

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



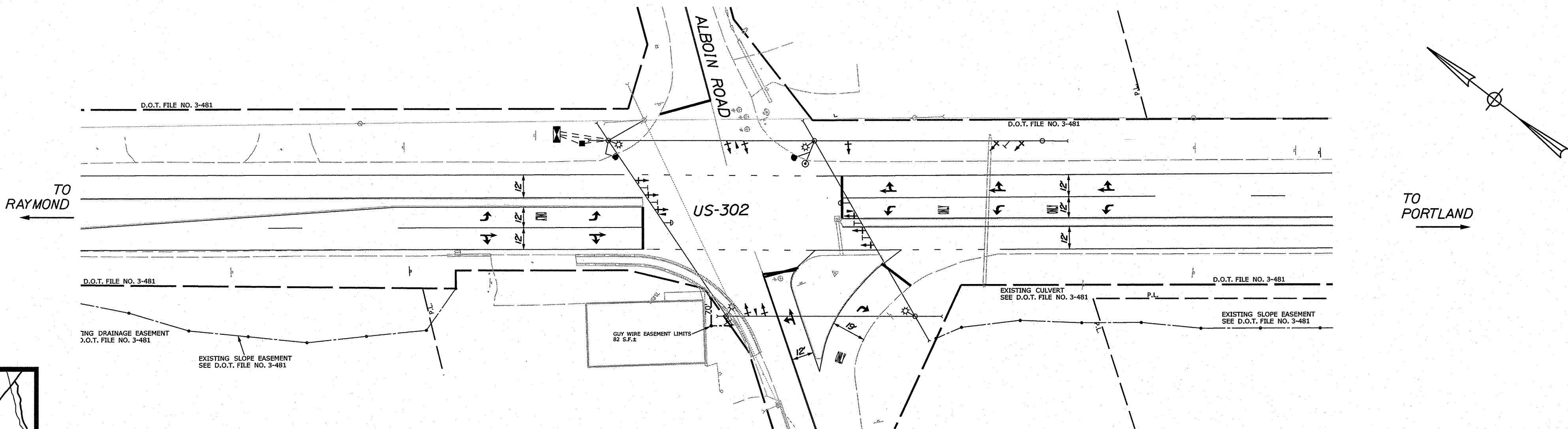
WINDHAM
CUMBERLAND COUNTY
ROUTE 302 (ROOSEVELT TRAIL) & ALBION ROAD
FEDERAL PROJECT NO. 2526500
STATE PROJECT NO. 25265.00
PROJECT LENGTH: INTERSECTION

PLAN LEGEND

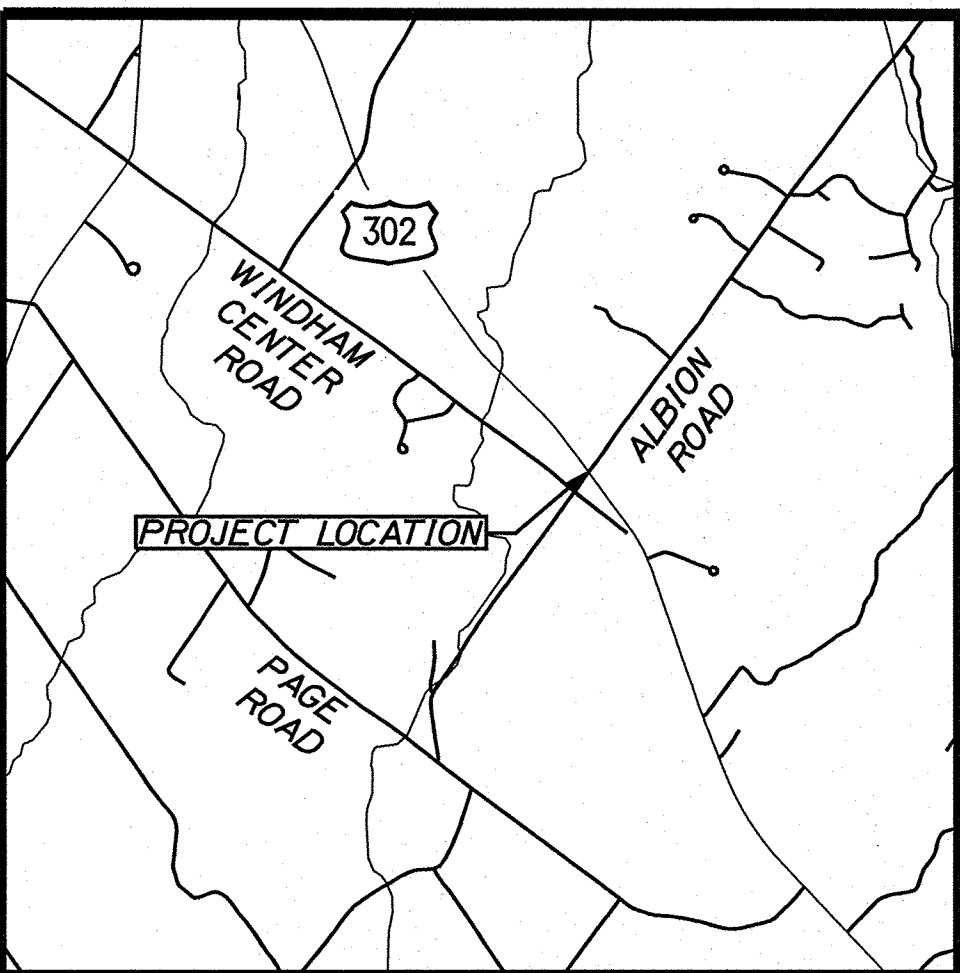
	Existing	Proposed
Vehicular Head		
Video Detection Camera		
Emergency Vehicle Preemption Receiver		
Emergency Preemption Confirmation Strobe		
Mast Arm with Steel Pole		
Mast Arm or Post Mounted Sign		
Pedestrian Push Button and Information Sign		
Detectable Warning Field		
Travelway		
Controller with Cabinet		
Pedestal Post and Foundation		
Junction Box		
360 Degree Video Detection Camera		
Advanced Vehicle Detector		
Overhead Illumination		

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PLANS PREPARED BY:



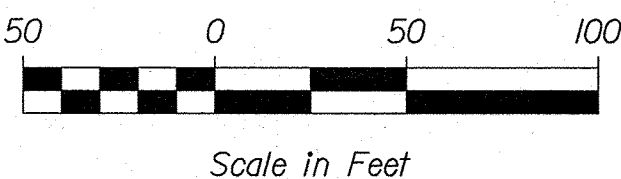
0 1/2 1
Scale in Miles
LOCATION MAP

TRAFFIC DATA

US-302

Current (2019) AADT	14624
Future (2039) AADT	17844
DHV - % of AADT	9.4%
Design Hour Volume	1677
% Heavy Trucks (AADT)	N/A
% Heavy Trucks (DHV)	N/A
Directional Distribution (DHV)	N/A
18 kip Equivalent P 2.0	N/A
18 kip Equivalent P 2.5	N/A
Design Speed (mph)	45 MPH
Functional Class:	Arterial Road
Highway Corridor Priority:	1

LAYOUT SCALE



PROJECT LOCATION:

Intersection of Route 302 (Roosevelt Trail) & Albion Road in the Town of Windham.

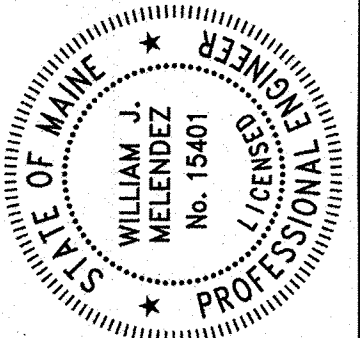
PROGRAM AREA:

Multimodal

SCOPE OF WORK:

Traffic signal installation

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER:		12-13-24
CHIEF ENGINEER:		12-11-2024



William Melendy-Braden	SIGNATURE	15401	P.E. NUMBER	12/06/2024	DATE
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PROJECT INFORMATION	PROGRAM	PROJECT MANAGER	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE
MULTIMODAL	G. DOSTIE	K. AIDOO	WSP USA, Inc.				

WINDHAM ROUTE 302	TITLE SHEET
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SHEET NUMBER	1
OF 7	

WIN 25265.00

GENERAL NOTES:

1. THE UTILITIES INVOLVED IN THIS CONTRACT ARE AS FOLLOWS:

- CENTRAL MAINE POWER

- FAIRPORT

- SPECTRUM
2. ALL UTILITY FACILITIES SHALL BE ADJUSTED BY THE RESPECTIVE UTILITIES UNLESS OTHERWISE NOTED.
3. "UNDETERMINED LOCATIONS" SHALL BE DETERMINED BY THE RESIDENT.
4. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED, OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.
5. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING MAILBOXES TO ENSURE THAT THE MAIL WILL BE DELIVERABLE.
6. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES TO ORIGINAL FINISH SURFACE (ROADWAY, SIDEWALK, ETC.) UNLESS NOTED OTHERWISE ON PLANS. RESTORATION OF PAVED SURFACES, SIDEWALKS, AND OTHER AREAS SHALL BE INCIDENTAL TO THE PROJECT. ALL CURB DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN KIND AND SHALL CONFORM TO MAINEDOT STANDARDS. COST SHALL BE INCIDENTAL TO THE PROJECT.
7. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.
8. FINAL STRIPING FOR THE PROJECT SHALL BE DONE BY THE CONTRACTOR PER THE STRIPING LAYOUT IN THE CONTRACT DOCUMENTS. PAYMENT SHALL BE MADE UNDER APPROPRIATE CONTRACT ITEMS.
9. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION'S BEST MANAGEMENT PRACTICES FOR EROSION CONTROL & SEDIMENT CONTROL, FEBRUARY, 2008.
10. THE CONTRACTOR SHALL MAINTAIN ACCESS AT ALL DRIVEWAYS DURING CONSTRUCTION.
11. ALL SIGNING, SIGNAL, AND STRIPING MATERIALS AND PLACEMENT SHALL CONFORM TO THE MAINEDOT STANDARD SPECIFICATIONS AND STANDARD DETAILS AND WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES DATED 2009, AS AMENDED.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY OPENING PERMITS.
13. THE CONTRACTOR SHALL PROVIDE THE RESIDENT, MAINEDOT, AND THE TOWN OF WINDHAM WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE TRAFFIC IMPROVEMENTS AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF WORK.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING RED-LINE AS-BUILT DRAWINGS OF THE FINAL WORK TO THE RESIDENT. THOSE DRAWINGS SHALL BE ON A CLEAN SET OF PLANS SHOWING ALL CHANGES OR MODIFICATIONS TO THE BID PLANS.
15. ANY POLICE DETAIL REQUIRED (AS DEEMED NECESSARY BY THE RESIDENT) SHALL BE PAID UNDER ITEM 652.381-TRAFFIC OFFICER.
16. ALL CONFLICTING SIGNS AND PAVEMENT MARKINGS SHALL BE PERMANENTLY REMOVED.

SIGNAL NOTES:

1. ALL MATERIALS AND WORK SHALL CONFORM TO THE TOWN OF WINDHAM AND MAINEDOT STANDARD SPECIFICATIONS AND BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", U.S.D.O.T., F.H.W.A., LATEST EDITION.
2. ALL SIGNAL AND SIGNAL RELATED EQUIPMENT SHALL MEET OR EXCEED MAINEDOT AND THE TOWN OF WINDHAM TRAFFIC SIGNAL STANDARDS.
3. IT IS THE INTENT OF THIS WORK TO HAVE A COMPLETE, OPERATIONAL, TESTED AND ACCEPTED TRAFFIC SIGNAL SYSTEM UPON COMPLETION OF THIS CONTRACT.
4. TRAFFIC SIGNAL WORK SHALL BE COMPLETED IN A MANNER AND ORDER THAT WILL CAUSE MINIMUM DISRUPTION TO TRAFFIC.
5. THE RESIDENT, TOWN OF WINDHAM AND MAINEDOT SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED AND SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATION.
6. THE LOCATIONS OF THE SIGNAL EQUIPMENT AND POLES INCLUDING THE MOUNTED TRAFFIC DEVICES AND SIGNS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE RESIDENT, MAINEDOT OR TOWN REPRESENTATIVE.
7. REMOVAL OF THE EXISTING TRAFFIC CONTROL EQUIPMENT, SIGNAGE AND POLE(S) SHALL BE INCIDENTAL TO THE INSTALLATION OF THE NEW SIGNAL SYSTEM. SEE SALVAGE RIGHTS FOR ADDITIONAL INFORMATION.

8. THE COST OF POLE RISERS AND ALL PROJECT SIGNS EITHER OVERHEAD OR INSTALLED ON POSTS, WHICH INCLUDES PROVISION OF THE POSTS SHALL BE INCIDENTAL TO ITEM 643.80.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY TRAFFIC SIGNALS AND ASSOCIATED WORK IF REQUIRED. CONTRACTOR SHALL REMOVE THE TEMPORARY TRAFFIC SIGNAL ONCE NEW SIGNAL IS OPERATIONAL. ALL COSTS ASSOCIATED WITH TEMPORARY SIGNALS SHALL BE INCIDENTAL TO THE 643 ITEMS.
10. THE PROPOSED TRAFFIC SIGNAL TIMING AND PHASING PLAN SHALL BE INPUT BY THE CONTRACTOR UNDER OBSERVATIONS BY THE RESIDENT OR MAINEDOT REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE TO THE RESIDENT.
11. CONTRACTOR IS RESPONSIBLE FOR FIELD ADJUSTING TIMING UNDER THE DIRECTION OF THE RESIDENT AND MAINEDOT REPRESENTATIVE. TIMING SHALL BE ADJUSTED WITHIN TWO WEEKS OF INITIAL START UP.
12. TWO COPIES OF THE AS-BUILT PLANS, SIGNAL TIMING, AND CONTROLLER MANUALS SHALL BE LEFT IN THE CONTROLLER CABINET. ONE ELECTRONIC COPY OF EACH SHALL BE PROVIDED TO THE TOWN ENGINEER/PUBLIC WORKS DIRECTOR.
13. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL PULL BOXES PER MAINEDOT STANDARDS AT A MINIMUM.
14. THE CONTRACTOR SHALL PREPARE A MATERIAL SCHEDULE BASED UPON THEIR PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
15. UTILITIES THAT HAVE FACILITIES IN THE GENERAL PROJECT ARE LISTED IN SPECIAL PROVISION 104.
16. ANY UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND THE CONTRACTOR IS RESPONSIBLE FOR FINDING EXACT LOCATIONS OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONTACT DIG SAFE AT 1-888-DIG-SAFE AND APPROPRIATE AUTHORITIES PRIOR TO ANY SUBSURFACE ACTIVITIES.
17. THE CONTRACTOR SHALL MEET ALL THE REQUIREMENTS OF THE UTILITY COMPANIES WHEN MODIFYING THE EXISTING SERVICE CONNECTIONS AND WHEN INSTALLING EQUIPMENT ON THEIR POLES OR NEAR THEIR WIRES.
18. THE CONTRACTOR IS RESPONSIBLE FOR THE RELOCATION AND/OR INSTALLATION OF POWER METERS IF REQUIRED AND ASSURING THE POWER METER LOCATION AND INSTALLATION CONFORMS TO THE LOCAL UTILITY REQUIREMENTS. THIS WORK WILL BE INCIDENTAL TO 643 ITEMS.
19. ALL CONDUIT CROSSING AREAS OF EXISTING PAVEMENT SHALL BE INSTALLED USING TRENCHLESS TECHNOLOGIES OR OTHERWISE APPROVED.
20. ALL NEW SIGNAL SECTIONS SHALL HAVE LED LENSES 12 INCHES IN DIAMETER, AND SHALL HAVE 5 INCH LOUVERED BACK PLATES WITH 3 INCH YELLOW RETROREFLECTIVE STRIP AROUND BORDER OF BACK PLATES.
21. ALL SPLICES WILL BE MADE IN THE CABINETS OR POLES MEETING MAINEDOT SPECIFICATIONS.
22. ANY DAMAGE TO SLOPES OR PAVEMENT RESULTING FROM INSTALLATION OF WOOD STRAIN POLES OR PEDESTAL POLE FOUNDATIONS SHALL BE REPAIRED BY THE CONTRACTOR AS DIRECTED BY THE RESIDENT. COSTS OF REPAIRS SHALL BE INCIDENTAL TO PAYMENT UNDER SECTION 643.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY STREET OCCUPANCY OR OPENING PERMITS.
24. ALL CONFLICTING SIGNS AND PAVEMENT MARKERS SHALL BE PERMANENTLY REMOVED.
25. ALL SIGNAL HEADS AND SIGNS ON SPAN WIRES SHALL BE TETHERED.
26. THE BOTTOM OF THE HOUSING OF NEW SIGNAL FACES SHALL BE AT LEAST 17 FEET BUT NOT MORE THAN 19 FEET ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY, UNLESS OTHERWISE SPECIFIED.
27. ALL PRE-EMPTION EQUIPMENT SHALL BE THE SAME AS IS CURRENTLY USED BY THE TOWN UNLESS OTHERWISE APPROVED.
28. ALL NEW CONTROLLERS AND CABINETS SHALL BE TRANSIT SIGNAL PRIORITY (TSP) CAPABLE/READY AND AUTOMATIC VEHICLE LOCATION (AVL) CAPABLE.
29. ALL SIGNAL HEADS SHALL BE HEAVY DUTY POLYCARBONATE AND REINFORCED WITH METAL STIFFENERS AND REINFORCING PLATES.
30. SEE STANDARD SPECIFICATIONS AND STANDARD DETAILS, CURRENT EDITION FOR CONTROLLER EQUIPMENT REQUIREMENTS.
31. THE CONTROLLER CABINET SHALL BE A 4 DOOR ATC RACK MOUNTED CABINET.
32. PULL BOXES WILL BE TIER 22, RATED 22,000 LBS.
33. THE TRAFFIC SIGNAL SYSTEM WILL BE EQUIPPED WITH AN APPLIED INFORMATION FMU.
34. ALL SIGNAL CABLE SHALL BE IMSA RATED.
35. ALL VEHICLE DETECTION (ADVANCED AND STOP BAR) SHALL BE LOCATED SUCH THAT EXISTING UTILITY LINES OR POLES WILL NOT OBSTRUCT PROPOSED EQUIPMENT. COORDINATE WORK WITH THE RESIDENT.

36. THE CONTRACTOR IS DIRECTED TO STANDARD SPECIFICATION 718 FOR ADDITIONAL INFORMATION RELATED TO THE CONTROLLER AND CONTROLLER CABINET. STANDARD SPECIFICATION 718 EXPANDS UPON THE INFORMATION FOUND IN THESE NOTES. AS SUCH, THE MORE RESTRICTIVE LANGUAGE BETWEEN THESE NOTES AND STANDARD SPECIFICATION 718 SHALL GOVERN THE WORK TO BE PERFORMED UNDER THIS PROJECT.
37. THE CONTRACTOR SHALL WARRANTY ALL WORK AND EQUIPMENT FOR A MINIMUM PERIOD OF ONE YEAR AFTER INSTALLATION AND ACCEPTANCE.
38. THE POWER SERVICE METER AND SEPARATE DISCONNECT ENCLOSURE SHALL BE MOUNTED ON THE SIDE OF THE NEW ATC CABINET.
39. THE SEPARATE DISCONNECT ENCLOSURE SHALL HAVE TWO BREAKERS, ONE FOR THE SIGNALS AND ONE FOR LIGHTING.
40. LIGHTING CONTROLS CAN BE INSTALLED IN THE ATC CABINET AND WILL NOT REQUIRE A SEPARATE ENCLOSURE.
41. SEE SPECIAL PROVISION 626 FOR GROUND MOUNTED CABINET FOUNDATION SIZE AND REINFORCING REQUIREMENTS.
42. CONTRACTOR SHALL CONDUCT TEST PITS AS NOTED ON THE PLANS TO DETERMINE EXACT LOCATION OF EXISTING UNDERGROUND DRAINAGE.
43. PROPOSED SPAN WIRE WOOD POLES SHALL BE CLASS 4.
44. PROPOSED OVERHEAD LIGHTING SHALL HAVE TYPE 3 DISTRIBUTION.
45. STARTUP TESTING SHALL BE AS FOLLOWS: THE SIGNAL SYSTEM MUST BE FULLY FUNCTIONAL AND FREE OF COMMUNICATIONS OR EQUIPMENT FAILURES FOR A PERIOD OF SEVEN (7) DAYS. IF PROBLEMS OCCUR, THEY SHALL BE RECTIFIED BY THE CONTRACTOR AND THE STARTUP PERIOD RESTARTED FOR ANOTHER SEVEN (7) DAYS.
46. ACCEPTANCE TESTING SHALL BE AS FOLLOWS: UPON DEMONSTRATING A SUCCESSFUL 7 DAY STARTUP TEST, THE TOWN AND MAINEDOT SHALL EVALUATE THE OPERATION OF THE SYSTEM FOR A PERIOD OF 30 DAYS. SHOULD THE SYSTEM MALFUNCTION DURING THIS PERIOD THE CONTRACTOR SHALL MAKE ANY REPAIRS OR CORRECTIONS AND THE ACCEPTANCE TEST PERIOD WILL START OVER AGAIN. ACCEPTANCE TESTING MUST DEMONSTRATE TO THE TOWN AND MAINEDOT THAT ALL HARDWARE AND EQUIPMENT FUNCTION IN ACCORDANCE WITH THESE SPECIFICATIONS, REQUIREMENTS, THROUGH-PUTS AND FUNCTIONALITY.

SALVAGE RIGHTS

MAINEDOT SHALL HAVE FIRST RIGHTS TO ALL EQUIPMENT REMOVED OR REPLACED BY THE PROJECT. MAINEDOT WILL SUBMIT A LIST OF SALVAGED MATERIAL TO BE DELIVERED TO THE ELECTRICAL SHOP. THE LOCAL MUNICIPALITIES SHALL HAVE SECOND SALVAGE RIGHTS TO ALL EQUIPMENT NOT CLAIMED BY MAINEDOT. THE CONTRACTOR SHALL CAREFULLY REMOVE AND STORE ALL EQUIPMENT CLAIMED BY EITHER MAINEDOT OR THE MUNICIPALITY FOR RETRIEVAL BY MAINEDOT OR THE MUNICIPALITY. THE STORAGE AREA SHALL BE SECURE AND ALL CONTROL EQUIPMENT REMOVED THAT HAS COMPUTER CHIP TECHNOLOGY SHALL BE STORED IN AN INTERIOR CLIMATE CONTROLLED ENVIRONMENT.

ANY EQUIPMENT NOT CLAIMED BY EITHER MAINEDOT OR THE MUNICIPALITY FOR SALVAGE SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF IN A MANNER ACCEPTABLE BY THE RESIDENT.

48. STOP BAR VIDEO DETECTION (SBVD) SHALL BE SUPPLIED BY ONE OF THE FOLLOWING MANUFACTURERS:

A. GRIDSMART/CUBIC

B. MIO VISION

C. CURRUX
49. ADVANCED VEHICLE DETECTION SHALL BE THE WAVETRONIX SMART SENSOR ADVANCE.
50. THE SIGNAL SHALL BE PLACED INTO FLASH FOR 14 DAYS PRIOR TO FULL ACTIVATION.
51. THE SIGNAL SHALL BE PLACED INTO FULL ACTIVATION ON A TUESDAY.
52. MESSAGE BOARDS SHALL BE USED ON THE ROUTE 302 APPROACHES WITH THE FOLLOWING MESSAGES:

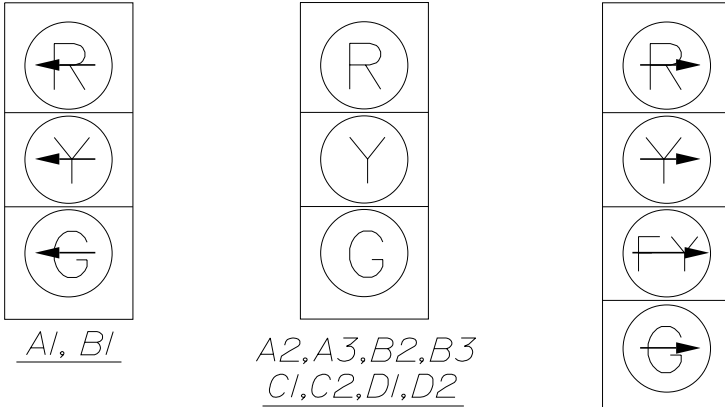
- WHEN THE SIGNAL IS IN FLASH

- NEW TRAFFIC PATTERN STARTS XX/XX/XX
- WHEN THE SIGNAL IS FULLY ACTIVATED

- NEW TRAFFIC PATTERN AHEAD

STATE OF MAINE DEPARTMENT OF TRANSPORTATION				
	25265.00		WIN 25265.00	
			HIGHWAY PLANS	
WINDHAM ROUTE 302	PROJ. MANAGER	G. Dostie	BY	DATE
	DESIGN-DETAILED	K. Airoo	E. Tannelle	06/03/22
	CHECKED-REVIEWED	V. Kiriini	V. Kiriini	06/03/22
	DESIGNS-DETAILED	K. Airoo	E. Tannelle	08/25/23
	DESIGNS-DETAILED	K. Airoo	W. Meunier	10/16/24
GENERAL NOTES	REVISIONS 1	--	--	--
	REVISIONS 2	--	--	--
	REVISIONS 3	--	--	--
	REVISIONS 4	--	--	--
	FIELD CHANGES	--	--	--
SHEET NUMBER				
		2		
		OF 7		

SIGNAL HEAD DATA



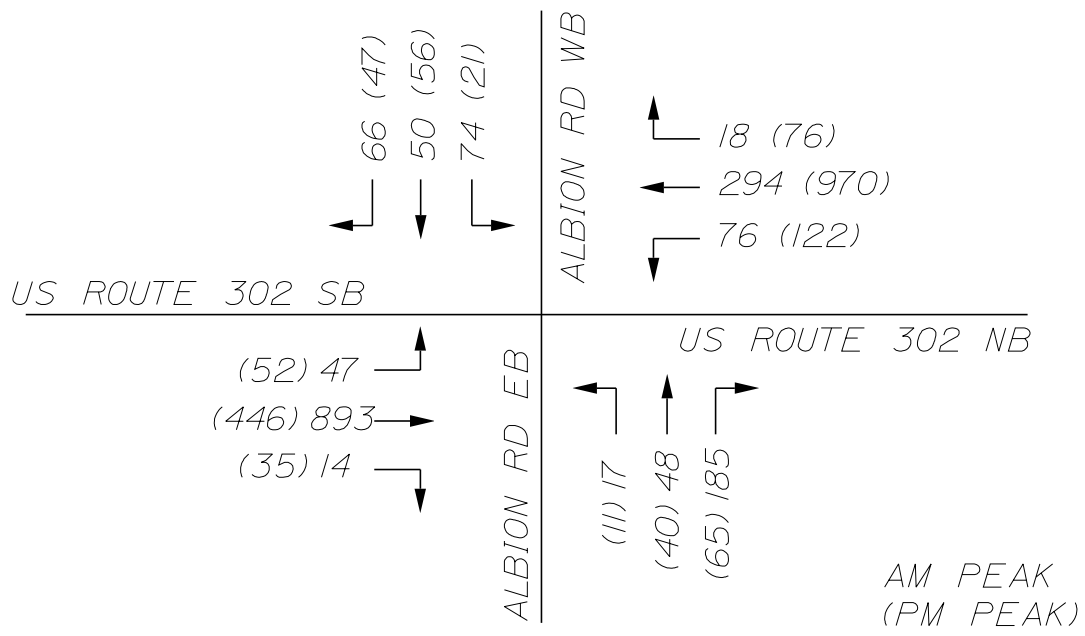
ALL SIGNALS SHALL HAVE 12" LED LENSES WITH 5" RETRO-REFLECTIVE BACKPLATES

SIGNAL NOTES

1. LOCATION OF VIDEO DETECTION AND ADVANCED VEHICLE DETECTOR SHALL BE ADJUSTED AS NEEDED TO MEET MANUFACTURER SPECIFICATIONS FOR INSTALLATION AND OPERATION.

2. INSTALL SIDEWALK GUY WIRE FOR WOOD POLE "A" ON THE SW CORNER OF THE INTERSECTION AS SHOWN ON THE PLAN.

2023 SYSTEM DESIGN VOLUMES



SIGNAL TIMING SCHEDULE								
	1	2	3	4	5	6	7	8
MINIMUM INITIAL	5	10	-	5	5	10	-	5
VEHICLE EXTENSION	1.5	1.5	-	1.5	1.5	1.5	-	1.5
MAX I	15	65	-	18	15	65	-	18
MAX II	20	65	-	15	15	70	-	15
YELLOW	3.5	4.5	-	3.5	3.5	4.5	-	3.5
ALL RED	1.0	2.0	-	2.0	1.0	2.0	-	2.0
FLASH	R	Y	-	R	R	Y	-	R
PHASE RECALL	-	SOFT	-	-	SOFT	-	-	-
DETECTOR	PR	PR	-	PR	PR	PR	-	PR

Y = YELLOW
R = RED
PR = PRESENCE

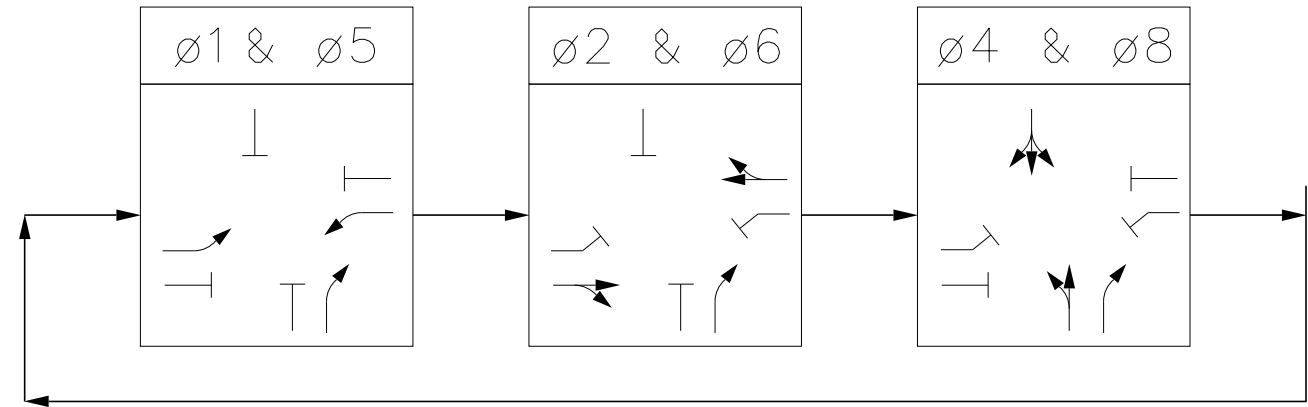
MAX I = ALL OTHER TIMES
MAX II = WEEKDAY PM PEAK HOUR (3 - 6 PM)



NOTES:

- THIS TIMING PLAN IS FOR INITIAL START UP ONLY AND SHALL BE FIELD ADJUSTED UNDER TOWN OR MAINEDOT DIRECTION.
- VEHICLE EXTENSION SHALL BE CALIBRATED FOR A 3 SECOND MAXIMUM ALLOWABLE HEADWAY CONSIDERING ZONE LENGTH, VEHICLE APPROACH SPEED, AND FIELD CONDITIONS.

EQUIPMENT SCHEDULE			
DESIGNATION	ITEM	DESCRIPTION	LOCATION
A	PROPOSED SPAN WIRE WOOD POLE	OVERHEAD ILLUMINATION, SPAN WIRE WITH TETHER, OVERHEAD LANE USE SIGNS, EMERGENCY PREEMPTION, SIGNAL HEADS, SIDEWALK GUY AS REQUIRED.	STA. 13-78.49, 64.72 RT
B	PROPOSED SPAN WIRE WOOD POLE	OVERHEAD ILLUMINATION, SPAN WIRE WITH TETHER, OVERHEAD LANE USE SIGNS, EMERGENCY PREEMPTION, ADVANCED VEHICLE DETECTION, SIGNAL HEADS, GUY AS REQUIRED.	STA. 13+13.68, 31.85 LT
C	CONTROLLER CABINET	INSTALL NEW ATC TYPE - 4 DOOR RACK MOUNT CONTROLLER CABINET ON NEW FOUNDATION	STA. 12+85.29, 35.21 LT
D	EXISTING UTILITY POLE	PROPOSED POWER SOURCE	STA. 13+33.48, 33.00 LT
E	PROPOSED SPAN WIRE WOOD POLE	OVERHEAD ILLUMINATION, SPAN WIRE WITH TETHER, OVERHEAD LANE USE SIGNS, EMERGENCY PREEMPTION, VEHICLE DETECTION, ADVANCE VEHICLE DETECTION, SIGNAL HEADS, GUY AS REQUIRED.	STA. 14+27.19, 31.41 LT
F	PROPOSED SPAN WIRE WOOD POLE	OVERHEAD ILLUMINATION, SPAN WIRE WITH TETHER, SIGNAL HEADS, OVERHEAD LANE USE SIGN, GUY AS REQUIRED.	STA. 15+31.54, 31.00 LT
G	PROPOSED SPAN WIRE WOOD POLE	SPAN WIRE WITH TETHER, OVERHEAD LANE USE SIGNS, EMERGENCY PREEMPTION, SIGNAL HEADS, GUY AS REQUIRED.	STA. 14+82.27, 65.12 RT

PHASING SEQUENCE



SIGNAL HEADS E1,E2 - TO BE  WITH OVERLAP WITH $\phi 1$
TO BE  WITH $\phi 2$ AND $\phi 4$
SIGNAL HEADS AI,BI - PROVIDE ADDITIONAL CONDUCTORS TO ALLOW FOR A FUTURE CONVERSION TO PROTECTED/PERMISSIVE PHASING

EMERGENCY VEHICLE PREEMPTION OPERATION

ID	PREEMPT ASSIGNMENT	RECEIVER PRIORITY	ACTIVE PHASE
R1	1	1	$\phi 1$ & $\phi 6$
R2	2	2	$\phi 2$ & $\phi 5$
R3	3	3	$\phi 8$
R4	4	4	$\phi 4$

EMERGENCY VEHICLE PREEMPTION NOTES:

PREEMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES (1-HIGHEST, 3-LOWEST)

2. IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD THE EMERGENCY ACTIVE PHASE GREEN FOR A MINIMUM OF 10 SECONDS OR UNTIL THE PRE-EMPTION PHASE CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE PER THE CALLED PHASE AS INSTRUCTED IN THE SIGNAL TIMING SCHEDULE AND SERVICE SUBSEQUENT EMERGENCY PHASES AS NECESSARY. AT THE COMPLETION OF THE PREEMPTION CYCLE, THE CONTROLLER SHALL TIME THE PRE-EMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATION.

3. MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PREEMPTION DEMAND.

4. CONFIRMATION STROBES SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

5. ALL PREEMPTION EQUIPMENT SHALL BE COMPATIBLE WITH THE TOWN'S EXISTING EQUIPMENT. COORDINATE WITH RESIDENT ENGINEER AND TOWN OFFICIALS.

DETECTOR SCHEDULE

DETECTOR ZONE NO.	DETECTOR	LOCATION	ϕ CALLED	ϕ EXT.	MODE A-ADVANCE B-STOPLINE	DELAY TIME	EXT. TIME
1	VI	US ROUTE 302: SB L	$\phi 5$	$\phi 5$	B	-	-
2	VI	US ROUTE 302: SB TR	$\phi 2$	$\phi 2$	B	-	-
3	VI	ALBION RD: EB LT	$\phi 8$	$\phi 8$	B	-	-
4	VI	ALBION RD: EB R	$\phi 8$	$\phi 8$	B	-	-
5	VI	US ROUTE 302: NB L	$\phi 1$	$\phi 1$	B	-	-
6	VI	US ROUTE 302: NB TR	$\phi 6$	$\phi 6$	B	-	-
7	VI	ALBION RD: WB LTR	$\phi 4$	$\phi 4$	B	-	-
49	AV2	US ROUTE 302: NB ADVANCE	$\phi 6$	$\phi 6$	A	-	-
52	AVI	US ROUTE 302: SB ADVANCE	$\phi 2$	$\phi 2$	A	-	-

ADVANCE DILEMMA ZONE SETUP

SOURCE: TRAFFIC DETECTOR HANDBOOK: THIRD EDITION - VOLUME 1

SPEED MILES PER HOUR	X (DISTANCE)	Y (DISTANCE)	Z (DISTANCE)
35	152'	102'	254'
40	162'	122'	284'
45	175'	152'	327'
50	181'	172'	353'
55	152'	234'	386'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

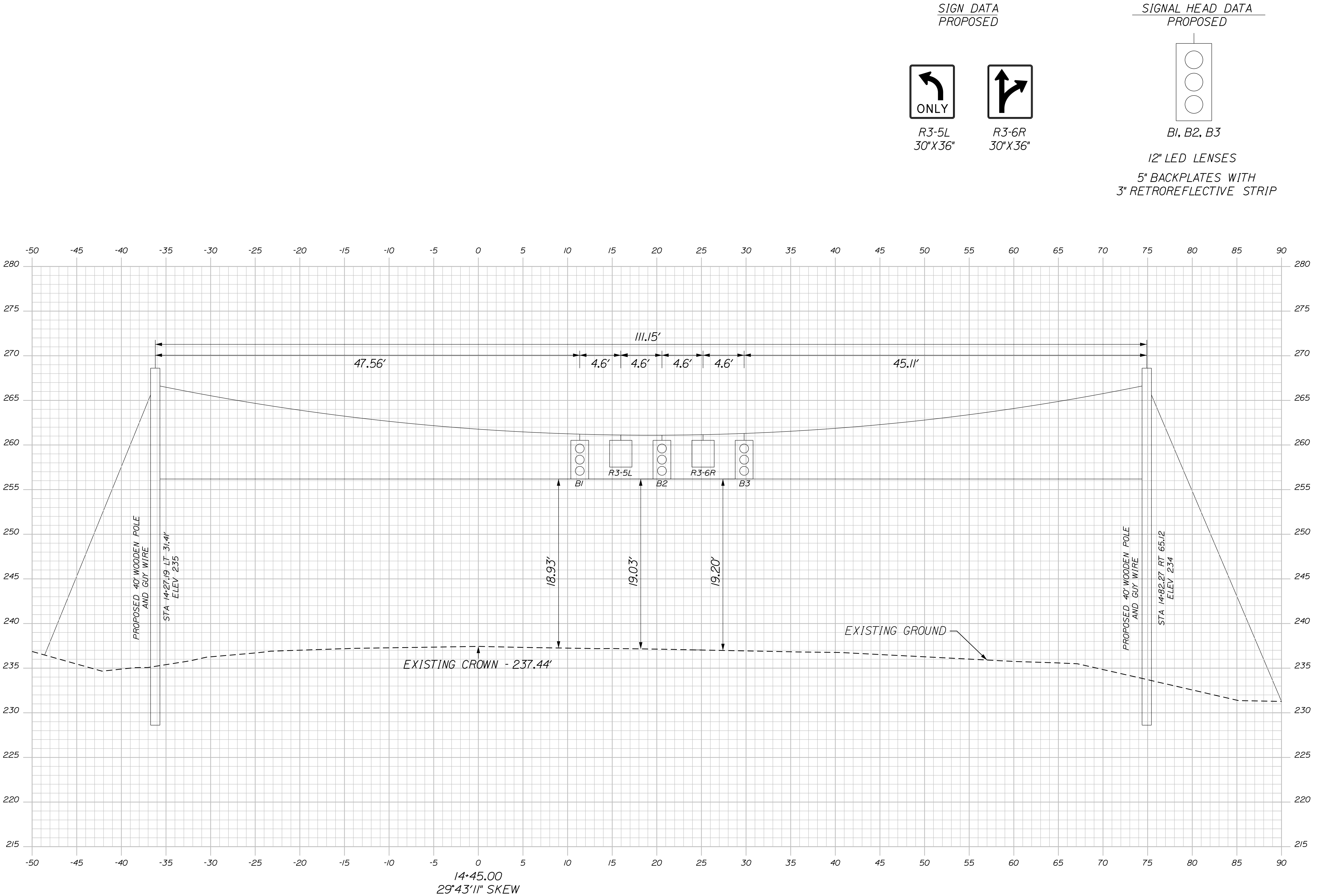
25265.00
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HIGHWAY PLANS

WINDHAM
ROUTE 302

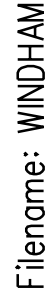
SIGNAL PLAN

SHEET NUMBER
3
OF 7

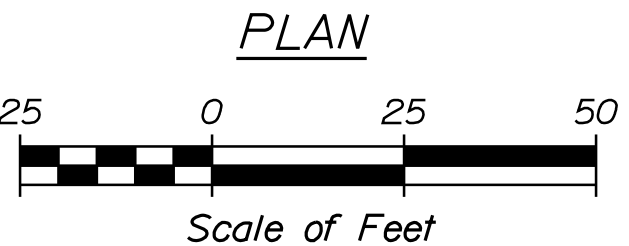
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HIGHWAY PLANS



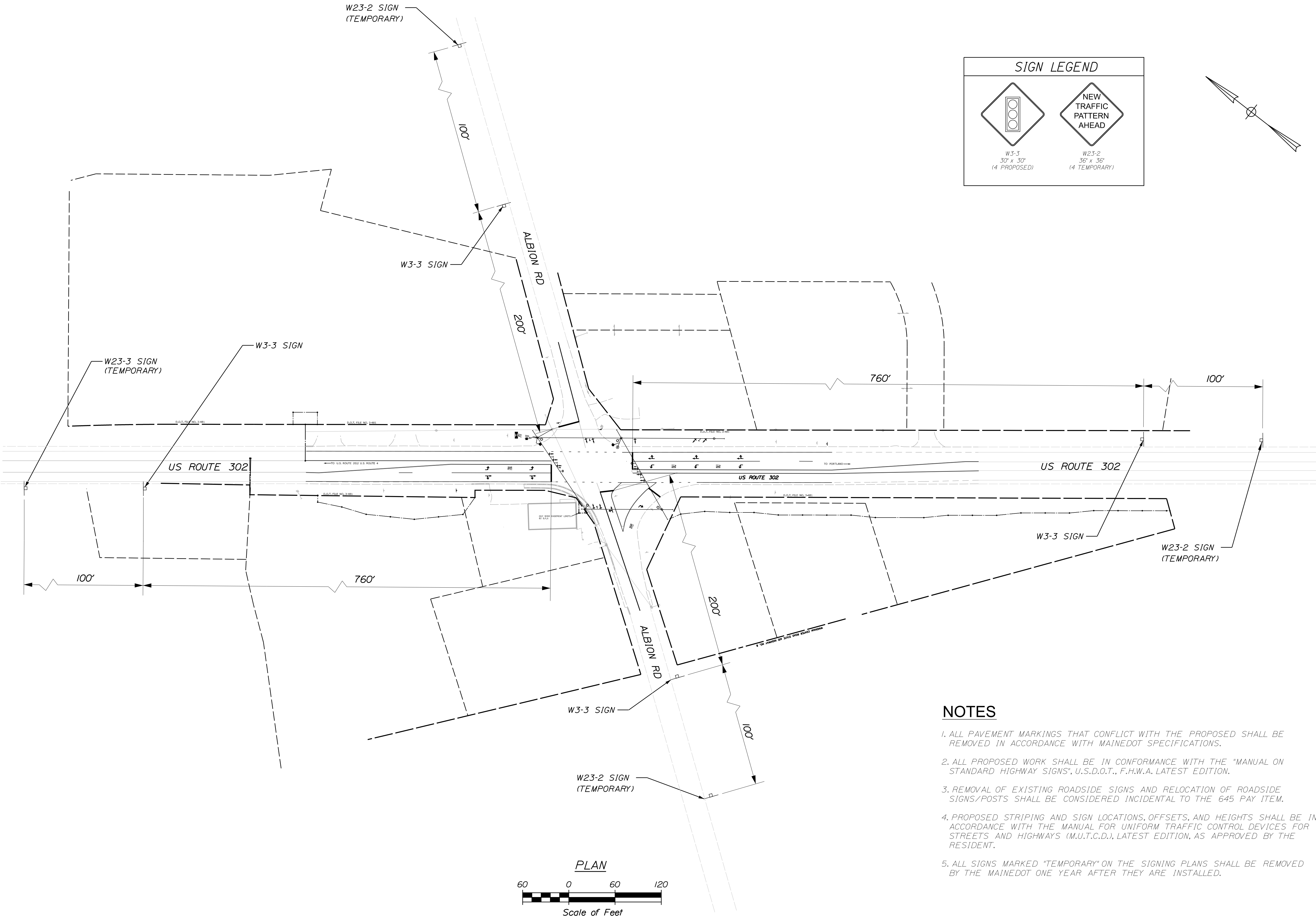
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		25265.00		WIN		25265.00		HIGHWAY PLANS	
WINDHAM		ROUTE 302		CROSS SECTIONS		SHEET NUMBER		4		OF 7	
DESIGN-DETAILED	E. Tammelle	06/03/22	SIGNATURE	P.E. NUMBER		DATE					
CHECKED-REVIEWED	V. Kiri	06/03/22									
DESIGN-DETAILED	E. Tammelle	08/25/23									
DESIGN-DETAILED	K. Airo	10/16/24									
REVISIONS 1	--	--									
REVISIONS 2	--	--									
REVISIONS 3	--	--									
REVISIONS 4	--	--									
FIELD CHANGES		--									



5 OF 7	WINDHAM ROUTE 302 CROSS SECTIONS	SHEET NUMBER				STATE OF MAINE DEPARTMENT OF TRANSPORTATION			
		DESIGN-DETAILED K. Adoo E. Tormellese 06/03/22				SIGNATURE			
		CHECKED-REVIEWED V. Korini 06/03/22							
		DESIGN-DETAILED K. Adoo E. Tormellese 08/25/23							
		DESIGN-DETAILED K. Adoo W. Menezez 10/16/24							
		REVISIONS 1 -- -- --				P.E. NUMBER			
		REVISIONS 2 -- -- --							
		REVISIONS 3 -- -- --							
		REVISIONS 4 -- -- --							
		FIELD CHANGES -- -- --				DATE			
WIN 25265.00				HIGHWAY PLANS					



<div> <div>OF 7</div> <div>6</div> </div>	SHEET NUMBER	SIGNING & STRIPING PLAN		<div> <div>WINDHAM</div> <div>ROUTE 302</div> </div>		<div> <div>STATE OF MAINE</div> <div>DEPARTMENT OF TRANSPORTATION</div> </div>	
						<div> <div>WIN</div> <div>25265.00</div> </div>	
						HIGHWAY PLANS	



SIGN LEGEND

W3-3
30" x 30"
(4 PROPOSED)

W23-2
36" x 36"
(4 TEMPORARY)

NOTES

1. ALL PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED SHALL BE REMOVED IN ACCORDANCE WITH MAINEDOT SPECIFICATIONS.
2. ALL PROPOSED WORK SHALL BE IN CONFORMANCE WITH THE "MANUAL ON STANDARD HIGHWAY SIGNS", U.S.D.O.T., F.H.W.A. LATEST EDITION.
3. REMOVAL OF EXISTING ROADSIDE SIGNS AND RELOCATION OF ROADSIDE SIGNS/POSTS SHALL BE CONSIDERED INCIDENTAL TO THE 645 PAY ITEM.
4. PROPOSED STRIPING AND SIGN LOCATIONS, OFFSETS, AND HEIGHTS SHALL BE IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (M.U.T.C.D.), LATEST EDITION, AS APPROVED BY THE RESIDENT.
5. ALL SIGNS MARKED "TEMPORARY" ON THE SIGNING PLANS SHALL BE REMOVED BY THE MAINEDOT ONE YEAR AFTER THEY ARE INSTALLED.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		25265.00		WIN		25265.00		HIGHWAY PLANS	
WINDHAM		ROUTE 302		SIGNING & STRIPING PLAN		SHEET NUMBER		7		OF 7	
PROJ. MANAGER	G. Dostie	BY	DATE	SIGNATURE		P.E. NUMBER		DATE			
DESIGN-DETAILED	K. Airoo	E. Tannelle	06/03/22								
CHECKED-REVIEWED	V. Kiriini	V. Kiriini	06/03/22								
DESIGN-DETAILED	K. Airoo	E. Tannelle	08/25/23								
DESIGN-DETAILED	K. Airoo	W. Meninger	10/16/24								
REVISIONS 1	--	--	--								
REVISIONS 2	--	--	--								
REVISIONS 3	--	--	--								
REVISIONS 4	--	--	--								
FIELD CHANGES											