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CONTRACT: C204650   TIP PROJECT: HI-0008

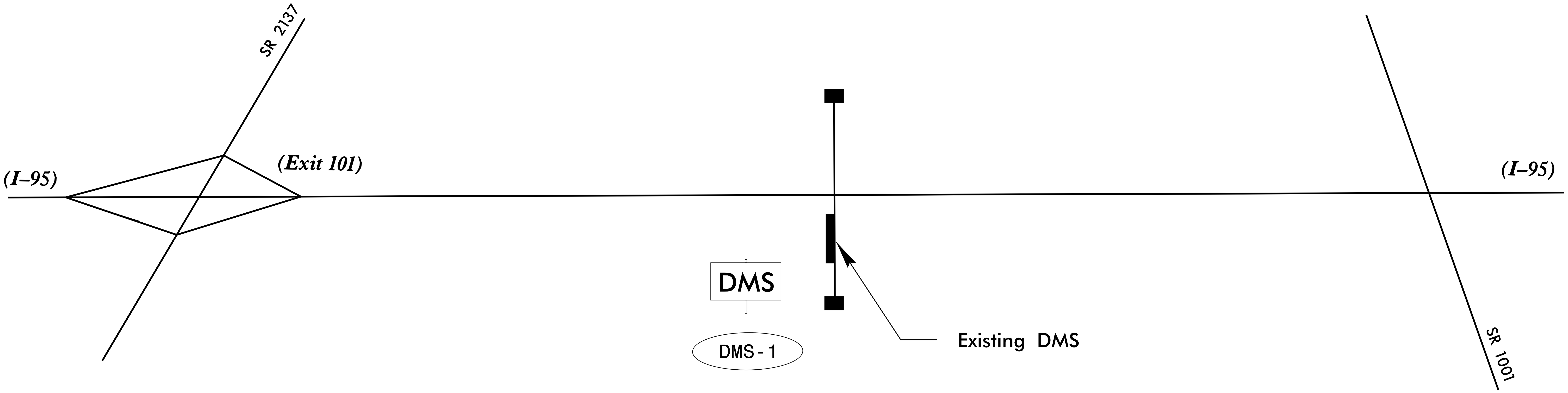
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.
N.C.	HI-0008	ITS-1
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
49633.3.1		CONST.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

LOCATION: ***SOUTHBOUND I–95 NEAR MM 101***

TYPE OF WORK: ***REMOVE AND DISPOSE OF EXISTING DMS, EXISTING OVERHEAD SIGN SIGN STRUCTURE AND FOUNDATIONS, REPLACE CABINET ON EXISTING BASE, INSTALL DMS ON NEW PEDESTAL STRUCTUE, AND MODIFY EXISTING ELECTRICAL SERVICE***



2018 STANDARD SPECIFICATIONS

PROJECT LENGTH
PROJECT LENGTH = 0.0 MILES

LETTING DATE:

INDEX OF SHEETS

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" ROADWAY DESIGN UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1700.01	ELECTRICAL SERVICE OPTIONS
1700.02	ELECTRICAL SERVICE GROUNDING
1715.01	UNDERGROUND CONDUIT-TRENCHING

2018 STANDARD SPECIFICATION

NCDOT CONTACT:
TRANSPORTATION MOBILITY AND SAFETY
M. M. MCDIARMID, P.E, CPM
STATE TRANSPORTATION SYSTEMS
MANAGEMENT & OPERATIONS ENGINEER

Prepared in the Offices of:
750 N. Greenfield Pkwy., Garner, NC 27529

ENGLISH
ALL DIMENSIONS IN THESE PLANS ARE IN FEET UNLESS OTHERWISE NOTED

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 050152 ENGINEER ANDREW J. SKUCE

Andrew J. Skuce — 9/21/2021
SIGNATURE — DATE

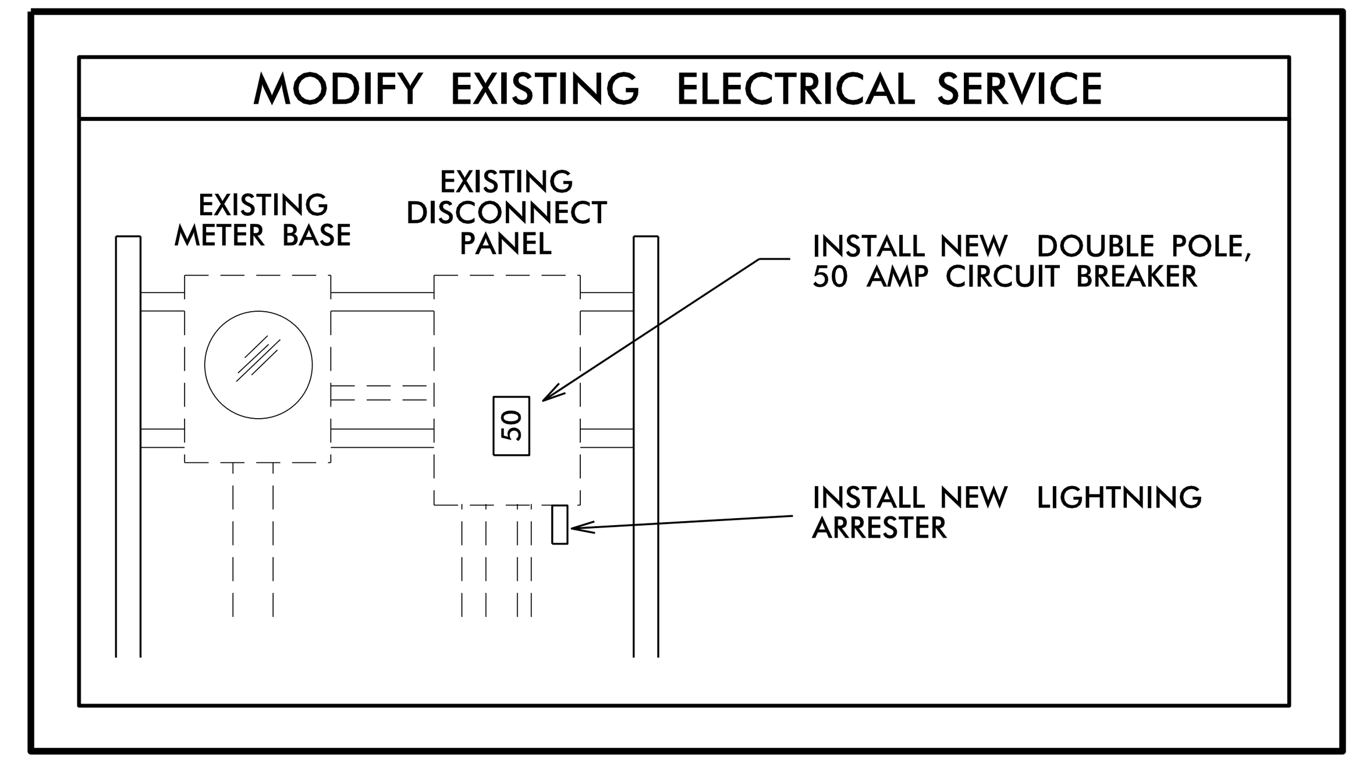
PROJECT REFERENCE NO.	SHEET NO.
HI-0008	ITS-2

GPS COORDINATES:

35.545320, -78.231309

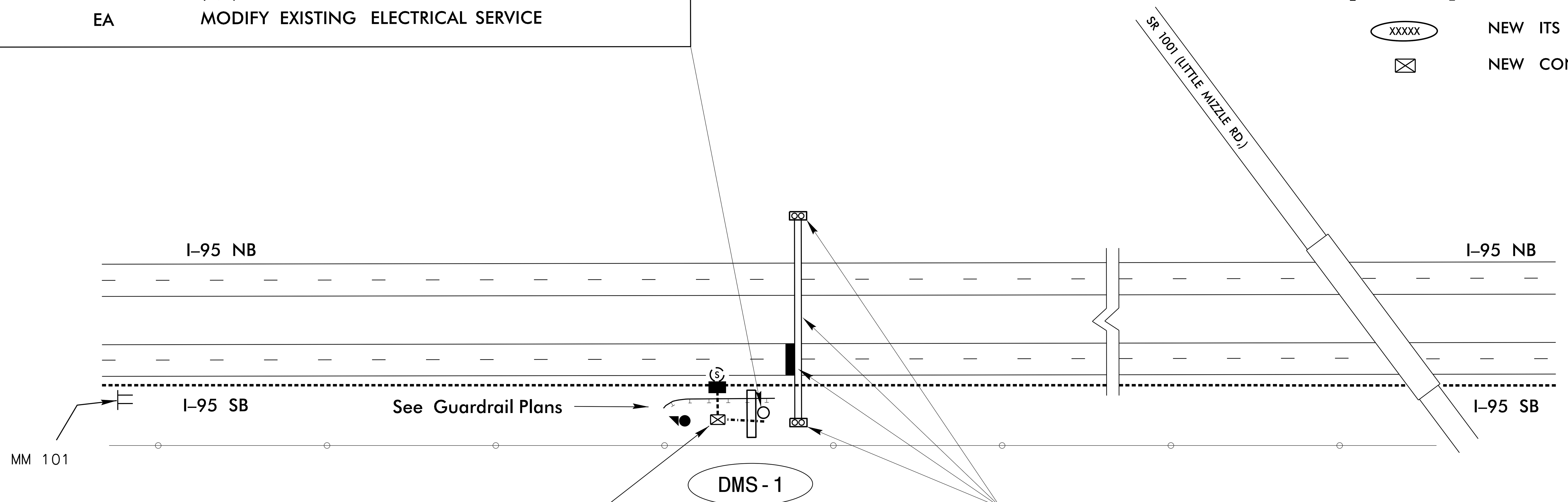
INSTALL THE FOLLOWING QUANTITY	UNIT	DESCRIPTION
1	EA	DYNAMIC MESSAGE SIGN (TYPE 2C)
1	EA	DMS PEDESTAL STRUCTURE
1	EA	DMS ACCESS LADDER
8	CY	OVERHEAD FOOTINGS
50	LF	(2,2) UNPAVED TRENCHING
1	EA	MODIFY EXISTING ELECTRICAL SERVICE

DRAWING 1



LEGEND

- NEW CONDUIT
- EXISTING CONDUIT
- EXISTING SPLICE ENCLOSURE
- NEW GUARDRAIL
- EXISTING CONTROLLED ACCESS FENCE
- MODIFY EXISTING ELECTRICAL SERVICE
- PROPOSED DMS ON PEDESTAL STRUCTURE
- EXISTING OVERHEAD SIGN STRUCTURE
- XXXXX NEW ITS DEVICE NUMBER
- NEW CONTROLLER AND CABINET



See Notes 4, 5 and 6.

REMOVE AND DISPOSE OF THE FOLLOWING QUANTITY	UNIT	DESCRIPTION
1	EA	EXISTING DMS COMPONENTS
1	EA	EXISTING DMS STRUCTURE
2	EA	EXISTING DMS STRUCTURE FOUNDATION

NOTES

1. REMOVE EXISTING DMS, OVERHEAD SIGN STRUCTURE, AND FOUNDATIONS.
2. INSTALL NEW DMS ON PEDESTAL STRUCTURE WITH ACCESS LADDER.
3. INSTALL NEW LIGHTNING ARRESTER AND NEW 50A DOUBLE POLE BREAKER IN EXISTING DISCONNECT.
4. INSTALL NEW CABINET & BASE EXTENDER ON EXISTING FOUNDATION.
5. FIBER INSTALLED BY I-5986C BROADBAND PROJECT. ENSURE EXISTING FIBER OPTIC CABLE CONNECTIONS ARE LABELED BEFORE DISCONNECTION. RESPLICE OR RECONNECT FIBER OPTIC CABLE BASED ON EXISTING TERMINATION CONFIGURATION. WORK IS NOT COMPLETE UNTIL ALL FIBER OPTIC COMMUNICATIONS ARE OPERATIONAL.
6. DELIVER EXISTING MODEM AND ANTENNA TO NCDOT ENGINEER. CONTACT: C. TODD LEWIS AT 252-640-6400.

NEAR MM 101

Prepared in the Offices of:
750 N. Greenfield Pkwy., Garner, NC 27529

SCALE 0 NTS

DMS REPLACEMENT PLANS

DIVISION 4 JOHNSTON COUNTY NEAR KENLY

PLAN DATE: AUGUST 2021 REVIEWED BY: A.J. SKUCE, PE

PREPARED BY: L.E. NEAL

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 050152 ENGINEER ANDREW J. SKUCE

9/27/2021

DocuSigned by: Andrew J. Skuce

DATE

PROJECT REFERENCE NO.	SHEET NO.
HI-0008	ITS-3

NOTES

1. CONTRACTOR IS RESPONSIBLE FOR FURNISHING ELEVATION DRAWINGS FOR ENGINEER'S APPROVAL

2. PROVIDE A FIXED LADDER LEADING TO THE ACCESS PLATFORM FOR THE DMS AS INDICATED IN THE PROJECT SPECIAL PROVISIONS.

3. EQUIP THE LADDER WITH A SECURITY COVER (LADDER GUARD). START THE FIRST LADDER RUNG NO MORE THAN 18 INCHES ABOVE A CONCRETE LANDING PAD. DESIGN RUNGS ON 12 INCH CENTER–TO–CENTER TYPICAL SPACING.

4. INSTALL A CONCRETE LANDING PAD MEASURING A MINIMUM 4 INCHES DEEP, 24 INCHES WIDE, AND 36 INCHES LONG DIRECTLY BENEATH THE LADDER.

5. USE ACTUAL DIMENSIONS AND WEIGHT OF THE DMS TO COMPLETE THE DESIGN OF THE DMS STRUCTURE.

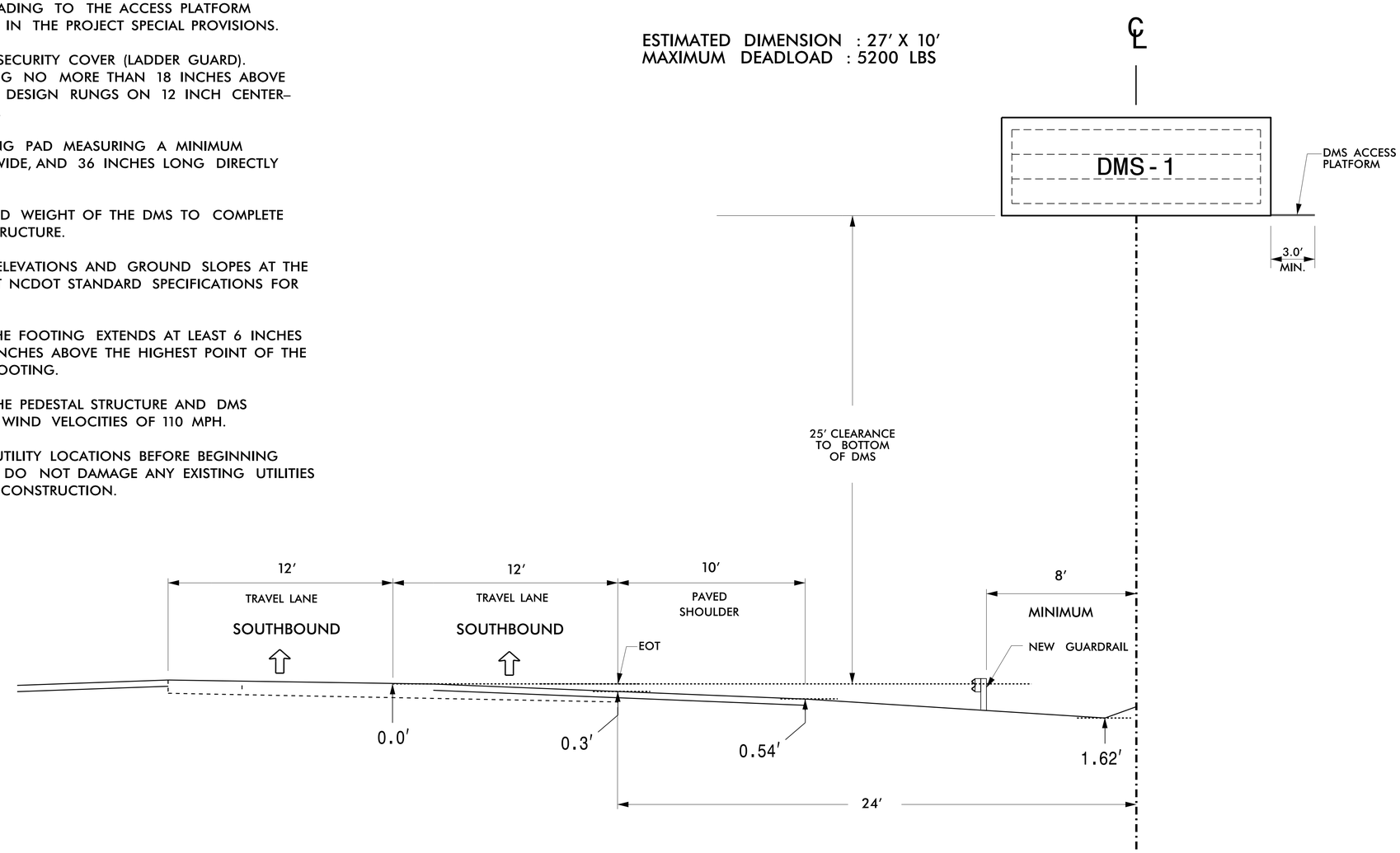
6. FIELD VERIFY ALL FOOTING ELEVATIONS AND GROUND SLOPES AT THE FOOTING USING THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

7. ENSURE THAT THE TOP OF THE FOOTING EXTENDS AT LEAST 6 INCHES AND NOT MORE THAN 24 INCHES ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.

8. DESIGN AND CONSTRUCT THE PEDESTAL STRUCTURE AND DMS ENCLOSURE TO WITHSTAND WIND VELOCITIES OF 110 MPH.

9. VERIFY ALL UNDERGROUND UTILITY LOCATIONS BEFORE BEGINNING ANY UNDERGROUND WORK. DO NOT DAMAGE ANY EXISTING UTILITIES OR NCDOT CABLES DURING CONSTRUCTION.

ESTIMATED DIMENSION : 27′ X 10′
MAXIMUM DEADLOAD : 5200 LBS



Prepared in the Offices of:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Mobility and Safety Division
Intelligent Transportation Systems Section

750 N. Greenfield Pkwy., Garner, NC 27529

SCALE
0
N/A

DMS ELEVATIONS

DIVISION 04 JOHNSTON COUNTY NEAR KENLY

PLAN DATE:	AUGUST 2021	REVIEWED BY:	A.J. SKUCE, PE
PREPARED BY:	L.E. NEAL	REVIEWED BY:	

REVISIONS	INIT.	DATE

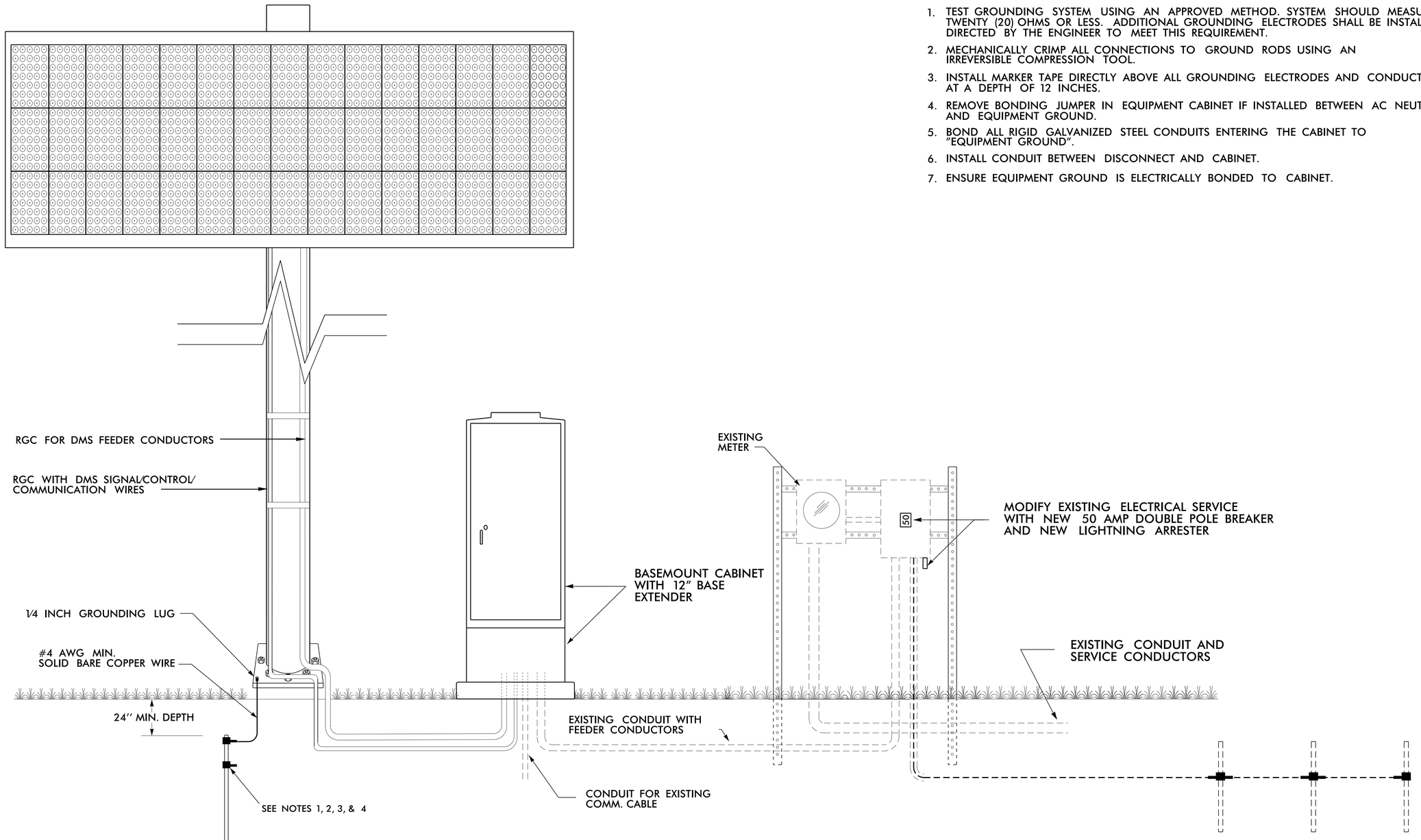
SEAL

NORTH CAROLINA PROFESSIONAL SEAL 050152 ENGINEER ANDREW J. SKUCE

DocuSigned by: Andrew J. Skuce 9/9/2021
SIGNATURE DATE

CADD Filename:

PROJECT REFERENCE NO.	SHEET NO.
HI-0008	ITS-4



NOTES

1. TEST GROUNDING SYSTEM USING AN APPROVED METHOD. SYSTEM SHOULD MEASURE TWENTY (20) OHMS OR LESS. ADDITIONAL GROUNDING ELECTRODES SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER TO MEET THIS REQUIREMENT.
2. MECHANICALLY CRIMP ALL CONNECTIONS TO GROUND RODS USING AN IRREVERSIBLE COMPRESSION TOOL.
3. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.
4. REMOVE BONDING JUMPER IN EQUIPMENT CABINET IF INSTALLED BETWEEN AC NEUTRAL AND EQUIPMENT GROUND.
5. BOND ALL RIGID GALVANIZED STEEL CONDUITS ENTERING THE CABINET TO "EQUIPMENT GROUND".
6. INSTALL CONDUIT BETWEEN DISCONNECT AND CABINET.
7. ENSURE EQUIPMENT GROUND IS ELECTRICALLY BONDED TO CABINET.

Prepared in the Offices of:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

750 N. Greenfield Pkwy., Garner, NC 27529

DYNAMIC MESSAGE SIGN WITH UNDERGROUND ELECTRICAL SERVICE TYPICAL DETAIL

DIVISION 04 JOHNSTON COUNTY NEAR KENLY

PLAN DATE: AUGUST 2021	REVIEWED BY: A.J. SKUCE, PE
PREPARED BY: L.E. NEAL	REVIEWED BY:

SCALE: 0 — N/A

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 050152 ENGINEER ANDREW J. SKUCE

DocuSigned by: Andrew J. Skuce 8/31/2021

SIGNATURE DATE

CADD Filename: