						Footing Longitudinal, Phase 2, Top		
A625	6	1	10' - 8"	STR						Footing Longitudinal, Phase 2, Top		
A626	6	1	9' - 6''	STR						Footing Longitudinal, Phase 2, Top		
A627	6	1	8' - 4"	STR						Footing Longitudinal, Phase 2, Top		
A628	6	1	7' - 2"	STR						Footing Longitudinal, Phase 2, Top		
A629	6	1	6' - 0''	STR						Footing Longitudinal, Phase 2, Top		
A630	6	1	4' - 10"	STR						Footing Longitudinal, Phase 2, Top		
A631	6	28	28' - 7''	STR						Footing Transverse, Phase 2, Top and Bottom		
A632	6	28	3' - 8"	STR						Footing Transverse, Phase 2, Top and Bottom Coupler		
A633	6	21	45' - 0''	STR						Transverse Stem Wall, Phase 1		
A634	6	21	4' - 11"	STR						Transverse Stem Wall, Phase 1, Coupler		
4635	6	21	28' - 8"	STR						Transverse Stem Wall, Phase 2		
A636	6	21	4' - 11"	STR						Transverse Stem Wall, Phase 2, Coupler		
<b>\</b> 650	6	96	8' - 5"	118	7'-5"	1'-0"				Footing to Stem Wall Dowel, Phase 1		
4650 4651	6	60	10' - 6"	118	9'-6"	1'-0"				Footing to Stem Wall Dowel, Phase 1  Footing to Stem Wall Dowel, Phase 2		
4651 4652	6	44	14' - 4"	106	4'-1"	4'-4"	5'-11"	5'-11"		Stem Wall Stirrup, Phase 1		
4652 4653	6	6	10' - 0"	118	4'-1"	5'-11"	J-11	J-11		Seat Vertical, Phase 1, Construction Joint		
4654	6	24	17' - 3"	103	6'-10"	10'-5"	6'-9"	0'-0"		Seat Vertical, Friase 1, Construction John Seat Obtuse Corner, Phase 1		
4655	6	26	18' - 6"	106	6'-2"	6'-5"	5'-11"	5'-11"	Stem Wall Stirrup, Phase 2			
4656	6	6	12' - 1"	118	6'-2"	5'-11"	J-11	J-11	Vertical Seat, Phase 2, Construction Joint			
4657	6	24	17' - 3"	114	6'-10"	0'-0"	6'-9"	10'-5"	Seat Acute Corner Bar, Phase 2			
4658	6	63	9' - 4"	129	2'-10"	3'-3"	0-9	10-0		Pedestal Reinforcement		
4659	6	63	9' - 1"	129	2'-7"	3'-3"				Pedestal Reinforcement		





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# THE GOLD STAR MEMORIAL HIGHWAY

BRIDGE REPLACEMENT CUMMINGS ROAD UNDERPASS

REINFORCING STEEL SCHEDULE I

CONTRACT:2018.19

SHEET NUMBER: S-50 @SHEET@OF135

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

Page 14 of 19

MARK	SIZE	NO.	LENGTH	TYPE	Α	В	С	D	E	REMARKS
ABUTMEN	NT NO. 1	I								
A700	7	54	12' - 5''	STR						Footing Longitudinal, Phase 1, Bottom
A701	7	1	11' - 6''	STR						Footing Longitudinal, Phase 1, Bottom
4702	7	1	10' - 7''	STR						Footing Longitudinal, Phase 1, Bottom
A703	7	1	9' - 9''	STR						Footing Longitudinal, Phase 1, Bottom
A704	7	1	8' - 10"	STR						Footing Longitudinal, Phase 1, Bottom
A705	7	1	8' - 0"	STR						Footing Longitudinal, Phase 1, Bottom
A706	7	1	7' - 1"	STR						Footing Longitudinal, Phase 1, Bottom
A707	7	1	6' - 3''	STR						Footing Longitudinal, Phase 1, Bottom
4708	7	1	5' - 4"	STR						Footing Longitudinal, Phase 1, Bottom
4709	7	1	4' - 6''	STR						Footing Longitudinal, Phase 1, Bottom
4710	7	<u>-</u>	3' - 7"	STR						Footing Longitudinal, Phase 1, Bottom
4711	7	<u>'</u>	2' - 9"	STR						Footing Longitudinal, Phase 1, Bottom
4712	7	<del>'</del>	1' - 10"	STR						Footing Longitudinal, Phase 1, Bottom
4713	7	30	12' - 5"	STR						Footing Longitudinal, Phase 2, Bottom
	7	<u> 30</u> 1								
4714 471 <i>5</i>	7	1	11' - 11"	STR						Footing Longitudinal, Phase 2, Bottom
4715 4716	7	1	11' - 0"	STR						Footing Longitudinal, Phase 2, Bottom
A716	<del>'</del>	1	10' - 2"	STR						Footing Longitudinal, Phase 2, Bottom
<u>4717</u>	7	<u>1</u>	9' - 3"	STR						Footing Longitudinal, Phase 2, Bottom
A718	7	1	8' - 5"	STR						Footing Longitudinal, Phase 2, Bottom
A719	7	1	7' - 6"	STR						Footing Longitudinal, Phase 2, Bottom
A720	7	1	6' - 8''	STR						Footing Longitudinal, Phase 2, Bottom
A721	7	1	5' - 9"	STR						Footing Longitudinal, Phase 2, Bottom
A722	7	1	4' - 11"	STR						Footing Longitudinal, Phase 2, Bottom
A723	7	1	4' - 0''	STR						Footing Longitudinal, Phase 2, Bottom
A724	7	1	3' - 2"	STR						Footing Longitudinal, Phase 2, Bottom
A725	7	1	2' - 3"	STR						Footing Longitudinal, Phase 2, Bottom
A726	7	1	11' - 10''	STR						Footing Longitudinal, Phase 2, Bottom
A727	7	1	10' - 11"	STR						Footing Longitudinal, Phase 2, Bottom
A728	7	1	10' - 1"	STR						Footing Longitudinal, Phase 2, Bottom
A729	7	1	9' - 2"	STR						Footing Longitudinal, Phase 2, Bottom
A730	7	1	8' - 4"	STR						Footing Longitudinal, Phase 2, Bottom
A731	7	1	7' - 5"	STR						Footing Longitudinal, Phase 2, Bottom
A732	7	<del>.</del>	6' - 7''	STR						Footing Longitudinal, Phase 2, Bottom
A733	7	1	5' - 8"	STR						Footing Longitudinal, Phase 2, Bottom
A734	7	1	4' - 10"	STR						Footing Longitudinal, Phase 2, Bottom
A735	7	<del>'</del>	16' - 4"	STR						Footing Longitudinal, Phase 1, Construction Joint Bottom
A736	7	<u>'</u>	16' - 4"	STR						Footing Longitudinal, Phase 2, Construction Joint Bottom
A/ 30	'	<u>'</u>	10 - 4	311						1 ooting Longitudinal, 1 hase 2, construction contribution
A850	8	3	3' - 0"	118	1'-6"	1'-6"				Pile Anchorage, Phase 1
A851	8	3	3' - 0"	118	1'-6"	1'-6"				Pile Anchorage, Phase 2
<u> </u>	+		3 - 0	110	1-0	1-0				The Allehorage, Thase 2
1W500	5	19	9' - 1"	STR						Wingwall 1, Near Face
1W501	5	22	16' - 11"	STR						Wingwall 1, Horizontal
10001			10 - 11	JIK						vvirigwaii 1, 1 lonzontai
4) 1/5 50	-	0.4	71 401	440	71.01	01.401				Minaryall 4 Noor Food
1W550	5	24	7' - 10"	118	7'-0"	0'-10"				Wingwall 1, Near Face
1W551	5	19	3' - 2"	129	1'-2"	1'-0"				Wingwall 1, Bottom of End Post
1W552	5	11	3' - 2"	129	1'-2"	1'-0"				Wingwall 1, Horizontal End
1W553	5	8	18' - 1"	129	17'-1"	0'-6"				Wingwall 1, Horizontal End Post
1W554	5	2	16' - 0''	119	13'-2"	2'-10"	2'-8"			Wingwall 1, Top of End Post Horizontal
1W555	5	2	8' - 2''	118	3'-6"	4'-8"				Wingwall 1, Outside Face Corner Bar
1W600	6	76	11' - 2"	STR						Wingwall 1, Longitudinal Footing Top and Bottom
1W601	6	26	24' - 2"	STR						Wingwall 1, Transverse Footing, Top and Bottom
1W634	6	72	7' - 3''	STR						Wingwall 1, End Post Vertical
1W651	6	36	3' - 4"	129	0'-6"	1'-5"				Wingwall 1, End Post Top Stirrup
1W700	7	36	9' - 7''	STR						Wingwall 1, Far Face
1W750	7	46	8' - 2"	118	7'-0"	1'-2"				Wingwall 1, Far Face
2W500	5	18	9' - 0''	STR						Wingwall 2, Vertical
2W501	5	32	15' - 4"	STR						Wingwall 2, Horizontal
_,,	+	<u> </u>		5110						Tingwan 2, Honzonta
2W550	5	24	10' - 5"	110	9'-7"	0'-10"	<u> </u>			Mingwall 2 Footing Vertical
	+ +			118	1					Wingwall 2, Footing Vertical
2W551	5	18	3' - 2"	129	1'-2"	1'-0"				Wingwall 2, Bottom of End Post
2W552	5	16	3' - 2"	129	1'-2"	1'-0"				Wingwall 2, Horizontal End Stirrup
2W553	5	8	16' - 4''	129	15'-4"	0'-6"				Wingwall 2, Horizontal End Post
2W554	5	2	11' - 9"	119	8'-11"	2'-10"	2'-8"			Wingwall 2, Top Face Horizontal
		2	8' - 2''	118	3'-6"	4'-8"	ı			Wingwall 2, Outside Face Corner Bar

MARK	SIZE	NO.	LENGTH	TYPE	Α	В	С	D	E	REMARKS					
ABUTMEN															
2W600	6	47	16' - 3"	STR						Wingwall 2, Longitudinal, Top and Bottom					
2W601	6	1	15' - 8"	STR						Wingwall 2, Longitudinal, Top					
2W602	6	1	14' - 6''	STR						Wingwall 2, Longitudinal, Top					
2W603	6	1	13' - 4"	STR						Wingwall 2, Longitudinal, Top					
2W604	6	1	12' - 2"	STR						Wingwall 2, Longitudinal, Top					
2W605	6	1	11' - 0"	STR						Wingwall 2, Longitudinal, Top					
2W606	6 6	1	9' - 10" 8' - 8"	STR STR						Wingwall 2, Longitudinal, Top Wingwall 2, Longitudinal, Top					
2W607 2W608	6	1	8' - 8'' 7' - 6''	STR						Wingwall 2, Longitudinal, Top					
2W609	6	1	5' - 2"	STR						Wingwall 2, Longitudinal, Top					
2W610	6	1	15' - 8"	STR						Wingwall 2, Longitudinal, Bottom					
2W611	6	1	15' - 1"	STR						Wingwall 2, Longitudinal, Bottom					
2W612	6	1	14' - 6''	STR						Wingwall 2, Longitudinal, Bottom					
2W613	6	1	13' - 11"	STR						Wingwall 2, Longitudinal, Bottom					
2W614	6	1	13' - 4"	STR						Wingwall 2, Longitudinal, Bottom					
2W615	6	1	12' - 9"	STR						Wingwall 2, Longitudinal, Bottom					
2W616 2W617	6 6	1	12' - 2" 11' - 7"	STR STR						Wingwall 2, Longitudinal, Bottom Wingwall 2, Longitudinal, Bottom					
2W618	6	1	11' - 0"	STR						Wingwall 2, Longitudinal, Bottom					
2W619	6	1	10' - 5"	STR						Wingwall 2, Longitudinal, Bottom					
2W620	6	1	9' - 10''	STR						Wingwall 2, Longitudinal, Bottom					
2W621	6	1	9' - 3"	STR						Wingwall 2, Longitudinal, Bottom					
2W622	6	1	8' - 8''	STR						Wingwall 2, Longitudinal, Bottom					
2W623	6	1	8' - 1"	STR						Wingwall 2, Longitudinal, Bottom					
2W624	6	1	6' - 11"	STR						Wingwall 2, Longitudinal, Bottom					
2W625	6	1	5' - 9" 4' - 7"	STR						Wingwall 2, Longitudinal, Bottom					
2W626 2W627	6 6	32	16' - 4"	STR STR						Wingwall 2, Longitudinal, Bottom Wingwall 2, Transverse, Top and Bottom					
2W634	6	68	7' - 4"	STR						Wingwall 2, End Post Vertical					
20001		- 00	, ,	OTIX						vviligivali 2, Elia i cot voltical					
2W650	6	2	15' - 9"	119	4'-8'	11'-1"	7'-3"			Wingwall 2/ Footing Horizontal Intersection Bar					
2W651	6	34	3' - 4"	129	0'-6"	1'-5"				Wingwall 2, Top of End Post					
2W700	7	46	10' - 7''	STR						Wingwall 2, Vertical Wall					
2)1/750	7	46	10' - 9''	118	9'-7"	1'-2"				Wingwall 2, Footing to Wall					
2W750	/	40	10' - 9''	110	9-1	1-2				vvirigwali 2, i ooting to vvali					
ABUTMEN	T NO. 2	2													
B500	5	_12	45' - 4''	STR						Backwall Horizontal, Phase 1					
B501 /	5	20	3' - 6"	STR						Backwall, Phase 1 Coupler					
B502 / /	5	12	28' - 8"	STR						Backwall, Phase 2					
B503	5	20	3' - 6"	STR						Backwall, Phase 2 Coupler					
B504	5 5	4	41' - 1" 32' - 2"	STR						Header Horizontal, Phase 1					
B505	5	4	32' - 2"	STR						Header Horizontal, Phase 2					
B550	5	48	16' - 6''	129	1'-8"	7'-5"				Backwall Vertical, Phase 1					
B551	5	48	7' - 11"	106	3'-4"	3'-5"	1'-2"	1'-2"		Backwall Vertical, Above Approach Slab Seal					
B552	5	45	6' - 8''	119	3'-2"	3'-6"	2'-6"			Approach Slab, Phase 1					
B553	5	24	9' - 6''	114	3'-5"	0'-0"	4'-0"	6'-1"		Backwall to Wingwall Corner, Phase 1					
B554	5	31	16' - 6''	129	1'-8"	7'-5"				Backwall Vertical, Phase 2					
B555	5	31	7' - 11"	106	3'-4"	3'-5"	1'-2"	1-2"		Backwall Vertical above Approach Slab Seal Phase 2					
B556 B557	5 5	29 24	6' - 8" 9' - 6"	119 103	3'-2" 3'-5"	3'-6" 6'-1"	2'-6" 4'-0"	0'-0"		Approach Slab, Phase 2 Backwall to Wingwall Corner, Phase 2					
D331	5	24	9 - 0	103	3-0	0-1	4-0	0-0		Backwall to Willigwall Cornel, Pliase 2					
B600	6	40	12' - 5''	STR						Footing Longitudinal, Phase 1, Top					
B601	6	_ 1	11' - 6"	STR						Footing Longitudinal, Phase 1, Top					
B602	6	1	10' - 4''	STR						Footing Longitudinal, Phase 1, Top					
B603	6	1	9' - 2"	STR						Footing Longitudinal, Phase 1, Top					
B604	6	1	8' - 0''	STR						Footing Longitudinal, Phase 1, Top					
B605	6	1	6' - 10"	STR						Footing Longitudinal, Phase 1, Top					
B606 B607	6 6	1	5' - 8" 4' - 6"	STR STR					+	Footing Longitudinal, Phase 1, Top  Footing Longitudinal, Phase 1, Top					
B607 B608	6	1	3' - 4"	STR						Footing Longitudinal, Phase 1, Top  Footing Longitudinal, Phase 1, Top					
B609	6	1	2' - 2"	STR					Footing Longitudinal, Phase 1, Top  Footing Longitudinal, Phase 1, Top						
B610	6	1	16' - 4''	STR					Footing Longitudinal, Phase 1 Construction Joint, Top						
B611	6	_ 1	11' - 10"	STR					Footing Longitudinal, Phase 1, Top						
B612	6	1_	10' - 8''	STR					Footing Longitudinal, Phase 1, Top						
B613	6	1	9' - 6''	STR				Footing Longitudinal, Phase 1, Top							
B614	6	1	8' - 4''	STR						Footing Longitudinal, Phase 1, Top					
B615	6	1	7' - 2''	STR						Footing Longitudinal, Phase 1, Top					

CONTRACT:2018.19

g St	<b>O O G</b> .	e:			Designed by	<b>':</b>				
.Reinforcing							HN	ITB		
-Re	No.	Revision	Ву	Date						
126_	1	REVISED QUANTITIES	JKO	10/18						
					CONSULTANT	PROJEC	T MANAGER:	Tim Cote, P.E.		
Filename:						Ву	Date		Ву	Date
end					Designed	JSM	08\18	Checked	NMW	08\18
Ē					Drawn	PEB	08\18	In Charge of	RAL	08\18

HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909



THE GOLD STAR MEMORIAL HIGHWAY

BRIDGE REPLACEMENT CUMMINGS ROAD UNDERPASS

REINFORCING STEEL SCHEDULE II

SHEET NUMBER: S-51

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

February   France	MARK	SIZE	NO.	LENGTH	TYPE	A	В	С	D	E	REMARKS
Food   Company   Food	ABUTMEN	T NO.				A	Ь	C		<u> </u>	
Belle   6   28   48   61   STR		<u> </u>	1		+						
Section   Sect			28		+						
		_			+						
			23		+						<u> </u>
February   February			1		+						
Section   Fooding Long Butterly Phase 2, Top		6	1								Footing Longitudinal, Phase 2, Top
BSG2		<b>—</b>	1		+						
B622			1		+						
Bess			1		+						
BESSI   8   1   16"   4"   STR		<b>-</b>	1								Footing Longitudinal, Phase 2, Top
Best		<b>-</b>	1		+						
Section   Sect			28		+						
B655   6   22   24   11"   STR   Transverse Stem Wall, Phase 2   December		<del>                                     </del>									
Boss		<u> </u>			+						,
Best					_						·
Besso											· · · · · · · · · · · · · · · · · · ·
Best						01.011	41.00				
B652   6   43   18  - 0"   106   511   512   511   5					+						·
Be53   6   6   11'   8'   118   6-11'   5-9'					+			5'-11"	5'-11"		<u> </u>
6555   6   27   15   6"   106   4-3°   4-11"   5-11"   5-11"   Stem Wall String, Phase 2		6			118	5-'11"	5'-9"				
Best   6   6   6   10"   5"   118   4-8"   5-9"					+	<del>                                     </del>					·
B658   6   27   15   - 3"   103   4-10"   10-5"   6-3"   9-40"   Seat Obtuse Corner, Phase 2   9658   6   63   9" - 1"   129   2-7"   3-3"   Pedestal Reinforcement   9700   7   53   12"   5"   STR   Footing Longitudinal, Phase 1   10"   1								5'-11"	5'-11"		•
Be59   6   63   9' - 1"   129   2-7"   3-3"   Pedestal Reinforcement		<b>—</b>			+			6'-9"	0'-0"		·
Property   Property		<del>-</del>			+	-					
Footing Longitudinal, Phase 1, Bottom	B659	6	63	9' - 1''	129	2'-7"	3'-3"				Pedestal Reinforcement
Footing Longitudinal, Phase 1, Bottom	B700	7	53	12' - 5"	STR						Footing Longitudinal, Phase 1
Protect   Prot		7	1		+						
B704		<u>'</u>	1		<b>-</b>						· · · · · · · · · · · · · · · · · · ·
B705		7	1		+						· · · · · · · · · · · · · · · · · · ·
B706		7	1								<u> </u>
B708		<u>'</u>	1		+						
B709		7	1		_						<u> </u>
B710		7	1		+						
B712		7	1		+						
B713		<u>'</u>	1		+						
Forting Longitudinal, Phase 1, Bottom		<u>'</u>	1		_						
B715   7		7	1		_						
B717   7	B715	7	1	10' - 11"							Footing Longitudinal, Phase 1, Bottom
B718   7		7	1								
B719		7	1		_						
B721		7	1								
B722		7	1								
B723		7	1								
B724		<u>'</u>	30		_						
B726	B724	7	1								Footing Longitudinal, Phase 2, Bottom
B727   7			1								* * *
B728   7		7	1								
B730		7	1		_						
B731   7   1   5' - 9"   STR     Footing Longitudinal, Phase 2, Bottom		7	1		_						
B732		7	1		+						
B733			1		+						· · ·
B735   7   1   2' - 3"   STR   Footing Longitudinal, Phase 2, Bottom   Footing Longitudinal, Phase 2 Construction Joint, Bottom   Footing Longidinal, Phase 2 Construction Joint, Bottom   B850   8   3   3' - 0"   118   1'-6"   1'-6"   Pile Anchorage, Phase 1   Pile Anchorage, Phase 2   SW500   5   20   9' - 0"   STR   Wingwall 3, Vertical	B733	7	1	4' - 0''	STR						Footing Longitudinal, Phase 2, Bottom
B736   7   1   16' - 4"   STR   Footing Longiudinal, Phase 2 Construction Joint, Bottom		<u>'</u>	1								
B850 8 3 3' - 0" 118 1'-6" 1'-6" Pile Anchorage, Phase 1 B851 8 3 3' - 0" 118 1'-6" 1'-6" Pile Anchorage, Phase 2  3W500 5 20 9' - 0" STR Wingwall 3, Vertical			1		+						
B851 8 3 3' - 0" 118 1'-6" 1'-6" Pile Anchorage, Phase 2  3W500 5 20 9' - 0" STR Wingwall 3, Vertical						41.5"	41.5				
3W500 5 20 9' - 0" STR Wingwall 3, Vertical					_						
V '	5501										
3W501   5   32   17'  -  4"   STR                 Wingwall 3, Horizontal											
	3VV501	5	32	1/'  -  4"	STR				<u> </u>		VVingwall 3, Horizontal

MARK	SIZE	NO.	LENGTH	TYPE	Α	В	С	D	E	REMARKS
ABUTMEN	IT NO.	2								
3W550	5	26	11' - 0''	118	10'-2"	0'-10"				Wingwall 3, Footing Vertical
3W551	5	20	3' - 2"	129	1'-2"	1'-0"				Wingwall 3, Bottom of End Post
3W552	5	16	3' - 2"	129	1'-0"	1'-2"				Wingwall 3, Horizontal End Stirrup
3W553	5	8	18' - 4''	129	17'-4"	0'-6"				Wingwall 3, Horizontal End Post
3W554	5	2	13' - 9"	119	10'-11"	2'-10"	2'-8"			Wingwall 3, Top Face Horizontal
3W555	5	2	8' - 2"	118	3'-6"	4'-8"				Wingwall 3, Edge Vertical
										<u> </u>
3W600	6	47	18' - 8"	STR						Wingwall 3, Longitudinal, Top and Bottom
3W601	6	1	18' - 1"	STR						Wingwall 3, Longitudinal, Top
3W602	6	1	16' - 11"	STR						Wingwall 3, Longitudinal, Top
3W603	6	1	15' - 9"	STR						Wingwall 3, Longitudinal, Top
3W604	6	1	14' - 7"	STR						Wingwall 3, Longitudinal, Top
3W605	6	1	13' - 5"	STR						Wingwall 3, Longitudinal, Top
3W606	6	1	12' - 3"	STR						Wingwall 3, Longitudinal, Top
3W607	6	1	11' - 1"	STR						Wingwall 3, Longitudinal, Top
3W608	6	1	9' - 11"	STR						Wingwall 3, Longitudinal, Top
3W609	6	1	8' - 9"	STR						Wingwall 3, Longitudinal, Top
3W610	6	1	7' - 7''	STR						Wingwall 3, Longitudinal, Top
3W611	6	1	5' 9"	STR						Wingwall 3, Longitudinal, Top
3W612	6	1	18' - 1"	STR						Wingwall 3, Longitudinal, Bottom
3W613	6	1	17' - 6''	STR						Wingwall 3, Longitudinal, Bottom
3W614	6	1	16' - 11"	STR						Wingwall 3, Longitudinal, Bottom
3W615	6	1	16' - 4"	STR						Wingwall 3, Longitudinal, Bottom
3W616	6	1	15' - 9''	STR						Wingwall 3, Longitudinal, Bottom
3W617	6	1	15' - 2"	STR					1	Wingwall 3, Longitudinal, Bottom
3W618	6	1	14' - 7''	STR					1	Wingwall 3, Longitudinal, Bottom
3W619	6	1	14' - 0''	STR						Wingwall 3, Longitudinal, Bottom
3W620	6	1	13' - 5"	STR						Wingwall 3, Longitudinal, Bottom
3W621	6	1	12' - 10"	STR						Wingwall 3, Longitudinal, Bottom
3W622	6	1	12' - 3"	STR						Wingwall 3, Longitudinal, Bottom
3W623	6	1	11' - 8"	STR						Wingwall 3, Longitudinal, Bottom
3W624	6	1	11' - 1"	STR						Wingwall 3, Longitudinal, Bottom
3W625	6	1	10' - 6"	STR						Wingwall 3, Longitudinal, Bottom
3W626	6	1	9' - 11"	STR						Wingwall 3, Longitudinal, Bottom
3W627	6	1	9' - 4"	STR						Wingwall 3, Longitudinal, Bottom
3W628	6	1	8' - 9"	STR						Wingwall 3, Longitudinal, Bottom
3W629	6	1	8' - 2"	STR						Wingwall 3, Longitudinal, Bottom
3W630	6	1	7' - 7"	STR						Wingwall 3, Longitudinal, Bottom
3W631	6	1	6' - 10''	STR						Wingwall 3, Longitudinal, Bottom
3W632	6	1	5' - 9"	STR						Wingwall 3, Longitudinal, Bottom
3W633	6	32	16' - 5"	STR						Wingwall 3, Transverse, Top and Bottom
3W634	6	76	8' - 1"	STR					1	Wingwall 3, End Post Vertical
00001		10		0111						villigitali o, Elia i oct vertical
3W650	6	2	17' - 8''	119	4'-8"	13'-0"	9'-10"			Wingwall 3/Footing Horizontal Intersection Bar
3W651	6	38	3' - 4"	129	0'-6"	1'-5"	3 10			Wingwall 3, Top of End Post
377031		30	3 - 4	123	0-0	1-5				vvilig wall o, Top of Elia i oot
3W700	7	38	10' - 8"	STR					1	Wingwall 3, Vertical Wall
377700	<b>'</b>	30	10 - 0	311					1	vviligivali o, vertical vvali
3W750	7	50	11' - 4"	118	10'-2"	1'-2"				Wingwall 3, Footing to Wall
344730	<b>'</b>	30	111 - 4	110	10-2	1-2			1	vvingwall 5, 1 cotting to vvali
4W500	5	21	9' - 2"	STR						Wingwall 4, Near Face
4W501	5	26	19' - 1"	STR					1	Wingwall 4, Horizontal
40001	3	20	19 - 1	SIK						VIIIgwall 4, Honzontal
4W550	5	26	8' - 6"	118	7'-8"	0'-10"				Wingwall 4, Near Face Wingwall
4W551	5	21	3' - 2"	118	1'-0	1'-0"				Wingwall 4, Near Face Wingwall  Wingwall 4, Bottom of End Post
4W552	5	13	3' - 2"	118	1'-2"	1'-0"				
		1	20' - 1"		19'-1"	0'-6"				Wingwall 4, Horizontal End Wingwall 4, Horizontal End Post
4W553	5	8		129	+		01.01			<u> </u>
4W554	5	2	18' - 0''	119	15'-2"	2'-10"	2'-8"			Wingwall 4, Top of End Post Horizontal
4W555	5	2	8' - 2''	118	3'-6"	4'-8"	-	1		Wingwall 4, Outside Face Corner Bar
4)4/000	_		441 0"	075			-			Mineral A. Length direct Feeting. Ten and Pattern
4W600	6	82	11' - 2"	STR	-		-			Wingwall 4, Longitudinal Footing, Top and Bottom
4W601	6	26	26' - 2"	STR			-			Wingwall 4, Transverse Footing, Top and Bottom
4W634	6	80	7' - 5''	STR						Wingwall 4, End Post Vertical
41.55=	_			1				1		
4W651	6	40	3' - 4"	129	0'-6"	1'-5"				Wingwall 4, End Post Top Stirrup
				_						
4W700	7	40	10' - 4''	STR						Wingwall 4, Far Face
	_									
4W750	7	50	8' - 10''	118	7'-8"	1'-2"				Wingwall 4, Far Face Wingwall

CONTRACT:2018.19

Scale: Designed by: HNTB By Date Revision CONSULTANT PROJECT MANAGER: Tim Cote, P.E. By Date

JSM 08\18

PEB 08\18 By Date NMW 08\18 Checked Designed In Charge of RAL

HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909



THE GOLD STAR MEMORIAL HIGHWAY

BRIDGE REPLACEMENT CUMMINGS ROAD UNDERPASS

REINFORCING STEEL SCHEDULE III

SHEET NUMBER: S-52

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

MARK	SIZE	NO.	LENGTH	TYPE	A	В	С	D	E	REMARKS			
PIER 1	JIZL	140.	LLINGIII	1116					<b>–</b>	KEMAKKO			
	<b>F</b> /	<b>F</b> 0	3' - 2"	CTD						Dhood 1 Langitudinal Llaga Cauples			
1P500 /	5 (	50		STR						Phase 1, Longitudinal Hoop Coupler			
1P501 / /	5	50	) 3' - 2"	STR						Phase 2, Longitudinal Hoop Coupler			
1P550	5	872	3' - 8 1/2"	135	0'-6"	2'-9"	0'-5 1/2"	0'-3 3/4"		Phase 1, Tie Hooks			
1P551 /\	5 (	78	0 40 - 11"	132	2'-9"	18'-3"	0'-10"			Phase 1, Longitudinal Hoop			
1P552 /	5	568	3' - 8 1/2"	135	0'-6"	2'-9"	0'-5 1/2"	0'-3 3/4"		Phase 2, Tie Hooks			
1P553	5 (	78	) 29' - 11"	132	2'-9"	12'-9"	0'-10"	0 0 0 1		Phase 2, Longitudinal Hoop			
	+ \	5	+/		1	<b>.</b>	0-10						
1P554	5	+		129	3'-6"	2'-11"				Phase 1, Horizontal Cap Top End			
1P555	5	5	9' - 4''	129	3'-6"	2'-11"				Phase 2, Horizontal Cap Top End			
1P600	6	37	11' - 6"	STR						Phase 1, Footing Transverse, Top			
1P601	6	26	35' - 7"	STR						Phase 1, Footing Longitudinal, Top and Bottom			
1P602	6	26	3' - 7"	STR						Phase 1, Footing Longitudinal Coupler, Top and Bottom			
1P603	6	25	11' - 6"	STR						Phase 2, Footing Transverse, Top			
	+	+		+									
1P604	6	26	23' - 4"	STR						Phase 2, Longitudinal, Top and Bottom			
1P605	6	26	3' - 7"	STR						Phase 2, Longitudinal Coupler, Top and Bottom			
1P606	6	8	41' - 3"	STR						Phase 1, Longitudinal Cap			
1P607	6	4	27' - 4"	STR						Phase 1, Longitudinal, Top Cap			
1P608	6	4	10' - 9"	STR						Phase 1, Longitudinal Cap Seat			
1P609	6	20	41 70	STR	<u> </u>		<u> </u>			Phase 1, Longitudinal Coupler Cap			
	_	+		+	-		+						
1P610	6	2	21' - 10"	STR	-		-			Phase 2, Longitudinal Cap Bottom			
1P611	6	2	25' - 4"	STR						Phase 2, Longitudinal Cap Mid			
1P612	6	8	30' - 0"	STR						Phase 2, Longitudinal Cap			
1P613	6	4	16' - 1"	STR						Phase 2, Longitudinal Cap Top			
1P614	6	4	10' - 9"	STR						Phase 2, Longitudinal Cap Seat			
1P615	6	20	4' - 7"	STR						Phase 2, Longitudinal Coupler Cap			
	_			+									
1P616	6	2	36' - 8"	STR						Phase 1, Longitudinal Cap Mid			
1P617	6	2	33' - 1"	STR						Phase 1, Longitudinal Cap Bottom			
1P650	6	112	8' - 10"	129	2'-10"	3'-0"				Phase 1, Cap Hammer Vertical			
1P651	6	33	15' - 6"	132	3'-6"	5'-0"	1'-0"			Phase 1, Cap Bottom Vertical			
1P652	6	33	7' - 1"	129	3'-6"	1'-9 1/2"				Phase 1, Cap Top Vertical			
1P653	6	7	15' - 8"	105	4'-4"	8'-1"	1'-3"	3'-3"		Phase 1, Cap Hammer Underside			
	6	112	8' - 10"	129	2'-10"	3'-0"	1-0	3-3					
1P654	+	+		+	+		41.01			Phase 2, Cap Hammer Vertical			
1P655	6	22	15' - 6"	132	3'-6"	5'-0"	1'-0"			Phase 2, Cap Bottom Vertical			
1P656	6	32	7' - 1''	129	3'-6"	1'-9 1/2"				Phase 2, Cap Top Vertical			
1P657	6	7	15' - 8"	105	4'-4"	8'-1"	1'-3"	3'-3"		Phase 2, Cap Hammer Underside			
										•			
1P950	9	55	14' - 8"	129	11'-6"	1'-7"				Phase 1, Footing Transverse, Bottom			
1P951	9	37	14' - 8"	129	11'-6"	1'-7"				Phase 2, Footing Transverse, Bottom			
11 301	<del>                                     </del>	01	14 0	120	11.0	1 -7				T hade 2, I deting transverse, Bettern			
4D4000	10	100	001 511	OTD						Dhana A. Fanting Martinal Otana			
1P1000	10	139	20' - 5"	STR						Phase 1, Footing Vertical Stem			
1P1001	10	95	20' - 5"	STR						Phase 2, Footing Vertical Stem			
1P1050	10	139	11' - 7"	118	9'-9"	1'-10"				Phase 1, Footing Vertical Leg			
1P1051	10	95	11' - 7"	118	9'-9"	1-10"				Phase 2, Footing Vertical Leg			
	''	"		1		1							
1P1150	11	14	23' - 4"	118	21'-4"	2'-0"				Phase 1, Cap End Longitudinal, Top			
	+	+		+	+	<del> </del>				· · · · · · · · · · · · · · · · · · ·			
1P1151	11	14	23' - 4"	118	21'-4"	2'-0"				Phase 2, Cap End Longitudinal, Top			
PIER 2													
2P500 /	5 (	50	3' - 2"	STR	<u></u>		<u></u>			Phase 1, Longitudinal Hoop Coupler			
2P501//	5	50	3' - 2"	STR						Phase 2, Longitudinal Hoop Coupler			
										· • · · · · · · · · · · · · · · · · · ·			
2P550	5	872	3' - 8 1/2"	135	0'-6"	2'-9"	0'-5 1/2"	0'-3 3/4"		Phase 1, Tie Hooks			
		<del>1</del> /		+		<del> </del>	<del> </del>	0-00/ <del>1</del>		,			
2P551 \	5 (	78	40' - 11"	132	2'-9"	18'-3"	0'-10"	01.0.0		Phase 1, Longitudinal Hoop			
2P552//	5	568	3' - 8 1/2"		0'-6"	2'-9"	0'-5 1/2"	0'-3 3/4"		Phase 2, Tie Hooks			
2P553	5 (	78	29' - 11"	132	2'-9"	12'-9"	0'-10"			Phase 2, Longitudinal Hoop			
2P554	5	5		129	3'-6"	2'-11"				Phase 1, Horizontal Cap Top End			
2P555	5	5	9' - 4"	129	3'-6"	2'-11"				Phase 2, Horizontal Cap Top End			
						İ				· • • • • • • • • • • • • • • • • • • •			
2P600	6	37	11' - 6"	STR	1		<u> </u>			Phase 1, Footing Transverse, Top			
	6	26	35' - 7"	+			+			Phase 1, Footing Longitudinal, Top and Bottom			
2P601		+		STR	-		<del>                                     </del>						
2P602	6	26	3' - 7"	STR			1			Phase 1, Footing Longitudinal Coupler, Top and Bottom			
2P603	6	25	11' - 6"	STR						Phase 2, Footing Transverse, Top			
2P604	6	26	23' - 4"	STR	 L					Phase 2, Longitudinal, Top and Bottom			
2P605	6	26	3' - 7"	STR						Phase 2, Longitudinal Coupler, Top and Bottom			
2P606	6	8	41' - 3"	STR						Phase 1, Longitudinal Cap			
	+	+			1		+						
2P607	6	4	27' - 4"	STR	1		1			Phase 1, Longitudinal, Top Cap			
2P608	6	4	10' - 9"	STR	<u> </u>					Phase 1, Longitudinal Cap Seat			
2P609	6	20	4' - 7''	STR						Phase 1, Longitudinal Coupler Cap			
2P610	6	2	21' - 10''	STR						Phase 2, Longitudinal Cap Bottom			
-	•	•			•		•	-		· • • • • • • • • • • • • • • • • • • •			

MARK	SIZE	NO.	LENGTH	TYPE	A	В	С	D	E	REMARKS				
PIER 2														
2P611	6	2	25' - 4''	STR						Phase 2, Longitudinal Cap Mid				
2P612	6	8	30' - 0''	STR						Phase 2, Longitudinal Cap				
2P613	6	4	16' - 1"	STR						Phase 2, Longitudinal Cap Top				
2P614	6	4	10' - 9"	STR						Phase 2, Longitudinal Cap Seat				
2P615	6	20	4' - 7''	STR						Phase 2, Longitudinal Coupler Cap				
2P616	6	2	36' - 8''	STR						Phase 1, Longitudinal Cap Mid				
2P617	6	2	33' - 1"	STR						Phase 1, Longitudinal Cap Bottom				
2P650	6	112	8' - 10"	129	2'-10"	3'-0"				Phase 1, Cap Hammer Vertical				
2P651	6	33	15' - 6"	132	3'-6"	5'-0"	1'-0"			Phase 1, Cap Bottom Vertical				
2P652	6	33	7' - 1"	129	3'-6"	1'-9 1/2"	1 0			Phase 1, Cap Top Vertical				
2P653	6	7	15' - 8''	105	4'-4"	8'-1"	1'-3"	3'-3"		Phase 1, Cap Hammer Underside				
	6	<u>'</u>			<u> </u>	3'-0"	1-3	J-J						
2P654		112	8' - 10"	129	2'-10"		41.00			Phase 2, Cap Hammer Vertical				
2P655	6	22	15' - 6''	132	3'-6"	5'-0"	1'-0"			Phase 2, Cap Bottom Vertical				
2P656	6	32	7' - 1''	129	3'-6"	1'-9 1/2"				Phase 2, Cap Top Vertical				
2P657	6	7	15' - 8"	105	4'-4"	8'-1"	1'-3"	3'-3"		Phase 2, Cap Hammer Underside				
2P950	9	55	14' - 8''	129	11'-6"	1'-7"				Phase 1, Footing Transverse, Bottom				
2P951	9	37	14' - 8"	129	11'-6"	1'-7"				Phase 2, Footing Transverse, Bottom				
21 30 1	<u> </u>	01	14 0	120	110	1 /				That 2, Feeling Transverse, Bellett				
2P1000	10	139	20' - 5''	STR						Phase 1, Footing Vertical Stem				
2P1001	10	95	20' - 5"	STR						Phase 2, Footing Vertical Stem				
2P1050	10	139	11' - 7"	118	9'-9"	1'-10"				Phase 1, Footing Vertical Leg				
2P1051	10	95	11' - 7"	118	9'-9"	1-10"				Phase 2, Footing Vertical Leg				
2P1150	11	14	23' - 4"	118	21'-4"	2'-0"				Phase 1, Cap End Longitudinal, Top				
2P1151	11	14	23' - 4"	118	21'-4"	2'-0"				Phase 2, Cap End Longitudinal, Top				
SUPERST	DUCTI	IDE												
S4501	4	4550	3' - 7"	145	1'-10"	0'-6"	0'-4 1/2"			Haunch Stirrun				
34301	4	4550	3 - 7	143	1-10	0-0	0-4 1/2			Haunch Stirrup				
S5000		1500	201 211	CTD						Dock Transverse Beinfereing (Dhese 1) Full Length				
S5000	5	1588	30' - 3"	STR						Deck Transverse Reinforcing (Phase 1), Full Length				
S5001	5	30	14' - 2"	STR						Deck Transverse Reinforcing (Phase 1), (Sequence 1) Fascia Bay				
S5002	5	30	22' - 9''	STR						Deck Transverse Reinforcing (Phase 1), (Sequence 1) Middle Bay				
S5003	5	30	18' - 10''	STR						Deck Transverse Reinforcing (Phase 1), (Sequence 2) Lap with Fascia				
S5004	5	30	10' - 3''	STR						Deck Transverse Reinforcing (Phase 1), (Sequence 2) Lap with Mid Bay				
S5005	5	4	2' - 3"	STR						Deck Transverse (Phase 1) Ends				
S5006	5	4	2' - 10''	STR						Deck Transverse (Phase 1) Ends				
S5007	5	4	3' - 5''	STR						Deck Transverse (Phase 1) Ends				
S5008	5	4	4' - 0''	STR						Deck Transverse (Phase 1) Ends				
S5009	5	4	4' - 7''	STR						Deck Transverse (Phase 1) Ends				
S5010	5	4	5' - 2''	STR						Deck Transverse (Phase 1) Ends				
S5011	5	4	5' - 9''	STR						Deck Transverse (Phase 1) Ends				
S5012	5	4	6' - 4''	STR						Deck Transverse (Phase 1) Ends				
S5013	5	4	6' - 11"	STR						Deck Transverse (Phase 1) Ends				
S5014	5	4	7' - 6''	STR						Deck Transverse (Phase 1) Ends				
S5015	5	4	8' - 1"	STR						Deck Transverse (Phase 1) Ends				
S5016	5	4	8' - 8''	STR						Deck Transverse (Phase 1) Ends				
S5017	5	4	9' - 3"	STR						Deck Transverse (Phase 1) Ends				
S5018	5	4	9' - 10"	STR						Deck Transverse (Phase 1) Ends				
S5019	5	4	10' - 5"	STR						Deck Transverse (Phase 1) Ends				
S5020	5	4	11' - 0"	STR	1					Deck Transverse (Phase 1) Ends				
S5020	5	4	11' - 7"	STR	<del>                                     </del>					Deck Transverse (Phase 1) Ends				
S5021	5	4	12' - 2"	STR	1					Deck Transverse (Phase 1) Ends  Deck Transverse (Phase 1) Ends				
S5022	5	4	12' - 2''	STR	<del> </del>					Deck Transverse (Phase 1) Ends				
S5023 S5024	5	4	13' - 4"	STR	<del> </del>					Deck Transverse (Phase 1) Ends  Deck Transverse (Phase 1) Ends				
S5024 S5025	5	4		STR	1					Deck Transverse (Phase 1) Ends  Deck Transverse (Phase 1) Ends				
S5025 S5026	5	4	13' - 11" 14' - 6"	STR	1					Deck Transverse (Phase 1) Ends  Deck Transverse (Phase 1) Ends				
S5026 S5027	5	4	15' - 1"	STR						Deck Transverse (Phase 1) Ends  Deck Transverse (Phase 1) Ends				
S5027 S5028	5	4	15' - 8"	STR	<del> </del>					Deck Transverse (Phase 1) Ends  Deck Transverse (Phase 1) Ends				
S5029	5	4	16' - 3"	STR						Deck Transverse (Phase 1) Ends  Deck Transverse (Phase 1) Ends				
S5030	5	4	16' - 10"	STR						Deck Transverse (Phase 1) Ends				
S5031	5	4	17' - 5"	STR						Deck Transverse (Phase 1) Ends				
S5032	5	4	18' - 0''	STR						Deck Transverse (Phase 1) Ends				
S5033	5	4	18' - 7''	STR						Deck Transverse (Phase 1) Ends				
S5034	5	4	19' - 2''	STR						Deck Transverse (Phase 1) Ends				
S5035	5	4	19' - 9''	STR						Deck Transverse (Phase 1) Ends				
S5036	5	4	20' - 4"	STR						Deck Transverse (Phase 1) Ends				
S5037	5	4	20' - 11"	STR						Deck Transverse (Phase 1) Ends				
S5038	5	4	21' - 6"	STR						Deck Transverse (Phase 1) Ends				
S5039	5	4	22' - 1"	STR					Deck Transverse (Phase 1) Ends					
S5040	5	4	22' - 8"	STR					Deck Transverse (Phase 1) Ends					

	Scale	<b>;</b> :			Designed by:					
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fore							HN	TB		
Reinforcing	No.	Revision	By	Date						
ω_	<del>                                     </del>	REVISED QUANTITIES		10/18						
: 12					CONSULTANT F	PROJEC	T MANAGER:	Tim Cote, P.E.		
Ime						Ву	Date		Ву	Date
Filename:			·		Designed	JSM	08\18	Checked	NMW	08\18
Ē					Drawn	PEB	08\18	In Charge of	RAL	08\18

HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909



THE GOLD STAR MEMORIAL HIGHWAY

BRIDGE REPLACEMENT CUMMINGS ROAD UNDERPASS

REINFORCING STEEL SCHEDULE IV

SHEET NUMBER: S-53

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

CONTRACT:2018.19 128 OF 135

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MARK SUPERST	SIZE		LENGTH	TYPE	Α	В	С	D	E	REMARKS
S5041	5	4	23' - 3"	STR						Deck Transverse (Phase 1) Ends
S5042	5	4	23' - 10"	STR						Deck Transverse (Phase 1) Ends
S5043	5	4	24' - 5''	STR						Deck Transverse (Phase 1) Ends
S5044	5	4	25' - 0''	STR						Deck Transverse (Phase 1) Ends
S5045	5	4	25' - 7''	STR						Deck Transverse (Phase 1) Ends
S5046	5	4	26' - 2"	STR						Deck Transverse (Phase 1) Ends
S5047	5	4	26' - 9'' 27' - 4''	STR						Deck Transverse (Phase 1) Ends
S5048 S5049	5	4	27' - 4" 27' - 11"	STR STR						Deck Transverse (Phase 1) Ends  Deck Transverse (Phase 1) Ends
S5050	5	4	28' - 6"	STR						Deck Transverse (Phase 1) Ends
S5050	5	4	29' - 1"	STR						Deck Transverse (Phase 1) Ends
S5052	5	4	29' - 8''	STR						Deck Transverse (Phase 1) Ends
S5053	5	36	39' - 11"	STR						Deck Skewed Corner Phase 1
S5054	5	824	23' - 9"	STR						Deck Transverse (Phase 2) Top
S5055	5	824	24' - 9''	STR						Deck Transverse (Phase 2) Bottom
S5056	5	15	15' - 7''	STR						Deck Transverse (Phase 2) Seq 3 Top
S5057	5	15	16' - 7"	STR						Deck Transverse (Phase 2) Seq 3 Bottom
S5058	5	30	11' - 0" 3' - 11"	STR STR						Deck Transverse (Phase 2) Seq 4  Deck Transverse Phase 2 Ends Top
S5059 S5060	5	2	4' - 6"	STR						Deck Transverse Phase 2 Ends Top  Deck Transverse Phase 2 Ends Top
S5061	5	2	5' - 1"	STR						Deck Transverse Phase 2 Ends Top
S5062	5	2	5' - 8"	STR						Deck Transverse Phase 2 Ends Top
S5063	5	2	6' - 3"	STR						Deck Transverse Phase 2 Ends Top
S5064	5	2	6' - 10''	STR						Deck Transverse Phase 2 Ends Top
S5065	5	2	7' - 5''	STR						Deck Transverse Phase 2 Ends Top
S5066	5	2	8' - 0''	STR						Deck Transverse Phase 2 Ends Top
S5067	5	2	8' - 7"	STR						Deck Transverse Phase 2 Ends Top
S5068	5	2	9' - 2"	STR						Deck Transverse Phase 2 Ends Top
S5069 S5070	5	2	9' - 9" 10' - 4"	STR STR						Deck Transverse Phase 2 Ends Top  Deck Transverse Phase 2 Ends Top
S5070	5	2	10' - 4	STR						Deck Transverse Phase 2 Ends Top  Deck Transverse Phase 2 Ends Top
S5072	5	2	11' - 6"	STR						Deck Transverse Phase 2 Ends Top
S5073	5	2	12' - 1"	STR						Deck Transverse Phase 2 Ends Top
S5074	5	2	12' - 8"	STR						Deck Transverse Phase 2 Ends Top
S5075	5	2	13' - 3"	STR						Deck Transverse Phase 2 Ends Top
S5076	5	2	13' - 10"	STR						Deck Transverse Phase 2 Ends Top
S5077	5	2	14' - 5"	STR						Deck Transverse Phase 2 Ends Top
S5078 S5079	5	2	15' - 0'' 15' - 7''	STR STR						Deck Transverse Phase 2 Ends Top  Deck Transverse Phase 2 Ends Top
S5079 S5080	5	2	15' - 7" 16' - 2"	STR						Deck Transverse Phase 2 Ends Top
S5081	5	2	16' - 9''	STR						Deck Transverse Phase 2 Ends Top
S5082	5	2	17' - 4"	STR						Deck Transverse Phase 2 Ends Top
S5083	5	2	17' - 11"	STR						Deck Transverse Phase 2 Ends Top
S5084	5	2	18' - 6''	STR						Deck Transverse Phase 2 Ends Top
S5085	5	2	19' - 1"	STR						Deck Transverse Phase 2 Ends Top
S5086	5	2	19' - 8''	STR						Deck Transverse Phase 2 Ends Top
S5087	5	2	20' - 3"	STR						Deck Transverse Phase 2 Ends Top
S5088 S5089	5 5	2	20' - 10" 21' - 5"	STR STR						Deck Transverse Phase 2 Ends Top  Deck Transverse Phase 2 Ends Top
S5099	5	2	21' - 5" 22' - 0"	STR						Deck Transverse Phase 2 Ends Top
S5091	5	2	22' - 7"	STR						Deck Transverse Phase 2 Ends Top
S5092	5	2	23' - 2"	STR						Deck Transverse Phase 2 Ends Top
S5093	5	2	4' - 11"	STR						Deck Transverse Phase 2 Ends Bottom
S5094	5	2	5' - 6''	STR						Deck Transverse Phase 2 Ends Bottom
S5095	5	2	6' - 1"	STR						Deck Transverse Phase 2 Ends Bottom
S5096	5	2	6' - 8''	STR						Deck Transverse Phase 2 Ends Bottom
S5097	5	2	7' - 3"	STR						Deck Transverse Phase 2 Ends Bottom
S5098	5	2	7' - 10"	STR						Deck Transverse Phase 2 Ends Bottom  Deck Transverse Phase 2 Ends Bottom
S5099 S5100	5 5	2 2	8' - 5" 9' - 0"	STR STR						Deck Transverse Phase 2 Ends Bottom  Deck Transverse Phase 2 Ends Bottom
S5100 S5101	5	2	9' - 7"	STR						Deck Transverse Phase 2 Ends Bottom  Deck Transverse Phase 2 Ends Bottom
S5101	5	2	10' - 2"	STR						Deck Transverse Phase 2 Ends Bottom  Deck Transverse Phase 2 Ends Bottom
S5103	5	2	10' - 9''	STR						Deck Transverse Phase 2 Ends Bottom
S5104	5	2	11' - 4"	STR						Deck Transverse Phase 2 Ends Bottom
S5105	5	2	11' - 11"	STR						Deck Transverse Phase 2 Ends Bottom
S5106	5	2	12' - 6"	STR						Deck Transverse Phase 2 Ends Bottom
S5107	5	2	13' - 1"	STR						Deck Transverse Phase 2 Ends Bottom
S5108	5	2	13' - 8"	STR						Deck Transverse Phase 2 Ends Bottom
S5109	5	2	14' - 3"	STR					1	Deck Transverse Phase 2 Ends Bottom
S5110	5	2	14' - 10"	STR					1	Deck Transverse Phase 2 Ends Bottom

MARK	SIZE		LENGTH	TYPE	Α	В	С	D	E	REMARKS
SUPERST										
S5111	5	2	15' - 5''	STR						Deck Transverse Phase 2 Ends Bottom
S5112	5	2	16' - 0''	STR						Deck Transverse Phase 2 Ends Bottom
S5113	5	2	16' - 7''	STR						Deck Transverse Phase 2 Ends Bottom
S5114	5	2	17' - 2"	STR						Deck Transverse Phase 2 Ends Bottom
S5115	5	2	17' - 9"	STR						Deck Transverse Phase 2 Ends Bottom
S5116	5	2	18' - 4"	STR						Deck Transverse Phase 2 Ends Bottom
S5117	5	2	18' - 11"	STR						Deck Transverse Phase 2 Ends Bottom
S5118	5	2	19' - 6"	STR						Deck Transverse Phase 2 Ends Bottom
S5119	5	2	20' - 1"	STR						Deck Transverse Phase 2 Ends Bottom
S5120	5	2	20' - 8"	STR						Deck Transverse Phase 2 Ends Bottom
S5121	5	2	21' - 3"	STR						Deck Transverse Phase 2 Ends Bottom
S5122	5	2	21' - 10"	STR						Deck Transverse Phase 2 Ends Bottom
S5122 S5123	5	2	22' - 5"	STR						Deck Transverse Phase 2 Ends Bottom  Deck Transverse Phase 2 Ends Bottom
	5	2	23' - 0"	STR						Deck Transverse Phase 2 Ends Bottom  Deck Transverse Phase 2 Ends Bottom
S5124				1						
S5125	5	2	23' - 7"	STR						Deck Transverse Phase 2 Ends Bottom
S5126	5	2	24' - 2"	STR						Deck Transverse Phase 2 Ends Bottom
S5127	5	18	30' - 9"	STR						Deck Skewed Corner (Phase 2) Top
S5128	5	18	31' - 9"	STR						Deck Skewed Corner (Phase 2) Bottom
S5129	5	1738	4' - 5''	STR						Deck Transverse (Closure Pour) Construction Joint
S5130	5	4	2' - 1"	STR						Deck Transverse Closure Pour Ends
S5131	5	4	2' - 8"	STR						Deck Transverse Closure Pour Ends
S5132	5	4	3' - 3"	STR						Deck Transverse Closure Pour Ends
S5133	5	4	3' - 10"	STR						Deck Transverse Closure Pour Ends
S5134	5	36	5' - 10"	STR						Deck Skewed Corner, Phase 3
S5135	5	876	3' - 9"	STR						Deck Transverse Splice Bar Top (Construction Joint 1)
S5136	5	876	5' - 10"	STR						Deck Transverse Splice Bar Bottom (Construction Joint 1)
S5137	5	256	47' - 0''	STR						Deck Longitudinal (Phase 1), Sequence 1
S5138	5	320	57' - 0''	STR						Deck Longitudinal Phase 1 Sequence 2
S5139	5	184	47' - 0''	STR						Deck Longitudinal Phase 2 Sequence 3
S5140	5	230	56' - 9''	STR						Deck Longitudinal Phase 2 Sequence 4
S5141	5	88	57' - 3"	STR						Deck Longitudinal Phase 3
S5142	5	2	10' - 9"	STR						End Parapet Longitudinal (Phase 1)
S5142	5	2	11' - 5"	STR						End Parapet Longitudinal (Phase 1)
S5143	5	2	10' - 4"	STR						End Parapet Longitudinal (Phase 1)
				<u> </u>						
S5145	5	2	9' - 8"	STR						End Parapet Longitudinal (Phase 1)
S5146	5	2	10' - 4"	STR						End Parapet Longitudinal (Phase 2)
S5147	5	2	9' - 8"	STR						End Parapet Longitudinal (Phase 2)
S5148	5	2	10' - 9''	STR						End Parapet Longitudinal (Phase 2)
S5149	5	2	11' - 5"	STR						End Parapet Longitudinal (Phase 2)
S5150	5	88	7' - 8''	STR						8' Parapet Longitudinal (Phase 1)
S5151	5	88	7' - 8''	STR						8' Parapet Longitudinal (Phase 2)
S5152	5	60	15' - 8''	STR						16' Parapet Longitudinal (Phase 1)
S5153	5	60	15' - 8"	STR						16' Parapet Longitudinal (Phase 2)
S5154	5	32	57' - 3''	STR						Curb Longitudinal (Phase 1)
S5155	5	32	57' - 3"	STR						Curb Longitudinal (Phase 2)
S5156	5	24	8' - 0''	STR						End Deck Transverse (Phase 1)
S5157	5	16	8' - 0"	STR						End Deck Transverse (Phase 2)
S5158	5	8	5' - 7''	STR						End Deck Bottom Transverse (Closure Pour)
S5500	5	1751	7' - 10''	108	7'-3"	0'-7"	0'-5"			Deck Overhang (Phase 1)
S5501	5	1751	7' - 10''	108	7'-3"	0'-7"	0'-5"			Deck Overhang (Phase 2)
S5502	5	84	5' - 3"	118	4'-3"	1'-0"				Deck Thickened Slab (Phase 1)
S5503	5	62	5' - 3"	118	4'-3"	1'-0"				Deck Thickened Slab (Phase 2)
S5504	5	14	5' - 3"	118	4'-3"	1'-0"				Deck Thickened Slab (Closure Pour)
S5505	5	84	5' - 6 1/2"	109	3'-2"	1'-0"	1'-1"	1'-4 1/2"	0'-10"	Deck Thickened Slab (Phase 1)
S5506	5	62	5' - 6 1/2"	109	3'-2"	1'-0"	1'-1"	1'-4 1/2"	0'-10"	Deck Thickened Slab (Phase 2)
S5507	5	14	5' - 6 1/2"	109	3'-2"	1'-0"	1'-1"	1'-4 1/2"	0'-10"	Deck Thickened Slab (Closure Pour)
							3'-3"	1 -4 1/2	0-10	
S5508	5	4	11' - 0"	144	5'-0"	1'-0"				End of Slab, Thickened Bot Mat (Phase 1)
S5509	5	4	11' - 0"	144	5'-0"	1'-0"	3'-3"			End of Slab, Thickened Bot Mat (Phase 2)
	_									
S6000	6	42	51' - 9"	STR						Deck Longitudinal Top Mat (Phase 1) over Piers and Span 2, Sequence 1
S6001	6	126	47' - 2''	STR						Deck Longitudinal Top Mat (Phase 1) over Piers and Span 2, Sequence 2
S6002	6	30	52' - 5''	STR						Deck Longitudinal Top Mat (Phase 2) over Piers and Span 2, Sequence 3
S6003	6	90	47' - 0''	STR						Deck Longitudinal Top Mat (Phase 2) over Piers and Span 2, Sequence 4
S6004	6	21	59' - 0''	STR						Deck Longitudinal Top Mat (Closure Pour) over Piers and Span 2
S6500	6	878	4' - 3"	118	3'-3"	1'-0"				Parapet Vertical (Phase 1)
S6501	6	878	4' - 4"	118	3'-4"	1'-0"				Parapet Vertical (Phase 2)
S6502	6	439	3' - 6"	127	0'-6"	1'-6"	1'-6"			Parapet Top (Phase 1)
S6503	6	439	3' - 6"	127	0'-6"	1'-6"	1'-6"			Parapet Top (Phase 2)
	-		-   -			· •		i		· · · · · · · · · · · · · · · · · · ·

CONTRACT:2018.19

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					CONSULTANT	PROJEC	T MANAGER:	Tim Cote, P.E				
me						By	Date		By	Date		
Filename:					Designed	JSM	08\18	Checked	NMW	08\18		
File					Drawn	PEB	08\18	In Charge of	RAL	08\18		

HNTB CORPORATION

340 County Road, Suite 6-C
Westbrook, ME 04092
TEL (207) 774-5155
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THE GOLD STAR MEMORIAL HIGHWAY BRIDGE REPLACEMENT CUMMINGS ROAD UNDERPASS

REINFORCING STEEL SCHEDULE V

SHEET NUMBER: S-54

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

MARK	SIZE	NO.	LENGTH TYP		TYPE	Α	В	С	D	E	REMARKS	
APPROAC	APPROACH SLAB											
1AS500	5	30	19'	_	8"	STR						Longitudinal Phase 1 Top
1AS501	5	42	37'	-	8"	STR						Transverse Phase 1 Top and Bottom
1AS502	5	42	3'	-	4"	STR						Transverse Phase 1 Top and Bottom
1AS503	5	26	19'	-	8"	STR						Longitudinal Phase 2 Top
1AS504	5	42	32'	-	5"	STR						Transverse Phase 2 Top and Bottom
1AS505	5	42	3'	-	4"	STR						Transverse Phase 2 Top and Bottom
1AS800	8	40	19'	-	8"	STR						Longitudinal Phase 1 Bottom
1AS801	8	34	19'	-	8"	STR						Longitudinal Phase 2 Bottom
2AS500	5	30	19'	-	8"	STR						Longitudinal Phase 1 Top
2AS501	5	42	37'	-	8"	STR						Transverse Phase 1 Top and Bottom
2AS502	5	42	3'	-	4"	STR						Transverse Phase 1 Top and Bottom
2AS503	5	26	19'	-	8"	STR						Longitudinal Phase 2 Top
2AS504	5	42	32'	-	5"	STR						Transverse Phase 2 Top and Bottom
2AS505	5	42	3'	-	4"	STR						Transverse Phase 2 Top and Bottom
2AS800	8	40	19'	-	8"	STR						Longitudinal Phase 1 Bottom
2AS801	8	34	19'	-	8"	STR						Longitudinal Phase 2 Bottom

Scale: Designed by: HNTB By Date Revision CONSULTANT PROJECT MANAGER: Tim Cote, P.E. By Date

JSM 08\18

PEB 08\18 By NMW Checked Designed In Charge of RAL

HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909



BRIDGE REPLACEMENT CUMMINGS ROAD UNDERPASS

REINFORCING STEEL SCHEDULE VI

CONTRACT:2018.19

SHEET NUMBER: S-55 130 OF 135

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

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