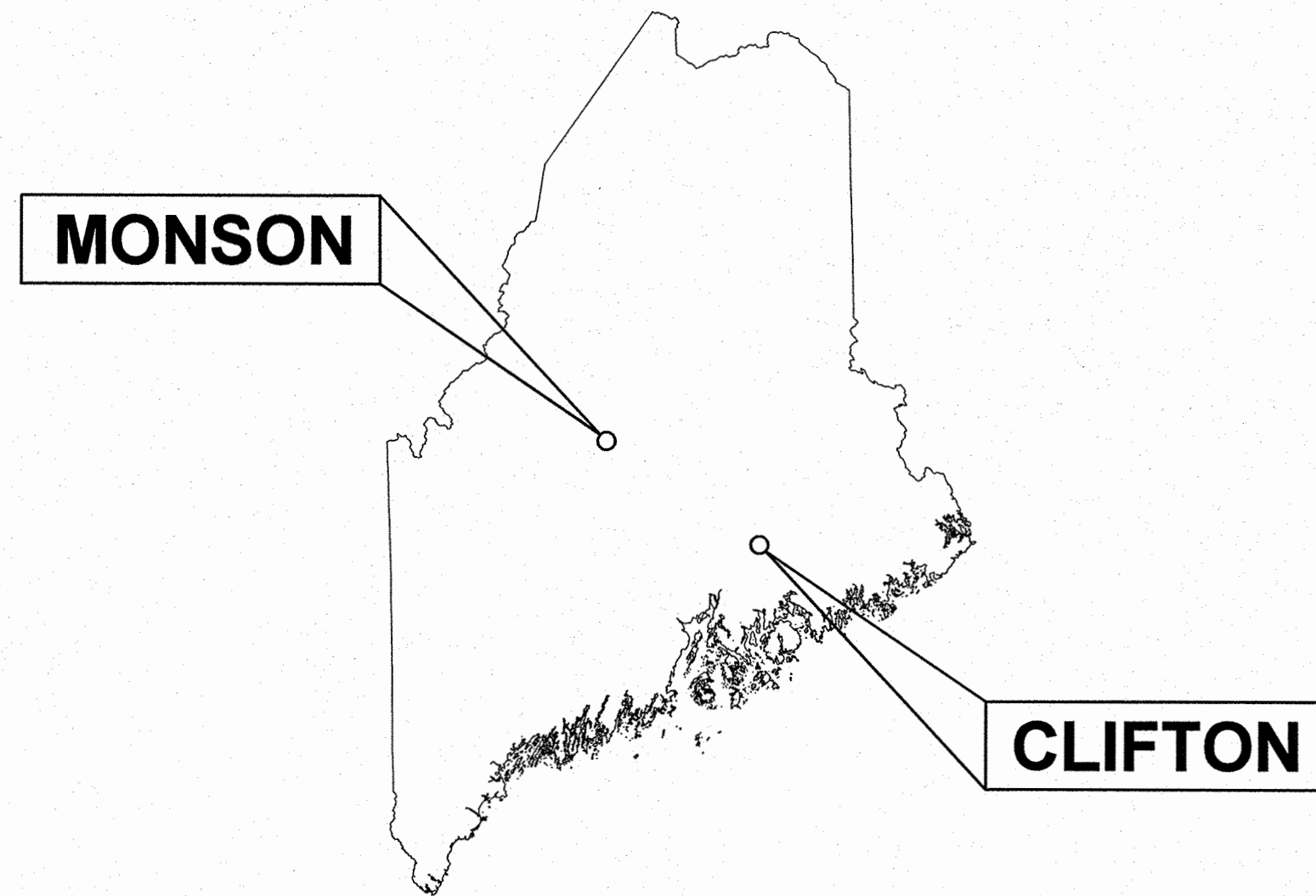


STATE OF MAINE DEPARTMENT OF TRANSPORTATION



STATEWIDE

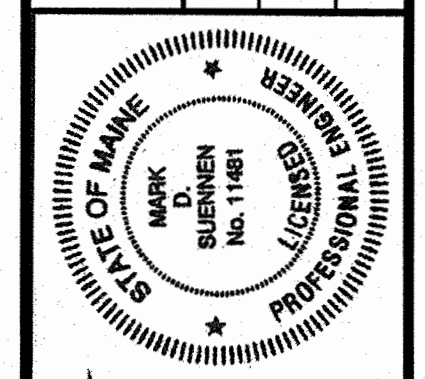
RWIS INSTALLATIONS, NON-INTERSTATE FEDERAL PROJECT NO. 2421100 STATE WIN 024211.00



Description	Sheet No.
Title Sheet	1
General Notes	2
Location Map	3
Details	4
Equipment Plans	5-6

PLAN LEGEND			
Town, County, State	-----	Centerline-Existing	-----
Property Lines	-----	Centerline-Proposed	-----
R/W Lines-Existing	-----	Travelway-Existing	-----
R/W Lines-Proposed	-----	Travelway-Proposed	-----
Culvert-Existing	-----	Railroad	-----
Culvert Proposed	-----	Catch Basins	Existing Proposed
Curbing	Existing Proposed	Manholes	Existing Proposed
Type 1	-----	Proposed Underdrain	-----
Type 3	-----	Proposed Ditch	-----
Type 5	-----	Existing Ditch	-----
Outline of Bodies of Water	-----	Utility Poles	Existing Proposed
Exposed Bedrock	-----	Fire Hydrants	Existing Proposed
Buildings	-----	Existing Water Line	-----
Trees	Conifer Deciduous	Existing San. Sewer	-----
Tree Line	-----	Existing San. Sewer Manhole	-----
Clearing Limit Line	-----	Guardrail-Existing	-----
Boring	-----	Guardrail-Proposed	-----
Existing Overhead Line	-----	Guardrail-Cable, Other	-----
		Existing	Proposed
Overheight Detection Conduit	-----	ITS	PITS
Electrical Conduit	-----	EL	EL
Fiber Optic Cable	-----	FO	PFO
ITS Controller Cabinet	-----	☒	☒
Solar Panel Array	-----	☒	☒
Road Weather	-----	☒	☒
Information Station (RWIS)	-----	☒	☒
Pullbox	-----	☒	☒
Meter Pedestal	-----	☒	☒
Support Posts	-----	☒	☒
Light Pole	-----	☒	☒

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>	11-21-22	11-17-2020
CHIEF ENGINEER: <i>[Signature]</i>		



M.D. Schandel	SIGNATURE	11481	P.E. NUMBER	11/08/2022	DATE
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PROJECT INFORMATION					
PROGRAM	J. DOSTIE	PROJECT MANAGER	D. SCHANDEL	DESIGNER	CONSULTANT
PROJECT RESIDENT		CONTRACTOR			
PROJECT COMPLETION DATE					

STATEWIDE RWIS INSTALLATIONS TITLE SHEET
--

SHEET NUMBER	1
OF 6	

<u>PROJECT LOCATION:</u>	Maine Route 9 in Clifton Maine Route 6 in Monson
<u>PROGRAM AREA:</u>	Traffic
<u>OUTLINE OF WORK:</u>	This project will rehabilitate two existing RWIS stations. Also, this project will supply MaineDOT with five mobile RWIS units to be mounted on maintenance vehicles.



Date: 11/8/2022

User: \$user\$

Division: \$wkgroup\$

Filename: 001_Title.dgn

WIN 024211.00

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE MAINE DEPARTMENT OF TRANSPORTATION (MAINEDOT) STANDARD SPECIFICATIONS.
2. CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE MAINEDOT STANDARD DETAILS AND THE MAINEDOT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL (LATEST EDITION AND REVISIONS) UNLESS OTHERWISE INDICATED IN THESE PLANS.
3. NO FORMAL SURVEY WAS CONDUCTED FOR THE CONSTRUCTION OF THIS PROJECT. CONDUITS AND PULL BOXES WERE NOT ASSIGNED GPS COORDINATES. DESIGN WAS BASED ON AERIAL PHOTOGRAPHY, AND FIELD INVESTIGATION CONDUCTED BY MAINEDOT AND VHB. UNDERGROUND CONDUIT WAS IDENTIFIED AND FLAGGED BY MAINEDOT UTILITIES. VHB SURVEY LOCATED THE POINTS AND INCORPORATED THE CONDUIT LOCATIONS IN THE PLANS.
4. ALL NON-PAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE LOAMED AND SEEDED, UNLESS OTHERWISE DIRECTED BY THE RESIDENT. ALL PAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR. COSTS FOR REPAIR OF DISTURBED AREAS SHALL BE INCIDENTAL TO OTHER CONTRACT ITEMS.

EXISTING EQUIPMENT:

1. THE CONTRACTOR SHALL CAREFULLY REMOVE AND STORE ALL EQUIPMENT AND SHALL SALVAGE THE REMOVED EQUIPMENT TO THE MAINEDOT AT THE MAINEDOT REGION 2 FACILITY, LOCATED AT 66 INDUSTRIAL DRIVE AUGUSTA, ME. THE CONTRACTOR SHALL CONTACT COLBY FORTIER-BROWN 207-441-5079 TO COORDINATE THE DELIVERY OF EQUIPMENT.
2. THE CONTRACTOR SHALL TEST EXISTING EARTH TO GROUND RESISTANCE AT EACH HARDWARE AND CABINET LOCATION TO ENSURE A MINIMUM OF 25 OHMS IS MET. IF ANY LOCATION DOES NOT MEET THE MINIMUM GROUNDING REQUIREMENTS, THE CONTRACTOR SHALL INSTALL AND CONNECT ADDITIONAL GROUND RODS TO MEET THE 25 OHMS OR THE MANUFACTURER'S GROUNDING RECOMMENDATION, WHICHEVER IS MORE STRINGENT. GROUND RODS AND CONNECTIONS SHALL FOLLOW ALL NEC GUIDELINES AND SHALL BE INCIDENTAL TO OTHER CONTRACT ITEMS.
3. THE CONTRACTOR SHOULD LEAVE ONE COPY OF AS-BUILT PLANS, WIRING DIAGRAMS, CABINET BLOCK DIAGRAMS, AND EQUIPMENT MANUALS IN EACH EQUIPMENT CABINET.

TEMPORARY TRAFFIC CONTROL:

1. ALL TRAFFIC CONTROL EQUIPMENT, DEVICES, AND TEMPORARY TRAFFIC CONTROLS SHALL CONFORM TO THE 2009 EDITION OF THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CHAPTER 6 AND THE LATEST EDITION OF THE MAINEDOT STANDARD DETAILS.
2. ALL TEMPORARY TRAFFIC CONTROL SIGNS, SIGN SUPPORT STRUCTURES, CHANNELIZING DEVICES, FLASHING ARROW PANELS (FAP), PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) AND OTHER TRAFFIC CONTROL EQUIPMENT ALONG THE ROADSIDE SHALL MEET OR EXCEED MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) 2016, TEST LEVEL 3 (TL-3) IF MANUFACTURED AFTER DECEMBER 31, 2019. ALL OTHER TRAFFIC CONTROL EQUIPMENT SHALL MEET OR EXCEED NCHRP 350 TL-3.
3. ALL TEMPORARY TRAFFIC CONTROL SIGNS SHALL HAVE ASTM D4956 TYPE VII, TYPE VIII OR TYPE IX SUPER HIGH INTENSITY OR PRISMATIC FLUORESCENT RETROREFLECTIVE SHEETING AND SHALL BE MAINTAINED IN LIKE-NEW CONDITION. ALL ORANGE CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE WITH TYPE IX SHEETING. PLACEMENT OF CONSTRUCTION SIGNS SHALL BE ADJUSTED TO AVOID OBSTRUCTING EXISTING SIGNS AND TO ENSURE PROPER SIGHT LINES TO THE CONSTRUCTION SIGNS AS DETERMINED BY THE RESIDENT.
4. ANY SIGNS, EQUIPMENT, OR DEVICES FOUND TO BE DAMAGED OR UNSERVICEABLE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL SHOULDER AND LANE CLOSURES SHALL REQUIRE APPROVAL OF THE RESIDENT A MINIMUM OF TWO WORKING DAYS IN ADVANCE OF THE CLOSURE.
6. IF WORK IS TO BE CONDUCTED AT NIGHT, THE CONTRACTOR SHALL SUBMIT A LIGHTING PLAN FOR NIGHT WORK TO THE RESIDENT FOR APPROVAL.

GUARDRAIL PROTECTION:

1. IF THE CONTRACTOR ELECTS TO REMOVE A SEGMENT OF GUARDRAIL FOR ACCESS TO THE WORK AREA, THE CONTRACTOR SHALL RESET THE GUARDRAIL AT THE END OF THE WORKDAY. ALTERNATIVELY, THE CONTRACTOR SHALL PROTECT THE TEMPORARY BLUNT END WITH A SUITABLE CRASH CUSHION. CRASH CUSHIONS INSTALLED FOR THE CONTRACTOR'S CONVENIENCE WILL NOT BE PAID FOR BUT WILL BE CONSIDERED INCIDENTAL TO THE MAINTENANCE OF TRAFFIC CONTROL DEVICES ITEM.

MOBILE ROAD WEATHER INFORMATION SYSTEM (RWIS):

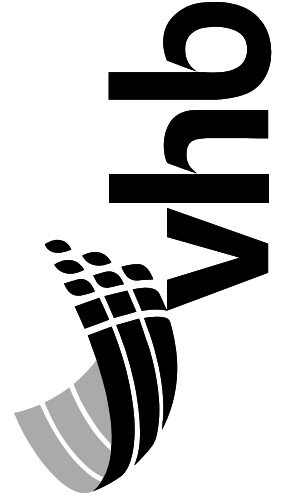
1. IN CONJUNCTION WITH THIS PROJECT THE CONTRACTOR SHALL FURNISH FIVE (5) MOBILE ROAD WEATHER INFORMATION SYSTEMS.
2. THE CONTRACTOR SHALL BE AVAILABLE FOR CONSULTATION AND SUPPORT TO MAINEDOT FOR THE INSTALLATION OF THE MOBILE RWIS SYSTEMS.
3. THE CONTRACTOR SHALL FURNISH ALL MANUFACTURER-RECOMMENDED MOUNTING BRACKETS.
4. THE CONTRACTOR SHALL CONFIGURE AND INTEGRATE THE MOBILE RWIS SYSTEM DATA INTO COMPASS ATMS AND THE ROAD AND WEATHER SOFTWARE.
5. FOLLOWING SUCCESSFUL INSTALLATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONFIGURATION AND CALIBRATION OF THE SENSORS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
6. THE CONTRACTOR IS RESPONSIBLE TESTING THE MOBILE RWIS SYSTEMS AS SPECIFIED IN THE SPECIAL PROVISION 654.54 AND SPECIAL PROVISION 654.
7. THE CONTRACTOR IS RESPONSIBLE FOR TRAINING MAINEDOT STAFF ON THE MOBILE RWIS SYSTEMS AS SPECIFIED IN SPECIAL PROVISION 654.54.

Date: 11/15/2022

Username: \$user\$

Division: \$wkggroup\$

Filename: 002_Notes.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2421100

WIN
024211.00

ITS PLANS

PROJ. MANAGER	J. DOSTIE	BY	DATE
DESIGN-DETAILED	DJS	JAR	11/15/2022
CHECKED-REVIEWED	DJS	MOS	11/15/2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

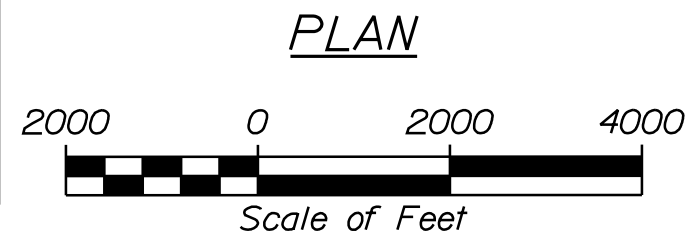
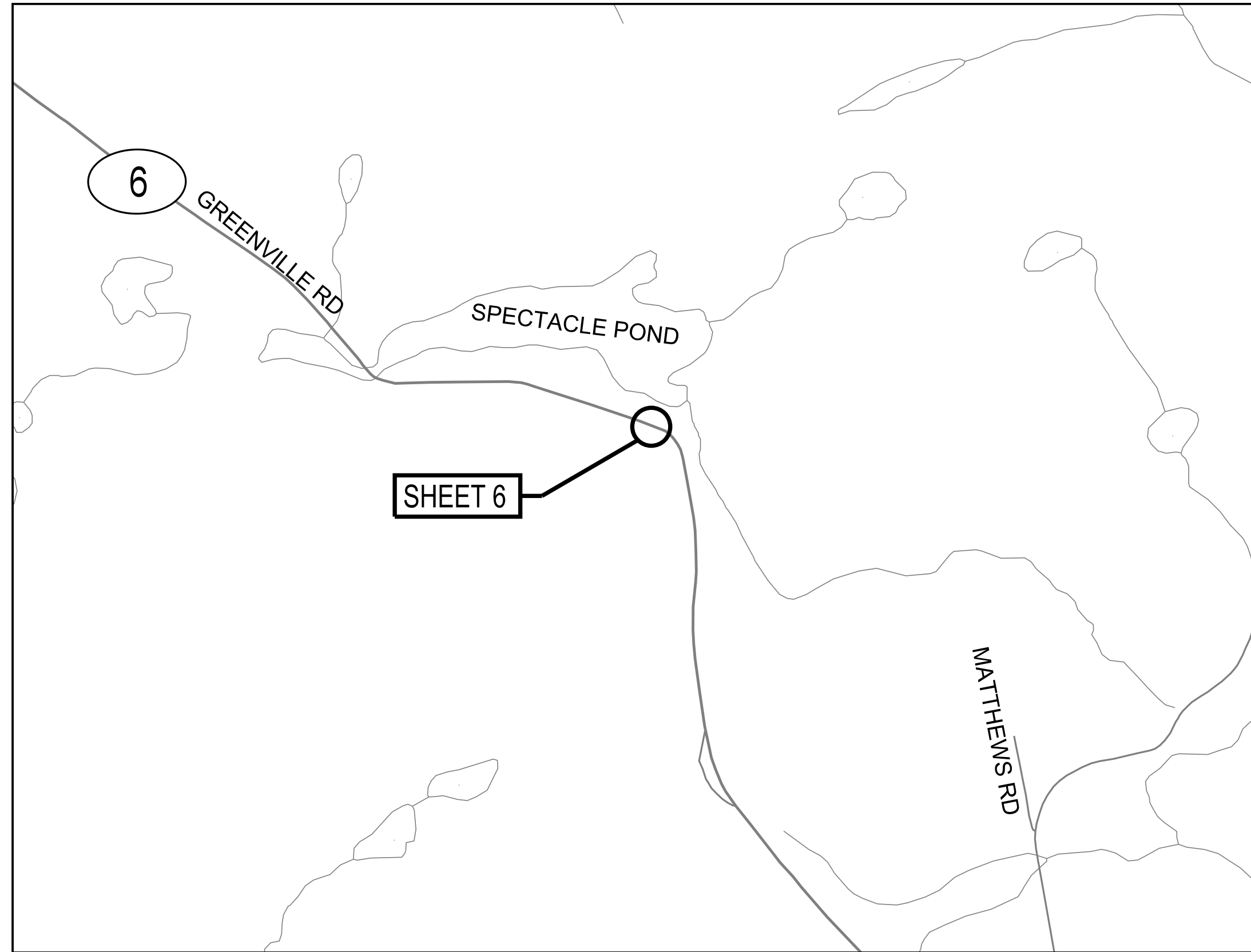
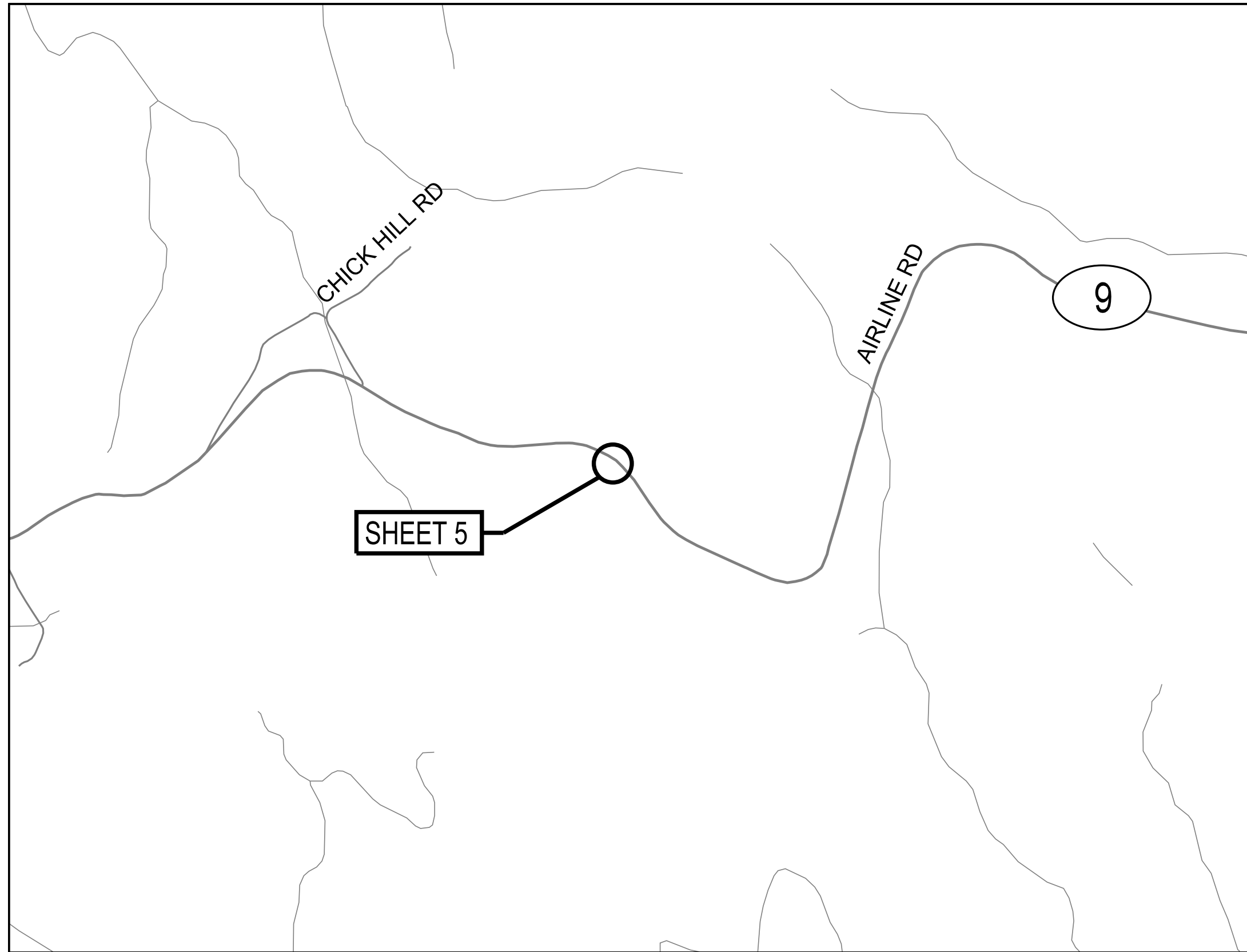
STATEWIDE
RWIS INSTALLATIONS

GENERAL NOTES

SHEET NUMBER

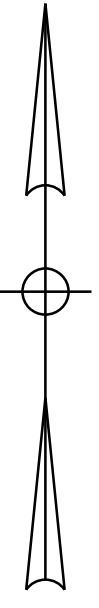
2

OF 6



**MONSON
(SEE SHEET 6)**

**CLIFTON
(SEE SHEET 5)**



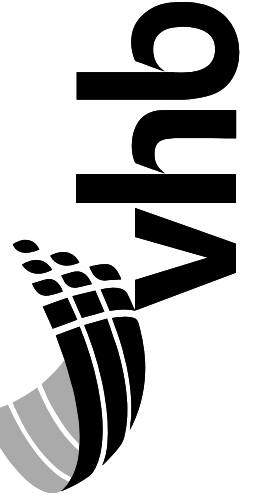
**STATEWIDE
RWIS INSTALLATIONS
LOCATION MAPS**

SHEET NUMBER

3

OF 6

PROJ. MANAGER	J. DOSTIE	BY	DATE
DESIGN DETAILED	DJS	JAR	11/15/2022
CHECKED-REVIEWED	DJS	MDS	11/15/2022
DESIGN DETAILED 2			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2421100

WIN
024211.00

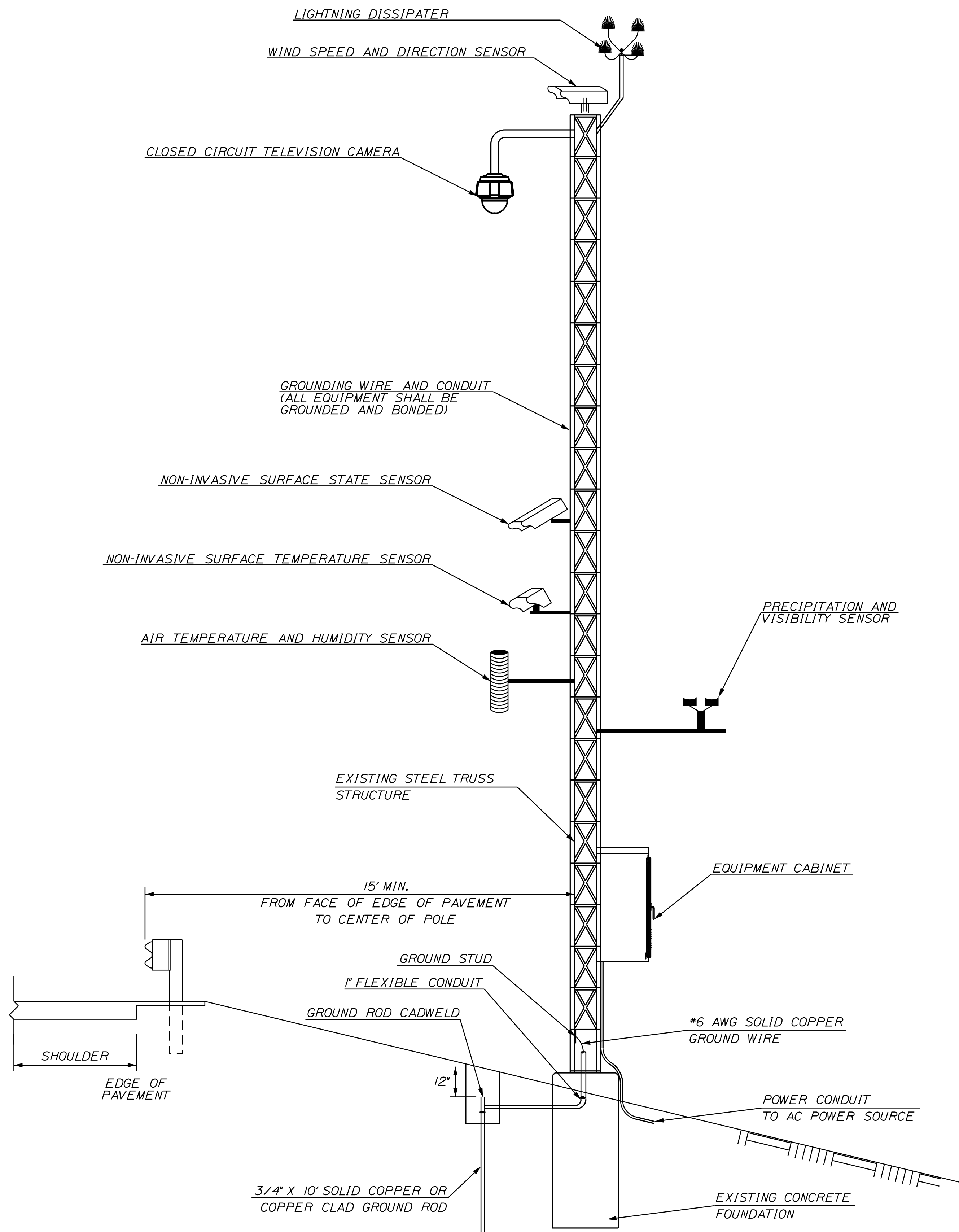
ITS PLANS

Date: 11/15/2022

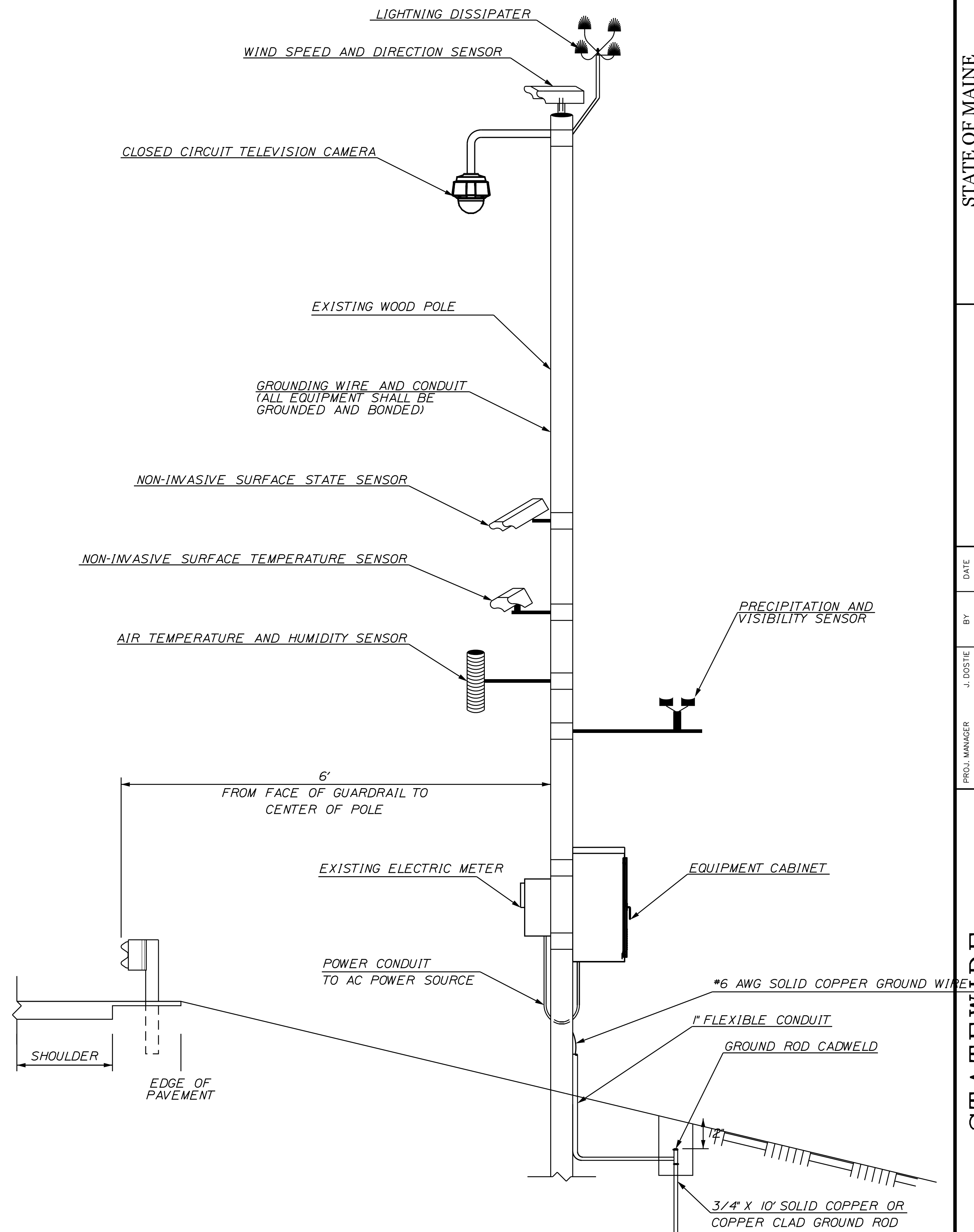
Username: \$user\$

Division: \$wkgroup\$

Filename: 004_Details_01.dgn



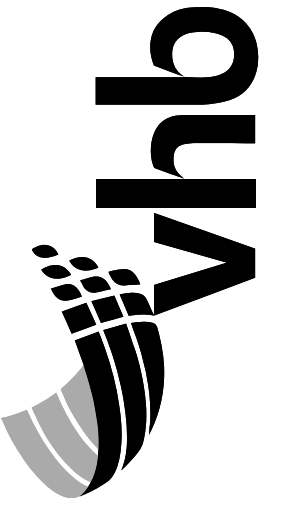
ROAD WEATHER INFORMATION STATION STEEL TRUSS STRUCTURE DETAIL
NOT TO SCALE



ROAD WEATHER INFORMATION STATION WOOD POLE DETAIL
NOT TO SCALE

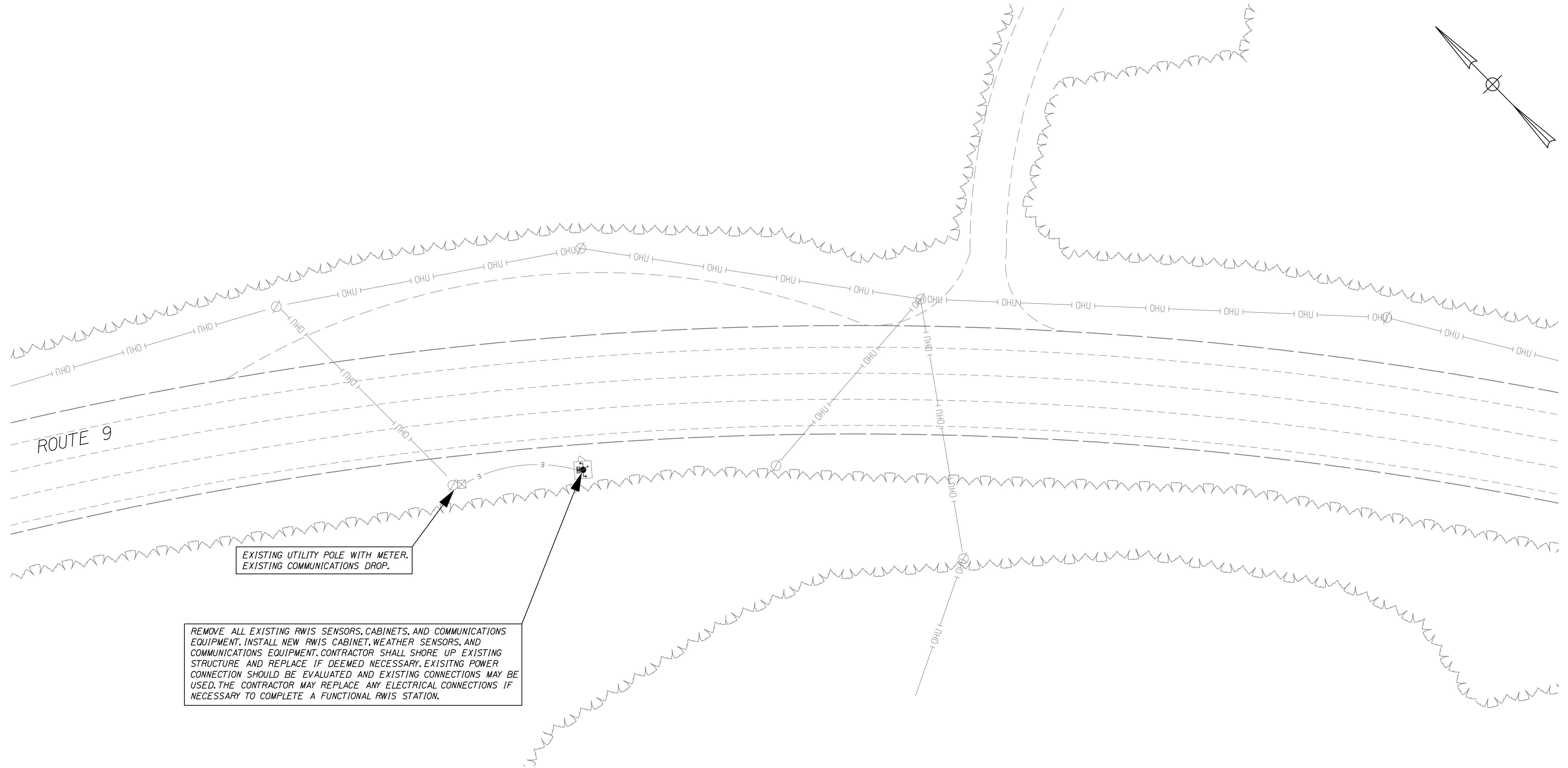
NOTES:

1. HEIGHT OF EQUIPMENT PER MANUFACTURER'S STANDARDS AND RECOMMENDATION.
2. BAROMETER LOCATED IN EQUIPMENT CABINET.
3. NON-INVASIVE SURFACE STATE SENSOR AND NON-INVASIVE SURFACE TEMPERATURE SENSOR MAY BE ONE UNIT OR TWO SEPARATE UNITS.
4. PRECIPITATION SENSOR AND VISIBILITY SENSOR MAY BE ONE UNIT OR TWO SEPARATE UNITS.



PROJ. MANAGER	J. DOSTIE	BY	DATE
DESIGN-DETAILED	DJS	JAR	11/15/2022
CHECKED-REVIEWED	DJS	MDS	11/15/2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATEWIDE
RWIS INSTALLATIONS
DETAILS

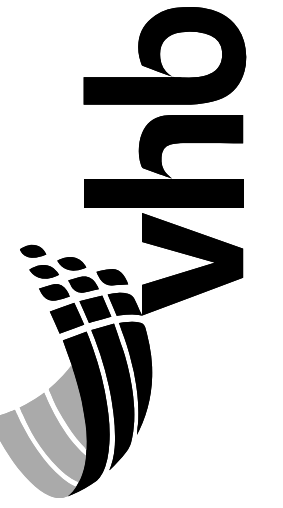
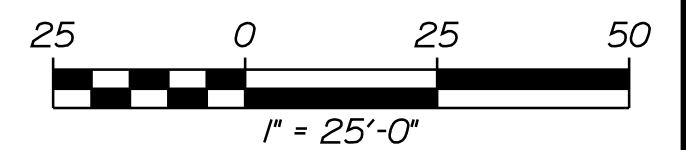


EXISTING UTILITY POLE WITH METER,
EXISTING COMMUNICATIONS DROP.

REMOVE ALL EXISTING RWIS SENSORS, CABINETS, AND COMMUNICATIONS EQUIPMENT. INSTALL NEW RWIS CABINET, WEATHER SENSORS, AND COMMUNICATIONS EQUIPMENT. CONTRACTOR SHALL SHORE UP EXISTING STRUCTURE AND REPLACE IF DEEMED NECESSARY. EXISTING POWER CONNECTION SHOULD BE EVALUATED AND EXISTING CONNECTIONS MAY BE USED. THE CONTRACTOR MAY REPLACE ANY ELECTRICAL CONNECTIONS IF NECESSARY TO COMPLETE A FUNCTIONAL RWIS STATION.

LIST OF MAJOR ITEMS

ITEM NO.	EQUIPMENT AND WORK ITEMS	QUANTITY
654.5301	ROAD WEATHER INFORMATION SYSTEM	1 LS



PROJ. MANAGER	J. DOSTIE	BY	DATE
DESIGN-DETAILED	DJS	JAR	11/15/2022
CHECKED-REVIEWED	DJS	MOS	11/15/2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATEWIDE
RWIS INSTALLATIONS
CLIFTON
SITE PLAN

SHEET NUMBER

5

OF 6

Date: 11/15/2022

Username: \$user\$

Division: \$wkgroup\$

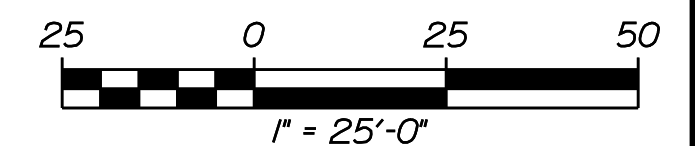
Filename: 006_Plan_02.dgn

REMOVE ALL EXISTING RWIS SENSORS, CABINETS, AND COMMUNICATIONS EQUIPMENT. INSTALL NEW RWIS CABINET, WEATHER SENSORS, AND COMMUNICATIONS EQUIPMENT. EXISTING POWER CONNECTION SHOULD BE EVALUATED AND EXISTING CONNECTIONS MAY BE USED. THE CONTRACTOR MAY REPLACE ANY ELECTRICAL CONNECTIONS IF NECESSARY TO COMPLETE A FUNCTIONAL RWIS STATION.

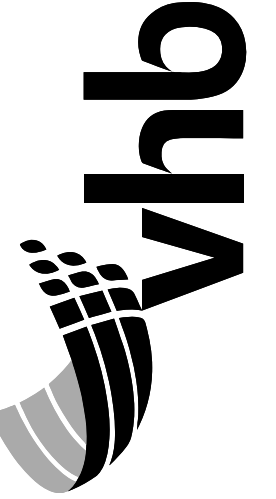


LIST OF MAJOR ITEMS

ITEM NO.	EQUIPMENT AND WORK ITEMS	QUANTITY
654.5301	ROAD WEATHER INFORMATION SYSTEM	1 LS



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 PROJECT NO. 2421100
 WIN
 024211.00
 ITS PLANS



PROJ. MANAGER	J. DOSTIE	BY	DATE
DESIGN DETAILED	DIS	JAR	11/15/2022
CHECKED-REVIEWED	DIS	MOS	11/15/2022
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATEWIDE
 RWIS INSTALLATIONS
 MONSON
 SITE PLAN

SHEET NUMBER

6

OF 6