

Date:5/18/2018

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CONTRACT 2018.1



5/29/18

Item No.	Item Description	Unit	Interchange	Interchange	Interchange 75 Toll Upgrades	Interchange 75 Slope Repairs	Total Quantity
			17	20	Ton opgrades	Supe Repuis	Quantity
202.202	REMOVING PAVEMENT SURFACE	SY			2,650		2,650
203.20	COMMON EXCAVATION	CY			2,950	12,800	15,750
203.25	GRANULAR BORROW	CY			2,850	2,100	4,950
203.33	SPECIAL FILL	CY				400	400
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	CY			660	330	990
304.14	AGGREGATE BASE COURSE - TYPE A	TON			600	/0	6/0
403.207	HOT MIX ASPHALT, 19.0 IIIII NOMINAL MAXIMUM SIZE	TON			340		340
403.2084	HOT MIX HOT HELT, 12.5 mm NOMINAL MAXIMUM SIZE, (SIDEWALKS, DDIVEC ISLANDS & INCIDENTALS)	TON			40		40
403 212	HOT MIX ASPHALT 4 75 mm NOMINAL MAXIMUM SIZE	TON			72		72
403.213	HOT MIX ASPHALT, 12.5 mm NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE BASE)	TON			420		420
409.15	BITUMINOUS TACK COAT, APPLIED	GAL			400		400
419.30	SAWING BITUMINOUS PAVEMENT	LF			3,500		3,500
502.2(11	STRUCTURAL CONCRETE, BUILDING FOUNDATION AND	OV		22	22		10
502.2611	GENERATOR PAD	CY		23	23		46
502.262	STRUCTURAL CONCRETE, ROADWAY SLAB ON GRADE	CY			230		230
503.14	EPOXY-COATED REINFORCING STEEL, FABRICATED AND DELIVERED	LB		550	550		1,100
503.15	EPOXY-COATED REINFORCING STEEL, PLACING	LB		550	550		1,100
503.18	GLASS FIBER REINFORCED POLYMER (GFRP) REINFORCING BARS, FABRICATED AND DELIVERED	LB			24,000		24,000
503.19	GLASS FIBER REINFORCED POLYMER (GFRP) REINFORCING BARS, PLACING	LB			24,000		24,000
503.90	SYNTHETIC FIBER REINFORCEMENT	LB			1,150		1,150
504.61	TOLL GANTRY - SOUTHBOUND	LS			1		1
509.202	CULVERT SLIPLINE (110 LF)	LS			1		1
511.071	COFFERDAM: SLIP LINING	LS			1		1
511.072	COFFERDAM: SLOPE REPAIR	LS				1	1
515.202	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES	SY			690		690
515.23	EPOXY OVERLAY	SY			25		25
526.306	TEMPORARY CONCRETE BARRIER TYPE I - SUPPLIED BY THE AUTHORITY (2,600 LF)	LS			1		1
527.341	WORK ZONE CRASH CUSHION - TL-3	EA			2		2
527.342	WORK ZONE CRASH CUSHION - TL-2	EA			4		4
603.2453	54 INCH REINFORCED CONCRETE PIPE - CLASS V	LF			26		26
603.28	CONCRETE COLLAR	EA			1		1
606.13	8" OFFSET BLOCKS, SINGLE FACED)	LF			250	363	613
606.1351	TERMINAL END - ANCHORED END 31" W-BEAM GUARDRAIL	EA			1	2	3
606.352	REFLECTORIZED BEAM GUARDRAIL DELINEATOR	EA			50	60	110
606.701	CUADDRAIL ELADED TEDMINAL 21"W DEAM CUADDRAIL	EA			5	0	17
610.08	DI AINI DIDDAD	CV			81	2	, 111
610 181	TEMPORARY STONE CHECK DAM	CY			10	50	10
610.21	RIVER STONES	CY				100	100
613.319	EROSION CONTROL BLANKET	SY			560	2,800	3,360
615.07	LOAM	CY	5	5	520	870	1,400
618.1401	SEEDING METHOD NUMBER 2, PLAN QUANTITY	UN	5	5	43	49	102
618.1402	SEEDING METHOD NUMBER 2 MODIFIED, PLAN QUANTITY	UN				22	22
619.1201	MULCH, PLAN QUANTITY	UN	5	5	43	71	124
619.1202	TEMPORARY MULCH	LS	0.05	0.05	0.35	0.55	1
620.58	EROSION CONTROL GEOTEXTILE	SY			172	75	247
621.7331	LANDSCAPING (RIPARIAN STREAM BANK ZONE) SHRUB, 2'-3' GROUP A	EA				444	444
621.7341	LANDSCAPING (KIPARIAN STREAM SHELF ZONE) TREE, 3'-4' GROUP B	EA				204	204
621.7342 621.7351	LANDSCAPING (RIPARIAN STREAM SHELF ZONE) SHRUB, 2-3' GROUP C LANDSCAPING (RIPARIAN STREAM HIGHER GROUND ZONE) TREE,	EA				60	60
621.7352	2 - 4 GROUP D LANDSCAPING (RIPARIAN STREAM HIGHER GROUND ZONE) SHRUB,	EA				84	84
(01.70()	27-37 GROUP E					161	1/1
621.7361	LANDSCAPING (UPLAND ZONE) IKEE 3'-4' GROUP F	EA				164	164
626.12	LANDSCAPING (UPLAND ZONE) SHKUB 2'-3' GROUP G	EA			7	196	190
626.12	18" X 12" X 18" OUAZITE JUNCTION BOX	ΕΔ			2		2
520.15	30-INCH DIAMETER GREATER THAN 8-FEET LONG AND ALL 26 INCH AND	LA			2		4
626.332	42-INCH DIAMETER FOUNDATIONS	CY			20		20

Item No.	Item Description	Unit	Interchange 19	Interchange 25	Interchange 75 Toll Upgrades	Interchange 75 Slope Repairs	Total Quantity
627.18	12 INCH SOI ID WHITE PAVEMENT MARKING LINE	LE			240		240
(27.69)	TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE,	LI LI			2,800		2,800
027.081	YELLOW OR WHITE	LF			2,800		2,800
627.712	WHITE OR YELLOW PAVEMENT MARKING LINE	LF			4,100		4,100
627.73	TEMPORARY 6 INCH PAVEMENT MARKING TAPE	LF			5,950		5,950
627.731	TEMPORARY 6 INCH BLACK PAVEMENT MARKING TAPE	LF			3,700		3,700
627.77	REMOVING EXISTING PAVEMENT MARKINGS	SF			1,400		1,400
629.05	HAND LABOR, STRAIGHT TIME	HR			40		40
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	HR			40		40
631.11	AIR TOOL (INCLUDING OPERATOR)	HR			40		40
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	HR			40		40
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	HR			40		40
631.32	CULVERT CLEANER (INCLUDING OPERATOR)	HR			40		40
631.36	FOREMAN	HR			40		40
631.50	JACKHAMMER (AIR TOOL INCLUDING OPERATOR)	HR			40		40
631.51	BUCKET TRUCK	HR			40		40
631.52	SCISSOR LIFT	HR			40		40
631.53	ELECTRICIAN	HR			40		40
631.54	ELECTRICIAN'S APPRENTICE	HR			40		40
639.19	FIELD OFFICE, TYPE B	EA			0.5	0.5	1
645.1091	REMOVE AND RESET SIGN ON WOODEN POST	EA			4		4
645.1092	REMOVE AND RESET SIGN ON METAL BEAM	EA			2		2
652.33	DRUM	EA		10	40		50
652.34	CONE	EA	25	25	40		90
652.35	CONSTRUCTION SIGNS	SF	48	48	760		856
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	LS	0.05	0.10	0.85		1
652.38	FLAGGERS	HR			80		80
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	EA			4		1
652.45	TRUCK MOUNTED ATTENUATOR	CD			20		20
655.02	DVAS MOUNT INSTALLATION	EA			4		4
655.04	INSTALLATION OF SENSOR LOOPS	LS			1		1
655.05	INSTALLATION OF AVI ANTENNA	EA			8		8
655.00	INSTALLATION OF AVI READERS	EA			4		4
655.102	#2 AWG WIRE	LF			21,800		21,800
055.110	#10 AWG WIKE	LF			3,200		3,200
655.14	4PR/24 (CATEGORY 5E) CABLE	LF			400		400
655.15	LMR 400 CABLE	LF			400		400
655.16	FIBER OPTIC CABLE	LF			2,500		2,500
655 204	FIBER OFFIC SPLICE PANEL	EA		500	3		3
655 205	3 SCHEDULE 80 PVC CONDUIT	LF		500	/,100		7,000
655.205	4 SCHEDULE 80 PVC CONDULT INSTALL COMMUNICATIONS CADINET (DROVIDED DV MTA)	EA			2		2
655.21	INSTALL COMMUNICATIONS CABINET (PROVIDED BY MIA)	EA			2		2
655.41	D44 NEMA CADINET	EA			2		2
655.42	60 AMB BANEL BOARD CADINET	EA			5		5
655 71	REMOVAL OF EXISTING SELECT TOLL FOURMENT	IS			1		1
655.80	LIGHTNING SUDDRESSION SYSTEM	LS			1		1
655.94	GENERATOR AND FOURPMENT	LS			1		1
655.051	UTILITY BUILDING ELECTRICAL AUBURN	LS			1		1
655.951	UTILITY BUILDING ELECTRICAL: KENNEBUNK	LS		1	1		1
656 50	BALED HAY IN PLACE	FA		1	50	20	70
656.60	TEMPORARY BERMS	LF			50	600	600
656.62	TEMPORARY SLOPE DRAINS	LF				110	110
656 632	30 INCH TEMPORARY SILT FENCE	LF			2 250	1 200	3 450
659.10	MOBILIZATION	LI	0.05	0.05	0.45	0.45	1
800.011	UTILITY BUILDING AUBURN	LS	0.05	0.05	1	0.45	1
800.012	UTILITY BUILDING: KENNEBUNK	IS		1	1		1
000.012	HORIZONTAL DIRECTIONAL DRILLING 3 INCH HDPF CONDUIT			1			
830.25	INSTALLATION	LF	450		1,700		2,150

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ie.	Scale:	Designed by:		
102_Est Quantit	No. Revision By Date	HNTB	HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155	THE GOLD STAR MEMORIAL HIGHWAY
		CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E., P.T.O.E.	FÁX (207) 228-0909	
me		By Date By Date		
ena		Designed EDD 05\18 Checked CDH 05\18		
Ē		Drawn EDD 05\18 In Charge of RAL 05\18		MTA PROJECT MANAGER: William Yates

AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION

# ESTIMATED QUANTITIES

CONTRACT:2018.17

SHEET NUMBER: EQ-01

#### COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS) 12,733   GRUBBING IN FILL 57   TOTAL COMMON EXCAVATION (for estimate)	12,790
FILL FOR BORROW CALCULATIONS	
COMMON FILL (FROM CROSS SECTIONS) 1,099   GRUBBING IN FILL 57   TOTAL FILL 57	1,156
FILL FOR GRANULAR BORROW CALCULATIONS	
GRANULAR BORROW (FROM CROSS SECTIONS) 2,057 TOTAL FILL	2,057
AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS	
(1) TOTAL COMMON EXCAVATION DEDUCTIONS: GRUBBING IN CUT 933 GRUBBING IN FILL 57	12,790
(2) TOTAL DEDUCTIONS	990
TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2)	11,800

<u>SLOPE REPAIR</u>

COMMON EXCAVATION FOR ESTIMATE			COMMON EXCAVATION FOR ESTIMATE		
COMMON EXCAVATION (FROM CROSS SECTIONS) GRUBBING IN FILL TOTAL COMMON EXCAVATION (for estimate)	<u>1,187</u> 29	1,216	COMMON EXCAVATION (FROM CROSS SECTIONS) GRUBBING IN FILL TOTAL COMMON EXCAVATION (for estimate)	<u>185</u> 189	374_
FILL FOR GRANULAR BORROW CALCULATIONS			FILL FOR GRANULAR BORROW CALCULATIONS		
COMMON FILL (FROM CROSS SECTIONS) GRUBBING IN FILL TOTAL FILL	<u>171</u> 29	200_	COMMON FILL (FROM CROSS SECTIONS) GRUBBING IN FILL TOTAL FILL	2,028 189	2,217_
			COMMON EXCAVATION FOR ESTIMATE FROM TEMPORARY	RAMP REMOVAL	
RAMP A			COMMON EXCAVATION (FROM CROSS SECTIONS) TOTAL COMMON EXCAVATION (for estimate)	689	689
			RAMP D		

COMMON EXCAVATION FOR ESTIMATE

TOTAL FILL

<u>RAMP C</u>

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Jun 1	Scale	3:			Designed b	by:							
arthwork;							HN	TB			HNTB CORPORATION	MAINE TURNPIKE	THE GOLD STAR
뜄	No.	Revision	By	Date	-						Westbrook, ME 04092		
SI-											TEL (207) 774-5155		
[					CONSULTAN	T PROJEC	CT MANAGER:	R. Bruce Mung	ger, P.E.	, P.T.O.E.	FAX (207) 228-0909		
a l						By	Date		By	Date	]		
Bla					Designed	EDD	05\18	Checked	CDH	05\18	]		
Ē.					Drawn	EDD	05\18	In Charge of	RAL	05\18		MTA PROJECT MANA	AGER: William Yates

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COMMON EXCAVATION (FROM CROSS SECTIONS) GRUBBING IN FILL TOTAL COMMON EXCAVATION (for estimate)	73 93	166_
FILL FOR GRANULAR BORROW CALCULATIONS		
COMMON FILL (FROM CROSS SECTIONS) GRUBBING IN FILL TOTAL FILL	<u> </u>	396_
COMMON EXCAVATION FOR ESTIMATE FROM TEMPORARY RAN	IP REMOVAL	
COMMON EXCAVATION (FROM CROSS SECTIONS)	463	

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463

AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION

EARTHWORK SUMMARY

CONTRACT:2018.17

SHEET NUMBER: ES-02

### GENERAL

I. ALL DETAILS SHALL BE IN CONFORMANCE WITH MAINE DEPARTMENT OF TRANSPORTATION (MAINE DOT) STANDARD DETAILS HIGHWAYS AND BRIDGES LATEST REVISION, AND MAINE DOT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL LATEST REVISION UNLESS OTHERWISE INCLUDED IN THESE PLANS OR PROJECT SPECIFICATIONS.

2. THE CONTRACTOR SHALL SUBMIT HIS PROPOSED STAGING AREA LOCATION(S) TO THE RESIDENT FOR APPROVAL PRIOR TO STARTING WORK.

3. RIGHT OF WAY AND PROPERTY LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. ADDITIONAL INFORMATION IS AVAILABLE FROM THE MAINE TURNPIKE AUTHORITY UPON REQUEST.

## EARTHWORK AND PAVEMENT

I. CLEARING LIMITS SHALL BE IO' BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINES OR AS SHOWN ON THE PLANS UNLESS OTHERWISE AUTHORIZED BY THE RESIDENT. THE ACTUAL CLEARING LINES SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AND SHALL BE APPROVED BY THE RESIDENT PRIOR TO ANY CLEARING TAKING PLACE.

2. WASTE MATERIALS SHALL BE DISPOSED OF OFF THE PROJECT SITE, IN ACCORDANCE WITH ALL ENVIRONMENTAL REGULATIONS.

3. REMOVAL OF EXISTING FULL DEPTH PAVEMENT SHALL BE PAID FOR AS COMMON EXCAVATION. EXISTING PAVEMENT THICKNESS HAS BEEN ESTIMATED TO BE 8" BUT MAY VARY.

4. THE NORMAL GRUBBING WIDTH IN THE FILLS WHEN SUBGRADE IS LESS THAN 5' ABOVE OLD GROUND SHALL BE VARIABLE LEFT OR RIGHT. THE GRUBBING DEPTH HAS BEEN ESTIMATED AS 6' IN FIELD AREAS AND 12' IN WOODED AREAS.

5. A MINIMUM OF 2<sup>3</sup>/<sub>4</sub>" OF PAVEMENT SHALL BE REQUIRED ON ALL RAMP SHOULDERS OR SURFACES CARRYING TRAFFIC DURING CONSTRUCTION PHASING.

SITE ACCESS NOTES

I. ACCESS TO RAMP AREAS MUST OCCUR WITHIN THE RIGHT OF WAY CONTROLLED BY THE MAINE TURNPIKE AUTHORITY. CURRENT RIGHT OF WAY PLANS ARE AVAILABLE UPON REQUEST TO THE RESIDENT.

2. ACCESS THROUGH AREAS BEYOND THE LIMITS OF DISTURBANCE ARE TO BE APPROVED BY THE RESIDENT.

## GUARDRAIL

I. AT THE END OF EACH WORK DAY. THE CONTRACTOR IS REQUIRED TO HAVE AN APPROVED CRASHWORTHY END TREATMENT ON ALL GUARDRAIL WITHIN ALL WORK AREAS THAT ARE ACCESSIBLE TO TRAFFIC.

2. REMOVAL AND DISPOSAL SHALL BE INCIDENTAL TO THE PROPOSED GUARDRAIL ITEMS.

3. OFFSET BLOCKS SHALL BE NON-WOOD CONFORMING TO NCHRP 350 TEST LEVEL 3.

4. ALL GUARDRAIL SHALL BE INSTALLED IN A MANNER TO AVOID DRAINAGE STRUCTURES AND UTILITIES.

5. GUARDRAIL SET IN THE VICINITY OF DIRECTIONAL BORING SHALL BE COORDINATED TO AVOID CONFLICT.

# EROSION CONTROL

I. THE ANTICIPATED EROSION CONTROL DEVICES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROPOSE ACTUAL TYPE AND LOCATION OF DEVICES FOR APPROVAL BY THE RESIDENT. ADDITIONAL MEASURES MAY BE PROPOSED BY THE CONTRACTOR DUE TO SITE OR WEATHER CONDITIONS. THE RESIDENT MAY DIRECT THE CONTRACTOR TO IMPLEMENT ADDITIONAL MEASURES. ANY ADDITIONAL MEASURES APPROVED BY THE RESIDENT WILL BE MEASURED FOR PAYMENT UNDER THE APPROPRIATE PAY ITEMS.

2. 4" LOAM HAS BEEN ESTIMATED FOR 100% OF THE DISTURBED SLOPE AREA UNLESS OTHERWISE SPECIFIED ON THE PLANS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS DESIGNATED BY THE RESIDENT.

3. ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION BEST MANAGEMENT PRACTICES.

4. TEMPORARY SEED SHALL BE APPLIED TO ALL DISTURBED AREAS THAT WILL NOT BE FINAL SEEDED WITHIN 30 DAYS.

5. SEEDING METHOD NO.2 SHALL BE UTILIZED ON ALL NON-GUARDRAIL FORE SLOPES, FROM THE EDGE OF SHOULDER TO THE DITCH LINE OR TOE OF FILL. SEEDING METHOD NO.3 SHALL BE UTILIZED ON ALL BACK SLOPES AND ON ALL GUARDRAIL FRONT SLOPES.

6. A DOUBLE ROW OF SILT FENCE PROTECTION SHALL BE INSTALLED AT ALL STREAM LOCATIONS AND OPEN WATER WETLANDS AS SHOWN ON THE PLANS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACEMENT AND MAINTENANCE OF EROSION CONTROL ITEMS AROUND STOCKPILES, IN ACCORDANCE WITH MAINE DEPARTMENT OF TRANSPORTATION BEST MANAGEMENT PRACTICES. PAYMENT FOR THESE ITEMS SHALL BE INCIDENTAL TO THE MATERIAL STOCKPILED.

8. TEMPORARY EROSION CONTROL BLANKET, ITEM 613.319 SHALL BE INSTALLED IN ALL PERMANENT AND TEMPORARY DITCHES AND ON ALL PERMANENT 2: J SLOPES FROM TOP TO TOE OF SLOPE. LOAM AND SEED SHALL BE PLACED PRIOR TO INSTALLATION OF THE EROSION CONTROL BLANKET. LIMITS OF THE EROSION CONTROL BLANKET IN DITCHES SHALL BE 6'WIDE OR AS DESIGNATED BY THE RESIDENT.

## TOLLING

I. TRANSCORE SHALL PROVIDE THE FOLLOWING ITEMS TO BE INSTALLED BY THE CONTRACTOR:

A.IVIS LOOP SENSOR TEMPLATES FOR CUTTING CONCRETE B.COSTAR ENCLOSURES AND PELCO MOUNTING HOOKS FOR DVAS CAMERAS

- 2. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE FOLLOWING ITEMS: A. 3 ELECTRICAL CABINETS FOR POWER PANELS ON CONCRETE FOUNDATION (P-44)
- B. I COMMUNICATIONS CABINET FOR LANE CONTROLLERS, AVI READERS, AND FIBER OPTIC PATCH PANELS (I-NEW 332 D) ON CONCRETE FOUNDATION
- C. ALL REQUIRED FOUNDATIONS FOR RELOCATED AND INSTALLED CABINETS
- D. ALL REQUIRED JUNCTION BOXES, CONDUIT AND ASSOCIATED WIRING F. HOMERUN CABLES FOR IVIS LOOP SENSORS
- F. SAW CUTTING FOR IVIS LOOP SENSORS
- 3. THE MAINE TURNPIKE SHALL PROVIDE THE FOLLOWING ITEMS TO BE INSTALLED BY THE CONTRACTOR:
- A. 2 COMMUNICATIONS CABINETS (LANE CONTROLLER/AVI) (2 TO BE RELOCATED BY CONTRACTOR)
- 4. TRANSCORE SHALL PROVIDE, INSTALL AND TERMINATE THE FOLLOWING ITEMS: A. DVAS CAMERAS
- B. NEW LANE CONTROLLERS AND ASSOCIATED SWITCHES C. IVIS LOOP SENSORS, INCLUDING EPOXY AND EQUIPMENT FOR INSTALLATION
- 5. ALL IVIS SENSOR LOOPS SHALL HAVE AN EPOXY OVERLAY PER SECTION 515 OF THE SPECIAL PROVISIONS.

# UTILITY

I. EXISTING UTILITIES ON THESE PLANS WERE COMPILED FROM RECORD DRAWINGS AND VARIOUS OTHER SOURCES. LOCATIONS ARE NOT GUARANTEED TO BE ACCURATE NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED. NO WORK SHALL BE STARTED UNTIL THE OWNERS OF THE VARIOUS UTILITIES ARE NOTIFIED BY THE CONTRACTOR OF THE PROPOSED CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT I-888-344-7233 PRIOR TO THE START OF THE WORK. THE CONTRACTOR SHALL NOTIFY THE RESIDENT IO DAYS PRIOR TO CONSTRUCTION SO THE RESIDENT MAY COORDINATE UTILITY LOCATIONS WITH THE MTA.

2. THE UTILITIES INVOLVED IN THIS CONTRACT ARE: MAINE TURNPIKE AUTHORITY MAINE DOT

MAINE DUI CENTRAL MAINE POWER CITY OF AUBURN CITY OF KENNEBUNK CONSOLIDATED COMMUNICATIONS KENNEBUNK LIGHTING AND POWER TIME WARNER CABLE / SPECTRUM

3. SEE SPECIFICATIONS FOR REQUIRED UTILITY COORDINATION.

#### POWER AND COMMUNICATIONS

I. EXISTING LIGHTING WITHIN THE PROJECT LIMITS SHALL BE OPERATIONAL AT ALL TIMES.

2. CUTTING AND SPLICING NEW WIRING TO EXISTING WIRING TO NEW WIRING IS NOT PERMITTED.

3. PROPOSED CONDUIT SHALL HAVE A MINIMUM 2' OFFSET DOWN SLOPE OF EXISTING CONDUIT. APPROXIMATE LOCATION OF EXISTING CONDUIT IS SHOWN ON THE PLANS.

4. EXISTING CONDUIT MAY BE ASBESTOS CEMENT CONDUIT. CONTRACTOR SHALL TAKE EXTREME CARE NOT TO DAMAGE IT. ALL EXISTING CONDUIT THAT REQUIRES REMOVAL DUE TO NEW CONSTRUCTION SHALL BE REMOVED PER THE SPECIFICATIONS, SPECIAL PROVISION 202, AND AS DIRECTED BY THE RESIDENT.

5. ALL WIRE SHALL BE COPPER, NO ALUMINUM WIRE IS ALLOWED.

6. ALL CONDUIT TRENCHES SHALL BE INSTALLED IN A MANNER TO AVOID DRAINAGE STRUCTURES AND UTILITIES.

7. THE CONTRACTOR SHALL ONLY EXCAVATE AN AMOUNT OF UTILITY TRENCH THAT CAN BE BACKFILLED IN THE SAME DAY. UTILITY TRENCHES SHALL NOT BE LEFT OPEN OVERNIGHT.

8. ROCK EXCAVATION REQUIRED FOR CONDUIT TRENCH SHALL BE INCIDENTAL TO THE WORK.

#### DRAINAGE

I. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED, OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.

2. EXISTING CULVERTS TO REMAIN SHALL BE CLEANED AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 631.32 CULVERT CLEANER (INCLUDING OPERATORS).

### PAVEMENT MARKINGS

I. THE CONTRACTOR SHALL RE-PAINT ALL EXISTING PAVEMENT MARKINGS WITHIN THE LIMITS OF CONSTRUCTION AND AS DIRECTED BY THE RESIDENT.

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5	No.	Revision	By	Date	]						340 V
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[					CONSULTANT	PROJEC	T MANAGER:	R. Bruce Munge	er, P.E.	, P.T.O.E.	
Ë						By	Date		By	Date	
3[					Designed	EDD	05\18	Checked	CDH	05\18	]
Ĭ					Drawn	EDD	05\18	In Charge of	RAL	05\18	1

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



MTA PROJECT MANAGER: William Yates

## GEOTECHNICAL

I. THE GEOTECHNICAL REPORT FOR THE PROJECT IS ENTITLED "PRELIMINARY SUMMARY OF GEOTECHNICAL FINDINGS AND RECOMMENDATIONS, MITIGATION OF ON-GOING SLOPE INSTABILITY, MAINE TURNPIKE, EXIT 75, AUBURN, MAINE" DATED JANUARY 29, 2018 AND PREPARED BY SCHONEWALD ENGINEERING ASSOCIATES, INC.

2. GEOTECHNICAL INFORMATION FURNISHED OR REFERENCED IN THIS PLAN SET IS FOR THE BIDDERS' AND CONTRACTOR'S USE. NO ASSURANCE IS GIVEN THAT THE INFORMATION OR INTERPRETATIONS WILL BE REPRESENTATIVE OF ACTUAL SUBSURFACE CONDITIONS AT THE TIME OF CONSTRUCTION. THE AUTHORITY SHALL NOT BE RESPONSIBLE FOR THE BIDDERS AND CONTRACTOR'S INTERPRETATIONS OF, OR CONCLUSIONS DRAWN FROM, THE GEOTECHNICAL INFORMATION. THE BORING LOGS CONTAINED IN THE REFERENCED REPORT PRESENT INTERPRETIVE SUBSURFACE INFORMATION COLLECTED AT DISCRETE LOCATIONS. DATA PROVIDED MAY NOT BE REPRESENTATIVE OF THE SUBSURFACE CONDITIONS BETWEEN WIDELY-SPACED BORING LOCATIONS.

3. SUBGRADE PREPARATION IN EMBANKMENT FILL AREAS AND EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 203 EXCEPT AS AMENDED BY SPECIAL PROVISION 203.

4. SITE SOILS CONSIST PRIMARILY OF STIFF MARINE SILT-CLAY AND SILTY GLACIAL TILL, BOTH OF WHICH ARE SUSCEPTIBLE TO DISTURBANCE WHEN REPEATEDLY WORKED WITH CONSTRUCTION EQUIPMENT OR WHEN SUBJECTED TO SUSTAINED VIBRATIONS. THIS MATERIAL CAN ALSO PUMP UP/MIGRATE INTO OVERLYING GRANULAR FILL MATERIALS. SHOULD THE SOIL BECOME DISTURBED, THE MATERIAL SHALL BE CONSIDERED "UNSUITABLE" AND SHALL BE OVEREXCAVATED AND REPLACED WITH NEW MATERIAL THAT MEETS THE PROJECT REQUIREMENTS. NO ADDITIONAL PAYMENT WILL BE MADE FOR EXCAVATING AND REPLACING DISTURBED MATERIAL.

5. EMBANKMENT PREPARATION AND BENCHING SHALL BE AS SPECIFIED IN STANDARD SPECIFICATION 203 EXCEPT AS AMENDED BY SPECIAL PROVISION 203. WHERE EMBANKMENT FILL IS PLACED AGAINST EXISTING SLOPES, THE EXISTING SLOPE SHALL BE STRIPPED OF ORGANICS, UNSUITABLES, AND LOOSE SOIL, AND THE EXPOSED SURFACE BENCHED SUFFICIENTLY SO THAT NEW FILL IS KEVED INTO THE EXISTING SLOPE.

6. DISPOSAL OF WASTE MATERIALS, INCLUDING STUMPS, GRUBBINGS, AND UNSUITABLE EXCAVATED MATERIALS, SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 203 EXCEPT AS AMENDED BY SPECIAL PROVISION 203. SPECIAL PROVISION 203 DOES NOT PERMIT THE DISPOSAL OF WASTE MATERIALS IN ANY PORTION OF EMBANKMENTS.

7. THE LOWER PORTION OF NEW EMBANKMENT AREAS IN THE SLOPE REPAIR SECTION THAT ARE SPECIFIED ON THE TYPICAL SECTIONS TO HAVE LOWER PERMEABILITY MATERIAL (SILT-CLAY FILL) SHALL BE CONSTRUCTED USING SUITABLE SILT-CLAY COMMON EXCAVATION THAT HAS BEEN APPROVED FOR REUSE BY THE RESIDENT. THE MATERIAL SHALL BE PLACED IN THIN (8" MAX UNLESS OTHERWISE APPROVED) HORIZONTAL LIFTS AND COMPACTED USING CARE NOT TO OVERWORK (DISTURB) THE MATERIAL.

8. THE ENTIRE EMBANKMENTS, INCLUDING THE AREAS OUTSIDE THE 1.5H<sub>i</sub>N LINE EXTENDING DOWINARD FROM THE FINISHED SHOULDER, SHALL BE COMPACTED SUFFICIENTLY TO ACHIEVE A FIRM AND STABLE SURFACE UNDER THE ACTION OF CONSTRUCTION EQUIPMENT TO THE SATISFACTION OF THE RESIDENT.

9. FILL/BORROW SHALL BE COMPACTED TO 90% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR, EXCEPT AS AMENDED BY SPECIAL PROVISION 203. GRANULAR BORROW AND AGGREGATE SHALL BE COMPACTED TO 95% OF THEIR MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR, EXCEPT AS AMENDED BY SPECIAL PROVISIONS 203.

#### FOUNDATIONS

I. ALL GANTRY AND MAST ARM FOUNDATIONS WILL BE PAID UNDER ITEM 626.332 AND WILL FOLLOW THE CURRENT MAINEDOT STANDARD SPECIFICATION AND STANDARD DETAILS. THE TEST BORINGS FOR THE PROJECT DO NOT APPLY TO THE GANTRY AND MAST ARM FOUNDATIONS, SPECIFIC TEST BORINGS WERE NOT TAKEN AT THESE LOCATIONS, AND IT'S THE CONTRACTORS RESPONSIBILITY TO VERIFY SOIL CONDITIONS. NO ADDITIONAL PAYMENT SHALL BE MADE FOR LEDGE EXCAVATION OR ROCK SOCKETING/ANCHORING.

# AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION

# GENERAL NOTES

SHEET NUMBER: GN-01







CONTRACT:2018.17

NOTES:

INTENDED TO BE NOMINAL.

MANNER TO LEAVE A CLEAN, VERTICAL FACE.

UPGRADES AND STREAM RELOCATION RAMP A MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

LAYER OF ALL SAWCUT AND PAVEMENT JOINTS PRIOR TO PAVING.

AUBURN - EXIT 75 TOLL SYSTEM

3. BITUMINOUS TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF PAVEMENT. OR AS DIRECTED BY THE RESIDENT. BITUMINOUS TACK COAT IS REQUIRED ON ALL

I. THE PAVEMENT, BASE, AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE

2. ALL NECESSARY PAVEMENT CUTTING SHALL BE SAWCUT AND DONE IN SUCH A

EXISTING PAVED OR MILLED SURFACES PRIOR TO PLACING PROPOSED PAVEMENT.

4. A COATING OF HOT RUBBERIZED ASPHALT SHALL BE APPLIED TO SURFACE

NOMINAL MAXIMUM SIZE SHOULDER GR PANEL NOMINAL MAXIMUM SIZE 4" AGGREGATE BASE COURSE - TYPE A VARIABLE DEPTH AGGREGATE SUBBASE VARIES 6½" AGGREGATE BASE COURSE - TYPE A COURSE-GRAVEL 2% <u>DETAIL A</u>

N.T.S.



I. THE PAVEMENT, BASE, AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE

2. ALL NECESSARY PAVEMENT CUTTING SHALL BE SAWCUT AND DONE IN SUCH A

EXISTING PAVED OR MILLED SURFACES PRIOR TO PLACING PROPOSED PAVEMENT.

TO BE REMOVED AND DISPOSED OF OFF SITE UPON COMPLETION OF THE WORK. EXCEPT AREAS BEHIND PROPOSED GUARDRAIL AND END TREATMENT GRADING.

AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION RAMP C MAINTENANCE OF TRAFFIC

SHEET NUMBER: TS-04



90F84

UPGRADES AND STREAM RELOCATION RAMP D MAINTENANCE OF TRAFFIC

5. PHASE I MOT WILL BE REUSED FOR REMOVAL OF TEMPORARY PAVEMENT AND

4. A COATING OF HOT RUBBERIZED ASPHALT SHALL BE APPLIED TO SURFACE

3. BITUMINOUS TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF PAVEMENT, OR AS DIRECTED BY THE RESIDENT. BITUMINOUS TACK COAT IS REQUIRED ON ALL EXISTING PAVED OR MILLED SURFACES PRIOR TO PLACING PROPOSED PAVEMENT.

2. ALL NECESSARY PAVEMENT CUTTING SHALL BE SAWCUT AND DONE IN SUCH A MANNER TO LEAVE A CLEAN, VERTICAL FACE.

I. THE PAVEMENT, BASE, AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE



Ē		Scale of Feet						ITR		
₽.	No.	Revision	By	Date	]					
10										
0					CONSULTANT F	ROJEC	T MANAGER:	R. Bruce Munge	r, P.E.,	, P.T.O.E.
me						By	Date		By	Date
Bug					Designed	EDD	05\18	Checked	CDH	05\18
Ē					Drawn	EDD	05\18	In Charge of	RAL	05\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

MTA PROJECT MANAGER: William Yates

UPGRADES AND STREAM RELOCATION MAINTENANCE OF TRAFFIC INDEX OF SHEETS SHEET NUMBER: MT-01



MTA PROJECT MANAGER: William Yates

Drawn

FDD



Drawn

Date 05\18 05\18

MTA PROJECT MANAGER: William Yates







MTA PROJECT MANAGER: William Yates

-150 -140 -130 -20 10 20 30 50 60 70 260 80 255 /42/250 8.37' 6.29 ---- <u>MATCH</u> 245 240 235 230 225 -/50 -30 -20 0 10 20 30 50 60 -140 -/30 -50 -10 70 -120 -100 -70 40 9+50.00 -150 -140 -130 -50 -30 -20 -10 0 10 20 .30 50 60 70 255 7.08 ,2.00' 250 MATCH 4.5./ 13.0 245 240 235 230 225 -150 -50 -30 10 30 50 60 70 -140 -130 -60 -40 -20 0 20 -120-100 -80 -70 -10 40 STA. 8+85.00 BEGIN TEMPORARY PAVEMENT WIDENING 9+00.00 -/50 -140 -30 -20 Ю 20 30 50 60 255 250 245 240 235 230 225 -/50 -140 -130 -120 -100 -20 -10 0  $i \cap$ 20 30 50 60 70 *8+50.00* Scale Designed by: 20 10 IN 0 MAINE TURNPIKE MOT HNTB CORPORATION Scale of Feet THE GOLD STAR 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909 By Date Revision UNO. **MEMORIAL HIGHWAY** CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E. DateBy05\18CheckedRBM05\18In Charge ofRAL Date 05\18 05\18 Bу CDH EDD Designed MTA PROJECT MANAGER: William Yates Drawn



-150 -140 -130 -20 -30 -10 20 .30 50 60 265 260 20.12' 9.4ľ /47 255 MATCH 250 gt 36.2 245 240 235 230 -150 -30 -20 0 10 20 30 50 60 70 -140 -/30 -50 -10 -120 -100 -70 //+00.00 -150 -140 -130 -50 - 30 -20 -10  $\cap$ IN 20 30 50 60 70 260 255 8.59 16.78′ 250 MATCH 30.9 245 240 235 230 -150 -50 -30 30 50 60 70 -140 -130 -20 0 10 20 -120-100 -80 -70 -60 -40 -10 40 10+50.00 -/50 -140 -30 -20 -10 0 10 20 30 260 255 8.79 11.32 250 × MATCH -----245 \$23.6 240 235 230 -/50 0 -140 -130 -120 -100 -30 -20 -10 IN 20 30 50 60 70 10+00.00 Scale Designed by: 20 10 IN 0 MAINE TURNPIKE MOT HNTB CORPORATION Scale of Feet THE GOLD STAR 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909 By Date Revision UNO. **MEMORIAL HIGHWAY** CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E. DateBy05\18CheckedRBM05\18In Charge ofRAL Date 05\18 05\18 Bу CDH EDD Designed MTA PROJECT MANAGER: William Yates Drawn





STA. 14+25.00 END TEMPORARY PAVEMENT WIDENING -150 -140 -130 -20 20 30 50 60 -30 -10 0 10 40 70 275 8102 270 /42/265 7.84' 2.00' 260 255 250 245 240 -150 -30 -20 0 10 20 30 50 60 70 -140 -/30 -50 -10 -120 -100 40 14+00.00 -150 -140 -130 -50 - 30 -20 -10  $\cap$ 10 20 .30 50 60 70 270 265 7.69 7.42' 260 255 17.5 250 245 240 -150 -50 -30 50 60 70 -140 -130 -40 -20 0 10 20 30 -120-110 -100 -80 -70 -60 -10 40 13+50.00 -/50 -140 -130 -30 -20 -10 0 Ю 20 30 60 70 270 8.00' 265 13.11 260 MATCH X 255 31.4 250 245 240 -/50 0 -140 -130 -120 -100 -50 -30 -20 -10 IN 20 30 50 60 70 -110 13+00.00 Scale Designed by: 20 10 IN 0 MAINE TURNPIKE MOT HNTB CORPORATION Scale of Feet THE GOLD STAR 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909 By Date Revision UNO. **MEMORIAL HIGHWAY** CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E. DateBy05\18CheckedRBM05\18In Charge ofRAL Date 05\18 05\18 Bу CDH EDD Designed MTA PROJECT MANAGER: William Yates Drawn



19 OF 84



							200
							250
							245
							240
80	90	100	110	120	130	140	150
А	UBURI	N - E	XIT 7	'5 TO	LL S	YSTE	M I
UP	GRAD	ES AI	ND ST	RFAM	1 RFI	OCAT	ION
		MOT (	CROSS	SEC	TIONS		
RAM	1PC	– ST,	A. 14	+50	to st	FA.14-	+50
					SHEET	NUMBER:	XS-05
CONTRACT	:2018.17						20 OF 84































Drawn

CONTRACT:2018.17

33 OF 84

IDENTIFI- CATION NUMBER	SIZE O	F SIGN HEIGHT	ΤΕΧΤ	TEX LETT HFIG	(T DÌ ER	MENS. VERT	IONS	(INCHE ARI RTF.	ES) ROW MKR.	NUMBER OF SIGNS REQUIRED	COLO BACK- GROUND	DR LEGEND BORDER	BORDER RADIUS	AREA IN SQUARE FEET	NOTES
W20-I	<i>48</i> *	48"	ROAD WORK AHEAD	T CON ST	EXT IFORI ANDA 20	DIMEI M TO ' RD HI I2 SU	ISIONS 2004 IGHWA PPLEN	S SHA EDITI Y SIG MENT"	LL 'ON - VS -	6	ORANGE	BLACK		/6.00 (64.00)	
W5-4	<i>48</i> "	<i>48</i> "	RAMP NARROWS							3	ORANGE	BLACK		16.00 (48.00)	
G20-2	48"	24"	END ROAD WORK							5	SHALL ( EDIT	CONFORM TO ION - STANL	) "2004 )ARD	8.00 (24.00)	
G20-5aP	48*	24"	WORK ZONE							3	HIGHN	VAY SIGNS SUPPLEMENT	- 2012	8.00 (24.00)	
WI-4L	48"	<i>48</i> *								2	ORANGE	BLACK		16.00 (32.00)	
WI-4R	<i>48</i> *	<i>48</i> ″								2	ORANGE	BLACK		16.00 (32.00)	
WI3-4p	24"	24"	ON RAMP							4	ORANGE	BLACK		4.00 (16.00)	
W24-IR	<i>48</i> *	<i>48</i> *	$\langle \mathbf{x} \rangle$							2	ORANGE	BLACK		16.00 (32.00)	
W24-IL	<i>48</i> *	<i>48</i> *	$\langle \rangle$							2	ORANGE	BLACK		16.00 (32.00)	
R2-I	48"	60"	SPEED LIMIT 25							3				20.00 (60.00)	
R2-6aP	<i>48</i> *	24"	FINES DOUBLE							3	SHALL CONFORM TO "2004 EDITION - STANDARD HIGHWAY SIGNS - 2012			8.00 (24.00)	
R2-12	<i>48</i> *	60"	END WORK ZONE SPEED LIMIT	V						3				20.00 (60.00)	

IDENTIFI- CATION NUMBER	size o. WIDTH	F SIGN HEIGHT	ΤΕΧΤ	TEXT DIMENSIONS (INCHES) LETTER VERTICAL ARROW HEIGHT SPACING RTE.MKR.		NUMBER OF SIGNS REQUIRED	COLI BACK- GROUND	R LEGEND BORDER	BORDER RADIUS	AREA IN SQUARE FEET	NOTES	
W20-4	48"	<i>48</i> *	ONE LANE ROAD AHEAD	TEXT DIMENSIONS SHALL CONFORM TO '2004 EDITION - STANDARD HIGHWAY SIGNS - 2012 SUPPLEMENT'			2	ORANGE	BLACK		16.00 (32.00)	
W20-7	48"	48"					2	ORANGE	BLACK		16.00 (32.00)	
W2I-5	48*	<i>48</i> "	SHOULDER WORK	V	V	V	2	ORANGE	BLACK		/6.00 (32.00)	
CS-52	96"	<i>18</i> *	AT EXIT 75	8*C	6"		8	ORANGE	BLACK		12.00 (96.00)	
CS-46	96"	<i>48</i> *	WIDE LOADS OVER 10 FEET PROHIBITED	8*C 8*C 8*C	5 5 5 5 6		2	ORANGE	BLACK		32.00 (64.00)	

NOTES: I. QUANTITIES ASSUME RAMP WORK PERFORMED CONCURRENTLY.IF RAMP WORK PERFORMED SEQUENTIALLY, SIGN QUANTITIES SHALL BE ADJUSTED.

dgn								
, Y	Scale	9:		Designed by:				
_SignSummo	No.	NOT TO SCALE Revision	By Date	HNTB		HNTB CORPORATION 340 County Road, Suite 6-C	MAINE TURNPIKE	THE GOLD STAR
34.						TFL (207) 774-5155		MEMORIAL HIGHWAY
				CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E., I	P.T.O.E.	FÁX (207) 228-0909		
me				By Date By	Date			
end				Designed EDD 05\18 Checked CDH	05\18			
File				Drawn EDD 05\18 In Charge of RAL	05\18		MTA PROJECT MANA	GER: William Yates

# AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION MAINTENANCE OF TRAFFIC SIGN SUMMARY

CONTRACT:2018.17

SHEET NUMBER: MT-12



MTA PROJECT MANAGER: William Yates

TOLL SYSTEM INFRASTRUCTURE IMPROVEMENTS SHEET NUMBER: TI-01

AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION

\*SEE SHEETS T-01, T-03 AND T-04

		0 0
TOLL EQUIPMENT POW MUNICATIONS TO ORIG M THIS BUILDING	'ER & INATE	o
		LEGEND
PVC & 2-3" PVC		EXISTING CONDUIT
		PROPOSED CONDUIT
ELECTRICAL PANEL	·	PROPOSED DIRECTIONAL BORING
(TO REMAIN)	E	EXISTING JUNCTION BOX
1 /	P	PROPOSED ELECTRICAL/COMMUNICATION QUAZITE JUNCTION BOX
	$\bowtie$	EXISTING ELECTRICAL CABINET
100	×	PROPOSED ELECTRICAL CABINET (TYPE P44)
	Τ	PROPOSED COMMUNICATIONS CABINET (TYPE 334)
and a second	A	SB EXIT LANE POWER & COMM *
1000	B	SB ENTRY LANE POWER & COMM *
T	C	NB EXIT LANE POWER & COMM *
	Ð	NB ENTRY LANE POWER & COMM *
00+0	C	EXISTING COMMUNICATIONS CABINET
4	R	EXISTING HIGHWAY ADVISORY RADIO

OVERHEIGHT DETECTION SIGN



STA. 12+77.50 END 2" MILL, SHIM, AND PAVE STA. 12+31.00 END SHOULDER WIDENING State State -TERMINAL END - ANCHORED END - 3" W-BEAM GUARDRAIL (TYP.) 31" W-BEAM GUARDRAIL MID-WAY SPLICE (TYP.) REMOVE FILL PLACED FOR TEMPORARY RAMP. SEED AND MULCH DISTURBED AREA AS DIRECTED BY THE RESIDENT. GUARDRAIL 350 FLARED TERMINAL - 3" W-BEAM GUARDRAIL (TYP.) ITEM 606.791 GUARDRAIL - FLARED TERMINAL - 31" W-BEAM GUARDRAIL EA RAMP A & STA. 4+90.82, LT. RAMP A & STA. 8+29.34, RT. RAMP A & STA. 8+80.38, LT. RAMP A B STA. 9+18.52, RT. RAMP A B STA. 9+42.86, LT. RAMP C B STA. 10+67.61, RT. RAMP D B STA. 10+43.26, LT. 200 87.5 62.5 100 RAMP D ₽ STA. 8+79.03, LT. TO STA. 10+43.26, LT. 162.5 ITEM 606.1351 TERMINAL END - ANCHORED END - 31" W-BEAM GUARDRAIL RAMP A B STA. 2+91.15, LT. RAMP C B STA. 11+68.46, LT. RAMP D & STA. 8+79.03, LT. SAWCUT AT EXISTING FACE d' OF GUARDRAIL POLIZ STA. 0+00.00 RAMP A ₽ = STA. 3+75.00 WASHINGTON STREET ₽ AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION

GENERAL PLAN

CONTRACT:2018.17

SHEET NUMBER: GP-01


# DIMENSIONS FOR SLOPE OF 2:1

ate:5/24/2018

							STONE	STONE
D	a	b	с	е	f	g	DEPTH	(CY)
	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	
12"	1.00	4.00	3.00	2.00	6.00	1.00	1.50	1.30
15"	1.00	4.50	3.37	2.25	6.75	1.63	1.50	1.70
18"	1.00	5.00	3.75	2.50	7.50	2.25	1.50	2.09
21"	1.00	5.50	4.13	2.75	8.25	2.88	1.50	2.58
24"	1.00	6.00	4.50	3.00	9.00	3.50	1.50	3.12
30"	1.00	7.00	5.25	3.50	10.50	4.75	1.50	4.33
36"	1.00	8.00	6.00	4.00	12.00	6.00	1.50	5.75
42"	1.00	9.00	6.75	4.50	13.50	7.25	1.50	7.37
48"	1.00	10.00	7.50	5.00	15.00	8.50	1.50	9.18
54"	1.00	11.00	8.25	5.50	16.50	9.75	1.50	11.19
60"	1.00	12.00	9.00	6.00	18.00	11.00	1.50	13.40
66"	1.00	13.00	9.75	6.50	19.50	12.25	1.50	15.81
72"	1.00	14.00	10.50	7.00	21.00	13.50	1.50	18.41
84"	1.00	16.00	12.00	8.00	24.00	16.00	1.50	24.22

# DIMENSIONS FOR SLOPE OF 4:

							STONE	STONE
D	a	Ь	с	e	f	g	DEPTH	(CY)
	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	
12"	1.00	8.00	6.00	2.00	6.00	0.00	1.50	2.20
15"	1.00	9.00	6.75	2.25	6.75	0.00	1.50	2.80
18"	1.00	10.00	7.50	2.50	7.50	0.00	1.50	3.40
21"	1.00	11.00	8.25	2.75	8.25	0.00	1.50	4.10
24"	1.00	12.00	9.00	3.00	9.00	0.00	1.50	4.86
30"	1.00	14.00	10.50	3.50	10.50	0.00	1.50	6.58
36"	1.00	16.00	12.00	4.00	12.00	0.00	1.50	8.56
42"	1.00	18.00	13.50	4.50	13.50	0.50	1.50	10.92
48"	1.00	20.00	15.00	5.00	15.00	1.00	1.50	13.57
54"	1.00	22.00	16.50	5.50	16.50	1.50	1.50	16.50
60"	1.00	24.00	18.00	6.00	18.00	2.00	1.50	19.72
66"	1.00	26.00	19.50	6.50	19.50	2.50	1.50	23.22
72"	1.00	28.00	21.00	7.00	21.00	3.00	1.50	27.01
84"	1.00	32.00	24.00	8.00	24.00	4.00	1.50	35.45

## DIMENSIONS FOR SLOPE OF 6:/

							STONE	STONE
D	a	b	с	е	f	g	DEPTH	(CY)
	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	
12"	0.50	9.00	7.50	1.50	4.50	0.00	1.50	2.30
15"	0.50	10.50	8.75	1.75	5.50	0.00	1.50	2.93
18"	0.50	12.00	10.00	2.00	6.50	0.00	1.50	3.57
21"	0.50	13.50	11.25	2.25	7.25	0.00	1.50	4.46
24"	0.50	15.00	12.50	2.50	8.00	0.00	1.50	5.44
30"	0.50	18.00	15.00	3.00	9.50	0.00	1.50	7.71
36"	0.50	21.00	17.50	3.50	11.00	0.00	1.50	10.37
42"	0.50	24.00	20.00	4.00	12.50	0.00	1.50	13.42
48"	0.50	27.00	22.50	4.50	14.00	0.00	1.50	16.87
54"	0.50	30.00	25.00	5.00	15.50	0.00	1.50	20.70
60"	0.50	33.00	27.50	5.50	17.00	0.00	1.50	24.93
66"	0.50	36.00	30.00	6.00	18.50	0.00	1.50	29.55
72"	0.50	39.00	32.50	6.50	20.00	0.00	1.50	34.56
84"	0.50	45.00	37.50	7.50	23.00	0.00	1.50	45.76



18" PLAIN RIPRAP

1:1 FOR 4:1

1:1 FOR 6:1

1/2 :1 FOR 2:





ROADWAY	CULVERT END
SLOPE	TREATMENT

## NOTES:

- 1. THE DIMENSIONS SHOWN ARE APPROXIMATE AND MAY BE MODIFIED BY THE RESIDENT.
- 2. STONE QUANTITIES ARE FOR ONE END OF THE PIPE.

Det1.dgn											2. STONE QUANTITIES
osion_Con_	Scal	le:			Designed by	:		ITR			HNTB CORPORATION
38_Er	No.	Revision	By	Date							Westbrook, ME 0409
0:					CONSULTANT	PROJEC	T MANAGER:	R. Bruce Munge	er, P.E.,	P.T.O.E.	FAX (207) 228-0909
me						By	Date		By	Date	
ena					Designed	CDH	05\18	Checked	RWH	05\18	
Fij					Drawn	EDD	05\18	In Charge of	RAL	05\18	



# THE GOLD STAR **MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: William Yates





6" MIN.

N.T.S.

### <u>NOTES:</u>

- 1. CONNECTION AND PIPE TO BE BACKFILLED PER ASTM D2321 (CRUSHED STONE).
- 2. CONCRETE SHALL BE CLASS A FIBER REINFORCED.
- 3. SEE CONCRETE COLLAR WIDTH SCHEDULE FOR DIMENSIONS.

CONCRETE COLLAR	WIDTH SCHEDULE						
PIPE DIA. (INCHES)	WIDTH OF CONC. (INCHES)						
12	24						
15	24						
18	24						
24	24						
30	30						
36	36						
42	48						
48	48						
54	60						

AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION

EROSION CONTROL DETAILS

CONTRACT:2018.17

SHEET NUMBER: CD-01



D.dg		Scale of Feet						ITR		
9-LC	No.	Revision	By	Date						
: 039					CONSULTANT F	ROJEC	T MANAGER:	R. Bruce Munger	r, P.E.,	P.T.O.E.
me						By	Date		By	Date
ena					Designed	EDD	05\18	Checked	CDH	05\18
Ē					Drawn	EDD	05\18	In Charge of	RAL	05\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

MTA PROJECT MANAGER: William Yates

UPGRADES AND STREAM RELOCATION

LIMIT OF DISTURBANCE PLAN

CONTRACT:2018.17

SHEET NUMBER: LOD-01

0ate:5/24/2018









STA. II+22.50, TO STA. II+77.50, INSTALL CONCRETE SLAB FOR AVC -150 -140 -130 -30 -20 10 20 .30 50 60 -120 -110 -100 -60 -50 -100 70 265 3.00' 260 8.00' 255 ίΠ, ž 250 4:1 245 240 235 230 -/50 50 60 70 -30 -20 0 10 20 30 -140 -130 -120 -100 40 STA. 10+67.61, 8.4' RT. TO STA. 10+70.76, 8.0' RT. INSTALL 3 LF //+00.00 3/" W-BEAM GUARDRAIL - MID-WAY SPLICE (7' STEEL POSTS, 8" OFFSET BLOCKS, SINGLE FACED) -150 -140 -130 121 -70 -60 -50 - 30 -20  $\cap$ In 20 30 40 50 60 70 260 255 10.54' 3.02 Í 250 4.5.1 30.9 245 240 235 230 -/50 -70 -50 -30 -20 20 30 50 60 70 -140 -130 -120 -100 -90 -80 -60 -40 -10 0 10 40 STA. 10+32.70, 12.0' RT. TO STA. 10+67.61, 8.4' RT. INSTALL GUARDRAIL - FLARED TERMINAL - 31" STA. 10+22.00 BEGIN 2" MILL, SHIM, AND PAVE 10+50.00 W-BEAM GUARDRAIL -/50 -140 -1.30 -.30 -20 0 10 20 30 50 60 70 260 255 8.79′ 5.50 250 245 23.6' 240 235 230 -/50 50 60 70 -140 -100 -20 -10 0 10 20 30 40 -130 -120 STA. 9+61.00 STA. 8+85.00 BEGIN SAWCUT AND TEMPORARY RAMP REMOVAL 10+00.00 Scale: Designed by: 20 10 10 0 MAINE B HNTB CORPORATION Scale of Feet THE GOLD STAR 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909 TURNPIKE By Date No. Revision MEMORIAL HIGHWAY CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E. Date 05\18 Date 05\18 Bу By Checked RBM 05\18 CDH EDD Designed

MTA PROJECT MANAGER: William Yates

05\18

Drawn































NOTES:

I. FINAL PLACEMENT OF ROCKBANDS AND WOODY DEBRIS WITHIN THE STREAM BED AND BANKS SHALL BE APPROVED BY THE RESIDENT AND/OR MDIFW.

2. ROCKBANDS SHALL BE CONSTRUCTED OF WELL GRADED MIX OF 9" TO IB" RIVER STONE.

3. VOIDS IN ROCKBANDS TO BE INFILLED WITH SPECIAL FILL, WATERED IN AND TAMPED CREATING A SOLID MASS.

AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION

STREAM DETAILS

SHEET NUMBER: PL-02

CONTRACT:2018.17





RAMP A - STA. 3+25.00 TO STA. 3+50.00 SHEET NUMBER: XS-28













-35 240 9.00′ 40.00′ . 235 230 225 220 2/5 210 -35 -70 -65 -60 -55 -50 -45 -40 -35 240 8.90′ 40.10' 235 11 230 225 220 . 2/5 210 -35 -55 -50 -10 AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION SLOPE REPAIR CROSS SECTIONS RAMP A - STA. 5+25.00 TO STA. 5+50.00 SHEET NUMBER: XS-32 CONTRACT:2018.17 60 OF 84





STA. 5+93.75 LT END SHOULDER PAVEMENT



AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION SLOPE REPAIR CROSS SECTIONS RAMP D - STA. 6+00.00 TO STA. 6+25.00 SHEET NUMBER: XS-34 CONTRACT:2018.17 62 OF 84



CONTRACT:2018.17

63 OF 84

UPGRADES AND STREAM RELOCATION RAMP D - STA. 6+50.00 TO STA. 6+75.00 SHEET NUMBER: XS-35



AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION SLOPE REPAIR CROSS SECTIONS RAMP D - STA. 7+00.00 TO STA. 7+25.00 SHEET NUMBER: XS-36

CONTRACT:2018.17



AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION RAMP D - STA. 7+50.00 TO STA. 7+75.00 SHEET NUMBER: XS-37

CONTRACT:2018.17







CONTRACT:2018.17





68 OF 84

RAMP D - STA. 9+00.00 TO STA. 9+25.00

_														
	-	•	VARIES (SEE	TABLE)		•			AVC 4	SEAL WITH ELEC	TRICAL XY			
		-	VARIES (SEE TABLI (TOP A	E)-#6 GFRP BA ND BOTTOM)	RS @ 6"	-1	-			PROPOSE LOOP LEA	D AD = I'/4" TO I'/2" FOR SINGLE	LEAD		
	<u>3" COVER</u> (TYP.)	-				-				d d 3" sch	= 21/2" FOR <sup>®</sup> MULTIPLE LEAL = 3" AT STUB UP ONLY HEDULE 80 PVC	05	LOOPS TO BE INSTALLED ON NORTHBOUND AND SOUTHBOUND ON RAMPS UNDER THIS CONTRACT (TYP.)	_
80								PROP SCH. & CONDI CONCF SLAB	OSED 3" -J \ BO PVC JIT BELOW RETE	— SANITARY TEE O FOR START OF C USE REDUCERS	R SANITARY 90° ONDUIT RUN TO FIT 3° CONDUIT		FUTURE LOOPS INSTALLED BY OTHERS (TYP.)	_
:5/24/20								5	<u>STUB UP IN</u> <u>SECTION</u>	<u>AVC_SLAB</u> VIEW			DIRECTION OF TRAVEL	
Date		ARS (						*NOTE: SEA INCIDENTA	LING STUB-UPS AN	ID CONDUIT SHALL B. TE SLAB PAY ITEM.	E			
		109 - #6 GFRP E (TOP AND B				55'-0'			d = 11/4" TO 1/1 21/2" FOR MULT	8" E (//4"	D CUT w = 1/2" FOR C %" FOR ALL O SENSOR	RADIENT ENDS THER CUTS		
								NOTES: I. TRANS LEADS. SECTION	SCORE SHALL INJ TRANSCORE SHAL I 655 FOR MORE	ECT LOCTITE EPOXI L PROVIDE EQUIPM INFORMATION.	Y INTO SAW CUT BEFORE ENT,TEMPLATES AND EF	INSTALLING SEN OXY.SEE SPECIA	SORS AND L PROVISIONS	
		Ļ					_	2. ALL L TO CUTT	AYOUT FOR PRIM TING CONCRETE.	ARY AND GRADIENT	SENSORS SHALL BE VE	RIFIED BY TRANS	SCORE PRIOR	
			AVC SLA	<u>B DETAIL</u>				3. 1/4" DE FOR LOO	PRESSION FOR L DPS.	EPOXY OVERLAY SHA	ALL BE COMPLETED AFTE	R SAW CUTTING	CONCRETE	
			Rebar Fo Slab A	or AVC Slab Slab B Slab C	Slab D			4. MEAS	SUREMENT FOR 17	EM 515.23 EPOXY (	OVERLAY SHALL BE BY S	Υ.		
			Width(it)     2       Length(ft)     2       Rebar Along Width     4       Rebar Dowels     4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			6. DV AS INSTALL	MOUNTING HARDW ATION.	ARE AND INSTALLA	ATION IS INCIDENTAL TO	ITEM 655.02 DVA	IS MOUNT	
	AVC SLAB I. THE CON SLAB WILL THE SLOPE SHALL BE CONSTRUCT 2 FACH AV	<u>NULES:</u> TRACTOR S HAVE A S ES SHOWN WARPED T ED ON TH.	SHALL CONSTRUCT FOU SHOULDER SLOPE BRU ON THE PLANS. THE TO MATCH THE AVC S E AVC SLAB BETWEE HALL BE PLACED IN	R AVC SLABS,0 EAK BETWEEN T PROPOSED APP LAB MINOR SHO N THE TRAVEL ONE CONTINUIOUS	NE ON EA THE TRAVE PROACH AN ULDER SL LANES AN S PLACEM	CH RAMP EL LANE / ID DEPAR OPES. NO D THE MI	, AS SHOWN ON AND THE MAJOF TTURE MINOR S. SHOULDER BRU INOR SHOULDER TRUCTION JOINT	THE PLANS. EACH R SHOULDER AS PE HOULDER PAVEMEN EAK SHALL BE S. S. ARE NOT ALLOWE	ГR Г	1	//4" DEP/ AROUND LOCATIO	21'-0" RESSION LOOP N (TYP.)		
	3. FINISHIN (502,14),	IG OF AVC	SLABS SHALL ADHER	RE TO WEARING	SURFACE	TOLERAN	CES PER 502	SPECIAL PROVISION			EPOXY ERLAY 6' X 6' F SENSOR	PAYPOINT		
	4. CONCRET	E FOR AV	C SLABS SHALL BE C	CLASS AAA DECH	K WITH 5L	BS/CY OF	F SYNTHETIC FI	BER REINFORCING.		<u> </u>				-1-  -
	5. AVC SLA	B SHALL F	AVE A BROOM FINIS	Н.										-
	6. ALL REIN	FORCING I	BAR SHALL BE GFRP. BAR SUPPORTS AND T	TIES SHALL RF	NON-MFTA	LLIC.							8" EP( OVER.	
	8. EACH AV	C SLAB W	ILL REQUIRE APPROX	IMATELY 200 LF	OF 3" CO	NDUIT. ALI	L CONDUIT, FITT	INGS, LABOR, AND AL TE ITEM.	L			LOOP INSTAL *NB AND SB	<u>LATION DETAIL</u> on ramps only	
	9. THE COI THE SB E	NTRACTOR	SHALL INSTALL (40) SLAB (MID SLAB - ONE	3' - #8 GFRP DON 5 FOOT APART) F	WELS BY I PRIOR TO	DRILLING PLACING	AND EPOXYING THE SB EXITIN	THE DOWELS INTO						
ngb.	cale:			Designed	by:									Τ
069_avcDets	o.	Revisio	n By [	Date			NTB		HNTB CC 340 County Westbrook TEL (207	RPORATION Road, Suite 6-C , ME 04092 ) 774-5155		THE G IEMORI	OLD STAR AL HIGHWAY	
ame: (						Date	K: R. Bruce Mung	er, P.L., P.T.O.E.	FAX (207	) 228-0909				╞
Filen				Designed Drawn	EDD	05\18	Unecked In Charge of	RAL 05\18			MTA PROJECT MANAGER:	William Yates		$\exists c$



CONTRACT:2018.17

SHEET NUMBER: AV-01

9:5/24/2018



NOTE: I. NUMBERS CORRESPOND TO NUMBERS LISTED ON WIRING SCHEDULES. 2. DIAGRAM SHOWN FOR ALL EXIT 75 TOLL LANES 3. ALL WIRING AND EQUIPMENT FOR ALL EXIT 75 TOLL LANES

# AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION POWER & COMMUNICATIONS LINE DIAGRAM

CONTRACT:2018.17

SHEET NUMBER: T-01

	WIRING SHOWN IS FOR ONE TOLLED LANE. REPLICATE FOR NORTHBOUND AND SOUTHBOUND ENTRY RAMPS ONLY											
	ATT/ET	C DISCRETE WIRING SCHEDULE - DATA: DOOR WIRIN	G LOO	GIC, SE	RIAL, VIDE	O, AUDIO	D (Primary Server)					
	Intellige	ent Vehicle Identification System (IVIS) (For Wiring	Only.	Home	e Run Lea	d supplie	d as part of Sensor)					
	WIRE LABEL	DESCRIPTION	AWG	COLOR	CORE	STANDARD	FROM	то	TERMINATIONS			
100	T4-49.IQ	NTELLIGENT OLIELING (IO) SENSOR	16	BLACK	STRA NDED	IMSA 50-2	INTELLIGENT OLIELING (IE SENSOR)		Integrator to terminate			
101	T4-50.IQ					100/00-2			Integrator to terminate			
102	T4-51.G1	PA Y POINT GRADIENT SENSOR #1	16	BLACK	STRA NDED	IMSA50-2	POST-CLASSIFICATION GRADIENT SENSOR #1		Integrator to terminate			
103	T4-52.G1					100/00 2			Integrator to terminate			
104	T4-53.PP		16	BLACK	STRANDED	IMSA 50-2	POST-CLASSIFICATION PRIMARY SENSOR		Integrator to terminate			
105	T4-54.PP					100/00 2		NEEDED SPLICE TO IMSA-50-2 TY PE CABLE INSTALL THE	Integrator to terminate			
106	T4-55.G2			BLACK	STRANDED	IMSA 50-2	POST-CLASSIFICATION GRADIENT SENSOR #2	HOME RUN CABLE FROM THE LANE GROUND BOX TO THE	Integrator to terminate			
107	T4-56.G2					100/00-2		LANE SERVER CONNECTION SPECIFIED IN THE ADJ COLUMN.	Integrator to terminate			
108	T4-57.IQ	PIGHT SHOLIL DER INTELLIGENT OLIELING (ID) SENSOR (NOT LISED)	16	BLACK	STRA NDED	IMSA 50 2	SHOLIL DER IN ERIMA RY SENSOR, ILINICTION ROY	INSULATED TO BE WATER RESISTANT. FOR LANES NOT	Integrator to terminate			
109	T4-58.IQ					100/00-2						
110	T4-59.G1	31     RIGHT SHOULDER PAYPOINT GRADIENT SENSOR #1 (NOT USED)     16     BLACK     STRANDED		BLACK	STRANDED	INCAED 2		PRE_CLASSIFICATION SENSORS AND INTELLIGENT QUEUING	Integrator to terminate			
111	T4-60.G1			11/10/10-2		Integrator to termin						
112	T4-61.PP		16	BLACK	STRA NDED				Integrator to terminate			
113	T4-62.PP					100430-2			Integrator to terminate			
114	T4-63.G2	RIGHT SHOULDER PAYPOINT GRADIENT SENSOR #2 (NOT LISED)	16	BLACK	STRANDED	IMSA 50-2			Integrator to terminate			
115	T4-64.G2					100/00-2			Integrator to terminate			
116	ORT(ORT#). MS/1_D1	MEDIAN SHOULDER/ TRAVEL LANE DIAMOND SENSOR (NOT USED)	16	BLACK	STRANDED	IMSA50-2	SHOULDER DIAMOND SENSOR JUNCTION BOX	IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AVVG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY SI AT THE SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate			
117	ORT(ORT#). 1/RS_D2	TRAVEL LANE / RIGHT SHOULDER DIAMOND SENSOR (NOT USED)	16	BLACK	STRANDED	IMSA50-2	SHOULDER DIAMOND SENSOR JUNCTION BOX		Integrator to terminate			
118	ORT(ORT#). OS_D3	RIGHT SHOULDER OUTSIDE HALF DIAMOND (NOT USED)	16	BLACK	STRANDED	IMSA50-2	SHOULDER DIAMOND SENSOR JUNCTION BOX	HALF DIAMOND SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY SI AT THE SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate			
	Notes:											
	1.) Lane Server to peripheral cable pin connections - refer to peripheral Installation Guide. RJ-45 at Lane Server: 1= CTS, 2=CD, 3=RxD, 4=Gnd, 5=Gnd, 6=TxD, 7=DTR, 8=RTS. (No handshaking is used)											

71_DataSchedule.d	Scale: No.	NOT TO SCALE Revision	By Date	Designed b	y:	HN	ITB			HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155	MAINE TURNPIKE	THE GOLD STAR MEMORIAL HIGHWAY
<u>.</u> [				CONSULTANT	PROJEC	T MANAGER:	R. Bruce Mung	er, P.E.,	P.T.O.E.	FAX (207) 228-0909		
an l					By	Date		By	Date			
B				Designed	RBM	05\18	Checked	CDH	05\18			
Ē[				Drawn	EDD	05\18	In Charge of	RAL	05\18		MTA PROJECT MANA	GER: William Yates

# AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION

DATA SCHEDULE

CONTRACT:2018.17

SHEET NUMBER: T-02

	ATT/ETC LANE TYPE PO	WER WIRING SCHEDULE											
	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	AWG	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	то	LANE SERVER TERMINAL #	TERMINATION REQUIREMENTS	TERMINATIONS
	LANE SERVER			1	1	1	1	1	1	I	1		1
10	(LANE CONTROLLER).LS.T1-1	LA NE SERVER POWER (HOT, NON-SWITCHED)		BLACK OR PER LOCAL CODE							T1-1		POWER PANEL
11	(LANE CONTOLLER) .N.LS.T1-2	LANE SERVER POWER (NEUTRAL)		WHITE					60 AMP CLEAN POWER	LANE CONTROLLER FIELD	T1-2	BARE WIRE (Capped	POWER PANEL
12	(LANE CONTROLLER) .LS.T1-3	LANE SERVER POWER (GROUND)	12	GREEN	STRANDED	THHV	120 VAC	20	CIRCUIT BREAKER	BLOCK	T1-4	termination by SI)	POWER PANEL
13	(LANE CONTROLLER)IG.LS.T1-4	LANE SERVER POWER (ISOLATED GROUND)		GREEN W WHITE STRIPE							T1-3		POWER PANEL
	LANE DIGITAL VIDEO AI	ND AUDIT CAMERA (DVAS)		1				1					
20	(Primary Power Panel).PP	LANE DVAS PAY POINT CAMERA ENCLOSURE POWER (HOT - KEY SWITCHED)	12	BLACK OR PER LOCAL CODE			120 \/AC		60 AMP CLEAN POWER	DVAS CAMERA ENCLOSURE	N//A	BARE WRE (Capped	POWER PANEL
21	(Primary Power Panel)N.PP	LANE DVAS PAY POINT CAMERA ENCLOSURE POWER (NEUTRAL)	- 12	WHITE	STRAIDED		120 VAC	IVA	CIRCUIT BREAKER	FIELD WIRING POWER STRIP	INA	termination by SI)	POWER PANEL
22	(Primary Power Panel)G.PP	LANE DVAS PAY POINT CAMERA ENCLOSURE FOWER (GROUND)		GREEN									POWER PANEL
	AUTOMATIC VEHICLE ID	DENTIFICATION (AVI)					_						
30	(Primary Power Panel)L.AVI	LANE A VI READER QUAD POWER (AC HOT)	12	BLACK OR PER LOCAL CODE	STRANDE		120 VAC	20	60 AMP CLEAN POWER		N/A		POWER PANEL
31	(Primary Power Panel)N.AVI	LANE AVI READER QUAD POWER (AC NEUTRAL)	12	WHITE			120 0710	20	CIRCUIT BREAKER				POWER PANEL
32	(Primary Power Panel) G.AVI	LANE A VI QUAD READER (GROUND)		GREEN									POWER PANEL
	60 AMP PANEL SERVING	G NB EXIT LANE - CIRCUIT "A" CLEAN/DIRTY											
40	(Panel #)(Ckt #)H1.UPS	POWER (120V-HCT)		BLACK									POWER PANEL
41	(Panel #)(Ckt #)H2.UPS	POWER (120V-HCT)	2	RED									POWER PANEL
42	(Panel #)(Ckt #)N.UPS	POWER (120V-NEUTRAL)		WHITE			240 VAC		MAIN CLEAN POWER	60 A MP CLEAN POWER SUB-	NI/A		POWER PANEL
43	(Panel #).G	GROUND		GREEN		1111100	240 VAC		PANEL "CP1"	BREAKER	N/A		POWER PANEL
44	(Panel #).IG	ISOLATED GROUND (CLEAN ONLY)	2	GREEN W YELLOW STRIPE									POWER PANEL
	60 AMP PANEL SERVING	5 NB ENTRY LANE - CIRCUIT "B" CLEAN/DIRTY											
50	(Panel #)(Ckt #)H1.UPS	POWER (120V-HCT)		BLACK									POWER PANEL
51	(Panel #)(Ckt #)H2.UPS	POWER (120V-HCT)	2	RED									POWER PANEL
52	(Panel #)(Ckt #)N.UPS	POWER (120V-NEUTRAL)		WHITE			240.VAC		MAIN CLEAN POWER	60 AMP CLEAN POWER SUB-	N/A		POWER PANEL
53	(Panel #).G	GROUND		GREEN	STRAIDE		240 VAC		PANEL "CP1"	BREAKER	INA	PER LOCAL CODE	POWER PANEL
54	(Panel #).IG	ISOLATED GROUND (CLEAN ONLY)	2	GREEN W/ YELLOW STRIPE									POWER PANEL
	60 AMP PANEL SERVING	S SB ENTRY/EXIT LANE - CIRCUIT "C" CLEAN/DIRTY											
60	(Panel #)(Ckt #)H1.UPS	POWER (120V-HCT)	_	BLACK									POWER PANEL
61	(Panel #)(Ckt #)H2.UPS	POWER (120V-HCT)	2	RED									POWER PANEL
62	(Panel #)(Ckt #)N.UPS	POWER (120V-NEUTRAL)		WHITE	STRANDE	THHW	240 VAC		MAIN CLEAN POWER PANEL "CP1"	PANEL ASSIGNED CIRCUIT	N/A	PER LOCAL CODE	POWER PANEL
63	(Panel #).G	GROUND		GREEN	GREEN STRANDED	THHVV	N 240 VAC	,C		1" PANEL ASSIGNED CIRCUIT BREAKER			POWER PANEL
64	(Panel #).IG	ISOLATED GROUND (CLEAN ONLY)	2	YELLOW STRIPE									POWER PANEL

e.dgn				
킁 Scal	e:	Designed by:		
72_PowerSche	NOT TO SCALE Revision By Date	HNTB	HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155	THE GOLD STAR MEMORIAL HIGHWAY
		CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E., P.T.O.E.	FAX (207) 228-0909	
Ĕ		By Date By Date		
enc		Designed RBM 05\18 Checked CDH 05\18		
ii		Drawn EDD 05\18 In Charge of RAL 05\18		MTA PROJECT MANAGER: William Yates

AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION

POWER SCHEDULE

CONTRACT:2018.17

SHEET NUMBER: T-03
	WIRING SHOWN IS FOR ONE TOLLED LAN	NE. REPLICATE FOR SIMILAR LANES.						
	ATT-ETC LANE NETWORK WIRING SCHEE	DULE						
	LANE SERVER MULTIMODE FIBER (FOR RI	EMOTE SWITCH ACCESS)						
	WIRE LABEL	DESCRIPTION	COLOR	CONNECTOR AT FX PATCH PANEL (COMPUTER ROOM)	COMMUNICATIONS SWITCH IN THE LANE SERVER	WIRING CONVENTION	PROTOCOL	FIELD WIRING INSTRUCTIONS
200		LANE SERVER NETWORK CONNECTION - SEND	BLUE					
201		LANE SERVER NETWORK CONNECTION - RECEIVE	ORANGE		ST (MALE)	6-FIBER (TYP) (4 Min Fiber) MULTI-MODE 100mbs	62.5/125 MICRONS INDOORVOUTDOOR RISER RATED	FROM PLAZA COMMUNICATIONS RACK FIBER (FX) PATCH PANEL TO THE LANE SERVER FIBER LINE INTERFACE UNIT (LIU) IN THE COMMUNICATIONS CABINET. PROVIDE 1 EA 3M DUPLEX FX PATCH CABLE (STM to STM) FROM THE LIU TO THE LANE SERVER NETWORK SWITCH.
202	(  n#)  S	LANE SERVER NETWORK CONNECTION - SPARE SEND	GREEN	ST (MALE)				
203	(1117)20	LANE SERVER NETWORK CONNECTION - SPARE RECEIVE	BROWN					
204		LANE SERVER NETWORK CONNECTION - SPARE SEND (optional)	SLATE					
205		LANE SERVER NETWORK CONNECTION - SPARE RECEIVE (optional)	WHITE					
	LANE SERVER ETHERNET CONNECTION (F	OR LOCAL SWITCH -SAME ROOM- ACCESS )						
206	(Ln#).LS	LANE SERVER NETWORK CONNECTION (CAT5E/6 CABLE ALTERNATIVE TO FIBER ABOVE IF LOCAL SWITCH PROVIDED AND CONNECTION IS LESS THAN 300 FEET)	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	UTP	CAT5E BULK CABLE FROM THE SERVER ROOM TO THE LANE CABINET FIBER SWITCH LANE SERVER SWITCH. TERMINATE AND TEST CABLE RUN.
	DIGITAL VIDEO AUDIT SYSTEM (DVAS)							
207	DVAS.(Ln#).PP	LANE DVAS PAYPOINT CAMERA NETWORK CONNECTIONS	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER AND FIBER SWITCH TO THE LANE DVAS PAY POINT CAMERA. TERMINATE AND TEST CABLE RUN. ALLOW 10' OF CABLE TO REACH FROM THE DVAS DATA JUNCTION BOX TO THE LANE CAMERA ENCLOSURE.
	AUTOMATIC VEHICLE IDENTIFICATION (A	VI)						
208	(Ln#).AVI.LN(#)	TRAVEL LANE AVI ANTENNA RF CABLE	BLACK	LANE ANTENNA IN THE GANTRY	"N" CONNECTOR (MALE)	LMR 400	PVC	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI 110 JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER
209	(Ln#).AVIE	LANE A VI READER ETHERNET DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	10/100 UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI 110 JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER
210	(Ln#).AVIS	LANE A VI READER DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	10/100 UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI 110 JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER
	NOTES:							
	1). ALL NETWORK CABLES ARE GIGABIT COMPLIANT, S	SUITABLE FOR OUTDOOR/WET ENVIRONMENT, OSP GRADE FOR DIRECT BURIAL						

2). STRADDLE ANTENNAS/READERS ARE LOCATED BETWEEN LANES ABOVE THE STRIPE. IF STRADDLE ANTENNAS/READERS ARE OMITTED BY PLANS, WRING MAY BE OMITTED

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.ຍິ Sc	ale:						Designed	by:							
tworkWi		NOT	ТО	SCAL	-E					ITR			HNTB CORPORATION	MAINE	THE GOLD STAR
3_Ne	».		Revision		В	y Date	-						340 County Road, Suite 6-C Westbrook, ME 04092		MEMORIAL HIGHWAY
6							CONSULTAN	T PROJECT	MANAGER	R. Bruce Muna	er. P.E.,	P.T.O.E.	TEL (207) 774-5155		
me								By	Date		By	Date			
ena							Designed	RBM	05\18	Checked	CDH	05\18			
Ē							Drawn	EDD	05\18	In Charge of	RAL	05\18		MTA PROJECT MAN	AGER: William Yates
Filen							Designed Drawn	EDD	05\18	In Charge of	RAL	05\18		MTA PROJECT MAN	AGER: William Yates

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## AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION

NETWORK WIRING SCHEDULE

CONTRACT:2018.17

SHEET NUMBER: T-04



MTA PROJECT MANAGER: William Yates

EDD

Drawn

CONTRACT:2018.17

#### **SPECIFICATIONS**

GANTRIES: - AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 6TH EDITION.

#### DESIGN LOADING

### MATERIALS

90

STRUCTURAL STEEL:	
ALL MATERIAL (EXCEPT AS N	OTED)ASTM A 709, GRADE 50
HSS SECTIONS	ASTM A500, GRADE B
HIGH STRENGTH BOLTS	ASTM A 325, TYPE 3
ANCHOR RODS	ASTM FI554, GRADE 55

#### BASIC DESIGN STRESSES

#### STRUCTURAL STEEL

ASTM A 709, GRADE	50	Fy = 50,000 PS
ASTM A 500, GRADE	B (SQUARE HSS)	Fy = 46,000 PS
ASTM A 325		Fu = 120,000 PS
ASTM F 1554, GRADE	55	Fy = 55,000 PS

#### CONSTRUCTION NOTES:

I. ALL STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.

2. ALL ANCHOR RODS SHALL BE SWEDGED OR THREADED ON THE EMBEDDED PORTION OF THE ROD.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS BEFORE FABRICATION.

4. AVI MOUNTING FRAME SHALL BE GALVANIZED UNISTRUT MEMBERS, AND SHALL BE INCIDENTAL TO THE STRUCTURAL STEEL ITEM 504.6I.







2" GALV. RIGID METAL CONDUIT 2'-10¾" AVI ANTENNA AVI ANTENNA

<u>ELEVATION</u>

HSSI2xI2 P2484W (TYP.)paran %" DIA. S.S. BOLT (TYP.) P2942 (TYP.)-– 🚀 DIA. S.S. U-BOLT 9"x6"x1/4" 12-- 2" DIA. SCH. 40 PIPE <u>AV I</u> ANTENNA FRAME

> AUBURN - EXIT 75 TOLL SYSTEM UPGRADES AND STREAM RELOCATION STRUCTURAL GENERAL NOTES & ELEVATION

CONTRACT:2018.17

SHEET NUMBER: S-01



-ë[	Scal	e:	Designed by:		
et			5 5		
Ę				HNTB CORPORATION	
S				340 County Road Suite 6-C	
G	No.	Revision By Date		Weetbreek ME 04002	
20				Westbrook, ME 04092	
0			CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E., P.T.O.E.	FAX (207) 228-0909	
Э́г			By Date By Date	1/00 (20// 220 0000	
ē			Designed GLS 09/17 Checked JDW 09/17		
ĭĔ			Drawn PEB 09/17 In Charge of RAL 09/17	1	MTA PROJECT MANAGER: William Yates



GANTRY DETAILS

CONTRACT:2018.17

1/4/

33/4"

/4"

//4"

33/4"

23/4"

SHEET NUMBER: S-02



Drawn



78 OF 84

CONTRACT:2018.17











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Scale:   25   0   25   50     Scale of Feet   By Date   Designed by:     No.   Revision   By Date     By Date   CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E., P.T.O.E.     By Date   By Date     By Date   By Date </th <th></th>	



# WELLS - EXIT 19 DIRECTIONAL BORING

# EXIT 19 DIRECTIONAL BORING PLAN

CONTRACT:2018.17

SHEET NUMBER: PL-01

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