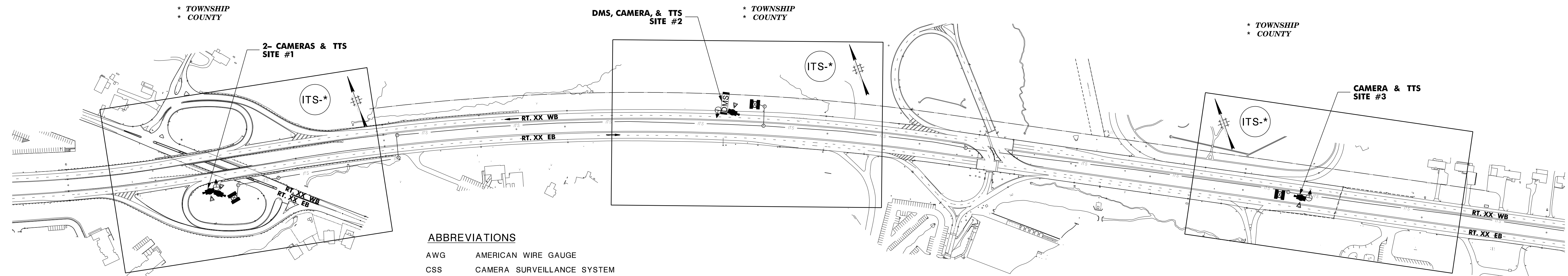


### SITE LOCATION CHART

TOC N/S	JOB SITE	PLAN SHEET	ROUTE AND INTERSECTION	MUNICIPALITY	COUNTY	DEVICE	TYPE	DEVICE MOUNTING	COMMUNICATIONS
N	1	ITS-XX	ROUTE XX WB M.P. XX	* TOWNSHIP	* COUNTY	CAMERA TTS	DOM TYPE C	PROPOSED CAMERA STANDARD TYPE A	FIBER OPTIC
N	2	ITS-XX	ROUTE XX EB M.P. XX	* TOWNSHIP	* COUNTY	DMS CAMERA TTS	FRONT ACCESS DOM TYPE C	PROPOSED GROUND MOUNTED SIGN STRUCTURE	FIBER OPTIC
N	3	ITS-XX	ROUTE XX MEDIAN M.P. XX	* TOWNSHIP	* COUNTY	CAMERA TTS	DOM TYPE C	PROPOSED CAMERA STANDARD TYPE A	FIBER OPTIC

INCLUDE ALL NON STANDARD DETAILS INTO THE BID SET



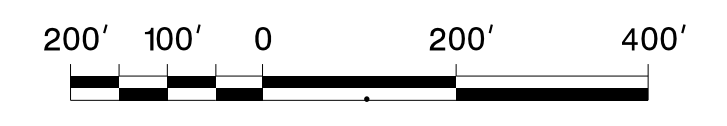
#### ABBREVIATIONS

AWG	AMERICAN WIRE GAUGE
CSS	CAMERA SURVEILLANCE SYSTEM
CO-AX	COAXIAL
DMS	DYNAMIC MESSAGE SYSTEM
EB	EASTBOUND
GND	GROUND
GSN	GARDEN STATE NETWORK
IP	INTERNET PROTOCOL
ISP	INTERNET SERVICE PROVIDER
ITS	INTELLIGENT TRANSPORTATION SYSTEM
JB	JUNCTION BOX
JBF	JUNCTION BOX FOUNDATION
L.F.	LINEAR FEET
MC	METER CABINET
MM	MOBILITY MANAGEMENT
MSE	MOBILITY & SYSTEMS ENGINEERING
M.P.	MILE POST
NB	NORTHBOUND
NJDOT	NEW JERSEY DEPARTMENT OF TRANSPORTATION
NJTA	NEW JERSEY TURNPIKE AUTHORITY
N.T.S.	NOT TO SCALE
OIT	OFFICE OF INFORMATION TECHNOLOGY
PDU	POWER DISTRIBUTION UNIT
RMC	RIGID METALLIC CONDUIT
RT.	ROUTE
SB	SOUTHBOUND
STA.	STATION
STMC	STATEWIDE TRAFFIC MANAGEMENT CENTER
TOC/N/S	TRAFFIC OPERATIONS CENTER NORTH/SOUTH
TTS	TRAVEL TIME SYSTEM
TYP	TYPICAL
V	VOLT
VLAN	VIRTUAL LOCAL AREA NETWORK
W	WATT
WB	WESTBOUND

- #### GENERAL NOTES:
- EXISTING INFORMATION WAS OBTAINED FROM AVAILABLE AS-BUILT AND CONTRACTUAL PLANS FROM NJDOT AND VERIFIED IN THE FIELD. VERIFY ALL EXISTING EQUIPMENT AND CONNECTIONS PRIOR TO START OF WORK. FIELD VERIFY ALL THE EXISTING INFORMATION AND NOTIFY THE RE OF ANY DISCREPANCIES FOUND IN THE FIELD FOR REMEDIATION PRIOR TO THE START OF ANY WORK.
  - FIELD VERIFY THE EXISTING DRAINAGE FACILITIES AND OTHER UNDERGROUND UTILITIES PRIOR TO START OF ANY ITS WORK. ENSURE MINIMUM DISTANCE REQUIRED BY THE UNDERGROUND UTILITY OWNERS IS MAINTAINED BETWEEN THE EXISTING SUBSURFACE UTILITIES AND THE PROPOSED ITS/ELECTRICAL FACILITIES. PROTECT ALL UTILITIES PER NJDOT STANDARD SPECIFICATIONS, SUBSECTION 105.07. PROVIDE ALTERNATE EXCAVATION PLAN TO THE RE FOR APPROVAL IF THERE ARE ANY CONFLICTS TO EXISTING FACILITIES.
  - FIELD VERIFY EXISTING CONDUITS AND JUNCTION BOXES THAT ARE TO BE USED IN THIS PROJECT. CLEAN THE EXISTING CONDUITS AND JUNCTION BOXES PER NJDOT STANDARD SPECIFICATIONS.
  - NOTIFY THE RE AT LEAST SEVEN (7) WORKING DAYS PRIOR TO THE START AND/OR COMPLETION OF ANY WORK AT ANY SITE.
  - ENSURE TO PROVIDE MINIMUM FIBER CABLE SLACK INSIDE THE JUNCTION BOXES AS PER NJDOT SPECIFICATIONS.
  - COORDINATE WITH NEW JERSEY OFFICE OF INFORMATION TECHNOLOGY (NJOIT) TO OBTAIN IP ADDRESSES PRIOR TO SUBMITTING WORKING DRAWINGS.
  - STAKE OUT ALL CONDUIT RUNS, JUNCTION BOXES, FOUNDATIONS, AND CABINETS FOR THE DEPARTMENT'S APPROVAL PRIOR TO INSTALLATION. ANY LOCATION CHANGES FOR ITS FACILITIES MUST FIRST BE APPROVED BY NJDOT MM PRIOR TO INSTALLATION.
  - EXISTING ITS FACILITIES LOCATED IN THE FIELD ARE CONTROLLED AND MONITORED BY NJDOT TRAFFIC OPERATIONS. PRIOR TO START OF ANY WORK, CONTACT THE MANAGER AT TRAFFIC OPERATIONS AND DOCUMENT THE OPERATIONS, CENTRAL CONTROL AND MONITORING OF THE EXISTING ITS DEVICES LOCATED IN THE FIELD. ENSURE OPERATION, CONTROL AND MONITORING OF THE EXISTING FIELD ITS DEVICES ARE MAINTAINED DURING AND AFTER CONSTRUCTION.
  - COORDINATE WITH TRAFFIC OPERATIONS FOR APPROVAL OF FINAL PLACEMENT OF PROPOSED CAMERAS.
  - COORDINATE WITH TRAFFIC OPERATIONS FOR APPROVAL OF CAMERA BLIND SPOTS PRIOR TO INSTALLING THE CAMERAS.
  - THE DRAWINGS REPRESENT THE FIELD CONDITIONS AS ACCURATE AS POSSIBLE. CONTRACTOR IS RESPONSIBLE TO VERIFY THE INFORMATION ON THE DRAWINGS AND FIELD CONDITIONS.
  - SEE PLANS ITS-XX THROUGH ITS-XX FOR LOCATIONS AND CONSTRUCTION OF ITS FIELD DEVICES AND POWER DISTRIBUTION.
  - SEE PLANS ITS-XX THROUGH ITS-XX FOR FIBER OPTIC CABLE INSTALLATION.
  - COORDINATE WITH ITS MAINTENANCE THROUGH ACCESS FORM ON WEB TO RESERVE THE PORTS AT FIBER CROSS CONNECT CABINET, COMMUNICATION HUB, AND ALL OTHER LOCATIONS AS REQUIRED. TAG THE RESERVED PORTS FOR USE ON THIS PROJECT.
  - SUBMIT WORKING DRAWINGS FOR ALL EQUIPMENT AND EQUIPMENT LIST TABLE SHOWING MANUFACTURER MAKE AND MODEL FOR ALL EQUIPMENT INSTALLED UNDER THIS PROJECT. FOR DETAILS FOLLOW STANDARD ELECTRICAL/ITS DETAILS.

#### LEGEND OF SYMBOLS AND NOTATIONS

EXISTING	PROPOSED	DESCRIPTION
		CAMERA (WITH BLIND SPOT)
		TRAVEL TIME SYSTEM (TTS TYPE C)
		DMS SIGN
		ITS WIRES & CABLES (NO. AND SIZE AS SHOWN ON THE PLANS)
		CONTROLLER CABINET W/ SIDEWALK
		METER CABINET
		JUNCTION BOX ITS TYPE A/ TYPE B
		JUNCTION BOX ITS TYPE C
		JUNCTION BOX ITS TYPE D
		STAINLESS STEEL JUNCTION BOX
		WIRELESS
		VLS
		GROUND MOUNTED DMS SIGN
		BUTTERFLY SIGN STRUCTURE DMS SIGN
		CANTILEVER SIGN STRUCTURE DMS SIGN
		TURF PAVERS



NEW JERSEY DEPARTMENT OF TRANSPORTATION

## ITS LOCATION PLAN

ROUTE\*  
CONTRACT NO. \*

INDIVIDUAL, FIRM, PARTNERSHIP, ETC.  
CERTIFICATE OF AUTHORIZATION NO. \*

NAME\*  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \*

**SAMPLE PLANS**

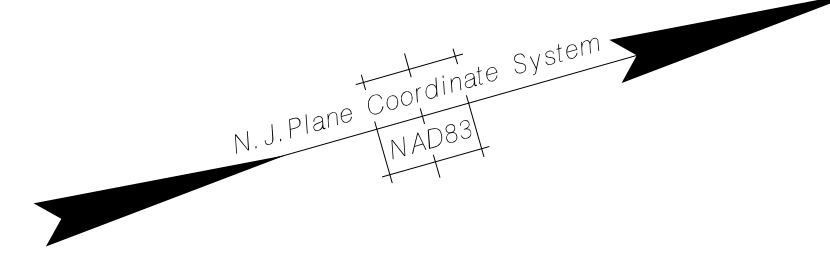
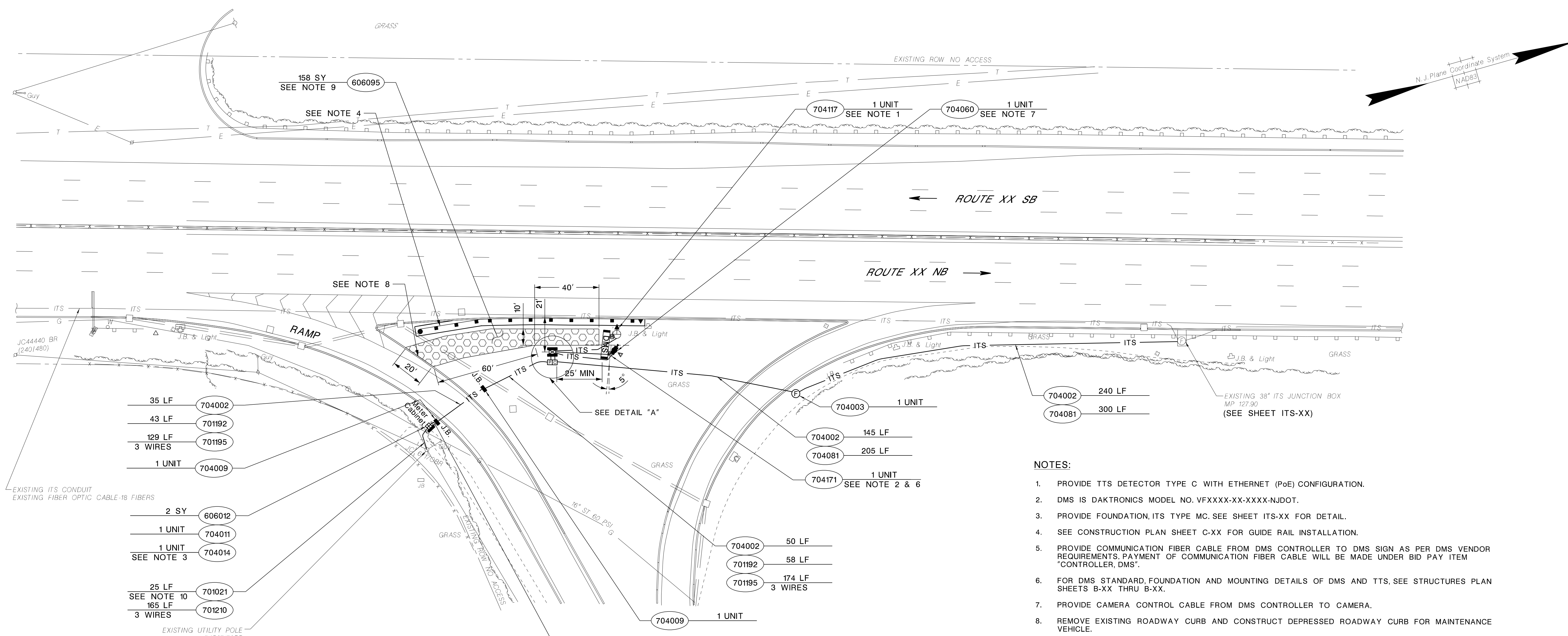
FIRM NAME  
 MODEL  
 PROJECT #  
 PROJECT NAME  
 PROJECT DESIGNER  
 PROJECT DATE  
 USER NAME  
 PLOT DATE  
 TIME  
 DWG NAME FILE

REFERENCE

\* TOWNSHIP

\* COUNTY

STATE	FEDERAL PROJECT NO.
N.J.	*

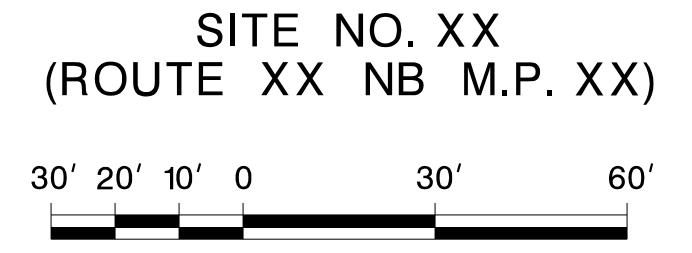
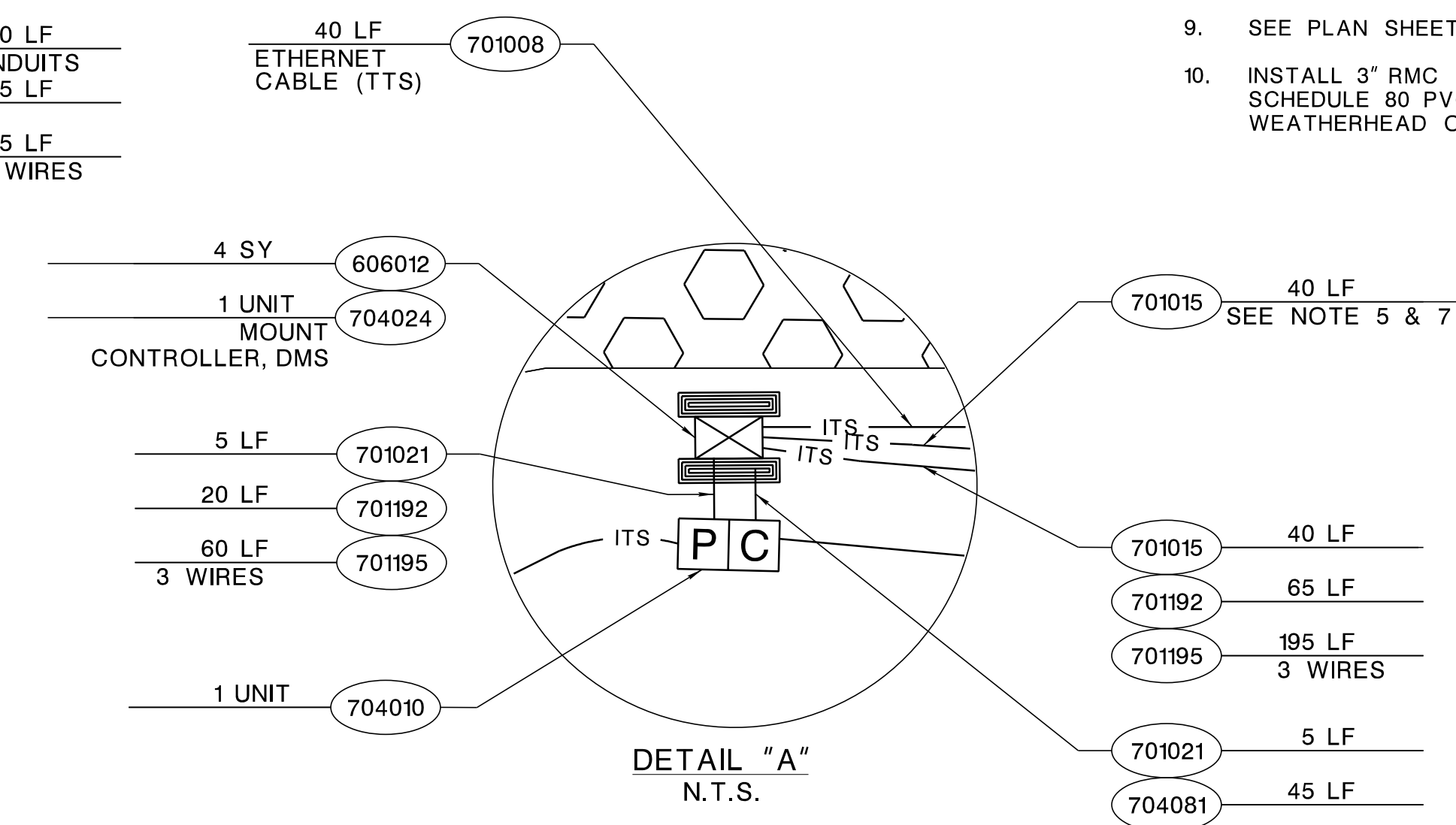


- 35 LF 704002
- 43 LF 701192
- 129 LF 701195
- 3 WIRES
- 1 UNIT 704009
- 2 SY 606012
- 1 UNIT 704011
- 1 UNIT 704014
- SEE NOTE 3
- 25 LF 701021
- SEE NOTE 10
- 165 LF 701210
- 3 WIRES

- 704003 1 UNIT
- 704002 145 LF
- 704081 205 LF
- 704171 1 UNIT
- SEE NOTE 2 & 6
- 704002 50 LF
- 701192 58 LF
- 701195 174 LF
- 3 WIRES
- 704009 1 UNIT
- 701015 10 LF
- 2 CONDUITS
- 701192 15 LF
- 701195 45 LF
- 3 WIRES
- 40 LF 701008
- ETHERNET CABLE (TTS)

- NOTES:**
- PROVIDE TTS DETECTOR TYPE C WITH ETHERNET (PoE) CONFIGURATION.
  - DMS IS DAKTRONICS MODEL NO. VFXXX-XX-XXX-NJDOT.
  - PROVIDE FOUNDATION, ITS TYPE MC. SEE SHEET ITS-XX FOR DETAIL.
  - SEE CONSTRUCTION PLAN SHEET C-XX FOR GUIDE RAIL INSTALLATION.
  - PROVIDE COMMUNICATION FIBER CABLE FROM DMS CONTROLLER TO DMS SIGN AS PER DMS VENDOR REQUIREMENTS. PAYMENT OF COMMUNICATION FIBER CABLE WILL BE MADE UNDER BID PAY ITEM "CONTROLLER, DMS".
  - FOR DMS STANDARD, FOUNDATION AND MOUNTING DETAILS OF DMS AND TTS, SEE STRUCTURES PLAN SHEETS B-XX THRU B-XX.
  - PROVIDE CAMERA CONTROL CABLE FROM DMS CONTROLLER TO CAMERA.
  - REMOVE EXISTING ROADWAY CURB AND CONSTRUCT DEPRESSED ROADWAY CURB FOR MAINTENANCE VEHICLE.
  - SEE PLAN SHEET ITS-XX FOR TURF PAVERS DETAIL.
  - INSTALL 3" RMC CONDUIT RISER 15' ON EXISTING UTILITY POLE #XX FOR PSE&G SITES. INSTALL SCHEDULE 80 PVC CONDUIT RISER 15' ON EXISTING UTILITY POLE #XX FOR JCP&L SITES. PROVIDE WEATHERHEAD ON THE CONDUIT RISER.

ITEM NUMBER	TO BE CONSTRUCTED	CONTRACT QUANTITY
606012P	CONCRETE SIDEWALK, 4" THICK	6 SY
606095P	TURF PAVERS	158 SY
701008P	1 1/4" RIGID METALLIC CONDUIT	40 LF
701015P	2" RIGID METALLIC CONDUIT	90 LF
701021P	3" RIGID METALLIC CONDUIT	35 LF
701192P	GROUND WIRE, NO. 8 AWG	201 LF
701195P	MULTIPLE LIGHTING WIRE, NO. 2 AWG	603 LF
701210P	SERVICE WIRE, NO. 2 AWG	165 LF
704002M	ITS CONDUIT, TYPE A	470 LF
704003M	JUNCTION BOX ITS, TYPE A	1 UNIT
704009M	JUNCTION BOX ITS, TYPE C	2 UNIT
704010M	JUNCTION BOX ITS, TYPE D	1 UNIT
704011M	METER CABINET ITS	1 UNIT
704014M	FOUNDATION, ITS TYPE MC	1 UNIT
704024M	FOUNDATION ITS TYPE D	1 UNIT
704060M	CAMERA	1 UNIT
704081P	FIBER OPTIC CABLE TYPE F	550 LF
704117M	TTS DETECTOR TYPE C	1 UNIT
704171M	DMS SIGN	1 UNIT



NEW JERSEY DEPARTMENT OF TRANSPORTATION

**ITS PLAN**

ROUTE\*  
CONTRACT NO. \*

INDIVIDUAL, FIRM, PARTNERSHIP, ETC.  
CERTIFICATE OF AUTHORIZATION NO. \*

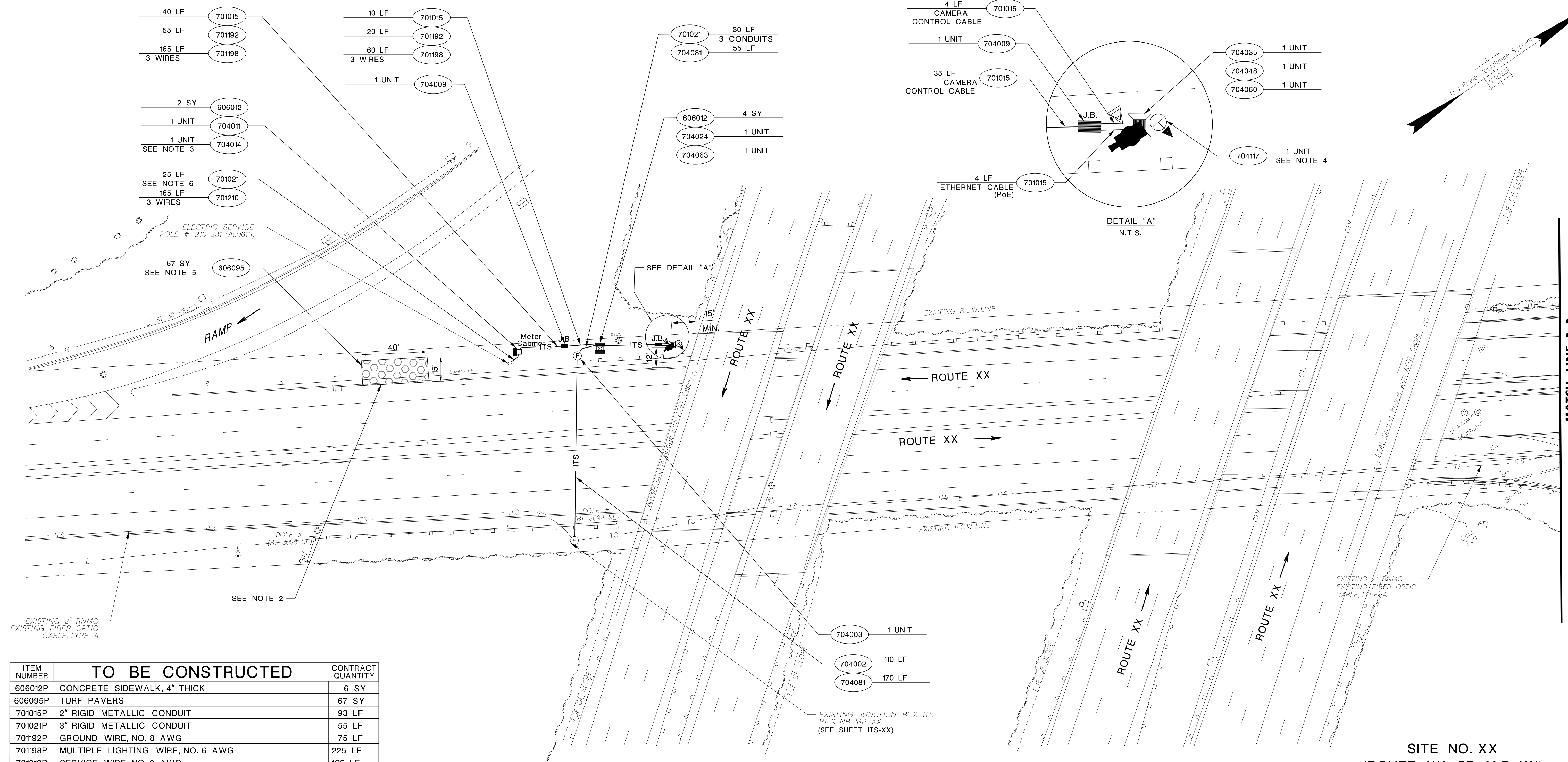
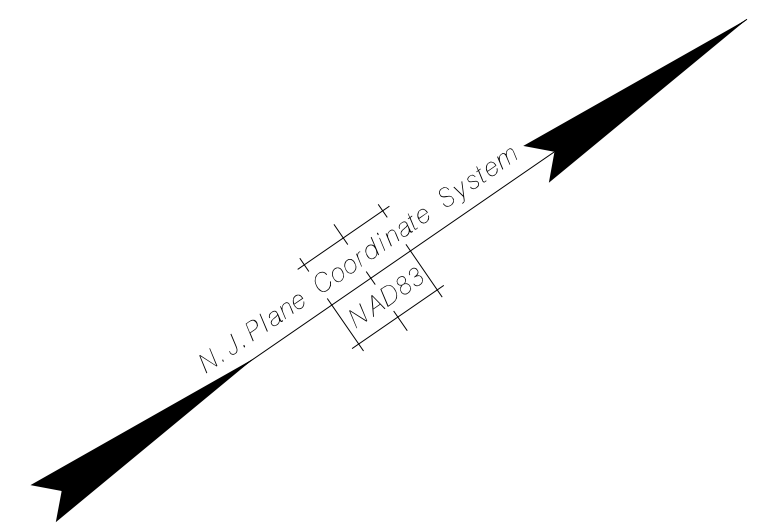
NAME\*  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \*

**SAMPLE PLANS**

FIRM NAME  
MODEL  
USER NAME  
PLOT DATE  
TIME  
DWG NAME

\* BOROUGH

\* COUNTY



DETAIL "A"  
N.T.S.

MATCH LINE A-A  
SEE SHEET ITS-XX

ITEM NUMBER	TO BE CONSTRUCTED	CONTRACT QUANTITY
606012P	CONCRETE SIDEWALK, 4" THICK	6 SY
606095P	TURF PAVERS	67 SY
701015P	2" RIGID METALLIC CONDUIT	93 LF
701021P	3" RIGID METALLIC CONDUIT	55 LF
701192P	GROUND WIRE, NO. 8 AWG	75 LF
701198P	MULTIPLE LIGHTING WIRE, NO. 6 AWG	225 LF
701210P	SERVICE WIRE, NO. 2 AWG	165 LF
704002M	ITS CONDUIT, TYPE A	110 LF
704003M	JUNCTION BOX ITS, TYPE A	1 UNIT
704009M	JUNCTION BOX ITS, TYPE C	2 UNIT
704011M	METER CABINET ITS	1 UNIT
704014M	FOUNDATION, ITS TYPE MC	1 UNIT
704024M	FOUNDATION, ITS TYPE D	1 UNIT
704035M	FOUNDATION CSS	1 UNIT
704048M	CAMERA STANDARD TYPE A	1 UNIT
704060M	CAMERA	1 UNIT
704063M	CONTROLLER, CAMERA	1 UNIT
704081P	FIBER OPTIC CABLE TYPE F	225 LF
704117M	TTS DETECTOR TYPE C	1 UNIT

NOTES:

1. REQUEST FIBER OPTIC CONDUIT/ CABLE MARKOUT OF EXISTING ITS CONDUITS AND MAINTAIN THE MARKOUT UNTIL NEEDED.
2. REMOVE EXISTING ROADWAY CURB AND CONSTRUCT DEPRESSED ROADWAY CURB FOR MAINTENANCE VEHICLE.
3. PROVIDE FOUNDATION, ITS TYPE MC. SEE SHEET ITS-XX FOR DETAIL.
4. PROVIDE TTS DETECTOR TYPE C WITH ETHERNET (PoE) CONFIGURATION.
5. SEE PLAN SHEET ITS-XX FOR TURF PAVEMENT DETAILS.
6. INSTALL 3" RMC CONDUIT RISER 15' ON EXISTING UTILITY POLE #XX FOR PSE&G SITES. INSTALL SCHEDULE 80 PVC CONDUIT RISER 15' ON EXISTING UTILITY POLE #XX FOR JCP&L SITES. PROVIDE WEATHERHEAD ON THE CONDUIT RISER.

SITE NO. XX  
(ROUTE XX SB M.P. XX)



NEW JERSEY DEPARTMENT OF TRANSPORTATION

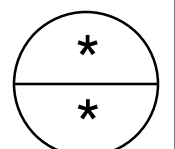
**ITS PLAN**  
ROUTE\*  
CONTRACT NO. \*

INDIVIDUAL, FIRM, PARTNERSHIP, ETC.  
CERTIFICATE OF AUTHORIZATION NO. \*

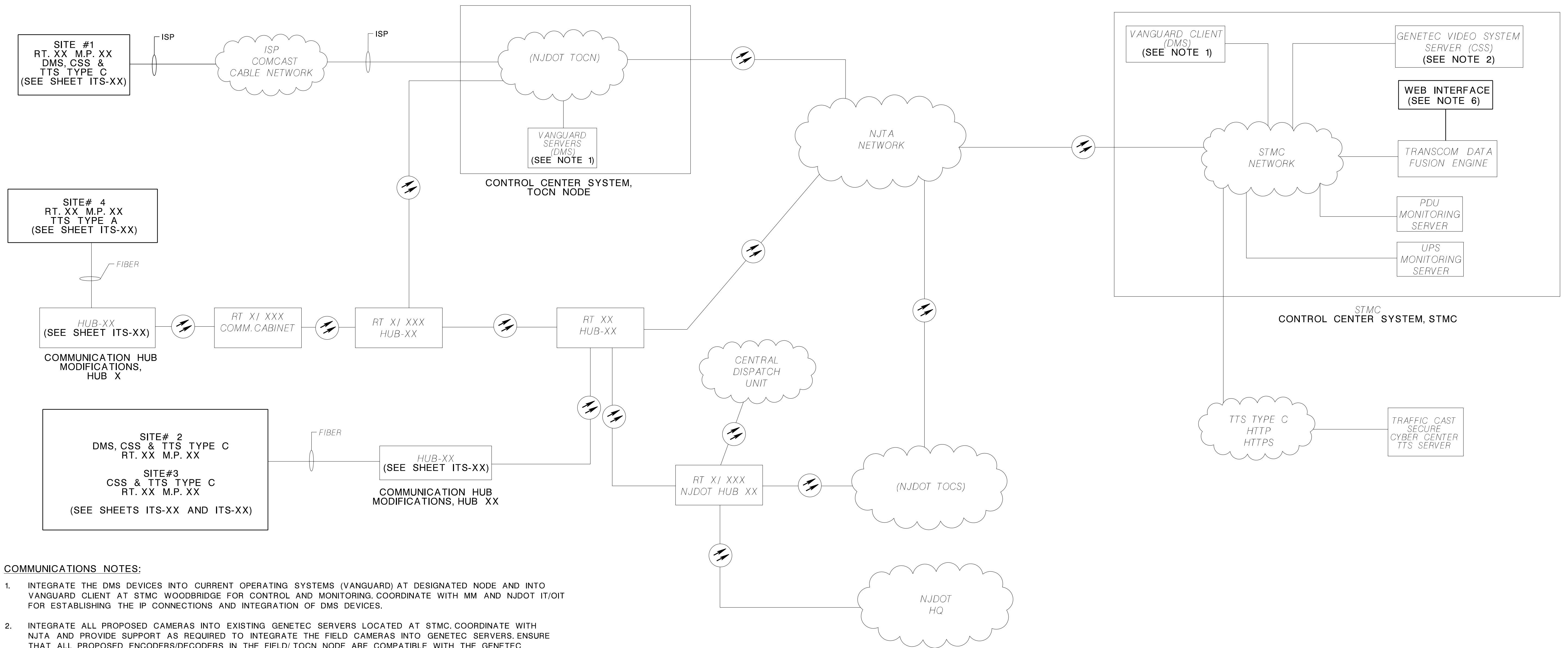
NAME\*  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \*

FIRM NAME  
 MODEL  
 PROJECT #  
 PROJECT NAME  
 PROJECT DESIGNER  
 PROJECT DATE  
 TIME  
 DWG NAME FILE

**SAMPLE PLANS**







**COMMUNICATIONS NOTES:**

1. INTEGRATE THE DMS DEVICES INTO CURRENT OPERATING SYSTEMS (VANGUARD) AT DESIGNATED NODE AND INTO VANGUARD CLIENT AT STMC WOODBRIDGE FOR CONTROL AND MONITORING. COORDINATE WITH MM AND NJDOT IT/OIT FOR ESTABLISHING THE IP CONNECTIONS AND INTEGRATION OF DMS DEVICES.
2. INTEGRATE ALL PROPOSED CAMERAS INTO EXISTING GENETEC SERVERS LOCATED AT STMC. COORDINATE WITH NJTA AND PROVIDE SUPPORT AS REQUIRED TO INTEGRATE THE FIELD CAMERAS INTO GENETEC SERVERS. ENSURE THAT ALL PROPOSED ENCODERS/DECODERS IN THE FIELD/TOCN NODE ARE COMPATIBLE WITH THE GENETEC OPERATING SOFTWARE.
3. EXISTING INFORMATION WAS OBTAINED FROM AVAILABLE AS-BUILT PLANS. VERIFY ALL EXISTING EQUIPMENT AND CONNECTIONS PRIOR TO START OF ITS WORK.
4. ENSURE ALL NETWORK/PATCH CABLES ARE LABELED USING PLASTIC PRINTED LABELS. SUBMIT WORKING DRAWINGS TO THE ENGINEER FOR APPROVAL.
5. PERFORM COMPLETE NETWORK CONFIGURATIONS AND SET UP INCLUDING CONFIGURING IP ADDRESS, VLAN, AND NETWORK SECURITY OF NETWORKS SWITCHES TO INTEGRATE THE PROPOSED ITS DEVICES. ESTABLISH CONNECTIONS TO THE EXISTING NJDOT IT/OIT CISCO NETWORK USING TRUNKING PROTOCOL OR AS APPROVED BY THE RE. COORDINATE WITH NJDOT IT/OIT FOR CONNECTIONS TO NJDOT IT/OIT NETWORK (CISCO NETWORK).
6. PAYMENT FOR WORK TO BE PERFORMED AT STMC WILL BE PAID UNDER LUMP SUM BID PAY ITEM "CONTROL CENTER SYSTEM, STMC".
7. PROVIDE TTS DETECTOR TYPE A, B AND C WEB INTERFACE AT STMC FOR CONTROL AND MONITORING. INTEGRATE TTS DETECTOR TYPE A, B AND C DATA BACK TO THE TRANSCOM EXISTING DATA FUSION ENGINE AND OPERATING SYSTEM LOCATED AT THE STATEWIDE TRAFFIC MANAGEMENT CENTER.
8. COORDINATE WITH ISP PROVIDERS FOR INSTALLATION OF ISP MODEMS AT FIELD LOCATIONS AND DESIGNATED NODE AS REQUIRED TO ESTABLISH COMMUNICATIONS.
9. PROPOSED WORK IS SHOWN IN BOLD.

ITEM NUMBER	TO BE CONSTRUCTED	CONTRACT QUANTITY
704029M	COMMUNICATION HUB MODIFICATIONS, HUB X	1 UNIT
704029M	COMMUNICATION HUB MODIFICATIONS, HUB XX	1 UNIT
704033P	CONTROL CENTER SYSTEM, STMC	LUMP SUM
704033P	CONTROL CENTER SYSTEM, TOCN NODE	LUMP SUM

**LEGEND OF SYMBOLS**

NJDOT FIBER OPTIC GSN

**NETWORK OVERVIEW AND COMMUNICATIONS SYSTEM - DMS/ TTS/ CSS**  
N.T.S.

**SAMPLE PLANS**

NEW JERSEY DEPARTMENT OF TRANSPORTATION

**ITS SYSTEM BLOCK DIAGRAM ROUTE\***  
CONTRACT NO. \*

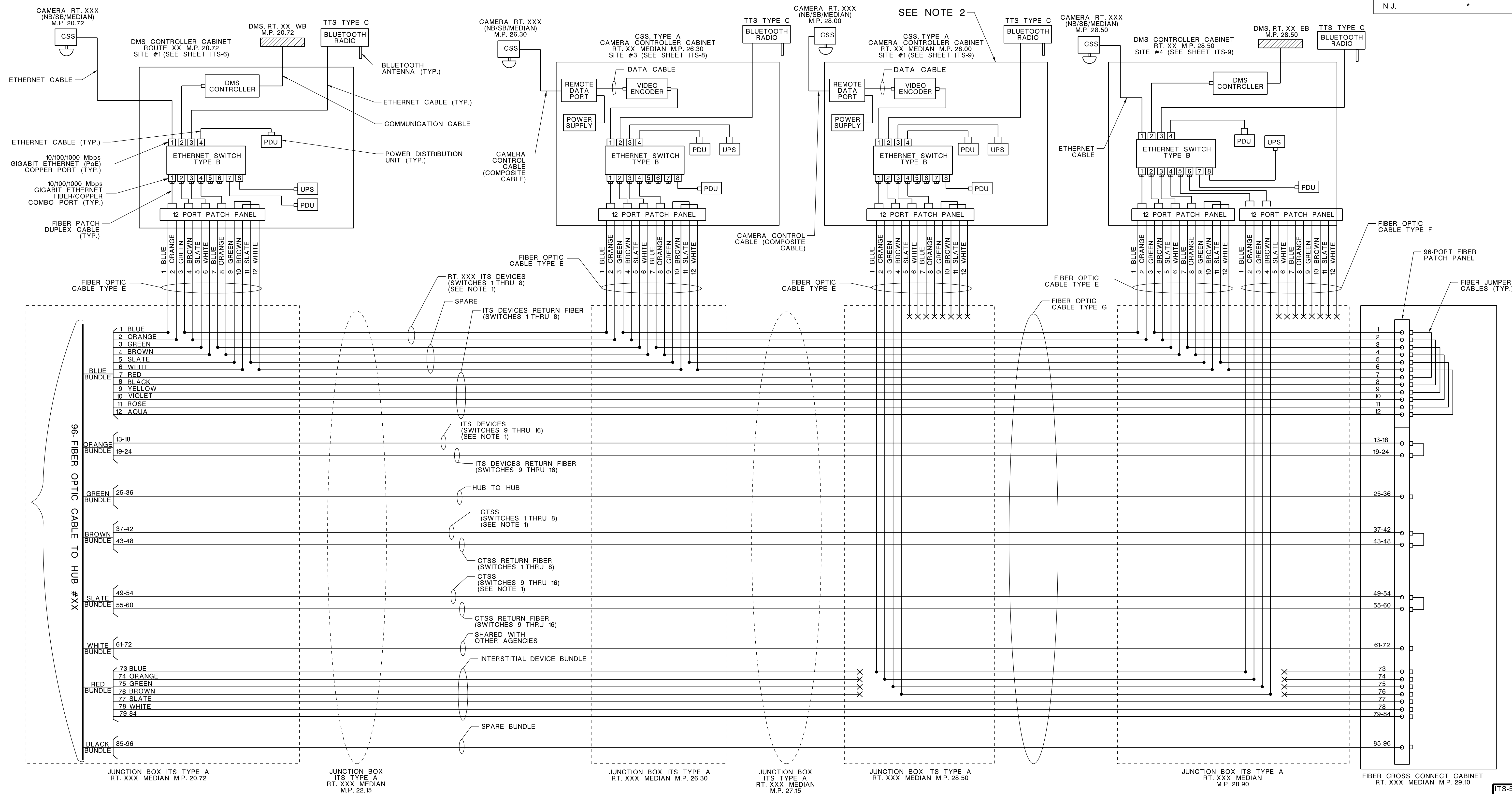
INDIVIDUAL, FIRM, PARTNERSHIP, ETC.  
CERTIFICATE OF AUTHORIZATION NO. \*  
NAME\*  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \*

REFERENCE

FIRM NAME	PROJECT #	PROJECT NAME
MODEL	PROJECT #	PROJECT NAME
USER NAME	PROJECT #	PROJECT NAME
PLOT DATE	PROJECT #	PROJECT NAME
TIME	PROJECT #	PROJECT NAME
DWG NAME	PROJECT #	PROJECT NAME

ITS-4  
ITS-9

\*



- NOTES TO DESIGNER:
1. MAXIMUM OF 8 NETWORK SWITCHES (OR 8 MILES) WHICHEVER OCCURS FIRST CONNECTED IN SERIES.
  2. INTERSTITIAL DEVICE BUNDLE CAN BE USED FOR ADDITIONAL DEVICES IN THE VICINITY OF EXISTING ITS FACILITIES FOR CONNECTION TO NJDOT NETWORK THROUGH EXISTING ETHERNET SWITCH.

**LEGEND OF SYMBOLS**

—●— DENOTES FIBER OPTIC CABLE SPLICE

—X— DENOTES FIBER OPTIC CABLE END

**TYPICAL FIBER OPTIC CABLE INTERCONNECTIONS**  
N.T.S.

**SAMPLE PLANS**

NEW JERSEY DEPARTMENT OF TRANSPORTATION

**ITS FIBER ASSIGNMENT DIAGRAM**

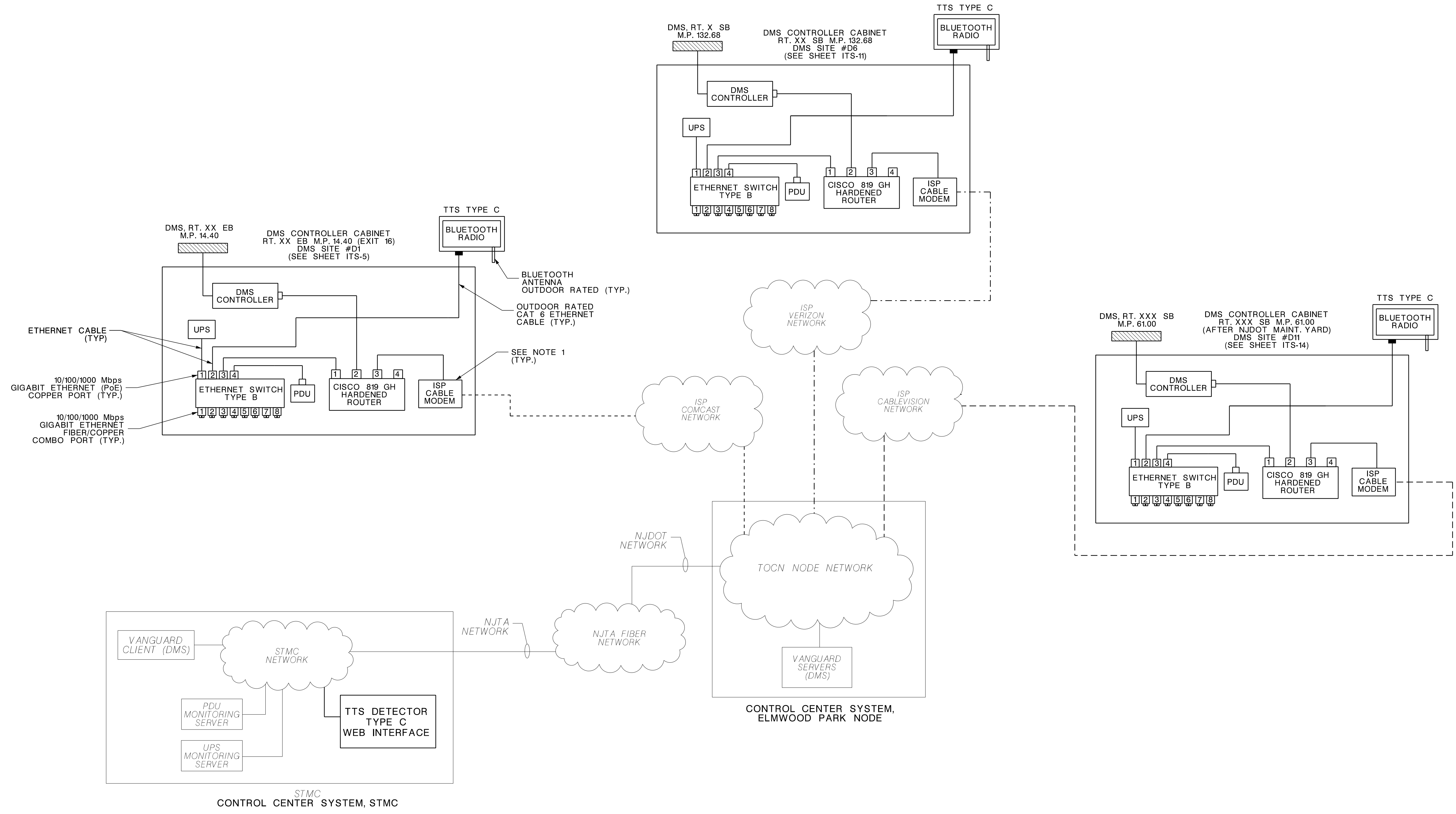
ROUTE\*  
CONTRACT NO. \*

INDIVIDUAL, FIRM, PARTNERSHIP, ETC.  
CERTIFICATE OF AUTHORIZATION NO. \*

NAME\*  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \*

FIRM NAME	PROJECT NAME
MODEL	PROJECT #
USER NAME	PROJECT NAME
PLOT DATE	PROJECT #
TIME	
DWG NAME	

REFERENCE



- NOTES:**
1. PROVIDE 24-HOUR PROGRAMMABLE HEAVY DUTY MECHANICAL TIMER WITH ISP CABLE MODEMS IN DMS CONTROLLER CABINETS. PROGRAM THE TIMER TO RESET THE ISP CABLE MODEMS BY TURNING THEM ON/OFF TWICE A DAY 10AM AND 10PM.
  3. COORDINATE WITH ISP COMPANIES TO ESTABLISH COMMUNICATIONS. PROVIDE FIVE (5) STATIC IP'S PER SITE.
  3. PROPOSED WORK IS SHOWN IN BOLD.

- LEGEND OF SYMBOLS**
- - - - - ISP CABLEVISION
  - - - - - ISP COMCAST
  - - - - - VERIZON WIRELESS

**COMMUNICATIONS SYSTEM BLOCK DIAGRAM - ISP NETWORK - DMS**  
N.T.S.

**SAMPLE PLANS**

NEW JERSEY DEPARTMENT OF TRANSPORTATION

**FIBER SYSTEM  
BLOCK DIAGRAM**  
ROUTE\*  
CONTRACT NO. \*

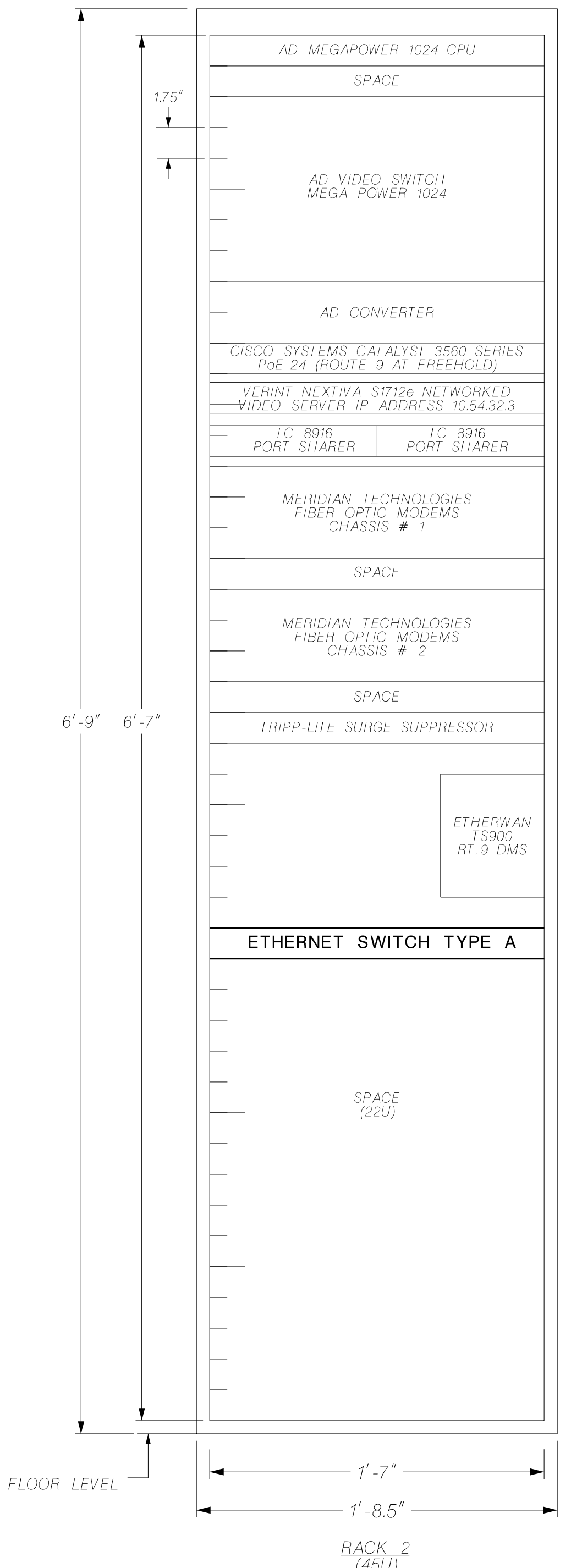
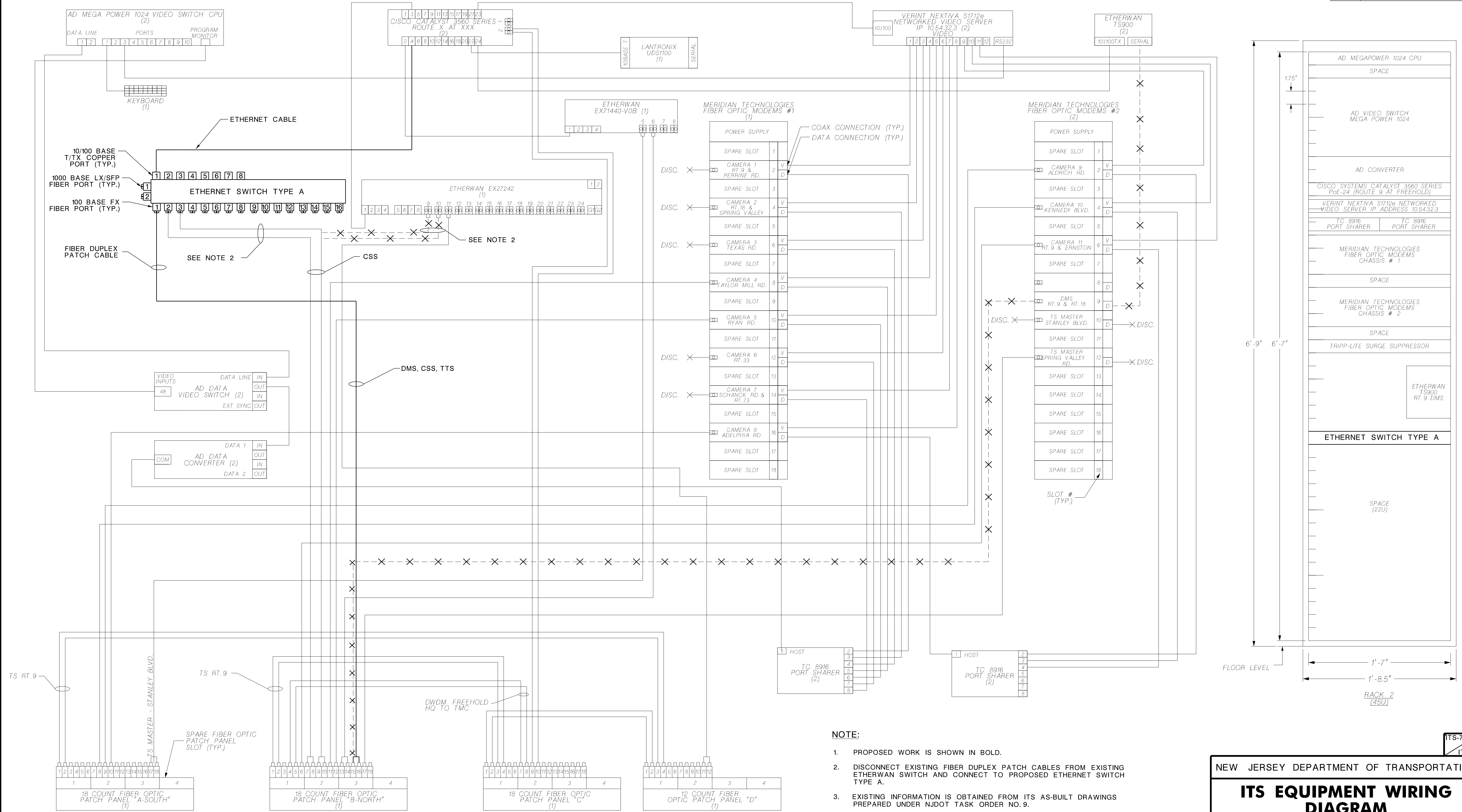
INDIVIDUAL, FIRM, PARTNERSHIP, ETC. \_\_\_\_\_  
CERTIFICATE OF AUTHORIZATION NO. \*

NAME\* \_\_\_\_\_  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \*

FIRM NAME	PROJECT NAME
MODEL	PROJECT #
USER NAME	PROJECT DESCR
PLOT DATE	PLOT DRIVER
TIME	DWG. NAME
FILE	

REFERENCE

ITS-6  
ITS-9



- NOTE:**
1. PROPOSED WORK IS SHOWN IN BOLD.
  2. DISCONNECT EXISTING FIBER DUPLEX PATCH CABLES FROM EXISTING ETHERWAN SWITCH AND CONNECT TO PROPOSED ETHERNET SWITCH TYPE A.
  3. EXISTING INFORMATION IS OBTAINED FROM ITS AS-BUILT DRAWINGS PREPARED UNDER NJDOT TASK ORDER NO. 9.
  4. COORDINATE NEW EQUIPMENT LOCATION WITH NJDOT MM.

**LEGEND OF SYMBOLS**  
 -X- DENOTES CONNECTION TO BE REMOVED  
 X DENOTES CABLE END

**COMMUNICATIONS HUB MODIFICATIONS, HUB XX**  
**HUB XX - FREEHOLD (DMS / CSS) (AS-BUILTS AS OF FEBURARY 12, 2013)**

**SAMPLE PLANS**

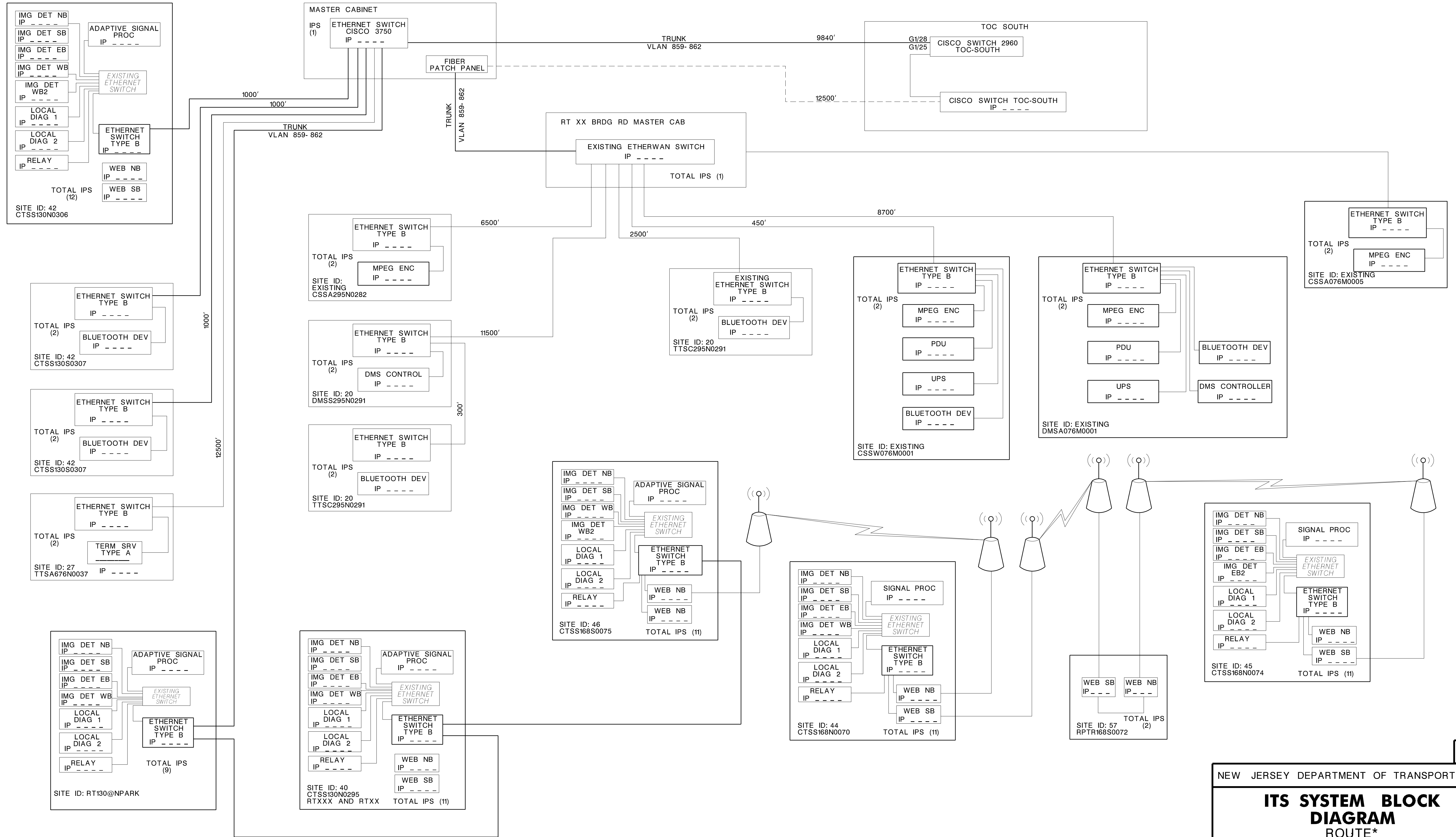
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 MODEL  
 PROJECT #  
 PROJECT NAME  
 PROJECT DESIGNER  
 PROJECT DATE  
 USER NAME  
 SUBMITTER  
 PLOT DATE  
 DATE  
 DWG NAME

NEW JERSEY DEPARTMENT OF TRANSPORTATION  
**ITS EQUIPMENT WIRING DIAGRAM**  
 ROUTE\*  
 CONTRACT NO. \*

INDIVIDUAL, FIRM, PARTNERSHIP, ETC.  
 CERTIFICATE OF AUTHORIZATION NO. \*

NAME\*  
 NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \*

ITS-7  
 ITS-9



FIRM NAME	PROJECT NAME
MODEL	PROJECT #
USERNAME	PROJECT NAME
DATE	PLOT DATE
TIME	DWG NAME

NETWORK OVERVIEW AND COMMUNICATION DIAGRAM  
N.T.S.

**SAMPLE PLANS**

NEW JERSEY DEPARTMENT OF TRANSPORTATION

**ITS SYSTEM BLOCK DIAGRAM ROUTE\***

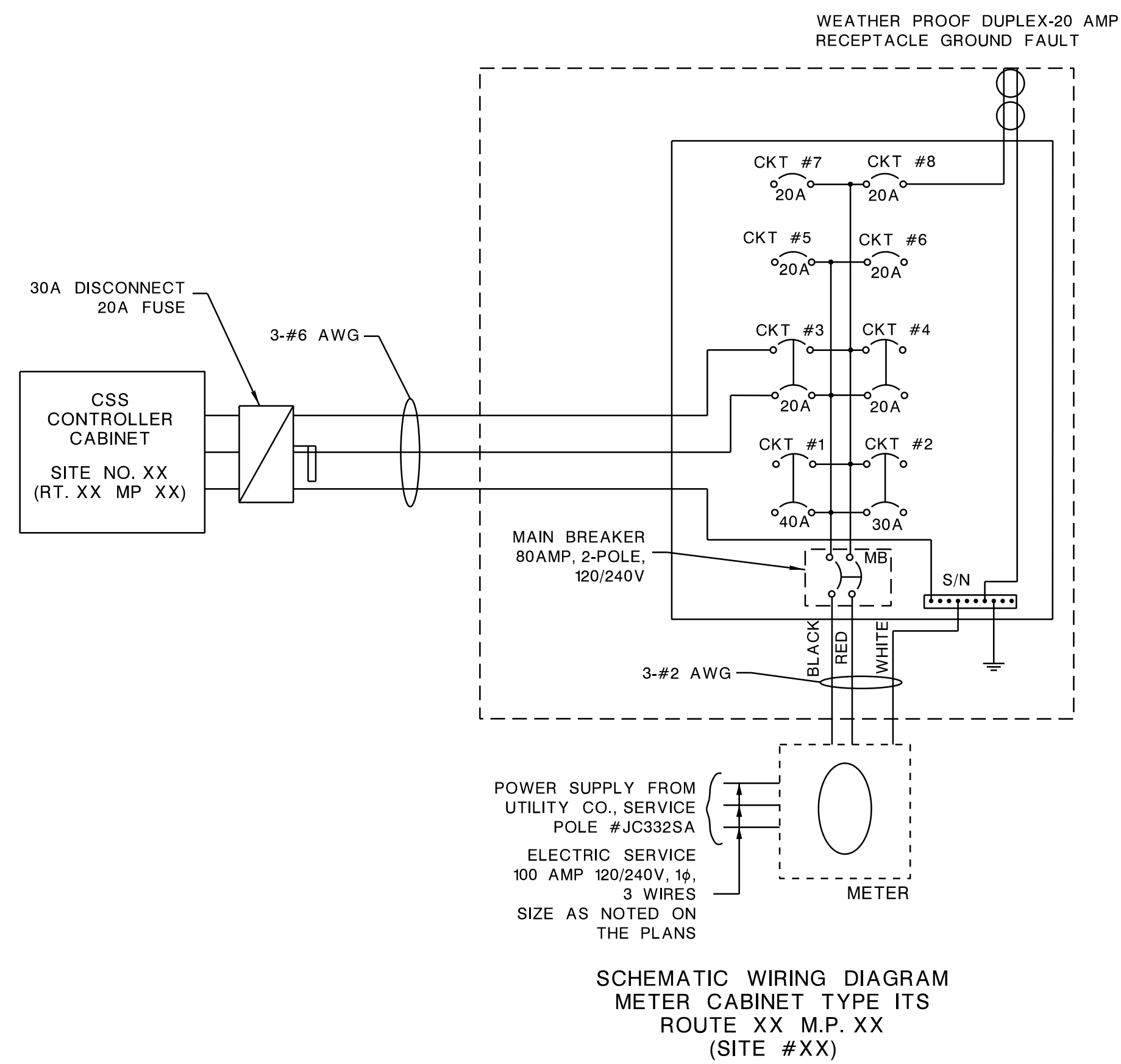
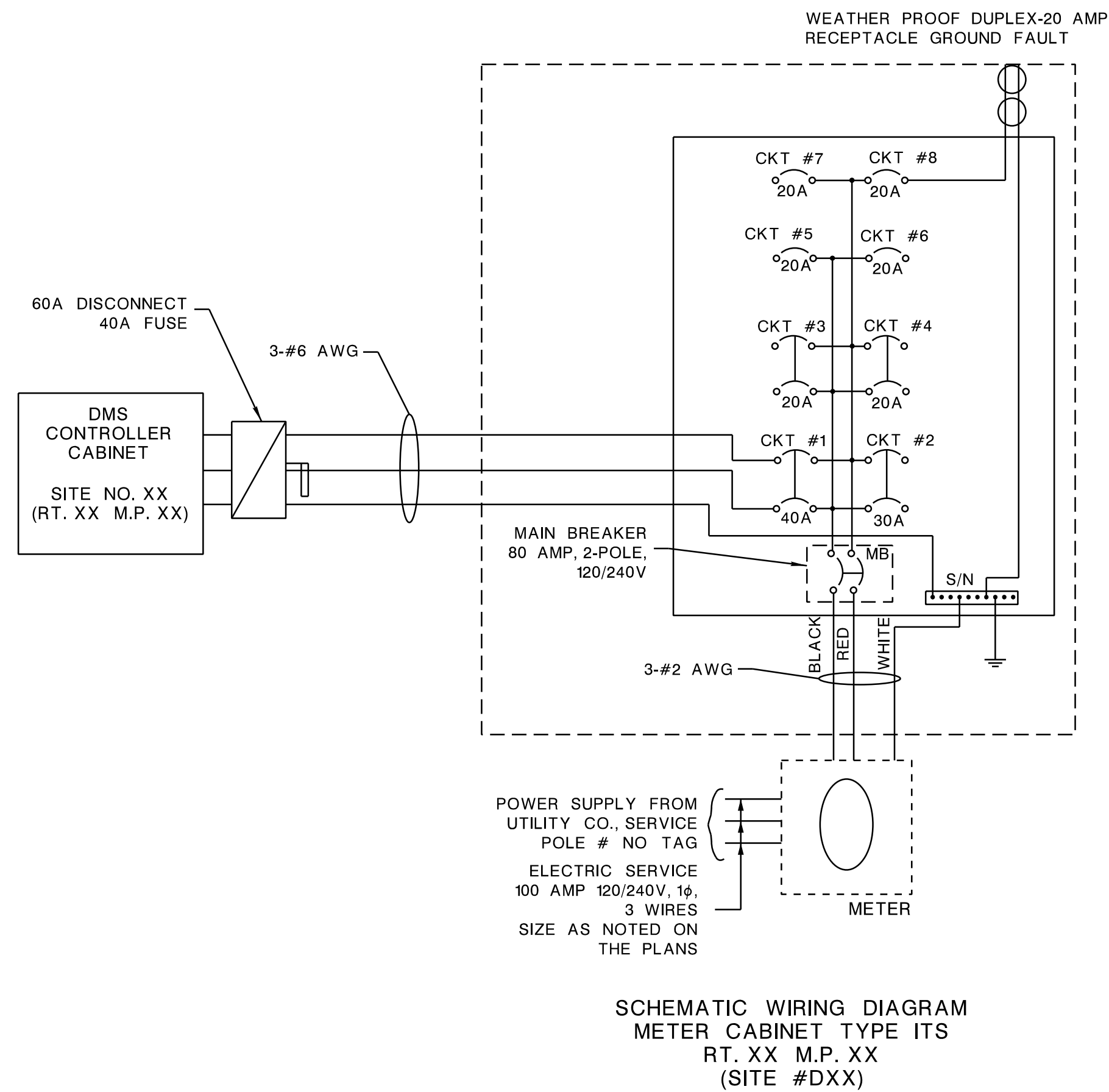
CONTRACT NO. \*

INDIVIDUAL, FIRM, PARTNERSHIP, ETC. \_\_\_\_\_  
 CERTIFICATE OF AUTHORIZATION NO. \* \_\_\_\_\_

NAME\* \_\_\_\_\_  
 NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \* \_\_\_\_\_

ITS-8  
ITS-9





1. PROVIDE GROUND WIRE AS SHOWN ON THE ITS PLANS. PROVIDE BONDING AND GROUNDING IN ACCORDANCE WITH NEC REQUIREMENTS.
2. FOR METER CABINET TYPE ITS DETAILS, SEE NJDOT STANDARD DETAILS ITS-704-XX.

DMS/ CSS- SCHEMATIC WIRING DIAGRAMS  
N.T.S.

**SAMPLE PLANS**

ITS-9  
ITS-9

NEW JERSEY DEPARTMENT OF TRANSPORTATION

**ITS LOAD CENTER  
WIRING DIAGRAM**  
ROUTE\*  
CONTRACT NO. \*

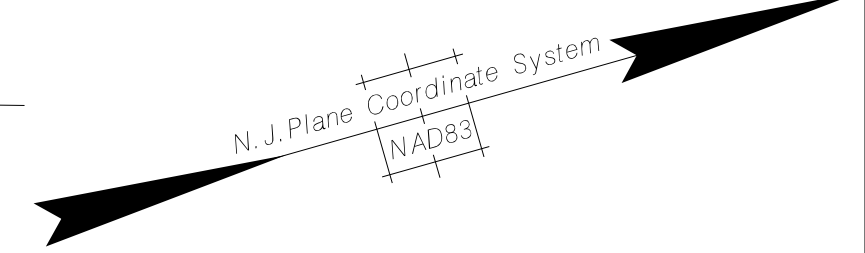
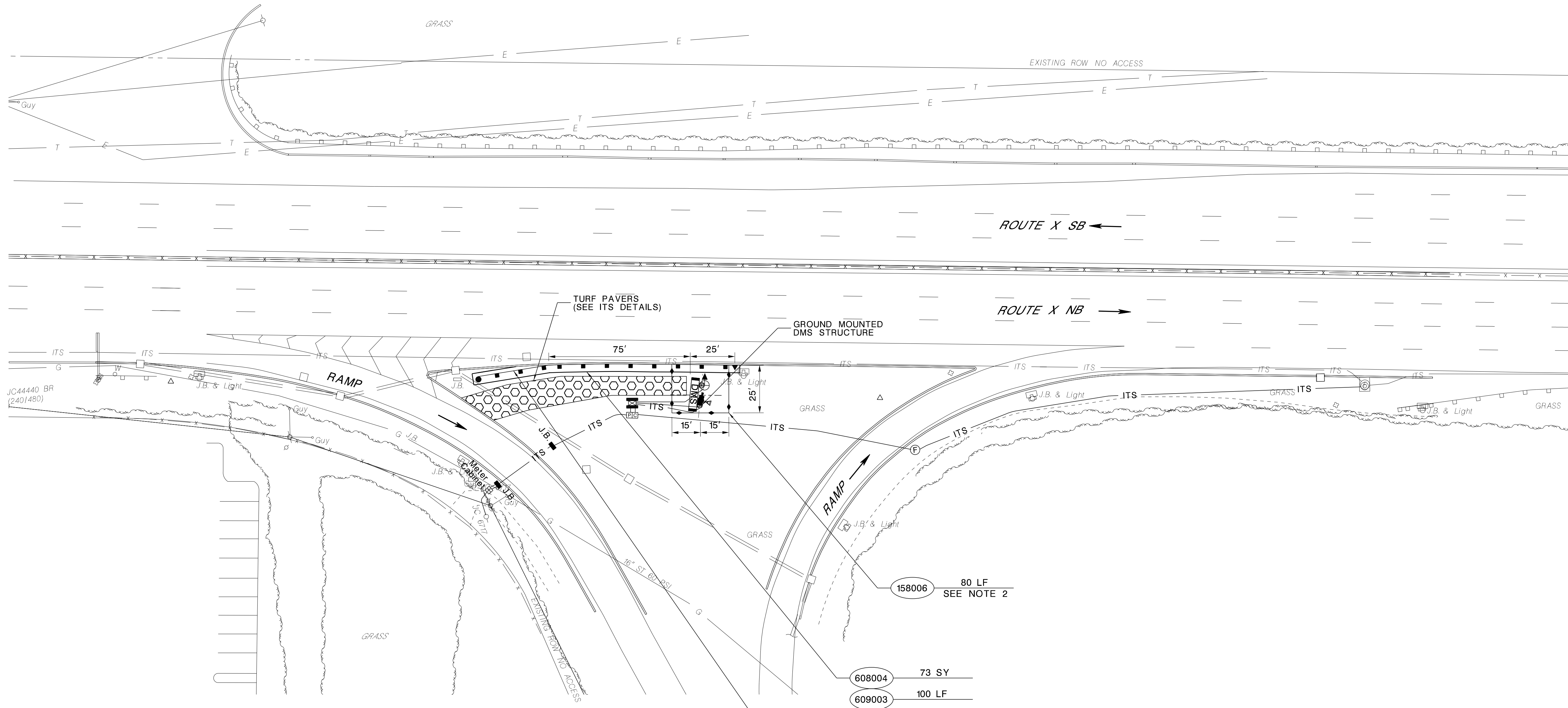
INDIVIDUAL, FIRM, PARTNERSHIP, ETC. \_\_\_\_\_  
CERTIFICATE OF AUTHORIZATION NO. \*

NAME\* \_\_\_\_\_  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \*

FIRM NAME	PROJECT #	PROJECT NAME
MODEL	PROJECT NAME	PROJECT NAME
USER NAME	PROJECT NAME	PROJECT NAME
PLOT DATE	PROJECT NAME	PROJECT NAME
DWG NAME	PROJECT NAME	PROJECT NAME

TOWNSHIP OF XXX XXXX

COUNTY OF XXXXXX



REFERENCE

FIRM NAME	PROJECT NAME
MODEL	PROJECT #
USERNAME	PROJECT NAME
PLOT DATE	PROJECT #
TIME	
DWG NAME	

ITEM NUMBER	TO BE CONSTRUCTED	CONTRACT QUANTITY
158006M	SILT FENCE	80 LF
608004P	NONVEGETATIVE SURFACE, POROUS HOT MIX ASPHALT, 4" THICK	73 SY
609003M	BEAM GUIDE RAIL	100 LF
609021M	RUB RAIL	100 LF
609024M	FLARED GUIDE RAIL TERMINAL	1 UNIT
609039M	BEAM GUIDE RAIL ANCHORAGE	1 UNIT

- 158006 80 LF SEE NOTE 2
- 608004 73 SY
- 609003 100 LF
- 609021 100 LF
- 609039 1 UNIT
- 609024 1 UNIT

- NOTES:
- SEE STRUCTURAL AND ITS PLANS FOR ADDITIONAL DETAILS.
  - PROPOSED SILT FENCE NEED TO BE REMOVE IN FRONT OF DMS AFTER COMPLETION OF DMS FOUNDATION AND PRIOR TO CONSTRUCTION OF TURF PAVERS.

SITE NO. XX  
(ROUTE XX NB M.P. XX)

30' 20' 10' 0 30' 60'

NEW JERSEY DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION PLANS**

ROUTE\*  
CONTRACT NO. \*

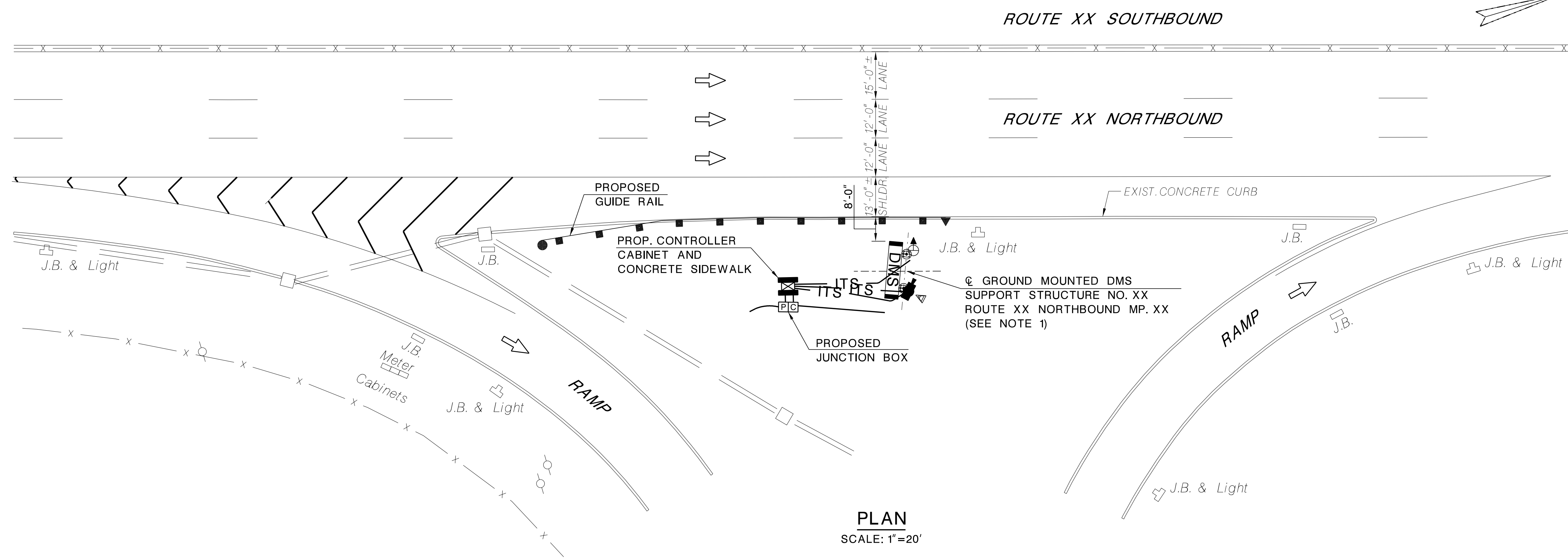
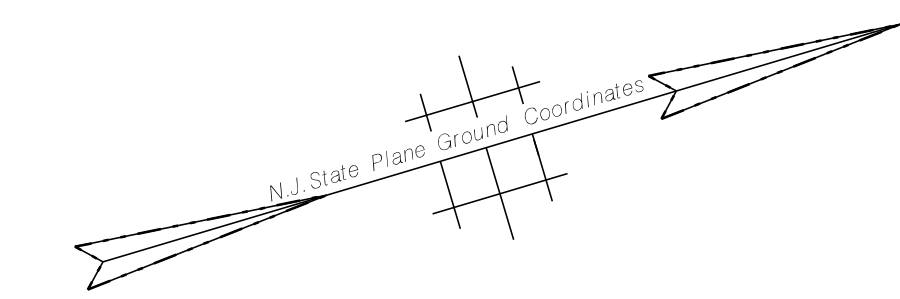
INDIVIDUAL, FIRM, PARTNERSHIP, ETC. \_\_\_\_\_  
CERTIFICATE OF AUTHORIZATION NO. \* \_\_\_\_\_

NAME\* \_\_\_\_\_  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \* \_\_\_\_\_

**SAMPLE PLANS**

C-1

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N.J.	XXX		
STRUCTURE NO.		XXX	
STRUCTURE NAME			
DMS GROUND MOUNTED SUPPORT STR. NO.X			



**PLAN**  
SCALE: 1"=20'

**NOTES:**

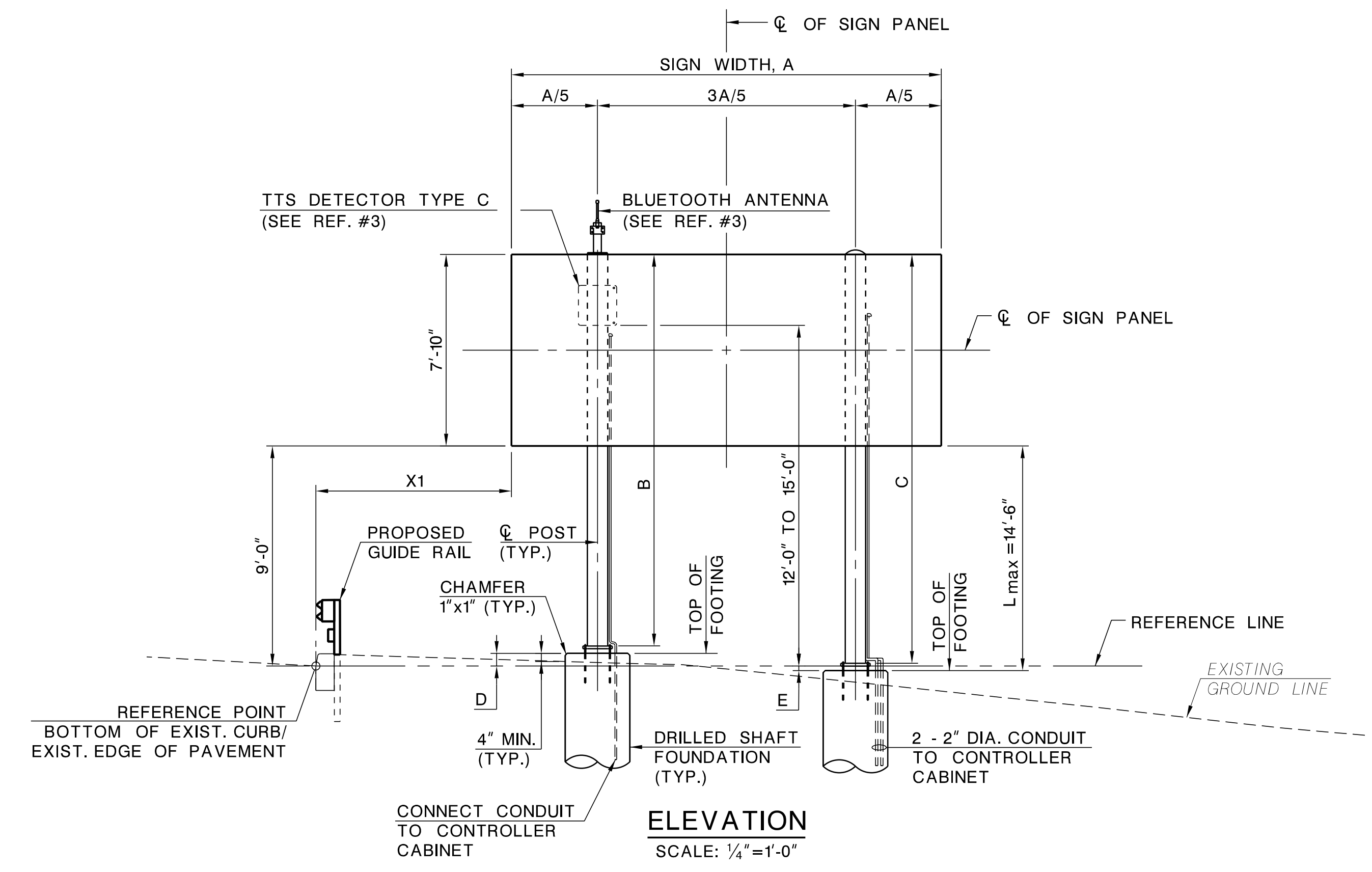
1. LOCATE THE CENTER OF THE GROUND MOUNTED DMS SIGN SUPPORT STRUCTURE AT THE FOLLOWING COORDINATES:  
NORTH: XXXXX  
EAST: XXXXX
2. THE CONTRACTOR SHALL FIELD VERIFY EXISTING GROUND ELEVATIONS AT THE PROPOSED POST LOCATIONS PRIOR TO ANY FABRICATION OR CONSTRUCTION ACTIVITY. IF ANY DEVIATIONS ARE FOUND, THE CONTRACTOR SHALL SUBMIT THE ADJUSTED BOTTOM OF BASE PLATE AND TOP OF PEDESTAL ELEVATIONS FOR THE ENGINEER'S APPROVAL.
3. PROVIDE TURF PAVERS AS SHOWN ON ITS PLAN SHEET ITS-XX.
4. INSTALL TTS DETECTOR TYPE C ON THE GROUND MOUNTED DMS STRUCTURE POST BEHIND THE DMS SIGN.

**REFERENCES:**

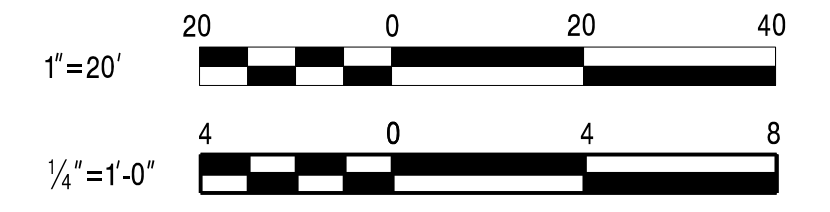
1. FOR DMS STANDARD GROUND MOUNTED DETAILS, NOTES & DMS SIGN SUPPORT DATA TABLE, SEE SHEET ITS-XX.
2. FOR DMS GROUND MOUNTED FOUNDATION DETAILS, SEE SHEET ITS-XX.
3. FOR TTS DETECTOR TYPE C (BLUETOOTH ANTENNA) ATTACHMENT DETAILS, SEE SHEET ITS-XX.
4. FOR TURF PAVERS DETAILS, SEE SHEET ITS-XX.

**LEGEND:**

- DIRECTION OF TRAFFIC
- LOCATION OF SOIL BORINGS
- DYNAMIC MESSAGE SIGN
- TRAVEL TIME SYSTEM TYPE C
- CAMERA



**ELEVATION**  
SCALE: 1/4"=1'-0"



**GROUND MOUNTED DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE NO. XX**  
**ROUTE XX NORTHBOUND MP. XX**  
**SITE NO. XX**

NEW JERSEY DEPARTMENT OF TRANSPORTATION  
BUREAU OF STRUCTURAL ENGINEERING

**DMS GROUND MOUNTED PLAN AND ELEVATION**

**ROUTE\* CONTRACT NO. \***

INDIVIDUAL, FIRM, PARTNERSHIP, ETC.

SCALE: AS SHOWN

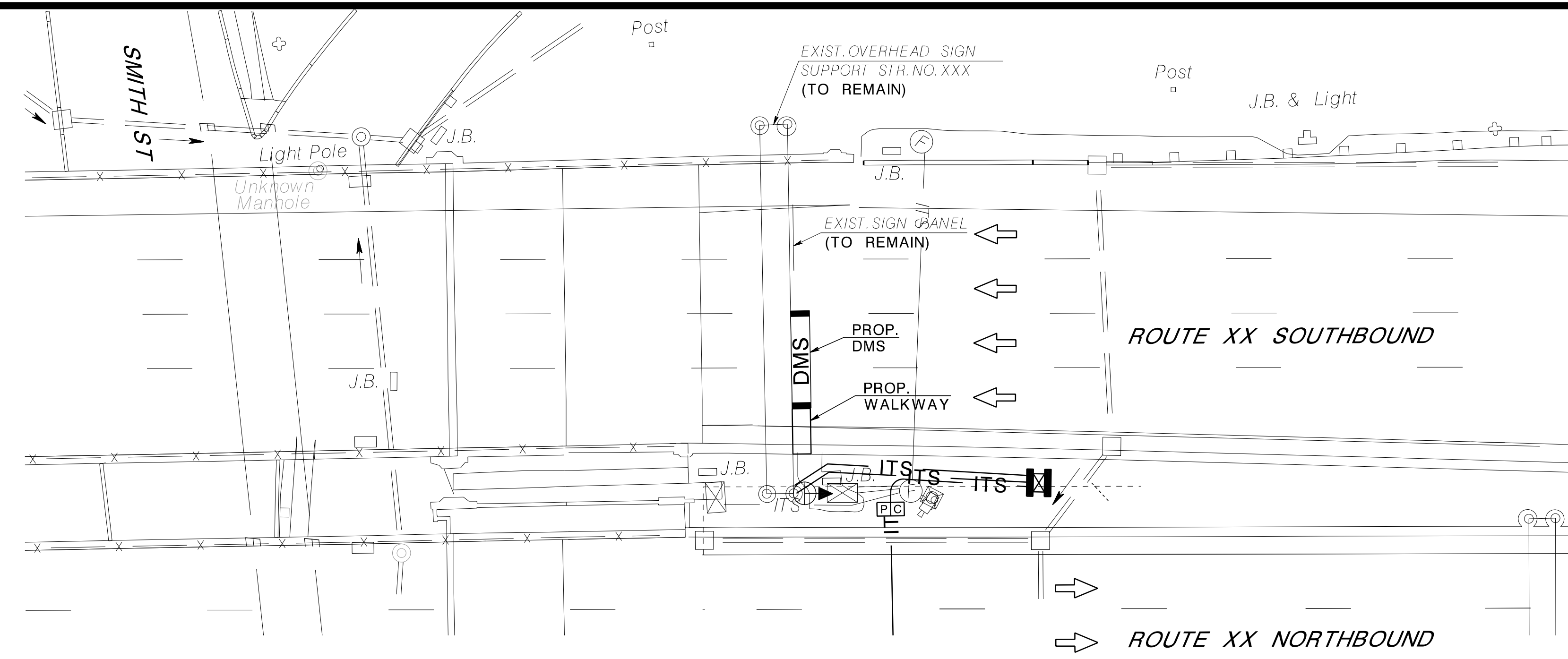
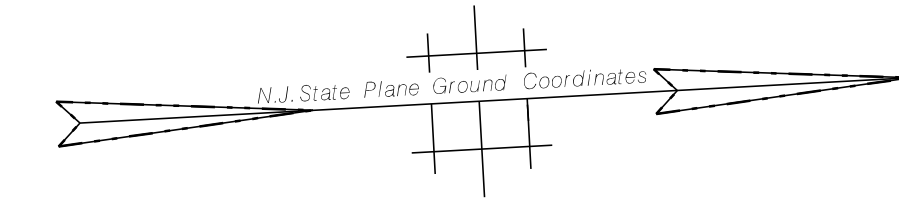
BRIDGE SHEET NO. XX OF XX

NAME\* DATE  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO.\*

**SAMPLE PLANS**

CONTROL SECTION	JOB NO.
DES. BY	CHK. BY
DWN. BY	
IN CHARGE OF	

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N.J.	XXX		
STRUCTURE NO.		XXX	
STRUCTURE NAME			
OVERHEAD SIGN SUPPORT STRUCTURE			



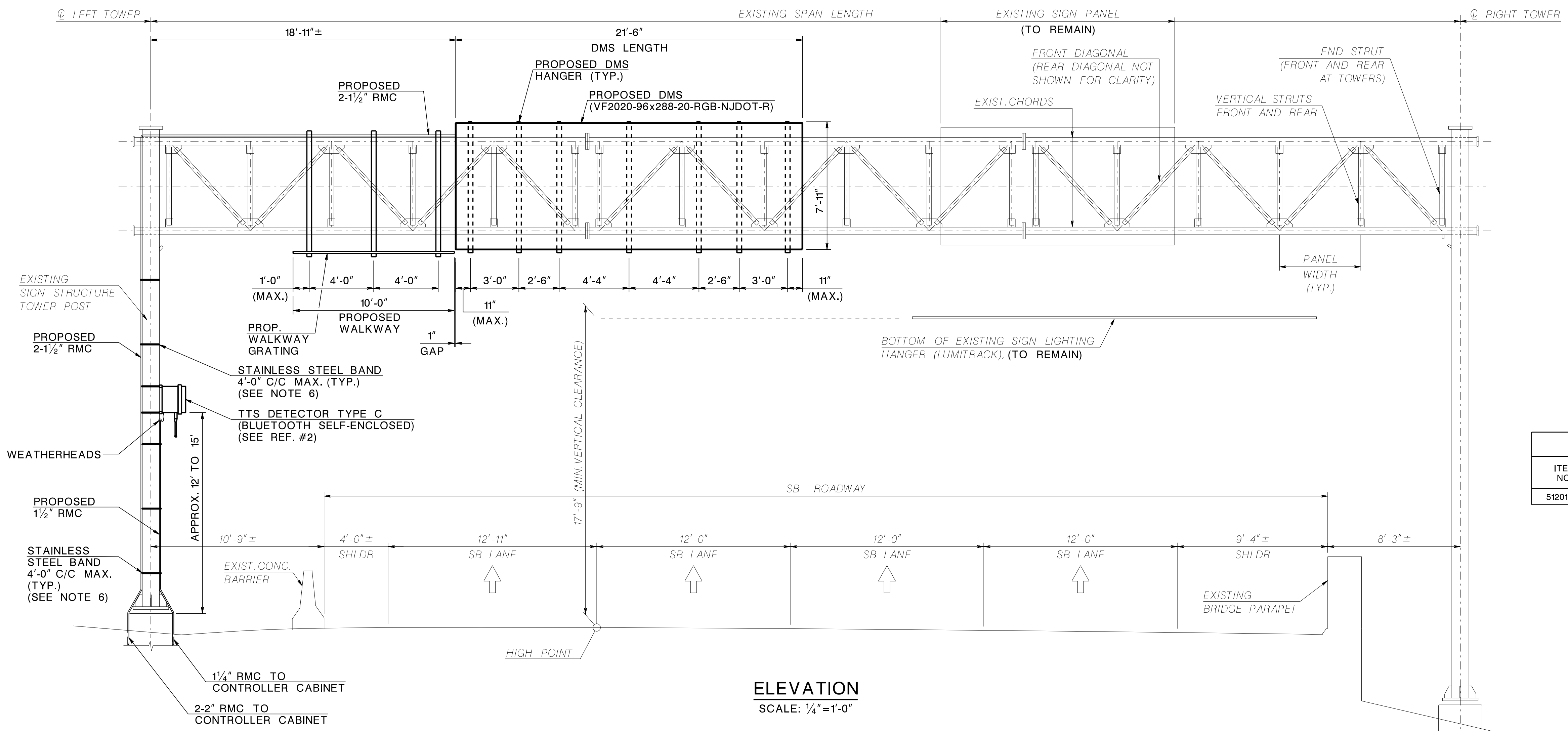
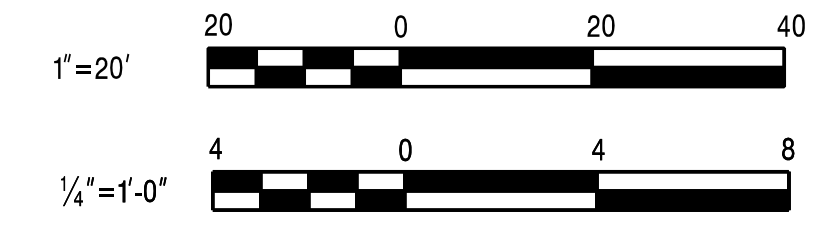
**PLAN**  
SCALE: 1"=20'

- NOTES:**
- SUBMIT SHOP DRAWINGS FOR INSTALLATION OF PROPOSED DMS SIGN AND WALKWAY INCLUDING MOUNTING HARDWARE, LIFTING CALCULATIONS FOR PROPOSED DMS SIGN, TEST EQUIPMENT, MATERIAL CATALOG CUTS, ETC. TO THE RE FOR APPROVAL.
  - PERFORM ALL WORKS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT NATIONAL ELECTRIC CODE AND THE NJDOT SPECIFICATIONS.
  - INSTALL PROPOSED DMS AND WALKWAY HANGERS AS SHOWN. DIMENSIONS OF I-BEAM LOCATIONS SHOWN IN THE ELEVATION VIEW MAY BE SHIFTED SLIGHTLY DUE TO FIELD CONDITIONS TO AVOID EXISTING GUSSET PLATES. CENTER TO CENTER DIMENSION BETWEEN ADJACENT I-BEAMS SHALL NOT EXCEED 4'-6".
  - INSTALL THE PROPOSED DMS SIGN AND MAINTENANCE WALKWAY.
  - THE COST OF INSTALLATION OF PROPOSED DMS SIGN HANGERS, U-BOLTS, NUTS, WASHERS, SHIM PLATES AND MISCELLANEOUS HARDWARES SHALL BE INCLUDED UNDER UNIT BID PRICE FOR PAY ITEM "DMS SIGN". THE COST OF INSTALLATION OF PROPOSED WALKWAY HANGERS, U-BOLTS, NUTS, WASHERS, SHIM PLATES AND MISCELLANEOUS HARDWARES SHALL BE INCLUDED UNDER UNIT BID PRICE FOR PAY ITEM "OVERHEAD SIGN SUPPORT, STRUCTURE NO. XX, WALKWAY ONLY"
  - INSTALL THE PROPOSED CONDUIT TO THE EXISTING SIGN STRUCTURE POST UTILIZING STRAP TYPE CONNECTIONS. NO WELDING OR BOLTING OF ATTACHMENT FOR THIS CONDUIT ON THE STRUCTURE WILL BE PERMITTED. THE CONTRACTOR SHALL SUBMIT THE PROPOSED CONDUIT ATTACHMENT DETAILS TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. THE COST OF INSTALLATION OF PROPOSED CONDUIT AND MISCELLANEOUS HARDWARES SHALL BE INCLUDED UNDER BID PAY ITEM " 2" RIGID METALLIC CONDUIT".

- REFERENCES:**
- FOR WALKWAY, HANDRAIL AND SELF-CLOSING GATE DETAILS, SEE MAINTENANCE WALKWAY DETAILS DRAWINGS DMS-CA-DXX AND DMS-CA-DXX (BRIDGE SHEET NOS. B16 AND BXX).
  - FOR TTS DETECTOR TYPE C (BLUETOOTH ANTENNA) ATTACHMENT DETAILS, SEE BRIDGE SHEET NO. BXX.

- LEGEND:**
- DIRECTION OF TRAFFIC
  - DYNAMIC MESSAGE SIGN
  - TRAVEL TIME SYSTEM TYPE C

QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
512012M	OVERHEAD SIGN SUPPORT, STRUCTURE NO. XXX, WALKWAY ONLY	UNIT	1



**ELEVATION**  
SCALE: 1/4"=1'-0"

**DMS AND MAINTENANCE WALKWAY INSTALLATION  
EXISTING OVERHEAD SIGN SUPPORT STRUCTURE NO. XX  
US ROUTE XX SB, M.P. XX**

CONTROL SECTION	JOB NO.
DES. BY	CHK. BY
DWN. BY	
IN CHARGE OF	

**SAMPLE PLANS**

REVISION	BY	C'K'D	DATE

NEW JERSEY DEPARTMENT OF TRANSPORTATION  
BUREAU OF STRUCTURAL ENGINEERING

**DMS INSTALLATION  
EXISTING OVERHEAD SUPPORT STR.  
PLAN AND ELEVATION  
ROUTE\*  
CONTRACT NO. \***

INDIVIDUAL, FIRM, PARTNERSHIP, ETC.

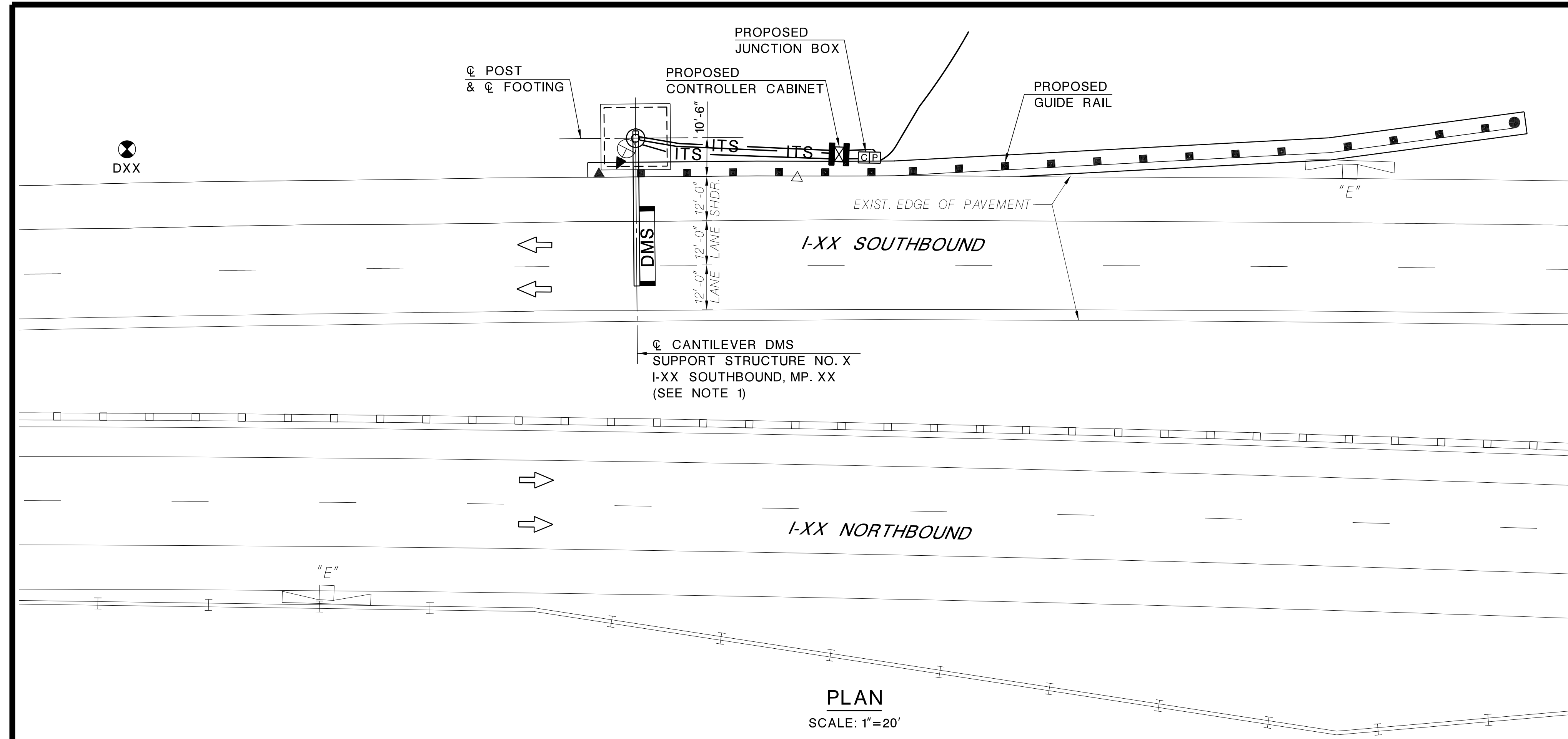
SCALE: AS SHOWN

BRIDGE SHEET NO. BXX OF BXX

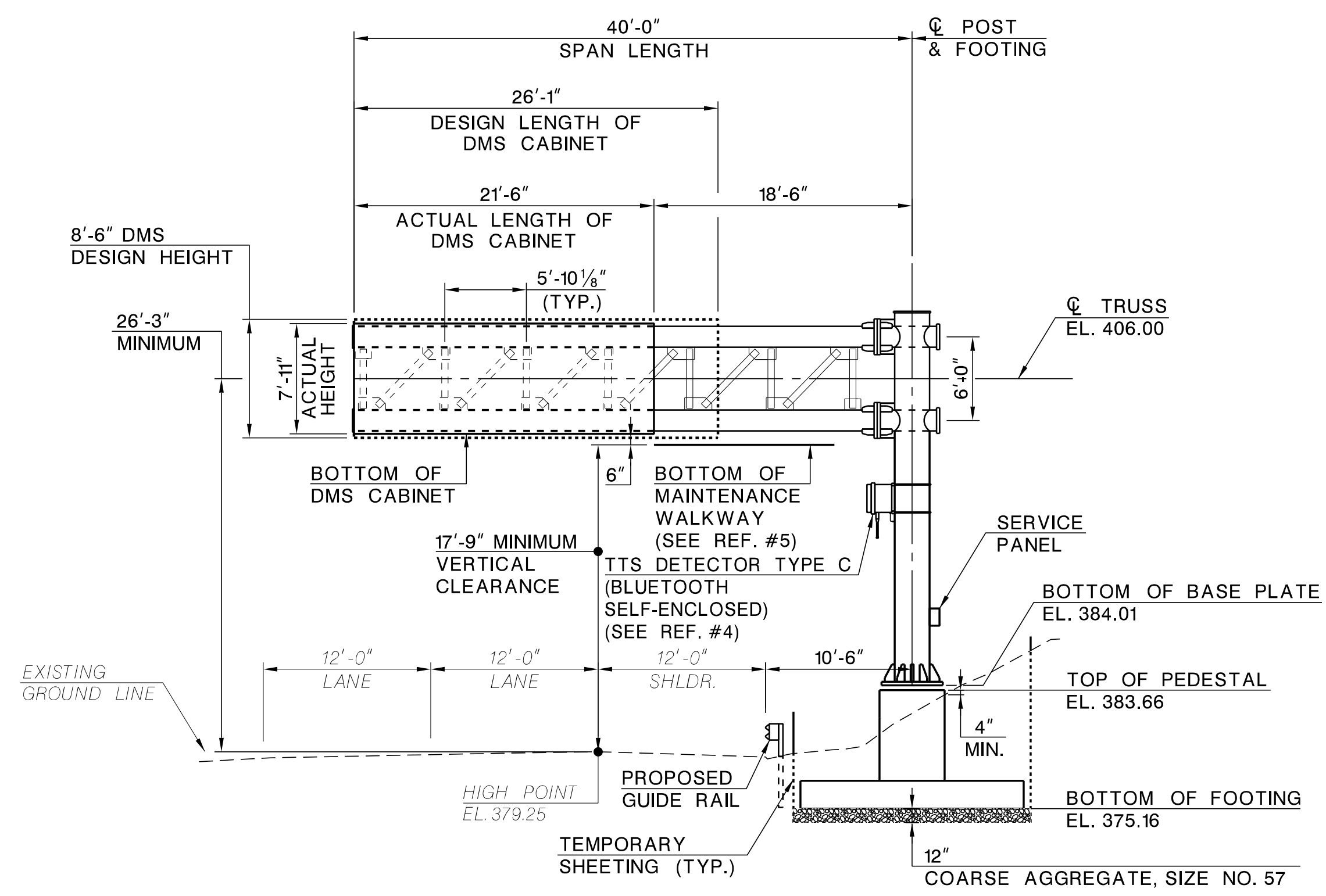
NAME DATE  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. \*



STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N.J.	XXX		
STRUCTURE NO.		XXX	
STRUCTURE NAME			
CANTILEVER DMS SUPPORT STR. NO.X			



**PLAN**  
SCALE: 1"=20'



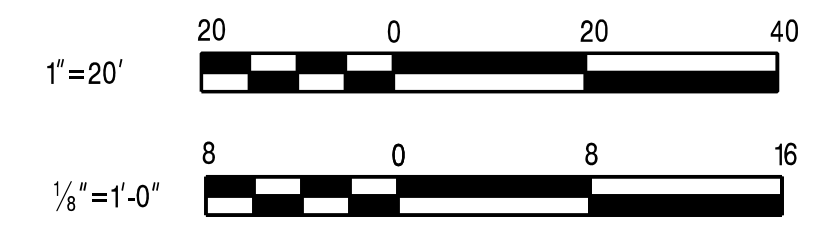
**ELEVATION**  
SCALE: 1/8"=1'-0"

**CANTILEVER DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE NO. X**  
**I-XX SB, MP. XX**  
**STRUCTURE NO. XXX**

- NOTES:**
- LOCATE THE CENTER OF THE PEDESTAL AT THE FOLLOWING COORDINATES:  
NORTH: XXX  
EAST: XXX
  - THE CONTRACTOR SHALL FIELD VERIFY EXISTING GROUND ELEVATIONS AT THE PROPOSED POST LOCATIONS PRIOR TO ANY FABRICATION OR CONSTRUCTION ACTIVITY. IF ANY DEVIATIONS ARE FOUND, THE CONTRACTOR SHALL SUBMIT THE ADJUSTED BOTTOM OF BASE PLATE AND TOP OF PEDESTAL ELEVATIONS FOR THE ENGINEER'S APPROVAL.

- REFERENCES:**
- FOR GENERAL NOTES & INDEX OF DRAWINGS, SEE BRIDGE SHEET NO. BXX.
  - FOR SUMMARY OF QUANTITIES, SEE BRIDGE SHEET NO. BXX.
  - FOR STRUCTURE AND FOUNDATION SCHEDULE, SEE BRIDGE SHEET NO. BXX.
  - FOR TTS DETECTOR TYPE C (BLUETOOTH ANTENNA) ATTACHMENT DETAILS, SEE BRIDGE SHEET NO. BXX.
  - FOR MAINTENANCE WALKWAY AND HANDRAIL DETAILS, SEE MAINTENANCE WALKWAY DETAILS DRAWINGS DMS-CA-DXX.

- LEGEND:**
- DIRECTION OF TRAFFIC
  - TEMPORARY SHEETING
  - LOCATION OF SOIL BORINGS
  - DYNAMIC MESSAGE SIGN
  - TRAVEL TIME SYSTEM TYPE C



NEW JERSEY DEPARTMENT OF TRANSPORTATION  
BUREAU OF STRUCTURAL ENGINEERING

**CANTILEVER DMS SUPPORT STR. NO.X**  
**PLAN AND ELEVATION**

**ROUTE\***  
**CONTRACT NO. \***

INDIVIDUAL, FIRM, PARTNERSHIP, ETC.		SCALE: AS SHOWN
NAME*	DATE	BRIDGE SHEET NO. XX OF XX
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. *		

CONTROL SECTION	JOB NO.
DES. BY	CHK. BY
DWN. BY	
IN CHARGE OF	

**SAMPLE PLANS**

REVISION	BY	C'K'D	DATE