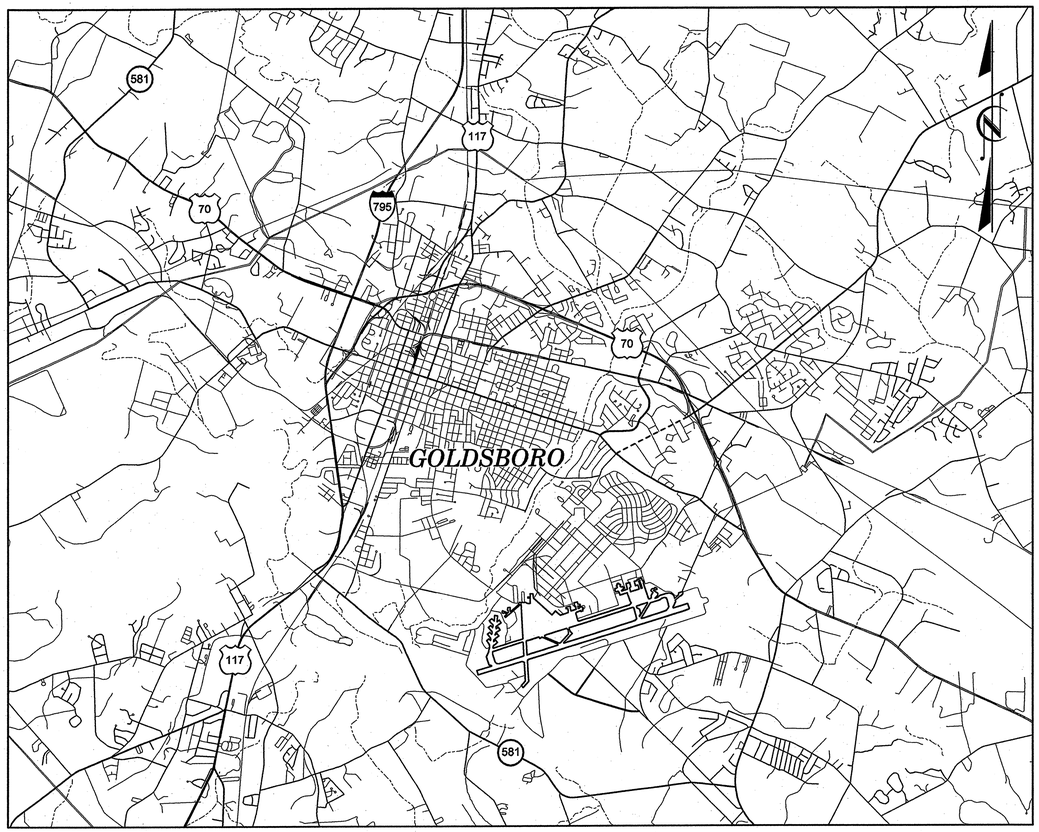
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5016	1	
41502.1.1		P.E.	
41502.3.ST1	STM-0414(4)	CONST.	

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

GOLDSBORO

COMPUTERIZED TRAFFIC SIGNAL SYSTEM



FINAL PLANS

TIP PROJECT: U-5016

CONTRACT: C202130

2006 STANDARD SPECIFICATIONS

LETTING DATE:

AUGUST 18, 2009

PROJECT LENGTH

PROJECT LENGTH = 41.3 MILES

NCDOT CONTACTS:
TRANSPORTATION SAFETY AND MOBILITY
INTELLIGENT TRANSPORTATION SYSTEMS SECTION
W. MICHAEL BRASWELL - METRO SYSTEMS PROJECT ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED
DIVISION ADMINISTRATOR *DATE*

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE DESIGN ENGINEER *P.E.*

PLANS PREPARED BY:

Kimley-Horn
and Associates, Inc.
P.O. Box 33068
Raleigh, NC 27636
(919) 677-2000

KIMLEY-HORN CONTACTS: T.F. BURCHETT, P.E. - PROJECT MANAGER
KEVIN W. SMITH, P.E. - PROJECT ENGINEER

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems

750 Greenfield Pkwy., Garner, NC 27529

SEAL

SIGNATURE *DATE*

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE *DATE* 5/28/09

5/28/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5016	1A

TIP PROJECT: U-5016

CONTRACT: C202130

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

GOLDSBORO

COMPUTERIZED TRAFFIC SIGNAL SYSTEM

INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION
1	TITLE SHEET
1A	INDEX OF SHEETS
2	SUMMARY OF QUANTITIES
1A–172	DETAILS, QUANTITIES, AND COMMUNICATION CABLE AND CONDUIT ROUTING PLANS (VOL. 1)
1–SPL.143	SCHEMATICS AND FIBER OPTIC SPLICE PLANS (VOL. 2)
SIG.1–SIG.163	TRAFFIC SIGNAL DESIGN AND ELECTRICAL PLANS (VOL. 3)
TCP.1–TCP.4	TRAFFIC CONTROL PLANS

PLANS PREPARED BY:

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NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 5/28/09 DATE

5/28/2009
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5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202130

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
2591000000-E	848	50	SY	4" CONCRETE SIDEWALK
4405000000-E	1110	350	SF	WORK ZONE SIGNS (PORTABLE)
4415000000-N	1115	1	EA	FLASHING ARROW PANELS, TYPE C
4420000000-N	1120	1	EA	CHANGEABLE MESSAGE SIGN
4430000000-N	1130	40	EA	DRUMS
4435000000-N	1135	40	EA	CONES
4450000000-N	1150	720	HR	FLAGGER
4480000000-N	1165	1	EA	TMIA
4510000000-N	SP	140	HR	LAW ENFORCEMENT
4697000000-E	1205	500	LF	THERMOPLASTIC PAVEMENT MARKING LINES (8", 120 MILS)
4710000000-E	1205	25	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)
4870000000-E	1205	47	LF	REMOVAL OF PAVEMENT MARKING LINES (24")
7060000000-E	1705	14,960	LF	SIGNAL CABLE
7072000000-E	1705	18	EA	VEHICLE SIGNAL HEAD (**", ** SECTION) (12", 3)
7072000000-E	1705	5	EA	VEHICLE SIGNAL HEAD (**", ** SECTION) (12", 5)
7216000000-N	SP	138	EA	MODIFY EXISTING VEHICLE SIGNAL HEAD
7252000000-E	1710	155,510	LF	MESSENGER CABLE (1/4")
7264000000-E	1710	90	LF	MESSENGER CABLE (3/8")
7276000000-E	1715	440	LF	BORE & JACK (**********) (1, 5")
7279000000-E	1715	33,520	LF	TRACER WIRE
7288000000-E	1715	160	LF	PAVED TRENCHING (**********) (1, 2")
7288000000-E	1715	1,900	LF	PAVED TRENCHING (**********) (2, 2")
7300000000-E	1715	5,150	LF	UNPAVED TRENCHING (**********) (1, 2")
7300000000-E	1715	17,080	LF	UNPAVED TRENCHING (**********) (2, 2")
7301000000-E	1715	770	LF	DIRECTIONAL DRILL (**********) (1, 2")
7301000000-E	1715	13,710	LF	DIRECTIONAL DRILL (**********) (2, 2")
7324000000-N	1716	87	EA	JUNCTION BOX (STANDARD SIZE)
7348000000-N	1716	189	EA	JUNCTION BOX (OVER-SIZED, HEAVY DUTY)
7360000000-N	1720	20	EA	WOOD POLE
7372000000-N	1721	277	EA	GUY ASSEMBLY
7396000000-E	1722	2	EA	1/2" RISER WITH WEATHERHEAD
7420000000-E	1722	40	EA	2" RISER WITH WEATHERHEAD
7430000000-N	1722	58	EA	HEAT SHRINK TUBING RETROFIT KIT
7432000000-E	1722	128	EA	2" RISER WITH HEAT SHRINK TUBING
7444000000-E	1725	16,510	LF	INDUCTIVE LOOP SAWCUT
7456000000-E	1726	50,600	LF	LEAD-IN CABLE (**********) (14-2)
7516000000-E	1730	193,370	LF	COMMUNICATIONS CABLE (**FIBER) (12)
7516000000-E	1730	1,920	LF	COMMUNICATIONS CABLE (**FIBER) (144)
7516000000-E	1730	115,440	LF	COMMUNICATIONS CABLE (**FIBER) (24)
7516000000-E	1730	12,380	LF	COMMUNICATIONS CABLE (**FIBER) (36)
7516000000-E	1730	3,610	LF	COMMUNICATIONS CABLE (**FIBER) (48)
7516000000-E	1730	8,240	LF	COMMUNICATIONS CABLE (**FIBER) (60)
7516000000-E	1730	3,510	LF	COMMUNICATIONS CABLE (**FIBER) (96)
7540000000-N	1731	58	EA	SPLICE ENCLOSURE
7564000000-N	1732	150	EA	FIBER-OPTIC TRANSCEIVER, DROP & REPEAT
7568000000-N	SP	1	EA	FURNISH FIBER-OPTIC RESTORATION KIT
7570000000-N	SP	1	EA	FURNISH FIBER-OPTIC POWER METER
7572000000-N	SP	1	EA	FURNISH OPTICAL LIGHT GENERATOR
7574000000-N	SP	8	EA	FURNISH FIBER-OPTIC TRANSCEIVER
7575142000-N	SP	4	EA	900MHZ WIRELESS RADIO SYSTEM
7575142100-N	SP	2	EA	900MHZ WIRELESS REPEATER STANDALONE RADIO SYSTEM
7575142200-N	SP	32	EA	NEW ELECTRICAL SERVICE
7575180000-N	1735	10	EA	CABLE TRANSFER
7624000000-N	1743	14	EA	SIGNAL PEDESTAL WITH FOUNDATION
7636000000-N	1745	8	EA	SIGN FOR SIGNALS
7684000000-N	1750	2	EA	SIGNAL CABINET FOUNDATION
7686000000-N	SP	20	EA	CONDUIT ENTRANCE INTO EXISTING FOUNDATION
7687000000-N	SP	45	EA	MODIFY FOUNDATION FOR CONTROLLER CABINET
7688000000-N	1753	1	EA	CABINET BASE ADAPTER
7708000000-N	1751	399	EA	DETECTOR CARD (**********) (MODEL 222)
7901000000-N	1753	44	EA	CABINET BASE EXTENDER
7980000000-N	SP	20	EA	GENERIC SIGNAL ITEM AUXILIARY OUTPUT FILE
7980000000-N	SP	12	EA	GENERIC SIGNAL ITEM CCTV CAMERA ASSEMBLY
7980000000-N	SP	4	EA	GENERIC SIGNAL ITEM CCTV CAMERA METAL POLE & FOUNDATION
7980000000-N	SP	2	EA	GENERIC SIGNAL ITEM CCTV CONTROL PANEL
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM CCTV VIDEO SERVER
7980000000-N	SP	2	EA	GENERIC SIGNAL ITEM CENTRAL LAN SWITCH
7980000000-N	SP	2	EA	GENERIC SIGNAL ITEM COMPUTER WORKSTATION
7980000000-N	SP	44	EA	GENERIC SIGNAL ITEM CONTROLLER WITH CABINET (TYPE 2070L, 332 BASE MOUNTED)
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM CONTROLLER WITH CABINET (TYPE 2070L, 336S BASE MOUNTED)
7980000000-N	SP	23	EA	GENERIC SIGNAL ITEM CONTROLLER WITH CABINET (TYPE 2070L, 336S POLE MOUNTED)
7980000000-N	SP	109	EA	GENERIC SIGNAL ITEM DELINEATOR MARKER (1)
7980000000-N	SP	17	EA	GENERIC SIGNAL ITEM DELINEATOR MARKER (2)
7980000000-N	SP	4	EA	GENERIC SIGNAL ITEM DIAL-UP MODEM
7980000000-N	SP	3	EA	GENERIC SIGNAL ITEM FULL RACK CABINET
7980000000-N	SP	4	EA	GENERIC SIGNAL ITEM FURNISH 2070L CONTROLLER
7980000000-N	SP	2	EA	GENERIC SIGNAL ITEM FURNISH 332 CABINET
7980000000-N	SP	2	EA	GENERIC SIGNAL ITEM FURNISH 336 CABINET
7980000000-N	SP	4	EA	GENERIC SIGNAL ITEM FURNISH AC ISOLATOR CARD
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM FURNISH CCTV ASSEMBLY
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM FURNISH CCTV TEST MONITOR
7980000000-N	SP	4	EA	GENERIC SIGNAL ITEM FURNISH CONFLICT MONITOR
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM FURNISH CONTROLLER TESTER
7980000000-N	SP	4	EA	GENERIC SIGNAL ITEM FURNISH DC ISOLATOR CARD
7980000000-N	SP	8	EA	GENERIC SIGNAL ITEM FURNISH DETECTOR CARD
7980000000-N	SP	5	EA	GENERIC SIGNAL ITEM FURNISH FIBER OPTIC INTERCONNECT CENTER
7980000000-N	SP	6	EA	GENERIC SIGNAL ITEM FURNISH FLASH TRANSFER RELAY
7980000000-N	SP	2	EA	GENERIC SIGNAL ITEM FURNISH FLASHER MODULE
7980000000-N	SP	5	EA	GENERIC SIGNAL ITEM FURNISH HEAT SHRINK TUBING
7980000000-N	SP	5	EA	GENERIC SIGNAL ITEM FURNISH HEAT SHRINK TUBING RETROFIT KIT
7980000000-N	SP	4	EA	GENERIC SIGNAL ITEM FURNISH LOAD SWITCH
7980000000-N	SP	8	EA	GENERIC SIGNAL ITEM FURNISH SC JUMPERS
7980000000-N	SP	8	EA	GENERIC SIGNAL ITEM FURNISH SC PIGTAILS
7980000000-N	SP	8	EA	GENERIC SIGNAL ITEM FURNISH SC SPLICE CONNECTOR
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM FURNISH SIGNAL MONITOR TESTER
7980000000-N	SP	2	EA	GENERIC SIGNAL ITEM FURNISH SPLICE ENCLOSURE
7980000000-N	SP	8	EA	GENERIC SIGNAL ITEM FURNISH ST JUMPERS
7980000000-N	SP	8	EA	GENERIC SIGNAL ITEM FURNISH ST PIGTAILS
7980000000-N	SP	8	EA	GENERIC SIGNAL ITEM FURNISH ST SPLICE CONNECTOR
7980000000-N	SP	12	EA	GENERIC SIGNAL ITEM FURNISH SURGE PROTECTOR
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM FURNISH TEST CABINET /CONTROLLER
7980000000-N	SP	4	EA	GENERIC SIGNAL ITEM FURNISH VIDEO CODEC UNIT
7980000000-N	SP	2	EA	GENERIC SIGNAL ITEM FURNISH VIDEO OPTICAL RECEIVER WITH DATA
7980000000-N	SP	2	EA	GENERIC SIGNAL ITEM FURNISH VIDEO OPTICAL TRANSMITTER WITH DATA
7980000000-N	SP	2	EA	GENERIC SIGNAL ITEM FURNISH WIRELESS RADIO TRANSCEIVER
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM GPS ANTENNA
7980000000-N	SP	3	EA	GENERIC SIGNAL ITEM HALF RACK CABINET
7980000000-N	SP	109	EA	GENERIC SIGNAL ITEM INTERCONNECT CENTER
7980000000-N	SP	6	EA	GENERIC SIGNAL ITEM INTERCONNECT CENTER (LARGE)
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM KVM SWITCH
7980000000-N	SP	5	EA	GENERIC SIGNAL ITEM LCD VIDEO MONITOR
7980000000-N	SP	5	EA	GENERIC SIGNAL ITEM MODIFY EXISTING ELECTRICAL SERVICE
7980000000-N	SP	8	EA	GENERIC SIGNAL ITEM MODIFY EXISTING INTERCONNECT CENTER OR SPLICE ENCLOSURE
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM NETWORK VIDEO RECORDER
7980000000-N	SP	3	EA	GENERIC SIGNAL ITEM NOTEBOOK COMPUTER
7980000000-N	SP	94	EA	GENERIC SIGNAL ITEM PEDESTRIAN SIGNAL HEAD (16", 1 SECTION WITH COUNTDOWN)
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM PRINTER
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM REMOTE ACCESS SERVER
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM REMOTE LAN SWITCH
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM SIGNAL SYSTEM COMMUNICATIONS SERVER
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM SIGNAL SYSTEM PROCESSING SERVER
7980000000-N	SP	3	EA	GENERIC SIGNAL ITEM TELEPHONE DEMARCATION ASSEMBLY
7980000000-N	SP	12	EA	GENERIC SIGNAL ITEM VIDEO CODEC UNIT
7980000000-N	SP	6	EA	GENERIC SIGNAL ITEM VIDEO MONITOR PROCESSOR UNIT
7980000000-N	SP	24	EA	GENERIC SIGNAL ITEM VIDEO OPTICAL TRANSCEIVER WITH DATA
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM VIDEO PROJECTION UNIT
7980000000-N	SP	1	EA	GENERIC SIGNAL ITEM VPN FIREWALL
7985000000-N	SP	Lump Sum		GENERIC SIGNAL ITEM CCTV SYSTEM SOFTWARE
7985000000-N	SP	Lump Sum		GENERIC SIGNAL ITEM CITY HALL BUILDING MODIFICATIONS
7985000000-N	SP	Lump Sum		GENERIC SIGNAL ITEM COMPUTER HARDWARE INTEGRATION
7985000000-N	SP	Lump Sum		GENERIC SIGNAL ITEM DIVISION 4 VIDEO SHARING INTEGRATION
7985000000-N	SP	Lump Sum		GENERIC SIGNAL ITEM LAN INTEGRATION
7985000000-N	SP	Lump Sum		GENERIC SIGNAL ITEM PUBLIC WORKS BUILDING MODIFICATIONS
7985000000-N	SP	Lump Sum		GENERIC SIGNAL ITEM SIGNAL SYSTEM SOFTWARE
7985000000-N	SP	Lump Sum		GENERIC SIGNAL ITEM SYSTEM SUPPORT SOFTWARE
7985000000-N	SP	Lump Sum		GENERIC SIGNAL ITEM TRAINING
7990000000-E	SP	14,120	LF	GENERIC SIGNAL ITEM DROP CABLE (6 FIBER)
7990000000-E	SP	5,810	LF	GENERIC SIGNAL ITEM FURNISH COMMUNICATIONS CABLE (12 FIBER)
7990000000-E	SP	60	LF	GENERIC SIGNAL ITEM FURNISH COMMUNICATIONS CABLE (144 FIBER)
7990000000-E	SP	3,470	LF	GENERIC SIGNAL ITEM FURNISH COMMUNICATIONS CABLE (24 FIBER)
7990000000-E	SP	380	LF	GENERIC SIGNAL ITEM FURNISH COMMUNICATIONS CABLE (36 FIBER)
7990000000-E	SP	110	LF	GENERIC SIGNAL ITEM FURNISH COMMUNICATIONS CABLE (48 FIBER)
7990000000-E	SP	250	LF	GENERIC SIGNAL ITEM FURNISH COMMUNICATIONS CABLE (60 FIBER)
7990000000-E	SP	110	LF	GENERIC SIGNAL ITEM FURNISH COMMUNICATIONS CABLE (96 FIBER)
7990000000-E	SP	430	LF	GENERIC SIGNAL ITEM FURNISH DROP CABLE (6 FIBER)
7990000000-E	SP	440	LF	GENERIC SIGNAL ITEM MULTI-DUCT (2, 2") IN OUTER-DUCT (1,5")
7991000000-E	SP	500	SF	GENERIC SIGNAL ITEM BRICK PAVERS

$$$$SYSTIME$$$$
$$$$USERNAME$$$$
$$$$DGN$$$$

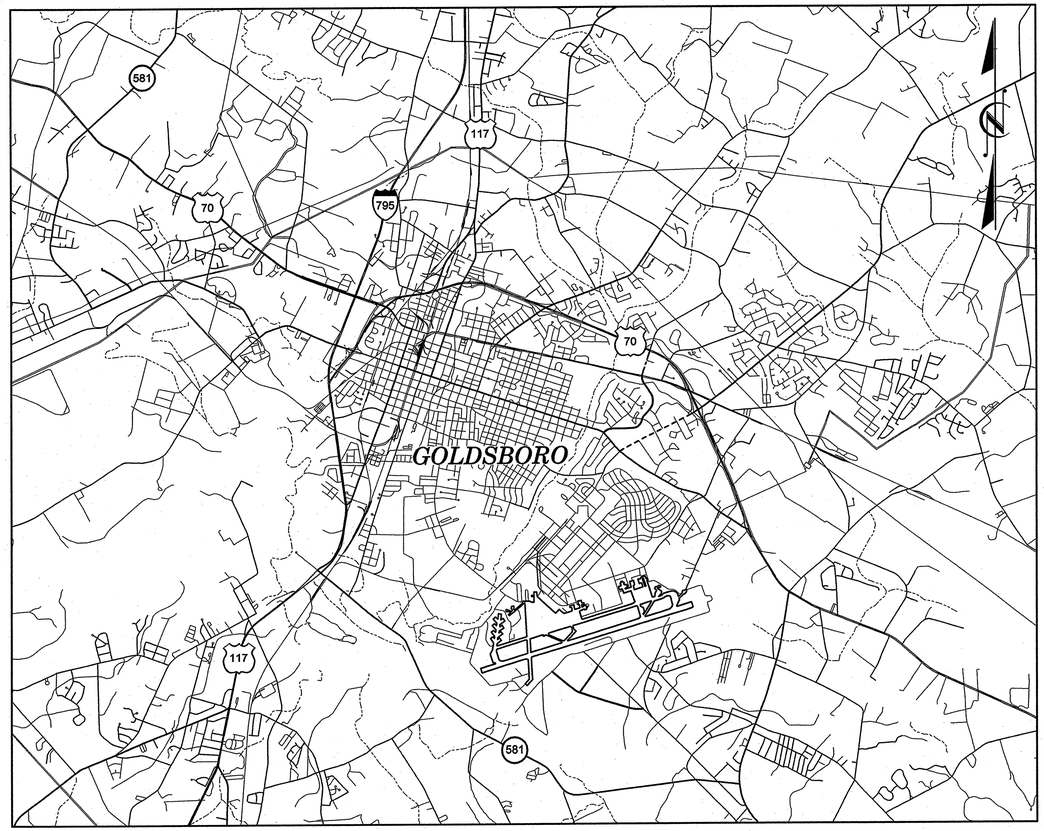
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5016	1A	
41502.1.1		P.E.	
41502.3.ST1	STM-0414(4)	CONST.	

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

GOLDSBORO

COMPUTERIZED TRAFFIC SIGNAL SYSTEM



FINAL PLANS

TIP PROJECT: U-5016

CONTRACT: C202130

INDEX OF SHEETS–VOLUME 1

SHEET NUMBER	DESCRIPTION
1A	INDEX OF SHEETS, ROADWAY STANDARD DRAWINGS
1B	CONSTRUCTION NOTES, LEGEND
1C–1E	PLAN KEY
2–2C	CABLE SCHEMATIC
2D–2G	CITY CABLE SCHEMATIC
2H–2L	SYSTEM DETECTOR SCHEMATIC AND KEY
2M–2P	SEQUENCE OF CONSTRUCTION
2Q–2R	CABINET AND CABINET FOUNDATION DETAILS
2S	SPLICE ENCLOSURE DETAILS
2T	JUNCTION BOX AND DELINEATOR MARKER DETAILS
2U–2V	WIRELESS RADIO DETAILS
2W–2X	CCTV DETAILS
2Y–2AA	INDUCTIVE DETECTION LOOP DETAILS
2AB	METER BASE DETAILS
2AC	BLOCK DIAGRAM
2AD–2AF	BUILDING DETAILS
3–3B	QUANTITIES
3C–3H	SUMMARY OF WORK BY INTERSECTION
3J	SUMMARY OF WORK BY FACILITY, SUMMARY OF WORK BY CCTV
4–172	CABLE ROUTING 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 JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NUMBER	DESCRIPTION
0848.01	CONCRETE SIDEWALK
1700.01	ELECTRICAL SERVICE OPTIONS
1700.02	ELECTRICAL SERVICE GROUNDING
1715.01	UNDERGROUND CONDUIT – TRENCHING
1716.01	JUNCTION BOXES
1720.01	WOOD POLES
1721.01	GUY ASSEMBLIES
1730.01	FIBER OPTIC CABLE
1751.01	CONTROLLERS AND CABINETS

VOLUME 1 OF 3

PLANS PREPARED BY:

Kimley-Horn and Associates, Inc.
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(919) 677-2000

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 5/29/09 DATE

5/28/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5016	1B

△1 INSTALL SMFO CABLE

△2 INSTALL FIBER OPTIC DROP CABLE

△3 INSTALL TRACER WIRE

△4 REUSE EXISTING SMFO CABLE

△5 INSTALL PLENUM RATED SMFO CABLE

△6 INSTALL LOOP LEAD–IN CABLE

(1) INSTALL PVC CONDUIT

(2) INSTALL POLYETHYLENE CONDUIT

(3) INSTALL RIGID, GALVANIZED STEEL CONDUIT

(4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD

(5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING

(6) TRENCH CONDUIT

(7) DIRECTIONAL DRILL CONDUIT

(8) BORE AND JACK CONDUIT

(9) INSTALL CABLE(S) IN EXISTING CONDUIT

(10) INSTALL CABLE(S) IN NEW CONDUIT

(11) INSTALL CABLE(S) IN EXISTING RISER

(12) INSTALL CABLE(S) IN NEW RISER

(13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS

(14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)

(15) INSTALL NEW RISER INTO EXISTING POLE MOUNTED CABINET

(16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING

(17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

◇1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET

◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE

◇3 INSTALL AERIAL SPLICE ENCLOSURE

◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER

[1] INSTALL CABINET FOUNDATION

[2] REMOVE EXISTING CABINET FOUNDATION

[3] MODIFY EXISTING CABINET FOUNDATION

[4] REMOVE EXISTING CONTROLLER AND CABINET

[5] INSTALL NEW CONTROLLER

[6] INSTALL NEW 332 BASE MOUNTED CABINET

[7] INSTALL NEW 336S BASE MOUNTED CABINET

[8] INSTALL NEW 336S POLE MOUNTED CABINET

[9] INSTALL CCTV CAMERA ASSEMBLY

[10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION

[11] INSTALL JUNCTION BOX

[12] INSTALL OVERSIZED HEAVY DUTY JUNCTION BOX

[13] REMOVE EXISTING JUNCTION BOX

[14] INSTALL WOOD POLE

[15] REMOVE EXISTING WOOD POLE

[16] INSTALL AERIAL GUY ASSEMBLY

[17] INSTALL STANDARD GUY ASSEMBLY

[18] INSTALL SIDEWALK GUY ASSEMBLY

[19] INSTALL MESSENGER CABLE

[20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE

[21] REMOVE EXISTING COMMUNICATIONS CABLE

[22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE

[23] LASH CABLE(S) TO EXISTING MESSENGER CABLE

[24] LASH CABLE(S) TO NEW MESSENGER CABLE

[25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE

[26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE

[27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1

[28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2

[29] MODIFY EXISTING ELECTRICAL SERVICE

[30] INSTALL NEW ELECTRICAL SERVICE

[31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA

[32] INSTALL FIBER OPTIC TRANSCEIVER

[33] INSTALL DIAL–UP MODEM AND TELEPHONE DEMARCATION

[34] INSTALL RADIO TRANSCEIVER

[35] INSTALL YAGI ANTENNA (8.5dB)

[36] INSTALL YAGI ANTENNA (13dB)

[37] BOND MESSENGER CABLE TO POLE GROUND

[38] RECONNECT RAILROAD PREEMPTION EQUIPMENT

[39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT

[40] INSTALL PRE–FORMED CABINET FOUNDATION PAD

[41] INSTALL BASE ADAPTER

LEGEND

—FO—	NEW FIBER OPTIC COMMUNICATIONS CABLE
—EXI—	EXISTING COMMUNICATIONS CABLE
	NEW CONDUIT
	EXISTING CONDUIT
—DD—	NEW DIRECTIONAL DRILLED CONDUIT
—B&J—	NEW BORED AND JACKED CONDUIT
□	NEW OVERSIZED JUNCTION BOX
■	EXISTING JUNCTION BOX
○	NEW WOOD POLE
●	EXISTING WOOD POLE
Ⓢ	NEW SPLICE ENCLOSURE
Ⓢ	EXISTING SPLICE ENCLOSURE
▣	NEW METAL POLE
◉	EXISTING METAL POLE
◉	EXISTING MAST ARM METAL POLE
▷▭	NEW CCTV CAMERA ASSEMBLY
	NEW AERIAL GUY ASSEMBLY
	NEW STANDARD GUY ASSEMBLY
	NEW SIDEWALK GUY ASSEMBLY
	NEW CABLE STORAGE RACKS (SNOW SHOES)
	NEW WIRELESS ANTENNA AND TRANSCEIVER
⊠	NEW BASE MOUNTED EQUIPMENT CABINET (CONTROLLER OR CCTV)
⊠	EXISTING BASE MOUNTED EQUIPMENT CABINET (CONTROLLER OR CCTV)
⊠	NEW POLE MOUNTED EQUIPMENT CABINET (CONTROLLER OR CCTV)
⊠	EXISTING POLE MOUNTED EQUIPMENT CABINET (CONTROLLER OR CCTV)
	NEW SYSTEM DETECTOR
	EXISTING SYSTEM DETECTOR
XX-XXXX	SIGNAL INVENTORY NUMBER
C	CITY IT PAY ITEM

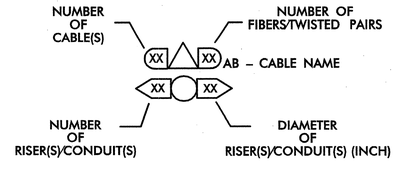
CONSTRUCTION NOTE SYMBOLOGY KEY

(XX) INDICATES NUMBER OF CABLES, LOOPS, ETC.

[XX] INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.

◇XX◇ INDICATES NUMBER OF RISER(S)/CONDUIT(S)

▷XX◁ INDICATES DIAMETER OF RISER(S)/CONDUIT(S) (INCH)



PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Institute for Transportation — 750 Greenfield Pkwy., Garner, NC 27529

0
NONE

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM

CONSTRUCTION NOTES

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5016	1C

PLANS PREPARED IN THE OFFICE OF:

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Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM PLAN KEY

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
k:\ral_tpto_jts\011746016 goldsboro signal system\plans\sht_001C.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	1D

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM PLAN KEY

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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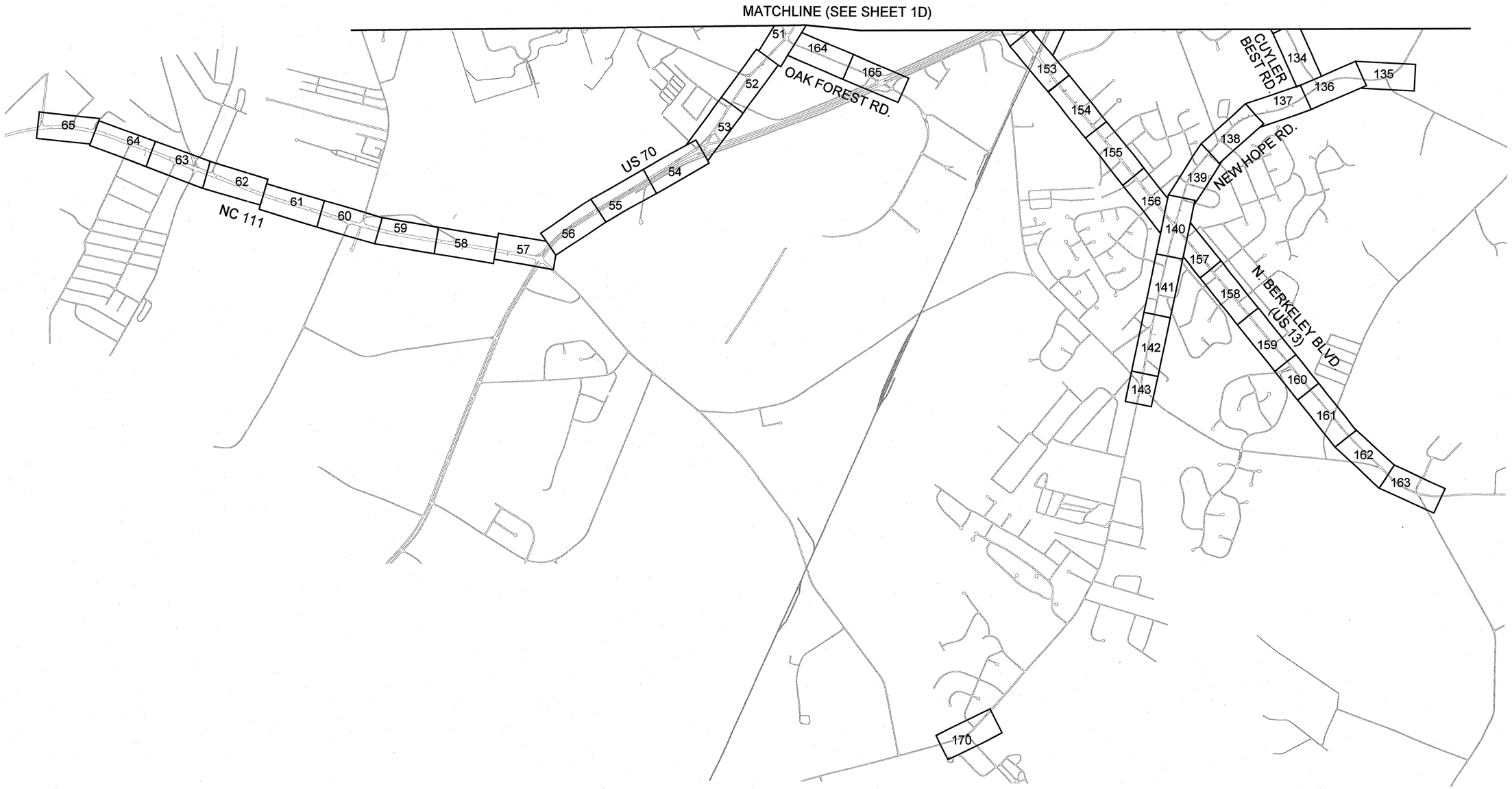
PROJECT REFERENCE NO.	SHEET NO.
U-5016	1E



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Raleigh N.C. 27636-3068
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Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM PLAN KEY

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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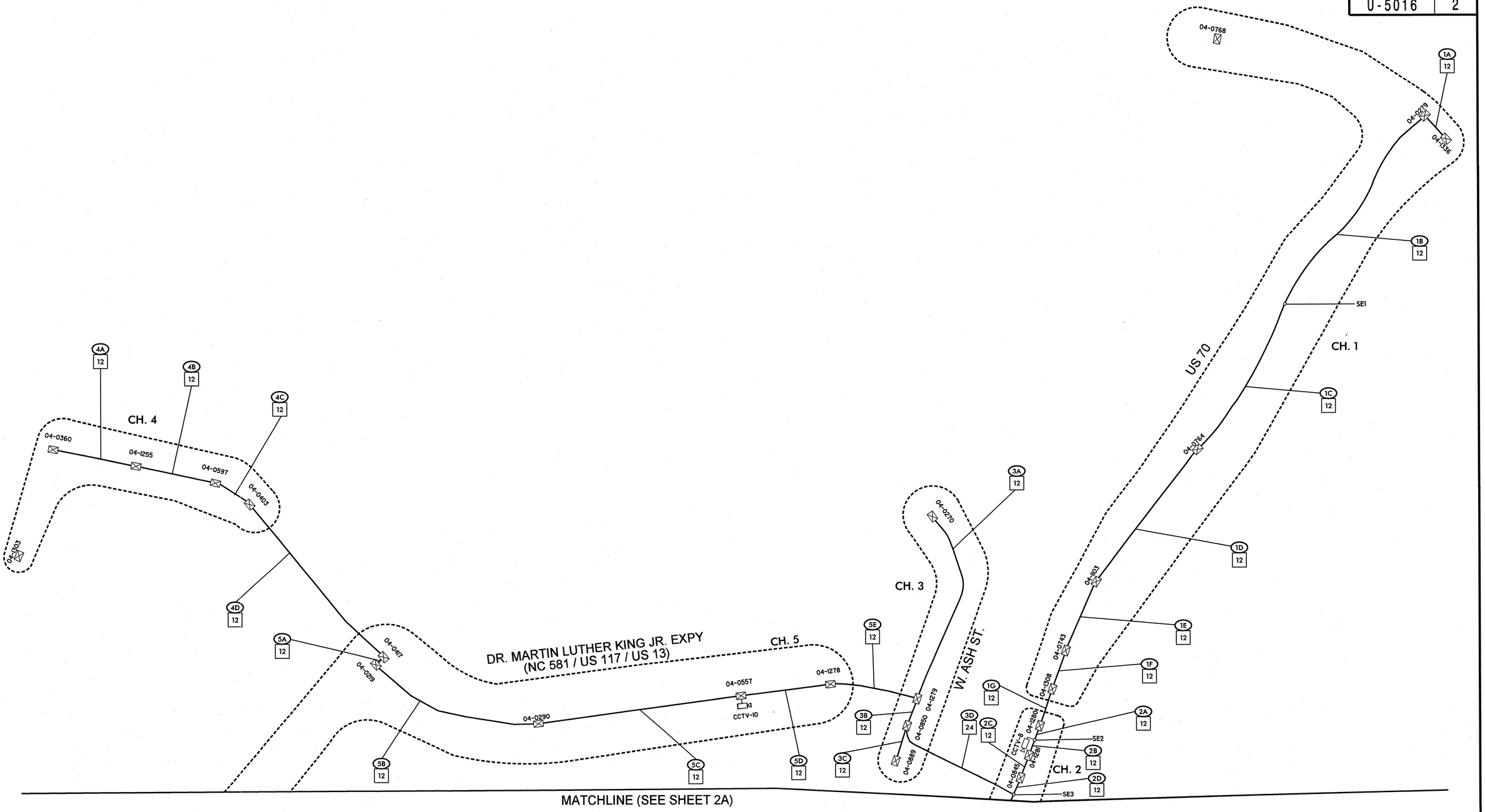
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2



LEGEND

- SPLICE ENCLOSURE
- SIGNAL CABINET
- TOWN FACILITY
- XX-XXXX SIGNAL INVENTORY NUMBER
- PROPOSED CCTV CAMERA
- XXX CABLE NAME
- XX FIBER COUNT

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM CABLE SCHEMATIC

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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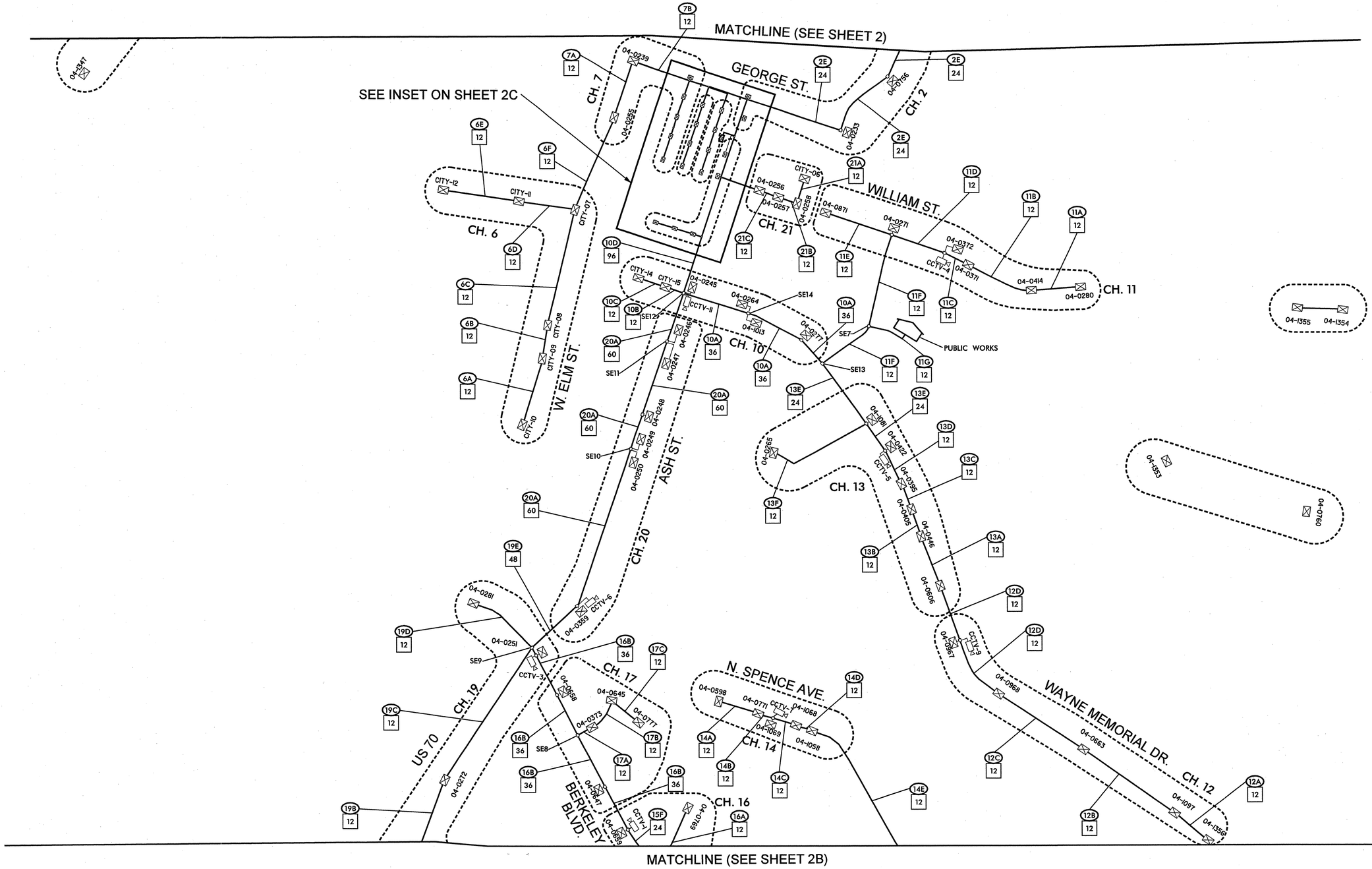
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2A



LEGEND

▫	SPLICE ENCLOSURE	XXX	CABLE NAME
⊠	SIGNAL CABINET	XX	FIBER COUNT
⌂	TOWN FACILITY	SE#	SPLICE ENCLOSURE NUMBER
XX-XXXX	SIGNAL INVENTORY NUMBER		
▭	PROPOSED CCTV CAMERA		

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM CABLE SCHEMATIC

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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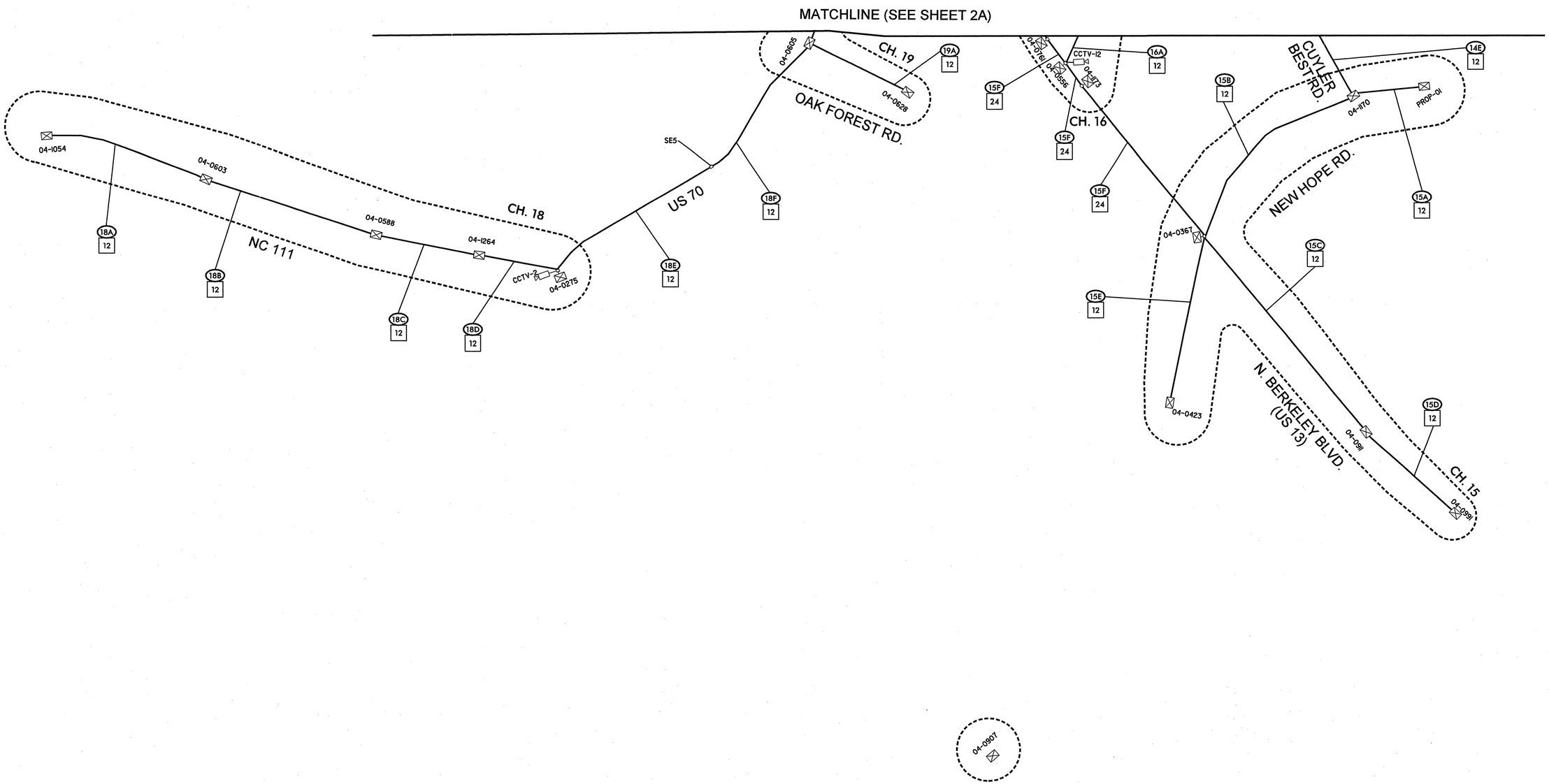
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2B



LEGEND

▫	SPLICE ENCLOSURE	XXX	CABLE NAME
⊠	SIGNAL CABINET	XX	FIBER COUNT
	TOWN FACILITY	SE#	SPLICE ENCLOSURE NUMBER
XX-XXXX	SIGNAL INVENTORY NUMBER		
▭	PROPOSED CCTV CAMERA		

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DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM CABLE SCHEMATIC

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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PROJECT REFERENCE NO.	SHEET NO.
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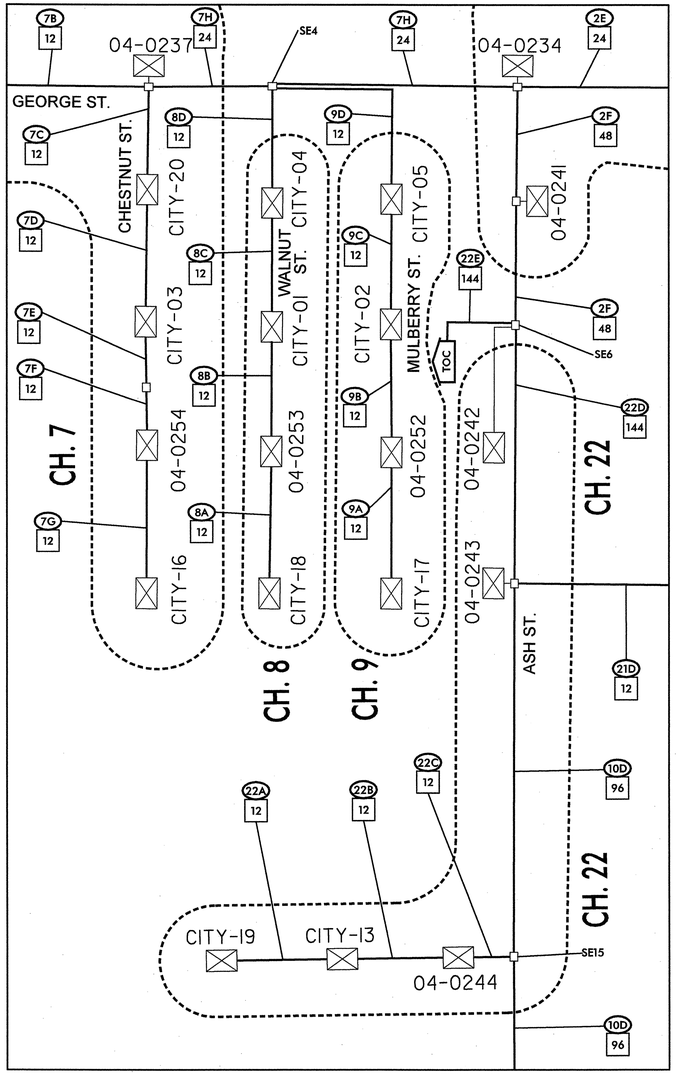

LEGEND

▫	SPLICE ENCLOSURE		
⊠	SIGNAL CABINET	XXX	CABLE NAME
⌂	TOWN FACILITY	XX	FIBER COUNT
XX-XXXX	SIGNAL INVENTORY NUMBER	SE#	SPLICE ENCLOSURE NUMBER
▭◁	PROPOSED CCTV CAMERA		

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DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM CABLE SCHEMATIC

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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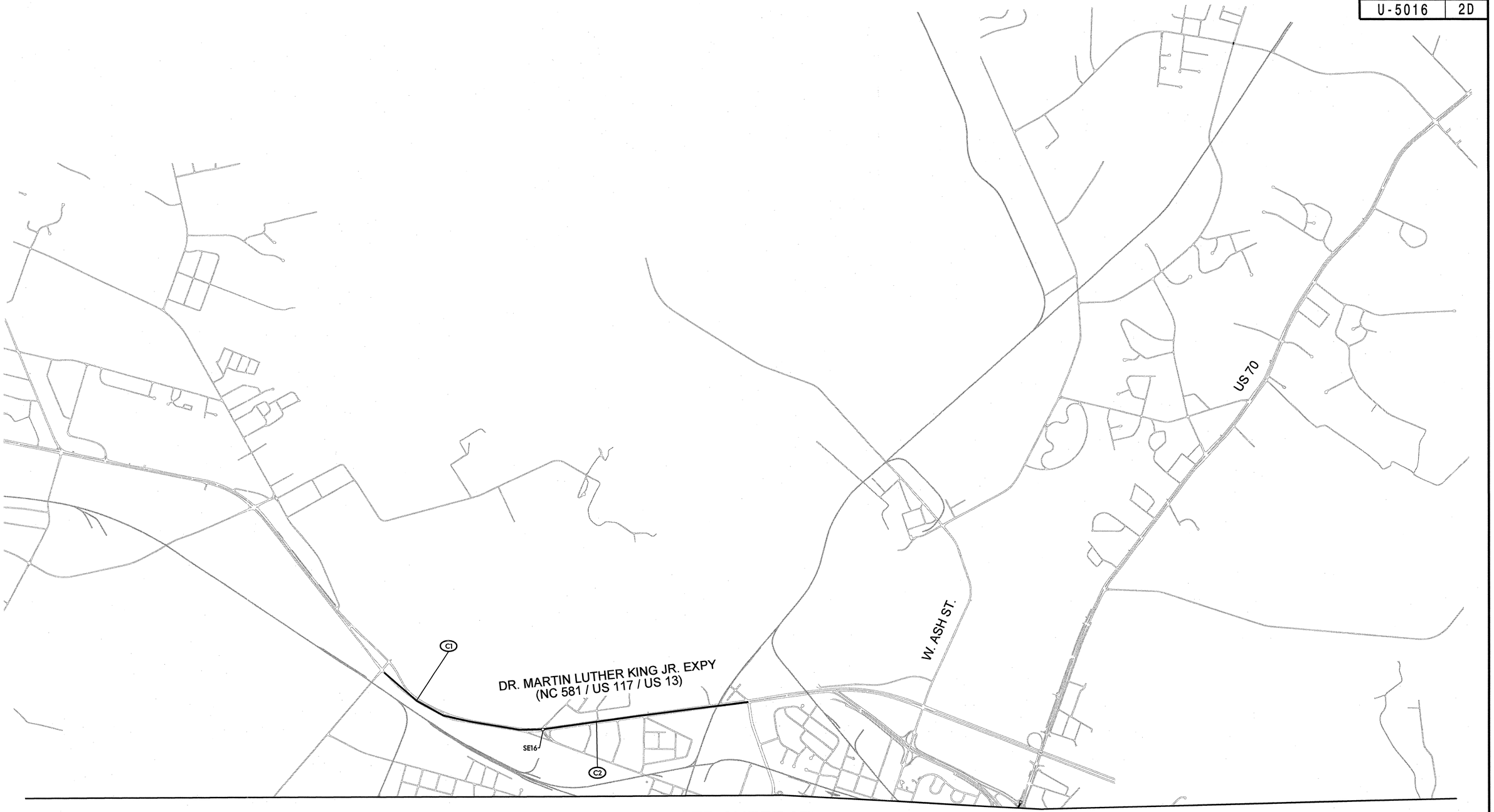
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2D



MATCHLINE (SEE SHEET 2E)

NOTE:
ALL CITY IT CABLES ARE 24 FIBER COUNT

LEGEND

- SPLICE ENCLOSURE
- TOWN FACILITY
- XXX CABLE NAME
- XX FIBER COUNT

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DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
CITY CABLE SCHEMATIC

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

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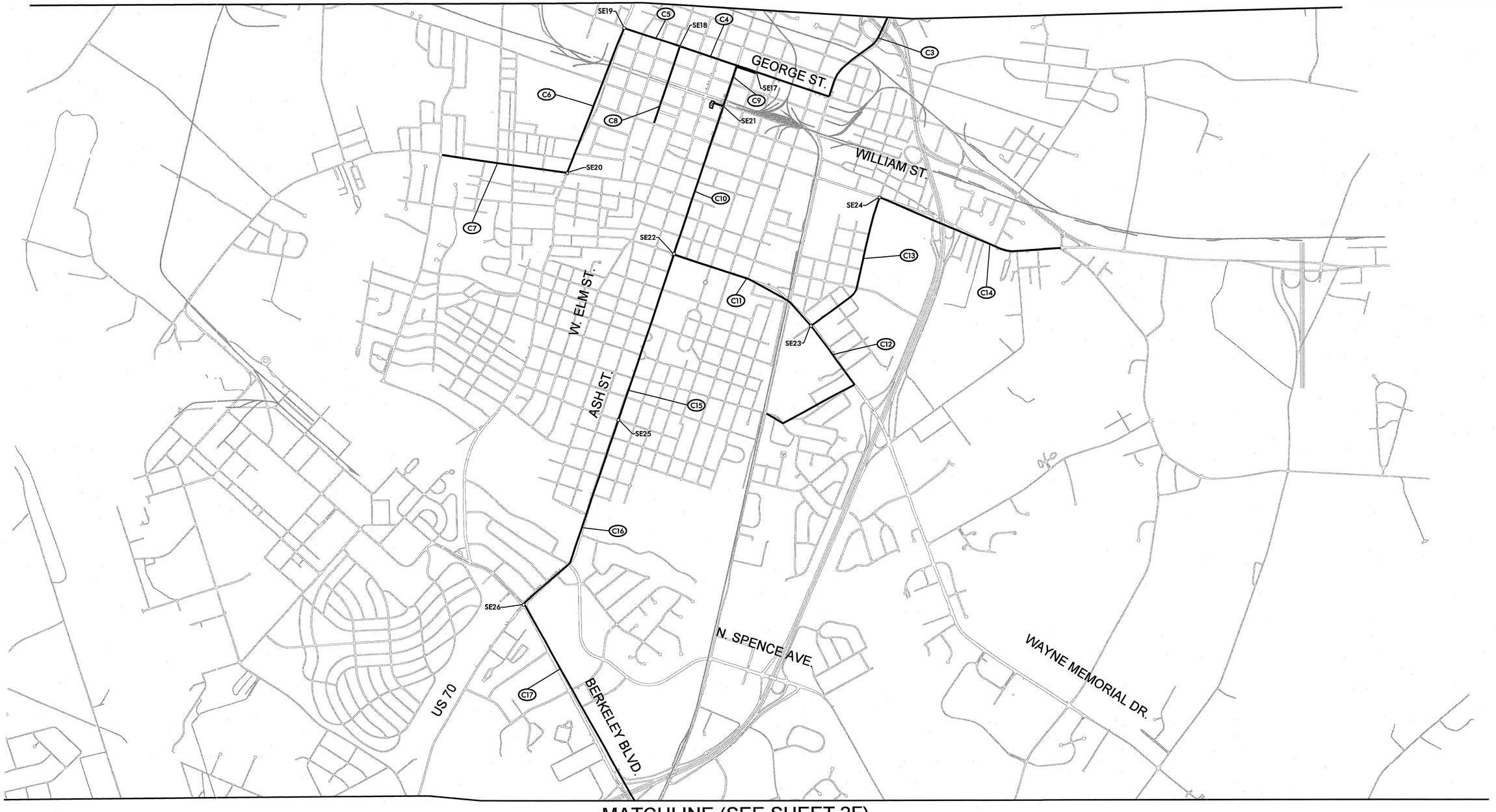
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2E

MATCHLINE (SEE SHEET 2D)



MATCHLINE (SEE SHEET 2F)

NOTE:
ALL CITY IT CABLES ARE 24 FIBER COUNT

LEGEND

- SPLICE ENCLOSURE
- TOWN FACILITY
- XXX CABLE NAME
- XX FIBER COUNT

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
CITY CABLE SCHEMATIC

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5016	2F

MATCHLINE (SEE SHEET 2E)

LEGEND

- SPLICE ENCLOSURE
- TOWN FACILITY
- (XXX) CABLE NAME
- [XX] FIBER COUNT

NOTE:
ALL CITY IT CABLES ARE 24 FIBER COUNT

PLANS PREPARED IN THE OFFICE OF:

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Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM CITY CABLE SCHEMATIC

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

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PROJECT REFERENCE NO.	SHEET NO.
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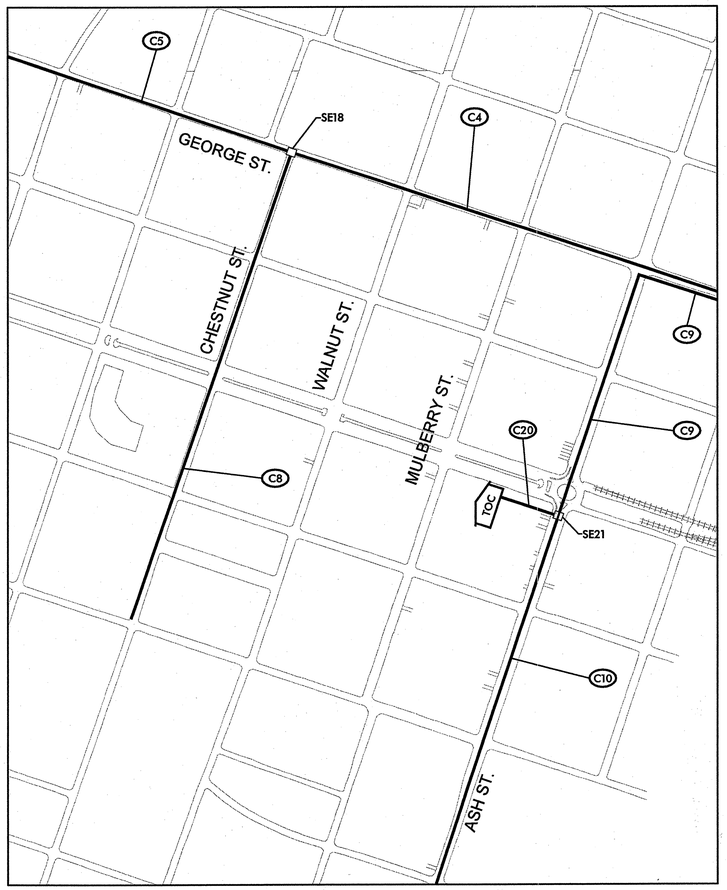

LEGEND

- SPLICE ENCLOSURE
- TOWN FACILITY
- XXX CABLE NAME
- XX FIBER COUNT

NOTE:
ALL CITY IT CABLES ARE 24 FIBER COUNT

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Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
CITY CABLE SCHEMATIC

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/26/09 DATE

CADD Filename:

2/26/2009
k:\val_tpto_its\011746016 goldsboro signal system\plans\DETAILS\dtl_002G.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2H

MATCH LINE, SEE SHEET 2J

LEGEND

- SYSTEM DETECTOR LOCATION
- SXX SYSTEM DETECTOR NUMBER

PLANS PREPARED IN THE OFFICE OF:
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Raleigh N.C. 27636-3068
(919) 677-2000

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Transportation Mobility & Safety Division
NC DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM
SYSTEM DETECTOR SCHEMATIC

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030472 KEVIN W. SMITH

K.W. Smith 2/20/09
SIGNATURE DATE

CADD Filename:

2/20/2009
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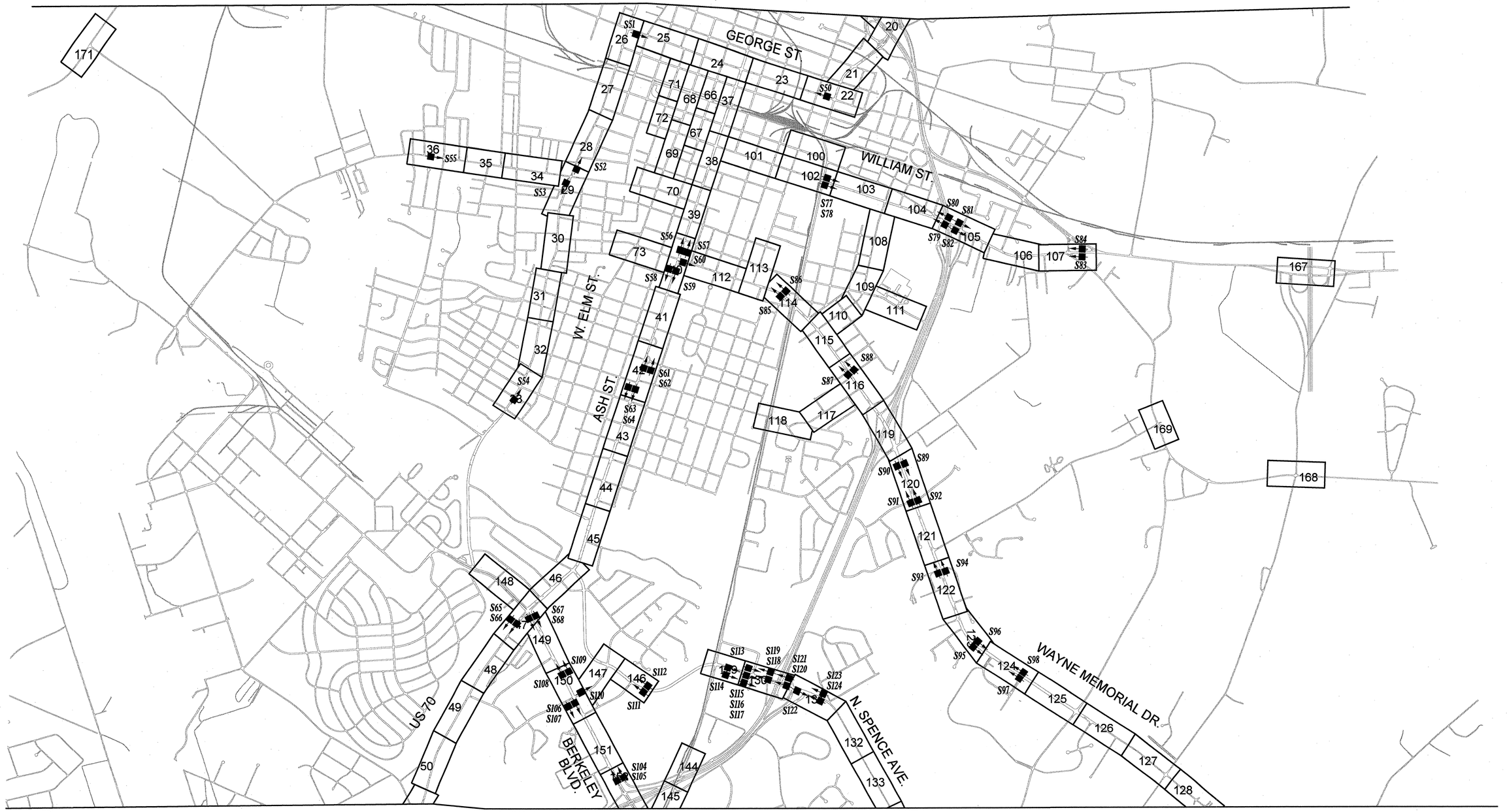
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2J

MATCH LINE, SEE SHEET 2H



LEGEND

SYSTEM DETECTOR LOCATION

SXX SYSTEM DETECTOR NUMBER

PLANS PREPARED IN THE OFFICE OF:

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Raleigh N.C. 27636-3068
(919) 677-2000

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NC DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM
SYSTEM DETECTOR SCHEMATIC

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA — REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/25/09 DATE

CADD Filenames:

2/20/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5016	2K

LEGEND

SYSTEM DETECTOR LOCATION

SXX SYSTEM DETECTOR NUMBER

PLANS PREPARED IN THE OFFICE OF:

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(919) 677-2000

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DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM SYSTEM DETECTOR SCHEMATIC

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
k:\rai_tpto_its\011746016 goldsboro signal system\plans\DETAILS\dtl_002K.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2L

Global System Detector Identifier	Signal Plan System Detector Identifier
S1	04-1336 S8
S2	04-1336 S7
S3	04-0279 S6
S4	04-0279 S1
S5	04-0279 S2
S6	04-0279 S5
S7	04-0279 S3
S8	04-0279 S4
S9	04-0764 S2
S10	04-0764 S1
S11	04-1103 S5
S12	04-1103 S6
S13	04-1103 S4
S14	04-1103 S3
S15	04-0743 S7
S16	04-0743 S8
S17	04-1280 S11
S18	04-1280 S12
S19	04-1280 S13
S20	04-1280 S10
S21	04-1280 S9
S22	04-1281 S16
S23	04-1281 S15
S24	04-1281 S14
S25	04-0845 S17
S26	04-0845 S18
S27	04-0845 S19
S28	04-1279 S03
S29	04-1279 S02
S30	04-1279 S01
S31	04-1279 S04
S32	04-1279 S05
S33	04-0850 S02
S34	04-0850 S03
S35	04-0850 S01
S36	04-0889 S01
S37	04-1278 S3
S38	04-1278 S4

Global System Detector Identifier	Signal Plan System Detector Identifier
S39	04-1278 S5
S40	04-1278 S6
S41	04-1278 S7
S42	04-0557 S01
S43	04-0557 S02
S44	04-0557 S03
S45	04-0557 S04
S46	04-0597 S02
S47	04-0597 S01
S48	04-1255 S01
S49	04-1255 S02
S50	04-0233 S01
S51	04-0239 S01
S52	CITY-07 S01
S53	CITY-07 S02
S54	CITY-10 S01
S55	CITY-12 S01
S56	04-0245 S03
S57	04-0245 S04
S58	04-0245 S02
S59	04-0245 S01
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S72	04-1264 S04
S73	04-0603 S02
S74	04-0603 S01
S75	04-0603 S03
S76	04-0603 S04

Global System Detector Identifier	Signal Plan System Detector Identifier
S77	04-0871 S01
S78	04-0871 S02
S79	04-0372 S01
S80	04-0372 S02
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S82	04-0371 S02
S83	04-0280 S01
S84	04-0280 S02
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S92	04-0446 S01
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S108	04-0373 S3
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S110	04-0373 S5
S111	04-0777 S01
S112	04-0777 S02
S113	04-0598 S01
S114	04-0598 S02

Global System Detector Identifier	Signal Plan System Detector Identifier
S115	04-1069 S01
S116	04-1069 S02
S117	04-1069 S03
S118	04-0771 S01
S119	04-0771 S02
S120	04-1068 S01
S121	04-1068 S02
S122	04-1058 S01
S123	04-1058 S03
S124	04-1058 S02

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE: 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM
SYSTEM DETECTOR KEY

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE: 2/20/09

CADD Filename:

2/20/2009
K:\RAL_TPTO_TS\Oil7 46016 Goldsboro Signal System\Plans\DET HLS\dft_002L.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2M

MATCH LINE, SEE SHEET 2N

LEGEND

- ZONE A
- ZONE B
- SIGNAL CABINET
- CCTV CAMERA

NOTES:

1. SIGNALS WITHIN EACH ZONE HAVE BEEN PLACED INTO GROUPINGS FOR REPLACEMENT. SEE PROJECT SPECIAL PROVISIONS.
2. ZONE A SIGNALS MAY BE UPGRADED AT ANY TIME SUCH THAT THE ENTIRE EXISTING CLOSED LOOP SYSTEM IS DOWN AT THE SAME TIME. CONTRACTOR SHALL HAVE COMMUNICATION UP AND RUNNING EXISTING TIME-OF-DAY COORDINATED TIMING PLANS WITHIN TURN AROUND TIME NO GREATER THAN 1 DAY PER SIGNAL IN EXISTING CLOSED LOOP SYSTEM.
3. ZONE B SIGNALS SHALL BE UPGRADED LAST, PENDING COMPLETION OF THE US-70 BYPASS PROJECT.
4. ALL SIGNALS NOT IN EITHER ZONE A OR B MAY BE UPGRADED AT ANY TIME.

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division

750 Greenfield Pkwy., Garner, NC 27529

SCALE: 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM SEQUENCE OF CONSTRUCTION

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA — REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL
SEAL 030472
ENGINEER
KEVIN W. SMITH

SIGNATURE — DATE: 2/20/09

CADD Filename:

2/20/2009
k:\rdi_tpho_1\ro\0ITI46016 goldsboro signal system\plans\DET ALS sht 002M.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2N

MATCH LINE, SEE SHEET 2M

MATCH LINE, SEE SHEET 2P

LEGEND

- ZONE A
- ZONE B
- SIGNAL CABINET
- CCTV CAMERA

NOTES:

1. SIGNALS WITHIN EACH ZONE HAVE BEEN PLACED INTO GROUPINGS FOR REPLACEMENT. SEE PROJECT SPECIAL PROVISIONS.
2. ZONE A SIGNALS MAY BE UPGRADED AT ANY TIME SUCH THAT THE ENTIRE EXISTING CLOSED LOOP SYSTEM IS DOWN AT THE SAME TIME. CONTRACTOR SHALL HAVE COMMUNICATION UP AND RUNNING EXISTING TIME-OF-DAY COORDINATED TIMING PLANS WITHIN TURN AROUND TIME NO GREATER THAN 1 DAY PER SIGNAL IN EXISTING CLOSED LOOP SYSTEM.
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4. ALL SIGNALS NOT IN EITHER ZONE A OR B MAY BE UPGRADED AT ANY TIME.

PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM SEQUENCE OF CONSTRUCTION

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA — REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames

2/20/2009
K:\ral_tnp_tis\OII\74600\6 goldsboro signal system\plans\DET ALL'S\dtl_002N.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2P

LEGEND

- ZONE A
- ZONE B
- SIGNAL CABINET
- CCTV CAMERA

NOTES:

1. SIGNALS WITHIN EACH ZONE HAVE BEEN PLACED INTO GROUPINGS FOR REPLACEMENT. SEE PROJECT SPECIAL PROVISIONS.
2. ZONE A SIGNALS MAY BE UPGRADED AT ANY TIME SUCH THAT THE ENTIRE EXISTING CLOSED LOOP SYSTEM IS DOWN AT THE SAME TIME. CONTRACTOR SHALL HAVE COMMUNICATION UP AND RUNNING EXISTING TIME-OF-DAY COORDINATED TIMING PLANS WITHIN TURN AROUND TIME NO GREATER THAN 1 DAY PER SIGNAL IN EXISTING CLOSED LOOP SYSTEM.
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4. ALL SIGNALS NOT IN EITHER ZONE A OR B MAY BE UPGRADED AT ANY TIME.

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Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM SEQUENCE OF CONSTRUCTION

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/26/09

CADD Filename:

2/26/2009
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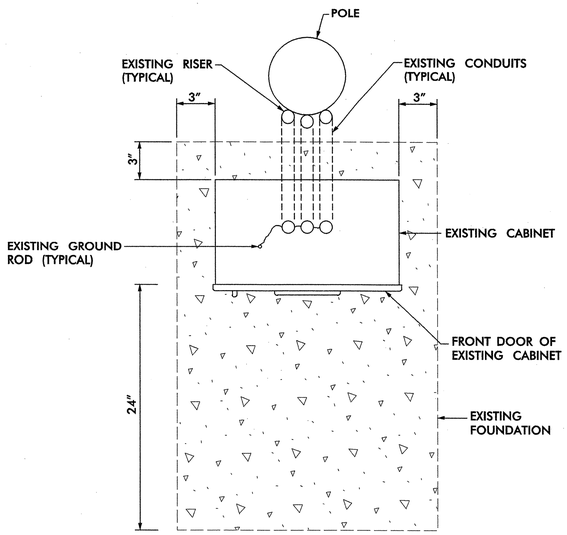
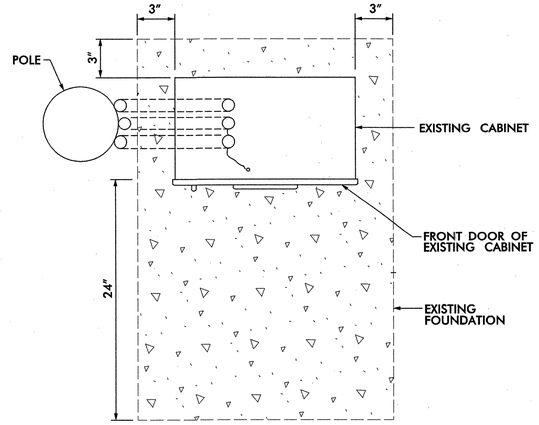
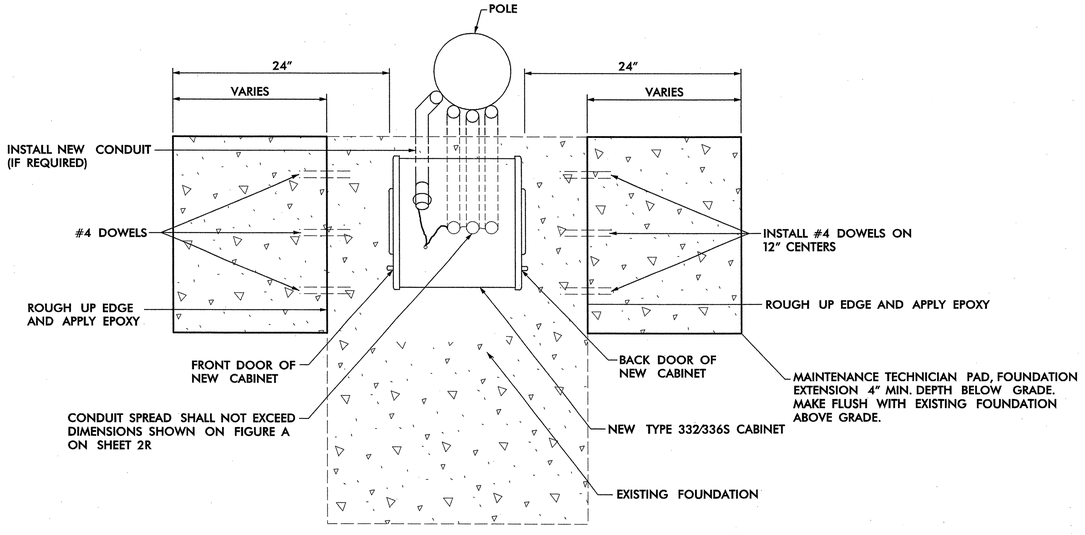
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2Q



EXISTING FOUNDATION (TYPICAL)

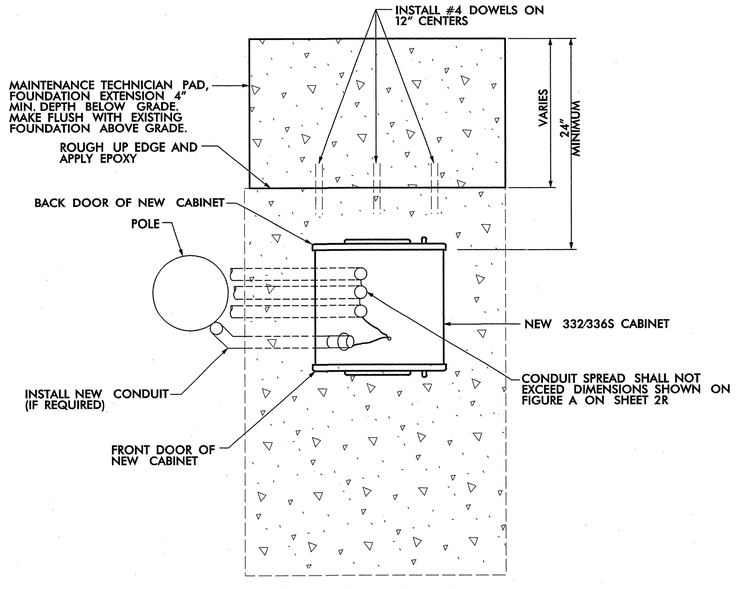


EXISTING FOUNDATION (TYPICAL)



MODIFIED FOUNDATION PLAN

NEW MODEL 332/336S CABINETS ON MODIFIED FOUNDATION ROTATED 90 DEGREES FROM ORIENTATION OF EXISTING NEMA CABINET



MODIFIED FOUNDATION PLAN

NEW MODEL 332/336S CABINETS ON MODIFIED FOUNDATION WITH SAME ORIENTATION AS EXISTING NEMA CABINET

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM

CABINET FOUNDATION DETAILS

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
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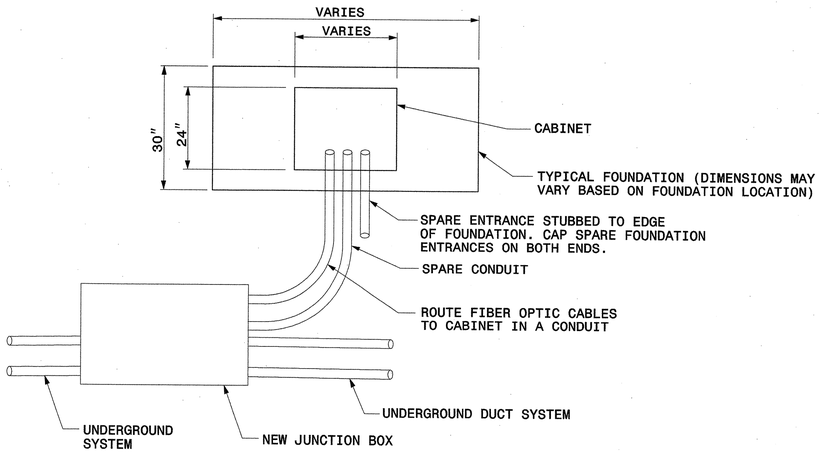
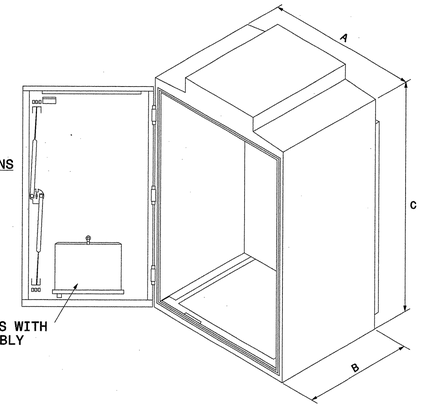
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2R



ROUTING OF CABLE TO BASE MOUNT CABINET (PLAN)

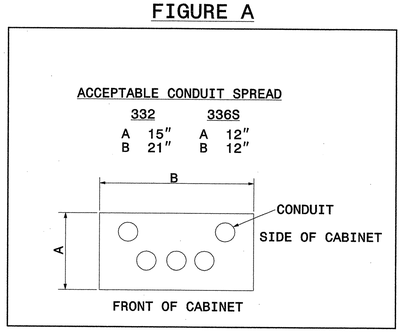
CABINET HOUSING DIMENSIONS

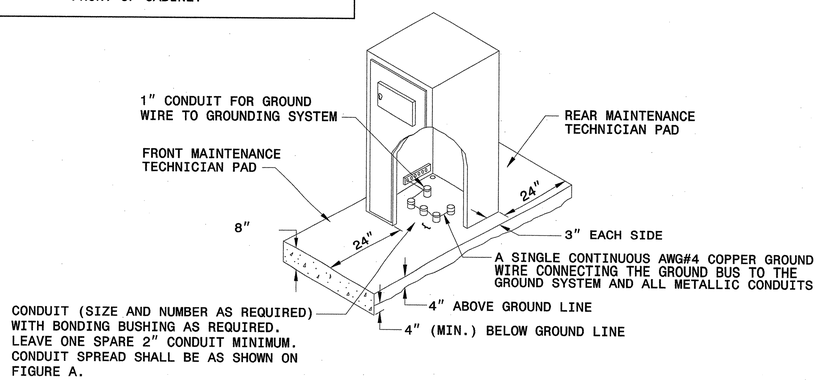
332		336S	
A	24"	A	24"
B	30"	B	20"
C	64"	C	46"



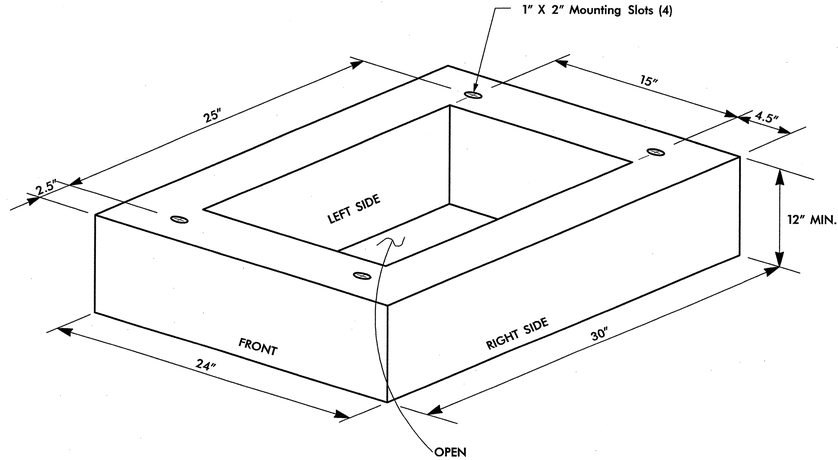
EQUIPMENT CABINET SIZES

FIGURE A





TYPICAL BASE MOUNTED CABINET (NEW STANDARD FOUNDATION)



BASE EXTENSION FOR 332 CABINET

NOTES

1. BASE EXTENDER BOLT HOLE PATTERN AND SPACING SHALL MATCH THAT OF EQUIPMENT CABINET.
2. DIMENSIONS SHOWN FOR BASE EXTENDER ARE APPROXIMATE OUTER DIMENSIONS, DIMENSIONS FOR CENTER OPENING AND FLANGE DIMENSIONS SHALL MATCH THOSE OF EQUIPMENT CABINET.
3. FABRICATE BASE EXTENDER FROM SAME MATERIAL AND SAME GAUGE AS EQUIPMENT CABINET. BASE EXTENDER SHALL HAVE FINISH THAT IS IDENTICAL TO EQUIPMENT CABINET.

PLANS PREPARED IN THE OFFICE OF:

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Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
CABINET DETAILS

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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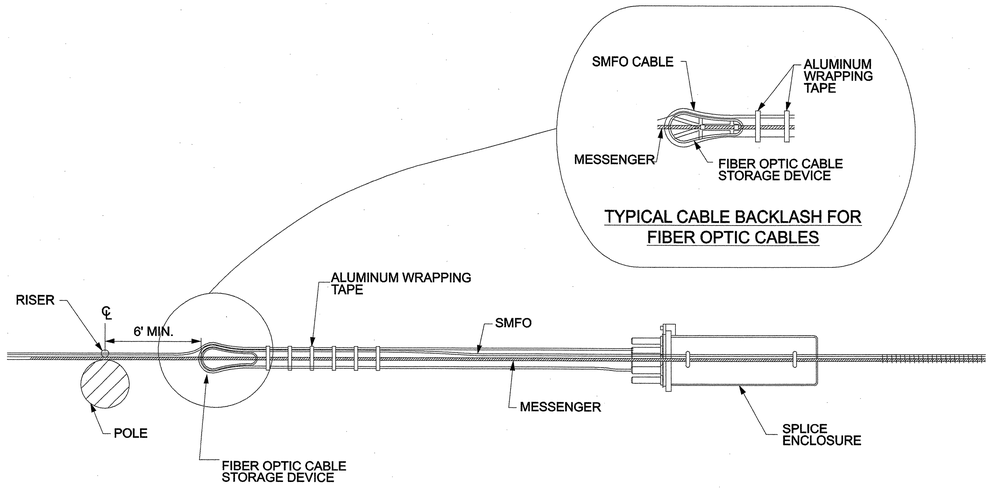
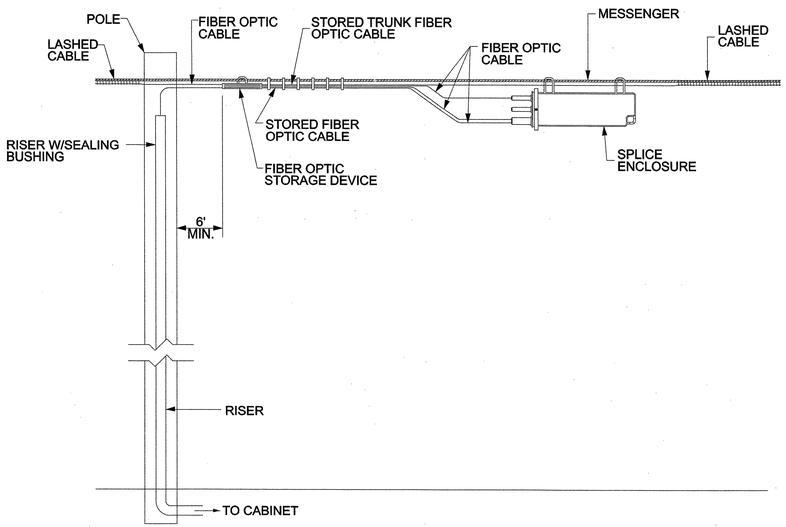
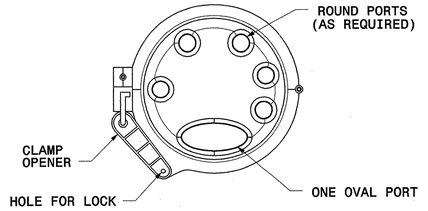
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2S



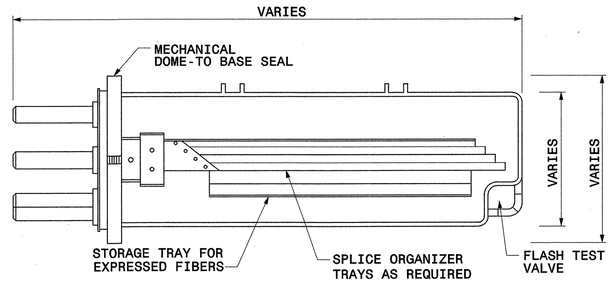
PLAN VIEW



ELEVATION



FRONT



SIDE

FIBER OPTIC SPLICE ENCLOSURE

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy, Garner, NC 27529

SCALE: 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM

SPLICE ENCLOSURE DETAILS

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA — REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE: 2/20/09

CADD Filename:

2/20/2009
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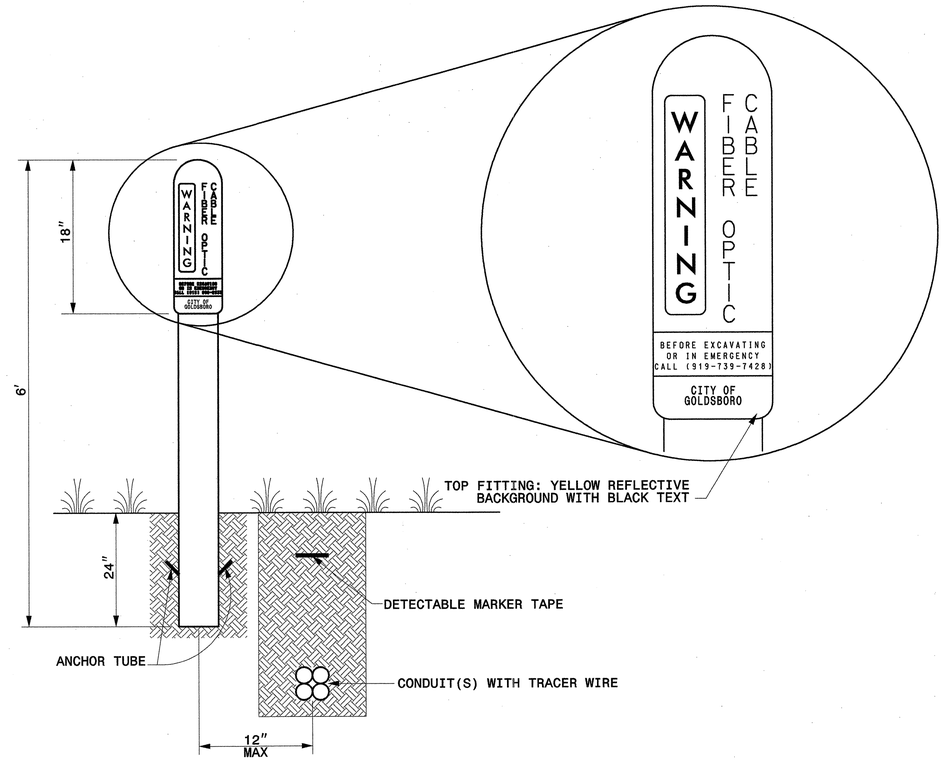
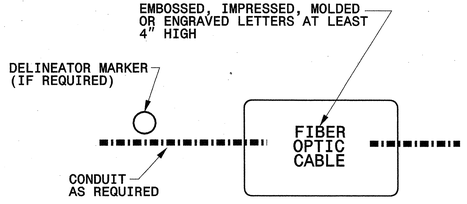
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2T

FLUSH-MOUNTED DELINEATOR MARKER TYPE 2

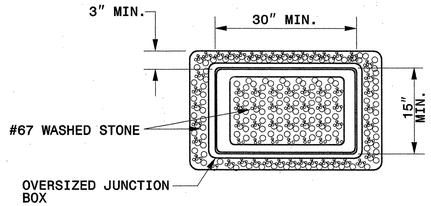


PVC POST-MOUNTED DELINEATOR MARKER TYPE 1

NOTE:
BACKFILL WITH EXCAVATED MATERIAL AND COMPACT THE SOIL TO 95% OF ITS ORIGINAL DENSITY. REMOVE ROCK AND DEBRIS FROM BACKFILL MATERIAL.

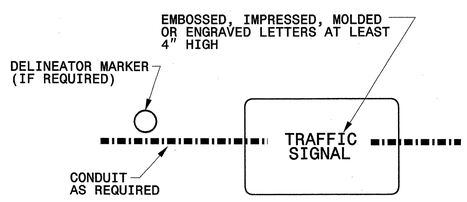


TOP VIEW OF COVER

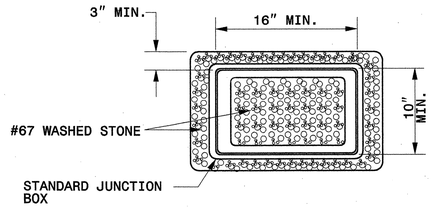


TOP VIEW WITHOUT COVER

OVERSIZED HEAVY DUTY JUNCTION BOX
TYPICAL DETAIL



TOP VIEW OF COVER



TOP VIEW WITHOUT COVER

STANDARD JUNCTION BOX
TYPICAL DETAIL

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
JUNCTION BOX AND
DELINEATOR DETAILS

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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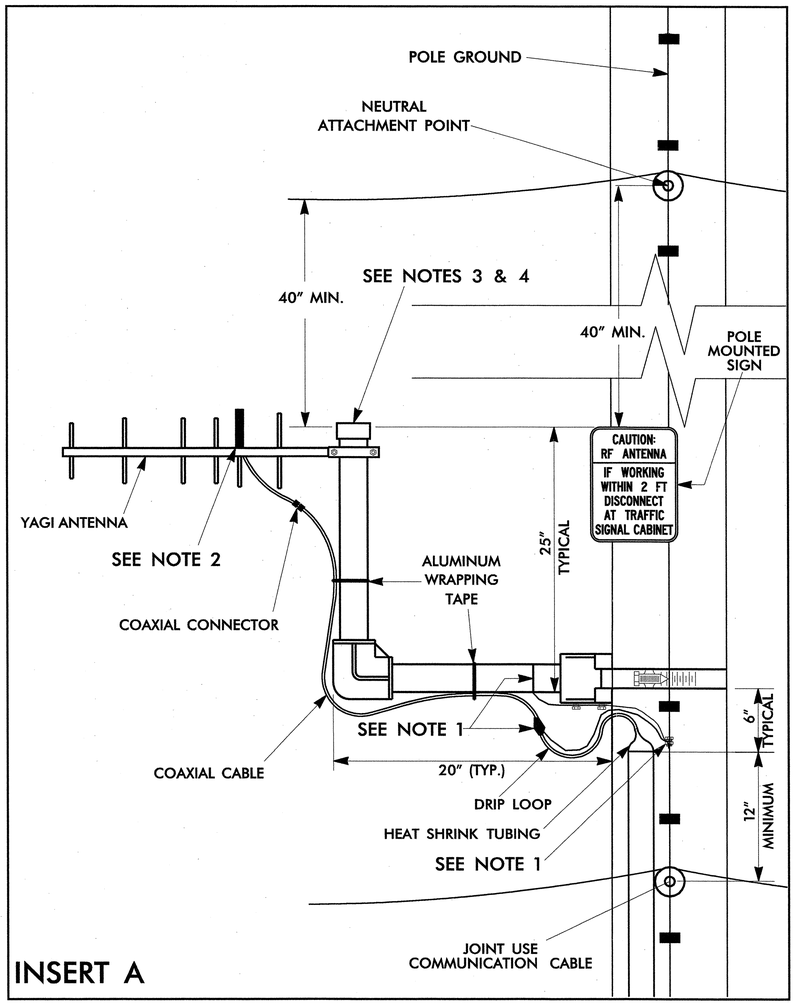
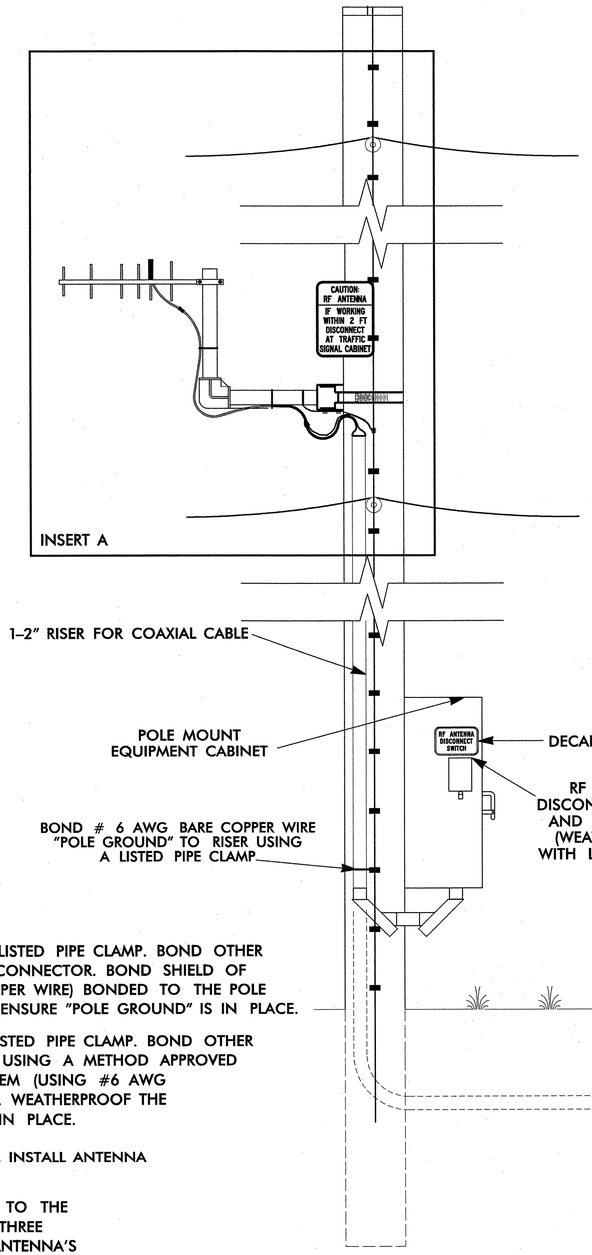
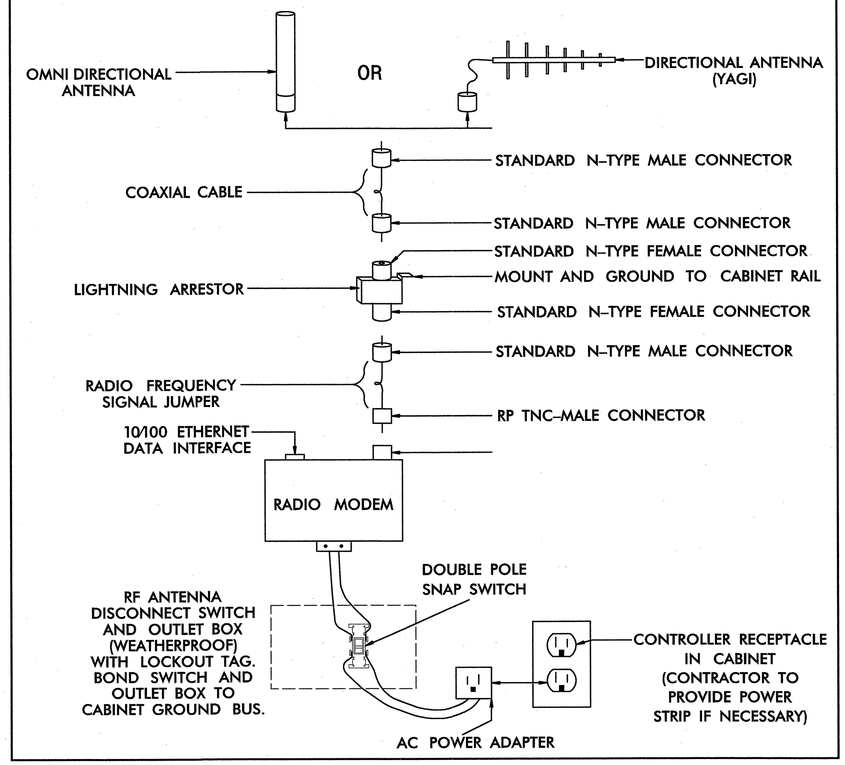
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2U



INSERT A



ANTENNA AND COAXIAL CABLE CONNECTION SCHEMATIC



NOTES

1. WOOD POLE — BOND # 6 AWG SOLID BARE COPPER WIRE TO ANTENNA SUPPORT USING LISTED PIPE CLAMP. BOND OTHER END OF # 6 AWG SOLID BARE COPPER WIRE TO THE POLE GROUND USING A SPLIT BOLT CONNECTOR. BOND SHIELD OF COAXIAL CABLE WITH AN APPROVED GROUNDING SYSTEM (USING #6 AWG STRANDED COPPER WIRE) BONDED TO THE POLE GROUND. WEATHERPROOF THE CONNECTION ONCE THE GROUNDING SYSTEM IS INSTALLED. ENSURE "POLE GROUND" IS IN PLACE.

   METAL POLE — BOND # 6 AWG SOLID BARE COPPER WIRE TO ANTENNA SUPPORT USING LISTED PIPE CLAMP. BOND OTHER END OF # 6 AWG SOLID BARE COPPER WIRE TO THE POLE OR EXISTING SYSTEM GROUND USING A METHOD APPROVED BY THE ENGINEER. BOND SHIELD OF COAXIAL CABLE WITH AN APPROVED GROUNDING SYSTEM (USING #6 AWG STRANDED COPPER WIRE) BONDED TO THE POLE BY A METHOD APPROVED BY THE ENGINEER. WEATHERPROOF THE CONNECTION ONCE THE GROUNDING SYSTEM IS INSTALLED. ENSURE "SYSTEM GROUND" IS IN PLACE.

2. YAGI ANTENNA SHOWN IN VERTICAL POLARIZATION POSITION FOR CLARIFICATION. TYPICALLY INSTALL ANTENNA IN HORIZONTAL POLARIZATION POSITION.

3. TO CONSERVE VERTICAL SPACING ON THE POLE (JOINT-USE OR SIGNAL POLE) WITH REGARDS TO THE SURROUNDING UTILITIES, INSTALL THE ANTENNA MOUNTING HARDWARE USING ONE OF THE THREE METHODS LISTED BELOW: (ENSURE THAT THE MOUNTING METHOD DOES NOT DEGRADE THE ANTENNA'S SIGNAL INTEGRITY)
   A) ROTATE THE VERTICAL SUPPORT ARM 90 DEGREES SUCH THAT THE ANTENNA IS AT THE SAME HEIGHT AS THE HORIZONTAL SUPPORT ARM.
   B) ELIMINATE THE VERTICAL SUPPORT ARM AND MOUNT THE ANTENNA TO THE HORIZONTAL SUPPORT ARM.
   C) INSTALL ANTENNA, ANTENNA SUPPORT ARM, AND SIGN TO MAINTAIN A 40" SEPARATION FROM NEUTRAL /POWER AND 12" FROM OTHER UTILITIES.

4. INSTALL AN END CAP TO SEAL THE EXPOSED END OF THE MOUNTING PIPE.

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
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(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy, Garner, NC 27529

SCALE: 0

CITY OF GOLDSBORO
COMPUTERIZED SIGNAL SYSTEM

RADIO ANTENNA TYPICAL DETAILS

DIVISION 4		WAYNE COUNTY	
PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH		
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT		

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL
SEAL 030472
ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
k:\val_tpo_traffic\46016_goldsboro_signal system\plans\DET_MLS\sht_002U.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2V

DECAL

SIGN NUMBER: SP05224
TYPE: DECAL
QUANTITY:

BACKG COLOR: Yellow
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 0'-9"
HEIGHT: 0'-6"
TOTAL AREA: 0.4 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0.25"
RADII: 1"

NO. Z BARS:
LENGTH:

MAT'L: 0.063" (1.6 mm) ALUMINUM

DESIGN BY: S PIOTROWSKI DATE: Jul 18,2005 CHECKED BY: SUSAN B. KUNZ
PROJECT ID: ID DIV:INTELLIGENT TRANSPORTATION SYSTEM

NOTE: THIS SIGN SHALL BE PRODUCED AS A DECAL

USE NOTES: 2, 4
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter

1	2	3	4	5	6	7	8	9	10	11	12	Series/Size Text Length
	R	F		A	N	T	E	N	N	A		C1
0.9	0.8	0.5	1	0.8	0.7	0.7	0.7	0.8	0.7	0.6	0.9	7.2
	D	I	S	C	O	N	N	E	C	T		C1
1.2	0.8	0.3	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.5	1.2	6.7
	S	W	I	T	C	H						C1
2.6	0.7	0.9	0.3	0.7		0.5	2.6					3.9

Spacing Factor is 1 unless specified otherwise

POLE MOUNTED SIGN

SIGN NUMBER: SP05223
TYPE: D
QUANTITY:

BACKG COLOR: Yellow
COPY COLOR: Black

SYMBOL	X	Y	WID	HT
BAR	0.2	8.2	8.6	1.0

SIGN WIDTH: 0'-9"
HEIGHT: 1'-0"
TOTAL AREA: 0.8 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0.2"
RADII: 1"

NO. Z BARS:
LENGTH:

MAT'L: 0.063" (1.6 mm) ALUMINUM

DESIGN BY: M. TRACEY DATE: OCT 25, 2007 CHECKED BY: SUSAN KUNZ
PROJECT ID: DIV: INTELLIGENT TRANSPORTATION SYSTEMS

0.60 SPACING FACTOR

USE NOTES: 2, 4
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Series/Size Text Length
	C	A	U	T	I	O	N	:								C
2.3	0.6	0.7	0.6	0.6	0.3	0.7	0.7	0.1	2.3							4.4
	R	F		A	N	T	E	N	N	A						C
1.1	0.7	0.5	1	0.7	0.6	0.6	0.6	0.7	0.6	0.6		1.2				6.7
	I	F		W	O	R	K	I	N	G						C
1.4	0.3	0.5	1	0.8	0.7	0.7	0.6	0.3	0.7	0.5	1.4					6.1
	W	I	T	H	I	N		2		F	T					C
1.1	0.8	0.2	0.6	0.7	0.3	0.5	1	0.5	1	0.6	0.5	1.1				6.8
	D	I	S	C	O	N	N	E	C	T						C
1.5	0.7	0.3	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.5	1.5					6
	A	T		T	R	A	F	F	I	C						C
1.4	0.7	0.5	1	0.6	0.6	0.7	0.6	0.6	0.3	0.5	1.4					6.2
	S	I	G	N	A	L		C	A	B	I	N	E	T		C
0.5	0.7	0.3	0.7	0.6	0.7	0.5	0.4	0.6	0.7	0.7	0.3	0.7	0.6	0.5	0.5	7.9

Spacing Factor is 1 unless specified otherwise

2/20/2009
k:\ral_tpto_its\011746016 goldsboro signal system\plans\DETAILS\dtl_002V.dgn

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
State of North Carolina Department of Transportation
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM

RADIO ANTENNA TYPICAL DETAILS

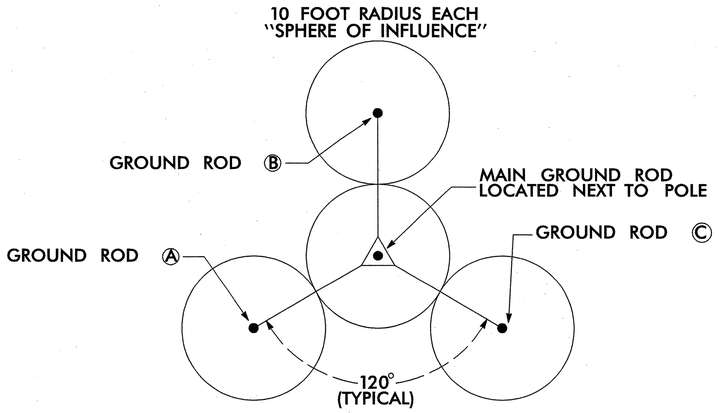
DIVISION 4 WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

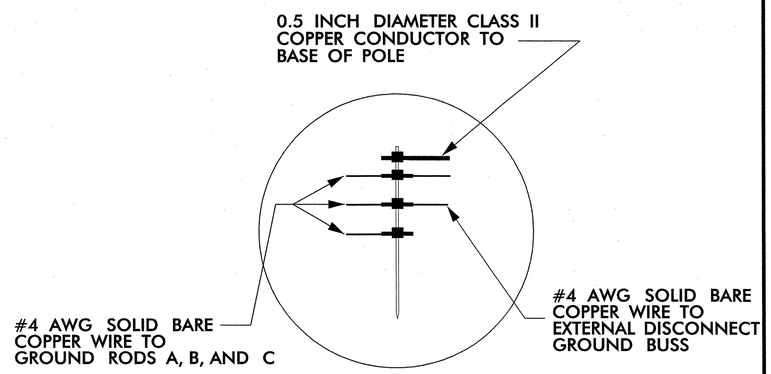
SIGNATURE 2/20/09 DATE
CADD Filename:

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2W



GROUND ROD PLACEMENT DETAIL

(TYPICAL EACH POLE)



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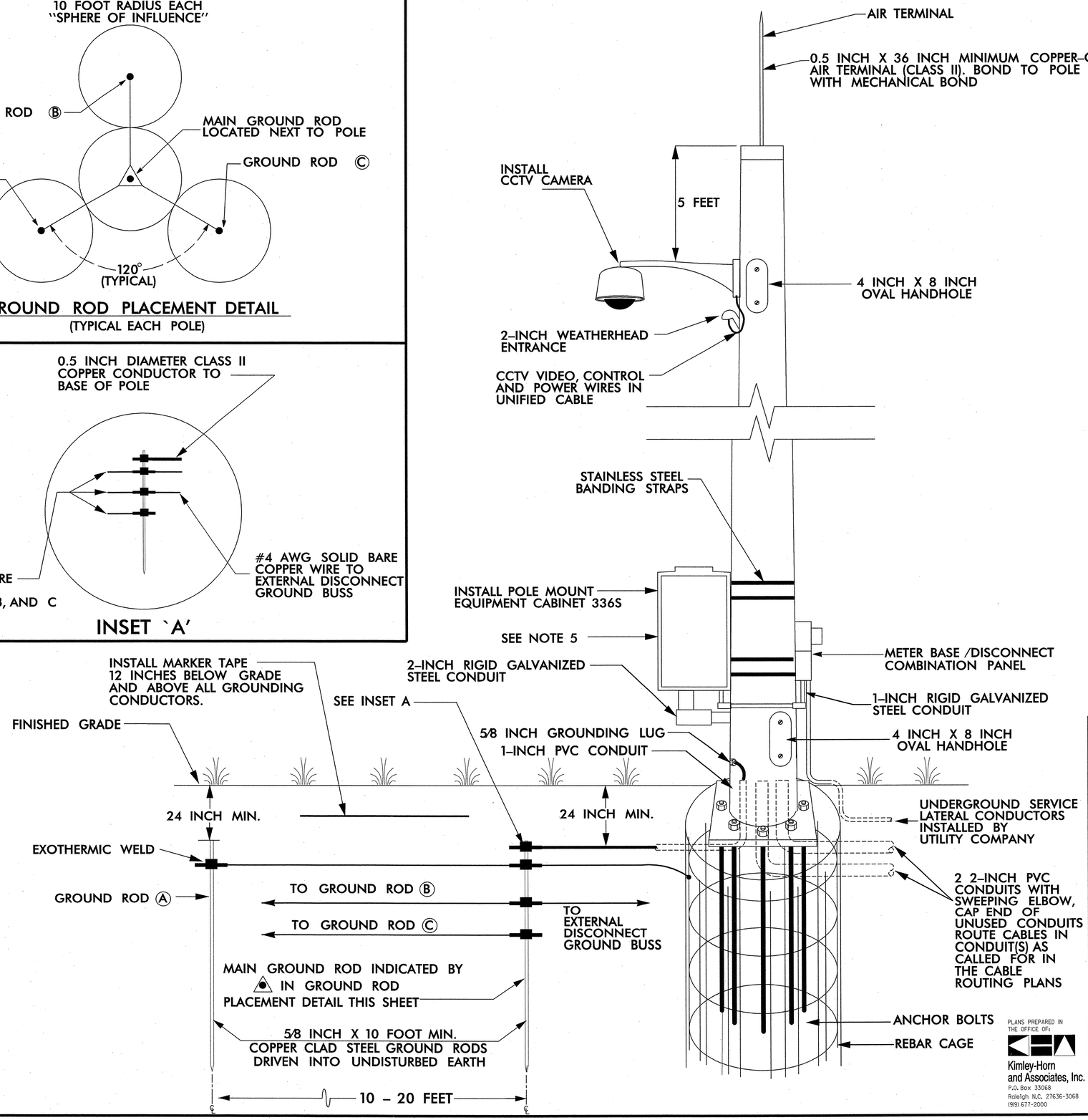
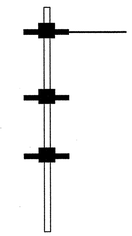


ALTERNATE GROUNDING METHOD

IF SPACE IS NOT AVAILABLE TO DRIVE MULTIPLE RODS, DRIVE SECTIONAL GROUND RODS A MINIMUM OF 30 FEET.



JOIN SECTIONAL GROUND RODS BY EXOTHERMIC WELDING CONNECTION

NOTES

1. BOND 0.5 INCH DIAMETER, 28 STRAND (MINIMUM) CLASS II COPPER CONDUCTOR TO THE MAIN GROUND ROD BY AN EXOTHERMIC WELD METHOD.
2. EXOTHERMICALLY WELD ALL CONNECTIONS TO GROUND RODS.
3. BOND #4 AWG SOLID BARE COPPER WIRE TO REBAR CAGE AND THE MAIN GROUND ROD BY AN EXOTHERMIC WELD METHOD.
4. ENSURE CAMERA HOUSING, CAMERA, AND PAN -TILT UNIT ARE BONDED TO POLE.
5. REMOVE BONDING JUMPER BETWEEN EQUIPMENT CABINET GROUND BUSS AND NEUTRAL BUSS.
6. THE CONTRACTOR MAY, UPON APPROVAL OF THE ENGINEER, INSTALL A 30-FOOT SECTIONAL GROUND ROD WHEN CONDITIONS WILL NOT ALLOW FOR THE INSTALLATION OF THE 3 - RADIAL GROUND RODS.
7. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO
COMPUTERIZED SIGNAL SYSTEM
CCTV CAMERA WITH CABINET ON METAL POLE

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

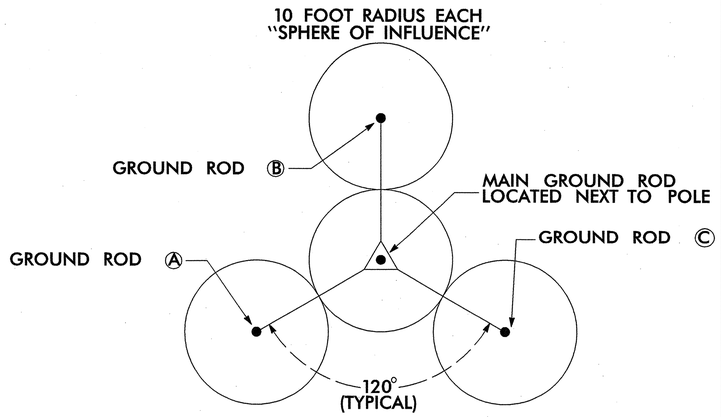
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

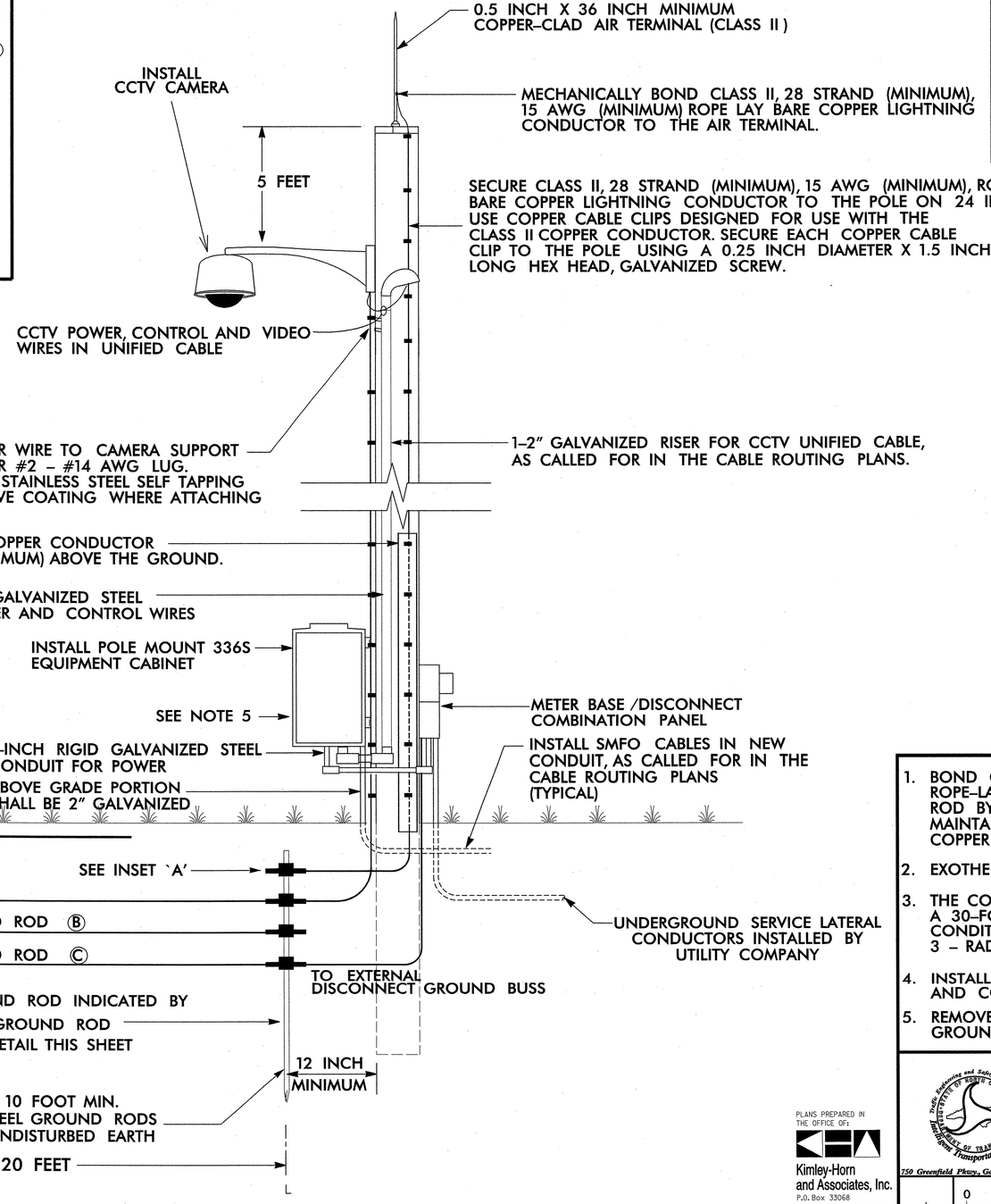
2/20/2009
k:\ral_tpto_lts\011746016 goldsboro signal system\plans\DETAILS\dtl_002W.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2X



GROUND ROD PLACEMENT DETAIL

(TYPICAL EACH POLE)



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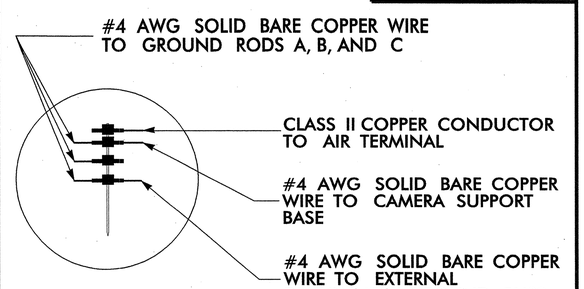
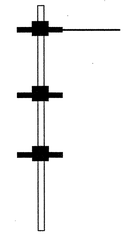


ALTERNATE GROUNDING METHOD

IF SPACE IS NOT AVAILABLE TO DRIVE MULTIPLE RODS, DRIVE SECTIONAL GROUND RODS A MINIMUM OF 30 FEET.



JOIN SECTIONAL GROUND RODS BY EXOTHERMIC WELDING CONNECTION

NOTES

1. BOND CLASS II, 28 STRAND (MINIMUM), 15 AWG (MINIMUM) ROPE–LAY BARE COPPER CONDUCTOR TO THE MAIN GROUND ROD BY AN EXOTHERMIC WELD METHOD. MAINTAIN MAXIMUM HORIZONTAL SEPARATION BETWEEN COPPER CONDUCTOR AND RISER.
2. EXOTHERMICALLY WELD ALL CONNECTIONS TO GROUND RODS.
3. THE CONTRACTOR MAY, UPON APPROVAL OF THE ENGINEER, INSTALL A 30–FOOT SECTIONAL GROUND ROD FOR INSTANCES WHEN CONDITIONS WILL NOT ALLOW FOR THE INSTALLATION OF THE 3 – RADIAL GROUND RODS.
4. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.
5. REMOVE BONDING JUMPER BETWEEN EQUIPMENT CABINET GROUND BUSS AND NEUTRAL BUSS.

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

750 Greenfield Pkwy., Garner, NC 27529

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
CCTV CAMERA WITH CABINET
ON WOOD POLE DETAIL

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH		
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT		
REVISIONS		INIT.	DATE

SCALE 0

SEAL
NORTH CAROLINA PROFESSIONAL
SEAL 030472
ENGINEER
KEVIN W. SMITH

SIGNATURE — 2/20/09 DATE

CADD Filename

2/20/2009
K:\Traf_Tpo_ITS\DITM\5016 goldsboro signal system\plans\DETAILS\dtl_002X.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2Y

PROJECT REFERENCE NO.	SHEET NO.
	Sig.

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

11-08

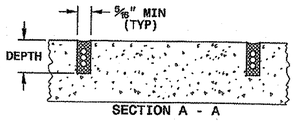
ENGLISH DETAIL DRAWING FOR

INDUCTIVE DETECTION LOOPS

CONVENTIONAL 4-SIDED LOOP

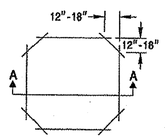
SAW SLOT DEPTH CHART

DEPTH (IN)	NO. OF WIRE TURNS				
	2	3	4	5	6
CONCRETE	2.0	2.0	2.5	2.5	3.0
ASPHALT	2.0	2.5	3.0	3.0	3.0

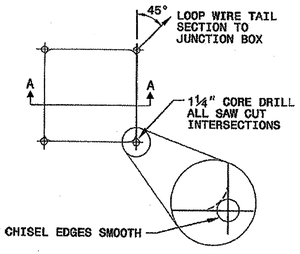


SAW CUT OPTIONS

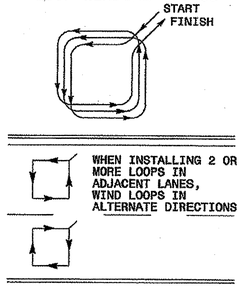
OPTION 1



OPTION 2 (POOR PAVEMENT)



LOOP WINDING METHOD



LOOP WIRE TWISTING METHOD

INCORRECT WAY TO TWIST WIRE

CORRECT WAY TO TWIST WIRE

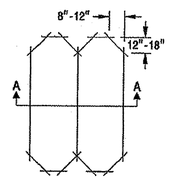
NOTES

1. OVERLAP SAW CUTS AT CORNERS AND INTERSECTION POINTS TO ENSURE UNIFORM SAW SLOT DEPTH.
2. MAINTAIN 12" SPACING BETWEEN LOOP WIRE TAIL SECTIONS.
3. WIRE LOOPS CONNECTED TO THE SAME DETECTOR CHANNEL IN SERIES.
4. LOCATE LOOPS IN CENTER OF LANES UNLESS OTHERWISE SHOWN ON PLANS OR APPROVED BY ENGINEER.

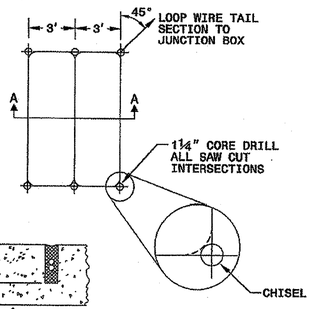
QUADRUPOLE LOOP

SAW CUT OPTIONS

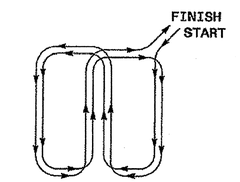
OPTION 1

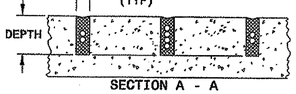


OPTION 2 (POOR PAVEMENT)



LOOP WINDING METHOD





DEPTH IS 2.5" FOR CONCRETE AND 3.0" FOR ASPHALT

SHEET 1 OF 3
1725D01

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS

SHEET 1 OF 3
1725D01

See Plate for Title

Prepared in the Offices of
Intelligent Transportation Systems & Signals Unit
759 N. Greenfield Parkway
Garner, NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 16286 ENGINEER
SIGNATURE 11/24/08 DATE

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
759 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO
COMPUTERIZED SIGNAL SYSTEM
INDUCTIVE DETECTION LOOP DETAIL

DIVISION 4		WAYNE COUNTY	
PLAN DATE: FEBRUARY 2009		REVIEWED BY: K.W. SMITH	
PREPARED BY: D.A. SHINBARA		REVIEWED BY: T.F. BURCHETT	

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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jmitten

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2Z

PROJECT REFERENCE NO.	SHEET NO.
	Sig.

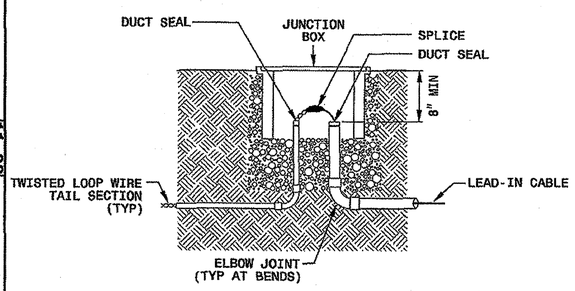
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
LOOP WIRE DETAILS

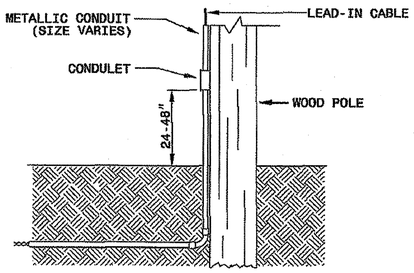
SHEET 2 OF 3
1725D01

LOOP WIRE SPLICE POINT DETAILS

LOOP WIRE AT JUNCTION BOX



LOOP WIRE AT POLE

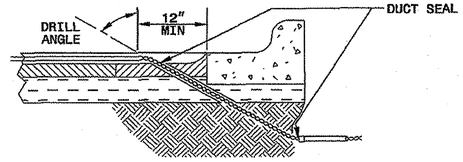


NOTE

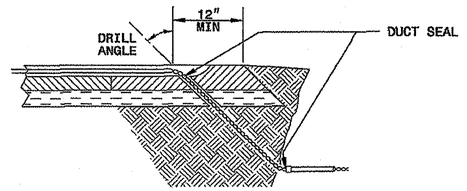
SPLICE ALL LOOP WIRE TAIL SECTIONS/LEAD-IN CABLE IN JUNCTION BOXES OR APPROVED CONDULETS.

LOOP WIRE PAVEMENT EDGE DETAILS

LOOP WIRE AT CURB & GUTTER SECTION



LOOP WIRE AT PAVEMENT SECTION



NOTES

1. DO NOT EXCAVATE UNDER CURB AND GUTTER SECTIONS FOR CONDUIT INSTALLATION.
2. TWIST LOOP WIRE TAIL SECTIONS FROM WHERE LOOP WIRE TAIL LEAVES SAW CUT TO JUNCTION BOX, INCLUDING THROUGH CONDUIT.
3. BEFORE SEALING LOOPS, INSTALL DUCT SEAL WHERE LOOP WIRE TAIL SECTION LEAVES SAW CUT IN PAVEMENT AND AT ENTRANCE OF CONDUIT TO JUNCTION BOX.

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
11-08

ENGLISH DETAIL DRAWING FOR
INDUCTIVE DETECTION LOOPS
LOOP WIRE DETAILS

SHEET 2 OF 3
1725D01

24-NOV-2008 03:29
d:\work_files\dk-standard plots sheets\1725d02_ms2107.dgn
jmitchell

See Plate for Title

Prepared in the Offices of:

Intelligent Transportation Systems & Signals Unit
STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION
750 N. Greenfield Parkway
Garner, NC 27529

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 16286 ENGINEER MILTON I. DEAN

SIGNATURE 11/24/08 DATE

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM
INDUCTIVE DETECTION LOOP DETAIL

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA — REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename

2/20/2009
K:\RAL_TTP\TO_ITS\DIT\45016 Goldsboro Signal System\Plans\DETAILS\dtl_0022.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	2AA

PROJECT REFERENCE NO.	SHEET NO.
	Sig.

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
11-08

ENGLISH DETAIL DRAWING FOR

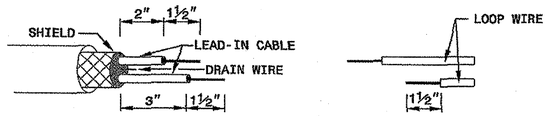
INDUCTIVE DETECTION LOOPS

SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

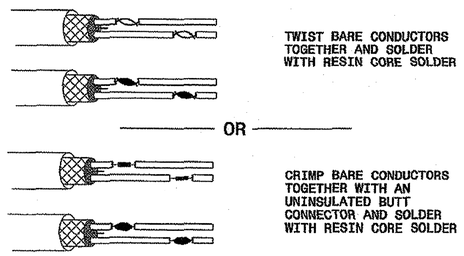
SHEET 3 OF 3

1725D01

STEP 1. STRIP LOOP WIRE AND LEAD-IN CABLE

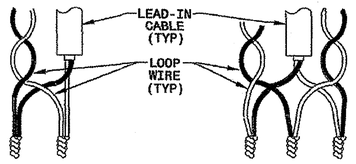


STEP 2. CONNECT AND SOLDER

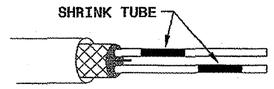


BOND SHIELD DRAIN WIRE AT SPLICE SECTIONS (DO NOT GROUND)

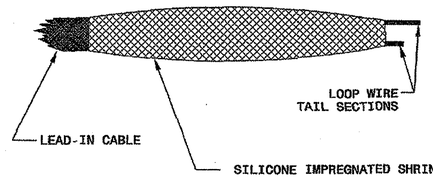
LOOP WIRE AND LEAD-IN CABLE CONNECTION DETAILS



STEP 3. INSULATE EACH SOLDER JOINT SEPARATELY



STEP 4. ENVIRONMENTALLY PROTECT SPLICE



STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
11-08

ENGLISH DETAIL DRAWING FOR

INDUCTIVE DETECTION LOOPS

SPLICING FOR LEAD-IN CABLE AND LOOP WIRE

SHEET 3 OF 3

1725D01

See Plate for Title

Prepared in the Offices of:

Intelligent Transportation Systems & Signals Unit
NC DEPARTMENT OF TRANSPORTATION

750 N. Greenfield Parkway
Garner, NC 27529

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 16286 ENGINEER MILTON DEAL

Milton J. Deal 11/24/08
SIGNATURE DATE

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
NC DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM

INDUCTIVE DETECTION LOOP DETAIL

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

Kevin W. Smith 2/20/09
SIGNATURE DATE

CADD Filename:

2/20/2009
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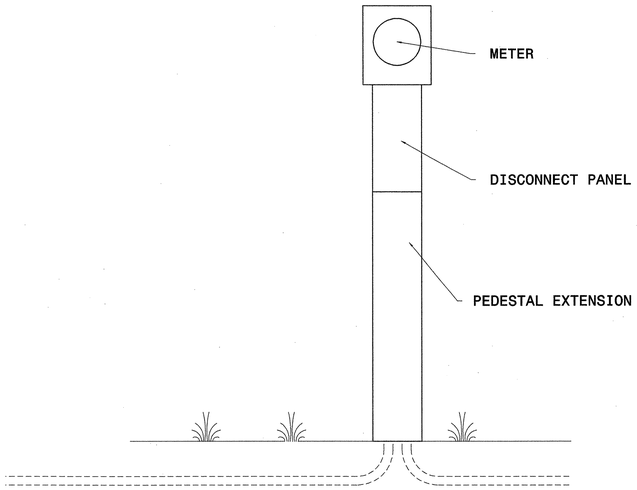
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2AB



GROUND MOUNTED METER BASE FOR UNDERGROUND ELECTRICAL SERVICE

NOTES

1. LOCATE THE METER BASE ASSEMBLY NEAR THE SIGNAL CABINET OR CCTV CAMERA ASSEMBLY IN A MANNER THAT WILL ALLOW EASY ACCESS TO THE SERVICE DISCONNECT.
2. INSTALL ALL METER BASES AT A HEIGHT NOT TO EXCEED 5 FEET AS MEASURED FROM THE CENTER OF THE METER. SEAL ANY UNUSED MOUNTING HOLES ON COMBINATION PANELS, METER BASES AND DISCONNECT BOXES.
3. TYPICAL POINT OF DELIVERY FOR UNDERGROUND SERVICE IS INSIDE OF METER BASE.
4. THE PEDESTAL HOUSING SHOULD BE COLORED TO MATCH THE OTHER TRAFFIC SIGNAL OR CCTV CAMERA EQUIPMENT.

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Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

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CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
METER BASE DETAILS

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

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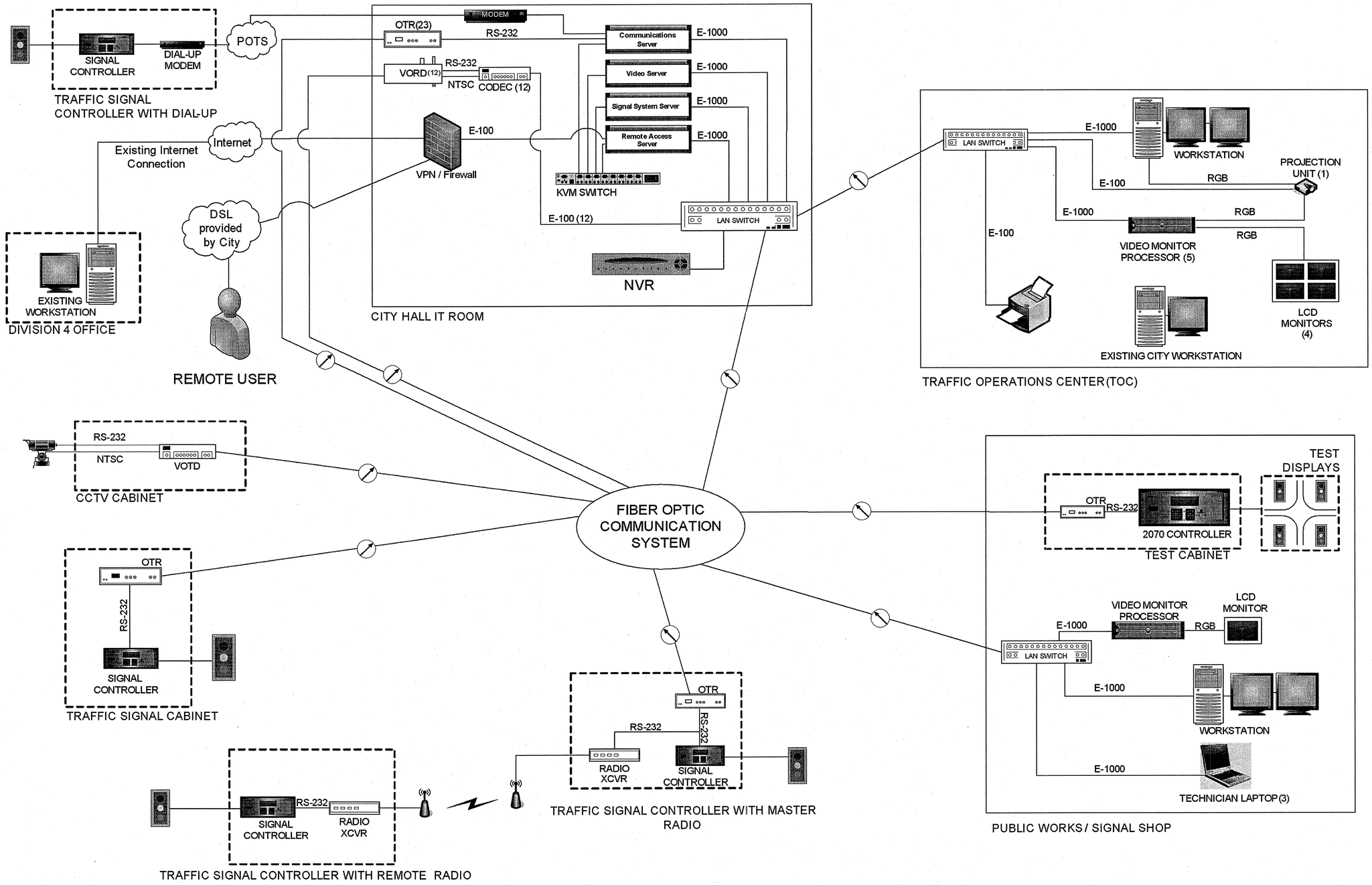
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2AC



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750 Greenfield Pkwy., Garner, NC 27529

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CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM SYSTEM BLOCK DIAGRAM

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

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NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/26/09

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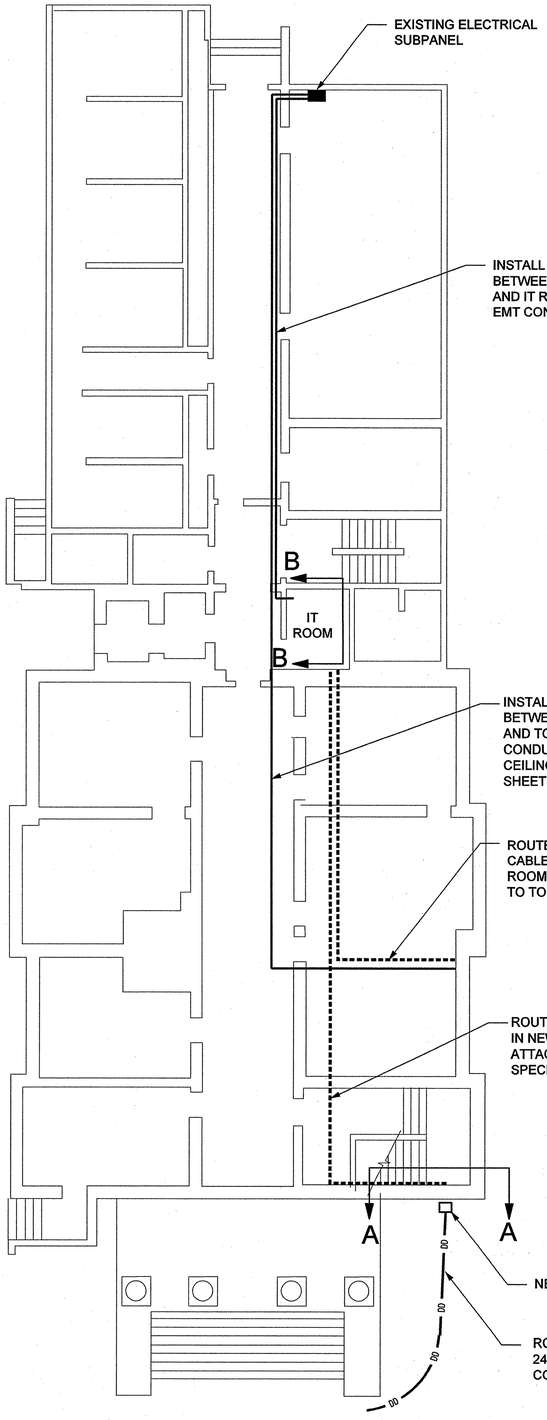
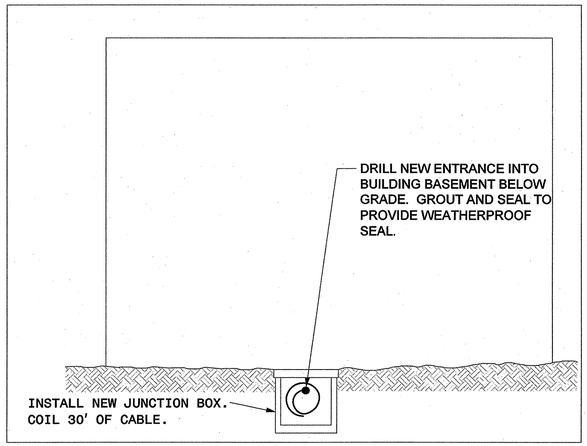
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2AD

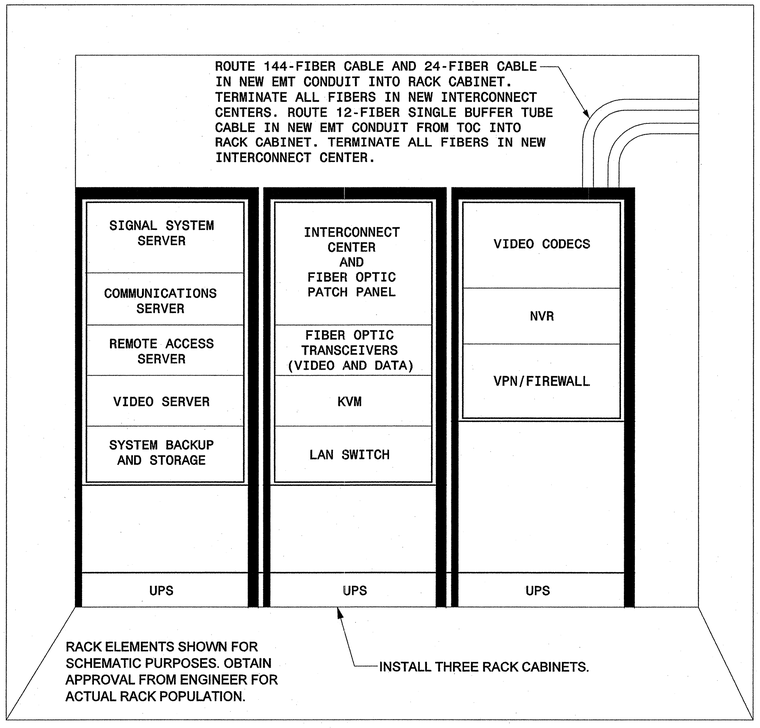
SEE CABLE ROUTING SHEET 66





SECTION A-A

PARTIAL ELEVATION OF WEST EXTERIOR WALL



SECTION B-B

PARTIAL ELEVATION OF SOUTH IT ROOM INTERIOR WALL

PLANS PREPARED IN THE OFFICE OF:
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CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM

CITY HALL BASEMENT DETAIL

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/26/09

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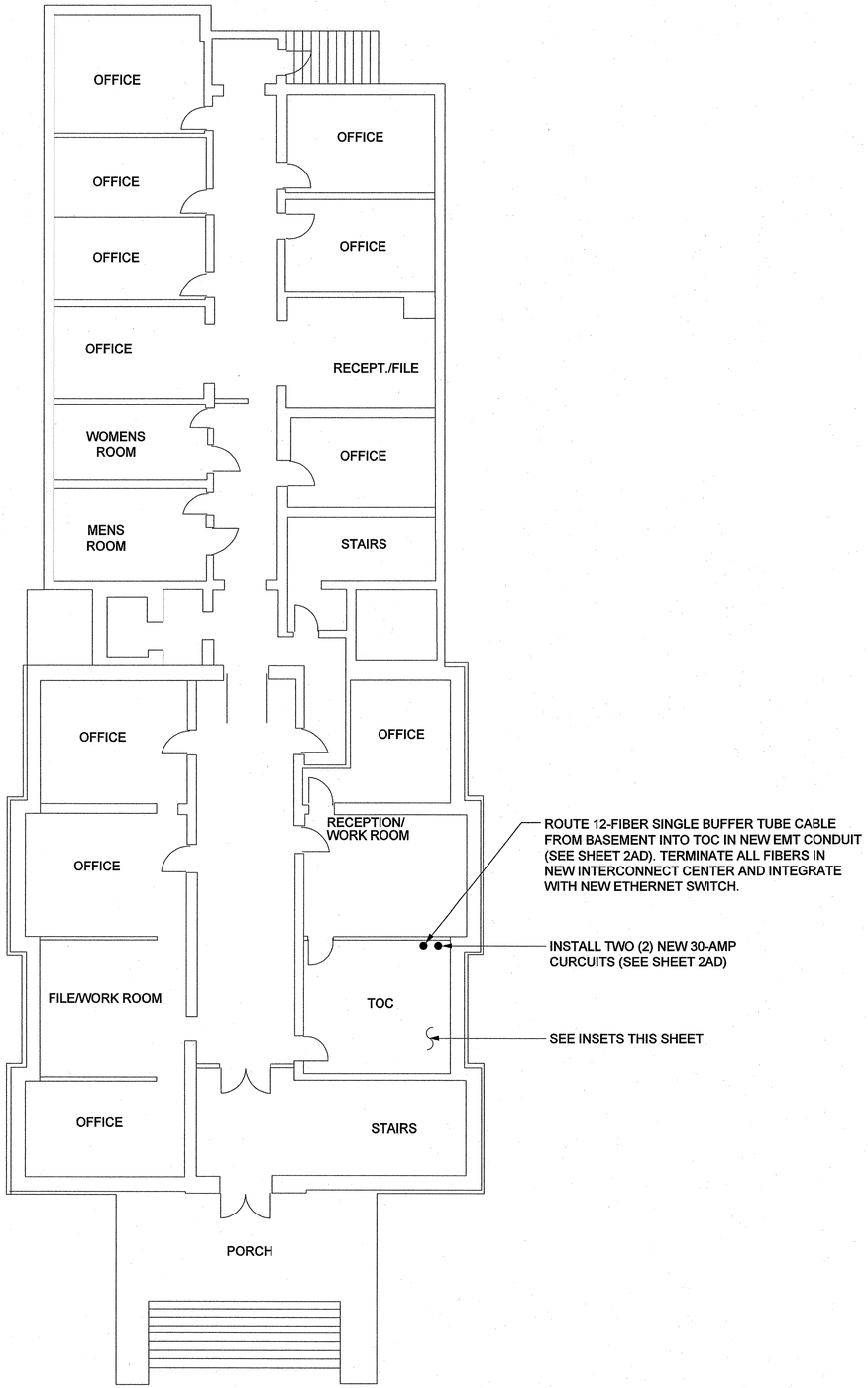
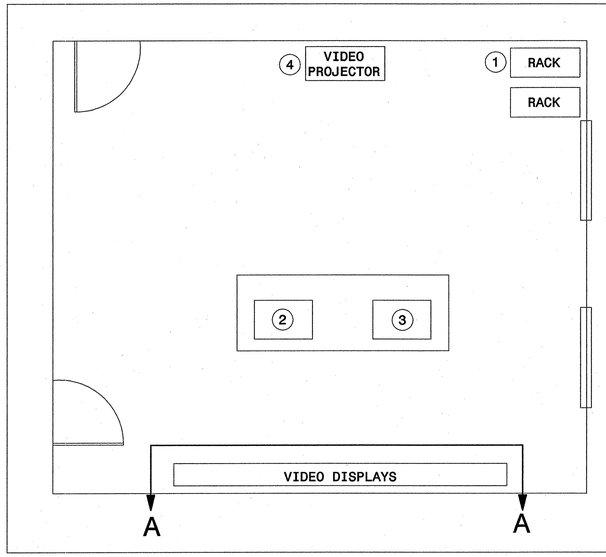
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2AE

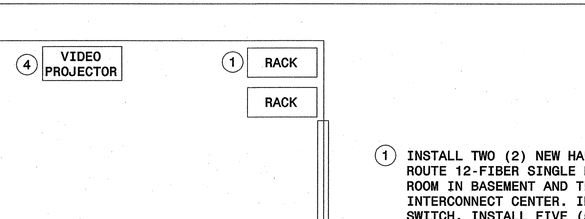




1. INSTALL TWO (2) NEW HALF-RACK EQUIPMENT CABINETS. ROUTE 12-FIBER SINGLE BUFFER TUBE CABLE FROM IT ROOM IN BASEMENT AND TERMINATE ALL FIBERS IN NEW INTERCONNECT CENTER. INTEGRATE WITH NEW ETHERNET SWITCH. INSTALL FIVE (5) NEW VIDEO MONITOR PROCESSORS AND INTEGRATE WITH ETHERNET SWITCH, UPS, AND ONE (1) NEW 30-AMP CIRCUIT.
2. EXISTING CITY WORKSTATION PROVIDED BY CITY. THIS WORKSTATION WILL NOT BE INTEGRATED WITH SIGNAL SYSTEM NETWORK.
3. INSTALL NEW DUAL-MONITOR WORKSTATION. INTEGRATE WITH ETHERNET SWITCH. INTEGRATE WITH VIDEO PROJECTOR.
4. INSTALL NEW VIDEO PROJECTOR ON CEILING. INTEGRATE WITH NEW VIDEO MONITOR PROCESSOR AND NEW WORKSTATION. ROUTE CABLES IN WIRE MOLD ATTACHED TO CEILING AND WALL.

FURNITURE WILL BE PROVIDED BY CITY.

TOC LAYOUT



HANG LCD MONITORS AND VIDEO SCREEN ON WALL ACCORDING TO THE PROJECT SPECIAL PROVISIONS. INTEGRATE MONITORS AND PROJECTOR WITH NEW VIDEO MONITOR PROCESSORS AND ONE (1) NEW 30-AMP CIRCUIT.

VIDEO DISPLAY

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
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Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM

CITY HALL FIRST FLOOR DETAIL

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

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NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/26/09 DATE

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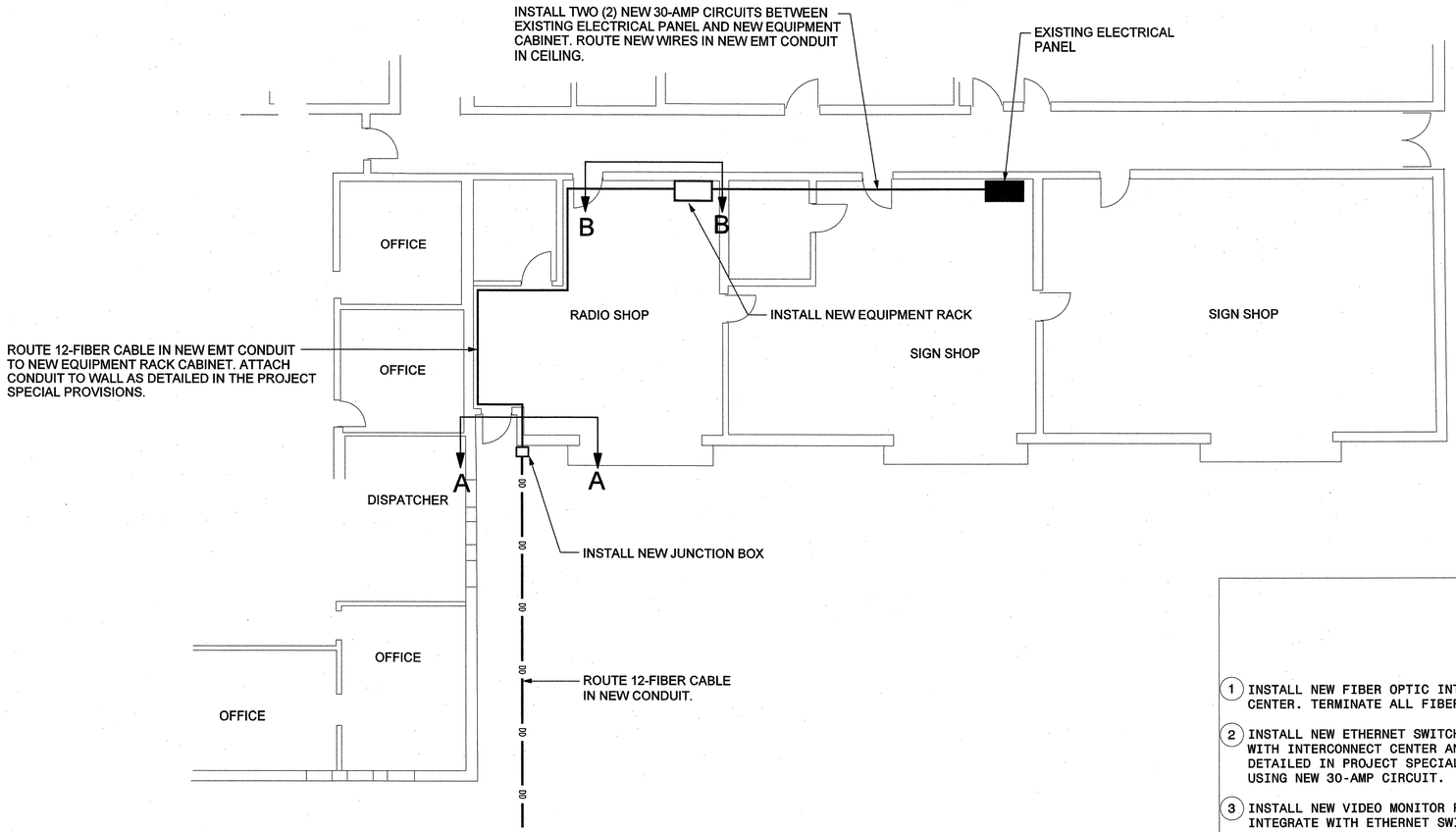
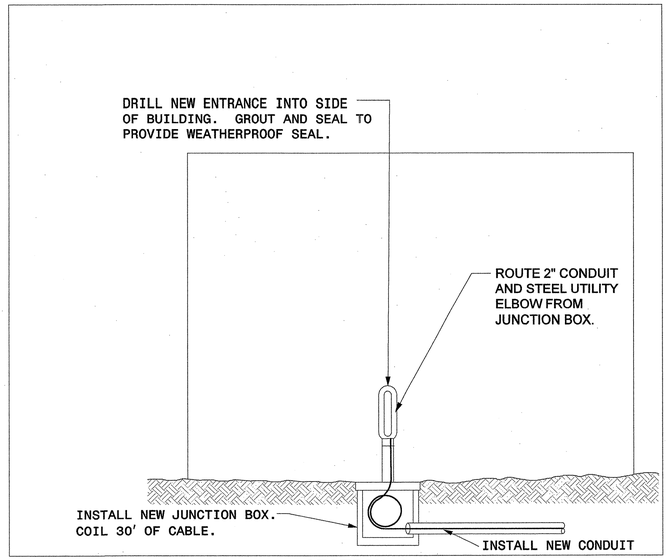
PROJECT REFERENCE NO.	SHEET NO.
U-5016	2AF

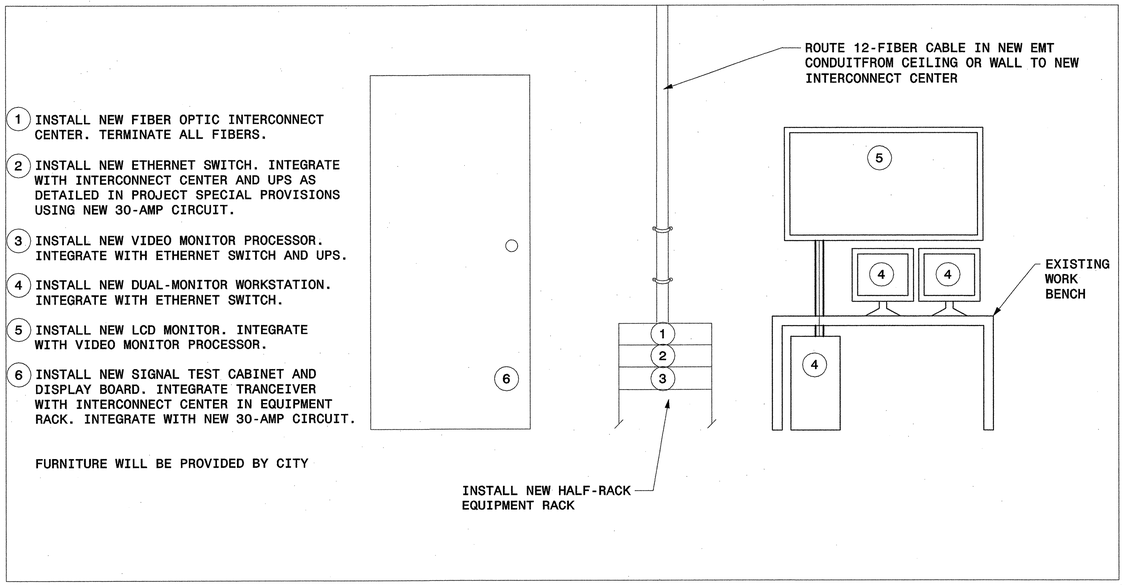
SEE CABLE ROUTING SHEET 111





SECTION A-A

PARTIAL ELEVATION OF EAST EXTERIOR WALL



SECTION B-B

PARTIAL ELEVATION OF EAST INTERIOR WALL

PLANS PREPARED IN THE OFFICE OF:
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Raleigh N.C. 27636-3068
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Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM

PUBLIC WORKS BUILDING DETAIL

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
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SIGNATURE — DATE 2/20/09

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PROJECT REFERENCE NO.	SHEET NO.
U-5016	3

SUMMARY OF QUANTITIES

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE
0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
QUANTITIES

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

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PROJECT REFERENCE NO.	SHEET NO.
U-5016	3A

QUANTITIES

Item No.	Spec Chap.	Description	Unit	Quantity
1	2	Mobilization	LS	1
2	3	Vehicle Signal Head (12", 3 Section)	EA	18
3	3	Vehicle Signal Head (12", 5 Section)	EA	5
4	3	Pedestrian Signal Head (16", 1 Section with Countdown)	EA	94
5	3	Modify Existing Vehicle Signal Head	EA	138
6	3	Signal Cable	LF	14,960
7	4	Signal Pedestal With Foundation	EA	14
8	5	Sign for Signals	EA	8
9	6	Thermoplastic Pavement Marking Lines, 8", 120 mils	LF	500
10	6	Thermoplastic Pavement Marking Lines, 24", 120 mils	LF	25
11	6	Removal of Pavement Marking Lines, 24"	LF	47
12	7	Messenger Cable (1/4")	LF	155,510
13	7	Messenger Cable (3/8")	LF	90
14	8	Tracer Wire	LF	33,520
15	8	Paved Trenching (1, 2")	LF	160
16	8	Paved Trenching (2, 2")	LF	1,900
17	8	Unpaved Trenching (1, 2")	LF	5,150
18	8	Unpaved Trenching (2, 2")	LF	17,080
19	8	Directional Drill (1, 2")	LF	770
20	8	Directional Drill (2, 2")	LF	13,710
21	8	Bore and Jack (1, 5")	LF	440
22	8	Multi-Duct (2, 2") in Outer-Duct (1, 5")	LF	440
23	9	Junction Box (Standard Size)	EA	87
24	9	Junction Box (Over-Sized Heavy Duty)	EA	189
25	10	Wood Pole	EA	20
26	11	CCTV Camera Metal Pole and Foundation	EA	4
27	12	Guy Assembly	EA	277
28	13	1/2" Riser with Weatherhead	EA	2
29	13	2" Riser with Weatherhead	EA	40
30	13	2" Riser with Heat Shrink Tubing	EA	128
31	13	Heat Shrink Tubing Retrofit Kit	EA	58
32	14	Inductive Loop Sawcut	LF	16,510
33	15	Lead-In Cable (14-2)	LF	50,600
34	16	Communications Cable (12 Fiber)	LF	193,370
35	16	Communications Cable (24 Fiber)	LF	115,440

Item No.	Spec Chap.	Description	Unit	Quantity
36	16	Communications Cable (36 Fiber)	LF	12,380
37	16	Communications Cable (48 Fiber)	LF	3,610
38	16	Communications Cable (60 Fiber)	LF	8,240
39	16	Communications Cable (96 Fiber)	LF	3,510
40	16	Communications Cable (144 Fiber)	LF	1,920
41	16	Drop Cable (6 Fiber)	LF	14,120
42	17	Interconnect Center	EA	109
43	17	Interconnect Center (Large)	EA	6
44	17	Splice Enclosure	EA	58
45	17	Modify Existing Interconnect Center or Splice Enclosure	EA	8
46	18	Fiber Optic Transceiver, Drop & Repeat	EA	150
47	18	Video Optical Transceiver with Data	EA	24
48	19	Delineator Marker (1)	EA	109
49	19	Delineator Marker (2)	EA	17
50	20	Cable Transfer	EA	10
51	21	City Hall Building Modifications	LS	1
52	21	Public Works Building Modifications	LS	1
53	22	Signal Cabinet Foundation	EA	2
54	22	Conduit Entrance into Existing Foundation	EA	20
55	22	Modify Foundation for Controller Cabinet	EA	45
56	22	4" Concrete Sidewalk	SY	50
57	22	Brick Pavers	SF	500
58	23	Cabinet Base Adapter	EA	1
59	23	Cabinet Base Extender	EA	44
60	24	Controller with Cabinet (Type 2070L, 332 Base Mounted)	EA	44
61	24	Controller with Cabinet (Type 2070L, 336S Base Mounted)	EA	1
62	24	Controller with Cabinet (Type 2070L, 336S Pole Mounted)	EA	23
63	24	Detector Card (Model 222)	EA	399
64	24	Auxiliary Output File	EA	20
65	25	New Electrical Service	EA	32
66	25	Modify Existing Electrical Service	EA	5
67	26	900MHz Wireless Radio System	EA	4
68	26	900MHz Wireless Repeater Standalone Radio System	EA	2
69	27	Dial-up Modem	EA	4
70	27	Telephone Demarcation Assembly	EA	3

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SCALE 0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
QUANTITIES

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/26/09 DATE

CADD Filenames

2/26/2009
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QUANTITIES

Item No.	Spec Chap.	Description	Unit	Quantity
71	28	CCTV Camera Assembly	EA	12
72	29	Signal System Software	LS	1
73	29	CCTV System Software	LS	1
74	29	System Support Software	LS	1
75	30	Signal System Processing Server	EA	1
76	30	Signal System Communications Server	EA	1
77	30	CCTV Video Server	EA	1
78	30	Remote Access Server	EA	1
79	30	KVM Switch	EA	1
80	30	Computer Workstation	EA	2
81	30	Notebook Computer	EA	3
82	30	Printer	EA	1
83	30	GPS Antenna	EA	1
84	30	Computer Hardware Integration	LS	1
85	31	Central LAN Switch	EA	2
86	31	Remote LAN Switch	EA	1
87	31	VPN Firewall	EA	1
88	31	LAN Integration	LS	1
89	32	CCTV Control Panel	EA	2
90	32	Video Codec Unit	EA	12
91	32	Video Monitor Processor Unit	EA	6
92	32	Network Video Recorder	EA	1
93	32	LCD Video Monitor	EA	5
94	32	Video Projection Unit	EA	1
95	32	Division 4 Video Sharing Integration	LS	1
96	33	Half Rack Cabinet	EA	3
97	33	Full Rack Cabinet	EA	3
98	36	Furnish 2070L Controller	EA	4
99	36	Furnish 336 Cabinet	EA	2
100	36	Furnish 332 Cabinet	EA	2
101	36	Furnish DC Isolator Card	EA	4
102	36	Furnish AC Isolator Card	EA	4
103	36	Furnish Detector Card	EA	8
104	36	Furnish Conflict Monitor	EA	4
105	36	Furnish Controller Tester	EA	1

Item No.	Spec Chap.	Description	Unit	Quantity
106	36	Furnish Signal Monitor Tester	EA	1
107	36	Furnish Load Switch	EA	4
108	36	Furnish Surge Protector	EA	12
109	36	Furnish Flasher Module	EA	2
110	36	Furnish Flash Transfer Relay	EA	6
111	36	Furnish Test Cabinet/Controller	EA	1
112	36	Furnish Drop Cable (6 Fiber)	LF	430
113	36	Furnish Communications Cable (12 Fiber)	LF	5,810
114	36	Furnish Communications Cable (24 Fiber)	LF	3,470
115	36	Furnish Communications Cable (36 Fiber)	LF	380
116	36	Furnish Communications Cable (48 Fiber)	LF	110
117	36	Furnish Communications Cable (60 Fiber)	LF	250
118	36	Furnish Communications Cable (96 Fiber)	LF	110
119	36	Furnish Communications Cable (144 Fiber)	LF	60
120	36	Furnish Fiber Optic Interconnect Center	EA	5
121	36	Furnish Splice Enclosure	EA	2
122	36	Furnish ST Splice Connector	EA	8
123	36	Furnish SC Splice Connector	EA	8
124	36	Furnish ST Jumpers	EA	8
125	36	Furnish SC Jumpers	EA	8
126	36	Furnish ST Pigtails	EA	8
127	36	Furnish SC Pigtails	EA	8
128	36	Furnish Fiber Optical Transceiver	EA	8
129	36	Furnish Video Optical Transmitter with Data	EA	2
130	36	Furnish Video Optical Receiver with Data	EA	2
131	36	Furnish Wireless Radio Transceiver	EA	2
132	36	Furnish Fiber Optic Restoration Kit	EA	1
133	36	Furnish Fiber Optic Power Meter	EA	1
134	36	Furnish Optical Light Generator	EA	1
135	36	Furnish Heat Shrink Tubing	EA	5
136	36	Furnish Heat Shrink Tubing Retrofit Kit	EA	5
137	36	Furnish CCTV Assembly	EA	1
138	36	Furnish CCTV Test Monitor	EA	1
139	36	Furnish Video CODEC Unit	EA	4
140	38	Training	LS	1

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SCALE 0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
QUANTITIES

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/24/09 DATE

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PROJECT REFERENCE NO.	SHEET NO.
U-5016	3C

SUMMARY OF WORK BY INTERSECTION

			Intersection				Cabinet Type					In Cabinet						
									6	7	8	1	1	4	32	5	38	39
No.	Sheet Number	SIN	Street 1	Street 2	Existing Cabinet Location	Proposed Cabinet Location	Existing 332 Base Mounted Cabinet	Existing 336S Pole Mounted Cabinet	Install 332 Base Mounted Cabinet	Install 336S Base Mounted Cabinet	Install 336S Pole Mounted Cabinet	Install New Fiber Optic Interconnect Center	Install New Large Interconnect Center	Modify Existing Splice Enclosure/ Interconnect Center	Install New Fiber Optic Transceiver	Install New Controller	Reconnect Railroad Preemption Equipment	Reconnect Pushbutton Preemption Equipment
1	89	04-0219	US 117/13 Bypass SB Ramp	Arrington Bridge	NE	NE			1			1			1	1		
2	22	04-0233	Grantham Street	George St	NE	NE	1					1			1			
3	24	04-0234	Ash St	George St	NW	NW			1			1			1	1		
4	25	04-0237	Chestnut St	George St	SE	SE			1			1			1	1		
5	26	04-0239	Elm St	George St	NW	NW	1					1			1			
6	37	04-0241	Ash St	James St	NW	NW	1					1			1			
7	37	04-0242	Ash St	John St	SW	SW			1			1			1	1		
8	38	04-0243	Ash St	William St	SW	SW	1					1			1			
9	39	04-0244	Ash St	Slocumb St	SW	SW	1					1			1			
10	40	04-0245	Ash St	Herman St	NW	NW	1					1			1			
11	41	04-0246	Ash St	Jackson St	NW	NW	1					1			1			
12	41	04-0247	Ash St	Audubon St	SW	SW	1					1			1			
13	42	04-0248	Ash St	Jefferson Ave	SE	SE					1	1			1	1		
14	43	04-0249	Ash St	Madison St	SE	SE	1					1			1			
15	43	04-0250	Ash St	Best St	NW	NW			1			1			1	1		
16	47	04-0251	Ash St	Berkeley Blvd (US 13)	NW	NW			1			1			1	1		
17	67	04-0252	Mulberry St	John St	SW	SW		1				1			1			
18	68	04-0253	Walnut St	John St	SE	SE		1				1			1			
19	72	04-0254	Chestnut St	John St	NE	NE		1				1			1			
20	27	04-0255	Elm St	John St	NW	NW		1				1			1			
21	101	04-0256	Vine St/Park Ave	William St	SW	SW	1					1			1			
22	101	04-0257	Beech St	William St	NW	NW		1				1			1			
23	102	04-0258	Holly St	William St	SE	SE		1				1			1			
24	112	04-0264	Beech st	Herman St	NE	NE		1				1			1			
25	118	04-0265	Royall Ave	Jefferson St	NE	NE			1			1			1	1		
26	74	04-0270	Ash St/Stephens Mill RD	Old Smithfield Rd	SE	SE			1			1			1	1		
27	103	04-0271	Freeman/Stronach	William St	NE	NE		1				1			1			
28	50	04-0272	Ash St	Greenwood School Entrance	NE	NE		1				1			1			
29	57	04-0275	US 70	Millers Chapel Rd	NW	NW	1					1			1			
30	114	04-0277	Royall Ave	Wayne Memorial Dr/Herman St	SE	SE			1			1			1	1	1	
31	5	04-0279	US 70	NC 581	SE	SE	1							1	1			
32	107	04-0280	Patetown	William St	NW	NW					1	1			1	1		
33	148	04-0281	Elm St	Berkeley Blvd (US 13)	NW	NW	1					1			1			
34	92	04-0290	US 117/13 Bypass	George St	SE	SE	1					1			1			
35	46	04-0359	Ash St	Spence Ave	NW	NW			1			1			1	1		
36	81	04-0360	Genoa Rd	US 117 Bypass	SE	SE	1					1			1			
37	140	04-0367	New Hope Rd	Berkeley Blvd (US 13)	SW	SW	1					1			1			
38	105	04-0371	US 70 WB Ramp/Neil St	William St (US117Bus/US117Alt/NC111)	SE	SE	1					1			1			
39	105	04-0372	US 70 EB Ramp/Neil St	William St (US117Bus/US117Alt/NC111)	NE	NE					1	1			1	1		
40	150	04-0373	Cashwell Dr	Berkeley Blvd (US 13)	SW	SW			1			1			1	1		
41	119	04-0395	US 70 WB Ramps /11th st/US 13S)	Wayne Memorial Dr	NE	NE			1			1			1	1		
42	85	04-0403	Old Mt. Olive Rd.	US 117 Bypass	SE	SE	1					1			1			
43	120	04-0405	Ace Hardware Entrance/ Memorial	Wayne Memorial Dr	SE	SE	1					1			1			
44	106	04-0414	Eleventh St	William St	NE	NE			1			1			1	1		
45	89	04-0417	US 117/13 Bypass	Arrington Bridge Rd	NE	NE					1	1			1	1		

THIS TABLE IS FOR INFORMATION ONLY AND DOES NOT REFLECT ACTUAL PAY ITEM QUANTITIES

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE: 0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM

SUMMARY OF WORK BY INTERSECTION

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE: 2/20/09

CADD Filenames

2/20/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5016	3D

SUMMARY OF WORK BY INTERSECTION

			Intersection				Cabinet Type					In Cabinet						
									6	7	8	1	1	4	32	5	38	39
No.	Sheet Number	SIN	Street 1	Street 2	Existing Cabinet Location	Proposed Cabinet Location	Existing 332 Base Mounted Cabinet	Existing 336S Pole Mounted Cabinet	Install 332 Base Mounted Cabinet	Install 336S Base Mounted Cabinet	Install 336S Pole Mounted Cabinet	Install New Fiber Optic Interconnect	Install New Large Interconnect Center	Modify Existing Splice Enclosure/ Interconnect Center	Install New Fiber Optic Transceiver	Install New Controller	Reconnect Railroad Preemption Equipment	Reconnect Pushbutton Preemption Equipment
46	119	04-0422	US 70 EB Ramps	Wayne Memorial Dr	SE	SE			1			1			1	1		
47	143	04-0423	New Hope Rd	Central Heights Rd	NE	NE			1			1			1	1		
48	120	04-0446	Lockhaven Dr	Wayne Memorial Dr	NE	NE			1			1			1	1		
49	153	04-0556	Royall Ave/Central Heights Rd	Berkeley Blvd (US 13)	SE	SE			1			1			1	1	1	
50	96	04-0557	Elm St	NC 581/US 117	NE	NE	1						1		1			
51	60	04-0588	Sheridan Forest	(NC 111) / Millers Chapel Rd	SE	SE			1			1			1	1		
52	84	04-0597	US 117 bypass	Neuse River Shopping Center	SE	SE			1			1			1	1		
53	129	04-0598	Royall Ave	Spence Ave	NE	NE			1			1			1	1	1	
54	63	04-0603	Dollard Rd/Spring Bank	(NC 111) / Millers Chapel Rd	SE	SE			1			1			1	1		
55	51	04-0605	Ash St	Oak Forest Rd	NE	NE			1				1		1	1		
56	121	04-0606	Country Day Rd	Wayne Memorial Dr	NE	NE			1			1			1	1		
57	165	04-0628	US 70 bypass	Oak Forest Rd	NE	NE	1					1			1			
58	147	04-0645	Cashwell Dr	Spence Ave	SW	SW	1					1			1			
59	151	04-0647	Langston Dr/Forest Drive	Berkeley Blvd (US 13)	SE	SE			1			1			1	1		
60	149	04-0658	Graves Dr	Berkeley Blvd (US 13)	NE	NE			1			1			1	1		
61	152	04-0659	US 70 EB Ramp	Berkeley Blvd (US 13)	SE	SE			1			1			1	1		
62	125	04-0663	New Hope Rd	Wayne Memorial Dr	SW	SW			1			1			1	1		
63	17	04-0743	US 70	Little River Shopping Center	NE	NE	1								1			
64	20	04-0756	US 70 EB/Grantham ST	(US 13 NB)/ US 117 Bypass NB off ramp	SE	SE	1					1			1			
65	168	04-0760	NC -111 (Patetown Rd)	Tommy's Rd	SE	SE			1							1		
66	152	04-0761	US 70 WB Ramp	Berkeley Blvd (US 13)	SE	SE			1			1			1	1		
67	12	04-0764	US 70	Perkins Mill Rd	NW	NW	1							1	1			
68	166	04-0768	NC 581	Rosewood Rd	SW	SW		1										
69	144	04-0769	Royall Ave	Sunburst Rd	NW	NW	1					1			1		1	
70	130	04-0771	Pinewood/North Plaza SC (Wal-Mart)	Spence Ave	SW	SW			1			1			1	1		
71	146	04-0777	Mall Rd	Spence Ave	NE	NE	1					1			1			
72	19	04-0845	US 70 Grantham St	Elizabeth St	SE	SE	1							1	1			
73	78	04-0850	Ash St (NC 581)	US 117 Bypass SB on Ramp	NE	NE	1						1		1			
74	102	04-0871	William St (US 117 Business)	Royall Ave	NW	NW			1			1			1	1	1	
75	78	04-0889	Ash St (NC 581)	US 117 Bypass NB off ramp	NW	NW	1							1	1			
76	170	04-0907	New Hope Rd	Mark Edwards Rd.	NE	NE			1							1		
77	161	04-0911	Berkeley Rd (US 13)	Tommy's Rd	NE	NE			1			1			1	1		
78	122	04-0967	Hospital Rd	Wayne Memorial Dr	NE	NE			1			1			1	1		
79	124	04-0968	Wayne Community College	Wayne Memorial Dr	SE	SE			1			1			1	1		
80	163	04-0991	Berkley Blvd	Hood Swamp Rd	NE	NE	1					1			1			
81	113	04-1013	Holly St	Herman St	NE	NE			1			1			1	1		
82	65	04-1054	NC 111	NC 581/ Bill Lane	SW	SW			1			1			1	1		
83	131	04-1058	North Park	Spence Ave (Cuyler Best)	SE	SE			1			1			1	1		
84	131	04-1068	US 70 WB Ramp	Spence Ave (Cuyler Best)	SE	SE			1			1			1	1		
85	130	04-1069	US 70 EB Ramp	Spence Ave (Cuyler Best)	SE	SE			1			1			1	1		
86	116	04-1081	Ninth St	Wayne Memorial Dr	NW	NW			1			1			1	1		
87	127	04-1097	Wayne Memorial Dr	Tommy's Rd	SW	SW	1							1	1			
88	15	04-1103	US 70	Clairidge Nursery Rd	NW	NW	1								1			
89	136	04-1170	Cuyler Best Rd	New Hope Rd	NW	NW			1				1		1	1		
90	153	04-1173	Berkeley Rd	Lowe's Shopping Center	SE	SE	1					1			1			
91	83	04-1255	US 117 Bypass	Downeast Travel Center	SW	SW			1			1			1	1		

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PLANS PREPARED IN THE OFFICE OF:
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Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NCDEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE: 0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
SUMMARY OF WORK BY INTERSECTION

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA — REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE — DATE: 2/20/09
CADD Filename:

2/20/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5016	3E

SUMMARY OF WORK BY INTERSECTION

			Intersection				Cabinet Type					In Cabinet						
									6	7	8	1	1	4	32	5	38	39
No.	Sheet Number	SIN	Street 1	Street 2	Existing Cabinet Location	Proposed Cabinet Location	Existing 332 Base Mounted Cabinet	Existing 336S Pole Mounted Cabinet	Install 332 Base Mounted Cabinet	Install 336S Base Mounted Cabinet	Install 336S Pole Mounted Cabinet	Install New Fiber Optic Interconnect	Install New Large Interconnect Center	Modify Existing Splice Enclosure/ Interconnect Center	Install New Fiber Optic Transceiver	Install New Controller	Reconnect Railroad Preemption Equipment	Reconnect Pushbutton Preemption Equipment
92	58	04-1264	Millers Chapel Road	Southeast Drive	SE	SE			1			1			1	1		
93	98	04-1278	US 117	US 117 ALT	NE	NE	1								1			
94	77	04-1279	Us 117/ NC 581	Stevens Mill Road	NE	NE	1						1		1			
95	18	04-1280	US 117 SB ramp	US 70	SE	SE	1							1	1			
96	19	04-1281	US 117 NB ramp	US 70	SE	SE	1							1	1			
97	172	04-1303	Old Mt. Olive Highway	Genoa Rd	SW	SW	1											
98	18	04-1308	US 70	Grantham St (Faith Free Will Baptist Church Driveway)	SE	SE	1								1			
99	4	04-1336	NC 581	Wal-Mart Driveway	SW	SW	1								1			
100	171	04-1347	Arrington Bridge Rd	Westbrook Rd	NE	NE	1											
101	169	04-1353	Country Day Rd	NC 111 (Patetown Rd)	SE	SE	1											
102	167	04-1354	US 117	Future US 70 Bypass WB Ramp	NW	NW	1											
103	167	04-1355	US 117	Future US 70 Bypass EB Ramp	NW	NW	1											
104	128	04-1356	Wayne Memorial Dr	Future US 70 Bypass EB Ramp	SE	SE	1								1			
105	68	CITY-01	Walnut St	Center St	SE	SE					1	1			1	1		
106	66	CITY-02	Mulberry St	Center St	NW	NW					1	1			1	1		
107	71	CITY-03	Chestnut St	Center St	NW	NW					1	1			1	1		
108	68	CITY-04	Walnut St	James St	NE	NE					1	1			1	1		
109	66	CITY-05	Mulberry St	James St	SE	SE					1	1			1	1		
110	100	CITY-06	Holly St	John St	SW	SW					1	1			1	1		
111	29	CITY-07	Elm St	Slocumb St	NW	NW					1		1		1	1		
112	31	CITY-08	Elm St	Audubon St	SE	SE					1	1			1	1		
113	32	CITY-09	Elm St	Andrews Ave	NW	NW					1	1			1	1		
114	33	CITY-10	Elm St	Best St	NE	NE					1	1			1	1		
115	34	CITY-11	Olivia Ln	Slocumb St	NW	NW					1	1			1	1		
116	36	CITY-12	Harris St/Bunche Dr	Slocumb St	NE	NE					1	1			1	1		
117	70	CITY-13	Slocumb St	Mulberry St	SE	SE					1	1			1	1		
118	73	CITY-14	Walnut St	Herman St	SE	SE				1		1			1	1		
119	73	CITY-15	Mulberry St	Herman St	SW	SW					1	1			1	1		
120	72	CITY-16	Chestnut St	William St	NE	NE					1	1			1	1		
121	67	CITY-17	Mulberry St	William St	SE	SE					1	1			1	1		
122	69	CITY-18	Walnut St	William St	NW	NW					1	1			1	1		
123	70	CITY-19	Walnut St	Slocumb St	NE	NE					1	1			1	1		
124	71	CITY-20	Chestnut St	James St	NW	NW					1	1			1	1		
125	135	PROP-01	New Hope Rd	Hare Rd														
				TOTAL	-	-	46	10	44	1	23	97	6	7	116	68	5	0

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PLANS PREPARED IN THE OFFICE OF:
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P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
SUMMARY OF WORK BY INTERSECTION

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K.W. SMITH
PREPARED BY:	D.A. SHINBARA	REVIEWED BY:	T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5016	3F

SUMMARY OF WORK BY INTERSECTION

Intersection		Power Status					Remote				Riser/Conduit						
		30	29	3	41	5	35	36	34	33	16	4	5	14	13	15	17
Street 1	Street 2	Install New Service	Modify Existing Service	Modify Foundation	Install Base Adapter	Install Terminal Splice Box	Install Yagi Antenna (8.5 dB)	Install Yagi Antenna (13 dB)	Install Radio Transceiver	Install Dial-Up Modem	Reuse Existing Riser and replace Weatherhead tubing	Install new Steel Riser with Weatherhead	Install New Steel Riser with Heatshrink Tubing	New Entrance	Reuse Existing Stubouts/ Entrances	Install Riser into pole-mounted cabinet	Install Rigid Metal Conduit into pole-mounted cabinet
US 117/13 Bypass SB Ramp	Arrington Bridge			1			1		1		1		1	1			
Grantham Street	George St										1						
Ash St	George St			1							1						
Chestnut St	George St			1							1						
Elm St	George St										1						
Ash St	James St										1						
Ash St	John St			1									1		1		
Ash St	William St										1						
Ash St	Slocumb St										1						
Ash St	Herman St										1						
Ash St	Jackson St										1						
Ash St	Audubon St										1						
Ash St	Jefferson Ave												1			1	
Ash St	Madison St												1	1			
Ash St	Best St			1							1						
Ash St	Berkeley Blvd (US 13)			1							1						
Mulberry St	John St																1
Walnut St	John St																1
Chestnut St	John St																1
Elm St	John St												1			1	
Vine St/Park Ave	William St										1						
Beech St	William St												1			1	
Holly St	William St												1			1	
Beech st	Herman St												1			1	
Royall Ave	Jefferson St			1							1						
Ash St/Stephens Mill RD	Old Smithfield Rd			1									1	1			
Freeman/Stronach	William St												1			1	
Ash St	Greenwood School Entrance												1			1	
US 70	Millers Chapel Rd										1						
Royall Ave	Wayne Memorial Dr/Herman St			1									1	1			
US 70	NC 581							1	1		1			1			
Patetown	William St												1			1	
Elm St	Berkeley Blvd (US 13)													1			
US 117/13 Bypass	George St										1						
Ash St	Spence Ave			1									2	1			
Genoa Rd	US 117 Bypass						1		1		2						
New Hope Rd	Berkeley Blvd (US 13)										1						
US 70 WB Ramp/Neil St	William St (US117Bus/US117Alt/NC111)										1						
US 70 EB Ramp/Neil St	William St (US117Bus/US117Alt/NC111)												2			1	
Cashwell Dr	Berkeley Blvd (US 13)		1	1							1						
US 70 WB Ramps /11th st/US 13S)	Wayne Memorial Dr			1							1						
Old Mt. Olive Rd.	US 117 Bypass										1						
Ace Hardware Entrance/ Memorial	Wayne Memorial Dr										1						
Eleventh St	William St			1							1						
US 117/13 Bypass	Arrington Bridge Rd												1			1	

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750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM

SUMMARY OF WORK BY INTERSECTION

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/26/09 DATE

CADD Filename:

2/26/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5016	3G

SUMMARY OF WORK BY INTERSECTION

			Intersection		Power Status					Remote				Riser/Conduit						
					30	29	3	41	5	35	36	34	33	16	4	5	14	13	15	17
No.	Sheet Number	SIN	Street 1	Street 2	Install New Service	Modify Existing Service	Modify Foundation	Install Base Adapter	Install Terminal Splice Box	Install Yagi Antenna (8.5 dB)	Install Yagi Antenna (13 dB)	Install Radio Transceiver	Install Dial-Up Modem	Reuse Existing Riser and replace Weatherhead tubing	Install new Steel Riser with Weatherhead	Install New Steel Riser with Heatshrink Tubing	New Entrance	Reuse Existing Stubouts/ Entrances	Install Riser into pole-mounted cabinet	Install Rigid Metal Conduit into pole-mounted cabinet
46	119	04-0422	US 70 EB Ramps	Wayne Memorial Dr			1							1						
47	143	04-0423	New Hope Rd	Central Heights Rd			1							1						
48	120	04-0446	Lockhaven Dr	Wayne Memorial Dr			1							1						
49	153	04-0556	Royall Ave/Central Heights Rd	Berkeley Blvd (US 13)			1	1								1		1		
50	96	04-0557	Elm St	NC 581/US 117													1			
51	60	04-0588	Sheridan Forest	(NC 111) / Millers Chapel Rd			1							1						
52	84	04-0597	US 117 bypass	Neuse River Shopping Center			1							1						
53	129	04-0598	Royall Ave	Spence Ave			1									1	1			
54	63	04-0603	Dollard Rd/Spring Bank	(NC 111) / Millers Chapel Rd			1							1			1			
55	51	04-0605	Ash St	Oak Forest Rd			1							1						
56	121	04-0606	Country Day Rd	Wayne Memorial Dr			1							1						
57	165	04-0628	US 70 bypass	Oak Forest Rd		1										1	1			
58	147	04-0645	Cashwell Dr	Spence Ave										1						
59	151	04-0647	Langston Dr/Forest Drive	Berkeley Blvd (US 13)			1							1						
60	149	04-0658	Graves Dr	Berkeley Blvd (US 13)			1							1						
61	152	04-0659	US 70 EB Ramp	Berkeley Blvd (US 13)			1							1						
62	125	04-0663	New Hope Rd	Wayne Memorial Dr			1							1						
63	17	04-0743	US 70	Little River Shopping Center																
64	20	04-0756	US 70 EB/Grantham ST	(US 13 NB)/ US 117 Bypass NB off ramp										1						
65	168	04-0760	NC-111 (Patetown Rd)	Tommy's Rd			1				1	1		1						
66	152	04-0761	US 70 WB Ramp	Berkeley Blvd (US 13)			1							1						
67	12	04-0764	US 70	Perkins Mill Rd												1	1			
68	166	04-0768	NC 581	Rosewood Rd							1	1				1			1	
69	144	04-0769	Royall Ave	Sunburst Rd													1			
70	130	04-0771	Pinewood/North Plaza SC (Wal-Mart)	Spence Ave	1		1									1	1			
71	146	04-0777	Mall Rd	Spence Ave										1						
72	19	04-0845	US 70 Grantham St	Elizabeth St														1		
73	78	04-0850	Ash St (NC 581)	US 117 Bypass SB on Ramp													1			
74	102	04-0871	William St (US 117 Business)	Royall Ave			1							1						
75	78	04-0889	Ash St (NC 581)	US 117 Bypass NB off ramp																
76	170	04-0907	New Hope Rd	Mark Edwards Rd.			1						1							
77	161	04-0911	Berkeley Rd (US 13)	Tommy's Rd			1							1						
78	122	04-0967	Hospital Rd	Wayne Memorial Dr		1	1									1	1			
79	124	04-0968	Wayne Community College	Wayne Memorial Dr		1	1									1	1			
80	163	04-0991	Berkley Blvd	Hood Swamp Rd													1			
81	113	04-1013	Holly St	Herman St			1									1		1		
82	65	04-1054	NC 111	NC 581/ Bill Lane			1							1						
83	131	04-1058	North Park	Spence Ave (Cuyler Best)			1									1	1			
84	131	04-1068	US 70 WB Ramp	Spence Ave (Cuyler Best)			1									1	1			
85	130	04-1069	US 70 EB Ramp	Spence Ave (Cuyler Best)			1									2	1			
86	116	04-1081	Ninth St	Wayne Memorial Dr		1	1							1						
87	127	04-1097	Wayne Memorial Dr	Tommy's Rd										1						
88	15	04-1103	US 70	Clairidge Nursery Rd																
89	136	04-1170	Cuyler Best Rd	New Hope Rd			1							1						
90	153	04-1173	Berkeley Rd	Lowe's Shopping Center										1						
91	83	04-1255	US 117 Bypass	Downeast Travel Center			1							1						

THIS TABLE IS FOR INFORMATION ONLY
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ITEM QUANTITIES

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM

SUMMARY OF WORK BY INTERSECTION

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/26/09 DATE

CADD Filename:

2/26/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5016	3H

SUMMARY OF WORK BY INTERSECTION

			Intersection		Power Status					Remote				Riser/Conduit						
					30	29	3	41	5	35	36	34	33	16	4	5	14	13	15	17
No.	Sheet Number	SIN	Street 1	Street 2	Install New Service	Modify Existing Service	Modify Foundation	Install Base Adapter	Install Terminal Splice Box	Install Yagi Antenna (8.5 dB)	Install Yagi Antenna (13 dB)	Install Radio Transceiver	Install Dial-Up Modem	Reuse Existing Riser and replace Weatherhead tubing	Install new Steel Riser with Weatherhead	Install New Steel Riser with Heatshrink Tubing	New Entrance	Reuse Existing Stubouts/ Entrances	Install Riser into pole-mounted cabinet	Install Rigid Metal Conduit into pole-mounted cabinet
92	58	04-1264	Millers Chapel Road	Southeast Drive			1							1						
93	98	04-1278	US 117	US 117 ALT																
94	77	04-1279	Us 117/ NC 581	Stevens Mill Road													1			
95	18	04-1280	US 117 SB ramp	US 70																
96	19	04-1281	US 117 NB ramp	US 70																
97	172	04-1303	Old Mt. Olive Highway	Genoa Rd						1		1		1						
98	18	04-1308	US 70	Grantham St (Faith Free Will Baptist																
99	4	04-1336	NC 581	Wal-Mart Driveway																
100	171	04-1347	Arrington Bridge Rd	Westbrook Rd						1		1		1						
101	169	04-1353	Country Day Rd	NC 111 (Patetown Rd)							1	1	1	1						
102	167	04-1354	US 117	Future US 70 Bypass WB Ramp																
103	167	04-1355	US 117	Future US 70 Bypass EB Ramp									1							
104	128	04-1356	Wayne Memorial Dr	Future US 70 Bypass EB Ramp																
105	68	CITY-01	Walnut St	Center St	1															1
106	66	CITY-02	Mulberry St	Center St	1															1
107	71	CITY-03	Chestnut St	Center St	1											2			1	1
108	68	CITY-04	Walnut St	James St	1															1
109	66	CITY-05	Mulberry St	James St	1											1			1	
110	100	CITY-06	Holly St	John St	1											1			1	
111	29	CITY-07	Elm St	Slocumb St	1											1			1	
112	31	CITY-08	Elm St	Audubon St	1											1			1	
113	32	CITY-09	Elm St	Andrews Ave	1											1			1	
114	33	CITY-10	Elm St	Best St	1											1			1	
115	34	CITY-11	Olivia Ln	Slocumb St	1											1			1	
116	36	CITY-12	Harris St/Bunche Dr	Slocumb St	1											1			1	
117	70	CITY-13	Slocumb St	Mulberry St	1											1			1	
118	73	CITY-14	Walnut St	Herman St										1						
119	73	CITY-15	Mulberry St	Herman St	1											1			1	
120	72	CITY-16	Chestnut St	William St	1											1			1	
121	67	CITY-17	Mulberry St	William St	1											1			1	
122	69	CITY-18	Walnut St	William St	1															1
123	70	CITY-19	Walnut St	Slocumb St	1											1			1	
124	71	CITY-20	Chestnut St	James St	1											2			1	1
125	135	PROP-01	New Hope Rd	Hare Rd																
				TOTAL	20	5	44	1	0	4	4	8	3	57	0	48	22	4	26	9

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SCALE 0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM

SUMMARY OF WORK BY INTERSECTION

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 REVIEWED BY: K.W. SMITH

PREPARED BY: D.A. SHINBARA REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/26/09 DATE

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2/26/2009
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SUMMARY OF WORK BY CCTV

No.	Sheet Number	Location	Proposed Location	9 Install New CCTV Assembly	10 Install New CCTV Camera Metal Pole and Foundation	14 Install New CCTV Camera Wood Pole	30 Install New Electrical Service	1 Install New Interconnect Center	31 Install New Video Transceiver
1	152	US 70 and Berkeley Blvd.	S	1		1	1	1	1
2	57	US 70 and NC 111/Millers Chapel Rd.	S	1		1	1	1	1
3	47	Berkeley Blvd. and Ash St.	E	1		1	1	1	1
4	105	US 70 and William St.	SE	1		1	1	1	1
5	119	US 70 and Wayne Memorial Dr.	W	1		1	1	1	1
6	46	Spence Ave. and Ash St.	N	1		1	1	1	1
7	130	US 70 and Spence Ave.	SW	1		1	1	1	1
8	19	US 70/Grantham St. and US 117	S	1	1		1	1	1
9	122	Wayne Memorial Dr. and Hospital Rd.	NW	1		1	1	1	1
10	96	Elm St./Canal St. and US 117	NW	1	1		1	1	1
11	40	Herman St. and Ash St.	NE	1	1		1	1	1
12	153	Berkeley Blvd. and Central Heights Rd./Royall Ave.	W	1		1	1	1	1
		TOTAL	-	**12**	**3**	**9**	**12**	**12**	**12**

SUMMARY OF WORK BY FACILITY

No.	Sheet Number	Name	Address	Owner	Cable Name	Install New Building Entrance	Terminate Cables in New Interconnect Center	Coil 100' of Cable
1	66	Goldsboro City Hall	200 North Center Street	City	22E	1	1	
2	111	Goldsboro Public Works	1601 Clingman Street	City	11G	1	1	
3	71	Goldsboro Police Department	204 South Center Street	City	7J			1
4	-	Division 4 Office	509 Ward Boulevard, Wilson NC	NCDOT	-			
					TOTAL	**2**	**2**	**1**

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Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
NC DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM
SUMMARY OF WORK BY
CCTV/FACILITY

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K.W. SMITH
PREPARED BY: D.A. SHINBARA	REVIEWED BY: T.F. BURCHETT

REVISIONS	INIT.	DATE

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030472 KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

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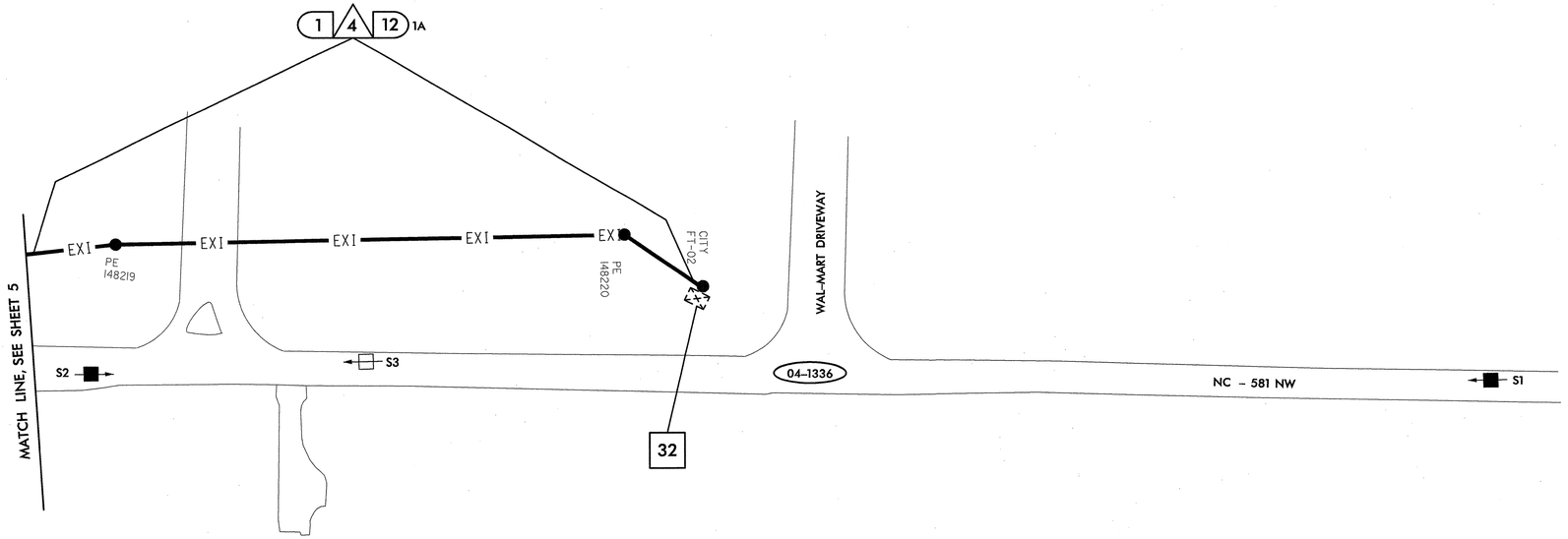
PROJECT REFERENCE NO.	SHEET NO.
U-5016	4



SEE SIGNAL PLAN 04-1336 FOR EXISTING SYSTEM DETECTORS S1 AND S2 DETAILS. SEE SIGNAL PLAN 04-0279 FOR SYSTEM DETECTOR S3 DETAILS. INTERSECTION 04-0279 IS LOCATED ON CABLE ROUTING SHEET 5. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- (1) INSTALL SMFO CABLE
- (2) INSTALL FIBER OPTIC DROP CABLE
- (3) INSTALL TRACER WIRE
- (4) REUSE EXISTING SMFO CABLE
- (5) INSTALL PLENUM RATED SMFO CABLE
- (6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ⟨1⟩ INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ⟨2⟩ INSTALL UNDERGROUND SPLICE ENCLOSURE
- ⟨3⟩ INSTALL AERIAL SPLICE ENCLOSURE
- ⟨4⟩ MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ⟨5⟩ INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
- [15] REMOVE EXISTING WOOD POLE
- [16] INSTALL AERIAL GUY ASSEMBLY
- [17] INSTALL STANDARD GUY ASSEMBLY
- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- [21] REMOVE EXISTING COMMUNICATIONS CABLE
- [22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- [23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
- [24] LASH CABLE(S) TO NEW MESSENGER CABLE
- [25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- [26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
- [36] INSTALL YAGI ANTENNA (13dB)
- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

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Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames

2/20/2009
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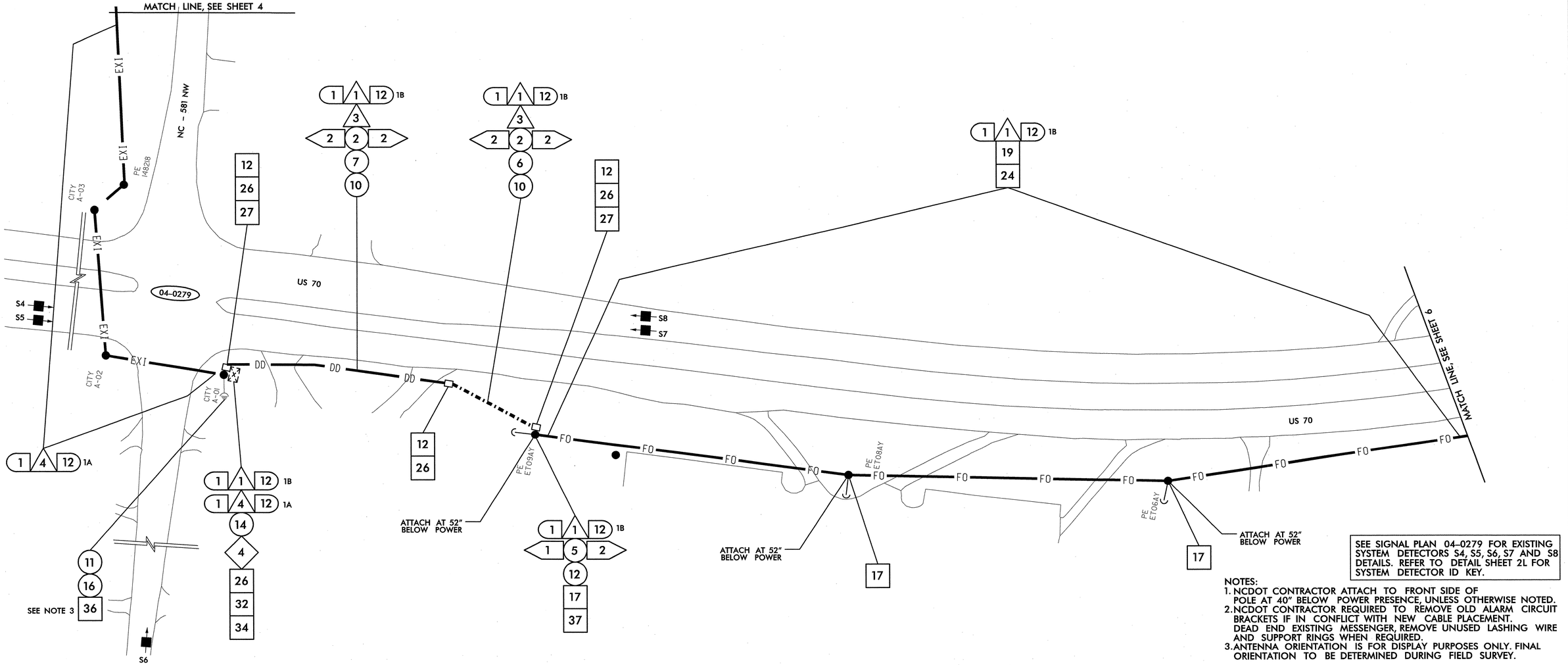
PROJECT REFERENCE NO.	SHEET NO.
U-5016	5



SEE SIGNAL PLAN 04-0279 FOR EXISTING SYSTEM DETECTORS S4, S5, S6, S7 AND S8 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. ANTENNA ORIENTATION IS FOR DISPLAY PURPOSES ONLY. FINAL ORIENTATION TO BE DETERMINED DURING FIELD SURVEY.

- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
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- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ◁1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ◁2 INSTALL UNDERGROUND SPLICE ENCLOSURE
- ◁3 INSTALL AERIAL SPLICE ENCLOSURE
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- ◁5 INSTALL TERMINAL SPLICE BOX
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- [41] INSTALL BASE ADAPTER

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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

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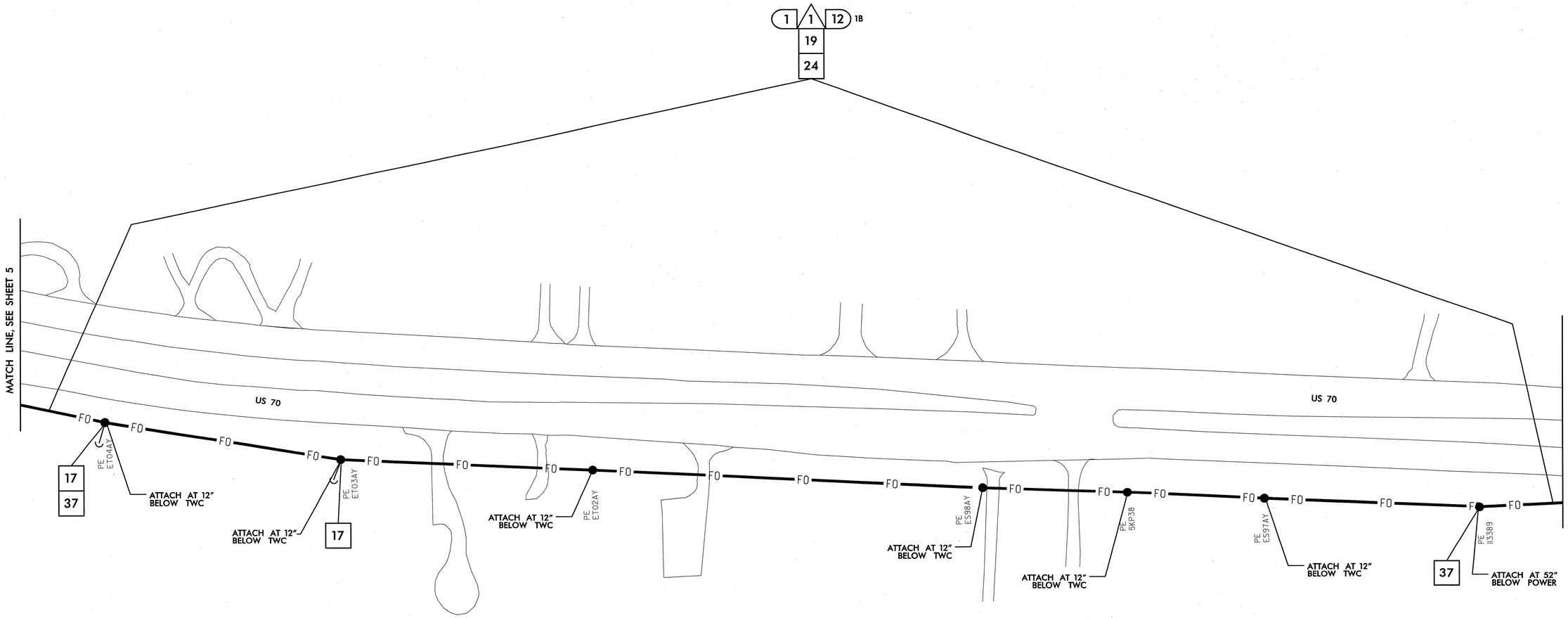
PROJECT REFERENCE NO.	SHEET NO.
U-5016	6



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1. INSTALL SMFO CABLE
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3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
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7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
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12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

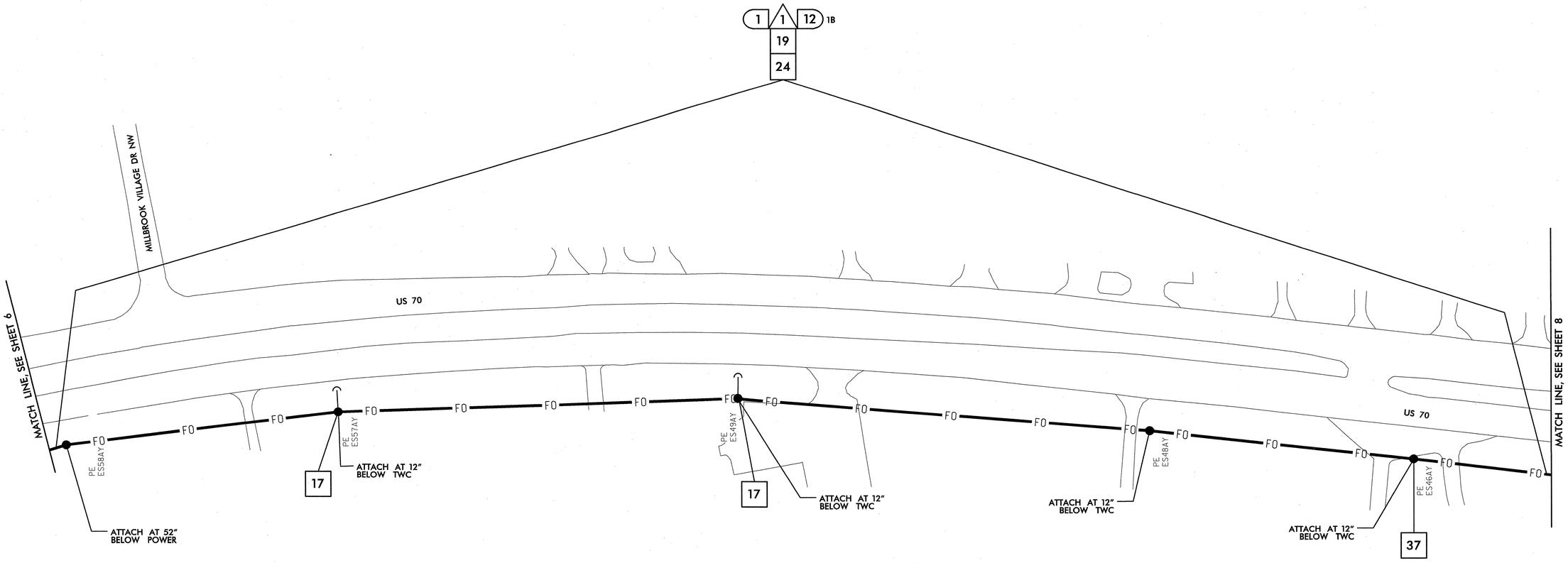
REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
K:\rd_traf_Trs\OIT\46016_goldsboro_signal_system\plans\cht_006.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	7



NOTES:
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- (A1) INSTALL SMFO CABLE
- (A2) INSTALL FIBER OPTIC DROP CABLE
- (A3) INSTALL TRACER WIRE
- (A4) REUSE EXISTING SMFO CABLE
- (A5) INSTALL PLENUM RATED SMFO CABLE
- (A6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
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- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- (A1) INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- (A2) INSTALL UNDERGROUND SPLICE ENCLOSURE
- (A3) INSTALL AERIAL SPLICE ENCLOSURE
- (A4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- (A5) INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
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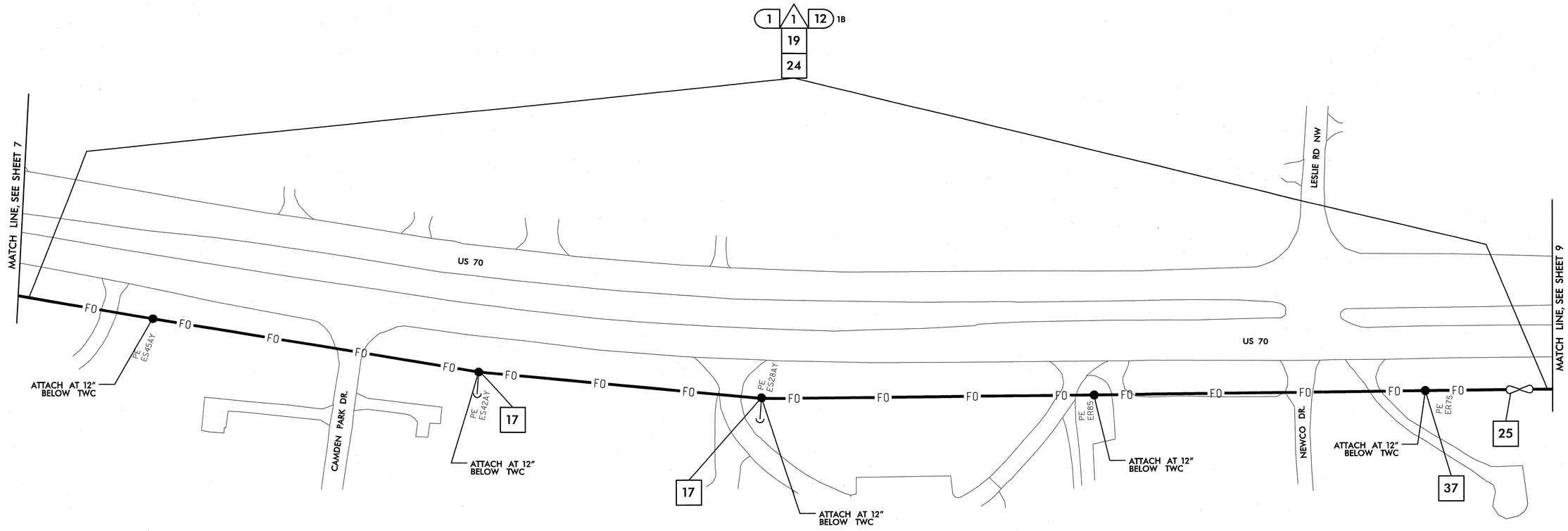
PROJECT REFERENCE NO.	SHEET NO.
U-5016	8



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PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
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Traffic Engineering and Safety Systems Branch
Engineer of Traffic Engineering and Safety Systems
THE STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
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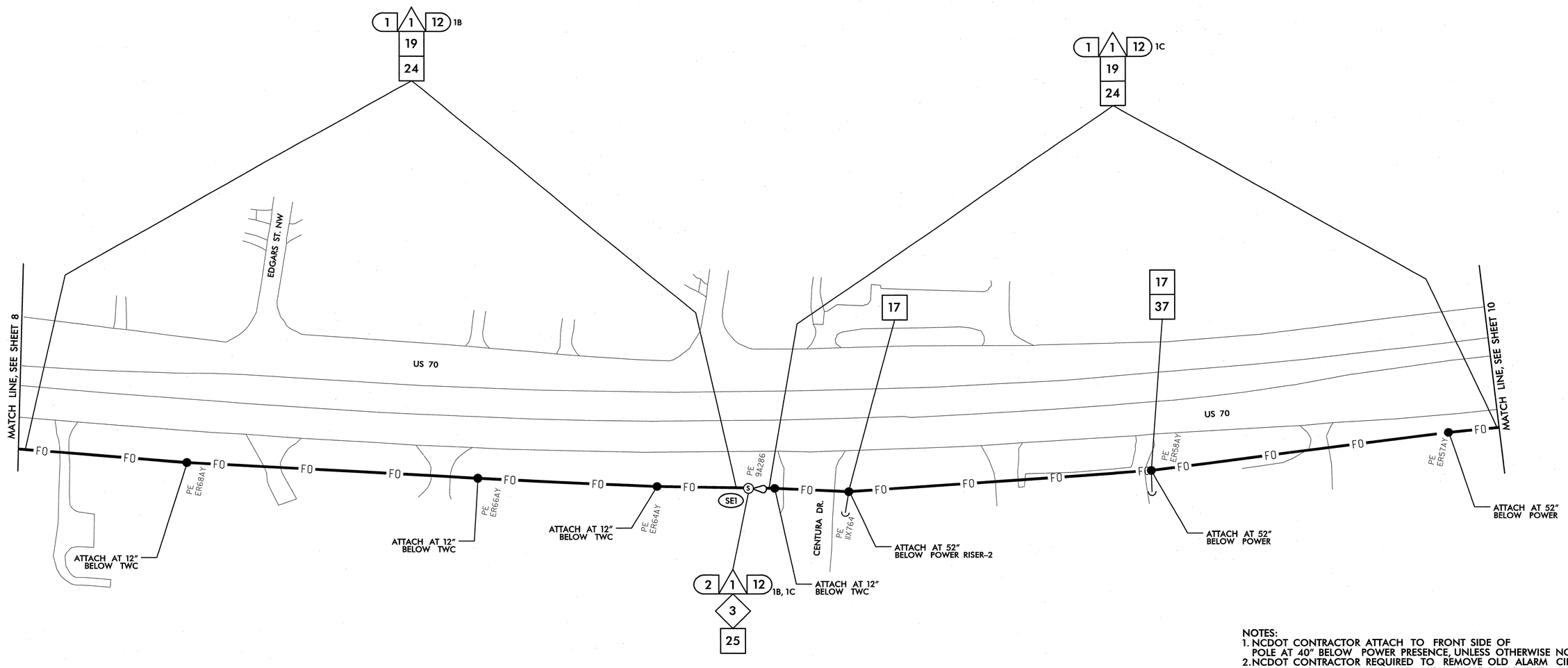
PROJECT REFERENCE NO.	SHEET NO.
U-5016	9



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PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
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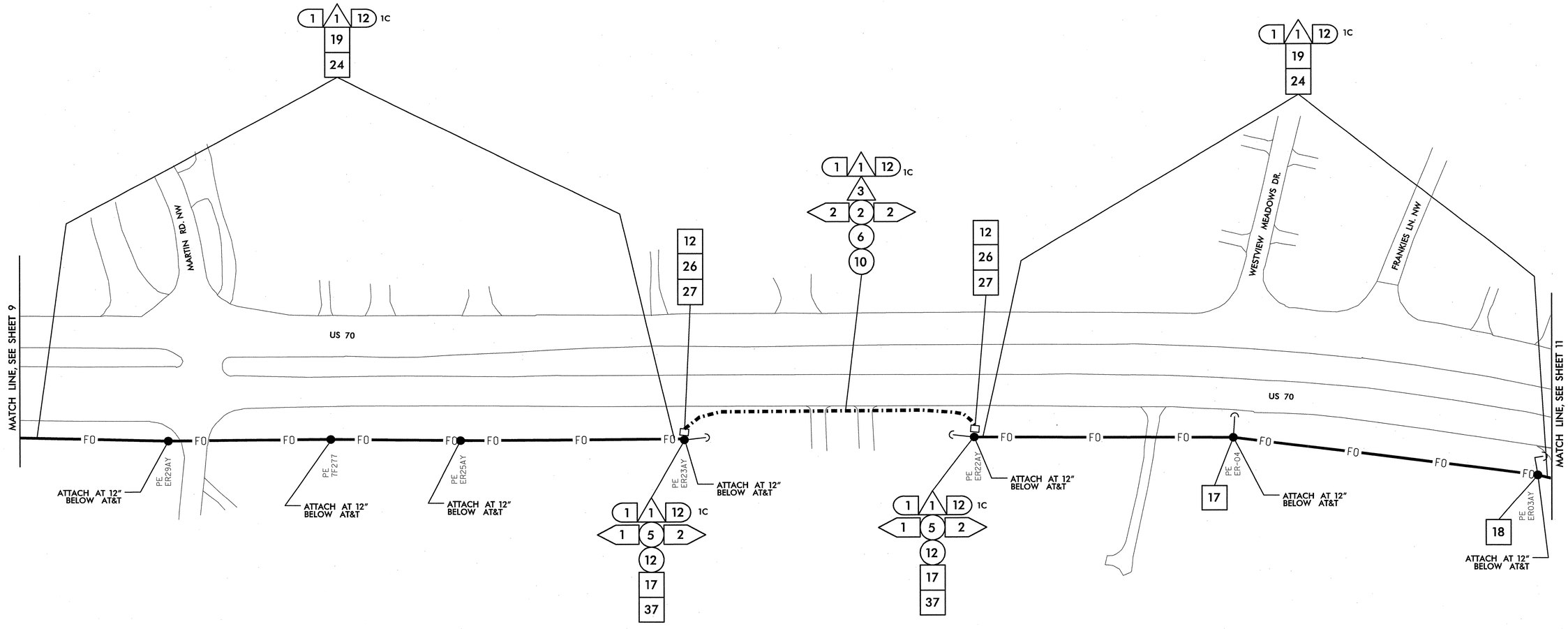
PROJECT REFERENCE NO.	SHEET NO.
U-5016	10



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NCDOT DIVISION OF HIGHWAYS
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
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REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/24/09

CADD Filenames

2/20/2009
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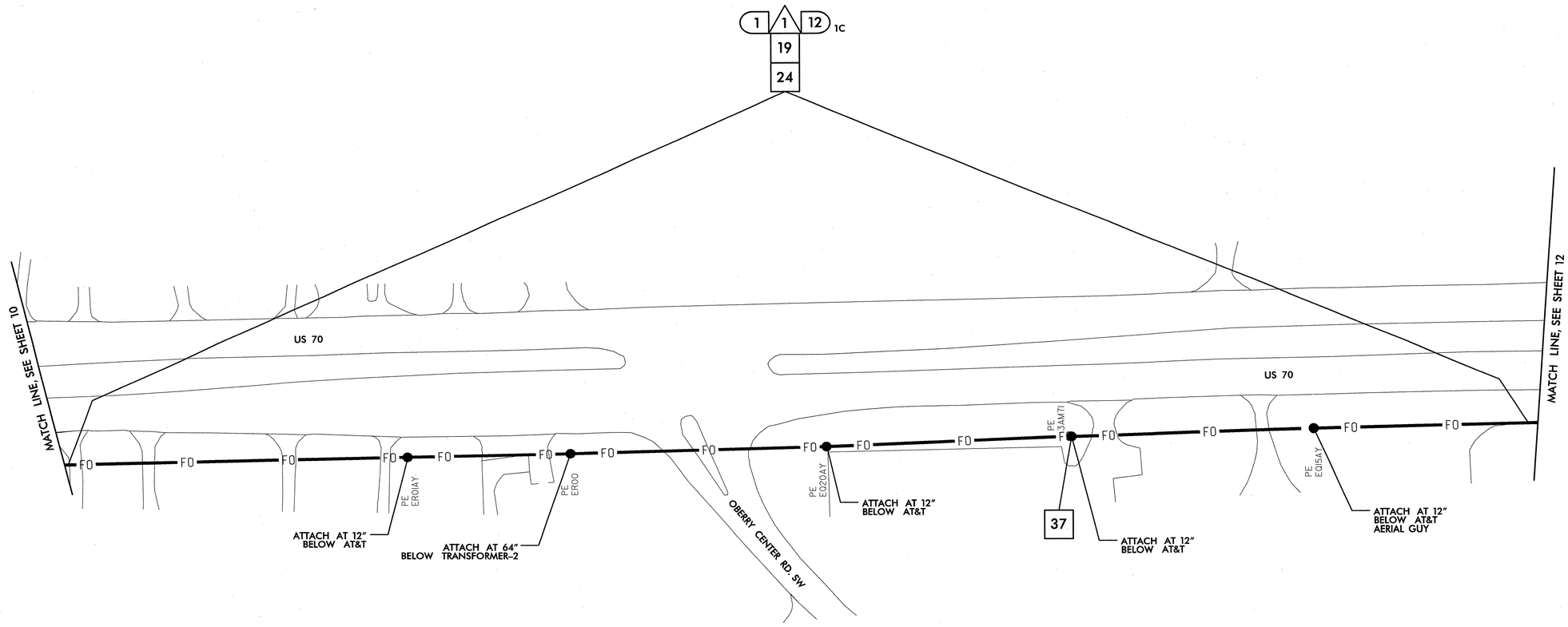
PROJECT REFERENCE NO.	SHEET NO.
U-5016	11



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2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1	INSTALL SMFO CABLE
2	INSTALL FIBER OPTIC DROP CABLE
3	INSTALL TRACER WIRE
4	REUSE EXISTING SMFO CABLE
5	INSTALL PLENUM RATED SMFO CABLE
6	INSTALL LOOP LEAD-IN CABLE
(1)	INSTALL PVC CONDUIT
(2)	INSTALL POLYETHYLENE CONDUIT
(3)	INSTALL RIGID, GALVANIZED STEEL CONDUIT
(4)	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
(5)	INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
(6)	TRENCH CONDUIT
(7)	DIRECTIONAL DRILL CONDUIT
(8)	BORE AND JACK CONDUIT
(9)	INSTALL CABLE(S) IN EXISTING CONDUIT
(10)	INSTALL CABLE(S) IN NEW CONDUIT
(11)	INSTALL CABLE(S) IN EXISTING RISER
(12)	INSTALL CABLE(S) IN NEW RISER
(13)	INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
(14)	INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
(15)	INSTALL NEW RISER INTO POLE MOUNTED CABINET
(16)	REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
(17)	INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
◇1	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
◇2	INSTALL UNDERGROUND SPLICE ENCLOSURE
◇3	INSTALL AERIAL SPLICE ENCLOSURE
◇4	MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
◇5	INSTALL TERMINAL SPLICE BOX
[1]	INSTALL CABINET FOUNDATION
[2]	REMOVE EXISTING CABINET FOUNDATION
[3]	MODIFY EXISTING CABINET FOUNDATION
[4]	REMOVE EXISTING CONTROLLER AND CABINET
[5]	INSTALL NEW CONTROLLER
[6]	INSTALL NEW 332 BASE MOUNTED CABINET
[7]	INSTALL NEW 336S BASE MOUNTED CABINET
[8]	INSTALL NEW 336S POLE MOUNTED CABINET
[9]	INSTALL CCTV CAMERA ASSEMBLY
[10]	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11]	INSTALL JUNCTION BOX
[12]	INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13]	REMOVE EXISTING JUNCTION BOX
[14]	INSTALL WOOD POLE
[15]	REMOVE EXISTING WOOD POLE
[16]	INSTALL AERIAL GUY ASSEMBLY
[17]	INSTALL STANDARD GUY ASSEMBLY
[18]	INSTALL SIDEWALK GUY ASSEMBLY
[19]	INSTALL MESSENGER CABLE
[20]	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21]	REMOVE EXISTING COMMUNICATIONS CABLE
[22]	LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
[23]	LASH CABLE(S) TO EXISTING MESSENGER CABLE
[24]	LASH CABLE(S) TO NEW MESSENGER CABLE
[25]	INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26]	STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27]	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28]	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
[29]	MODIFY EXISTING ELECTRICAL SERVICE
[30]	INSTALL NEW ELECTRICAL SERVICE
[31]	INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
[32]	INSTALL FIBER OPTIC TRANSCEIVER
[33]	INSTALL DIAL-UP MODEM
[34]	INSTALL RADIO TRANSCEIVER
[35]	INSTALL YAGI ANTENNA (8.5dB)
[36]	INSTALL YAGI ANTENNA (13dB)
[37]	BOND MESSENGER CABLE TO POLE GROUND
[38]	RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39]	RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40]	INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41]	INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Mobility & Safety Division
750 Greenfield Pkwy, Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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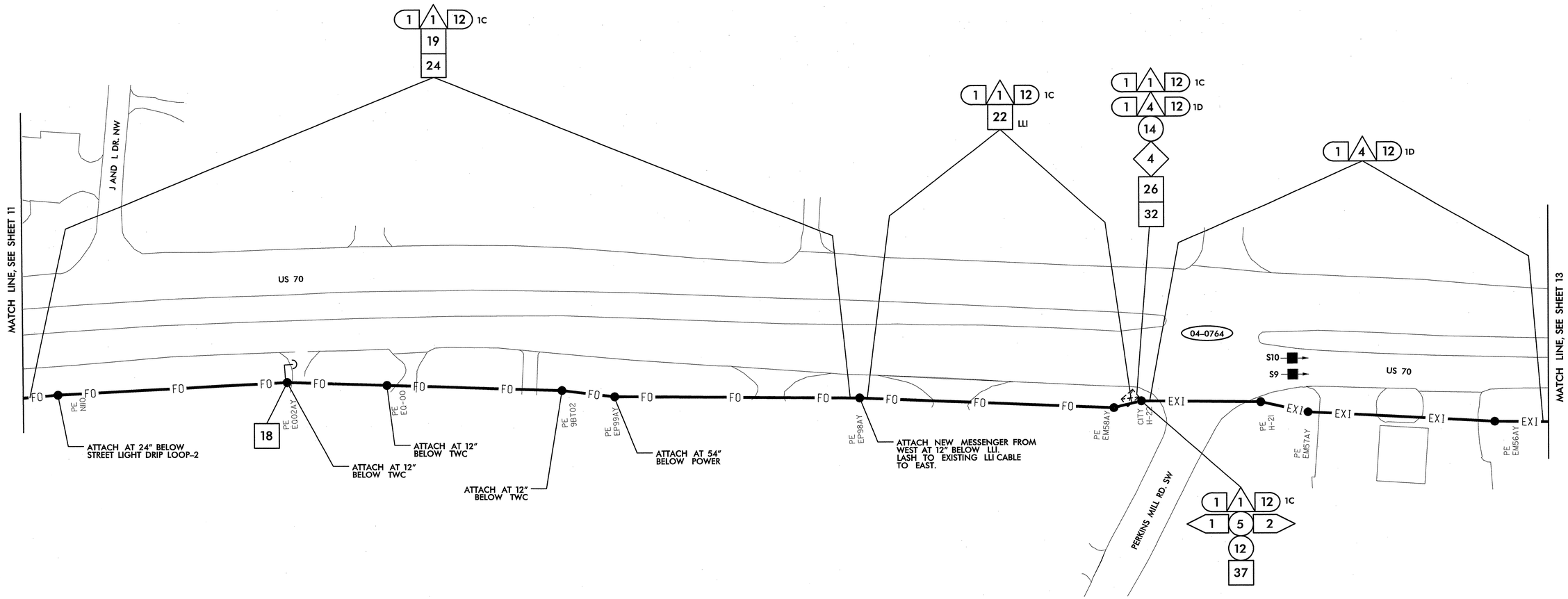
PROJECT REFERENCE NO.	SHEET NO.
U-5016	12



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SEE SIGNAL PLAN 04-0764 FOR EXISTING SYSTEM DETECTORS S9 AND S10 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ⟨1⟩ INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ⟨2⟩ INSTALL UNDERGROUND SPLICE ENCLOSURE
- ⟨3⟩ INSTALL AERIAL SPLICE ENCLOSURE
- ⟨4⟩ MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ⟨5⟩ INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
- [15] REMOVE EXISTING WOOD POLE
- [16] INSTALL AERIAL GUY ASSEMBLY
- [17] INSTALL STANDARD GUY ASSEMBLY
- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
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- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
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- [29] MODIFY EXISTING ELECTRICAL SERVICE
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- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames

2/20/2009
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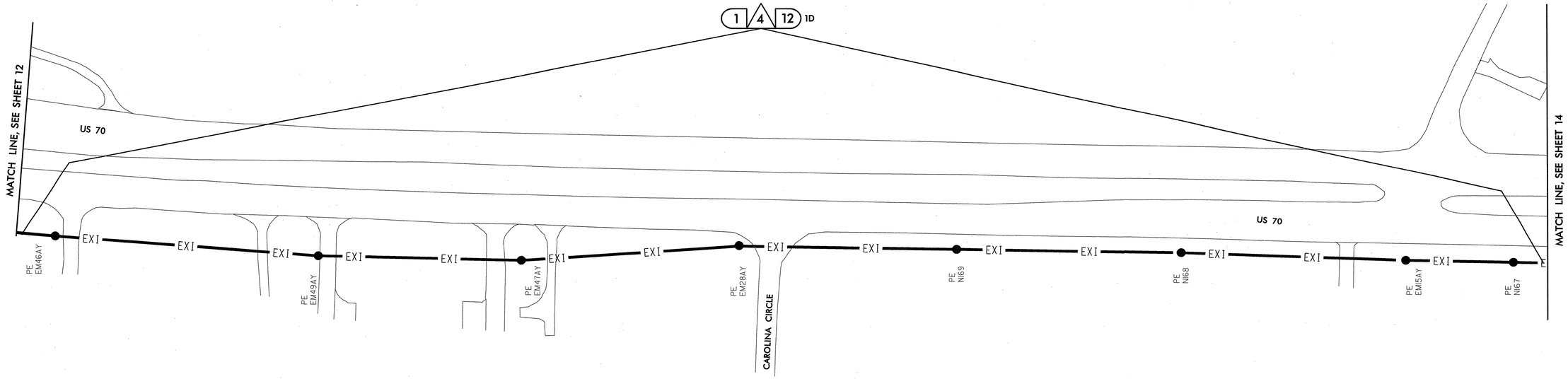
PROJECT REFERENCE NO.	SHEET NO.
U-5016	13



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1. INSTALL PVC CONDUIT
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1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
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5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
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8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
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34. INSTALL RADIO TRANSCEIVER
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39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh NC. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames

2/20/2009
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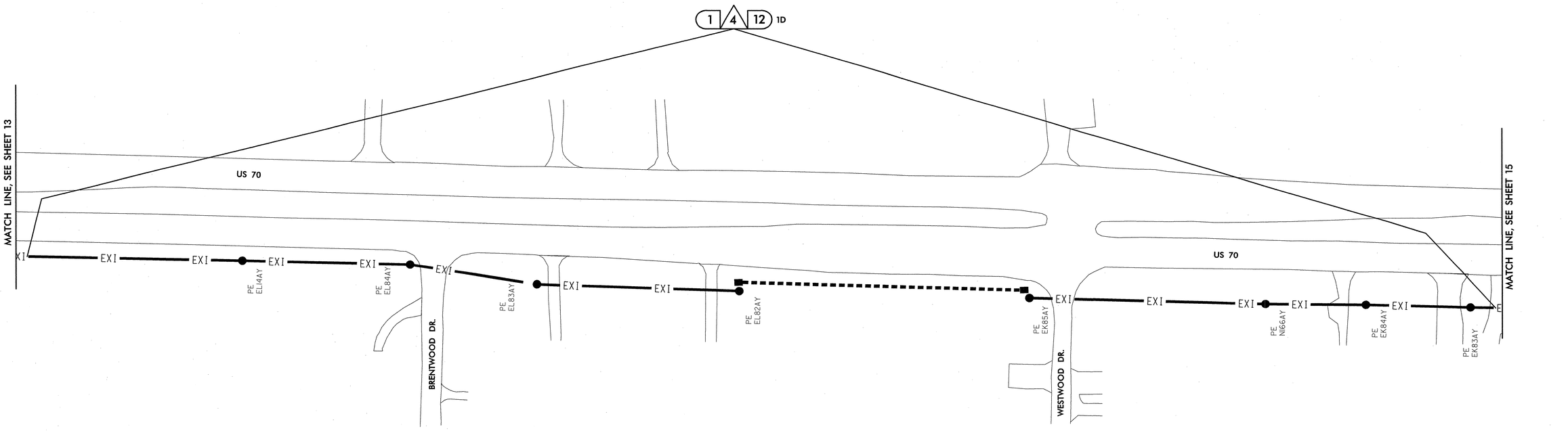
PROJECT REFERENCE NO.	SHEET NO.
U-5016	14



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Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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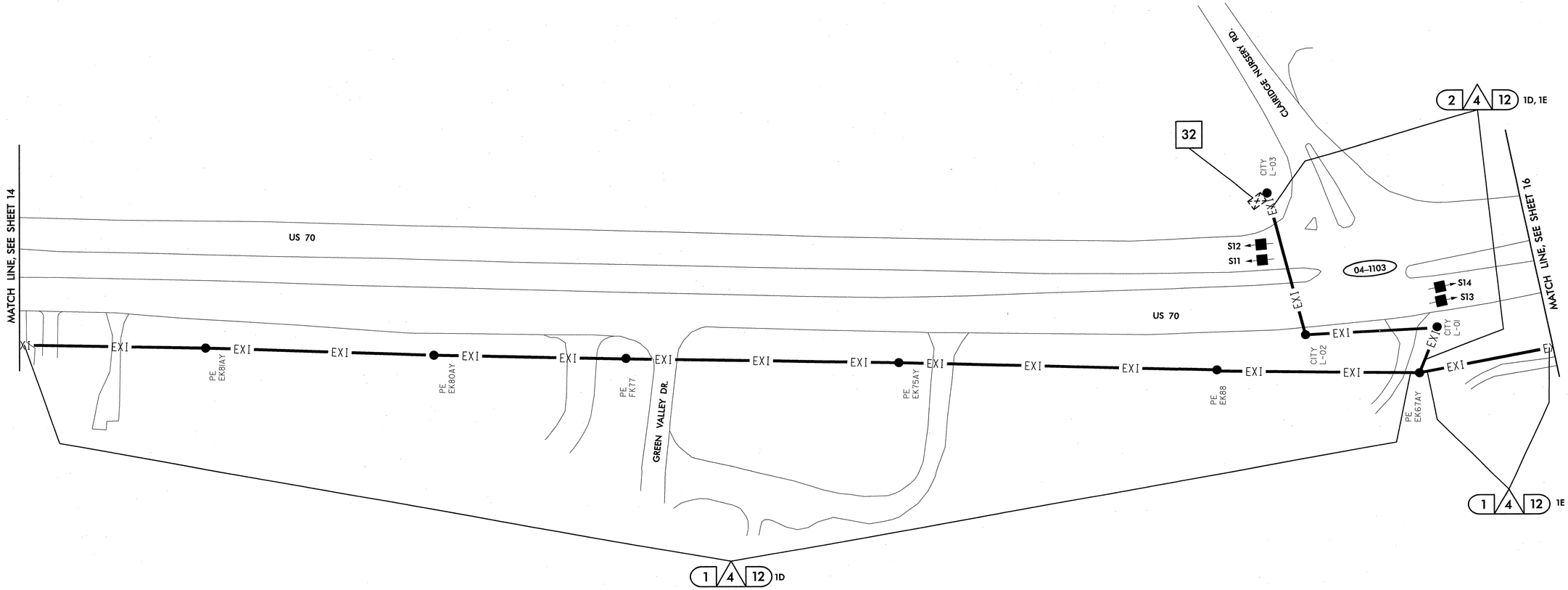
PROJECT REFERENCE NO.	SHEET NO.
U-5016	15



SEE SIGNAL PLAN 04–1103 FOR EXISTING SYSTEM DETECTORS S11, S12, S13 AND S14 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
- [15] REMOVE EXISTING WOOD POLE
- [16] INSTALL AERIAL GUY ASSEMBLY
- [17] INSTALL STANDARD GUY ASSEMBLY
- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- [21] REMOVE EXISTING COMMUNICATIONS CABLE
- [22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- [23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
- [24] LASH CABLE(S) TO NEW MESSENGER CABLE
- [25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- [26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
- [36] INSTALL YAGI ANTENNA (13dB)
- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

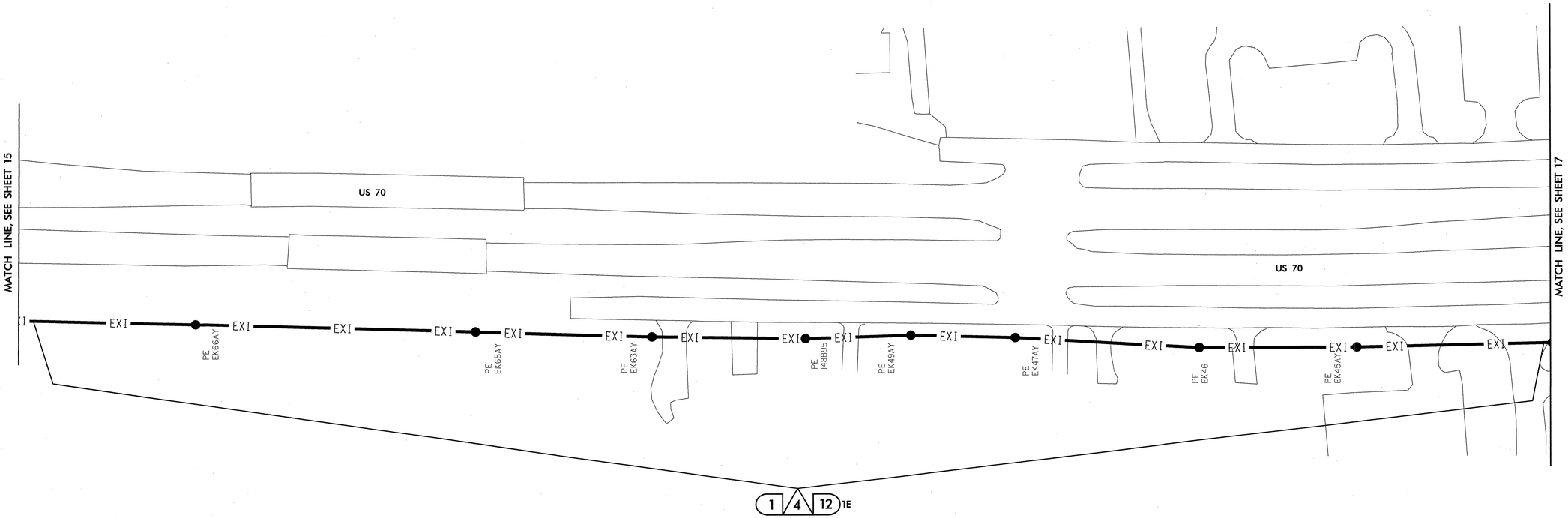
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
k:\raldata\traffic\projects\U5016 goldsboro signal system\plans\sht_015.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	16



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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P.O. Box 33068
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(919) 677-2000

Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
Department of Transportation
State of North Carolina
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

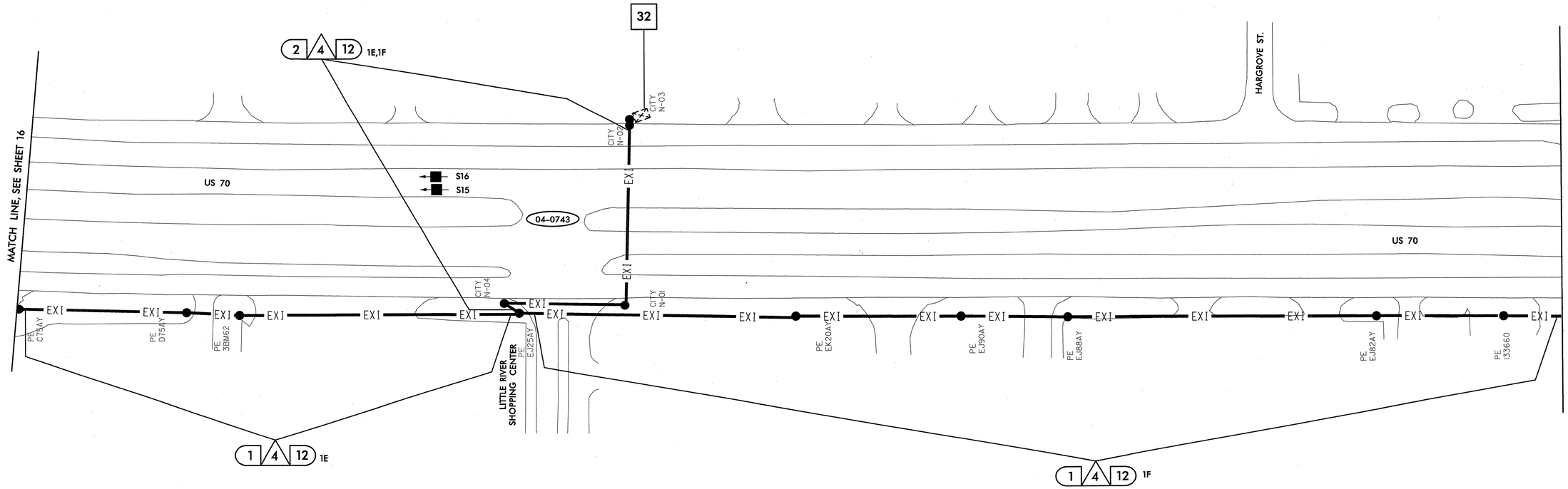
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
K:\rdi_tpb_ts\OIT\46016_goldsboro_signal system\plans\sht_016.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	17



SEE SIGNAL PLAN 04-0743 FOR EXISTING SYSTEM DETECTORS S15 AND S16 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- (1) INSTALL SMFO CABLE
- (2) INSTALL FIBER OPTIC DROP CABLE
- (3) INSTALL TRACER WIRE
- (4) REUSE EXISTING SMFO CABLE
- (5) INSTALL PLENUM RATED SMFO CABLE
- (6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- <1> INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- <2> INSTALL UNDERGROUND SPLICE ENCLOSURE
- <3> INSTALL AERIAL SPLICE ENCLOSURE
- <4> MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- <5> INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
- [15] REMOVE EXISTING WOOD POLE
- [16] INSTALL AERIAL GUY ASSEMBLY
- [17] INSTALL STANDARD GUY ASSEMBLY
- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- [21] REMOVE EXISTING COMMUNICATIONS CABLE
- [22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- [23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
- [24] LASH CABLE(S) TO NEW MESSENGER CABLE
- [25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- [26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
- [36] INSTALL YAGI ANTENNA (13dB)
- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames

2/20/2009
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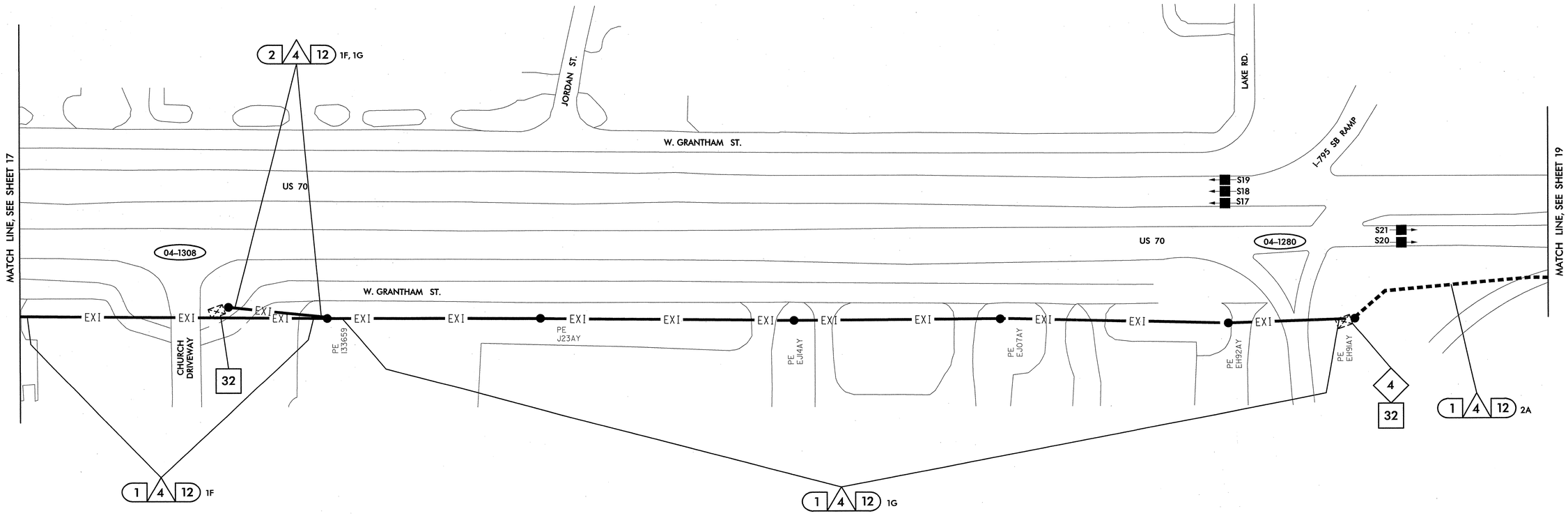
PROJECT REFERENCE NO.	SHEET NO.
U-5016	18



SEE SIGNAL PLAN 04-1280 FOR EXISTING SYSTEM DETECTORS S17, S18, S19, S20 AND S21 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- (1) INSTALL SMFO CABLE
- (2) INSTALL FIBER OPTIC DROP CABLE
- (3) INSTALL TRACER WIRE
- (4) REUSE EXISTING SMFO CABLE
- (5) INSTALL PLENUM RATED SMFO CABLE
- (6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
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- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- <1> INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- <2> INSTALL UNDERGROUND SPLICE ENCLOSURE
- <3> INSTALL AERIAL SPLICE ENCLOSURE
- <4> MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- <5> INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
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- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
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- [21] REMOVE EXISTING COMMUNICATIONS CABLE
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- [25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- [26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
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- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

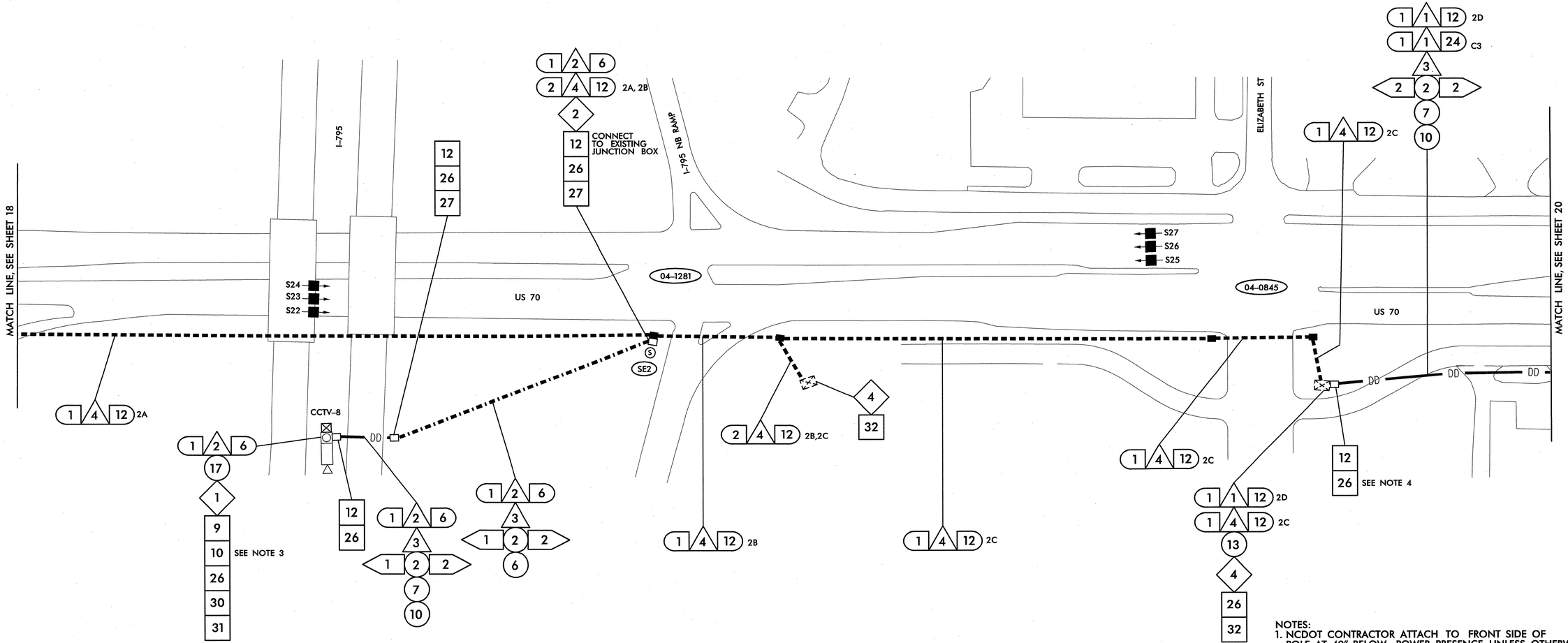
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
K:\Civil_Trad\Oil\49016 goldsboro signal system\plans\sht 018.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	19



SEE SIGNAL PLAN 04-1281 FOR EXISTING SYSTEM DETECTORS S22, S23 AND S24 DETAILS. SEE SIGNAL PLAN 04-0845 FOR EXISTING SYSTEM DETECTORS S25, S26 AND S27 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
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2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. OBTAIN APPROVAL FROM ENGINEER FOR CCTV CAMERA POLE LOCATION BEFORE INSTALLATION.
4. COIL 100' OF CITY CABLE. CAP AND SEAL CITY CABLE.

1 INSTALL SMFO CABLE
2 INSTALL FIBER OPTIC DROP CABLE
3 INSTALL TRACER WIRE
4 REUSE EXISTING SMFO CABLE
5 INSTALL PLENUM RATED SMFO CABLE
6 INSTALL LOOP LEAD-IN CABLE

1 INSTALL PVC CONDUIT
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14 INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
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4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
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1 INSTALL CABINET FOUNDATION
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4 REMOVE EXISTING CONTROLLER AND CABINET
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6 INSTALL NEW 332 BASE MOUNTED CABINET
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33 INSTALL DIAL-UP MODEM
34 INSTALL RADIO TRANSCEIVER
35 INSTALL YAGI ANTENNA (8.5dB)
36 INSTALL YAGI ANTENNA (13dB)
37 BOND MESSENGER CABLE TO POLE GROUND
38 RECONNECT RAILROAD PREEMPTION EQUIPMENT
39 RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40 INSTALL PRE-FORMED CABINET FOUNDATION PAD
41 INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

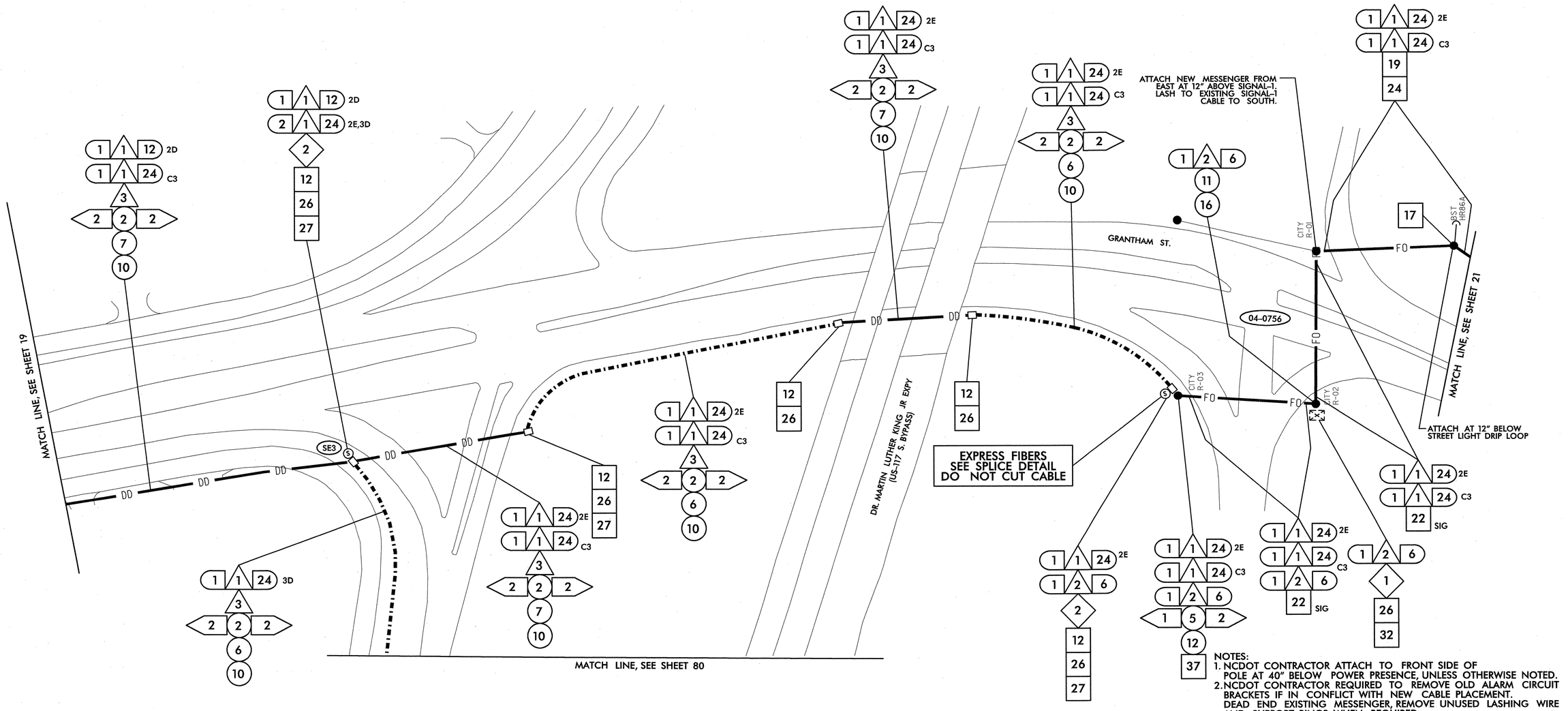
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
K:\raf_Tpo_Tso\DI746016 goldsboro signal system\plans\sht_019.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	20



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1	INSTALL SMFO CABLE
2	INSTALL FIBER OPTIC DROP CABLE
3	INSTALL TRACER WIRE
4	REUSE EXISTING SMFO CABLE
5	INSTALL PLENUM RATED SMFO CABLE
6	INSTALL LOOP LEAD-IN CABLE
1	INSTALL PVC CONDUIT
2	INSTALL POLYETHYLENE CONDUIT
3	INSTALL RIGID, GALVANIZED STEEL CONDUIT
4	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5	INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6	TRENCH CONDUIT
7	DIRECTIONAL DRILL CONDUIT
8	BORE AND JACK CONDUIT
9	INSTALL CABLE(S) IN EXISTING CONDUIT
10	INSTALL CABLE(S) IN NEW CONDUIT
11	INSTALL CABLE(S) IN EXISTING RISER
12	INSTALL CABLE(S) IN NEW RISER
13	INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14	INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15	INSTALL NEW RISER INTO POLE MOUNTED CABINET
16	REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17	INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
1	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2	INSTALL UNDERGROUND SPLICE ENCLOSURE
3	INSTALL AERIAL SPLICE ENCLOSURE
4	MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5	INSTALL TERMINAL SPLICE BOX
1	INSTALL CABINET FOUNDATION
2	REMOVE EXISTING CABINET FOUNDATION
3	MODIFY EXISTING CABINET FOUNDATION
4	REMOVE EXISTING CONTROLLER AND CABINET
5	INSTALL NEW CONTROLLER
6	INSTALL NEW 332 BASE MOUNTED CABINET
7	INSTALL NEW 336S BASE MOUNTED CABINET
8	INSTALL NEW 336S POLE MOUNTED CABINET
9	INSTALL CCTV CAMERA ASSEMBLY
10	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11	INSTALL JUNCTION BOX
12	INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13	REMOVE EXISTING JUNCTION BOX
14	INSTALL WOOD POLE
15	REMOVE EXISTING WOOD POLE
16	INSTALL AERIAL GUY ASSEMBLY
17	INSTALL STANDARD GUY ASSEMBLY
18	INSTALL SIDEWALK GUY ASSEMBLY
19	INSTALL MESSENGER CABLE
20	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
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22	LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23	LASH CABLE(S) TO EXISTING MESSENGER CABLE
24	LASH CABLE(S) TO NEW MESSENGER CABLE
25	INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26	STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29	MODIFY EXISTING ELECTRICAL SERVICE
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Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
NC DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

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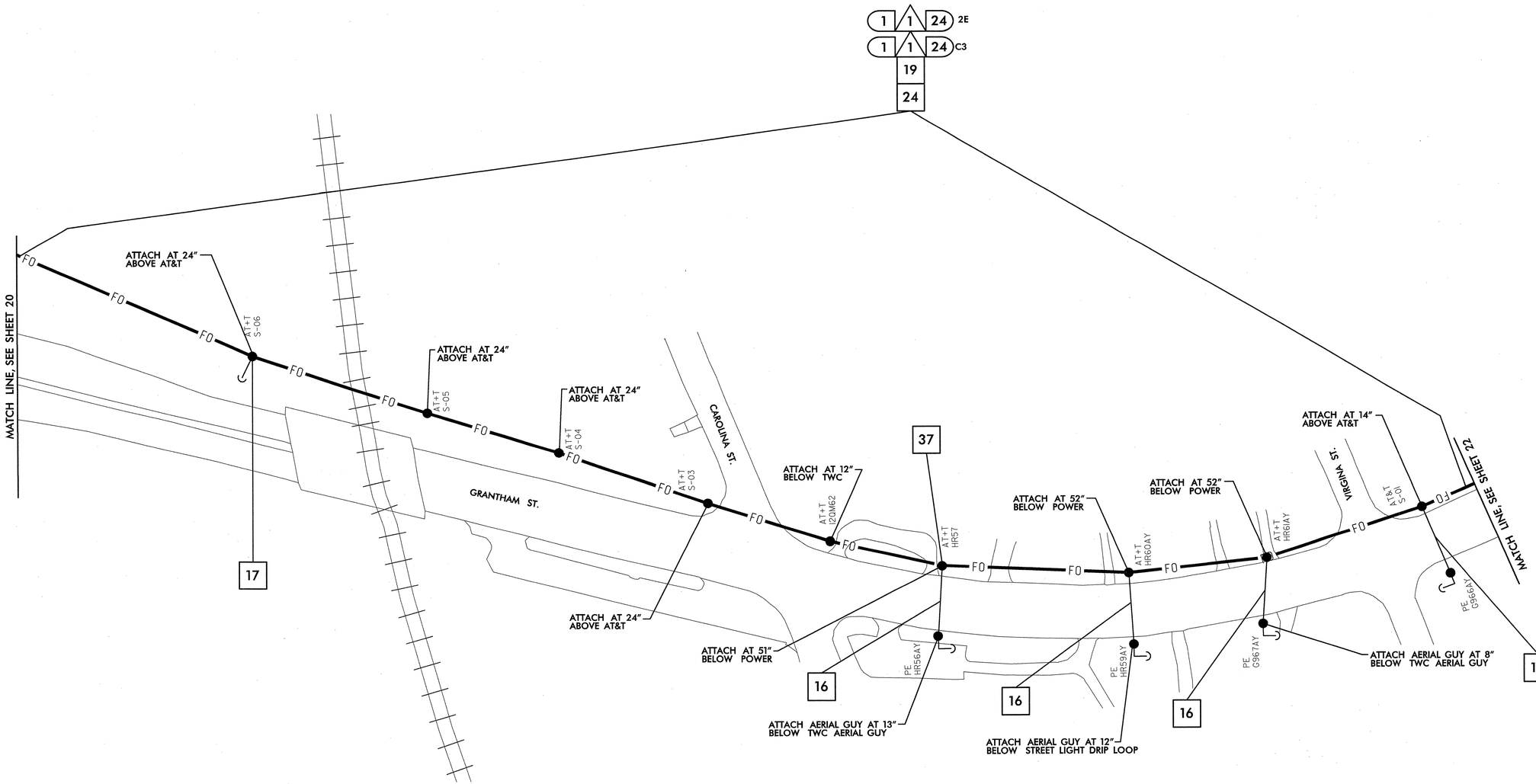
PROJECT REFERENCE NO.	SHEET NO.
U-5016	21



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PLANS PREPARED IN THE OFFICE OF:
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P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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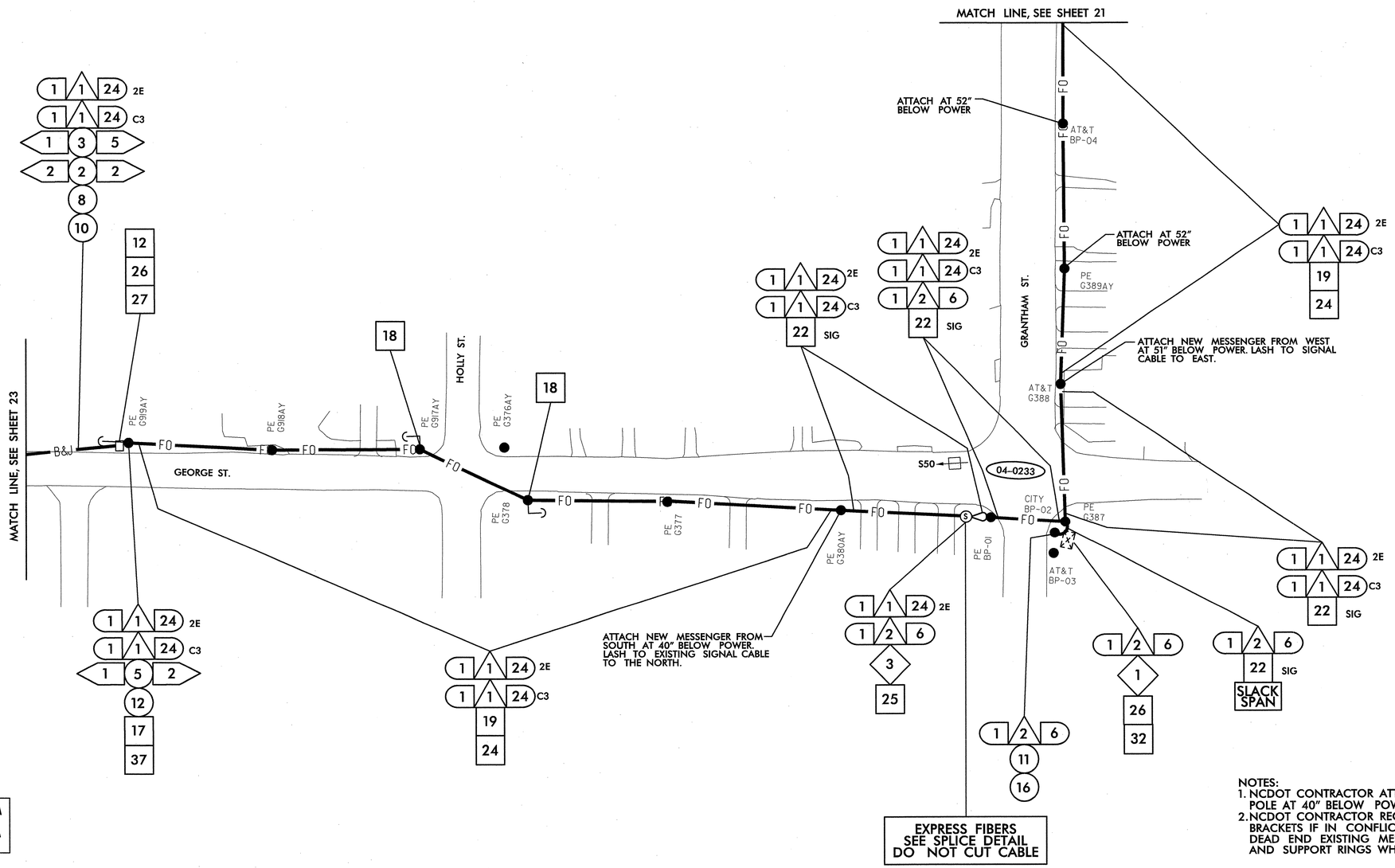
PROJECT REFERENCE NO.	SHEET NO.
U-5016	22



SEE SIGNAL PLAN 04-0233 FOR SYSTEM DETECTOR S50 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

EXPRESS FIBERS SEE SPLICE DETAIL DO NOT CUT CABLE

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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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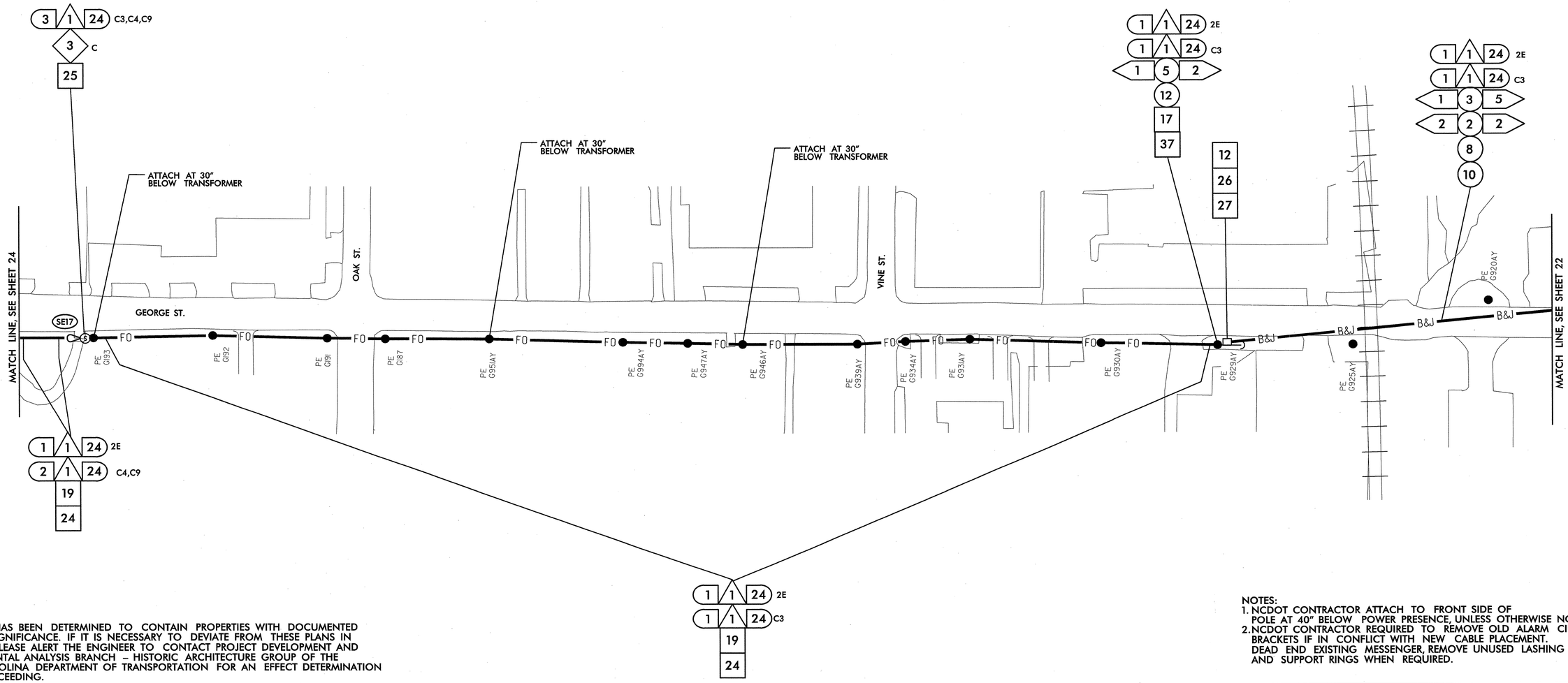
PROJECT REFERENCE NO.	SHEET NO.
U-5016	23



THIS AREA HAS BEEN DETERMINED TO CONTAIN PROPERTIES WITH DOCUMENTED HISTORIC SIGNIFICANCE. IF IT IS NECESSARY TO DEVIATE FROM THESE PLANS IN THIS AREA, PLEASE ALERT THE ENGINEER TO CONTACT PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH – HISTORIC ARCHITECTURE GROUP OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR AN EFFECT DETERMINATION BEFORE PROCEEDING.

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DIVISION 4 — WAYNE COUNTY

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NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
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CADD Filenames:

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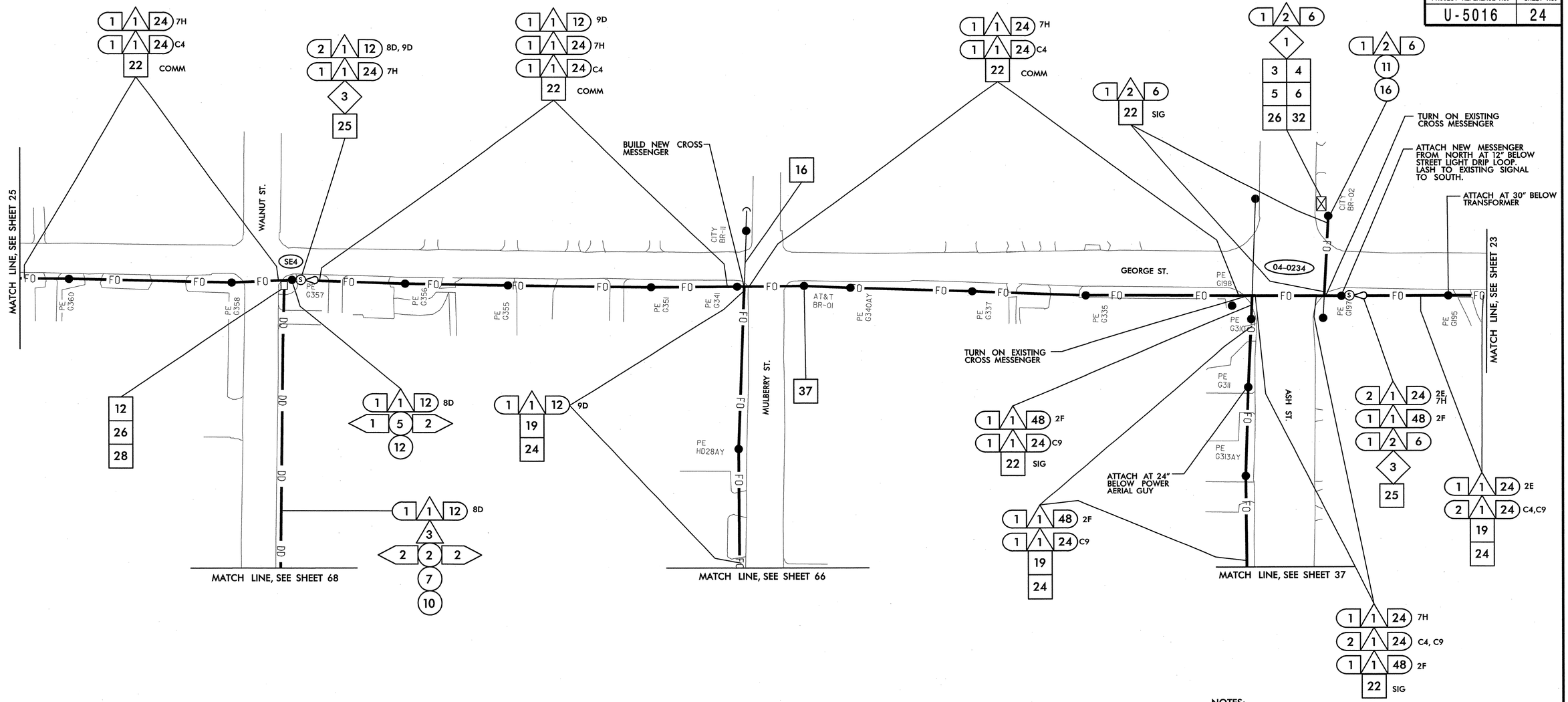
PROJECT REFERENCE NO.	SHEET NO.
U-5016	24



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2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
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6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
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14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

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2. REMOVE EXISTING CABINET FOUNDATION

3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
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34. INSTALL RADIO TRANSCEIVER
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36. INSTALL YAGI ANTENNA (13dB)
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39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SCALE 0 50

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
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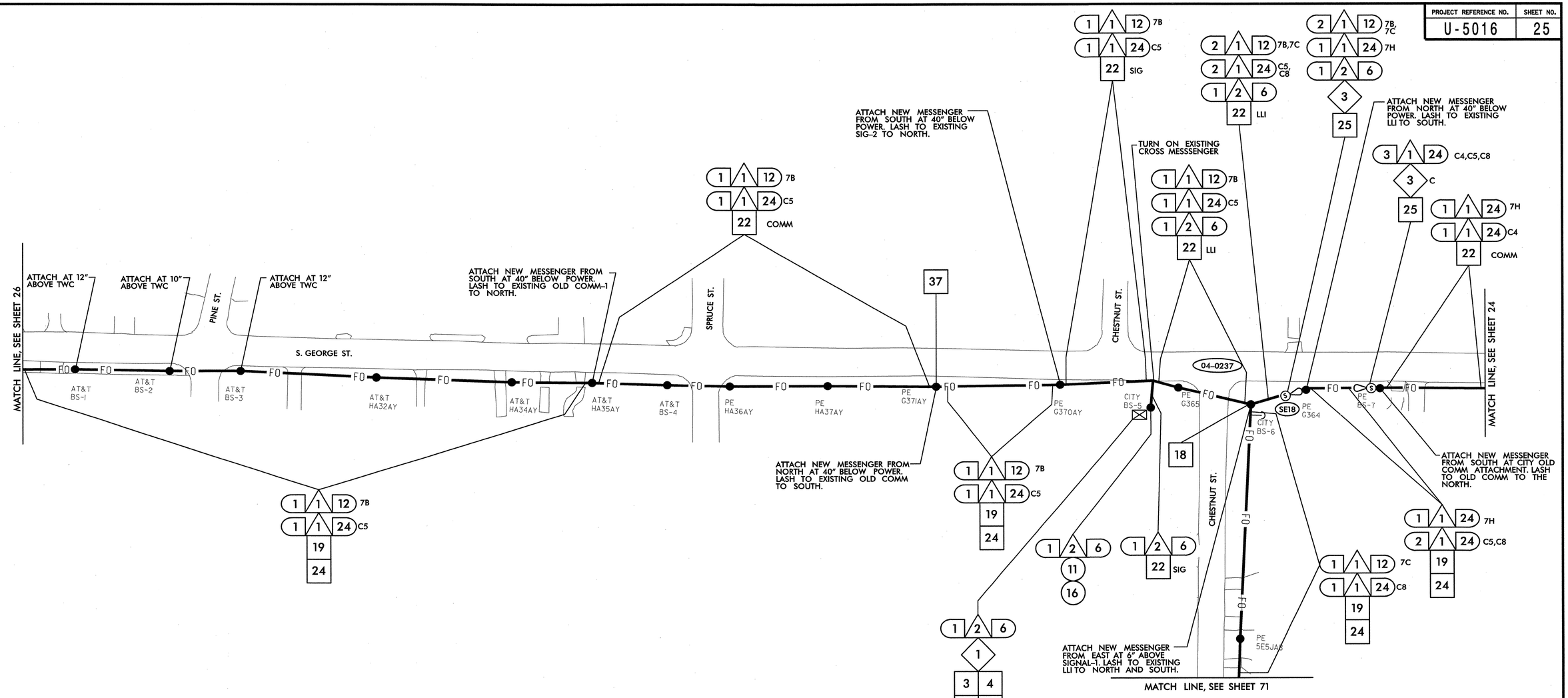
PROJECT REFERENCE NO.	SHEET NO.
U-5016	25



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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
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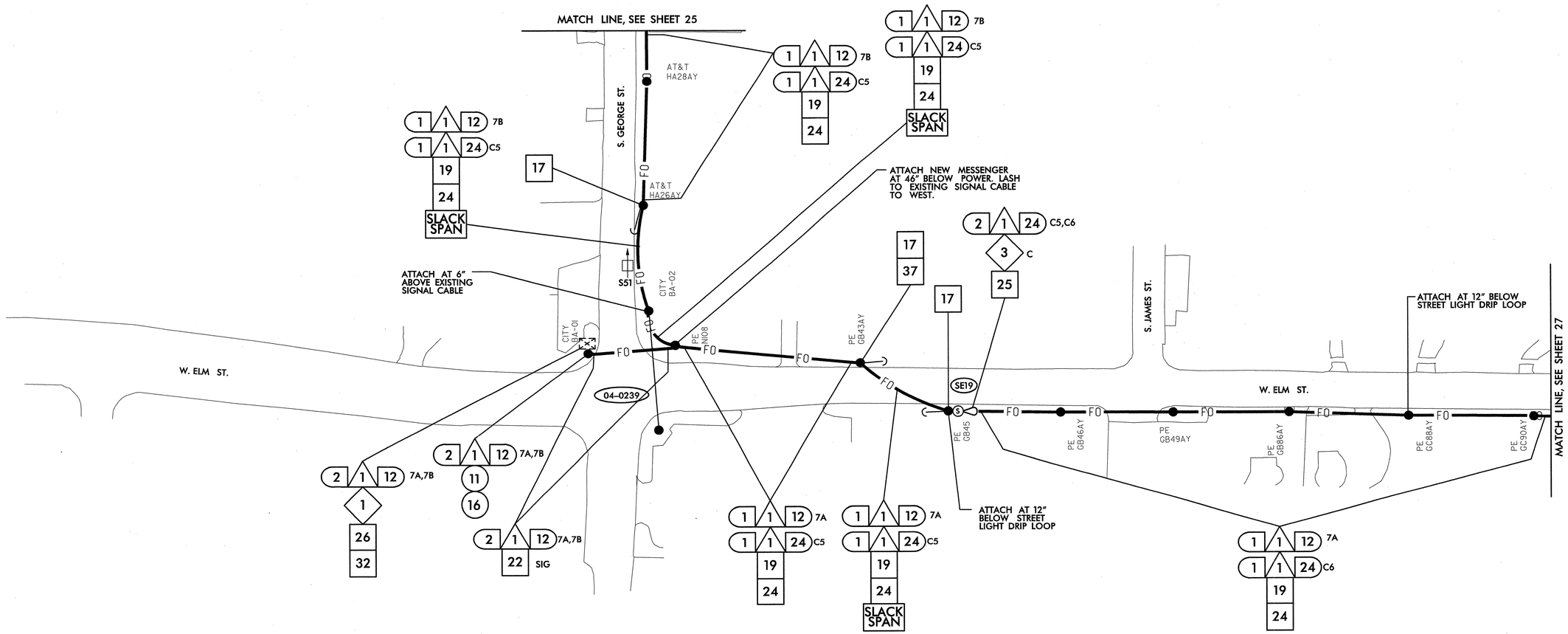
PROJECT REFERENCE NO.	SHEET NO.
U-5016	26



SEE SIGNAL PLAN 04-0239 FOR SYSTEM DETECTOR S51 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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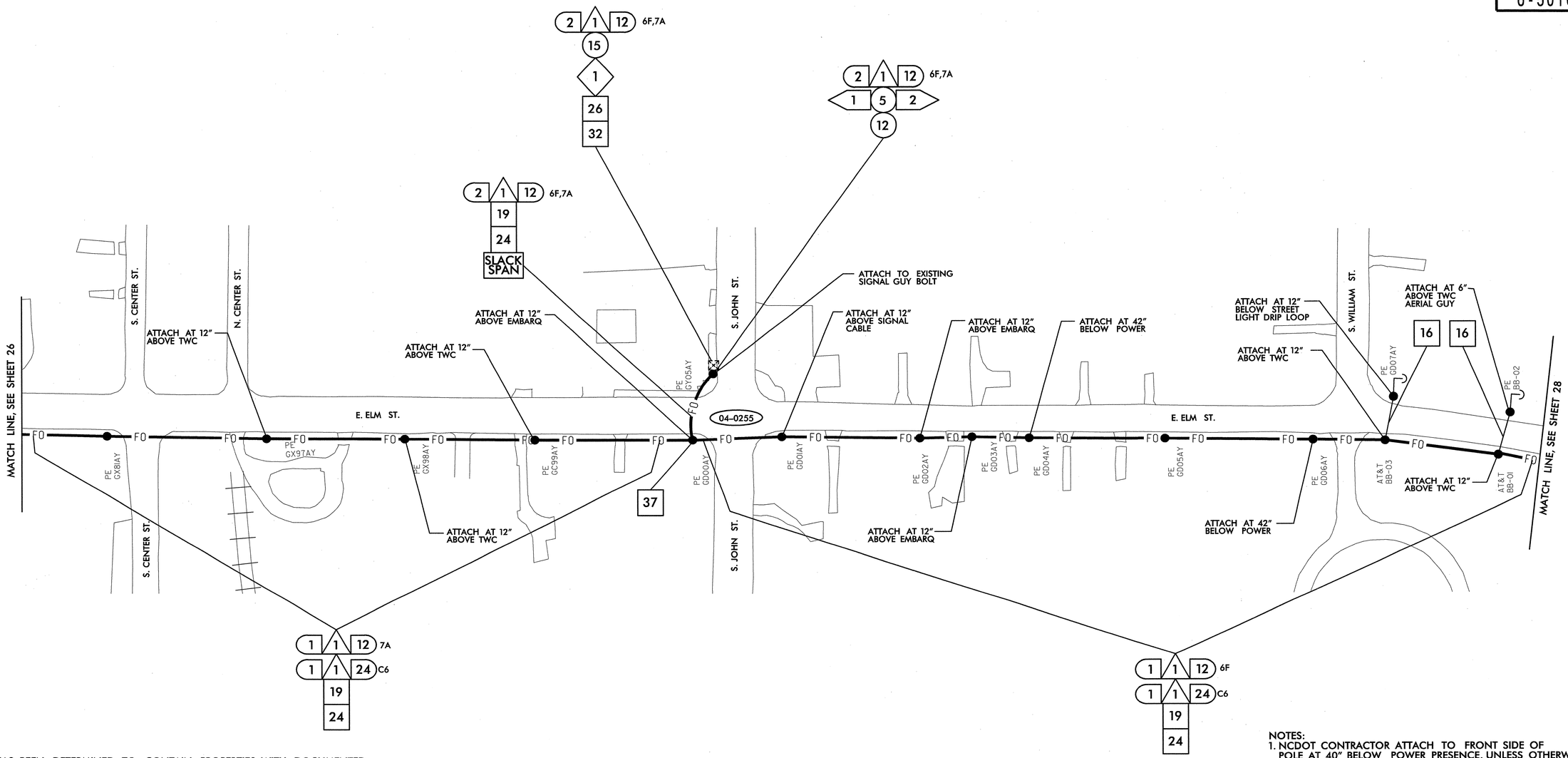
PROJECT REFERENCE NO.	SHEET NO.
U-5016	27



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PROJECT REFERENCE NO.	SHEET NO.
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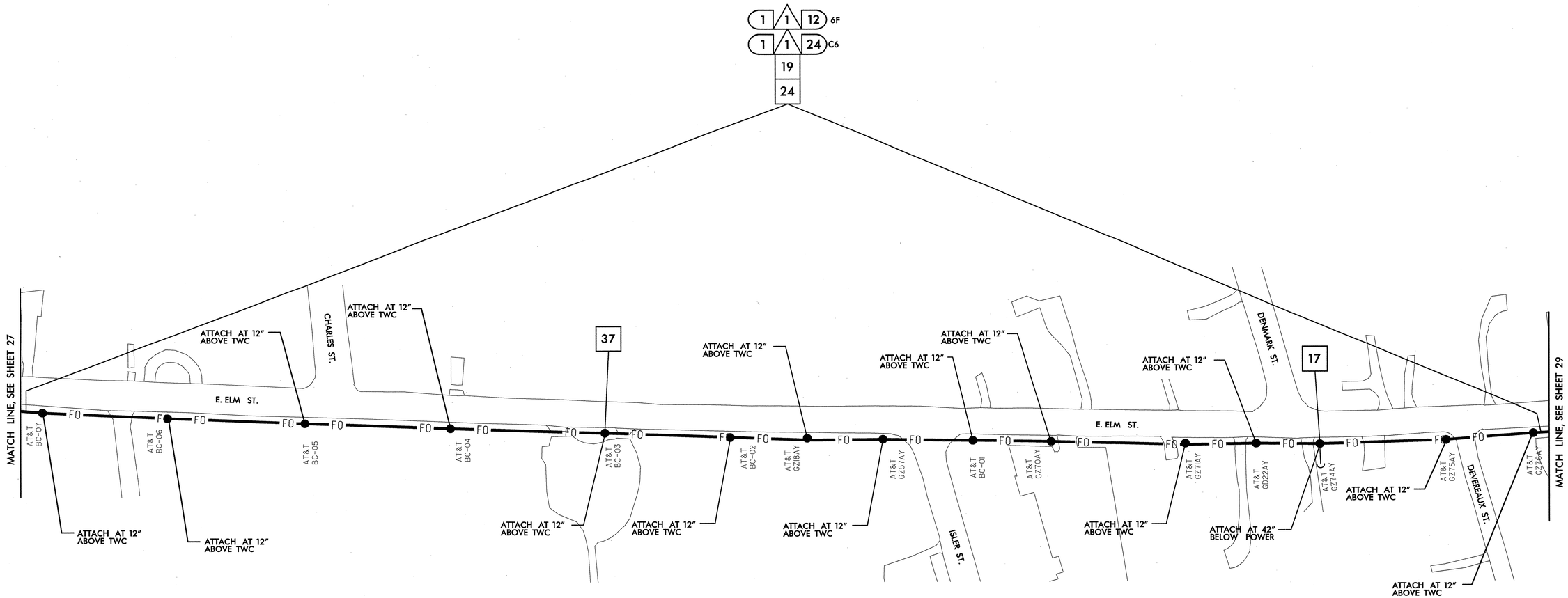

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(3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
(4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
(5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
(6) TRENCH CONDUIT
(7) DIRECTIONAL DRILL CONDUIT
(8) BORE AND JACK CONDUIT
(9) INSTALL CABLE(S) IN EXISTING CONDUIT
(10) INSTALL CABLE(S) IN NEW CONDUIT
(11) INSTALL CABLE(S) IN EXISTING RISER
(12) INSTALL CABLE(S) IN NEW RISER
(13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
(14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
(15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
(16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
(17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

◇1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE
◇3 INSTALL AERIAL SPLICE ENCLOSURE
◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
◇5 INSTALL TERMINAL SPLICE BOX

[1] INSTALL CABINET FOUNDATION
[2] REMOVE EXISTING CABINET FOUNDATION
[3] MODIFY EXISTING CABINET FOUNDATION
[4] REMOVE EXISTING CONTROLLER AND CABINET
[5] INSTALL NEW CONTROLLER
[6] INSTALL NEW 332 BASE MOUNTED CABINET
[7] INSTALL NEW 336S BASE MOUNTED CABINET
[8] INSTALL NEW 336S POLE MOUNTED CABINET
[9] INSTALL CCTV CAMERA ASSEMBLY
[10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11] INSTALL JUNCTION BOX
[12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13] REMOVE EXISTING JUNCTION BOX
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[18] INSTALL SIDEWALK GUY ASSEMBLY
[19] INSTALL MESSENGER CABLE
[20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21] REMOVE EXISTING COMMUNICATIONS CABLE
[22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
[23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
[24] LASH CABLE(S) TO NEW MESSENGER CABLE
[25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
[29] MODIFY EXISTING ELECTRICAL SERVICE
[30] INSTALL NEW ELECTRICAL SERVICE
[31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
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[34] INSTALL RADIO TRANSCEIVER
[35] INSTALL YAGI ANTENNA (8.5dB)
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[37] BOND MESSENGER CABLE TO POLE GROUND
[38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

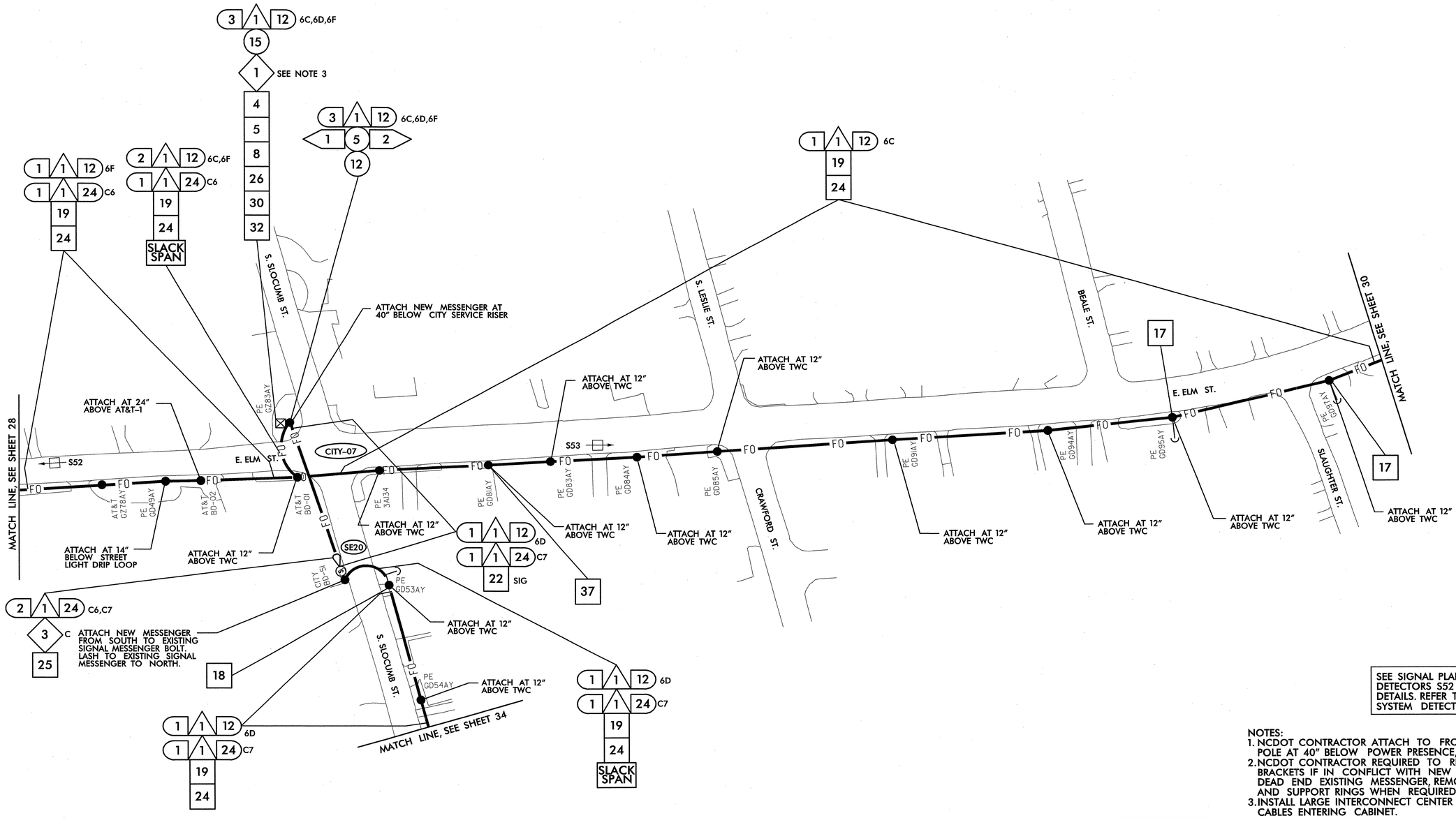
PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
K:\al_tpo_ts\Oil\46016 goldsboro signal systemplans\sht 028.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	29



SEE SIGNAL PLAN CITY-07 FOR SYSTEM DETECTORS S52 AND S53 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
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3. INSTALL LARGE INTERCONNECT CENTER TO ACCOMODATE ALL CABLES ENTERING CABINET.

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- 5 INSTALL NEW CONTROLLER
- 6 INSTALL NEW 332 BASE MOUNTED CABINET
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- 8 INSTALL NEW 336S POLE MOUNTED CABINET
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- 10 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 11 INSTALL JUNCTION BOX
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- 13 REMOVE EXISTING JUNCTION BOX
- 14 INSTALL WOOD POLE
- 15 REMOVE EXISTING WOOD POLE
- 16 INSTALL AERIAL GUY ASSEMBLY
- 17 INSTALL STANDARD GUY ASSEMBLY
- 18 INSTALL SIDEWALK GUY ASSEMBLY
- 19 INSTALL MESSENGER CABLE
- 20 REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- 21 REMOVE EXISTING COMMUNICATIONS CABLE
- 22 LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
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- 24 LASH CABLE(S) TO NEW MESSENGER CABLE
- 25 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
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- 35 INSTALL YAGI ANTENNA (8.5dB)
- 36 INSTALL YAGI ANTENNA (13dB)
- 37 BOND MESSENGER CABLE TO POLE GROUND
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- 39 RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- 40 INSTALL PRE-FORMED CABINET FOUNDATION PAD
- 41 INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Public Information and Safety Division
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

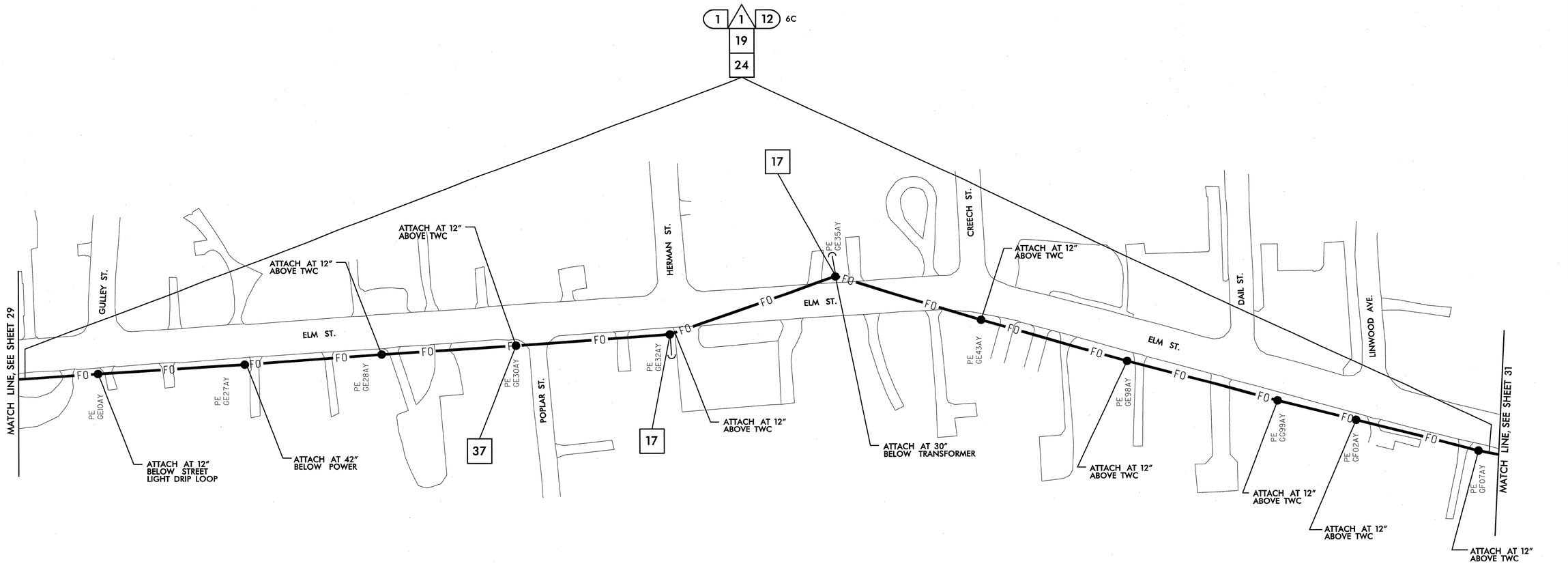
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
K:\Traffic_TraffOps\TMS\16016_goldsboro signal system\plans\sht_029.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	30



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- [6] INSTALL NEW 332 BASE MOUNTED CABINET
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- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/26/09 DATE
CADD Filenames

2/20/2009
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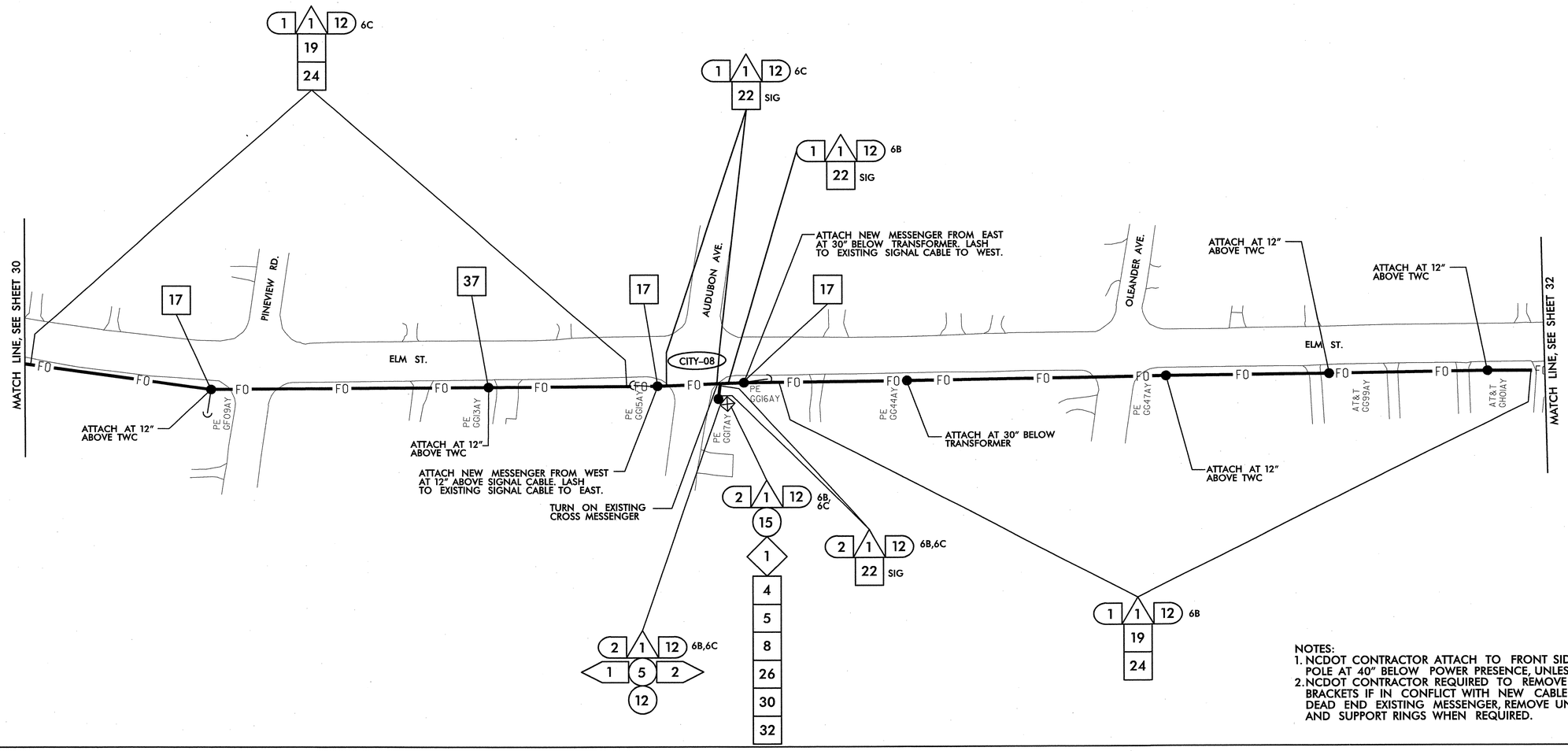
PROJECT REFERENCE NO.	SHEET NO.
U-5016	31



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Traffic Engineering and Safety Systems Branch
Traffic Engineering Systems
Department of Transportation
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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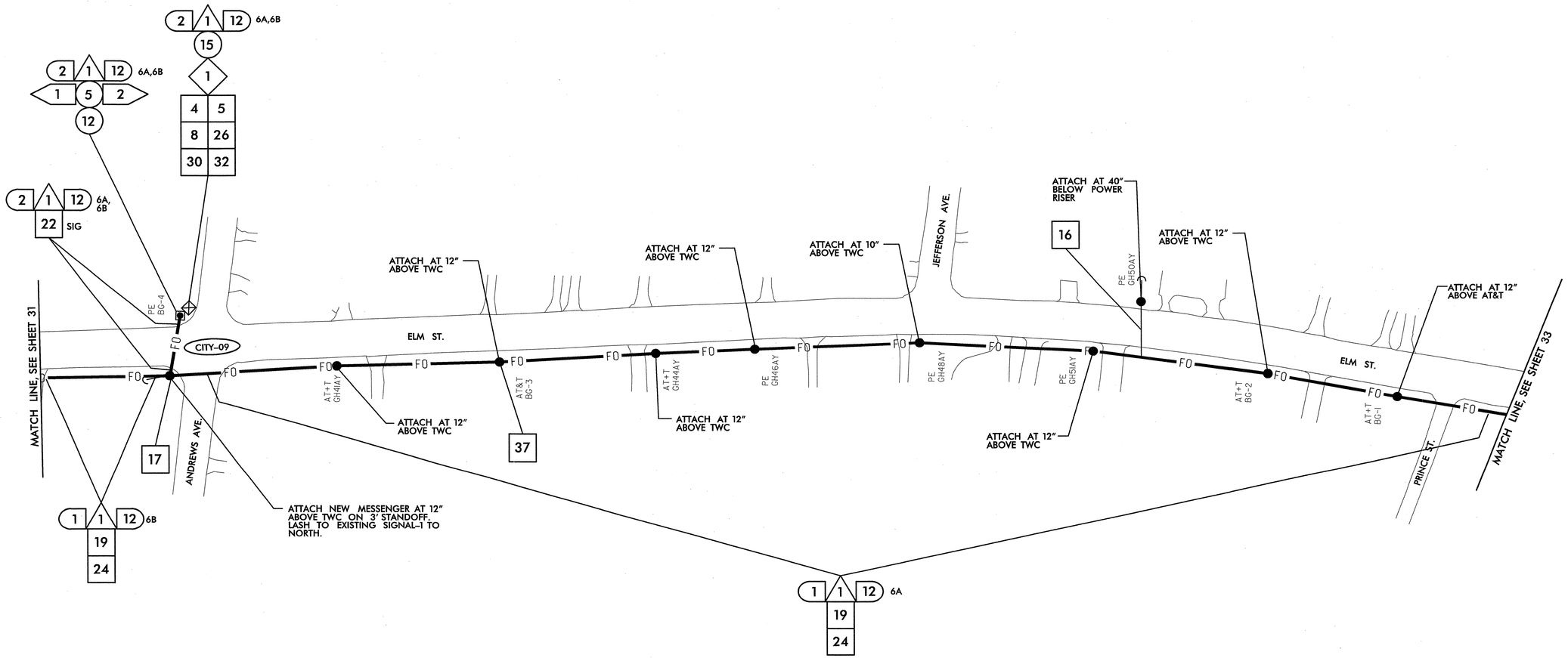
PROJECT REFERENCE NO.	SHEET NO.
U-5016	32



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- [21] REMOVE EXISTING COMMUNICATIONS CABLE
- [22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- [23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
- [24] LASH CABLE(S) TO NEW MESSENGER CABLE
- [25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- [26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
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- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

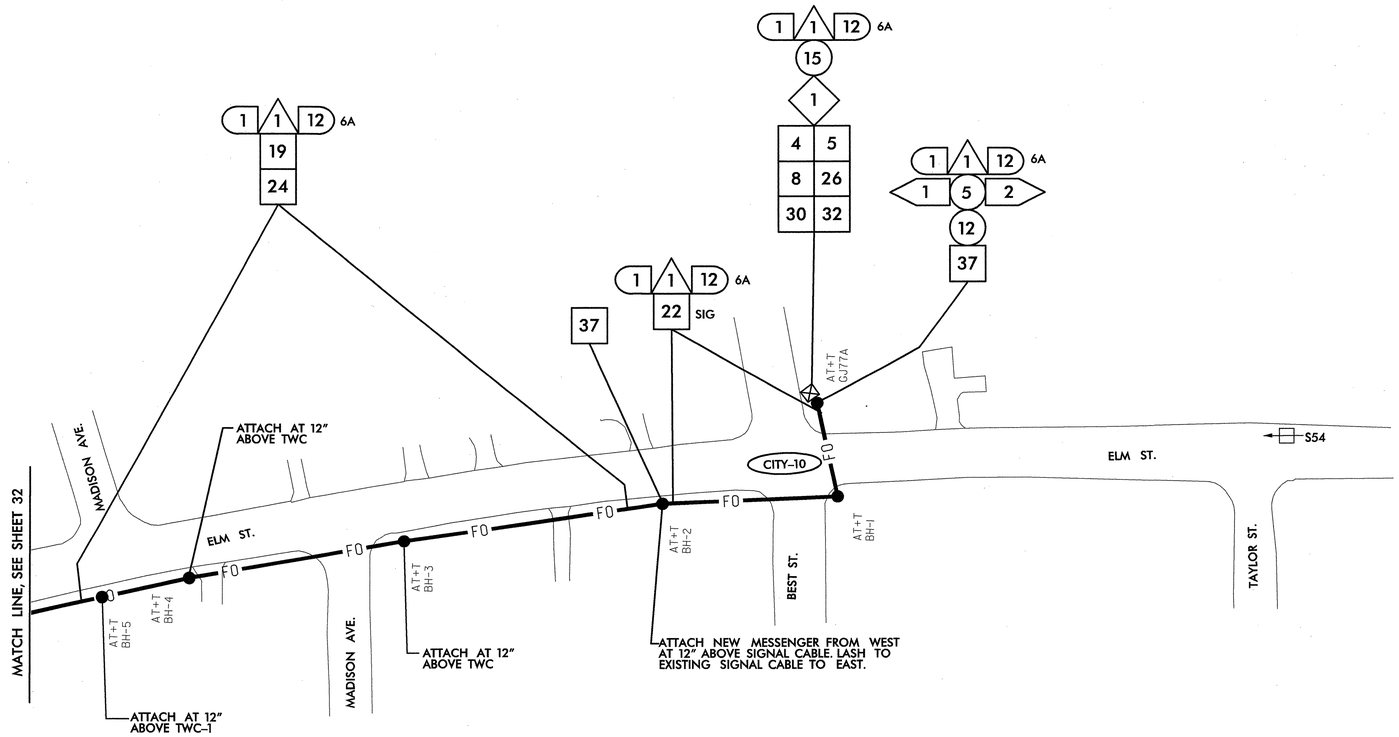
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
k:\rdi_tpo_tis\0117460\6 goldsboro signal system\plans\sht_032.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	33



SEE SIGNAL PLAN CITY-10 FOR SYSTEM DETECTOR S54 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
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(3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
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(2) INSTALL UNDERGROUND SPLICE ENCLOSURE
(3) INSTALL AERIAL SPLICE ENCLOSURE
(4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
(5) INSTALL TERMINAL SPLICE BOX
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[4] REMOVE EXISTING CONTROLLER AND CABINET
[5] INSTALL NEW CONTROLLER
[6] INSTALL NEW 332 BASE MOUNTED CABINET
[7] INSTALL NEW 336S BASE MOUNTED CABINET
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Traffic Engineering and Safety Systems Branch
Department of Transportation
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

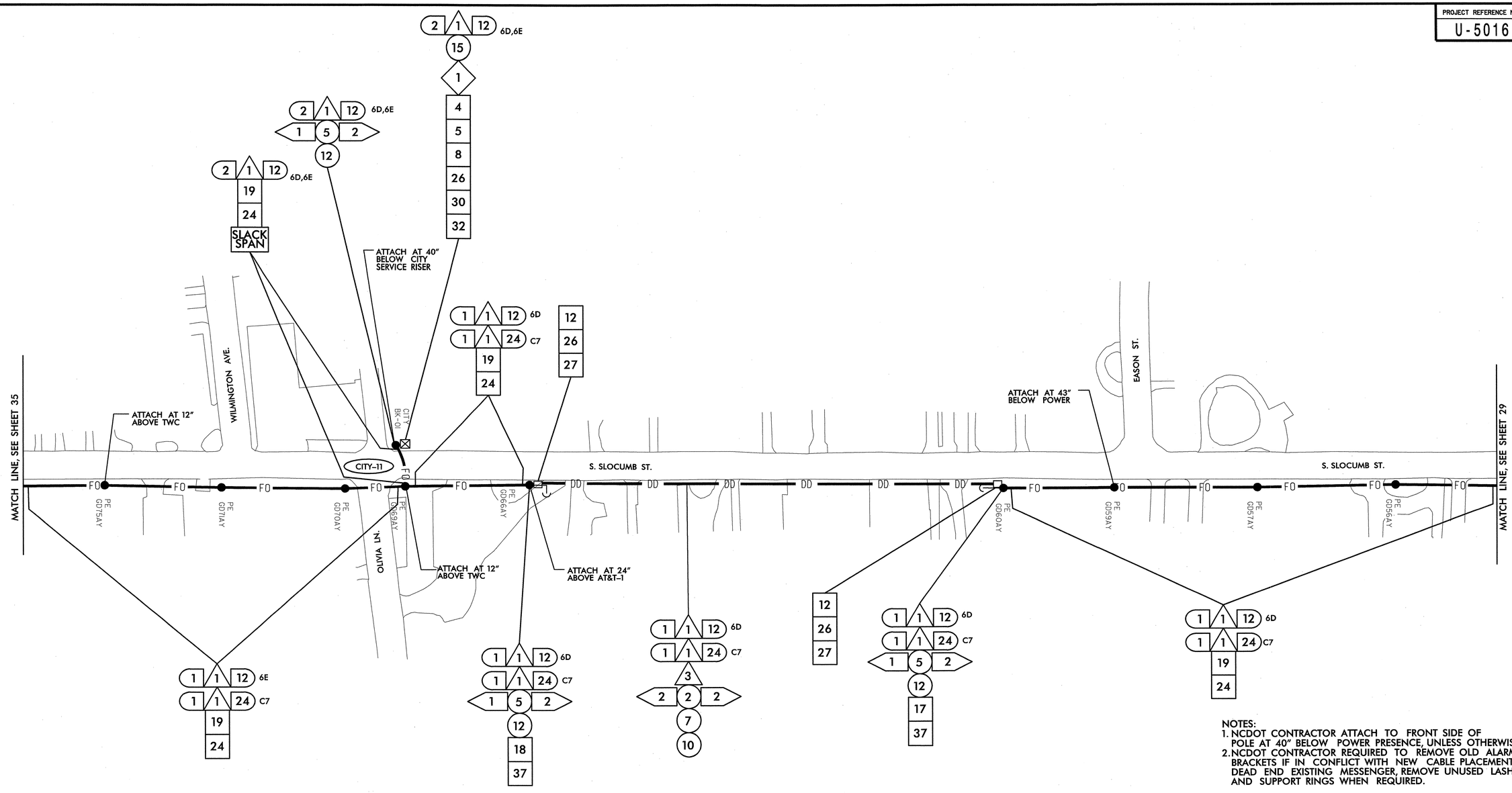
REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/24/09 DATE

CADD Filenames:

2/20/2009
kvan_tpo_1to10in40ch6 goldsboro signal system plans.sht 033.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	34



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PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
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Traffic Engineering and Safety Systems Branch
NCDOT DIVISION OF HIGHWAYS
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/23/09

CADD Filenames

2/20/2009
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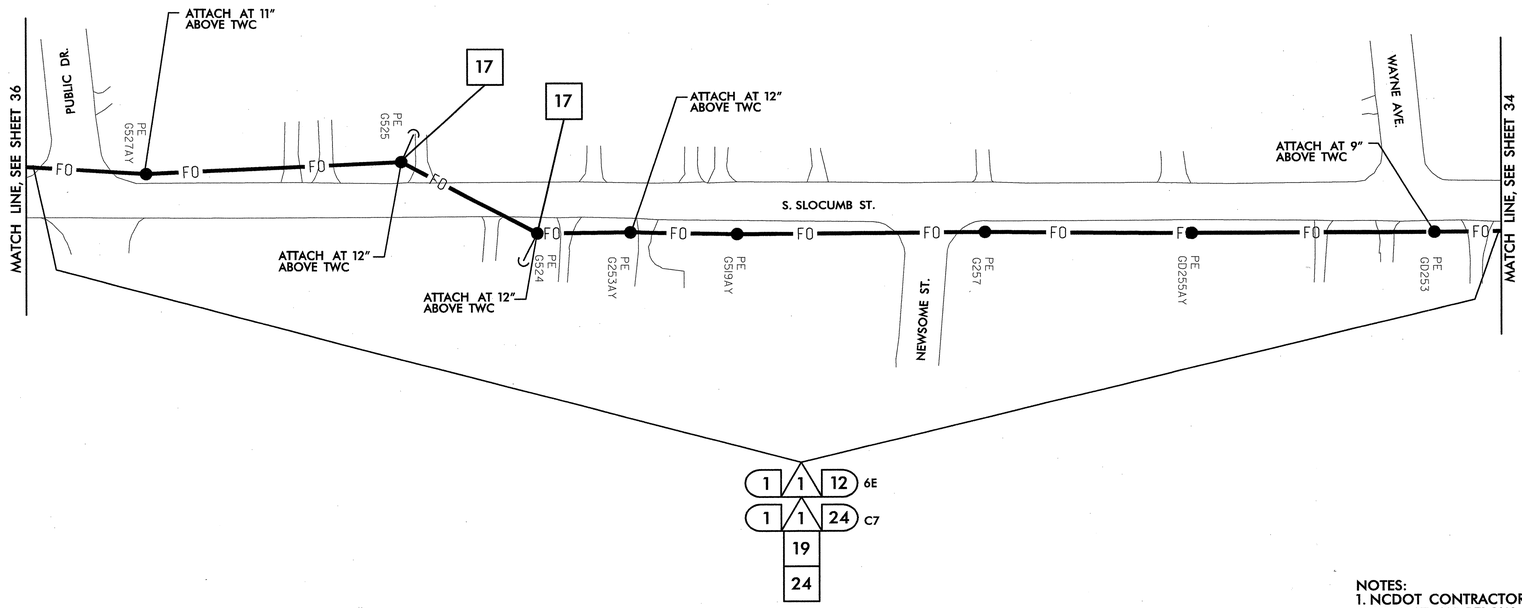
PROJECT REFERENCE NO.	SHEET NO.
U-5016	35



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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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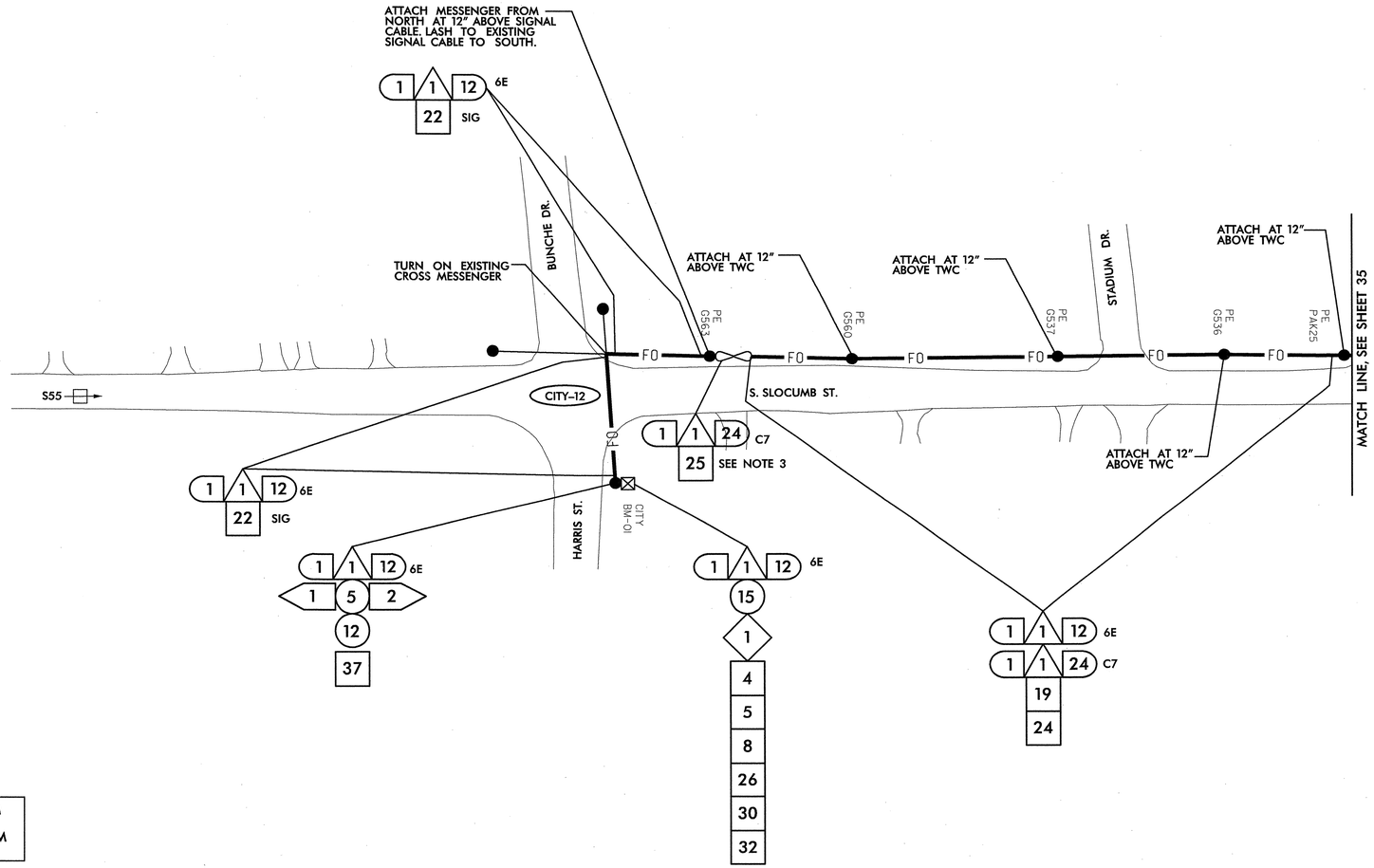
PROJECT REFERENCE NO.	SHEET NO.
U-5016	36



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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
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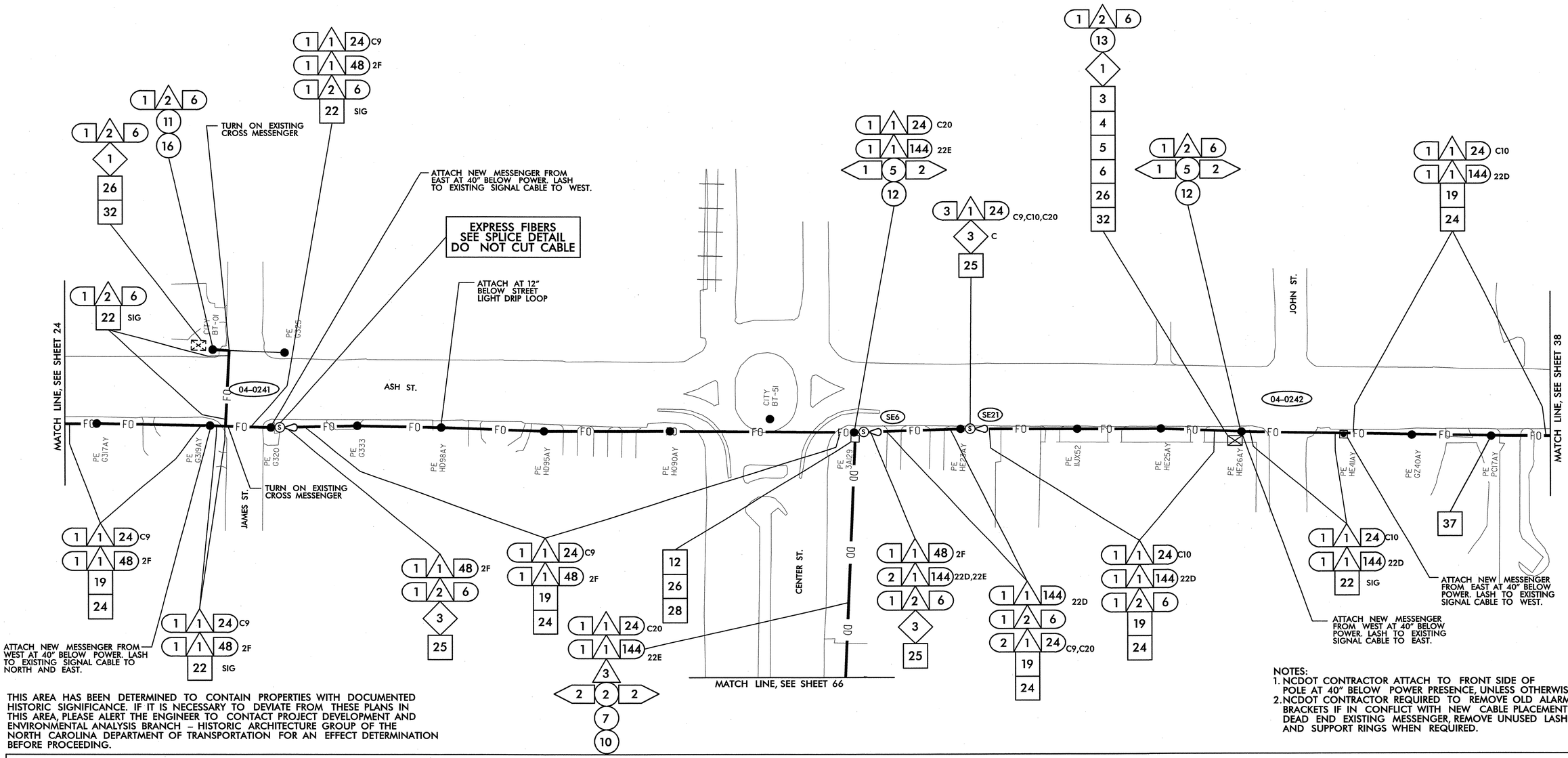
PROJECT REFERENCE NO.	SHEET NO.
U-5016	37



THIS AREA HAS BEEN DETERMINED TO CONTAIN PROPERTIES WITH DOCUMENTED HISTORIC SIGNIFICANCE. IF IT IS NECESSARY TO DEVIATE FROM THESE PLANS IN THIS AREA, PLEASE ALERT THE ENGINEER TO CONTACT PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH – HISTORIC ARCHITECTURE GROUP OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR AN EFFECT DETERMINATION BEFORE PROCEEDING.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION

3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND

38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Engineering Services Unit
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

SCALE 0 50

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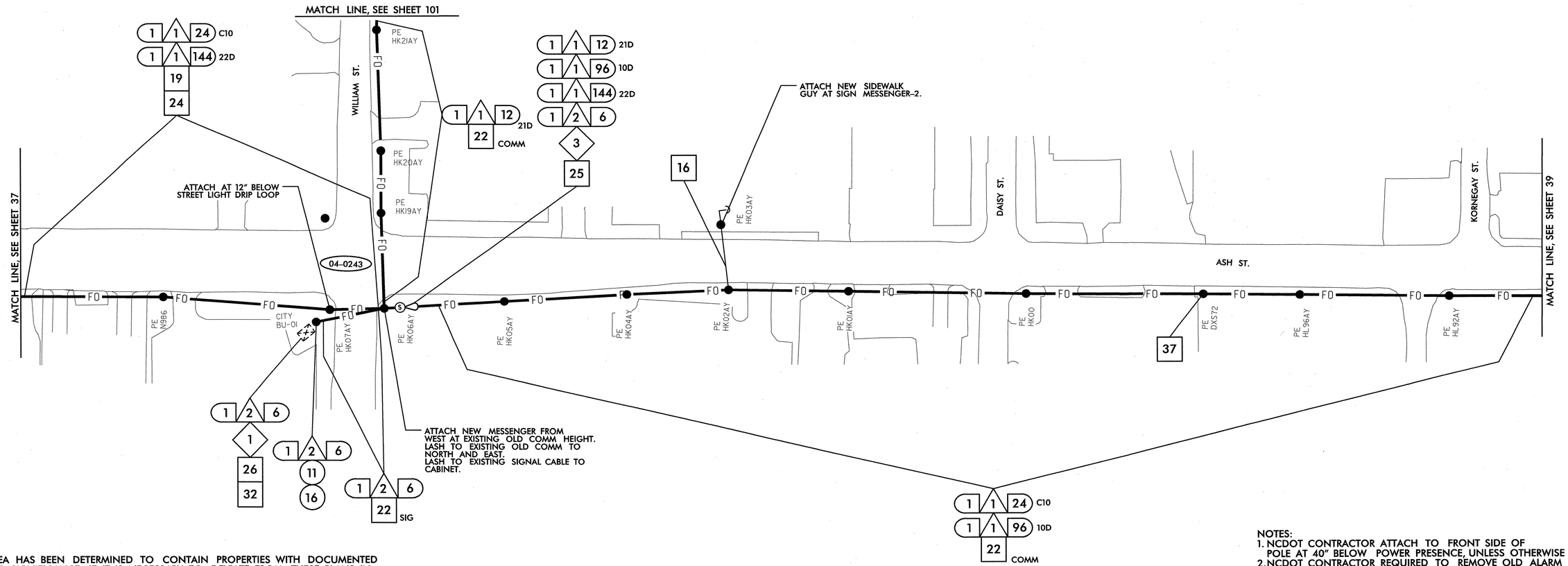

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1. INSTALL PVC CONDUIT
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3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
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5. INSTALL TERMINAL SPLICE BOX
1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
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26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
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PLANS PREPARED IN THE OFFICE OF:
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Raleigh N.C. 27636-3068
(919) 677-2000

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

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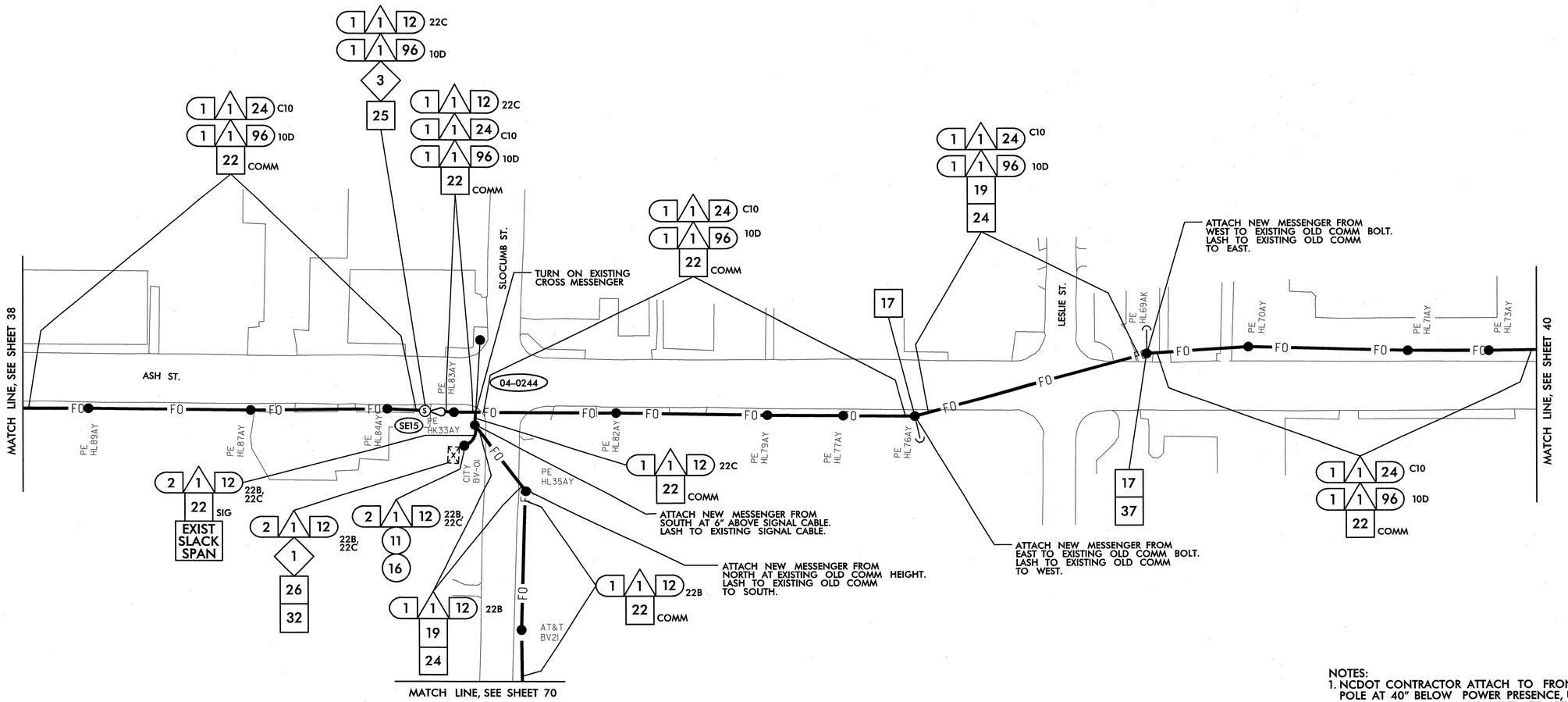
PROJECT REFERENCE NO.	SHEET NO.
U-5016	39



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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
Traffic Signal Design Section
NC DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE — DATE 2/20/09
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2/20/2009
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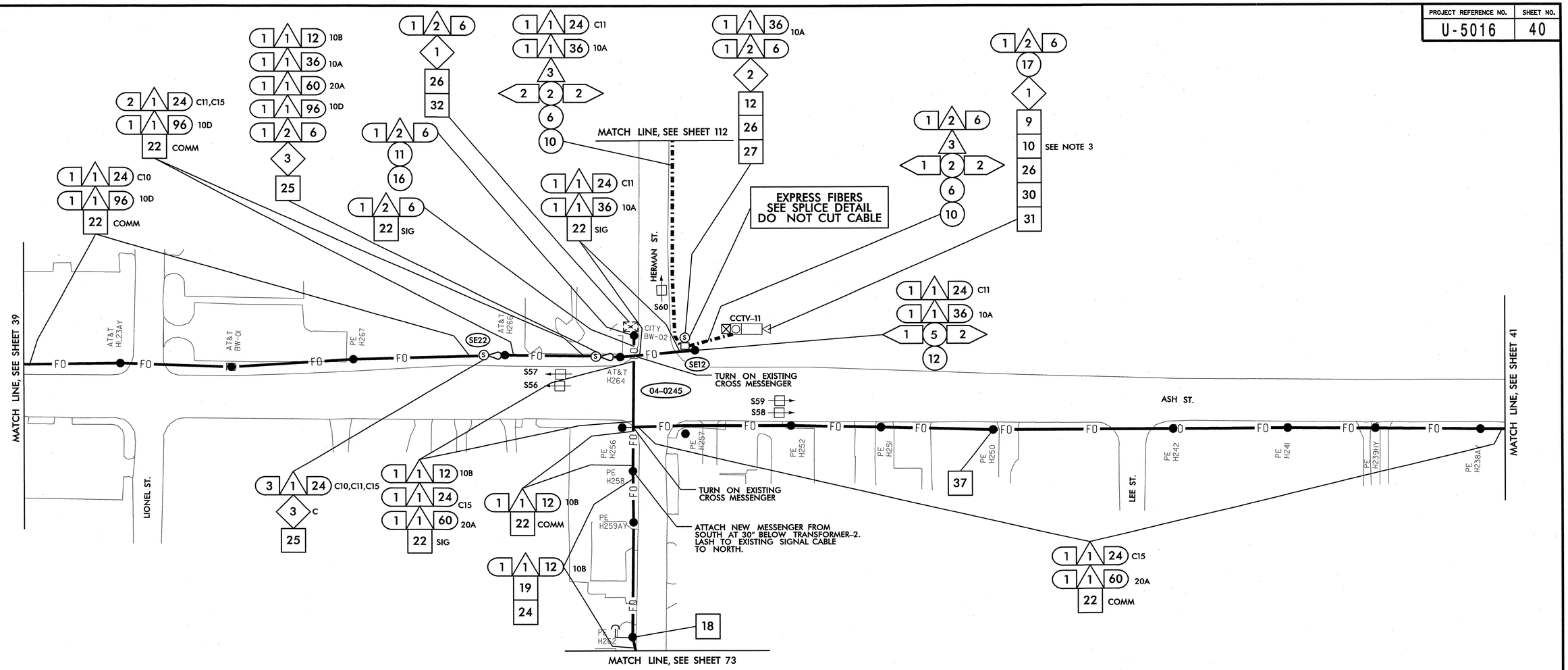
PROJECT REFERENCE NO.	SHEET NO.
U-5016	40



SEE SIGNAL PLAN 04-0245 FOR SYSTEM DETECTORS S56, S57, S58, S59 AND S60 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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3. OBTAIN APPROVAL FROM ENGINEER FOR CCTV CAMERA POLE LOCATION BEFORE INSTALLATION.

- (1) INSTALL SMFO CABLE
- (2) INSTALL FIBER OPTIC DROP CABLE
- (3) INSTALL TRACER WIRE
- (4) REUSE EXISTING SMFO CABLE
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- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ⟨1⟩ INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ⟨2⟩ INSTALL UNDERGROUND SPLICE ENCLOSURE
- ⟨3⟩ INSTALL AERIAL SPLICE ENCLOSURE
- ⟨4⟩ MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ⟨5⟩ INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
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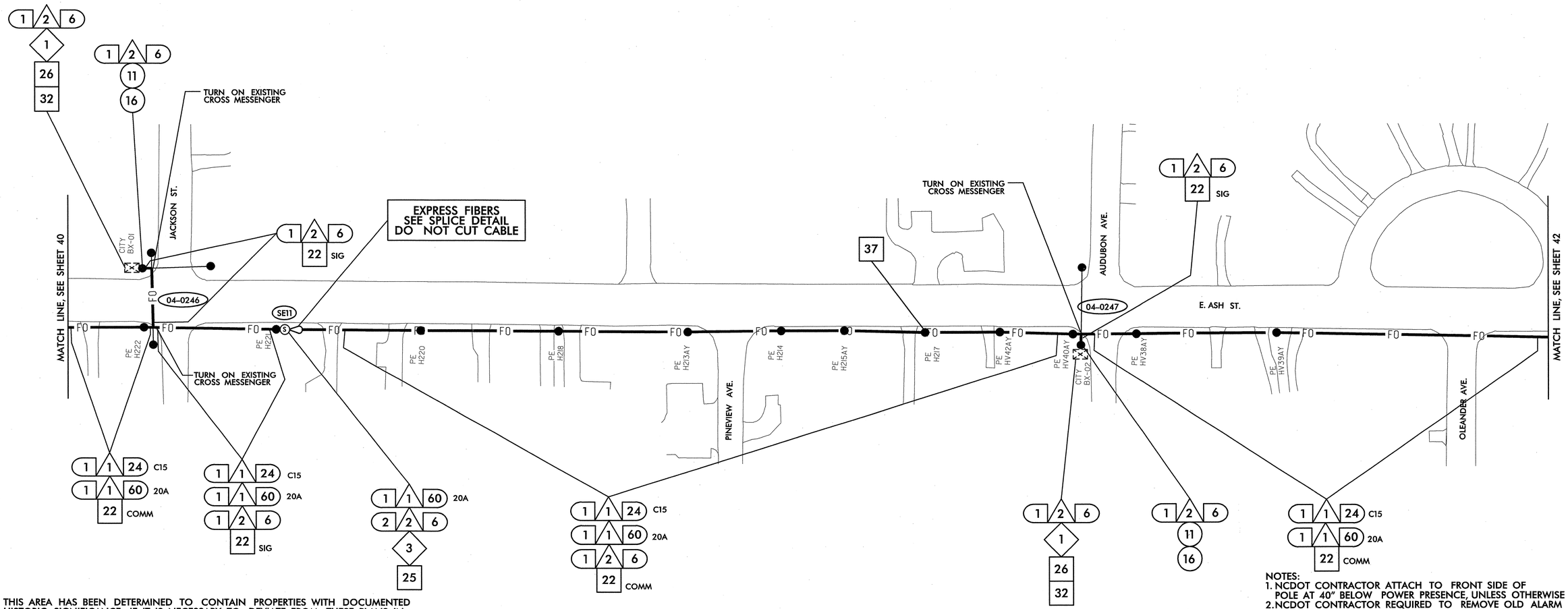
U-5016	41



THIS AREA HAS BEEN DETERMINED TO CONTAIN PROPERTIES WITH DOCUMENTED HISTORIC SIGNIFICANCE. IF IT IS NECESSARY TO DEVIATE FROM THESE PLANS IN THIS AREA, PLEASE ALERT THE ENGINEER TO CONTACT PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH – HISTORIC ARCHITECTURE GROUP OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR AN EFFECT DETERMINATION BEFORE PROCEEDING.

NOTES:
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- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
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- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ◇1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE
- ◇3 INSTALL AERIAL SPLICE ENCLOSURE
- ◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ◇5 INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
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- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
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PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
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(919) 677-2000

Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
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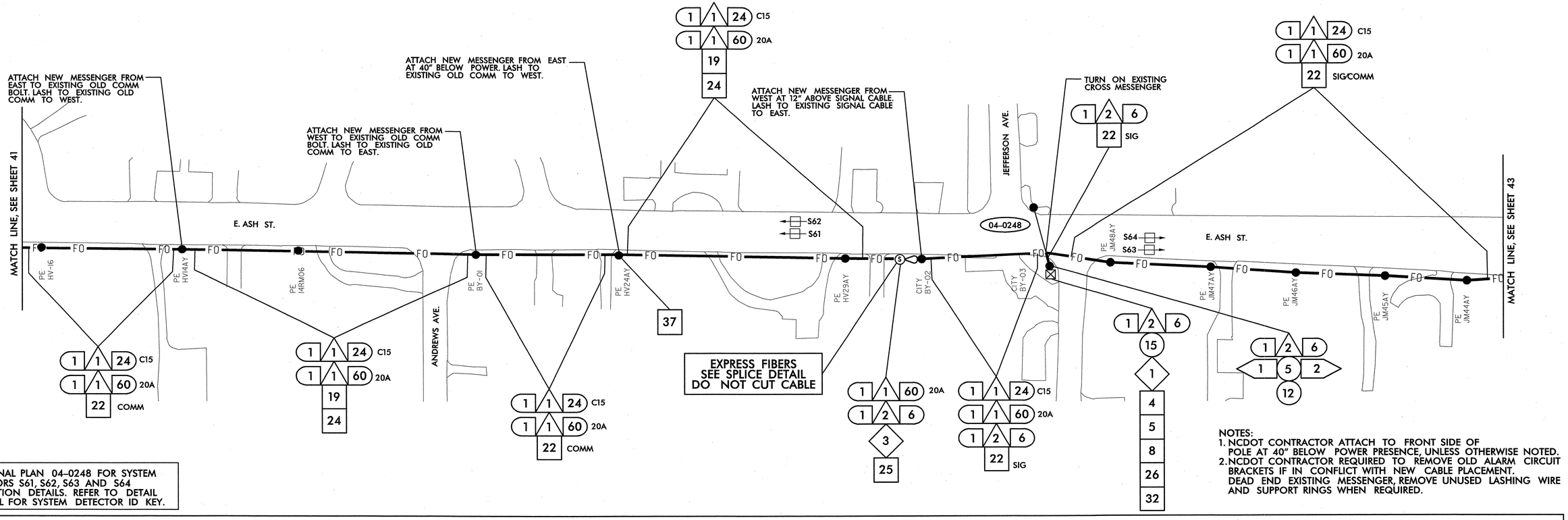
PROJECT REFERENCE NO.	SHEET NO.
U-5016	42



SEE SIGNAL PLAN 04-0248 FOR SYSTEM DETECTORS S61, S62, S63 AND S64 INSTALLTION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames:

2/20/2009
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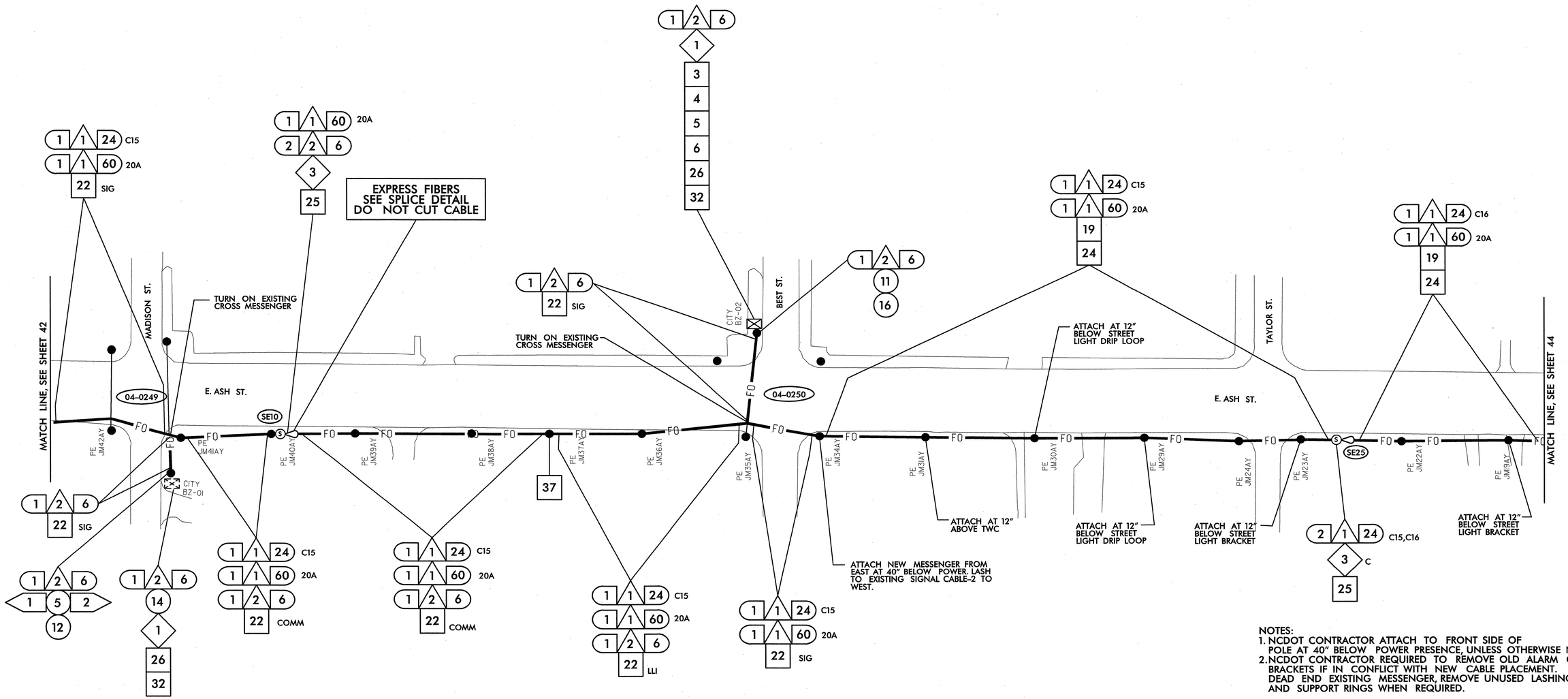
PROJECT REFERENCE NO.	SHEET NO.
U-5016	43



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Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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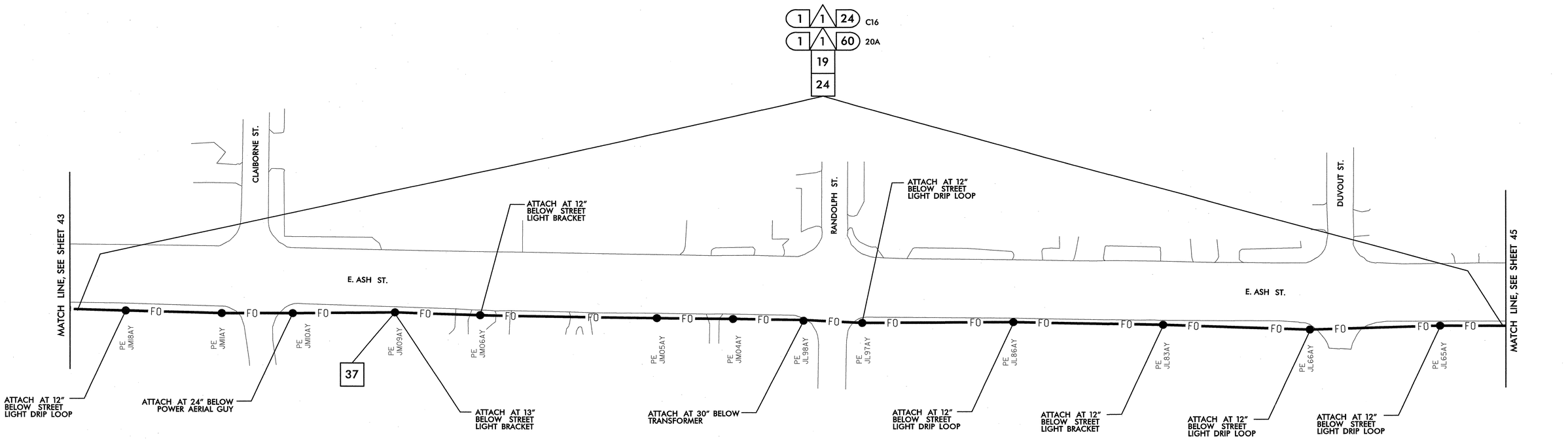
PROJECT REFERENCE NO.	SHEET NO.
U-5016	44



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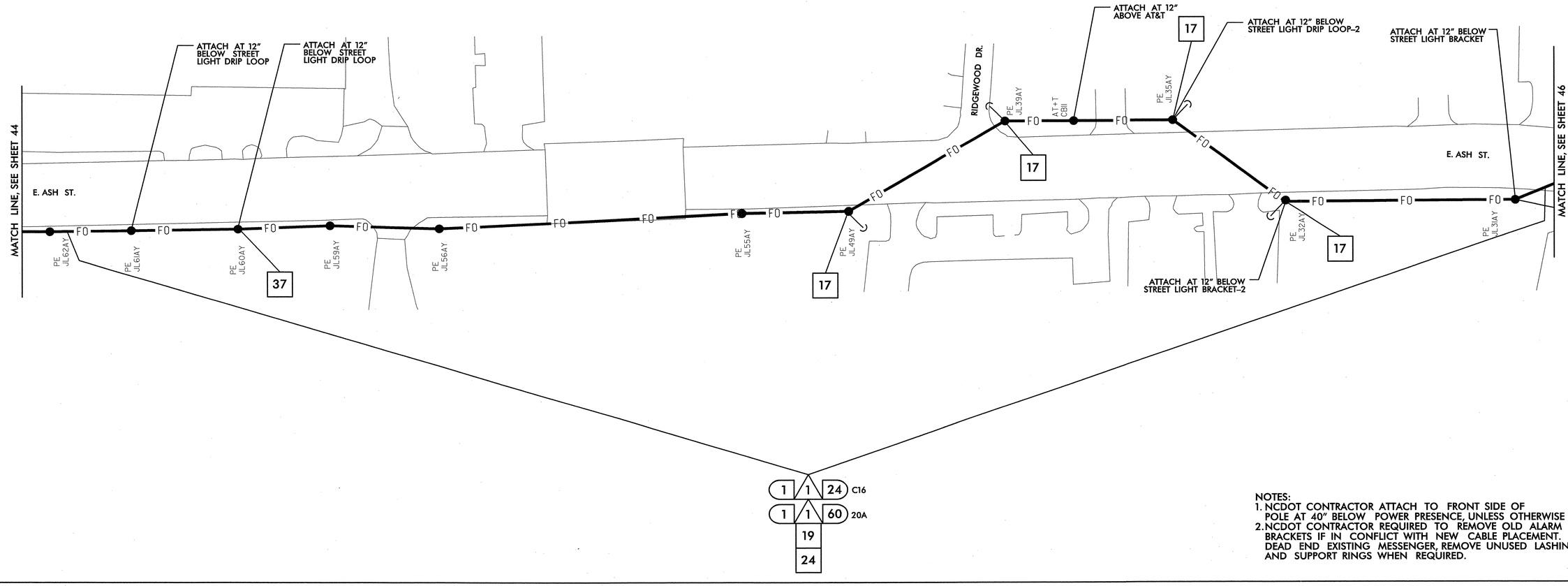
PROJECT REFERENCE NO.	SHEET NO.
U-5016	45



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13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
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16. INSTALL AERIAL GUY ASSEMBLY
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21. REMOVE EXISTING COMMUNICATIONS CABLE
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23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
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26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
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35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
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39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

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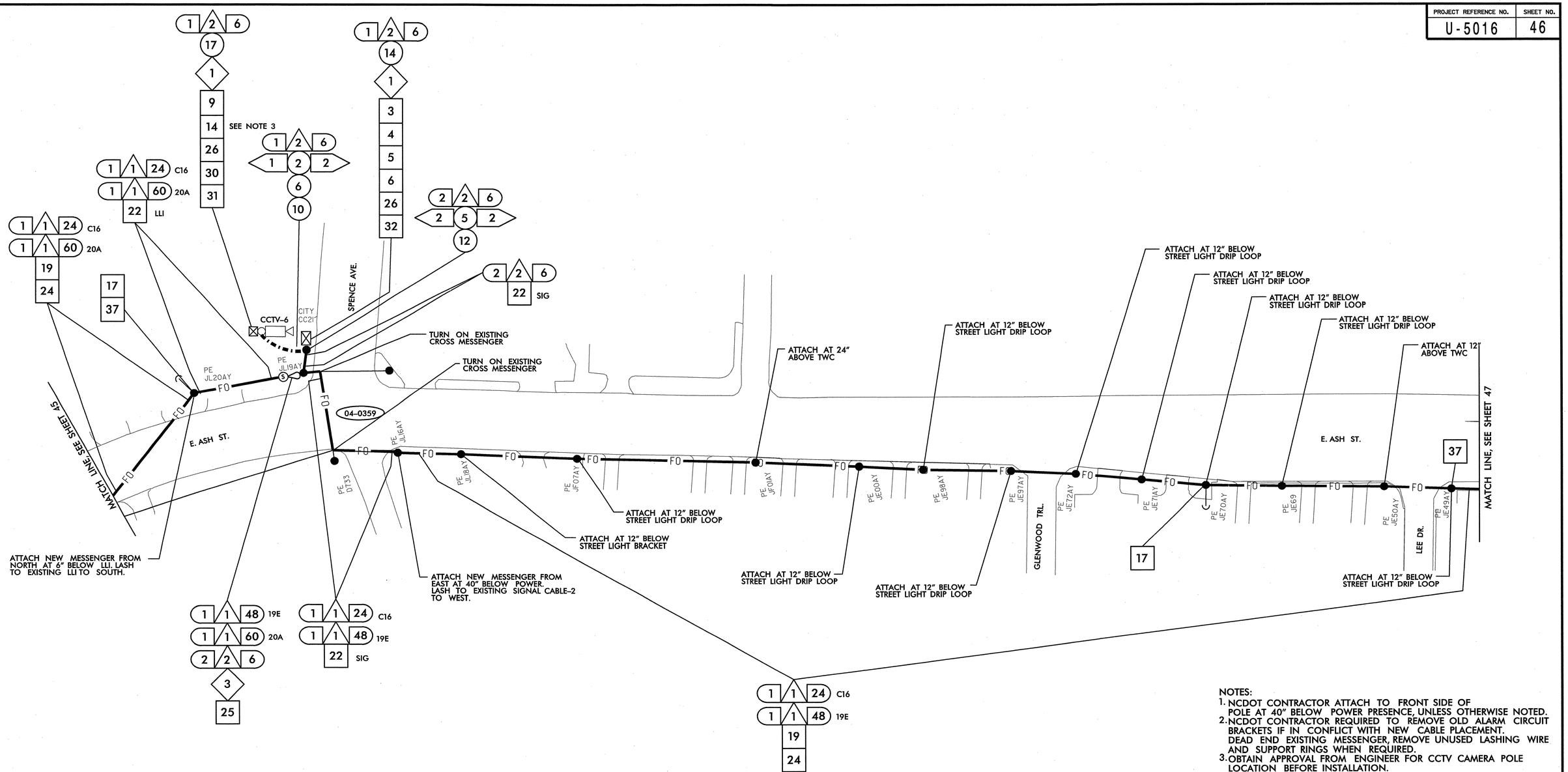
PROJECT REFERENCE NO.	SHEET NO.
U-5016	46



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Traffic Engineering and Safety Systems Branch
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

2/20/09
SIGNATURE DATE

CADD Filename:

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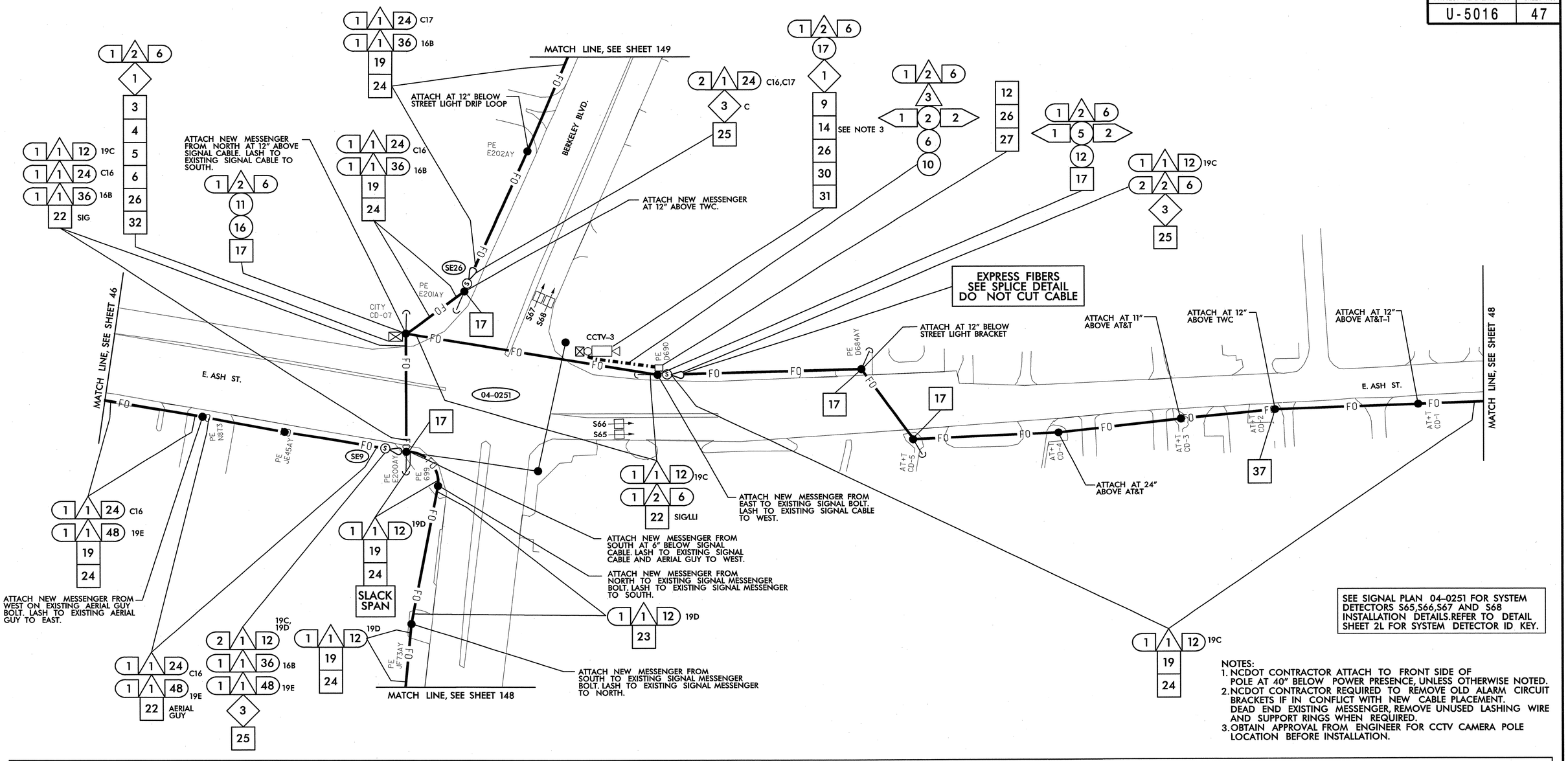
PROJECT REFERENCE NO.	SHEET NO.
U-5016	47



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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
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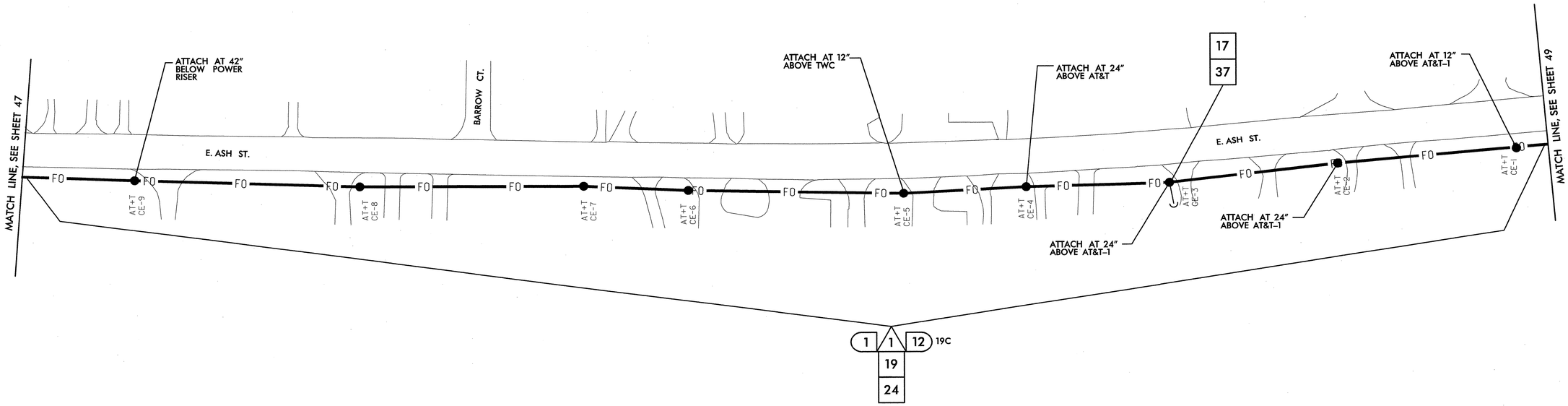
PROJECT REFERENCE NO.	SHEET NO.
U-5016	48



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CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
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SEAL
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SIGNATURE 2/20/09 DATE

CADD Filenames

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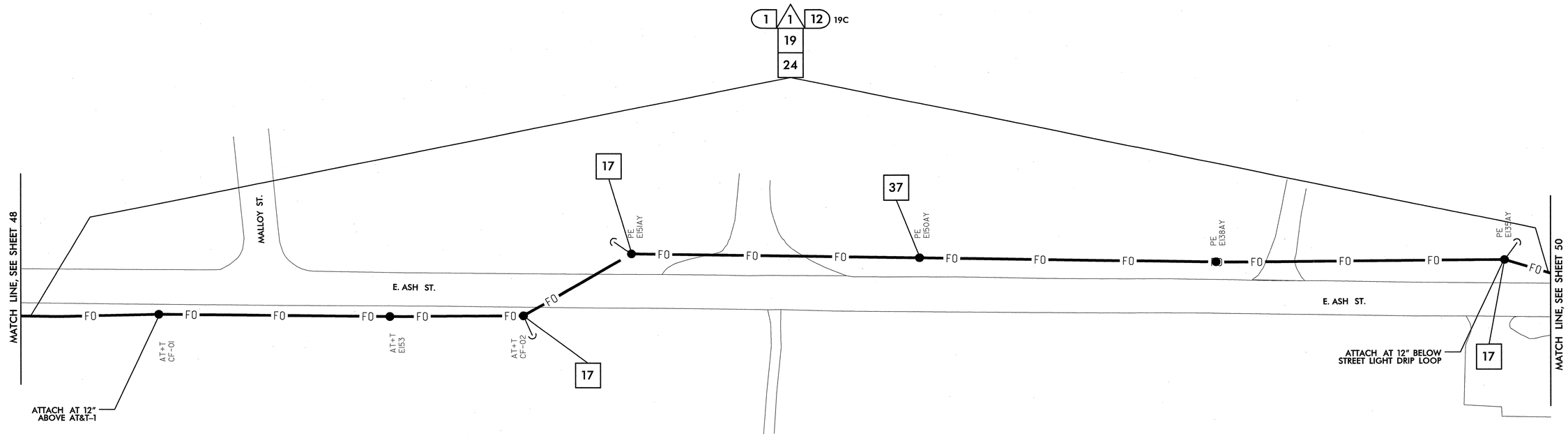
PROJECT REFERENCE NO.	SHEET NO.
U-5016	49



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[36] INSTALL YAGI ANTENNA (13dB)
[37] BOND MESSENGER CABLE TO POLE GROUND
[38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
STATE OF SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
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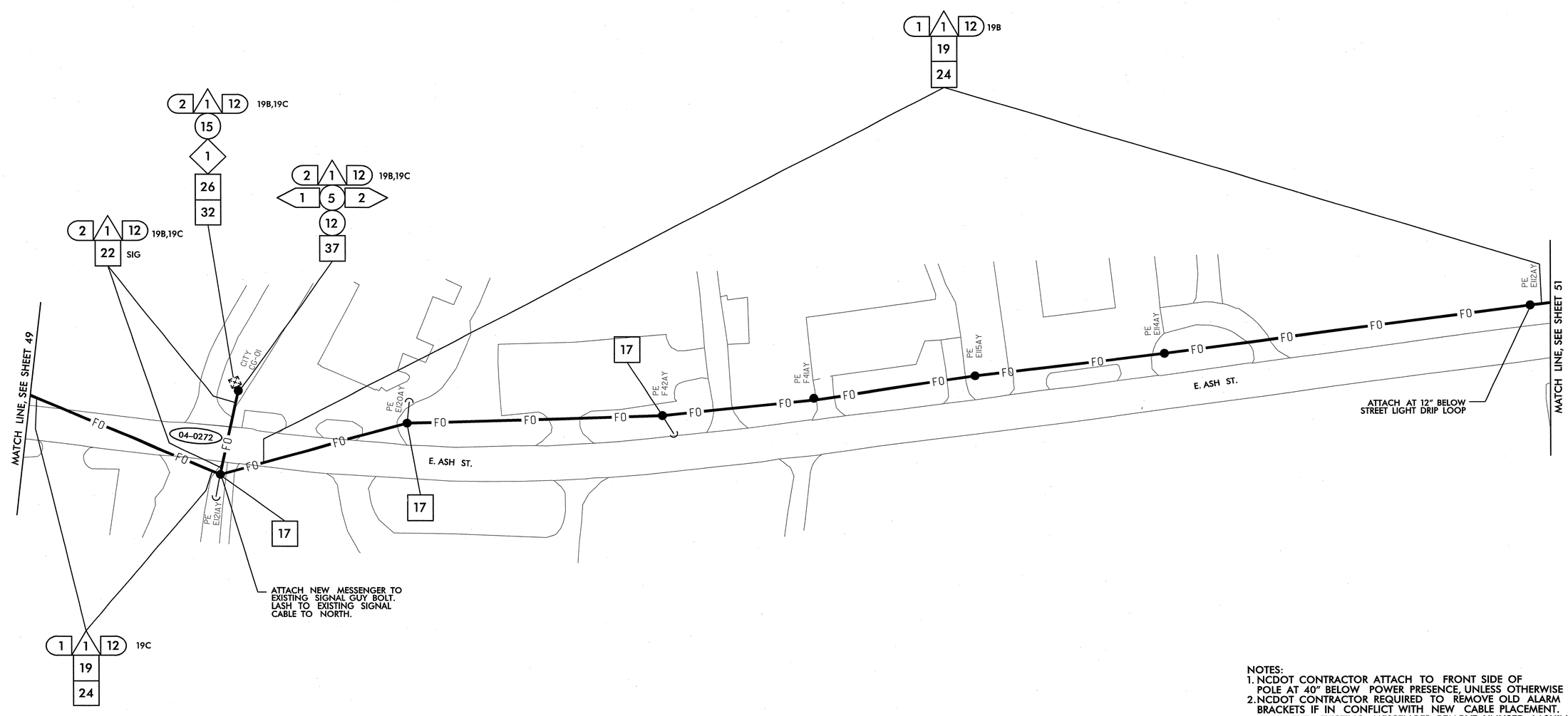
PROJECT REFERENCE NO.	SHEET NO.
U-5016	50



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(17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

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NC DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529
SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames:

2/20/2009
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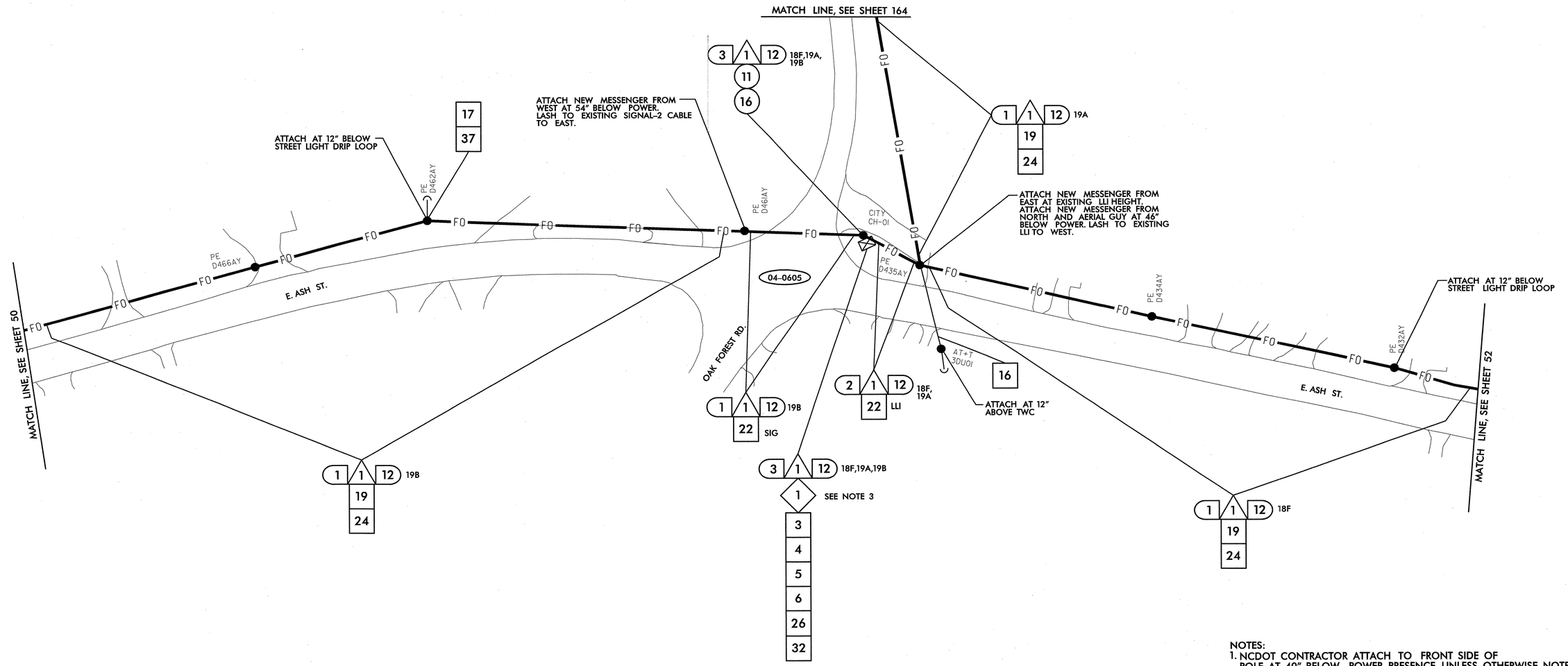
PROJECT REFERENCE NO.	SHEET NO.
U-5016	51



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PLANS PREPARED IN THE OFFICE OF:
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P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames

2/20/2009
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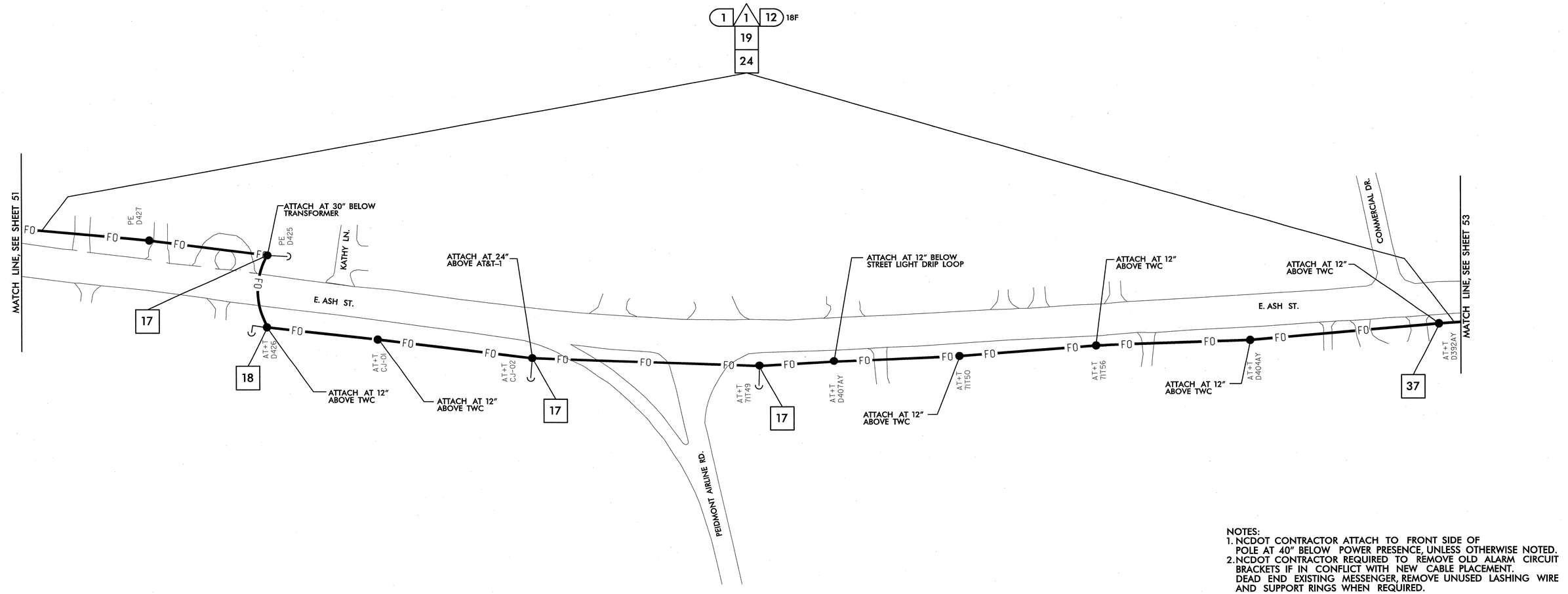
PROJECT REFERENCE NO.	SHEET NO.
U-5016	52



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PLANS PREPARED IN THE OFFICE OF:
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CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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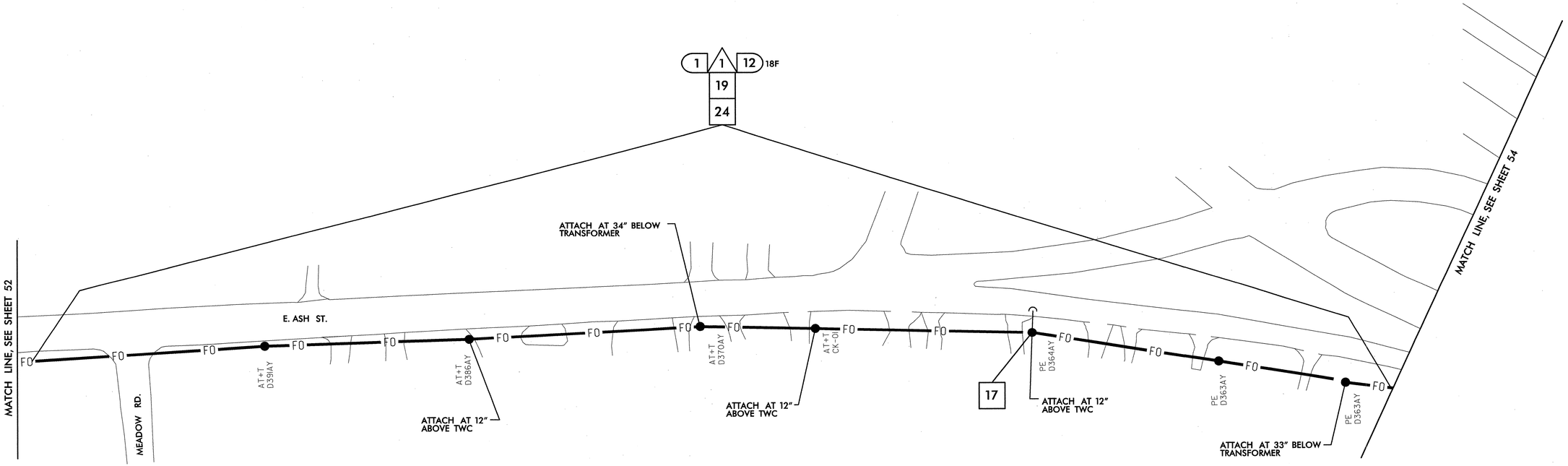
PROJECT REFERENCE NO.	SHEET NO.
U-5016	53



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DIVISION 4 — WAYNE COUNTY

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SIGNATURE — DATE 2/20/09

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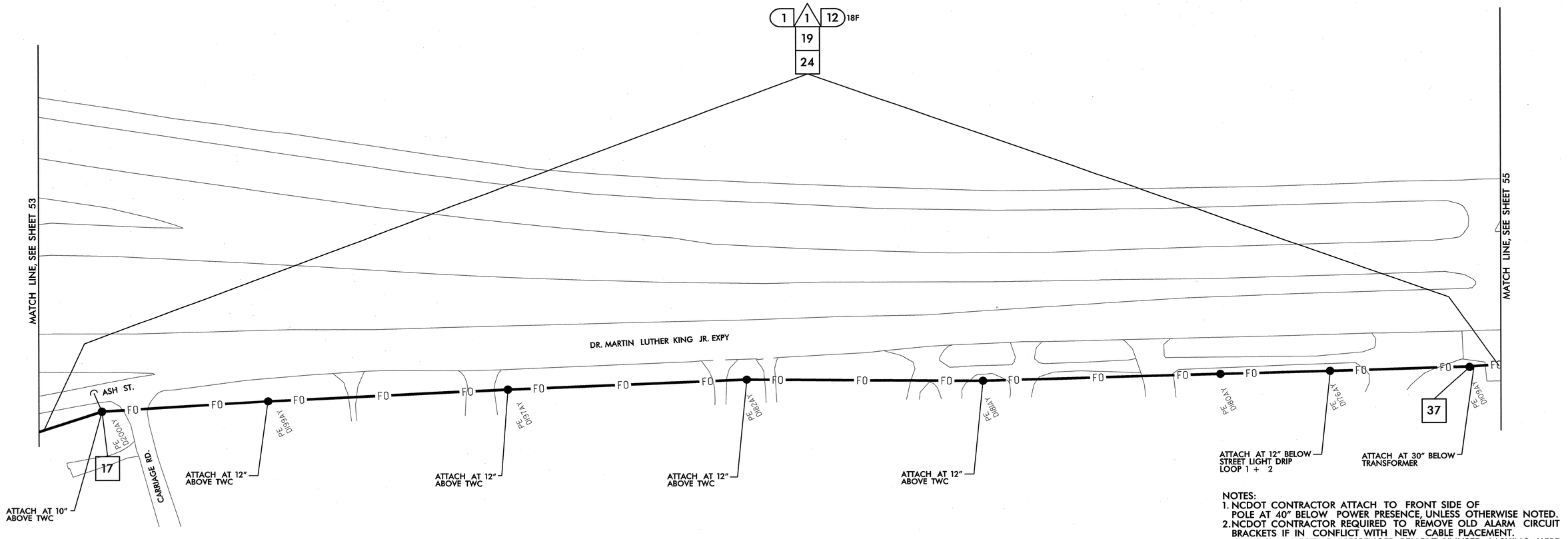
kvan_pnc_trn\Ulf#6016 goldsboro signal system\plans\sht_053.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	54



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

△1 INSTALL SMFO CABLE
△2 INSTALL FIBER OPTIC DROP CABLE
△3 INSTALL TRACER WIRE
△4 REUSE EXISTING SMFO CABLE
△5 INSTALL PLENUM RATED SMFO CABLE
△6 INSTALL LOOP LEAD-IN CABLE

(1) INSTALL PVC CONDUIT
(2) INSTALL POLYETHYLENE CONDUIT
(3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
(4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
(5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
(6) TRENCH CONDUIT
(7) DIRECTIONAL DRILL CONDUIT
(8) BORE AND JACK CONDUIT
(9) INSTALL CABLE(S) IN EXISTING CONDUIT
(10) INSTALL CABLE(S) IN NEW CONDUIT
(11) INSTALL CABLE(S) IN EXISTING RISER
(12) INSTALL CABLE(S) IN NEW RISER
(13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
(14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
(15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
(16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
(17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

◇1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE
◇3 INSTALL AERIAL SPLICE ENCLOSURE
◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
◇5 INSTALL TERMINAL SPLICE BOX

[1] INSTALL CABINET FOUNDATION
[2] REMOVE EXISTING CABINET FOUNDATION
[3] MODIFY EXISTING CABINET FOUNDATION
[4] REMOVE EXISTING CONTROLLER AND CABINET
[5] INSTALL NEW CONTROLLER
[6] INSTALL NEW 332 BASE MOUNTED CABINET
[7] INSTALL NEW 336S BASE MOUNTED CABINET
[8] INSTALL NEW 336S POLE MOUNTED CABINET
[9] INSTALL CCTV CAMERA ASSEMBLY
[10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11] INSTALL JUNCTION BOX
[12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13] REMOVE EXISTING JUNCTION BOX
[14] INSTALL WOOD POLE
[15] REMOVE EXISTING WOOD POLE
[16] INSTALL AERIAL GUY ASSEMBLY
[17] INSTALL STANDARD GUY ASSEMBLY
[18] INSTALL SIDEWALK GUY ASSEMBLY
[19] INSTALL MESSENGER CABLE
[20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21] REMOVE EXISTING COMMUNICATIONS CABLE
[22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
[23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
[24] LASH CABLE(S) TO NEW MESSENGER CABLE
[25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
[29] MODIFY EXISTING ELECTRICAL SERVICE
[30] INSTALL NEW ELECTRICAL SERVICE
[31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
[32] INSTALL FIBER OPTIC TRANSCEIVER
[33] INSTALL DIAL-UP MODEM
[34] INSTALL RADIO TRANSCEIVER
[35] INSTALL YAGI ANTENNA (8.5dB)
[36] INSTALL YAGI ANTENNA (13dB)
[37] BOND MESSENGER CABLE TO POLE GROUND
[38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames

2/20/2009
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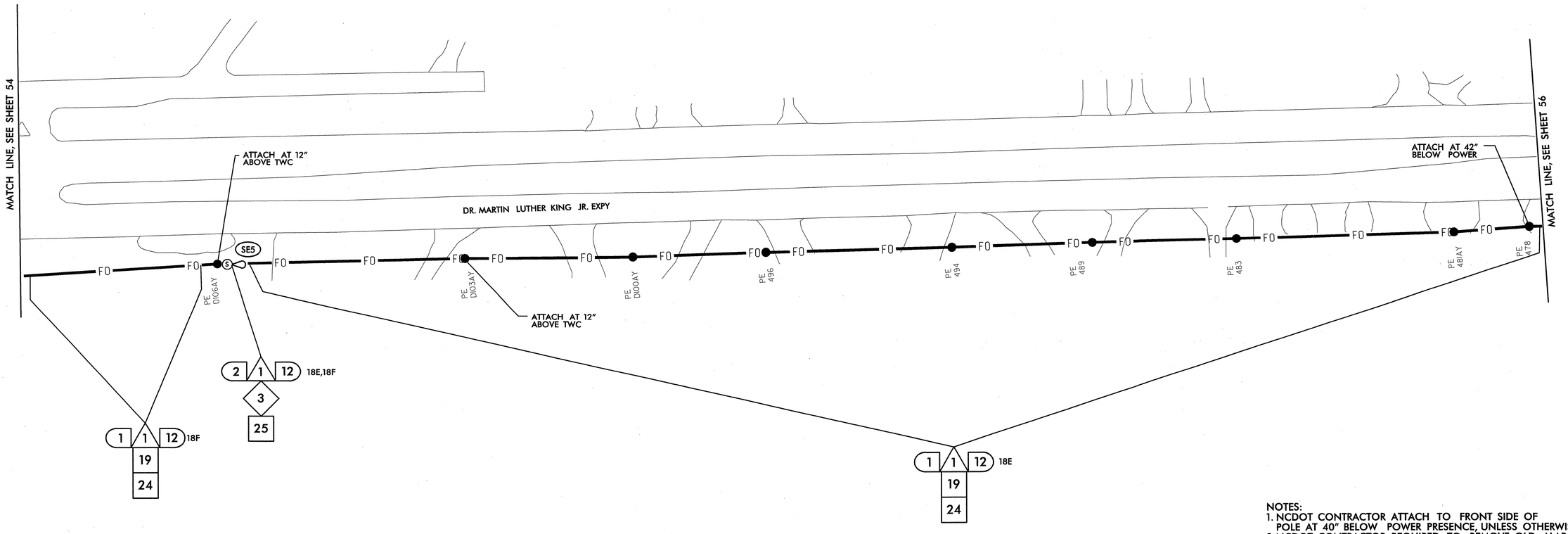
PROJECT REFERENCE NO.	SHEET NO.
U-5016	55



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- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
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- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
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- ◇5 INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
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- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
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- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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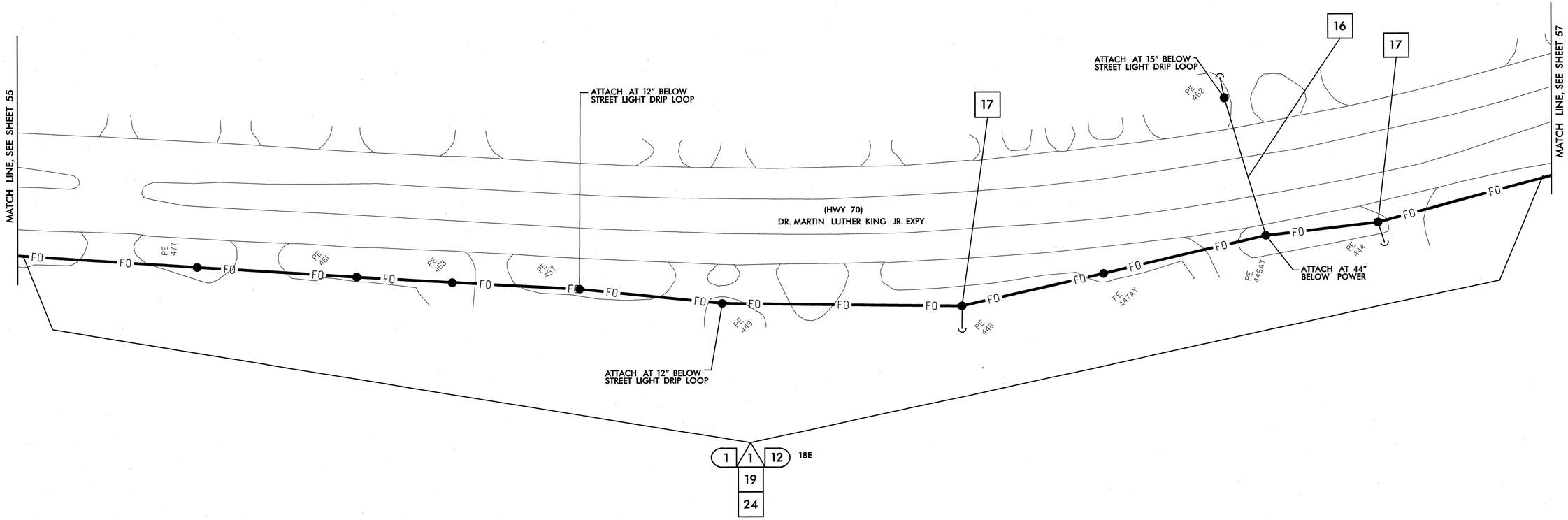
PROJECT REFERENCE NO.	SHEET NO.
U-5016	56



NOTES:
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- (A1) INSTALL SMFO CABLE
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- (A4) REUSE EXISTING SMFO CABLE
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- (I1) INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- (I2) INSTALL UNDERGROUND SPLICE ENCLOSURE
- (I3) INSTALL AERIAL SPLICE ENCLOSURE
- (I4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- (I5) INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
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- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
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- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
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750 Greenfield Pkwy, Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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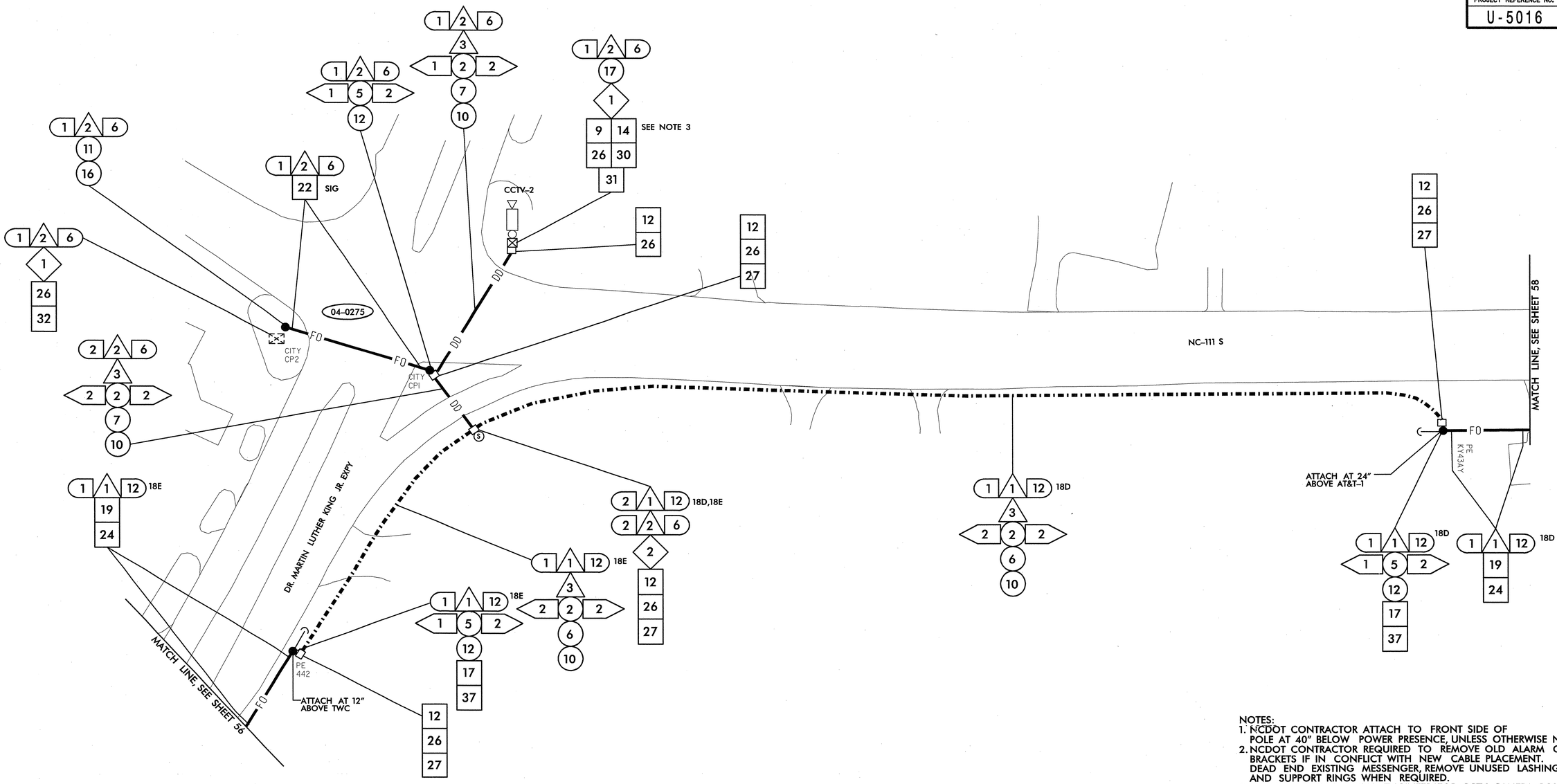
PROJECT REFERENCE NO.	SHEET NO.
U-5016	57



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. OBTAIN APPROVAL FROM ENGINEER FOR CCTV CAMERA POLE LOCATION BEFORE INSTALLATION.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
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<1> INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

SCALE 0 50

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename

2/20/2009
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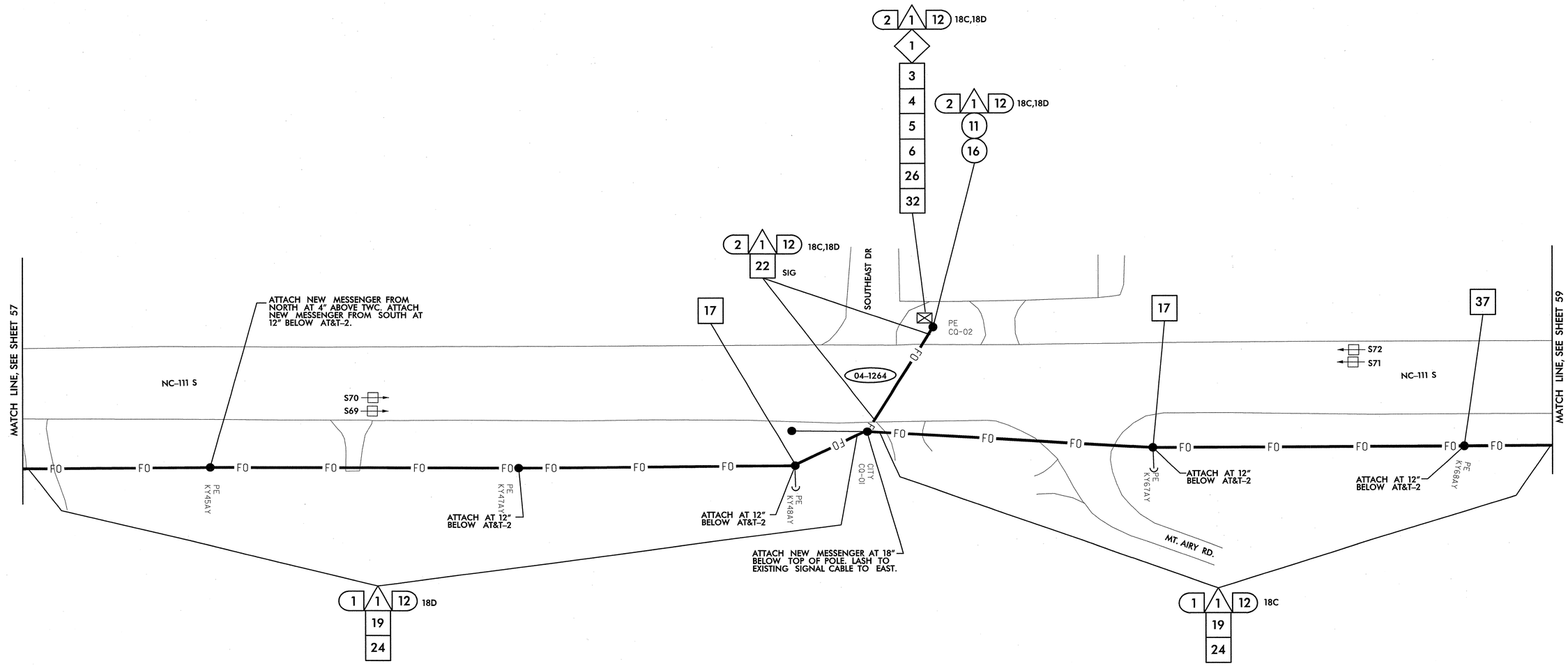
PROJECT REFERENCE NO.	SHEET NO.
U-5016	58



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SEE SIGNAL PLAN 04-1264 FOR SYSTEM DETECTORS S69, S70, S71 AND S72 INSTALLATION DETAILS. REFER TO INSTALLATION DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
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14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX
1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY
17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE
31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

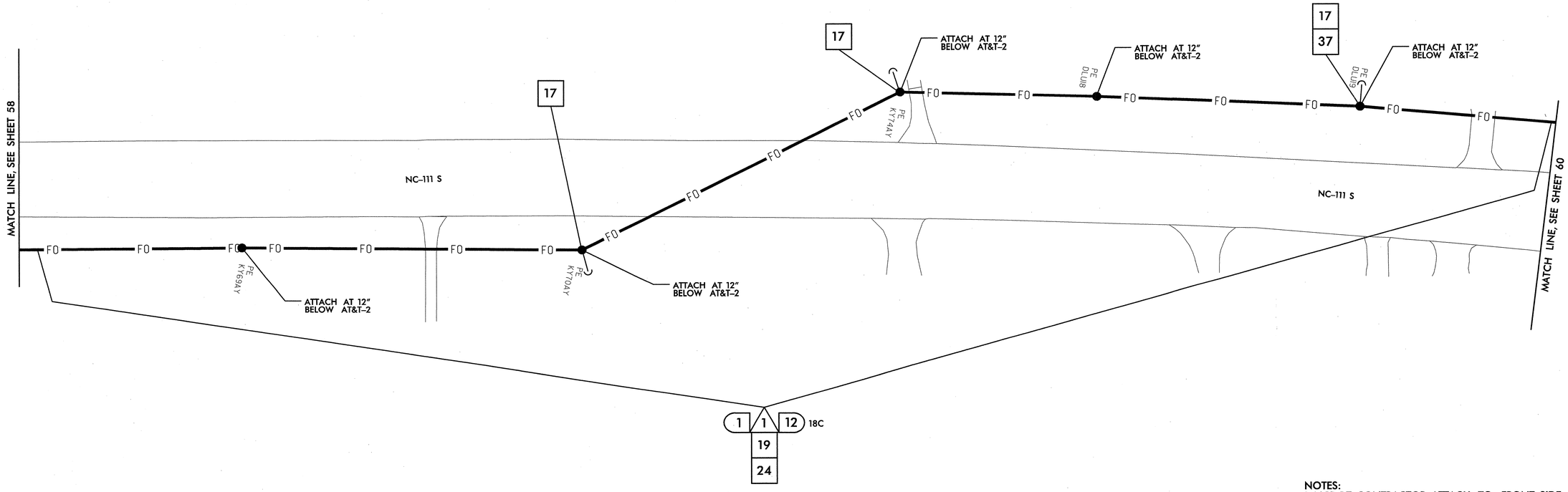
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
k:\rdi_tpb_tb\OII746016 goldsboro signal system\plans\sht_058.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	59



NOTES:
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2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- (A1) INSTALL SMFO CABLE
- (A2) INSTALL FIBER OPTIC DROP CABLE
- (A3) INSTALL TRACER WIRE
- (A4) REUSE EXISTING SMFO CABLE
- (A5) INSTALL PLENUM RATED SMFO CABLE
- (A6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
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- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
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- (2) INSTALL UNDERGROUND SPLICE ENCLOSURE
- (3) INSTALL AERIAL SPLICE ENCLOSURE
- (4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- (5) INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
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- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
Department of Transportation
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename

2/20/2009
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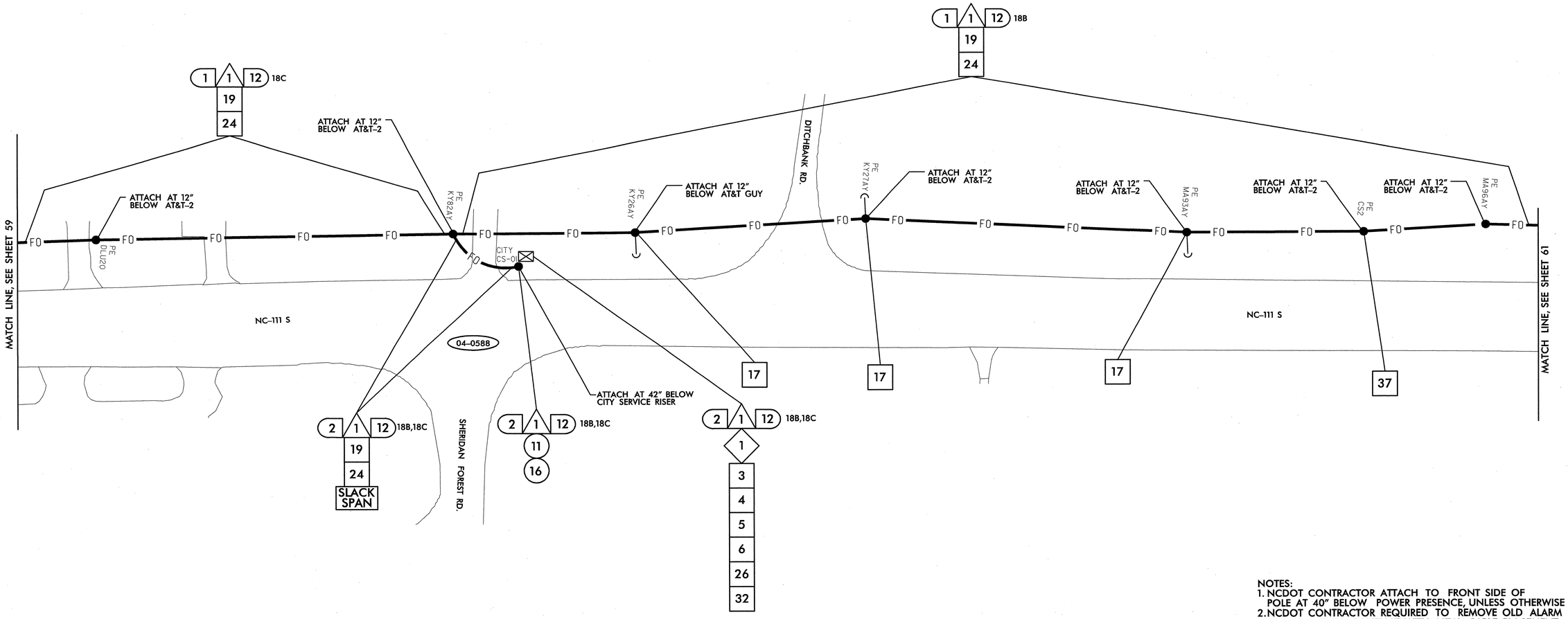
PROJECT REFERENCE NO.	SHEET NO.
U-5016	60



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PLANS PREPARED IN THE OFFICE OF:
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P.O. Box 33068
Raleigh N.C. 27636-3068
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750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/26/09 DATE
CADD Filenames

2/20/2009
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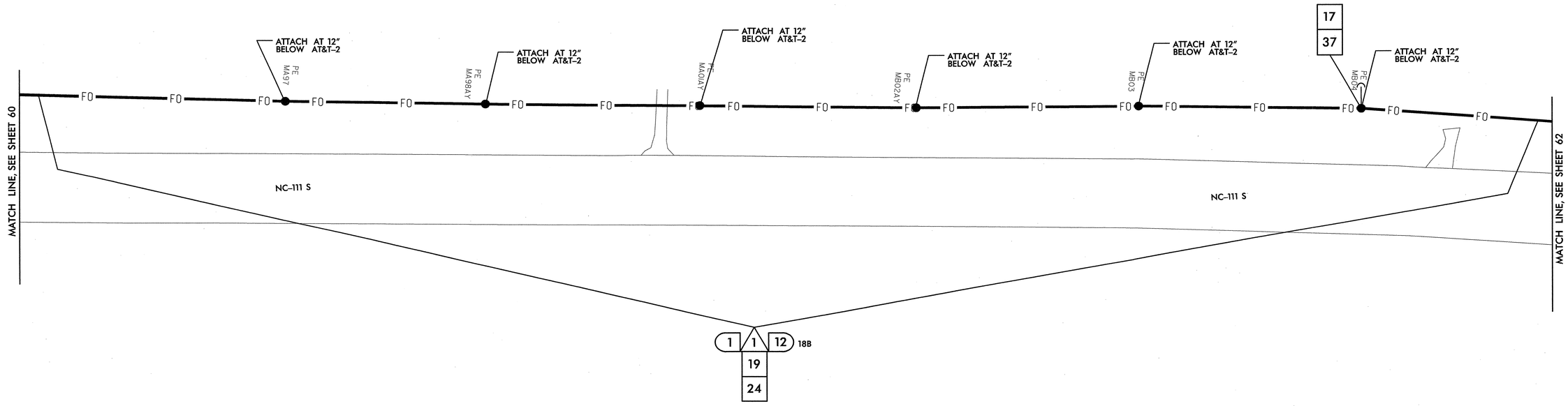
PROJECT REFERENCE NO.	SHEET NO.
U-5016	61



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Traffic Engineering and Safety Systems Branch
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames

2/20/2009
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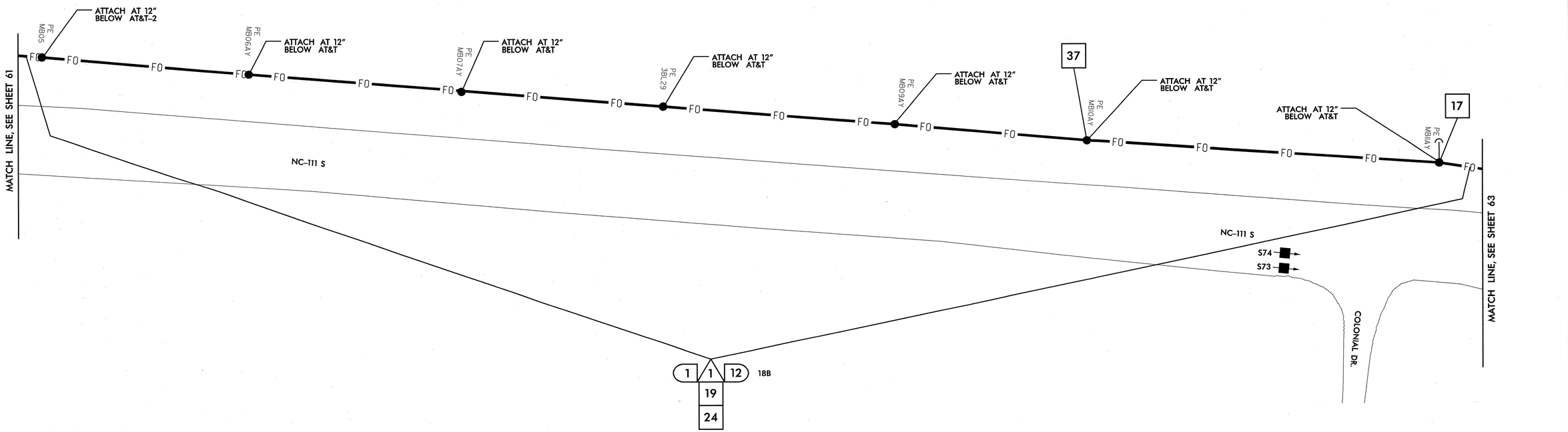
PROJECT REFERENCE NO.	SHEET NO.
U-5016	62



SEE SIGNAL PLAN 04–0603 FOR EXISTING SYSTEM DETECTORS S73 AND S74 DETAILS. INTERSECTION 04–0603 IS LOCATED ON CABLE ROUTING SHEET 63. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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[35] INSTALL YAGI ANTENNA (8.5dB)
[36] INSTALL YAGI ANTENNA (13dB)
[37] BOND MESSENGER CABLE TO POLE GROUND
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[39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NCDEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/24/09 DATE
CADD Filename

2/20/2009
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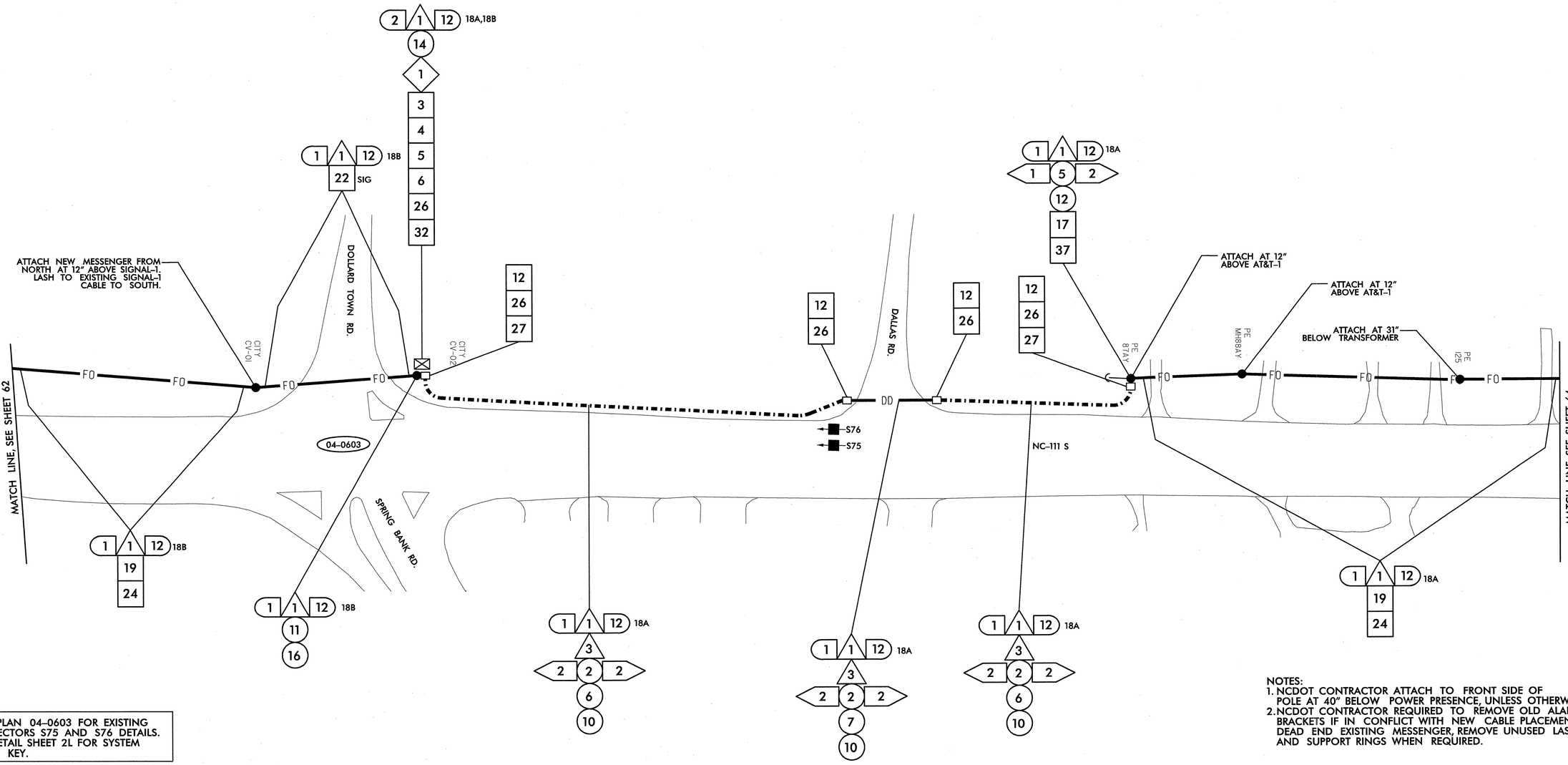
PROJECT REFERENCE NO.	SHEET NO.
U-5016	63



SEE SIGNAL PLAN 04-0603 FOR EXISTING SYSTEM DETECTORS S75 AND S76 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
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- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
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- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
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- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ⟨1⟩ INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ⟨2⟩ INSTALL UNDERGROUND SPLICE ENCLOSURE
- ⟨3⟩ INSTALL AERIAL SPLICE ENCLOSURE
- ⟨4⟩ MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
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- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

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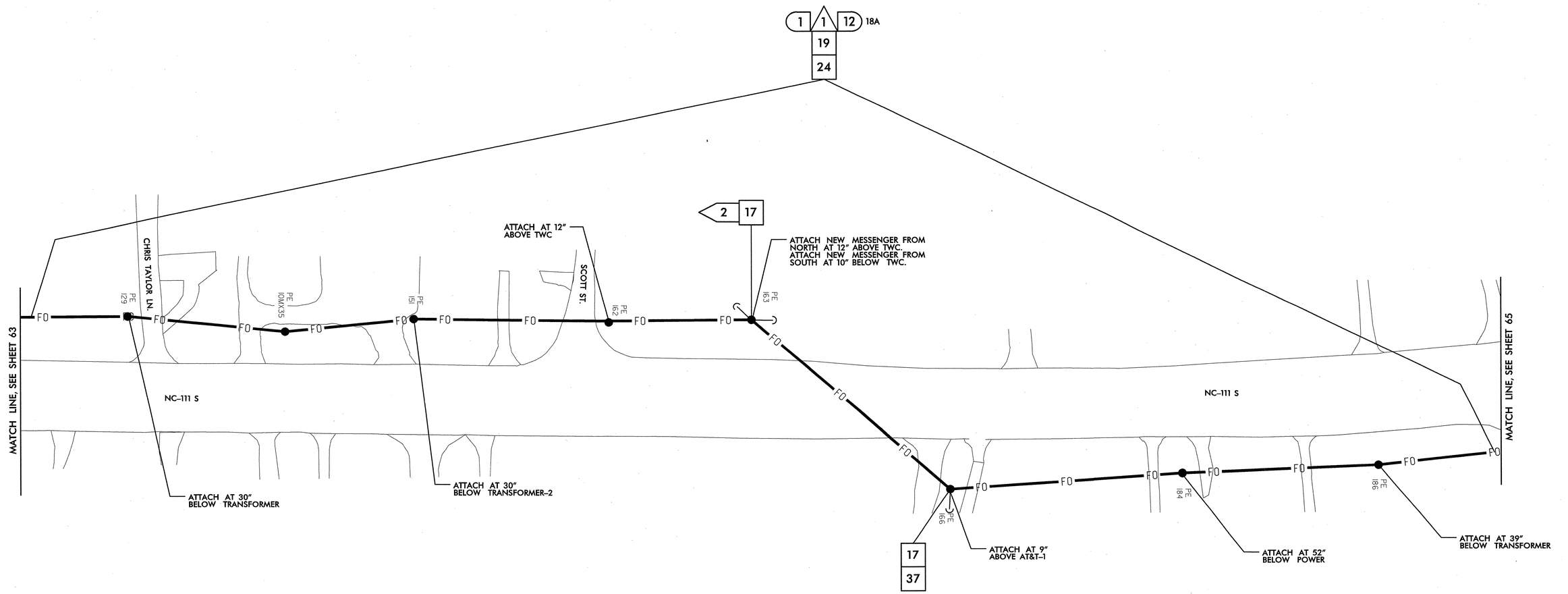
k:\traffic\projects\u-5016 goldsboro signal system\plans\str_063.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	64



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PLANS PREPARED IN THE OFFICE OF:
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Public Engineering and Safety Systems Branch
THE STATE OF SOUTH CAROLINA
Department of Transportation
Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/24/09 DATE

CADD Filename:

2/20/2009
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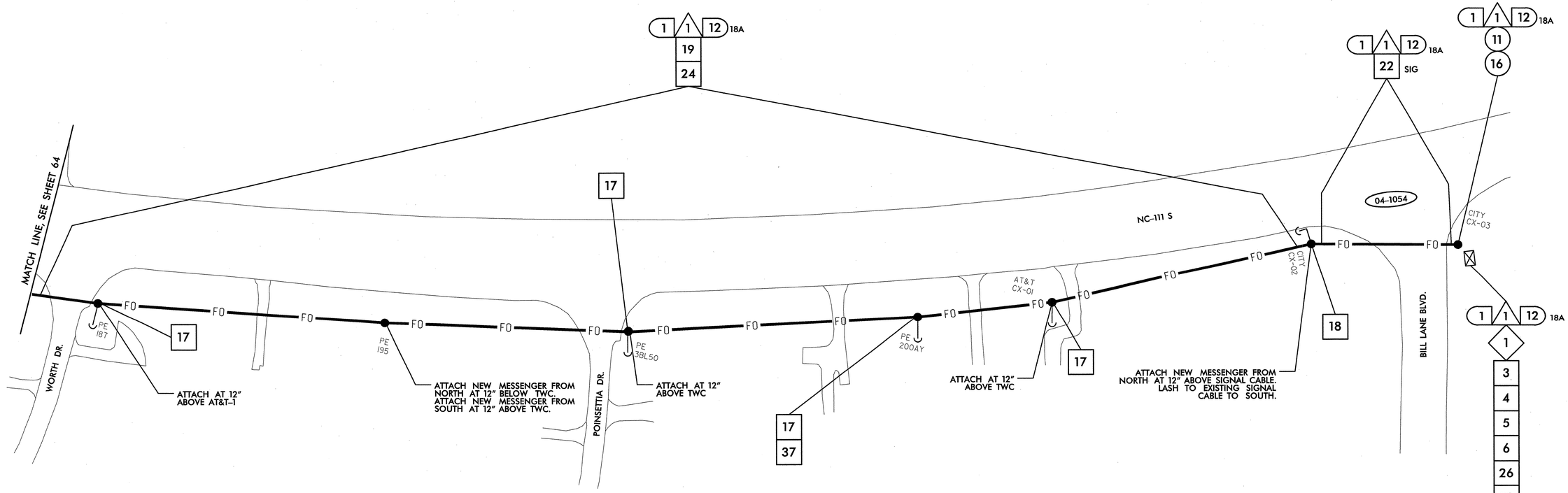
PROJECT REFERENCE NO.	SHEET NO.
U-5016	65



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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Statewide Traffic Engineering Operations
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames

2/20/2009
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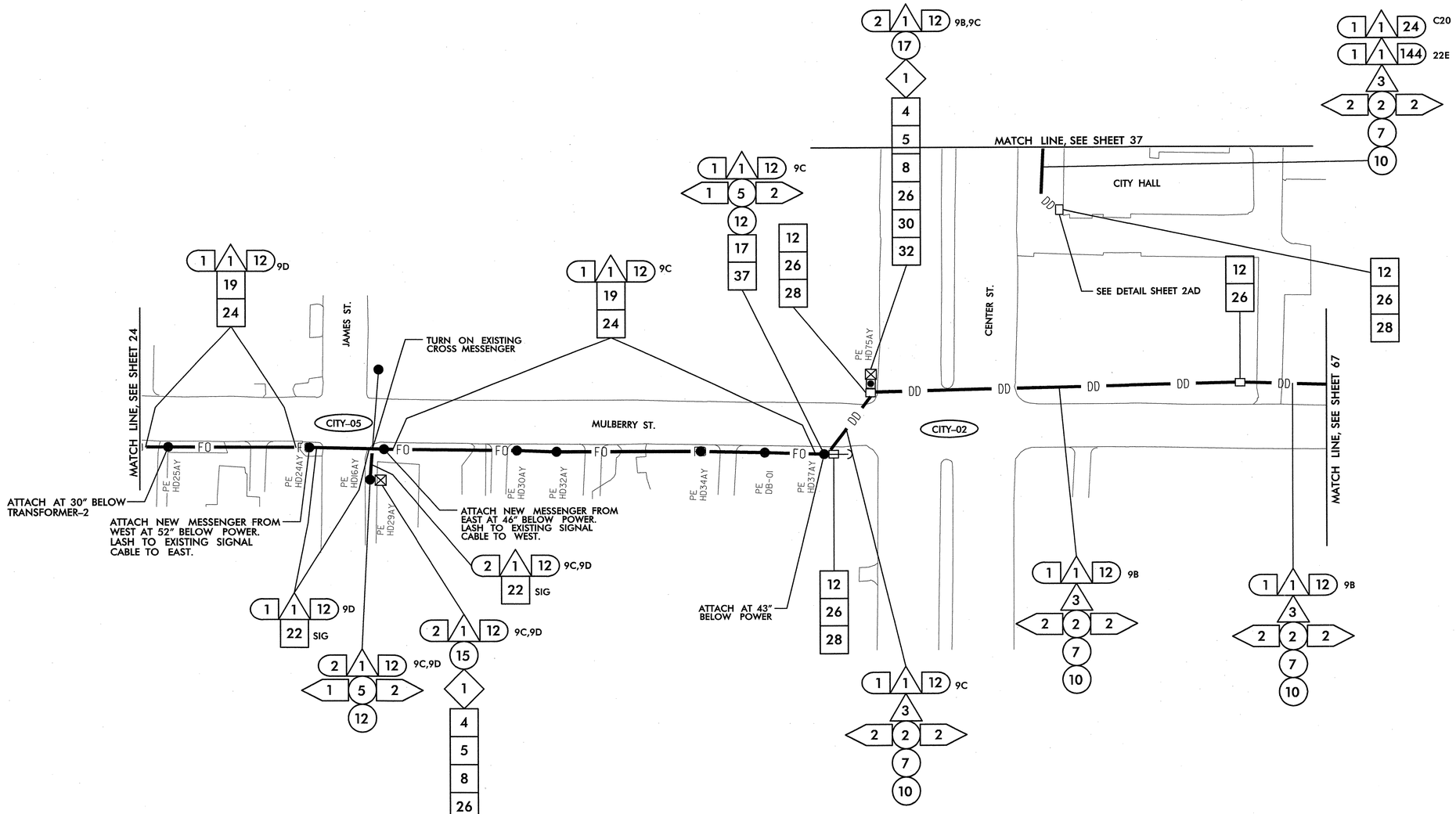
PROJECT REFERENCE NO.	SHEET NO.
U-5016	66



THIS AREA HAS BEEN DETERMINED TO CONTAIN PROPERTIES WITH DOCUMENTED HISTORIC SIGNIFICANCE. IF IT IS NECESSARY TO DEVIATE FROM THESE PLANS IN THIS AREA, PLEASE ALERT THE ENGINEER TO CONTACT PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH – HISTORIC ARCHITECTURE GROUP OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR AN EFFECT DETERMINATION BEFORE PROCEEDING.

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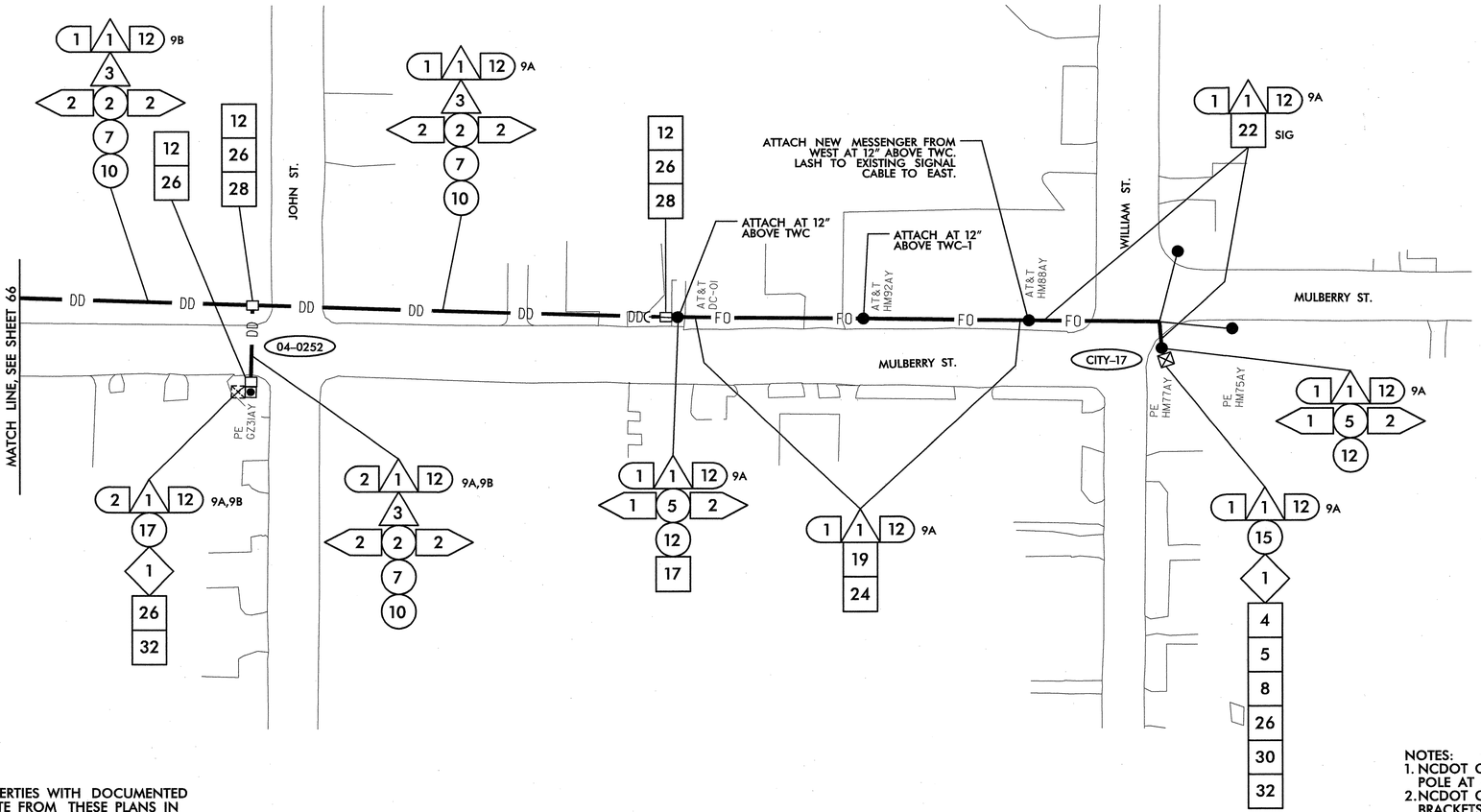
PROJECT REFERENCE NO.	SHEET NO.
U-5016	67



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NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION

3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh NC, 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
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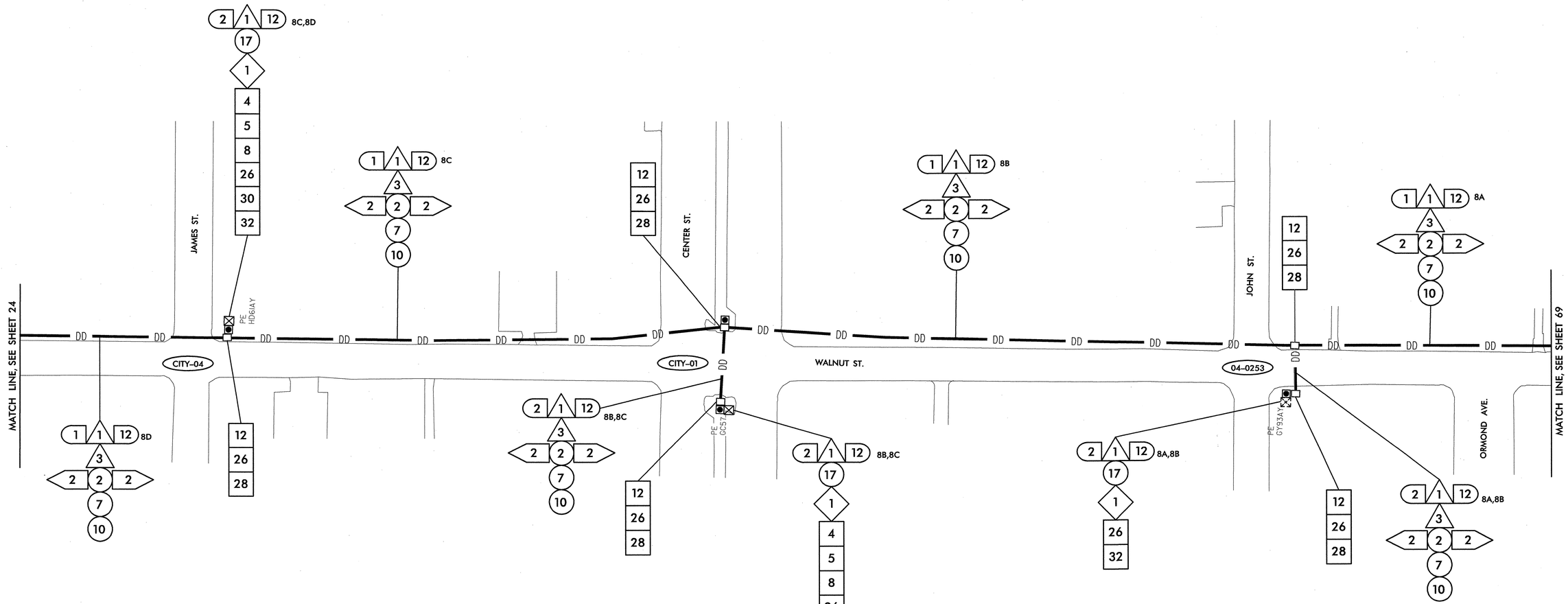
PROJECT REFERENCE NO.	SHEET NO.
U-5016	68



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3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
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9. INSTALL CCTV CAMERA ASSEMBLY
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41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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(919) 677-2000

Traffic Engineering and Safety Systems Branch
NCDEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy, Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/24/09 DATE

CADD Filenames

2/20/2009
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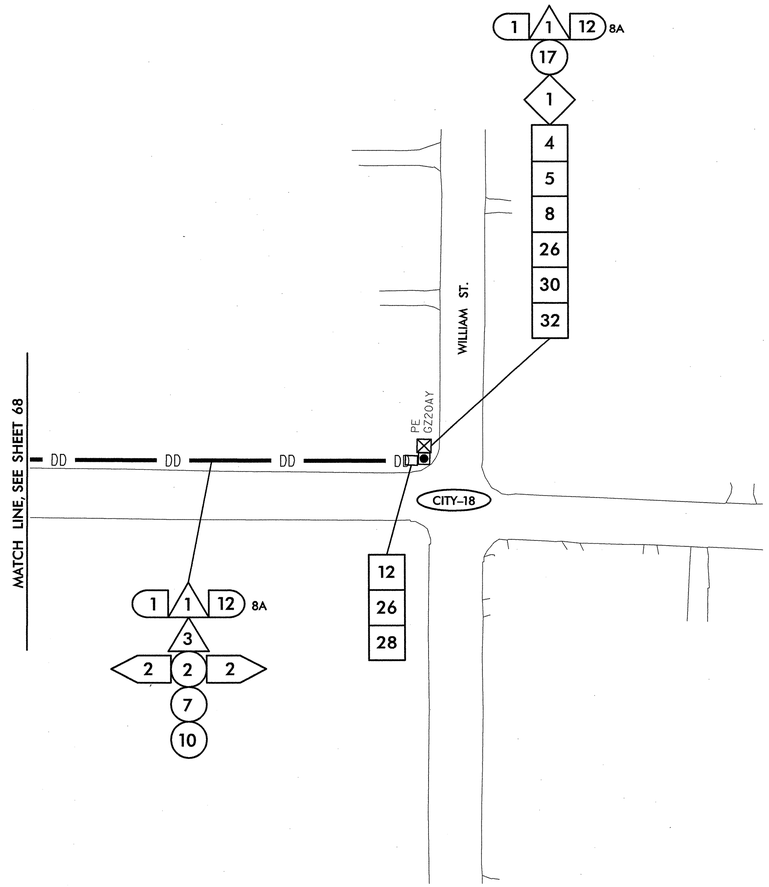
PROJECT REFERENCE NO.	SHEET NO.
U-5016	69



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- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
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- ◇3 INSTALL AERIAL SPLICE ENCLOSURE
- ◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ◇5 INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
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- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
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- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
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- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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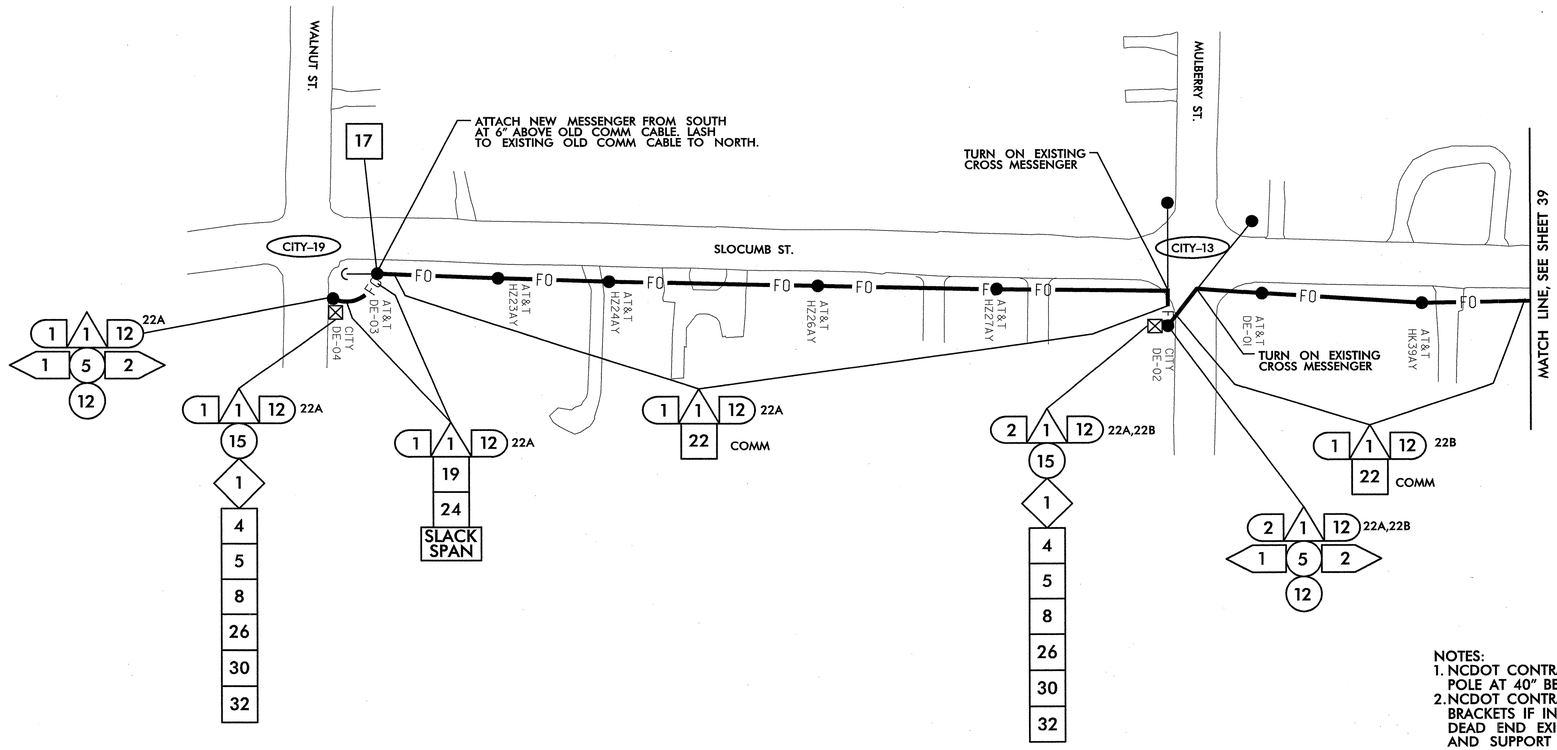
PROJECT REFERENCE NO.	SHEET NO.
U-5016	70



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PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

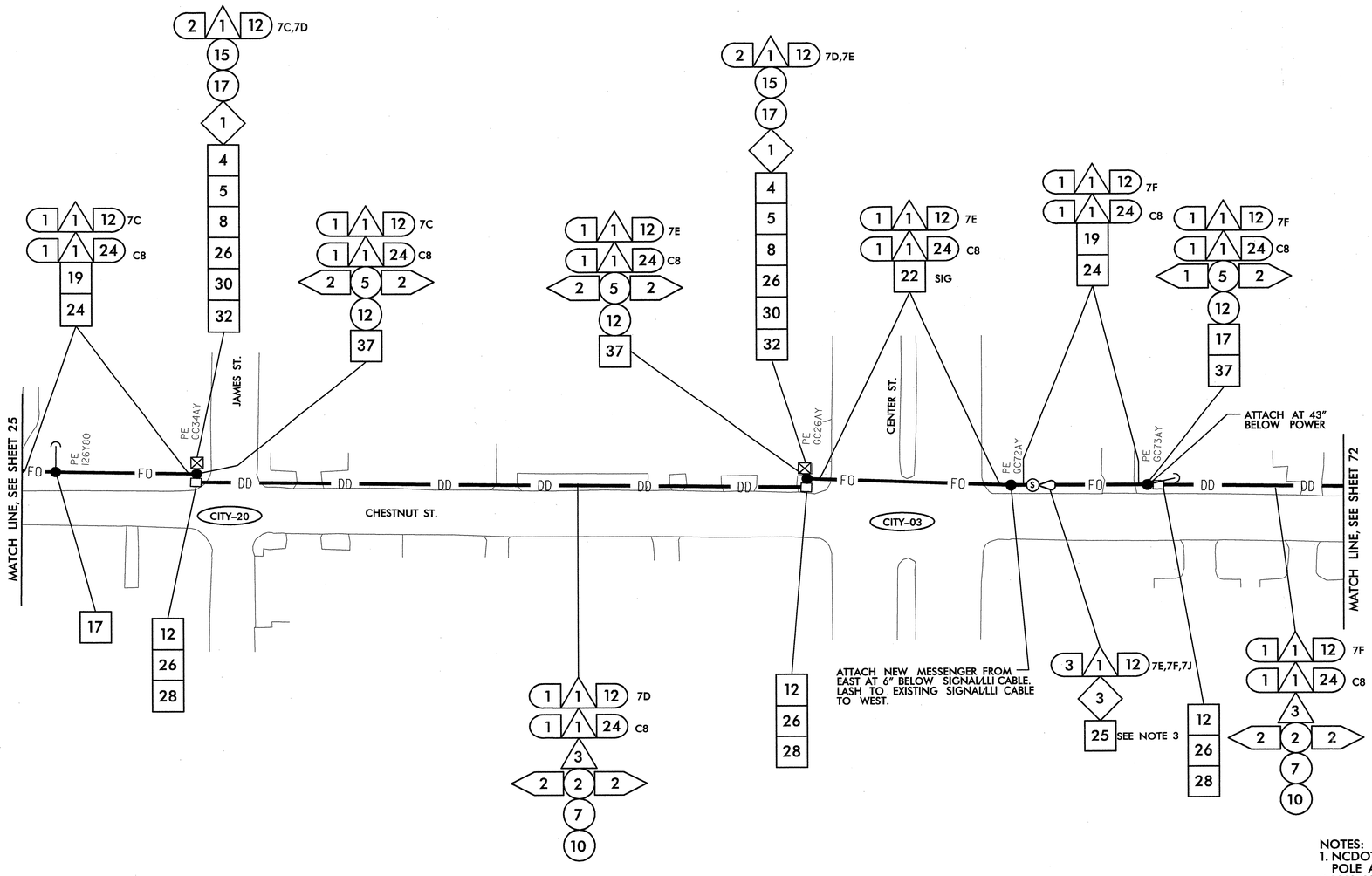
REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
k:\rdi_tpb_ths\0117460\6_goldsboro signal systemplans\sht_070.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	71



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3. CABLE 7J IS COILED FOR FUTURE USE BY CITY POLICE DEPARTMENT. CAP AND SEAL CABLE.

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(5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
(6) TRENCH CONDUIT
(7) DIRECTIONAL DRILL CONDUIT
(8) BORE AND JACK CONDUIT
(9) INSTALL CABLE(S) IN EXISTING CONDUIT
(10) INSTALL CABLE(S) IN NEW CONDUIT
(11) INSTALL CABLE(S) IN EXISTING RISER
(12) INSTALL CABLE(S) IN NEW RISER
(13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
(14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
(15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
(16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
(17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

<1> INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
<2> INSTALL UNDERGROUND SPLICE ENCLOSURE
<3> INSTALL AERIAL SPLICE ENCLOSURE
<4> MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
<5> INSTALL TERMINAL SPLICE BOX

[1] INSTALL CABINET FOUNDATION
[2] REMOVE EXISTING CABINET FOUNDATION
[3] MODIFY EXISTING CABINET FOUNDATION
[4] REMOVE EXISTING CONTROLLER AND CABINET
[5] INSTALL NEW CONTROLLER
[6] INSTALL NEW 332 BASE MOUNTED CABINET
[7] INSTALL NEW 336S BASE MOUNTED CABINET
[8] INSTALL NEW 336S POLE MOUNTED CABINET
[9] INSTALL CCTV CAMERA ASSEMBLY
[10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11] INSTALL JUNCTION BOX
[12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13] REMOVE EXISTING JUNCTION BOX
[14] INSTALL WOOD POLE
[15] REMOVE EXISTING WOOD POLE
[16] INSTALL AERIAL GUY ASSEMBLY
[17] INSTALL STANDARD GUY ASSEMBLY
[18] INSTALL SIDEWALK GUY ASSEMBLY
[19] INSTALL MESSENGER CABLE
[20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21] REMOVE EXISTING COMMUNICATIONS CABLE
[22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
[23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
[24] LASH CABLE(S) TO NEW MESSENGER CABLE
[25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
[29] MODIFY EXISTING ELECTRICAL SERVICE
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[31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
[32] INSTALL FIBER OPTIC TRANSCEIVER
[33] INSTALL DIAL-UP MODEM
[34] INSTALL RADIO TRANSCEIVER
[35] INSTALL YAGI ANTENNA (8.5dB)
[36] INSTALL YAGI ANTENNA (13dB)
[37] BOND MESSENGER CABLE TO POLE GROUND
[38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

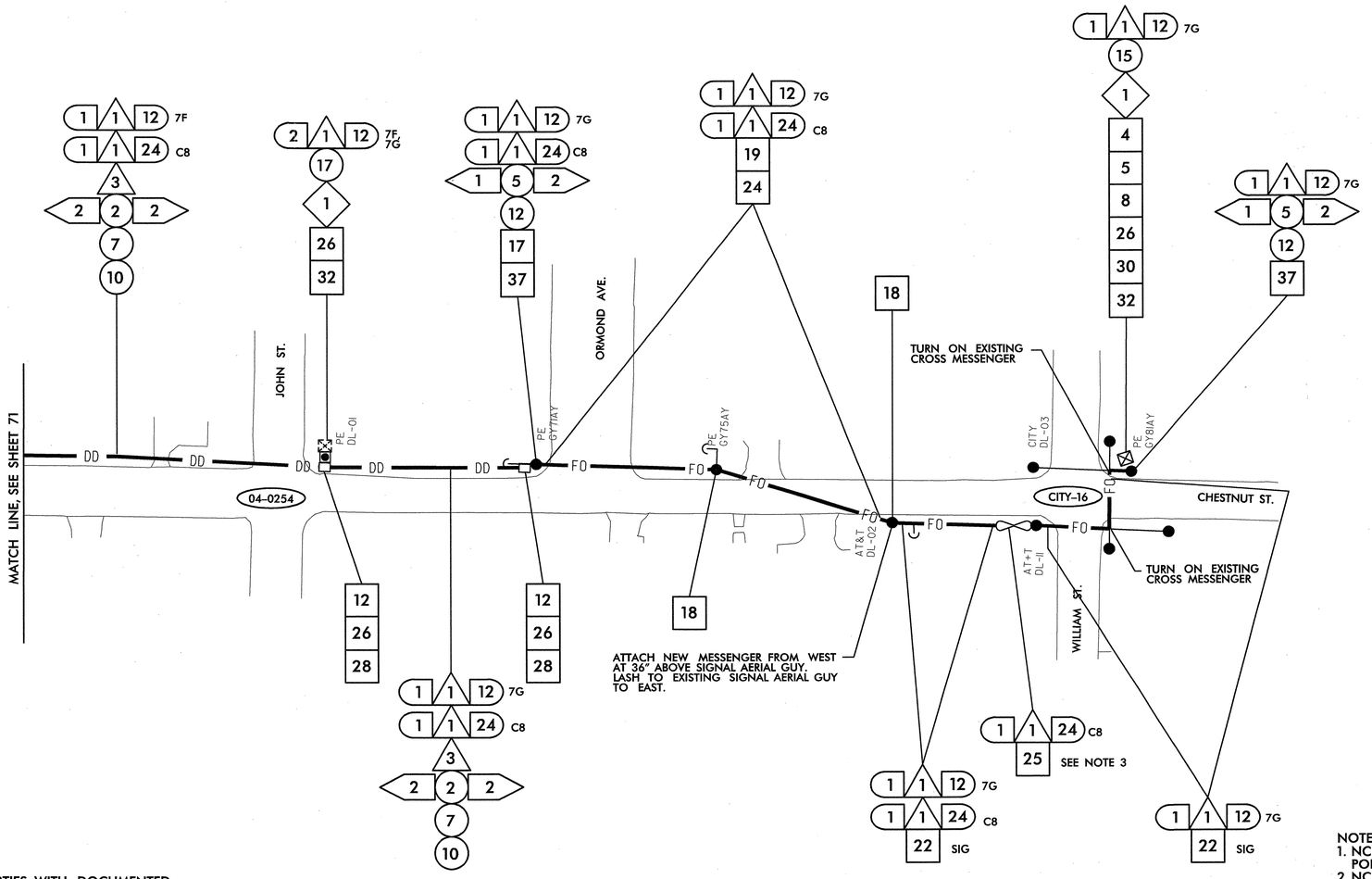
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
k:\rdi_tpb_tha\CITY46016 goldsboro signal system\plans\sht_071.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	72



THIS AREA HAS BEEN DETERMINED TO CONTAIN PROPERTIES WITH DOCUMENTED HISTORIC SIGNIFICANCE. IF IT IS NECESSARY TO DEVIATE FROM THESE PLANS IN THIS AREA, PLEASE ALERT THE ENGINEER TO CONTACT PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH – HISTORIC ARCHITECTURE GROUP OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR AN EFFECT DETERMINATION BEFORE PROCEEDING.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. CAP AND SEAL CITY CABLE.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE
1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
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4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
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8. BORE AND JACK CONDUIT
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3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
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40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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Raleigh N.C. 27636-3068
(919) 677-2000

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/12/09 DATE

CADD Filenames

2/20/2009
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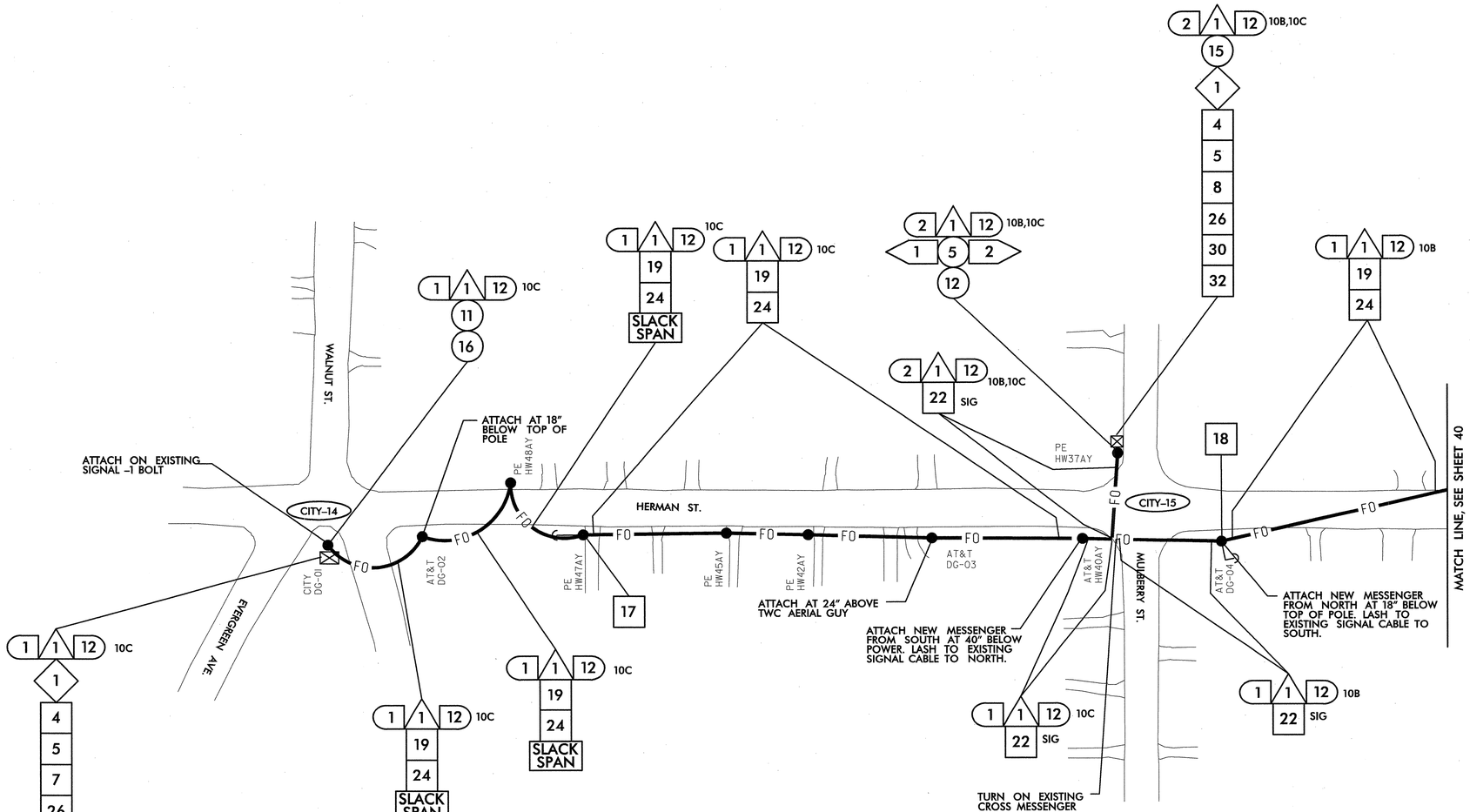
PROJECT REFERENCE NO.	SHEET NO.
U-5016	73



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- 3 INSTALL TRACER WIRE
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- 5 INSTALL PLENUM RATED SMFO CABLE
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- ◇5 INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
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- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
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- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE — DATE 2/20/09
CADD Filenames

2/20/2009
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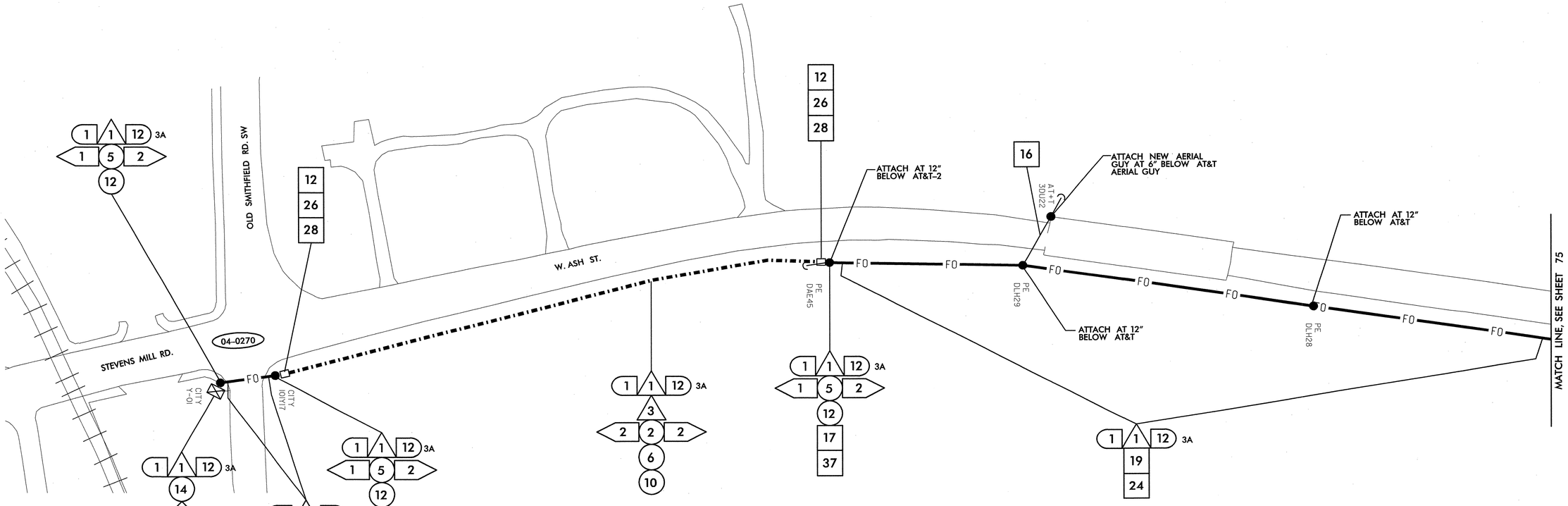
PROJECT REFERENCE NO.	SHEET NO.
U-5016	74



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6. INSTALL LOOP LEAD-IN CABLE

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Traffic Engineering and Safety Systems Branch
Engineering Services Unit
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
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750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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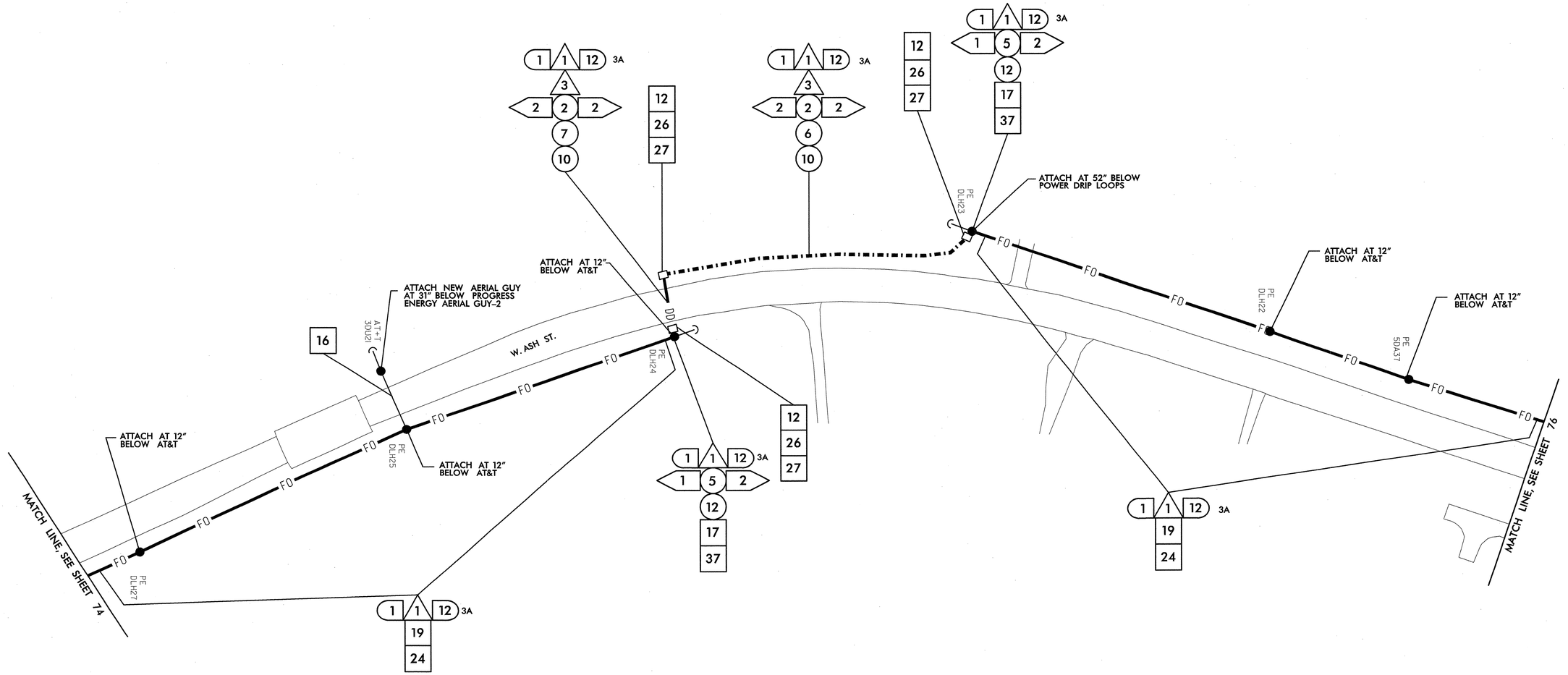
PROJECT REFERENCE NO.	SHEET NO.
U-5016	75



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- [17] INSTALL STANDARD GUY ASSEMBLY
- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- [21] REMOVE EXISTING COMMUNICATIONS CABLE
- [22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- [23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
- [24] LASH CABLE(S) TO NEW MESSENGER CABLE
- [25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- [26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
- [36] INSTALL YAGI ANTENNA (13dB)
- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
Department of Transportation
Division of Highways
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE — DATE 2/20/09
CADD Filenames

2/20/2009
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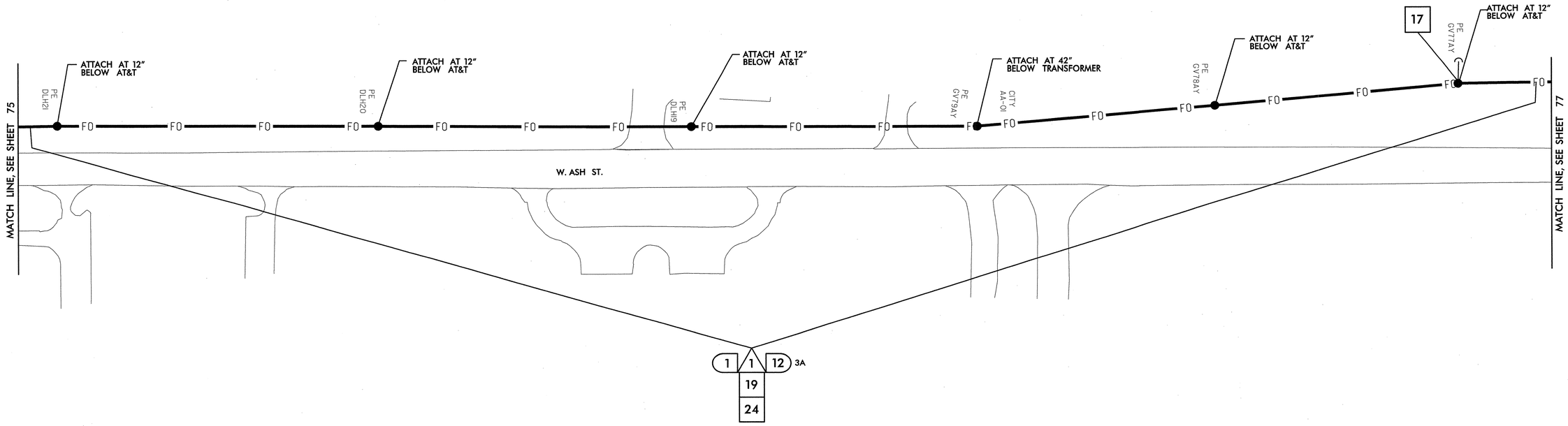
PROJECT REFERENCE NO.	SHEET NO.
U-5016	76



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
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27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
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31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
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34. INSTALL RADIO TRANSCEIVER
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39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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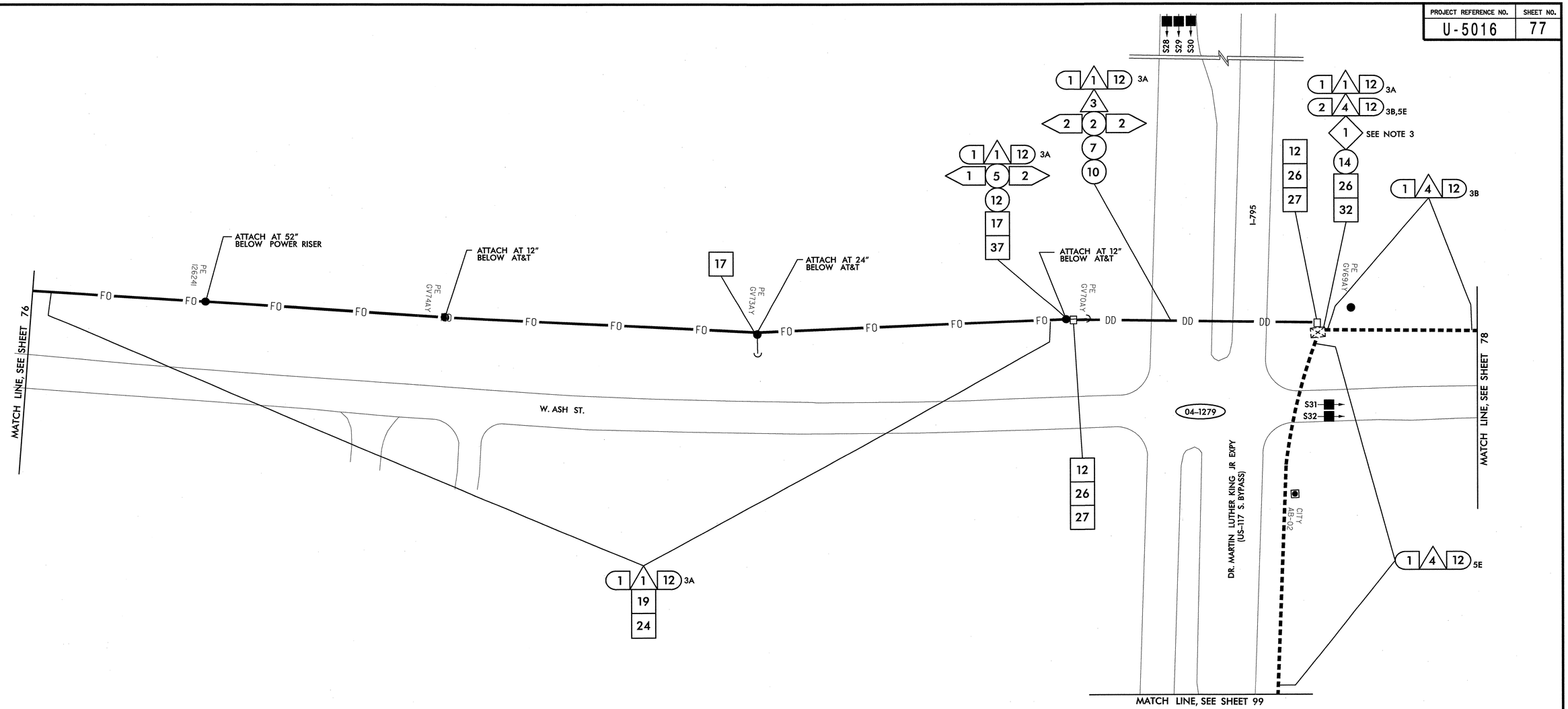
PROJECT REFERENCE NO.	SHEET NO.
U-5016	77



SEE SIGNAL PLAN 04-1279 FOR EXISTING SYSTEM DETECTORS S28, S29,S30, S31 AND S32 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
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3. INSTALL LARGE INTERCONNECT CENTER TO ACCOMMODATE ALL CABLES ENTERING CABINET.

- (1) INSTALL SMFO CABLE
- (2) INSTALL FIBER OPTIC DROP CABLE
- (3) INSTALL TRACER WIRE
- (4) REUSE EXISTING SMFO CABLE
- (5) INSTALL PLENUM RATED SMFO CABLE
- (6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
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- (6) TRENCH CONDUIT
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- (2) INSTALL UNDERGROUND SPLICE ENCLOSURE
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- (4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- (5) INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
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- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
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- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Traffic Engineering Section
Integrated Mobility Division
NCDEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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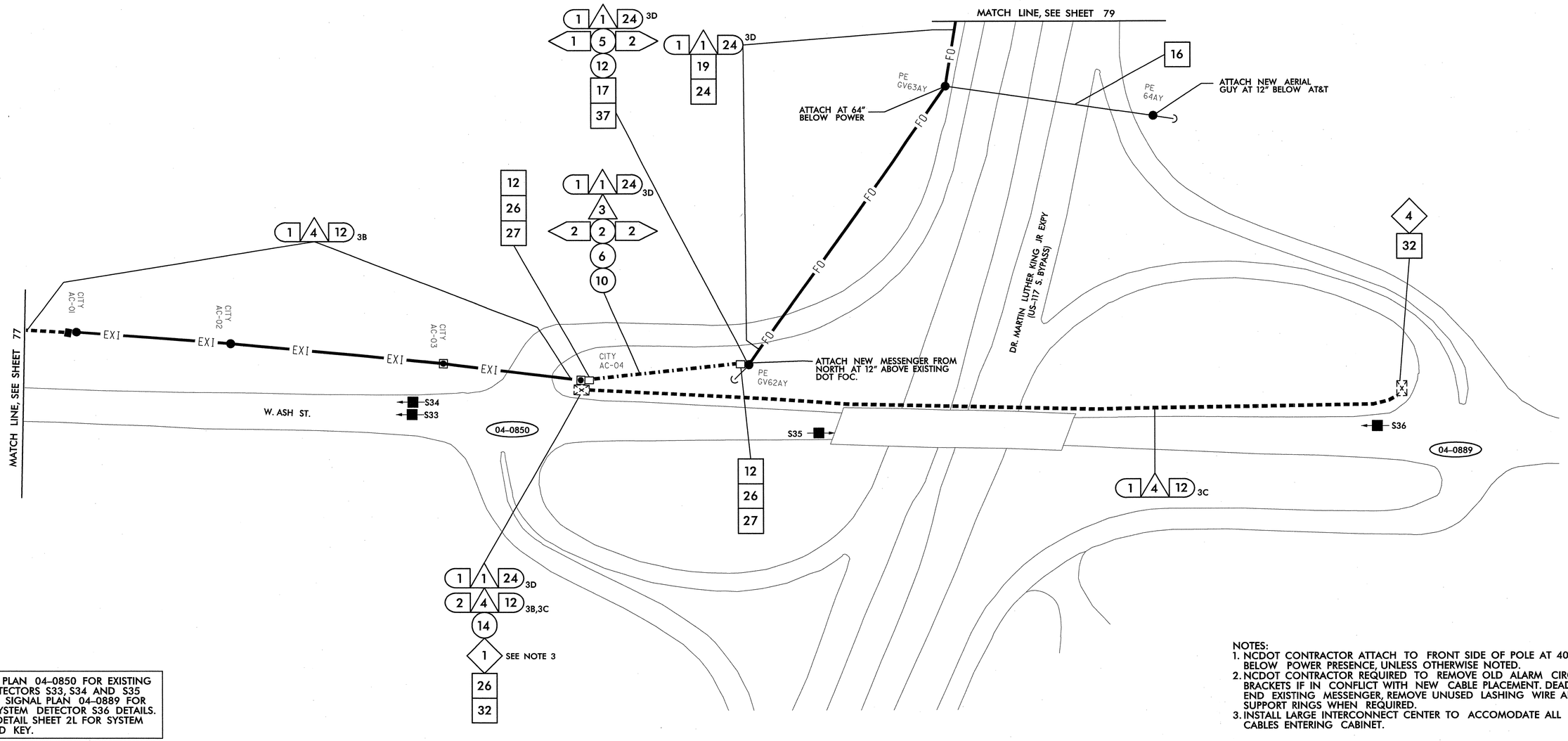
PROJECT REFERENCE NO.	SHEET NO.
U-5016	78



SEE SIGNAL PLAN 04-0850 FOR EXISTING SYSTEM DETECTORS S33, S34 AND S35 DETAILS. SEE SIGNAL PLAN 04-0889 FOR EXISTING SYSTEM DETECTOR S36 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames

2/20/2009
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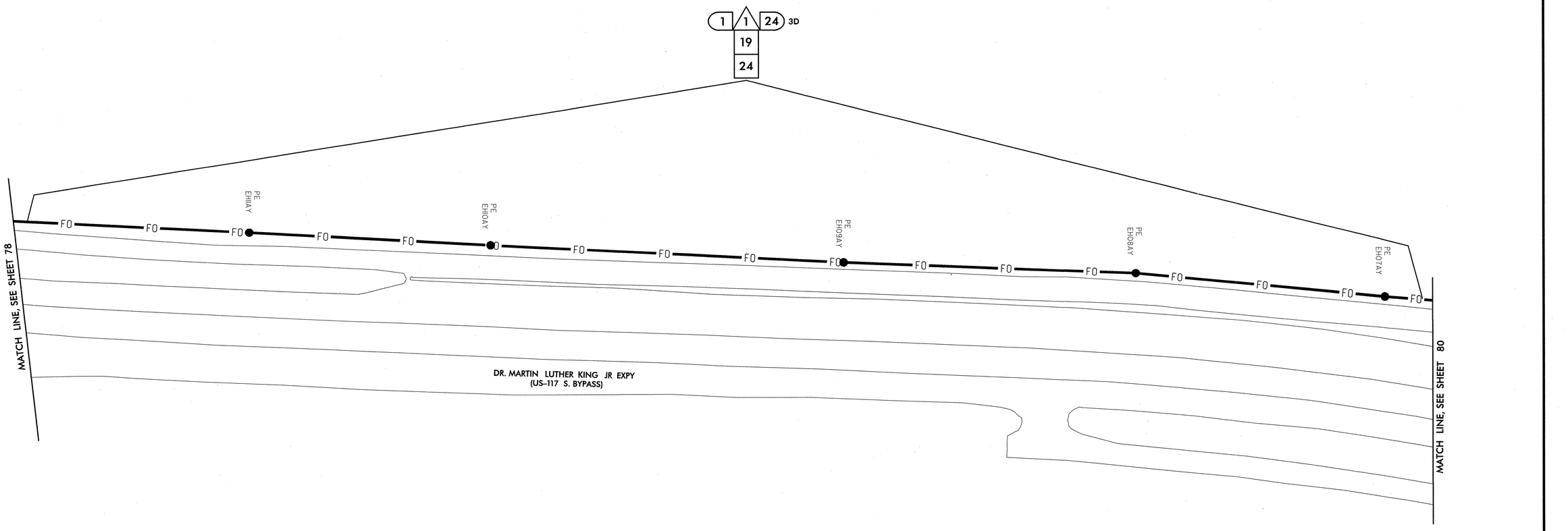
PROJECT REFERENCE NO.	SHEET NO.
U-5016	79



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750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames

2/20/2009
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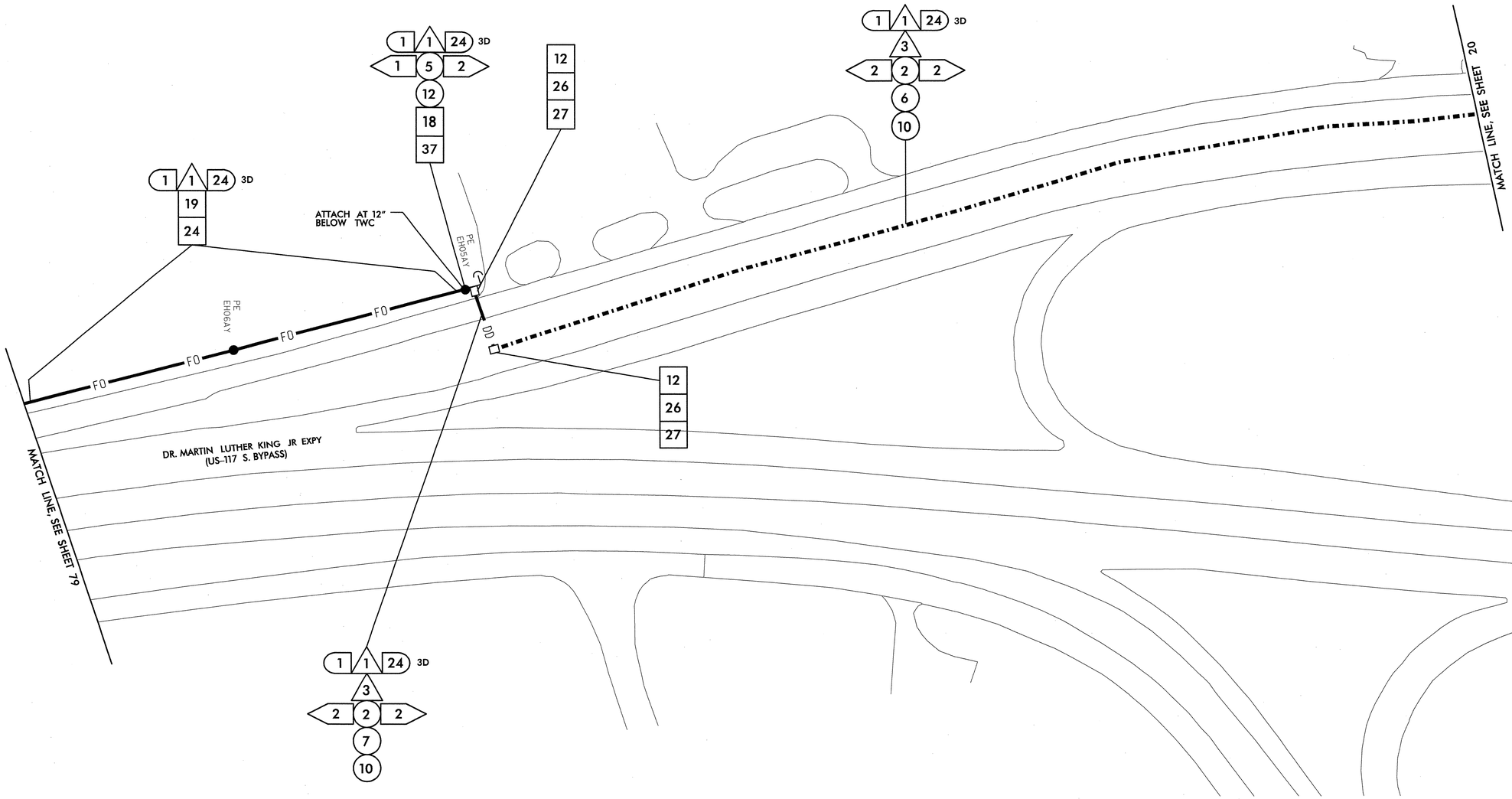
PROJECT REFERENCE NO.	SHEET NO.
U-5016	80



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
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- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- <1> INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- <2> INSTALL UNDERGROUND SPLICE ENCLOSURE
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- <4> MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- <5> INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
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- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
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- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
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- [35] INSTALL YAGI ANTENNA (8.5dB)
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- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Mobility and Safety Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

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CADD Filename:

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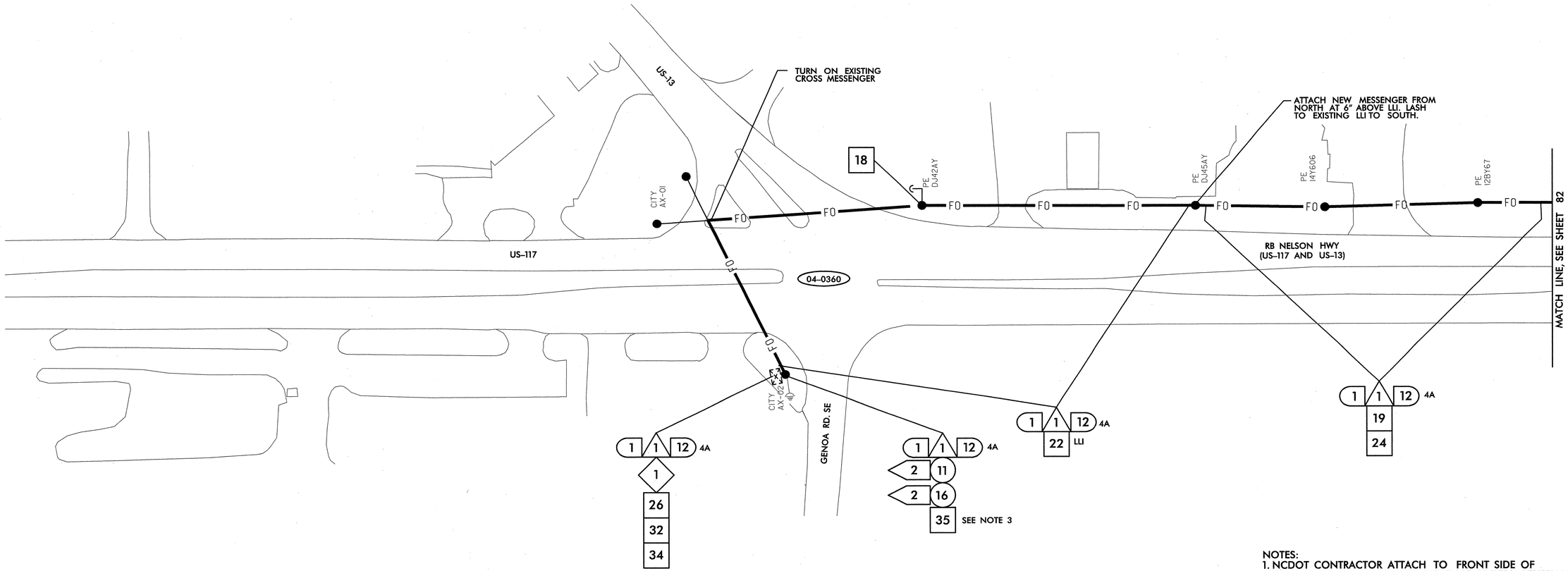
PROJECT REFERENCE NO.	SHEET NO.
U-5016	81



NOTES:
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3. ANTENNA ORIENTATION IS FOR DISPLAY PURPOSES ONLY. FINAL ORIENTATION TO BE DETERMINED DURING FIELD SURVEY.

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PLANS PREPARED IN THE OFFICE OF:
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Public Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
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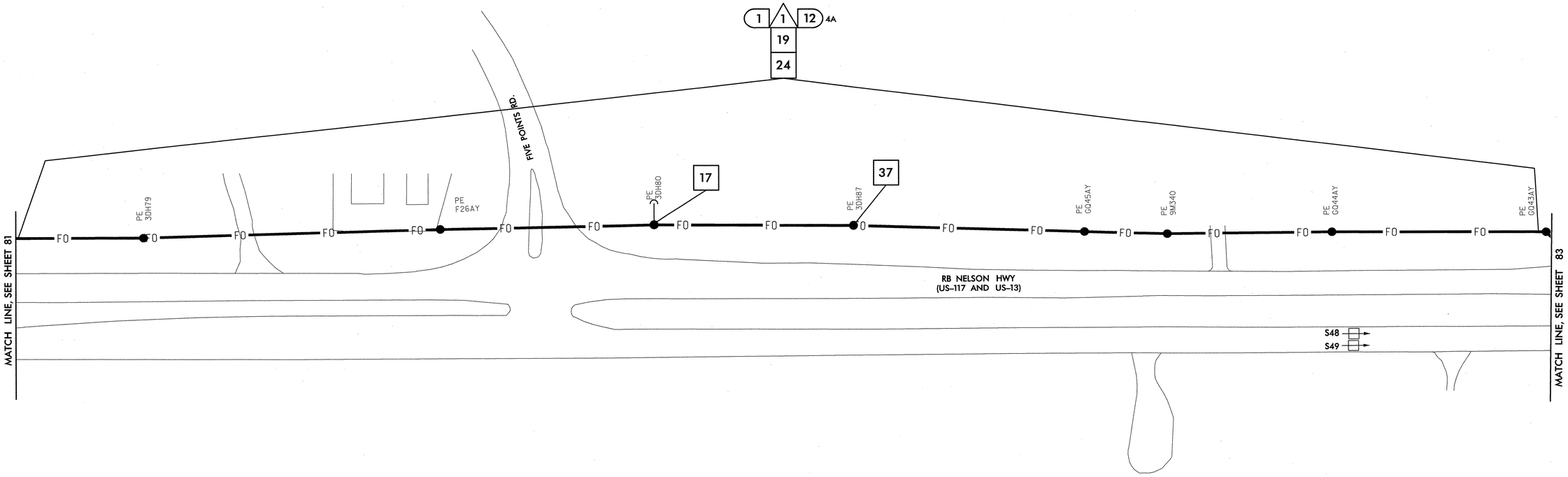
PROJECT REFERENCE NO.	SHEET NO.
U-5016	82



SEE SIGNAL PLAN 04-1255 FOR SYSTEM DETECTORS S48 AND S49 INSTALLATION DETAILS. INTERSECTION 04-1255 IS LOCATED ON CABLE ROUTING SHEET 83. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
North Carolina Department of Transportation
1 South Wilmington Street
Raleigh, NC 27601
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
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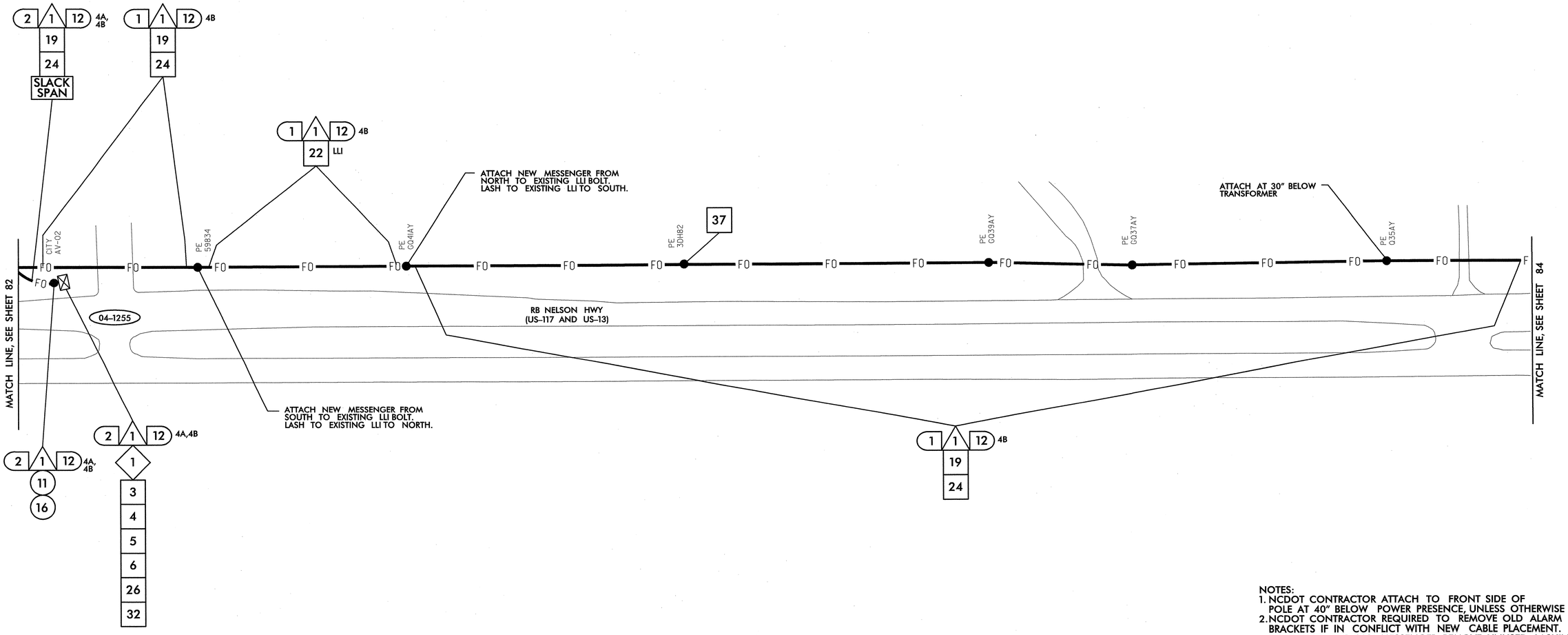
PROJECT REFERENCE NO.	SHEET NO.
U-5016	83



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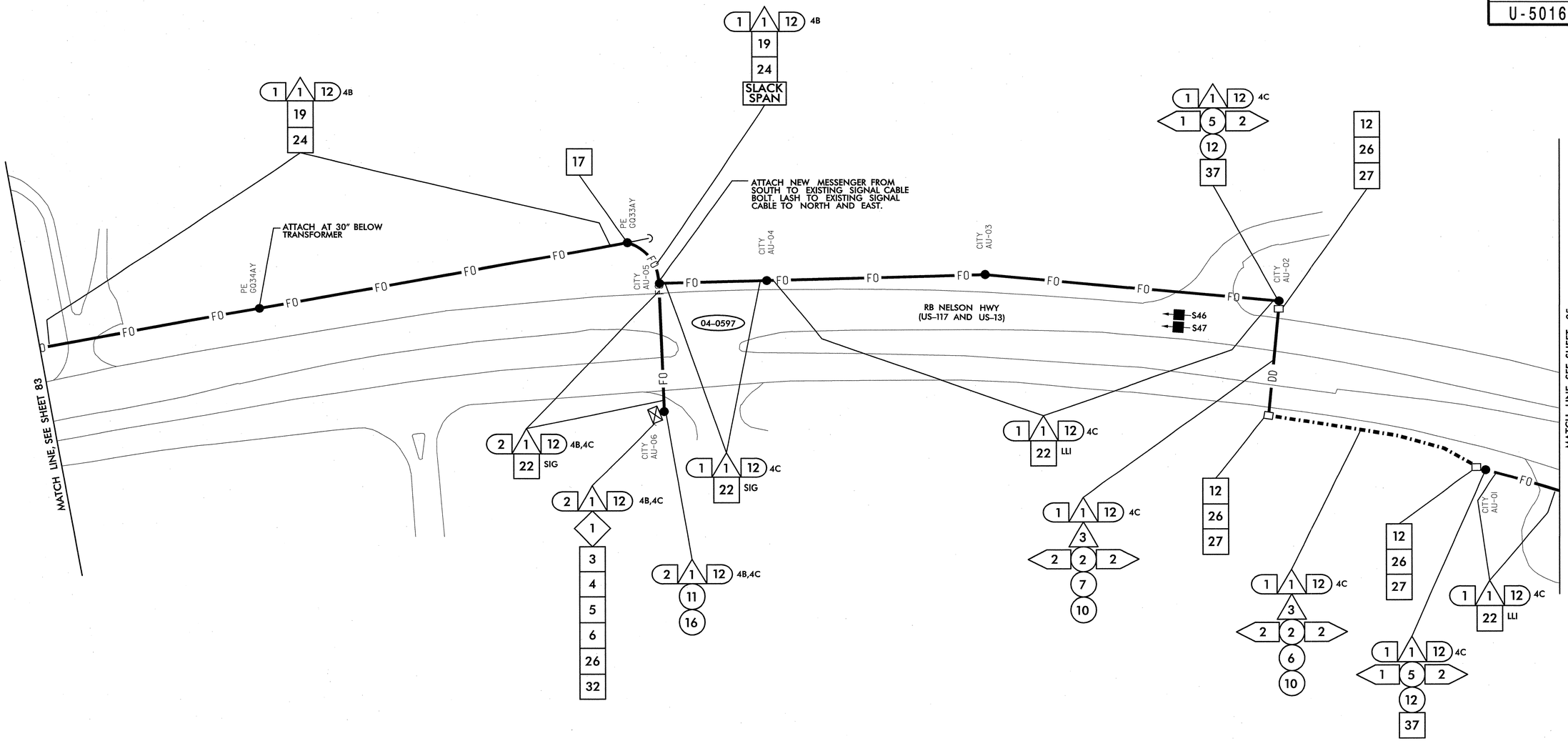
PROJECT REFERENCE NO.	SHEET NO.
U-5016	84



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SEE SIGNAL PLAN 04-0597 FOR EXISTING SYSTEM DETECTORS S46 AND S47 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION

3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
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16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
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20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
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29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

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34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND

38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
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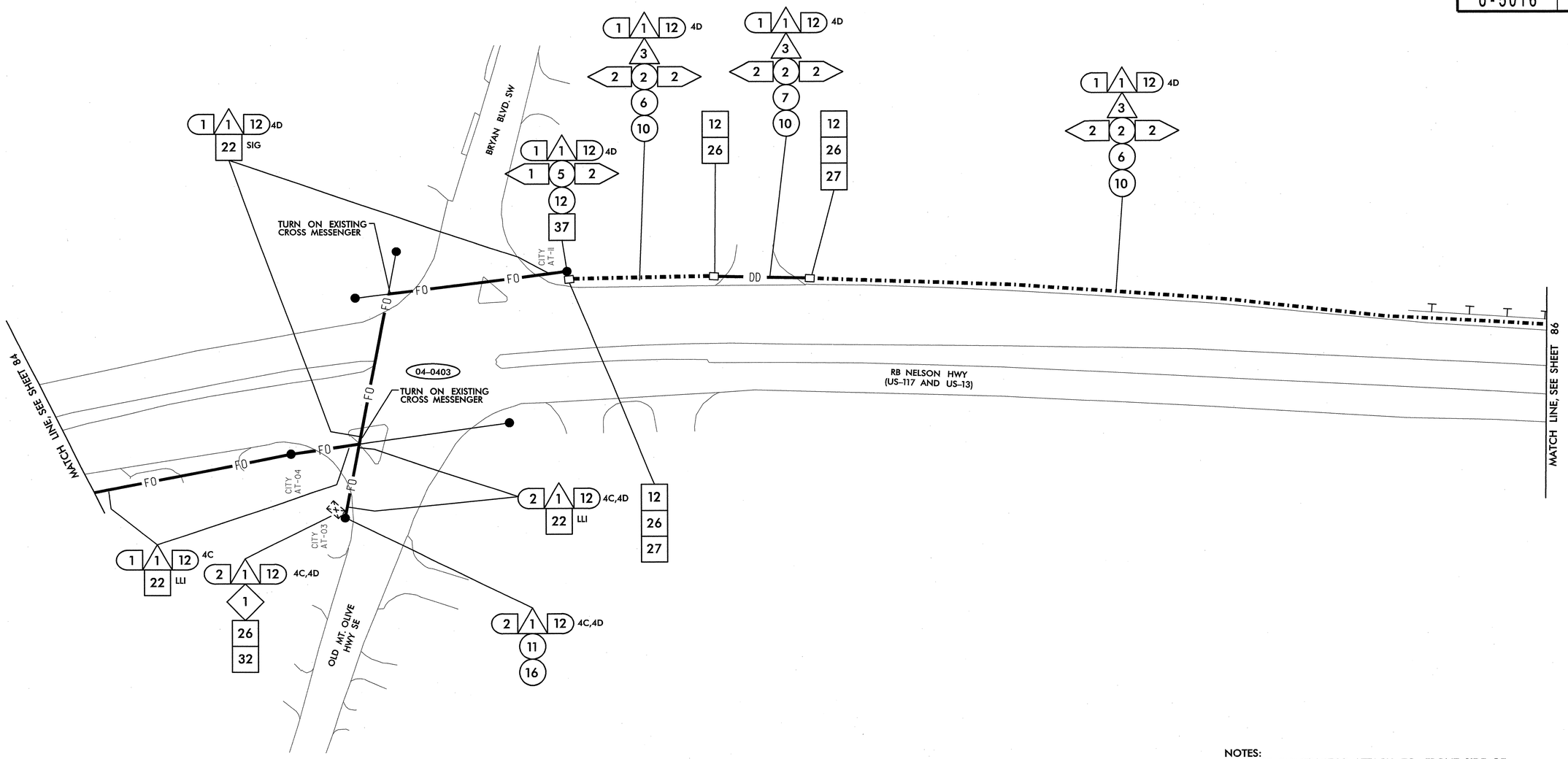
PROJECT REFERENCE NO.	SHEET NO.
U-5016	85



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PLANS PREPARED IN THE OFFICE OF:
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Raleigh NC, 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
DEPARTMENT OF TRANSPORTATION
Statewide Traffic Signal Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename

2/20/2009
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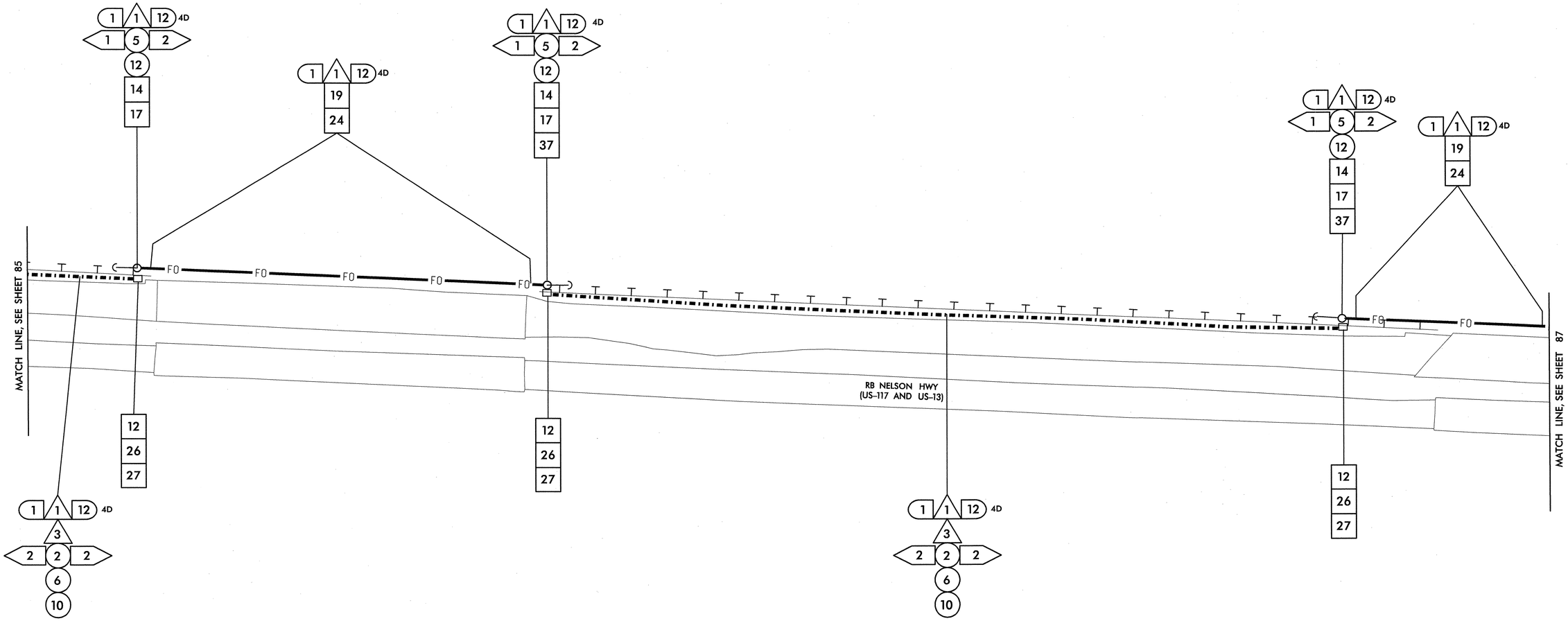
PROJECT REFERENCE NO.	SHEET NO.
U-5016	86



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PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/24/09

CADD Filenames

2/20/2009
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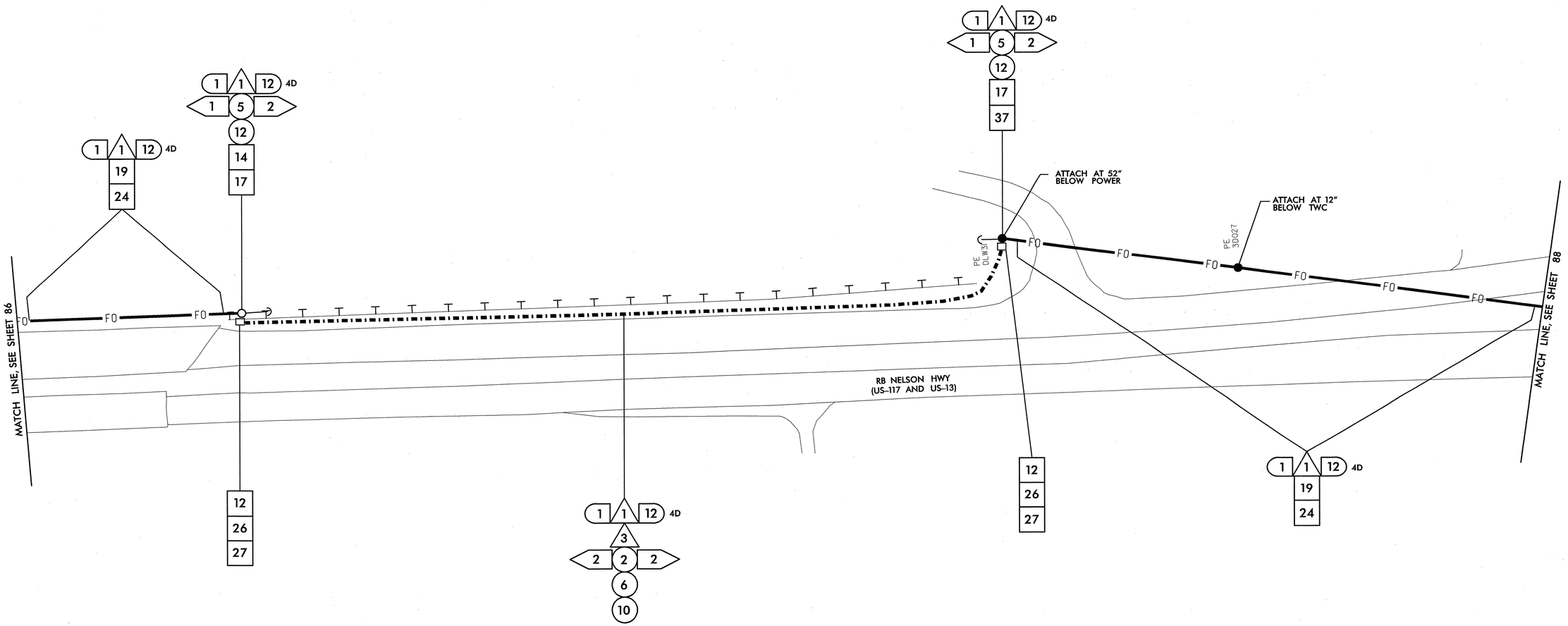
PROJECT REFERENCE NO.	SHEET NO.
U-5016	87



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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
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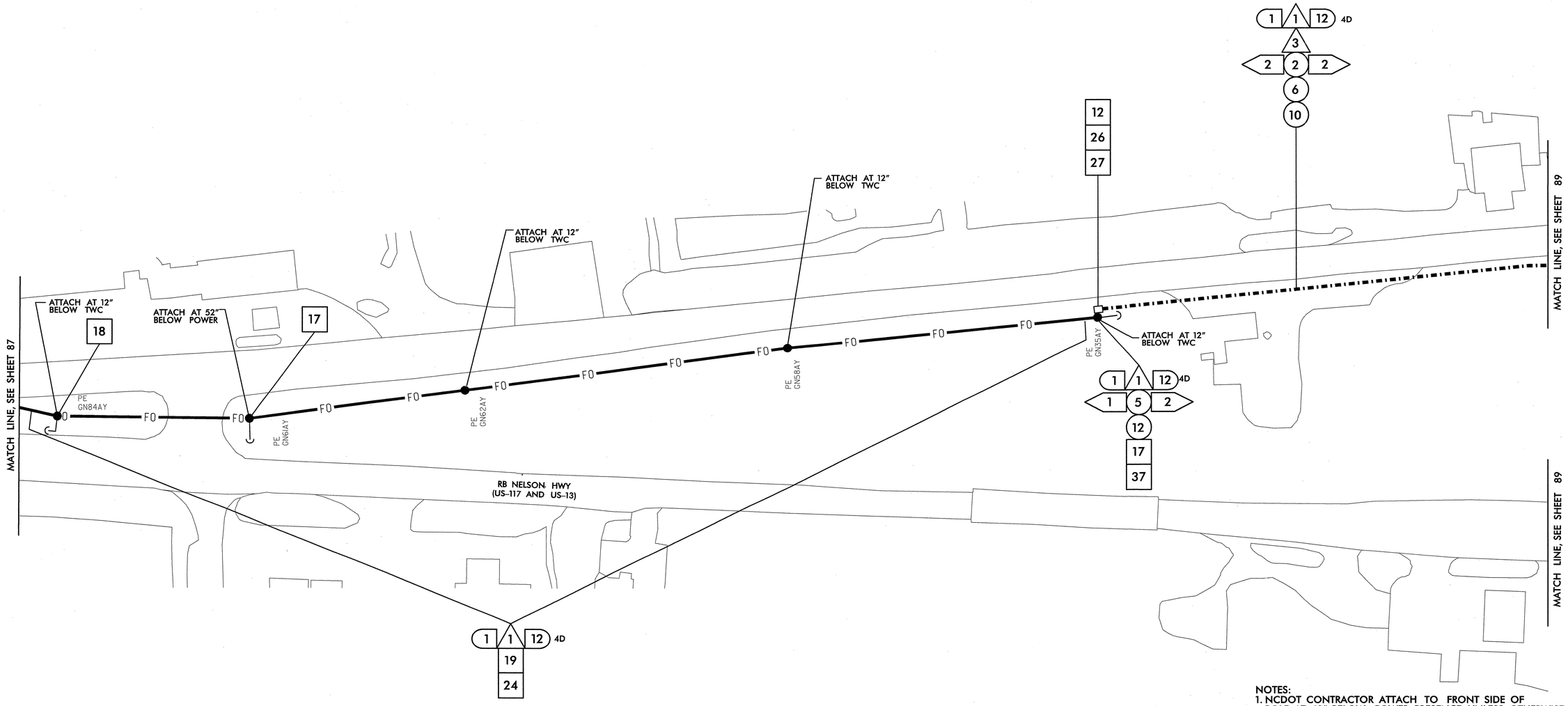
PROJECT REFERENCE NO.	SHEET NO.
U-5016	88



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[5] INSTALL NEW CONTROLLER
[6] INSTALL NEW 332 BASE MOUNTED CABINET
[7] INSTALL NEW 336S BASE MOUNTED CABINET
[8] INSTALL NEW 336S POLE MOUNTED CABINET
[9] INSTALL CCTV CAMERA ASSEMBLY
[10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11] INSTALL JUNCTION BOX
[12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13] REMOVE EXISTING JUNCTION BOX
[14] INSTALL WOOD POLE
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[18] INSTALL SIDEWALK GUY ASSEMBLY
[19] INSTALL MESSENGER CABLE
[20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
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[31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
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[33] INSTALL DIAL-UP MODEM
[34] INSTALL RADIO TRANSCEIVER
[35] INSTALL YAGI ANTENNA (8.5dB)
[36] INSTALL YAGI ANTENNA (13dB)
[37] BOND MESSENGER CABLE TO POLE GROUND
[38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

SCALE 0 50

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames

2/20/2009
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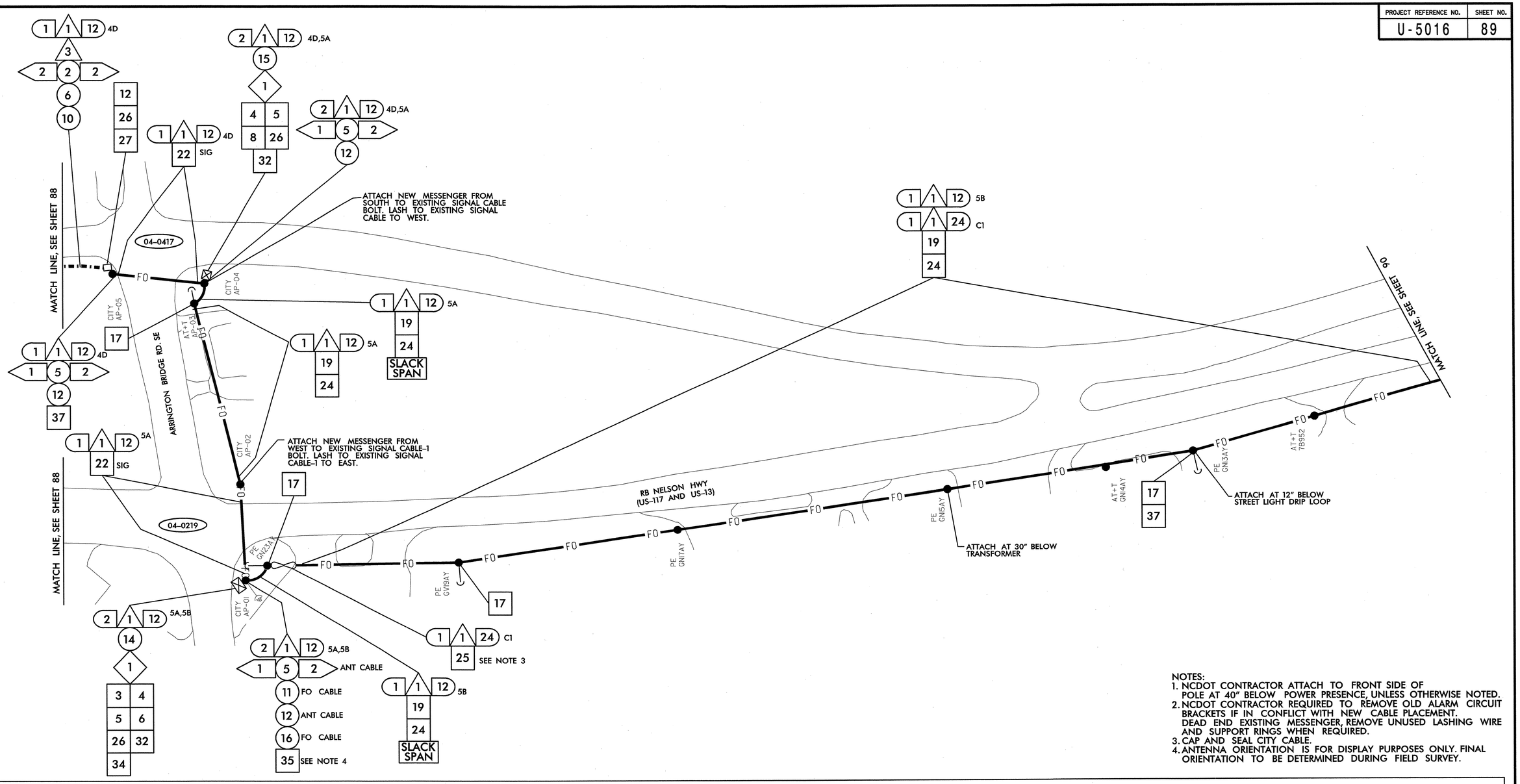
PROJECT REFERENCE NO.	SHEET NO.
U-5016	89



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3. CAP AND SEAL CITY CABLE.
4. ANTENNA ORIENTATION IS FOR DISPLAY PURPOSES ONLY. FINAL ORIENTATION TO BE DETERMINED DURING FIELD SURVEY.

- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
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- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ◇1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE
- ◇3 INSTALL AERIAL SPLICE ENCLOSURE
- ◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ◇5 INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
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PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

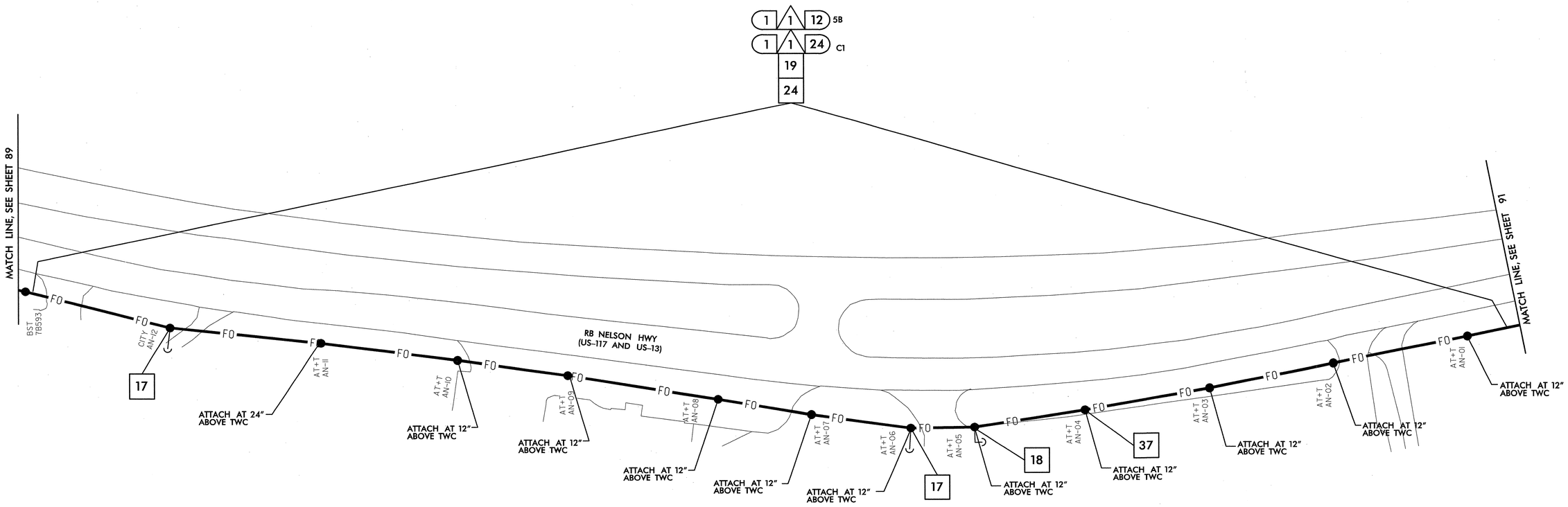
REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
K:\raf_tpo_TIP\U5016 goldsboro signal system\plans\sht_089.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	90



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PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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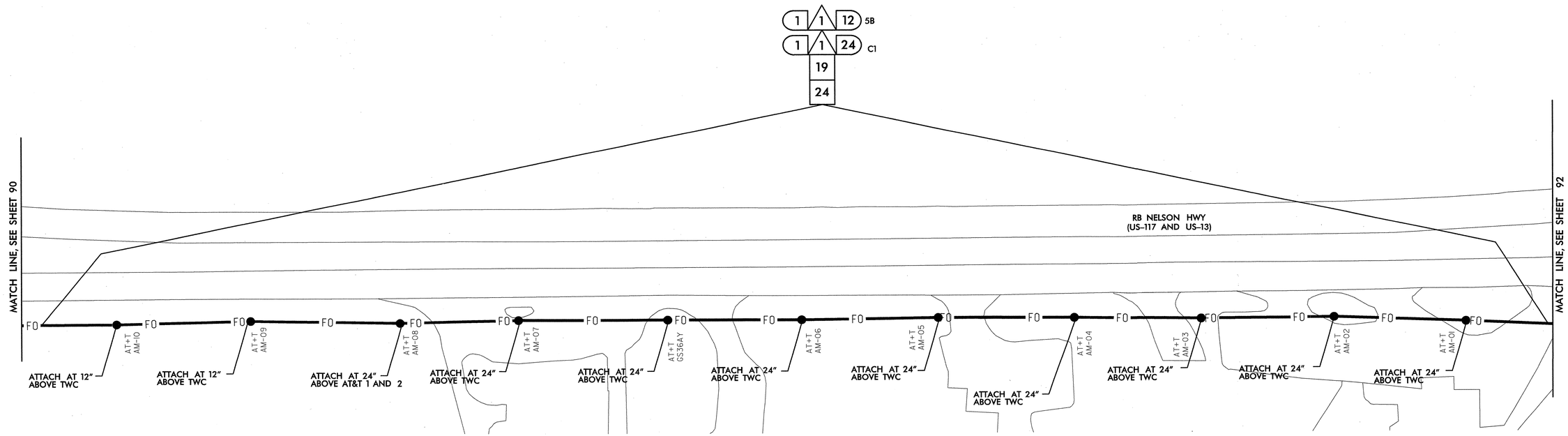
PROJECT REFERENCE NO.	SHEET NO.
U-5016	91



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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
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REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE

CADD Filename:

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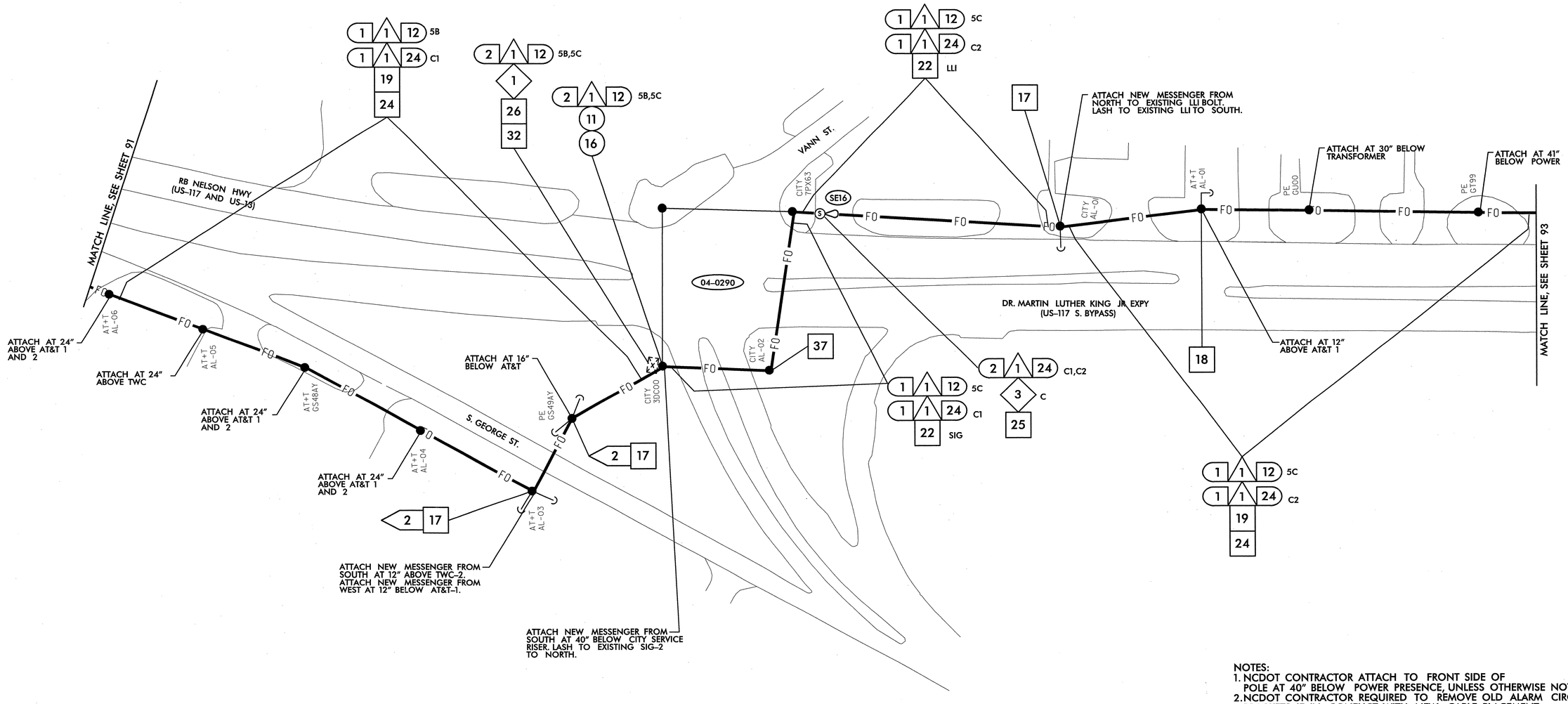
PROJECT REFERENCE NO.	SHEET NO.
U-5016	92



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39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
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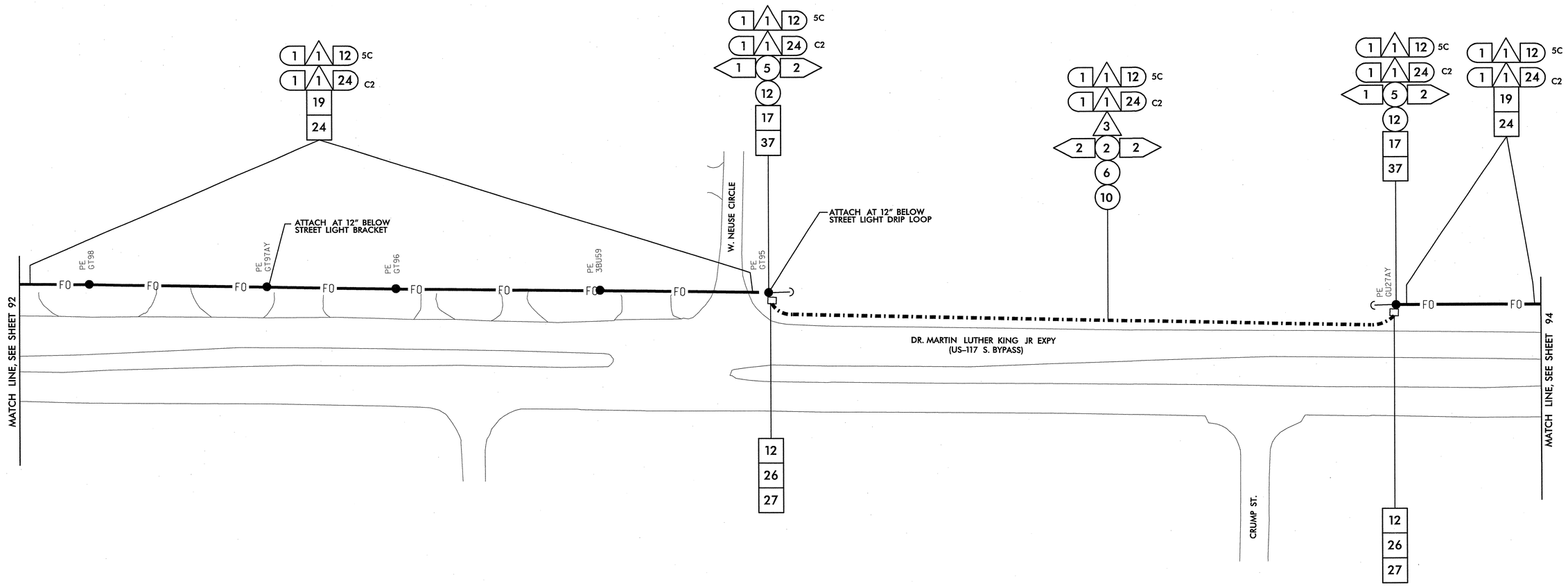
PROJECT REFERENCE NO.	SHEET NO.
U-5016	93



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

(1) INSTALL SMFO CABLE
(2) INSTALL FIBER OPTIC DROP CABLE
(3) INSTALL TRACER WIRE
(4) REUSE EXISTING SMFO CABLE
(5) INSTALL PLENUM RATED SMFO CABLE
(6) INSTALL LOOP LEAD-IN CABLE

(1) INSTALL PVC CONDUIT
(2) INSTALL POLYETHYLENE CONDUIT
(3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
(4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
(5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
(6) TRENCH CONDUIT
(7) DIRECTIONAL DRILL CONDUIT
(8) BORE AND JACK CONDUIT
(9) INSTALL CABLE(S) IN EXISTING CONDUIT
(10) INSTALL CABLE(S) IN NEW CONDUIT
(11) INSTALL CABLE(S) IN EXISTING RISER
(12) INSTALL CABLE(S) IN NEW RISER
(13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
(14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
(15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
(16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
(17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
(1) INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
(2) INSTALL UNDERGROUND SPLICE ENCLOSURE
(3) INSTALL AERIAL SPLICE ENCLOSURE
(4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
(5) INSTALL TERMINAL SPLICE BOX
[1] INSTALL CABINET FOUNDATION
[2] REMOVE EXISTING CABINET FOUNDATION

[3] MODIFY EXISTING CABINET FOUNDATION
[4] REMOVE EXISTING CONTROLLER AND CABINET
[5] INSTALL NEW CONTROLLER
[6] INSTALL NEW 332 BASE MOUNTED CABINET
[7] INSTALL NEW 336S BASE MOUNTED CABINET
[8] INSTALL NEW 336S POLE MOUNTED CABINET
[9] INSTALL CCTV CAMERA ASSEMBLY
[10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11] INSTALL JUNCTION BOX
[12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13] REMOVE EXISTING JUNCTION BOX
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[16] INSTALL AERIAL GUY ASSEMBLY

[17] INSTALL STANDARD GUY ASSEMBLY
[18] INSTALL SIDEWALK GUY ASSEMBLY
[19] INSTALL MESSENGER CABLE
[20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21] REMOVE EXISTING COMMUNICATIONS CABLE
[22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
[23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
[24] LASH CABLE(S) TO NEW MESSENGER CABLE
[25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
[29] MODIFY EXISTING ELECTRICAL SERVICE
[30] INSTALL NEW ELECTRICAL SERVICE

[31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
[32] INSTALL FIBER OPTIC TRANSCEIVER
[33] INSTALL DIAL-UP MODEM
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[35] INSTALL YAGI ANTENNA (8.5dB)
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Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

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SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

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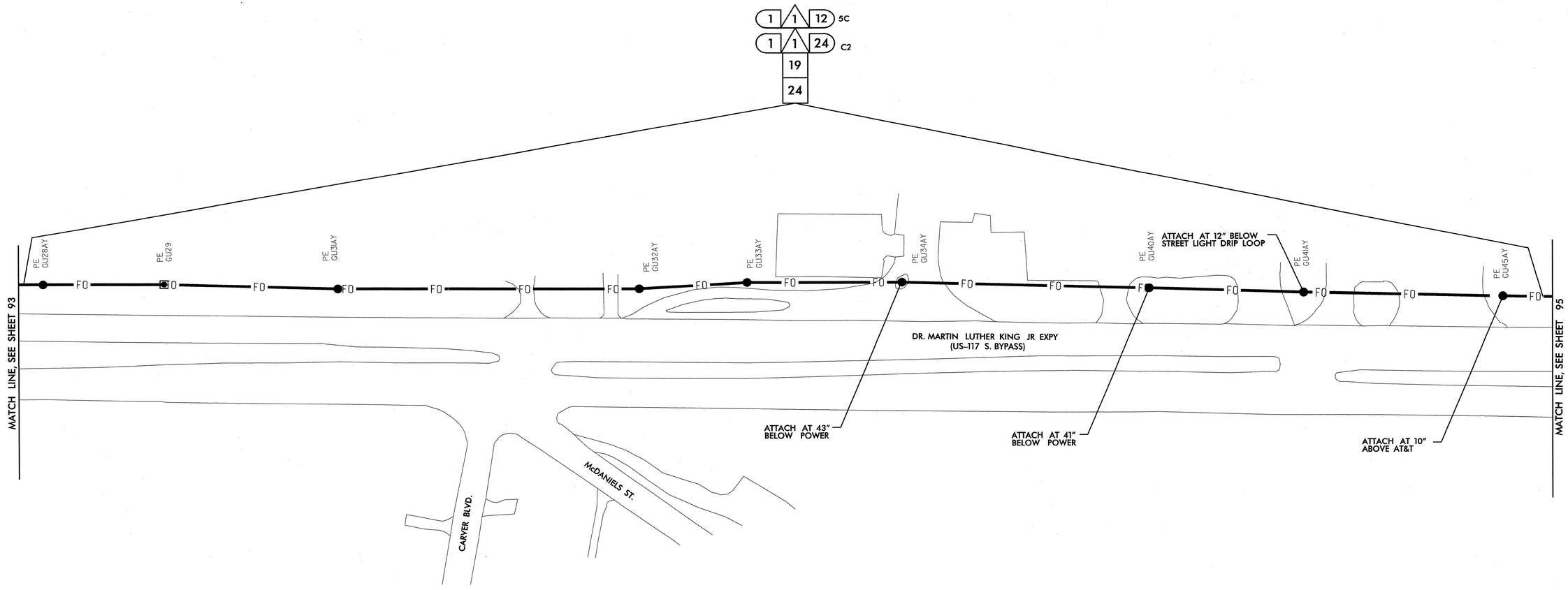
PROJECT REFERENCE NO.	SHEET NO.
U-5016	94



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- (◇3) INSTALL AERIAL SPLICE ENCLOSURE
- (◇4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- (◇5) INSTALL TERMINAL SPLICE BOX
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- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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P.O. Box 33068
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750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
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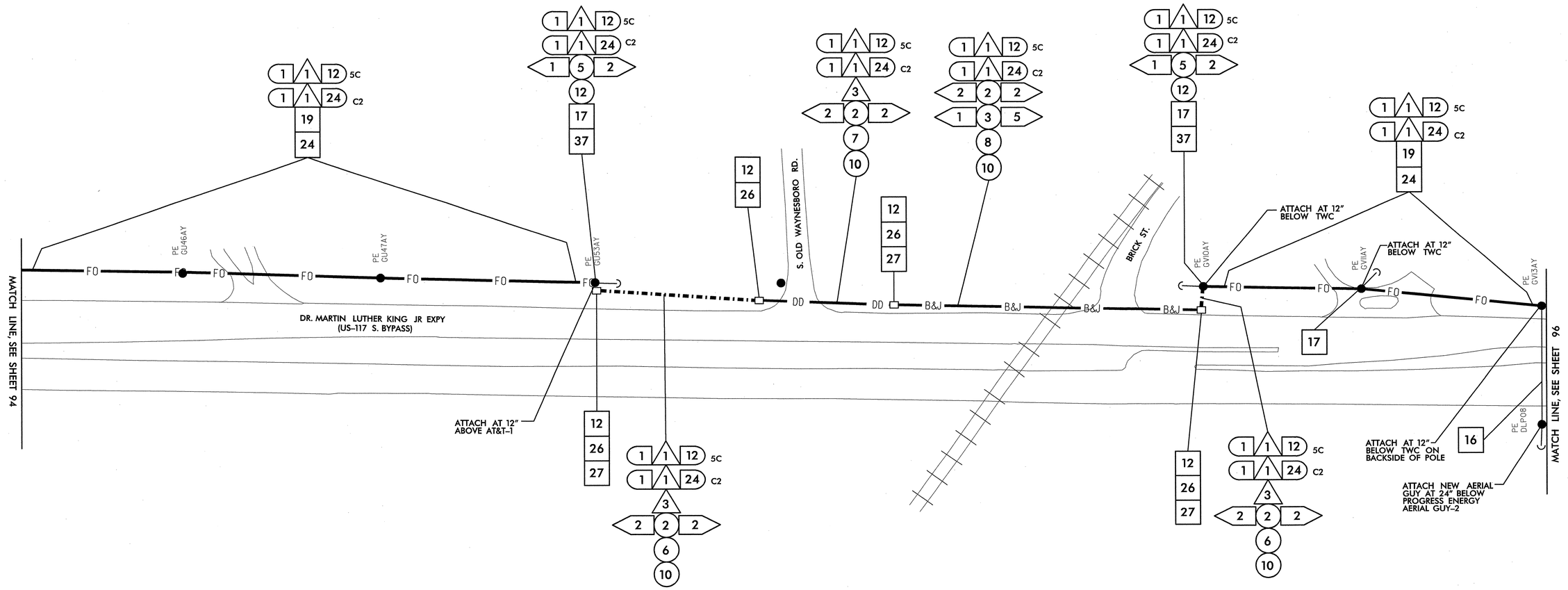
PROJECT REFERENCE NO.	SHEET NO.
U-5016	95



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1	INSTALL SMFO CABLE
2	INSTALL FIBER OPTIC DROP CABLE
3	INSTALL TRACER WIRE
4	REUSE EXISTING SMFO CABLE
5	INSTALL PLENUM RATED SMFO CABLE
6	INSTALL LOOP LEAD-IN CABLE
1	INSTALL PVC CONDUIT
2	INSTALL POLYETHYLENE CONDUIT
3	INSTALL RIGID, GALVANIZED STEEL CONDUIT
4	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5	INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6	TRENCH CONDUIT
7	DIRECTIONAL DRILL CONDUIT
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9	INSTALL CABLE(S) IN EXISTING CONDUIT
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3	INSTALL AERIAL SPLICE ENCLOSURE
4	MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5	INSTALL TERMINAL SPLICE BOX
1	INSTALL CABINET FOUNDATION
2	REMOVE EXISTING CABINET FOUNDATION
3	MODIFY EXISTING CABINET FOUNDATION
4	REMOVE EXISTING CONTROLLER AND CABINET
5	INSTALL NEW CONTROLLER
6	INSTALL NEW 332 BASE MOUNTED CABINET
7	INSTALL NEW 336S BASE MOUNTED CABINET
8	INSTALL NEW 336S POLE MOUNTED CABINET
9	INSTALL CCTV CAMERA ASSEMBLY
10	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11	INSTALL JUNCTION BOX
12	INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13	REMOVE EXISTING JUNCTION BOX
14	INSTALL WOOD POLE
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16	INSTALL AERIAL GUY ASSEMBLY
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19	INSTALL MESSENGER CABLE
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22	LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
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26	STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29	MODIFY EXISTING ELECTRICAL SERVICE
30	INSTALL NEW ELECTRICAL SERVICE
31	INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32	INSTALL FIBER OPTIC TRANSCEIVER
33	INSTALL DIAL-UP MODEM
34	INSTALL RADIO TRANSCEIVER
35	INSTALL YAGI ANTENNA (8.5dB)
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37	BOND MESSENGER CABLE TO POLE GROUND
38	RECONNECT RAILROAD PREEMPTION EQUIPMENT
39	RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40	INSTALL PRE-FORMED CABINET FOUNDATION PAD
41	INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. Box 33068
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Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
Department of Transportation
Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

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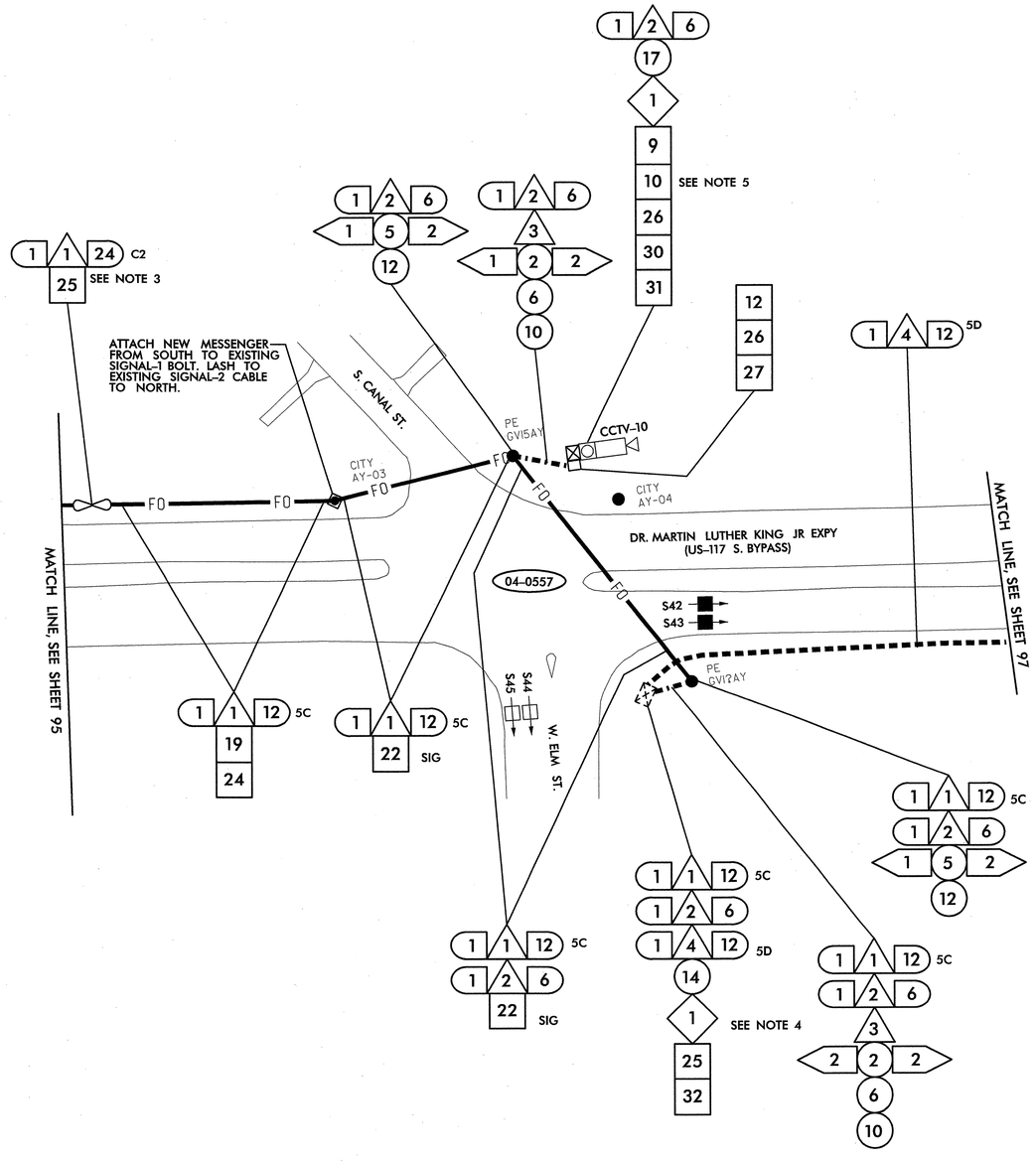
PROJECT REFERENCE NO.	SHEET NO.
U-5016	96



SEE SIGNAL PLAN 04-0557 FOR EXISTING SYSTEM DETECTORS S42, S43 AND NEW SYSTEM DETECTORS , S44 AND S45 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
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2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. CAP AND SEAL CITY CABLE.
4. INSTALL LARGE INTERCONNECT CENTER TO ACCOMODATE ALL CABLES ENTERING CABINET.
5. OBTAIN APPROVAL FROM ENGINEER FOR CCTV CAMERA POLE LOCATION BEFORE INSTALLATION.

△1 INSTALL SMFO CABLE
△2 INSTALL FIBER OPTIC DROP CABLE
△3 INSTALL TRACER WIRE
△4 REUSE EXISTING SMFO CABLE
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CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
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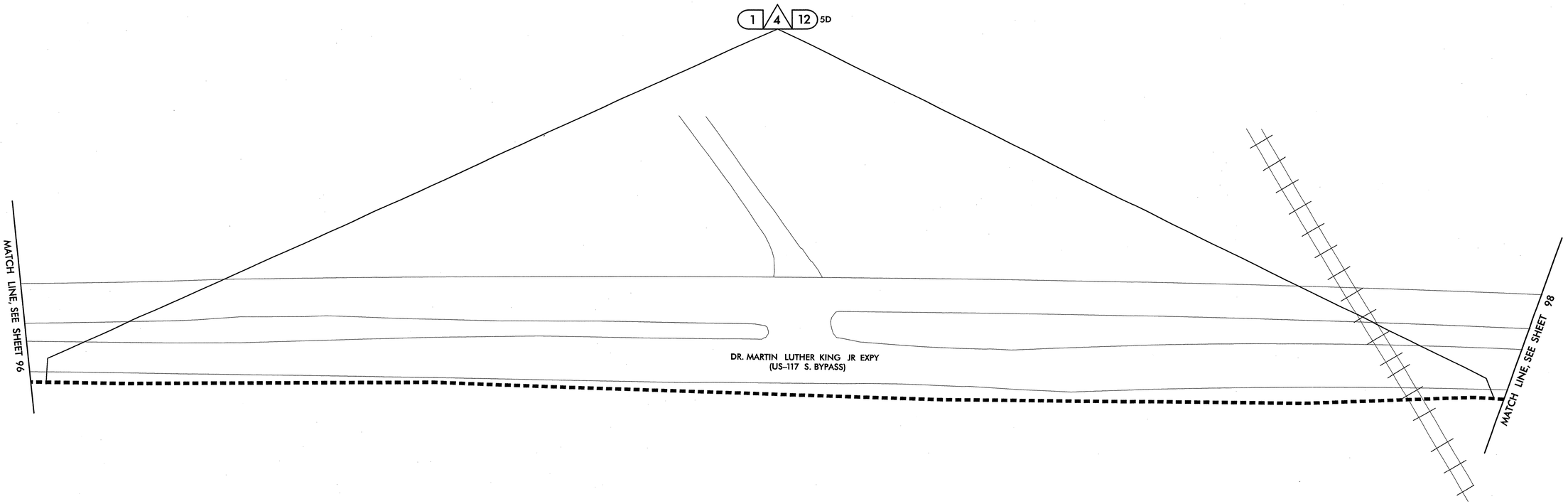

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- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ⟨1⟩ INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ⟨2⟩ INSTALL UNDERGROUND SPLICE ENCLOSURE
- ⟨3⟩ INSTALL AERIAL SPLICE ENCLOSURE
- ⟨4⟩ MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ⟨5⟩ INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
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- [17] INSTALL STANDARD GUY ASSEMBLY
- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
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- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
- [36] INSTALL YAGI ANTENNA (13dB)
- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Public, Protective and Safety Systems Branch
Traffic Engineering Unit
Department of Transportation
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

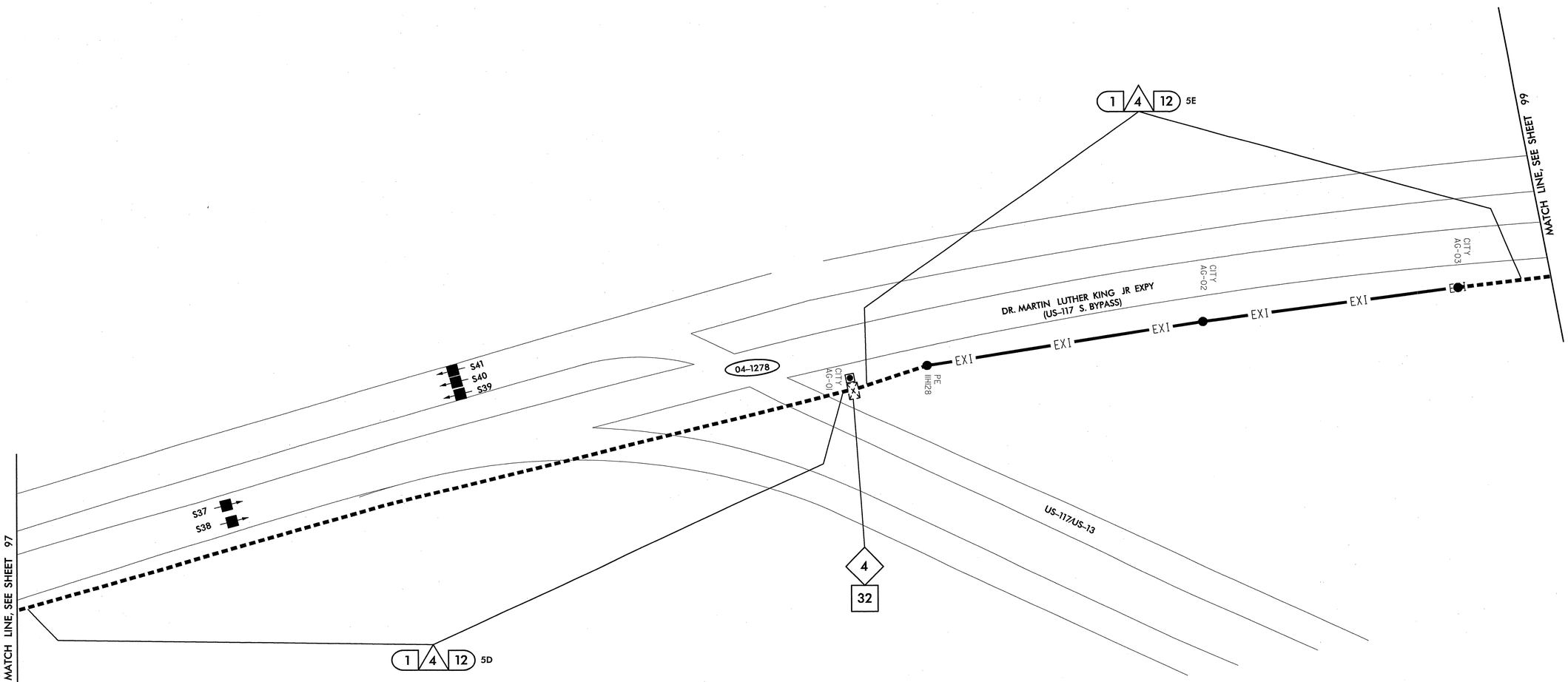
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
k:\rd_tpo_tis\011\4616 goldsboro signal system\plans\tr_097.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	98



SEE SIGNAL PLAN 04-1278 FOR EXISTING SYSTEM DETECTORS S37, S38, S39, S40 AND S41 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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- △3 INSTALL TRACER WIRE
- △4 REUSE EXISTING SMFO CABLE
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- △6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
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PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
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(919) 677-2000

Public Transportation and Safety, Structure Design
Traffic Engineering Branch
Department of Transportation
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

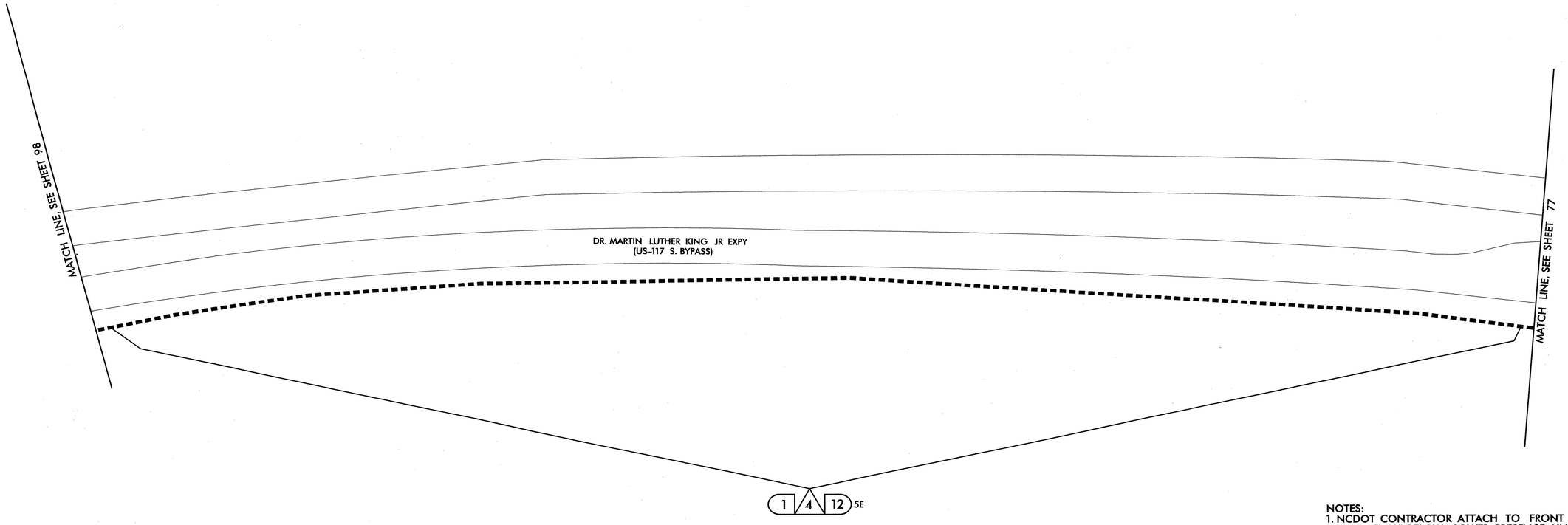
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
k:\rdi_tpb_1\sdi\tf46016 goldsboro signal system\plans\stt_098.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	99



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PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

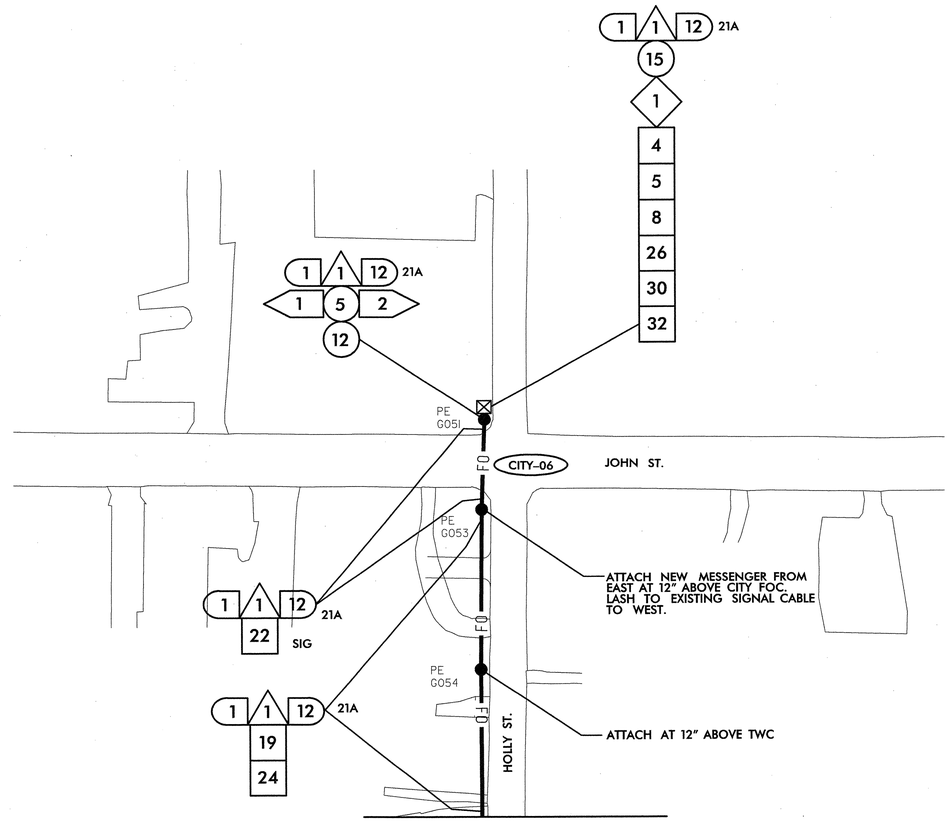
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
K:\al_tpro_Trs\0174606 goldsboro signal system\plans\sht_099.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	100



MATCH LINE, SEE SHEET 102

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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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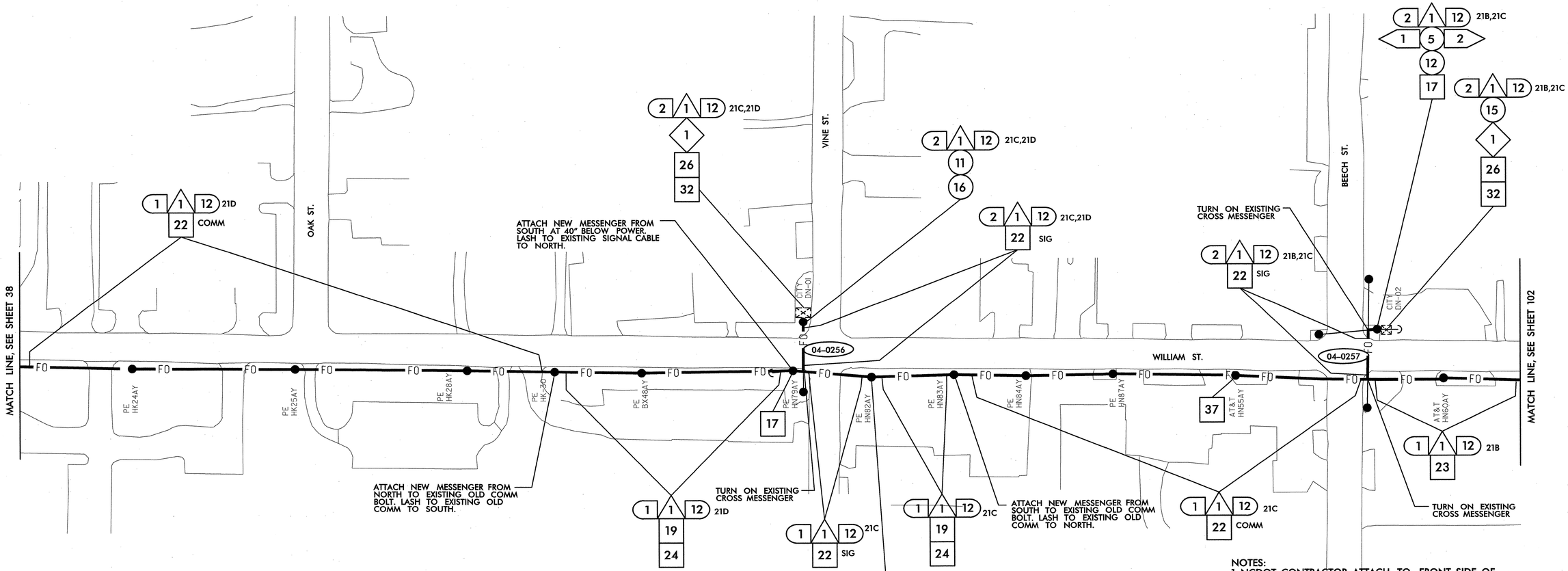
PROJECT REFERENCE NO.	SHEET NO.
U-5016	101



THIS AREA HAS BEEN DETERMINED TO CONTAIN PROPERTIES WITH DOCUMENTED HISTORIC SIGNIFICANCE. IF IT IS NECESSARY TO DEVIATE FROM THESE PLANS IN THIS AREA, PLEASE ALERT THE ENGINEER TO CONTACT PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH – HISTORIC ARCHITECTURE GROUP OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR AN EFFECT DETERMINATION BEFORE PROCEEDING.

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17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX
1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY
17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE
31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Public Safety and Safety Systems Branch
Intelligent Transportation Systems
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529
SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

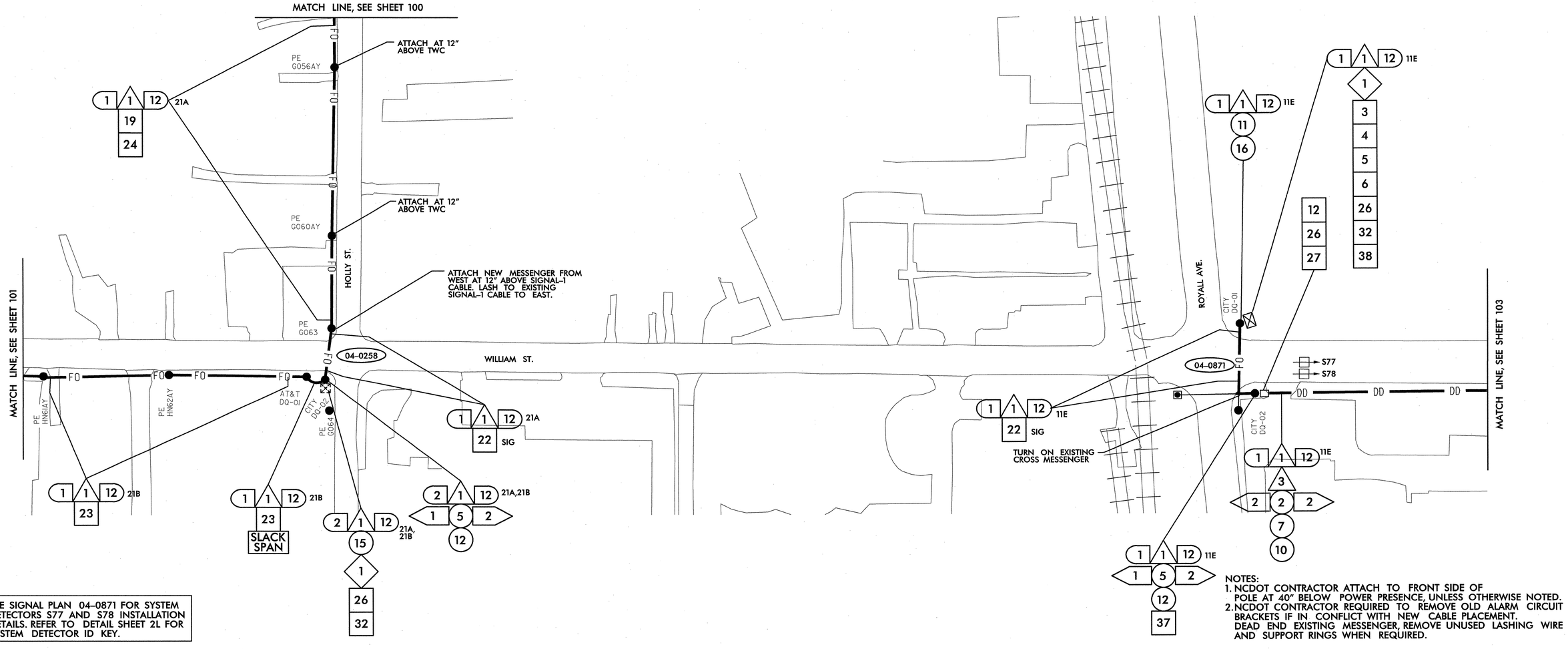
DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
k:\cal_tpb_ths\QII\46016 goldsboro signal system\plans\shtf_101.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	102



SEE SIGNAL PLAN 04-0871 FOR SYSTEM DETECTORS S77 AND S78 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND

38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

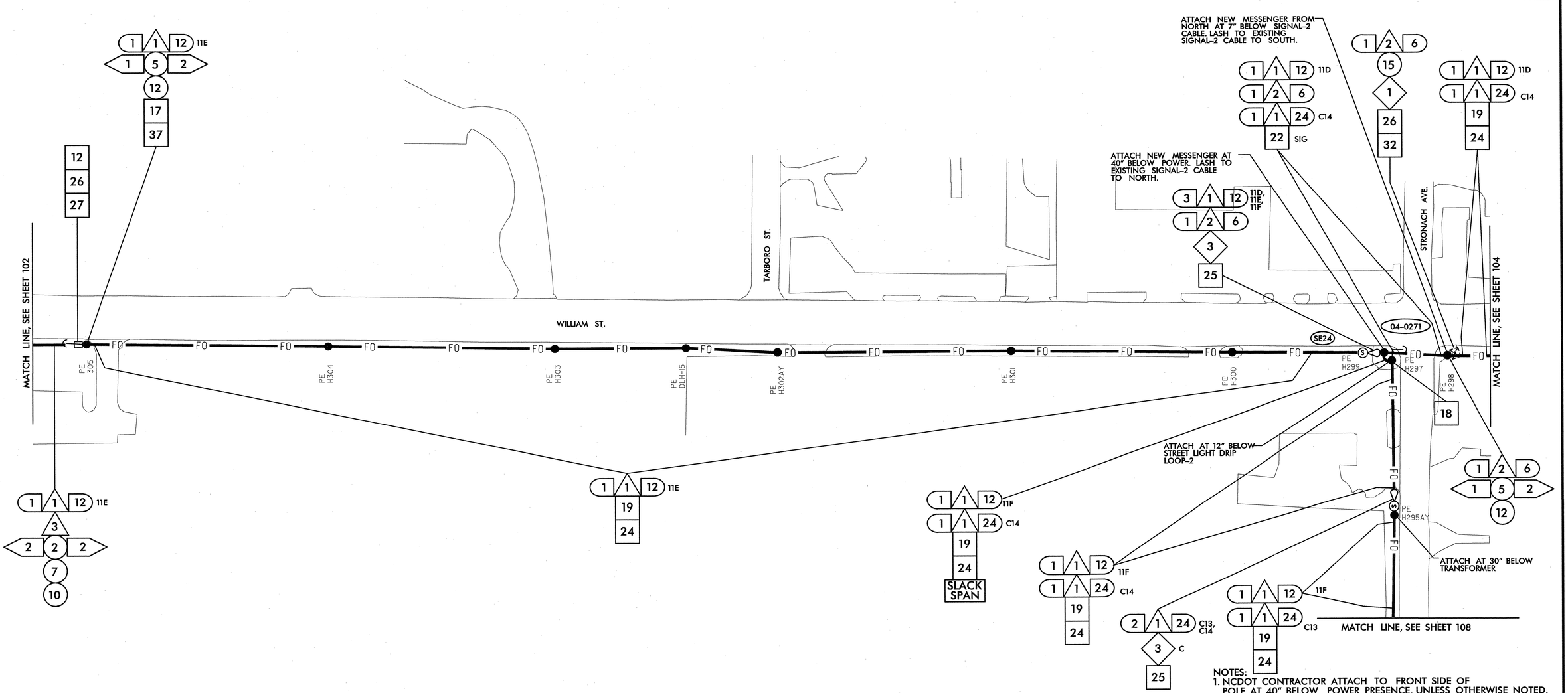
PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/24/09 DATE
CADD Filename:

2/20/2009
kevd_tpl_1ts01ff46016 goldsboro signal system\plans\sht 102.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	103



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION

3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
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16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Traffic Engineering Branch
Traffic Management Systems
DEPARTMENT OF TRANSPORTATION
Transportation Mobility & Safety Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

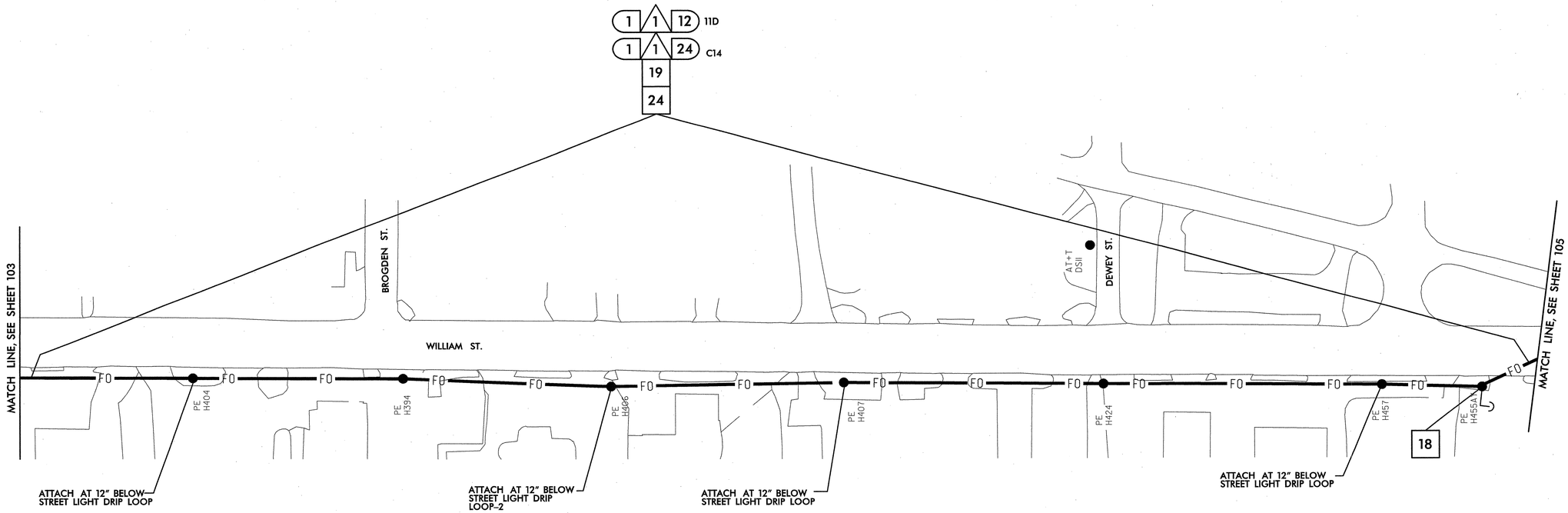
PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE — DATE 2/20/09
CADD Filenames:

2/20/2009
k:\ral_tpb_th\dlt\46016 goldsboro signal system\plans\sht_103.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	104



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- (A1) INSTALL SMFO CABLE
- (A2) INSTALL FIBER OPTIC DROP CABLE
- (A3) INSTALL TRACER WIRE
- (A4) REUSE EXISTING SMFO CABLE
- (A5) INSTALL PLENUM RATED SMFO CABLE
- (A6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- (A1) INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- (A2) INSTALL UNDERGROUND SPLICE ENCLOSURE
- (A3) INSTALL AERIAL SPLICE ENCLOSURE
- (A4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- (A5) INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
- [15] REMOVE EXISTING WOOD POLE
- [16] INSTALL AERIAL GUY ASSEMBLY
- [17] INSTALL STANDARD GUY ASSEMBLY
- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- [21] REMOVE EXISTING COMMUNICATIONS CABLE
- [22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- [23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
- [24] LASH CABLE(S) TO NEW MESSENGER CABLE
- [25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- [26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
- [36] INSTALL YAGI ANTENNA (13dB)
- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

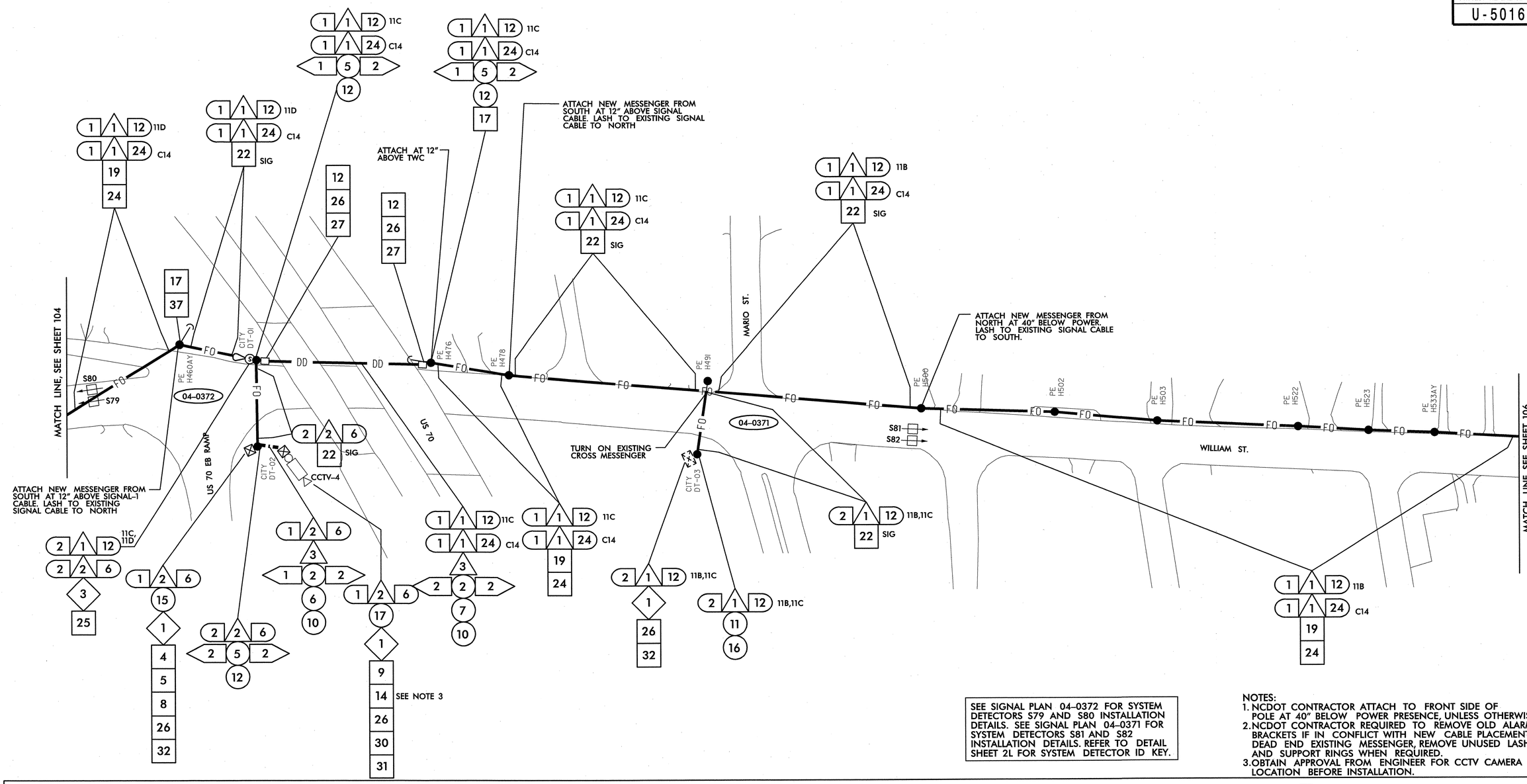
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030472 KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
k:\ral_tpto_tis\01\46016 goldsboro signal systemplans\sht_104.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	105



SEE SIGNAL PLAN 04-0372 FOR SYSTEM DETECTORS S79 AND S80 INSTALLATION DETAILS. SEE SIGNAL PLAN 04-0371 FOR SYSTEM DETECTORS S81 AND S82 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. OBTAIN APPROVAL FROM ENGINEER FOR CCTV CAMERA POLE LOCATION BEFORE INSTALLATION.

1	INSTALL SMFO CABLE
2	INSTALL FIBER OPTIC DROP CABLE
3	INSTALL TRACER WIRE
4	REUSE EXISTING SMFO CABLE
5	INSTALL PLENUM RATED SMFO CABLE
6	INSTALL LOOP LEAD-IN CABLE
(1)	INSTALL PVC CONDUIT
(2)	INSTALL POLYETHYLENE CONDUIT
(3)	INSTALL RIGID, GALVANIZED STEEL CONDUIT
(4)	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
(5)	INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
(6)	TRENCH CONDUIT
(7)	DIRECTIONAL DRILL CONDUIT
(8)	BORE AND JACK CONDUIT
(9)	INSTALL CABLE(S) IN EXISTING CONDUIT
(10)	INSTALL CABLE(S) IN NEW CONDUIT
(11)	INSTALL CABLE(S) IN EXISTING RISER
(12)	INSTALL CABLE(S) IN NEW RISER
(13)	INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
(14)	INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
(15)	INSTALL NEW RISER INTO POLE MOUNTED CABINET
(16)	REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
(17)	INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
◇1	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
◇2	INSTALL UNDERGROUND SPLICE ENCLOSURE
◇3	INSTALL AERIAL SPLICE ENCLOSURE
◇4	MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
◇5	INSTALL TERMINAL SPLICE BOX
[1]	INSTALL CABINET FOUNDATION
[2]	REMOVE EXISTING CABINET FOUNDATION
[3]	MODIFY EXISTING CABINET FOUNDATION
[4]	REMOVE EXISTING CONTROLLER AND CABINET
[5]	INSTALL NEW CONTROLLER
[6]	INSTALL NEW 332 BASE MOUNTED CABINET
[7]	INSTALL NEW 336S BASE MOUNTED CABINET
[8]	INSTALL NEW 336S POLE MOUNTED CABINET
[9]	INSTALL CCTV CAMERA ASSEMBLY
[10]	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11]	INSTALL JUNCTION BOX
[12]	INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13]	REMOVE EXISTING JUNCTION BOX
[14]	INSTALL WOOD POLE
[15]	REMOVE EXISTING WOOD POLE
[16]	INSTALL AERIAL GUY ASSEMBLY
[17]	INSTALL STANDARD GUY ASSEMBLY
[18]	INSTALL SIDEWALK GUY ASSEMBLY
[19]	INSTALL MESSENGER CABLE
[20]	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21]	REMOVE EXISTING COMMUNICATIONS CABLE
[22]	LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
[23]	LASH CABLE(S) TO EXISTING MESSENGER CABLE
[24]	LASH CABLE(S) TO NEW MESSENGER CABLE
[25]	INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26]	STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27]	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28]	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
[29]	MODIFY EXISTING ELECTRICAL SERVICE
[30]	INSTALL NEW ELECTRICAL SERVICE
[31]	INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
[32]	INSTALL FIBER OPTIC TRANSCEIVER
[33]	INSTALL DIAL-UP MODEM
[34]	INSTALL RADIO TRANSCEIVER
[35]	INSTALL YAGI ANTENNA (8.5dB)
[36]	INSTALL YAGI ANTENNA (13dB)
[37]	BOND MESSENGER CABLE TO POLE GROUND
[38]	RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39]	RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40]	INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41]	INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Department of Transportation
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames:

2/20/2009
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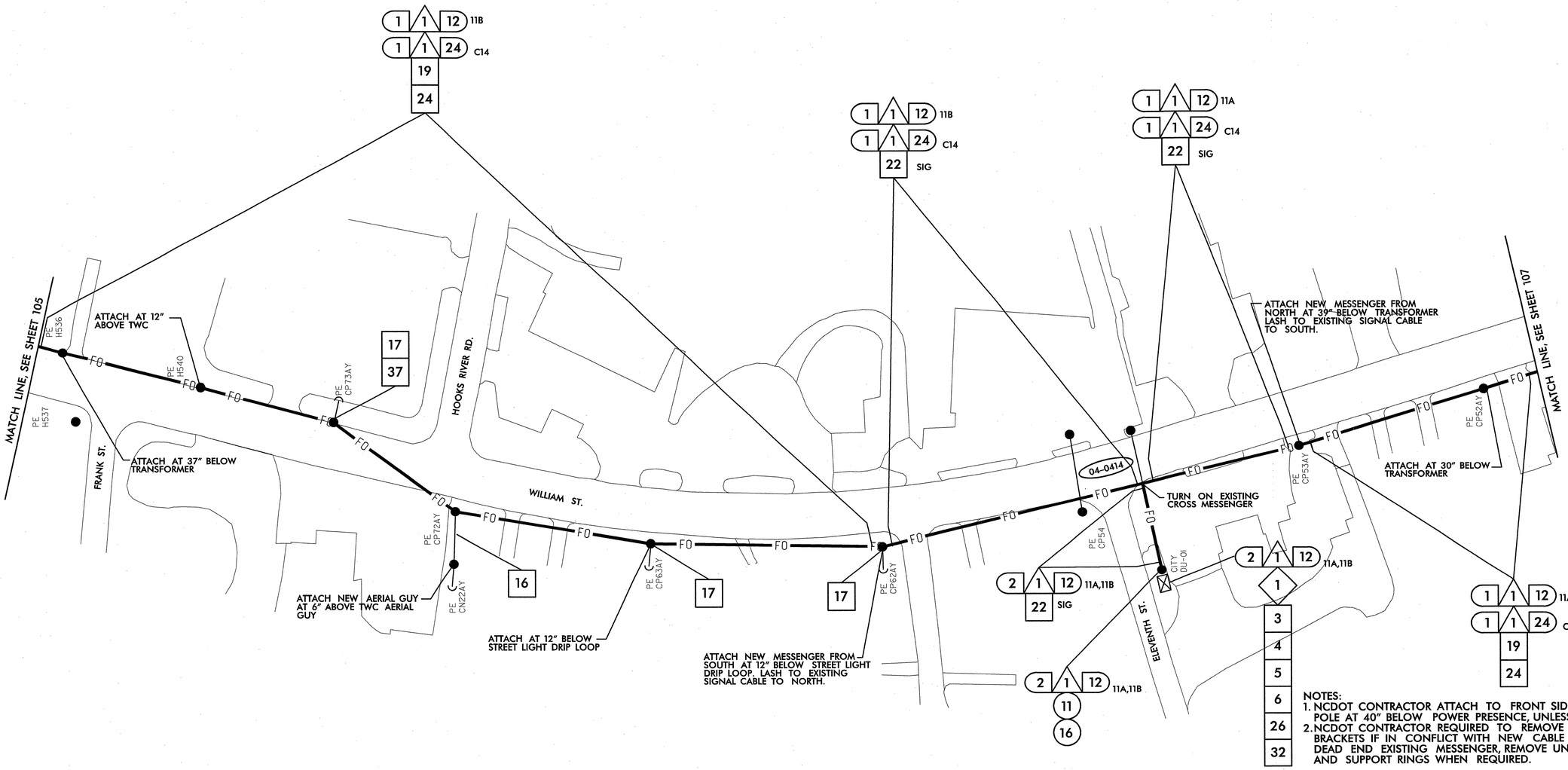
PROJECT REFERENCE NO.	SHEET NO.
U-5016	106



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

(1) INSTALL PVC CONDUIT
(2) INSTALL POLYETHYLENE CONDUIT
(3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
(4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
(5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
(6) TRENCH CONDUIT
(7) DIRECTIONAL DRILL CONDUIT
(8) BORE AND JACK CONDUIT
(9) INSTALL CABLE(S) IN EXISTING CONDUIT
(10) INSTALL CABLE(S) IN NEW CONDUIT
(11) INSTALL CABLE(S) IN EXISTING RISER
(12) INSTALL CABLE(S) IN NEW RISER
(13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
(14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
(15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
(16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
(17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

<1> INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
<2> INSTALL UNDERGROUND SPLICE ENCLOSURE
<3> INSTALL AERIAL SPLICE ENCLOSURE
<4> MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
<5> INSTALL TERMINAL SPLICE BOX

[1] INSTALL CABINET FOUNDATION
[2] REMOVE EXISTING CABINET FOUNDATION
[3] MODIFY EXISTING CABINET FOUNDATION
[4] REMOVE EXISTING CONTROLLER AND CABINET
[5] INSTALL NEW CONTROLLER
[6] INSTALL NEW 332 BASE MOUNTED CABINET
[7] INSTALL NEW 336S BASE MOUNTED CABINET
[8] INSTALL NEW 336S POLE MOUNTED CABINET
[9] INSTALL CCTV CAMERA ASSEMBLY
[10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11] INSTALL JUNCTION BOX
[12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13] REMOVE EXISTING JUNCTION BOX
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[16] INSTALL AERIAL GUY ASSEMBLY
[17] INSTALL STANDARD GUY ASSEMBLY
[18] INSTALL SIDEWALK GUY ASSEMBLY
[19] INSTALL MESSENGER CABLE
[20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21] REMOVE EXISTING COMMUNICATIONS CABLE
[22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
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[24] LASH CABLE(S) TO NEW MESSENGER CABLE
[25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
[29] MODIFY EXISTING ELECTRICAL SERVICE
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[31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
[32] INSTALL FIBER OPTIC TRANSCEIVER
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CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
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SIGNATURE 2/20/09 DATE
CADD Filename:

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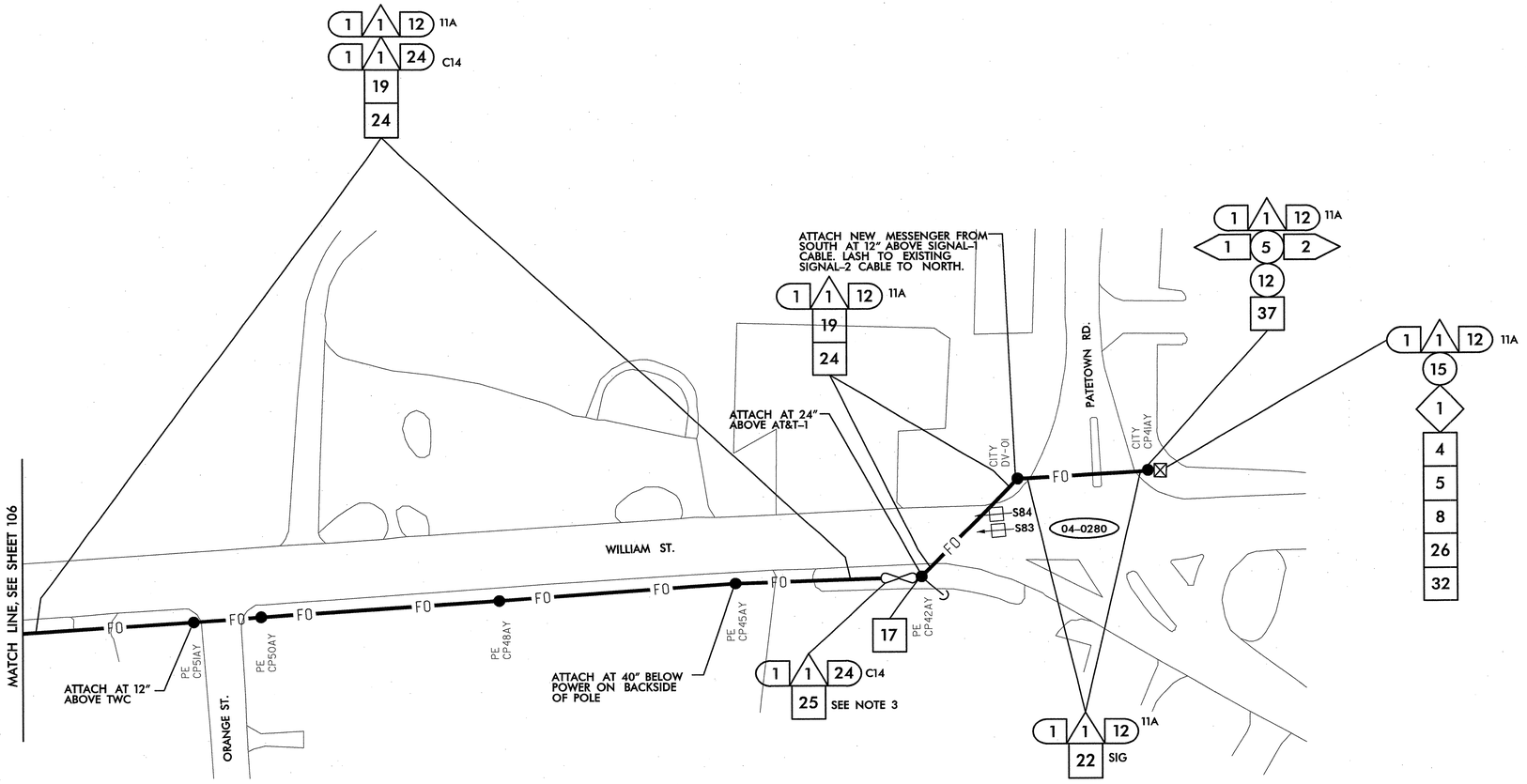
PROJECT REFERENCE NO.	SHEET NO.
U-5016	107



SEE SIGNAL PLAN 04-0280 FOR SYSTEM DETECTORS S83 AND S84 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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3. CAP AND SEAL CITY CABLE.

- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
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- ◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
Traffic Engineering Section
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames

2/20/2009
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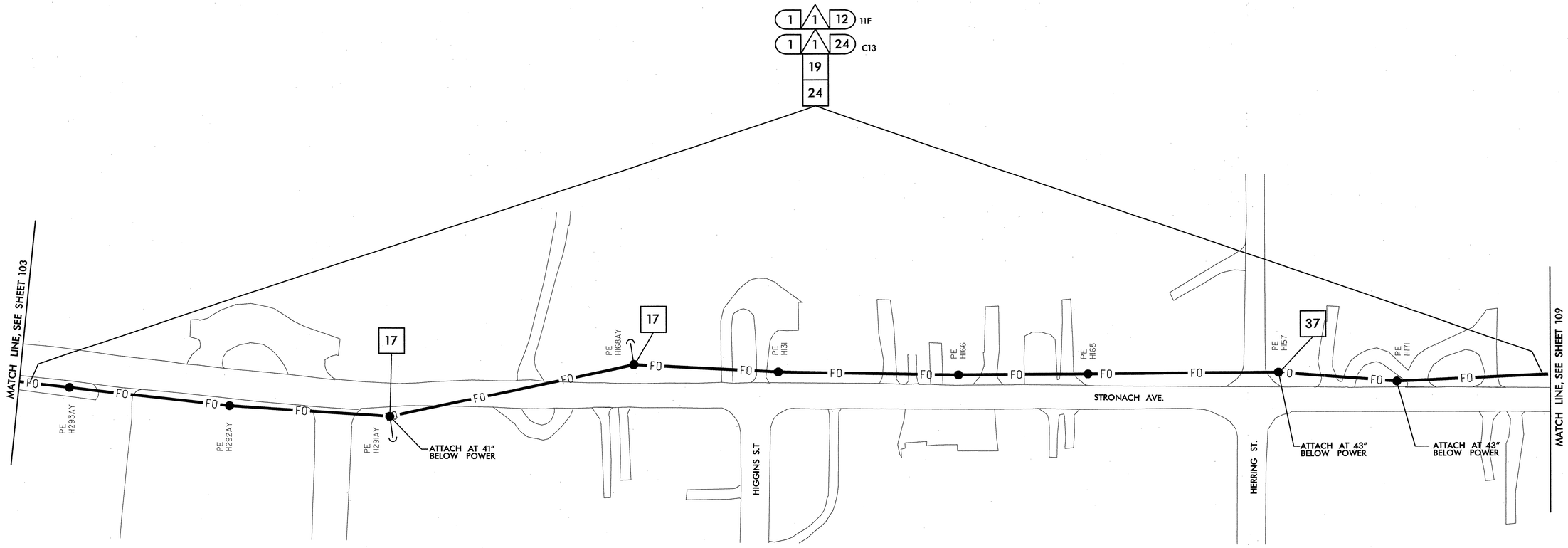
PROJECT REFERENCE NO.	SHEET NO.
U-5016	108



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SCALE 0 50

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CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
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REVISIONS	INIT.	DATE

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NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

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kVal_tpo_ITS\DI746016_goldsboro_signal_systemplans\sht_106.dgn

PROJECT REFERENCE NO.	SHEET NO.
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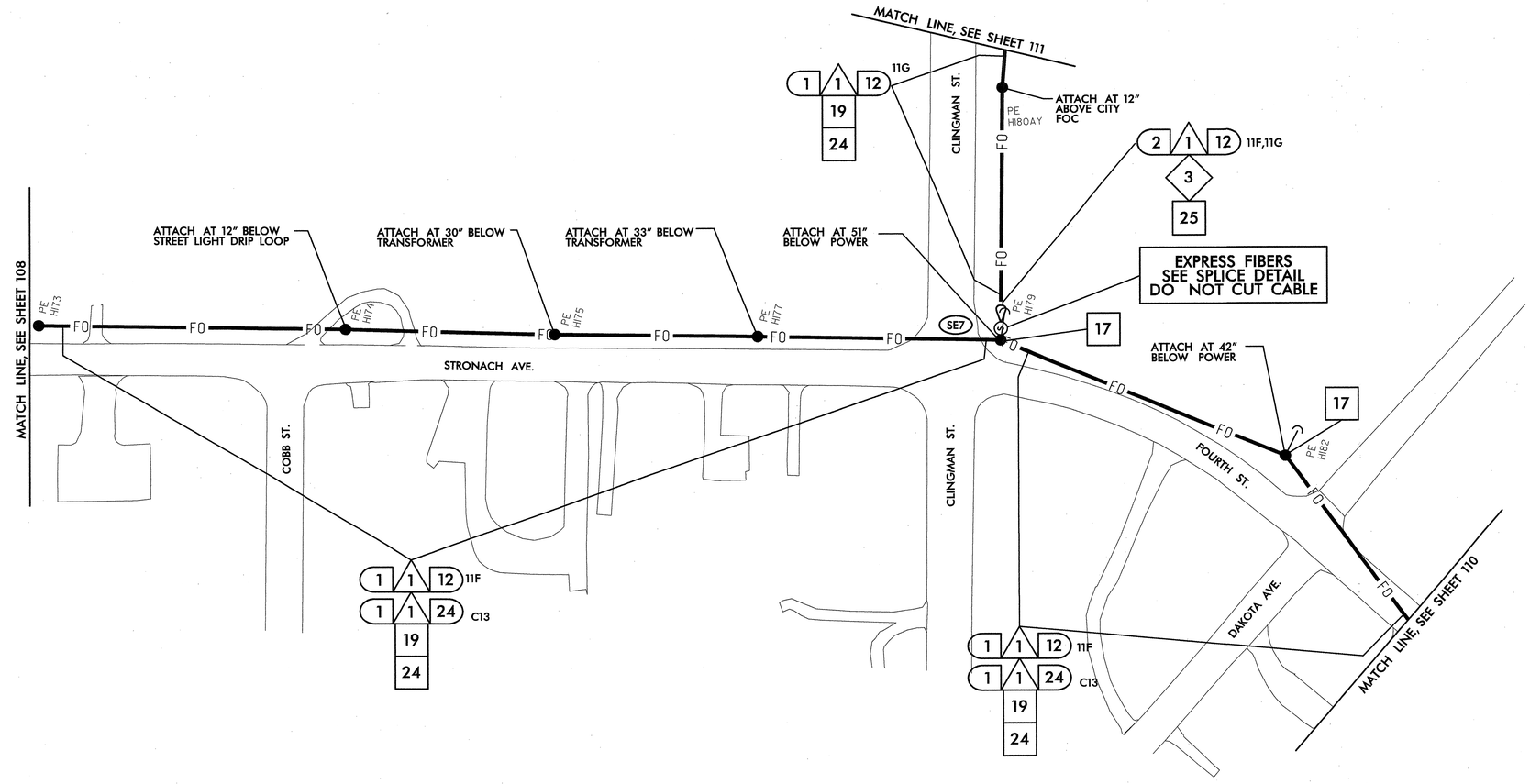

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DIVISION 4 — WAYNE COUNTY

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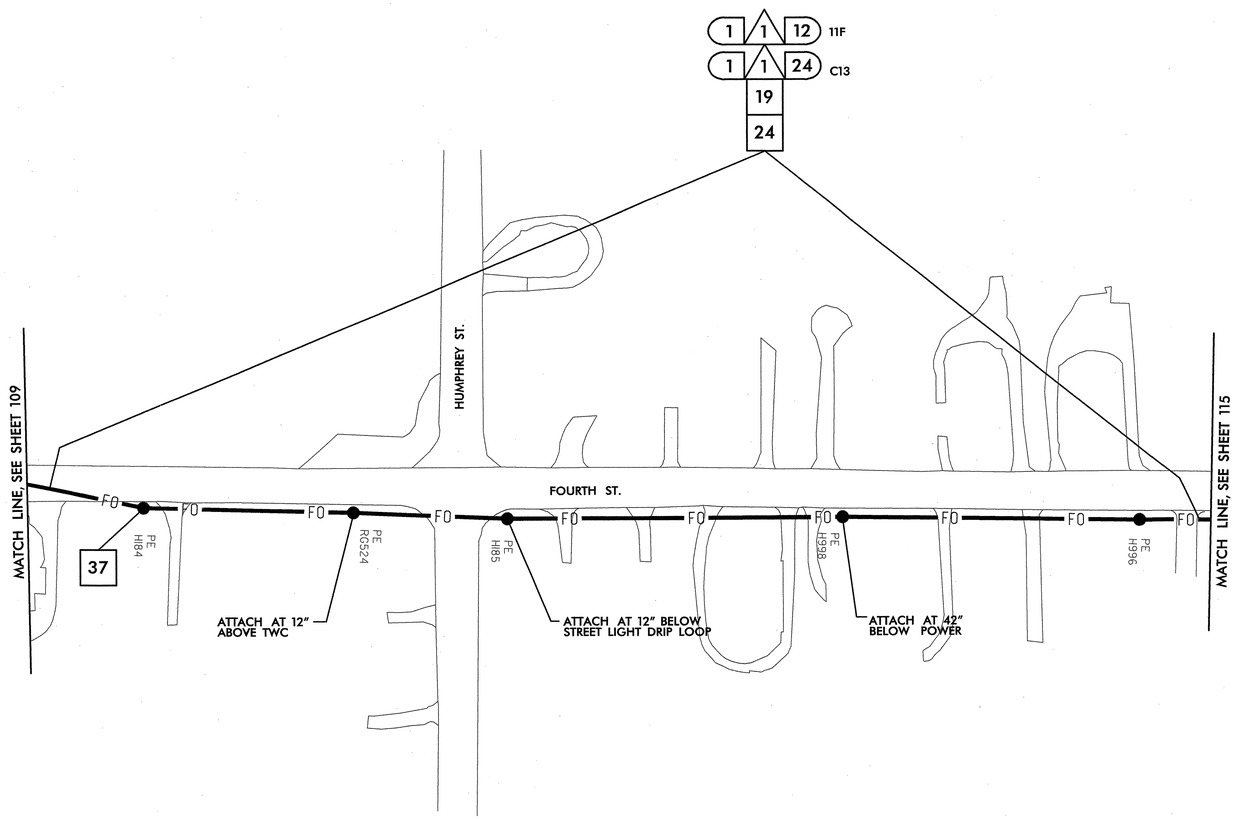

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- (3) INSTALL TRACER WIRE
- (4) REUSE EXISTING SMFO CABLE
- (5) INSTALL PLENUM RATED SMFO CABLE
- (6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
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- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
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- (11) INSTALL CABLE(S) IN EXISTING RISER
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- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
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- ◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE
- ◇3 INSTALL AERIAL SPLICE ENCLOSURE
- ◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ◇5 INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
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- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation
NCDEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames

2/20/2009
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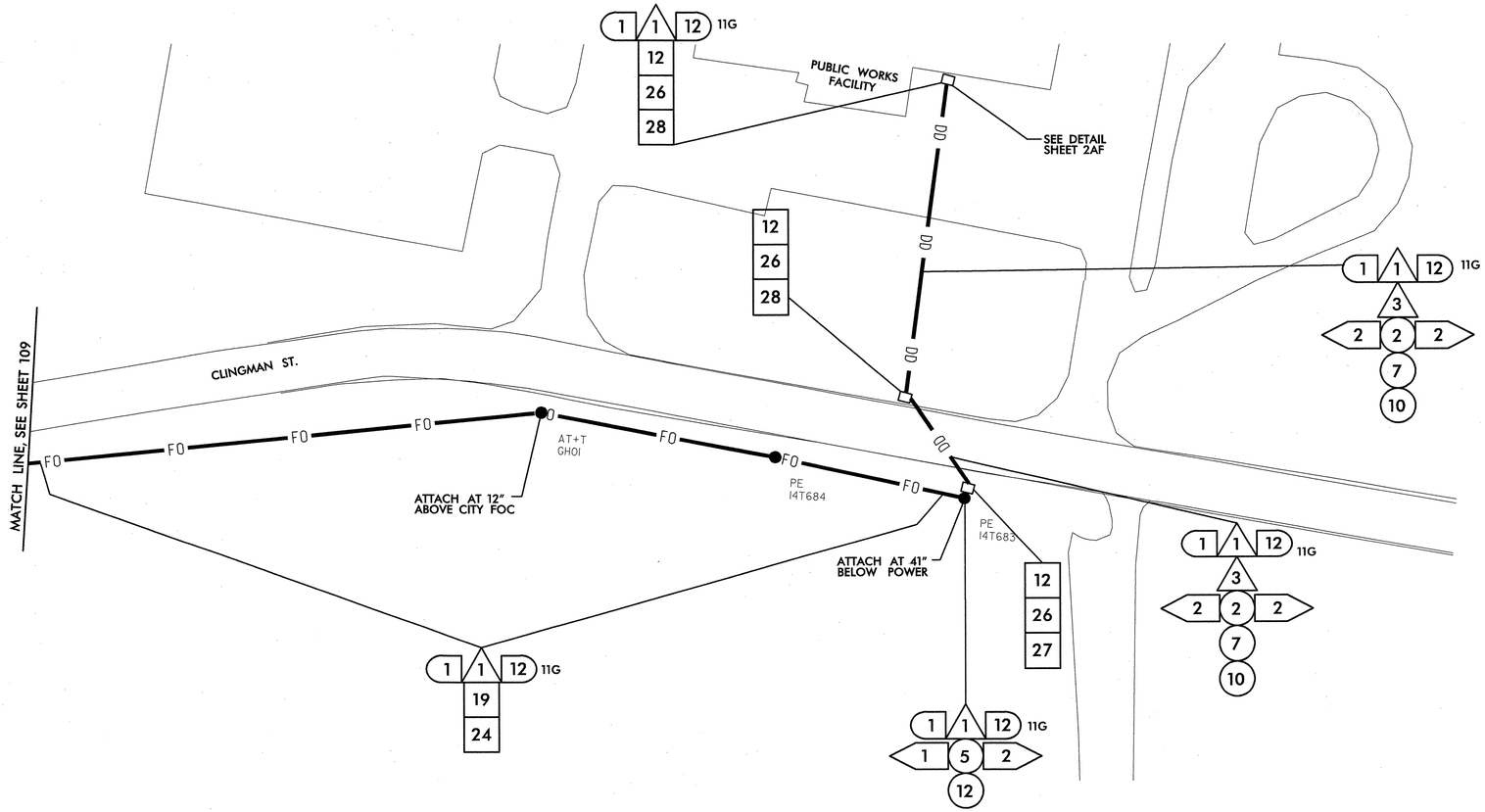
PROJECT REFERENCE NO.	SHEET NO.
U-5016	111



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Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
DEPARTMENT OF TRANSPORTATION
STATE OF NORTH CAROLINA

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

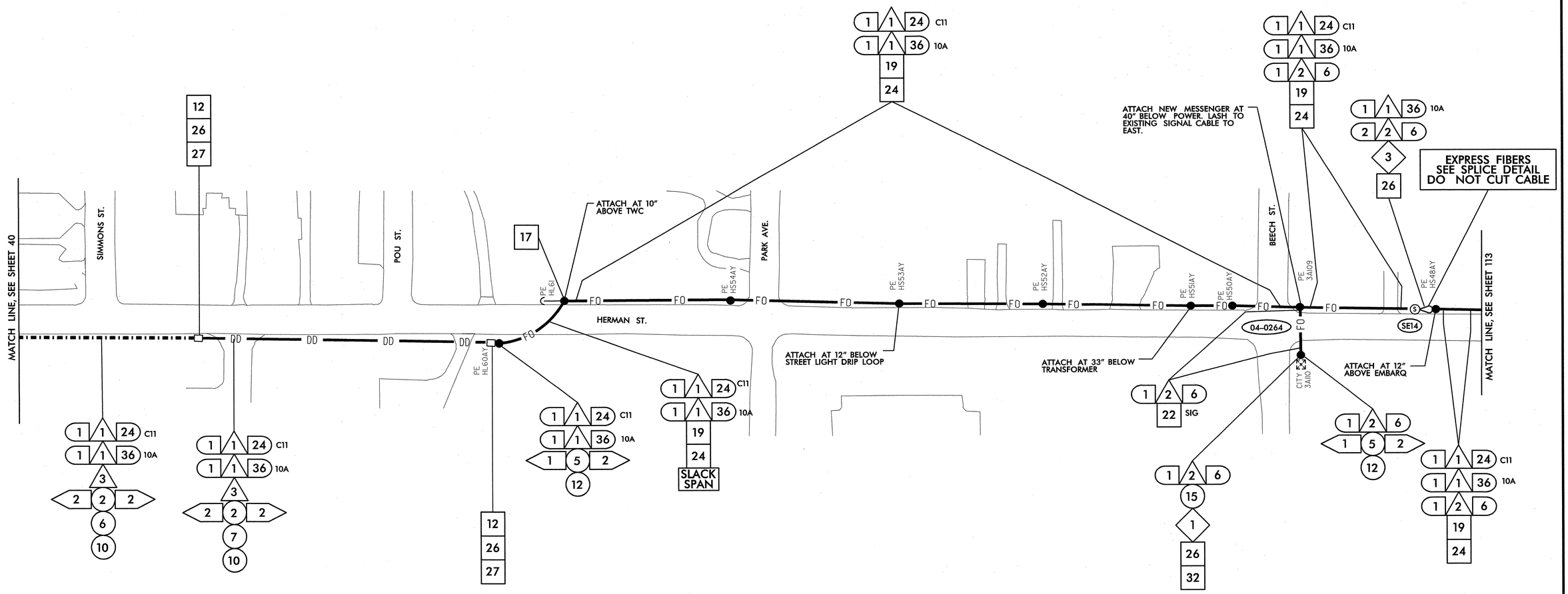
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
K:\ral_tpto_traffic\TMS\6016 goldsboro signal system\plans\sht_111.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	112



THIS AREA HAS BEEN DETERMINED TO CONTAIN PROPERTIES WITH DOCUMENTED HISTORIC SIGNIFICANCE. IF IT IS NECESSARY TO DEVIATE FROM THESE PLANS IN THIS AREA, PLEASE ALERT THE ENGINEER TO CONTACT PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH – HISTORIC ARCHITECTURE GROUP OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR AN EFFECT DETERMINATION BEFORE PROCEEDING.

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Traffic Engineering and Safety Systems Branch
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

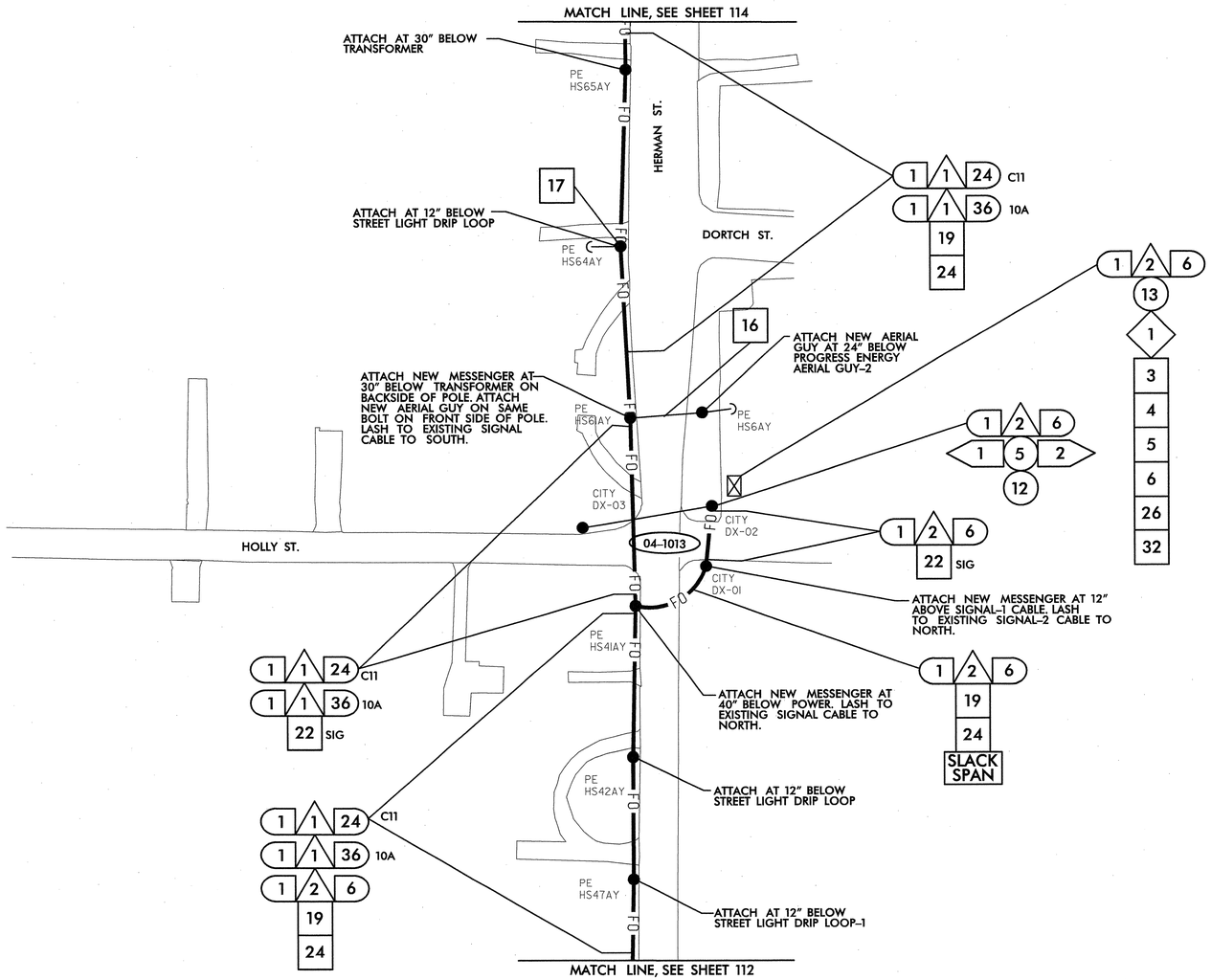
DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
kvan_traf_TrSGNT46016_goldsboro signal systemplansht 112.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	113



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SCALE 0 50

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CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
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REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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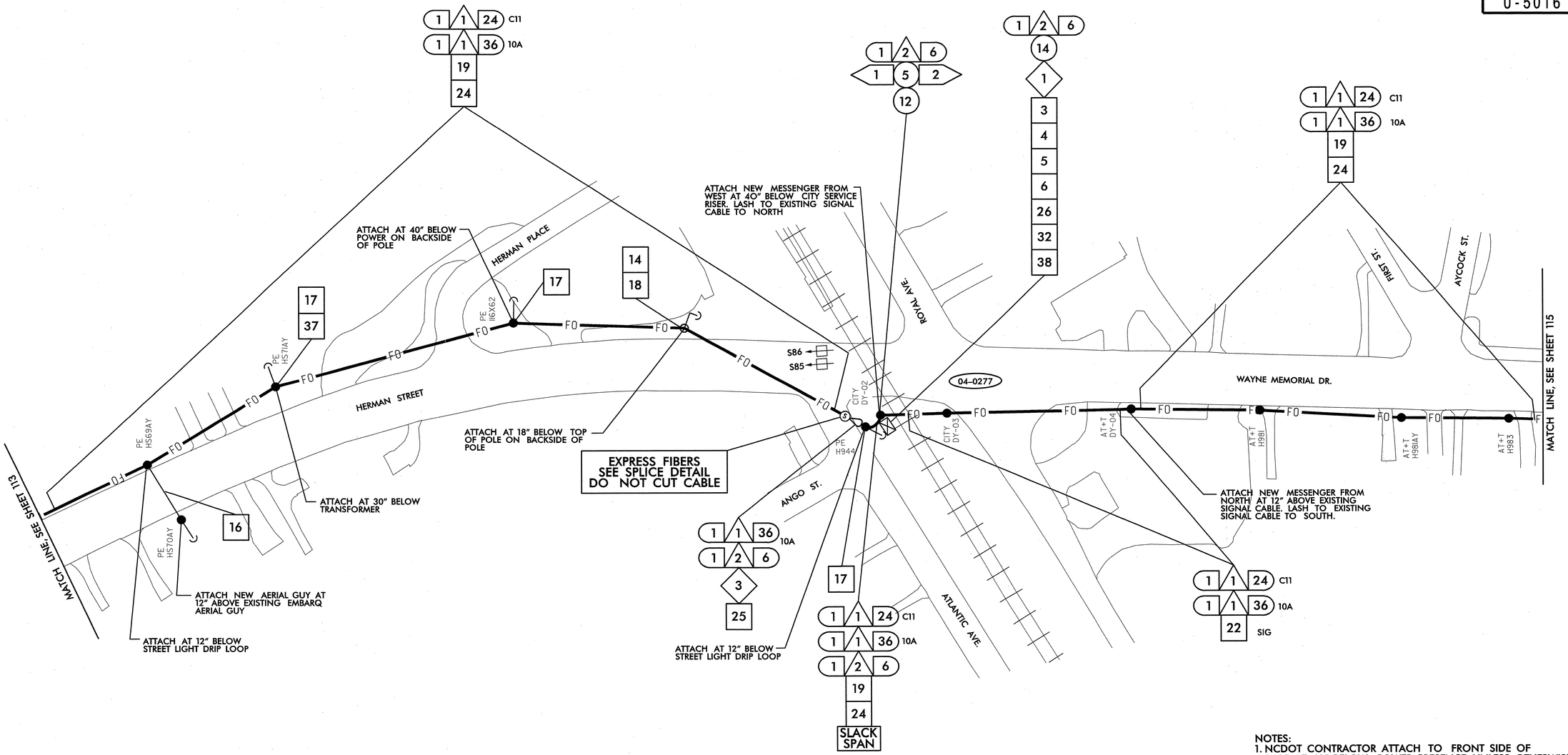
PROJECT REFERENCE NO.	SHEET NO.
U-5016	114



SEE SIGNAL PLAN 04-0277 FOR SYSTEM DETECTORS S85 AND S86 INSTALLAITON DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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(1) INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
(2) INSTALL UNDERGROUND SPLICE ENCLOSURE
(3) INSTALL AERIAL SPLICE ENCLOSURE
(4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
(5) INSTALL TERMINAL SPLICE BOX

[1] INSTALL CABINET FOUNDATION
[2] REMOVE EXISTING CABINET FOUNDATION
[3] MODIFY EXISTING CABINET FOUNDATION
[4] REMOVE EXISTING CONTROLLER AND CABINET
[5] INSTALL NEW CONTROLLER
[6] INSTALL NEW 332 BASE MOUNTED CABINET
[7] INSTALL NEW 336S BASE MOUNTED CABINET
[8] INSTALL NEW 336S POLE MOUNTED CABINET
[9] INSTALL CCTV CAMERA ASSEMBLY
[10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11] INSTALL JUNCTION BOX
[12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13] REMOVE EXISTING JUNCTION BOX
[14] INSTALL WOOD POLE
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[17] INSTALL STANDARD GUY ASSEMBLY
[18] INSTALL SIDEWALK GUY ASSEMBLY
[19] INSTALL MESSENGER CABLE
[20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21] REMOVE EXISTING COMMUNICATIONS CABLE
[22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
[23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
[24] LASH CABLE(S) TO NEW MESSENGER CABLE
[25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
[29] MODIFY EXISTING ELECTRICAL SERVICE
[30] INSTALL NEW ELECTRICAL SERVICE
[31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
[32] INSTALL FIBER OPTIC TRANSCEIVER
[33] INSTALL DIAL-UP MODEM
[34] INSTALL RADIO TRANSCEIVER
[35] INSTALL YAGI ANTENNA (8.5dB)
[36] INSTALL YAGI ANTENNA (13dB)
[37] BOND MESSENGER CABLE TO POLE GROUND
[38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

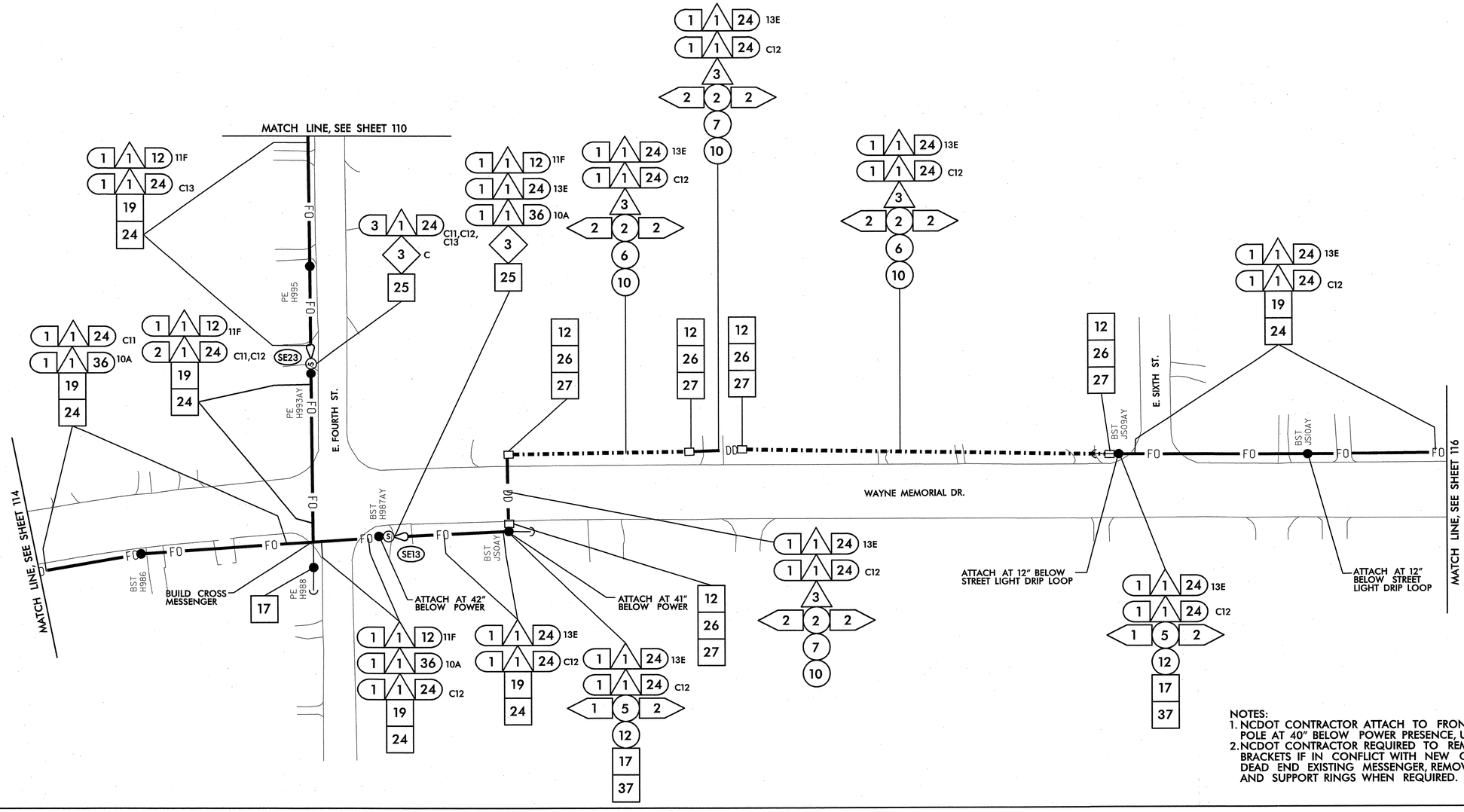
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
K:\rd_tpb_tis\01\46016_goldsboro_signal_system\plans\sht_lr4.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	115



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION

3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
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23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
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27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
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29. MODIFY EXISTING ELECTRICAL SERVICE
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32. INSTALL FIBER OPTIC TRANSCEIVER
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39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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Public Confidence and Safety Ensure Board Certification Institute of Transportation Engineers

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

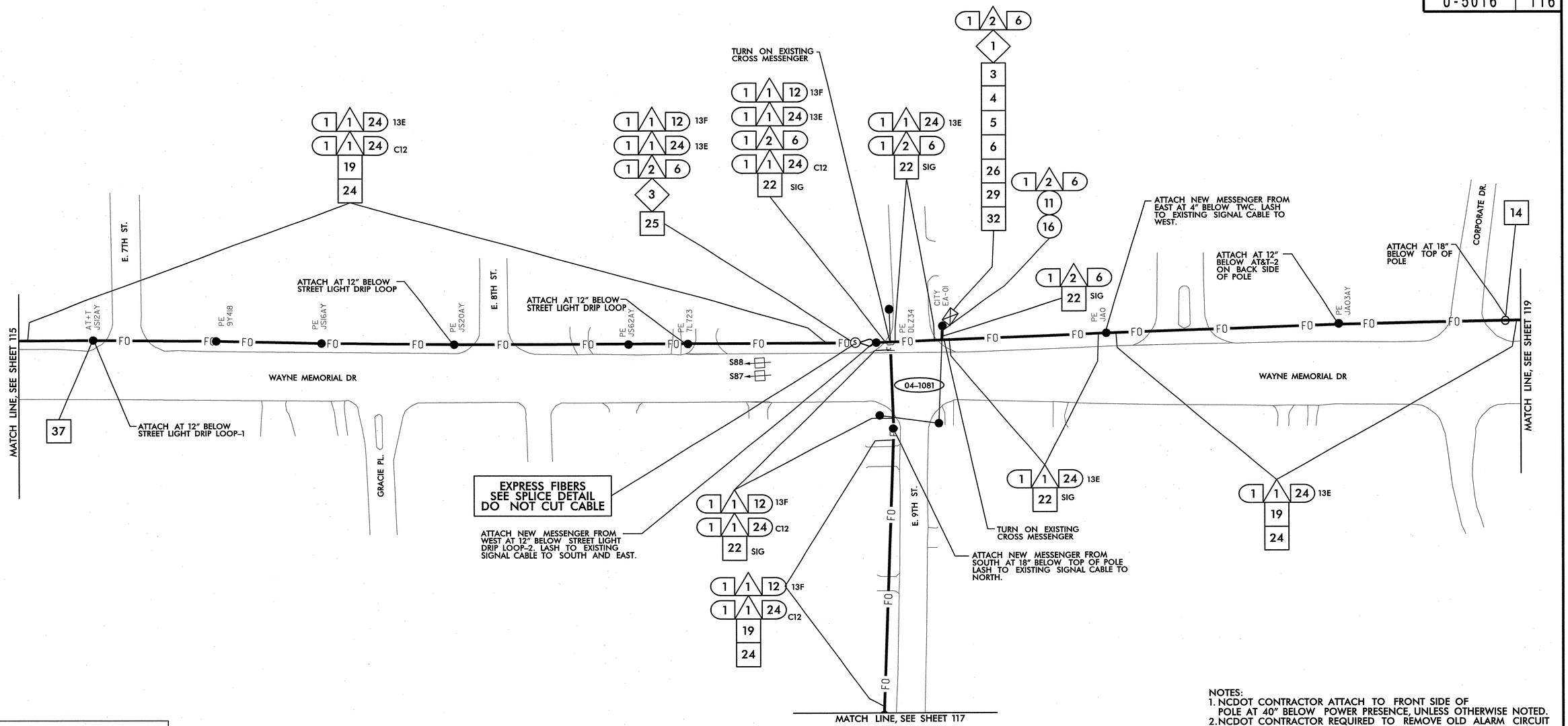
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
K:\Cal_Ops_Traffic\Projects\4606 goldsboro signal system\dgns\sht#_115.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	116



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SEE SIGNAL PLAN 04-1081 FOR SYSTEM DETECTORS S87 AND S88 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

(1) INSTALL PVC CONDUIT
(2) INSTALL POLYETHYLENE CONDUIT
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[4] REMOVE EXISTING CONTROLLER AND CABINET
[5] INSTALL NEW CONTROLLER
[6] INSTALL NEW 332 BASE MOUNTED CABINET
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[9] INSTALL CCTV CAMERA ASSEMBLY
[10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
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PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE
2/20/09
DATE
CADD Filenames

2/20/2009
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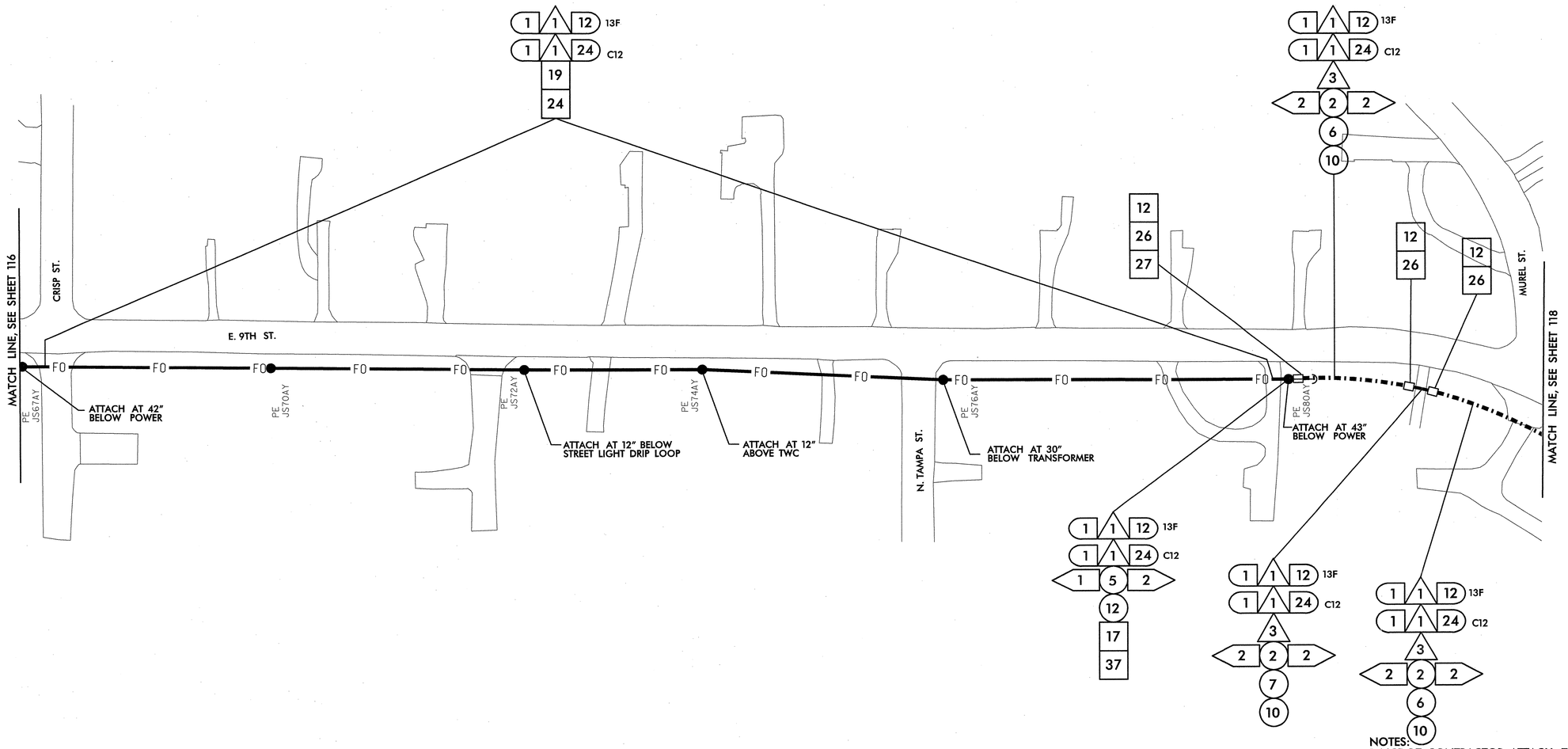
PROJECT REFERENCE NO.	SHEET NO.
U-5016	117



NOTES:
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2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
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4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
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1. INSTALL PVC CONDUIT
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5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
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4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE
2/20/09
DATE
CADD Filename:

2/20/2009
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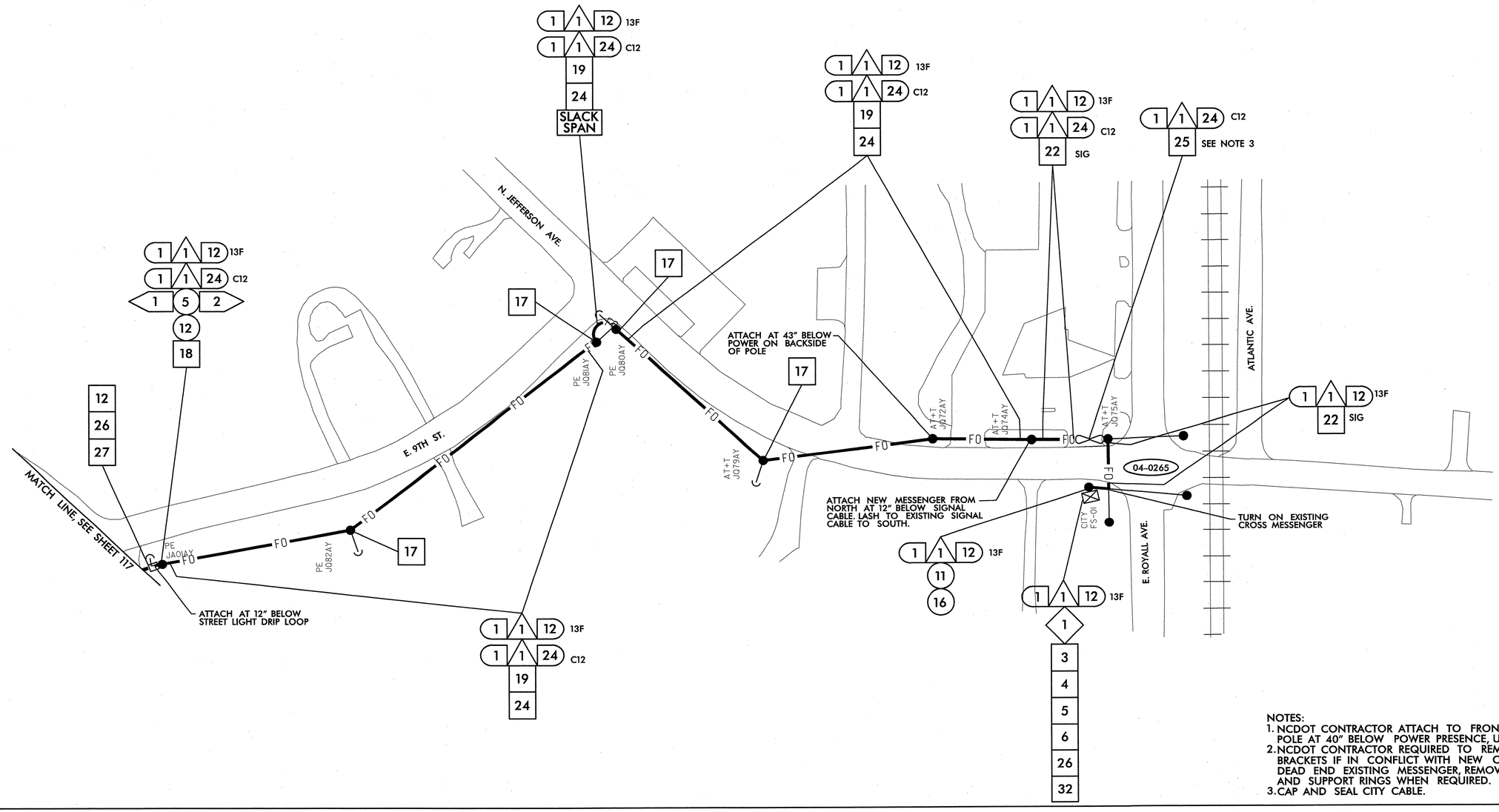
PROJECT REFERENCE NO.	SHEET NO.
U-5016	118



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3. CAP AND SEAL CITY CABLE.

- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
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- (1) INSTALL PVC CONDUIT
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- [36] INSTALL YAGI ANTENNA (13dB)
- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
NCDEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy, Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

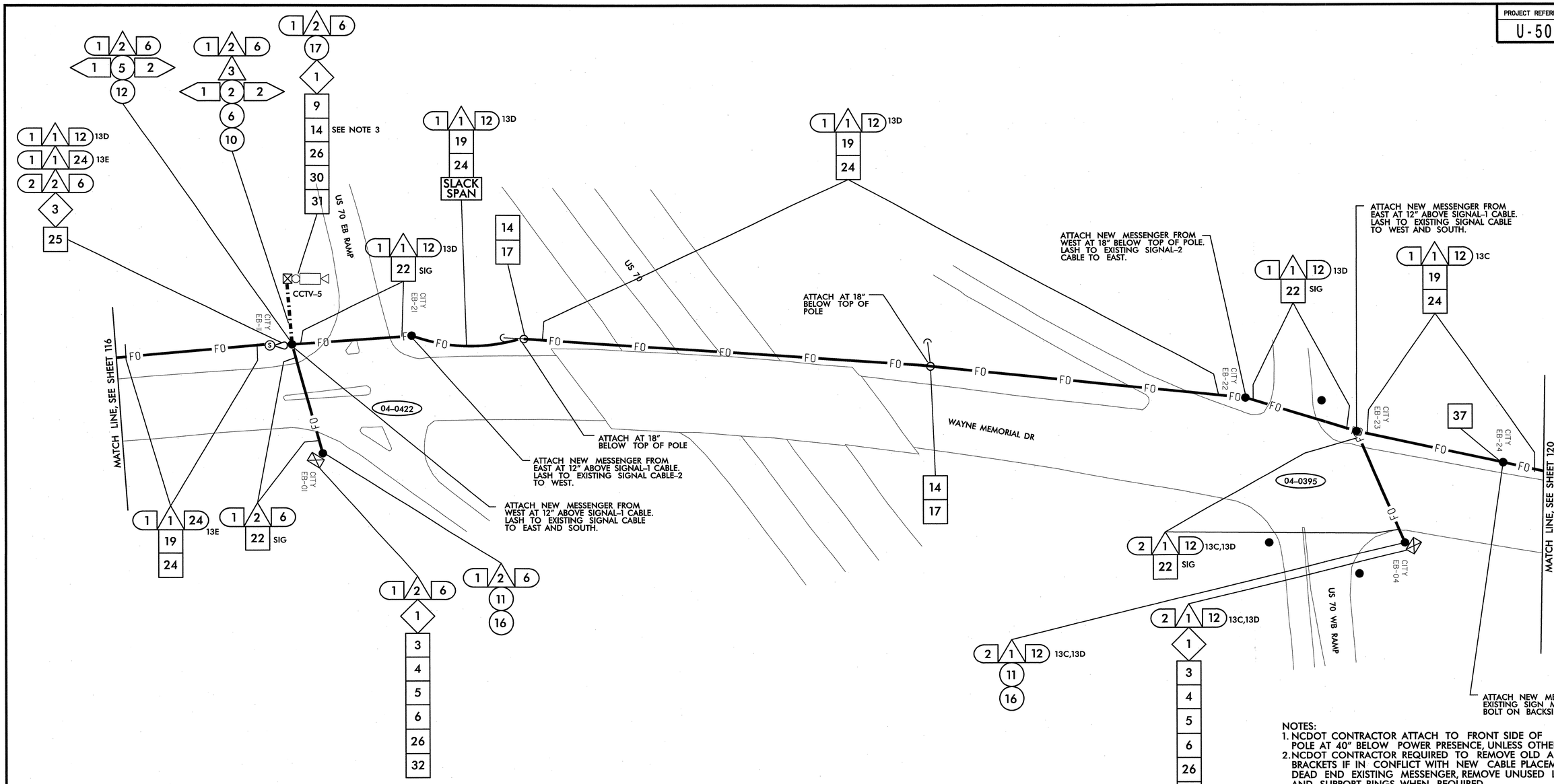
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
kVal_tpo_TrSOlIT46016_goldsboro signal systemplansht_116.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	119



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. OBTAIN APPROVAL FROM ENGINEER FOR CCTV CAMERA POLE LOCATION BEFORE INSTALLATION.

1	INSTALL SMFO CABLE
2	INSTALL FIBER OPTIC DROP CABLE
3	INSTALL TRACER WIRE
4	REUSE EXISTING SMFO CABLE
5	INSTALL PLENUM RATED SMFO CABLE
6	INSTALL LOOP LEAD-IN CABLE
(1)	INSTALL PVC CONDUIT
(2)	INSTALL POLYETHYLENE CONDUIT
(3)	INSTALL RIGID, GALVANIZED STEEL CONDUIT
(4)	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
(5)	INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
(6)	TRENCH CONDUIT
(7)	DIRECTIONAL DRILL CONDUIT
(8)	BORE AND JACK CONDUIT
(9)	INSTALL CABLE(S) IN EXISTING CONDUIT
(10)	INSTALL CABLE(S) IN NEW CONDUIT
(11)	INSTALL CABLE(S) IN EXISTING RISER
(12)	INSTALL CABLE(S) IN NEW RISER
(13)	INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
(14)	INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
(15)	INSTALL NEW RISER INTO POLE MOUNTED CABINET
(16)	REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
(17)	INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
⟨1⟩	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
⟨2⟩	INSTALL UNDERGROUND SPLICE ENCLOSURE
⟨3⟩	INSTALL AERIAL SPLICE ENCLOSURE
⟨4⟩	MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
⟨5⟩	INSTALL TERMINAL SPLICE BOX
[1]	INSTALL CABINET FOUNDATION
[2]	REMOVE EXISTING CABINET FOUNDATION
[3]	MODIFY EXISTING CABINET FOUNDATION
[4]	REMOVE EXISTING CONTROLLER AND CABINET
[5]	INSTALL NEW CONTROLLER
[6]	INSTALL NEW 332 BASE MOUNTED CABINET
[7]	INSTALL NEW 336S BASE MOUNTED CABINET
[8]	INSTALL NEW 336S POLE MOUNTED CABINET
[9]	INSTALL CCTV CAMERA ASSEMBLY
[10]	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11]	INSTALL JUNCTION BOX
[12]	INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13]	REMOVE EXISTING JUNCTION BOX
[14]	INSTALL WOOD POLE
[15]	REMOVE EXISTING WOOD POLE
[16]	INSTALL AERIAL GUY ASSEMBLY
[17]	INSTALL STANDARD GUY ASSEMBLY
[18]	INSTALL SIDEWALK GUY ASSEMBLY
[19]	INSTALL MESSENGER CABLE
[20]	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21]	REMOVE EXISTING COMMUNICATIONS CABLE
[22]	LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
[23]	LASH CABLE(S) TO EXISTING MESSENGER CABLE
[24]	LASH CABLE(S) TO NEW MESSENGER CABLE
[25]	INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26]	STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27]	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28]	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
[29]	MODIFY EXISTING ELECTRICAL SERVICE
[30]	INSTALL NEW ELECTRICAL SERVICE
[31]	INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
[32]	INSTALL FIBER OPTIC TRANSCEIVER
[33]	INSTALL DIAL-UP MODEM
[34]	INSTALL RADIO TRANSCEIVER
[35]	INSTALL YAGI ANTENNA (8.5dB)
[36]	INSTALL YAGI ANTENNA (13dB)
[37]	BOND MESSENGER CABLE TO POLE GROUND
[38]	RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39]	RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40]	INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41]	INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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750 Greenfield Pkwy., Garner, NC 27529

Traffic Engineering and Safety Systems Branch
TRAFFIC ENGINEERING BRANCH OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

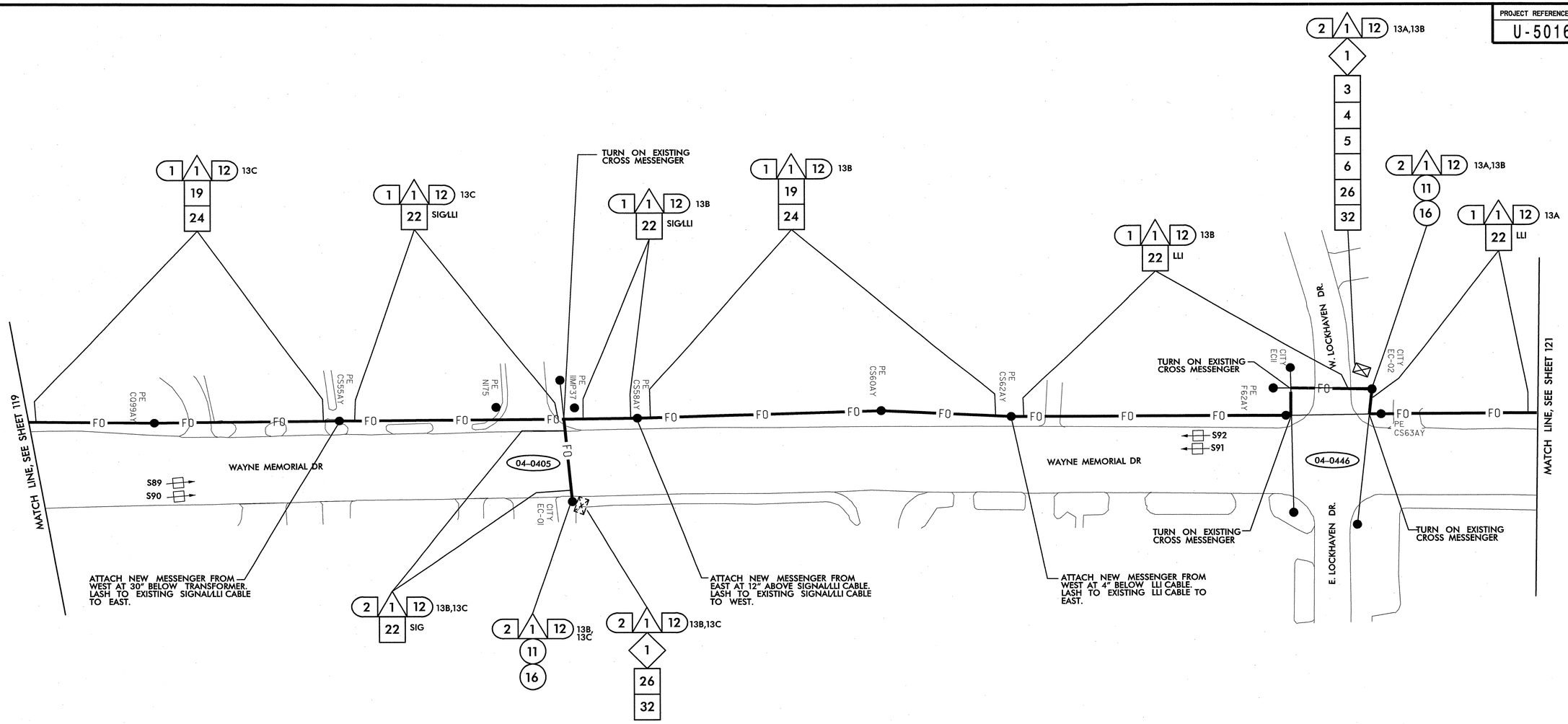
PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE — DATE 2/20/09
CADD Filenames

2/20/2009
k:\rdi_tpb_tis\01746016 goldsboro signal systems\stt_l19.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	120



SEE SIGNAL PLAN 04-0395 FOR SYSTEM DETECTORS S89 AND S90 INSTALLATION DETAILS. SIGNAL 04-0395 IS LOCATED ON CABLE ROUTING SHEET 119. SEE SIGNAL PLAN 04-0446 FOR SYSTEM DETECTORS S91 AND S92 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX
1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION

3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
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39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Public Transportation and Safety Systems Branch
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

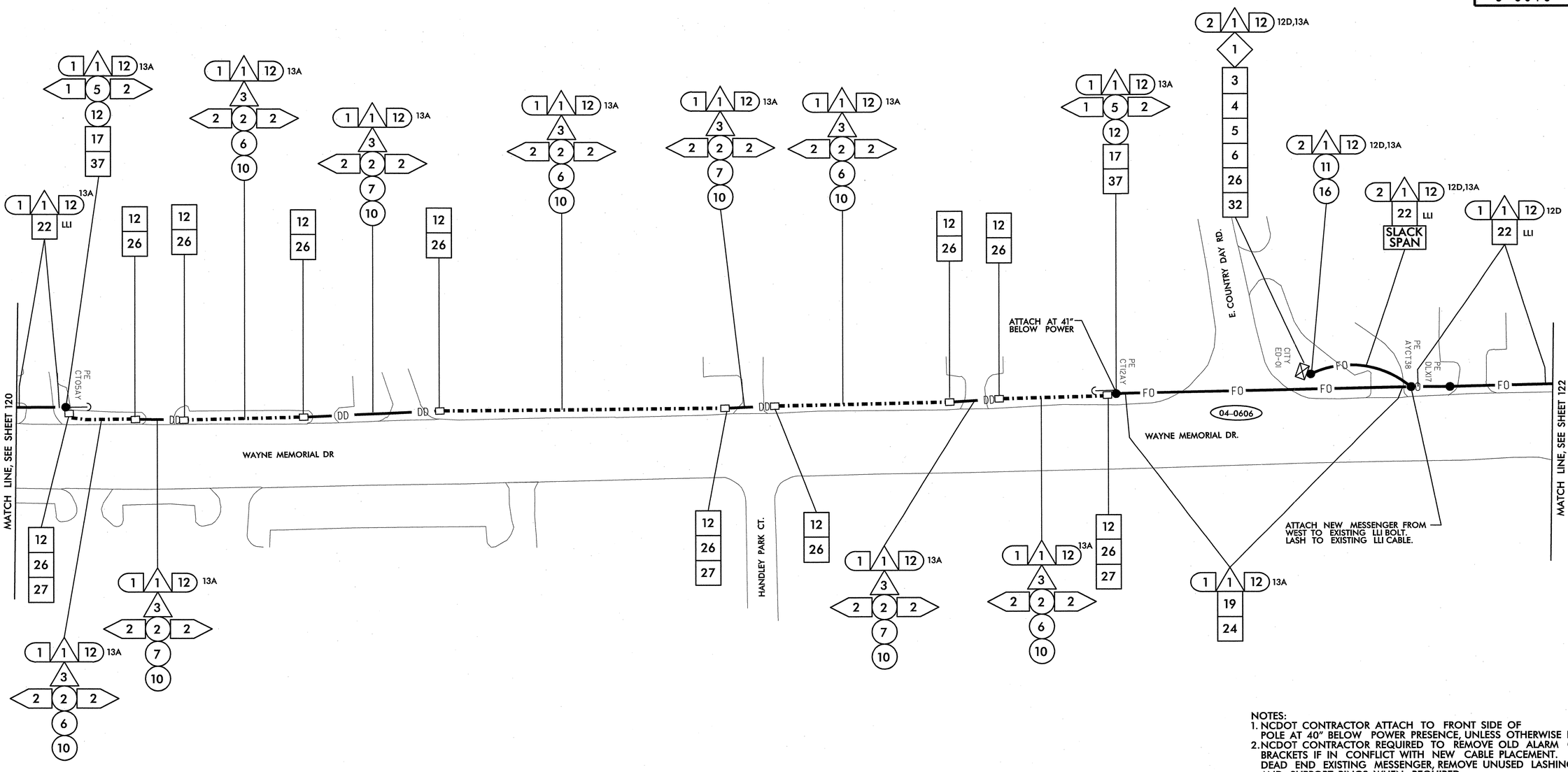
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
K:\rdi_tpto_tfs\Ol\T46016 goldsboro signal system\plans\sht_120.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	121



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
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12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
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Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

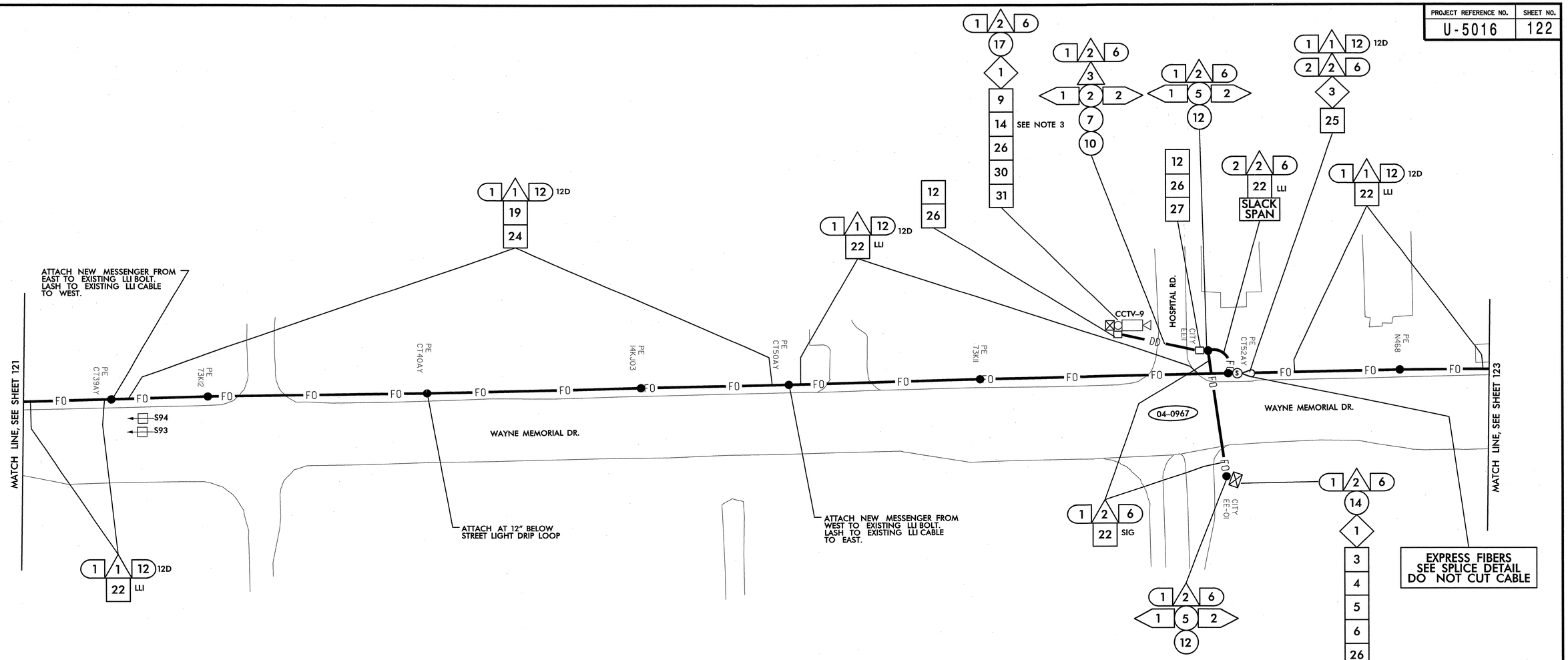
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
K:\Val_1\tv_Tts\Oll\746016 goldsboro signal systemplans\sht_121.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	122



SEE SIGNAL PLAN 04–0606 FOR SYSTEM DETECTORS S93 AND S94 INSTALLATION DETAILS. SIGNAL 04–0606 IS LOCATED ON CABLE ROUTING SHEET 121. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. OBTAIN APPROVAL FROM ENGINEER FOR CCTV CAMERA POLE LOCATION BEFORE INSTALLATION.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
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14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX
1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION

3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
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25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
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27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
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29. MODIFY EXISTING ELECTRICAL SERVICE
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41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

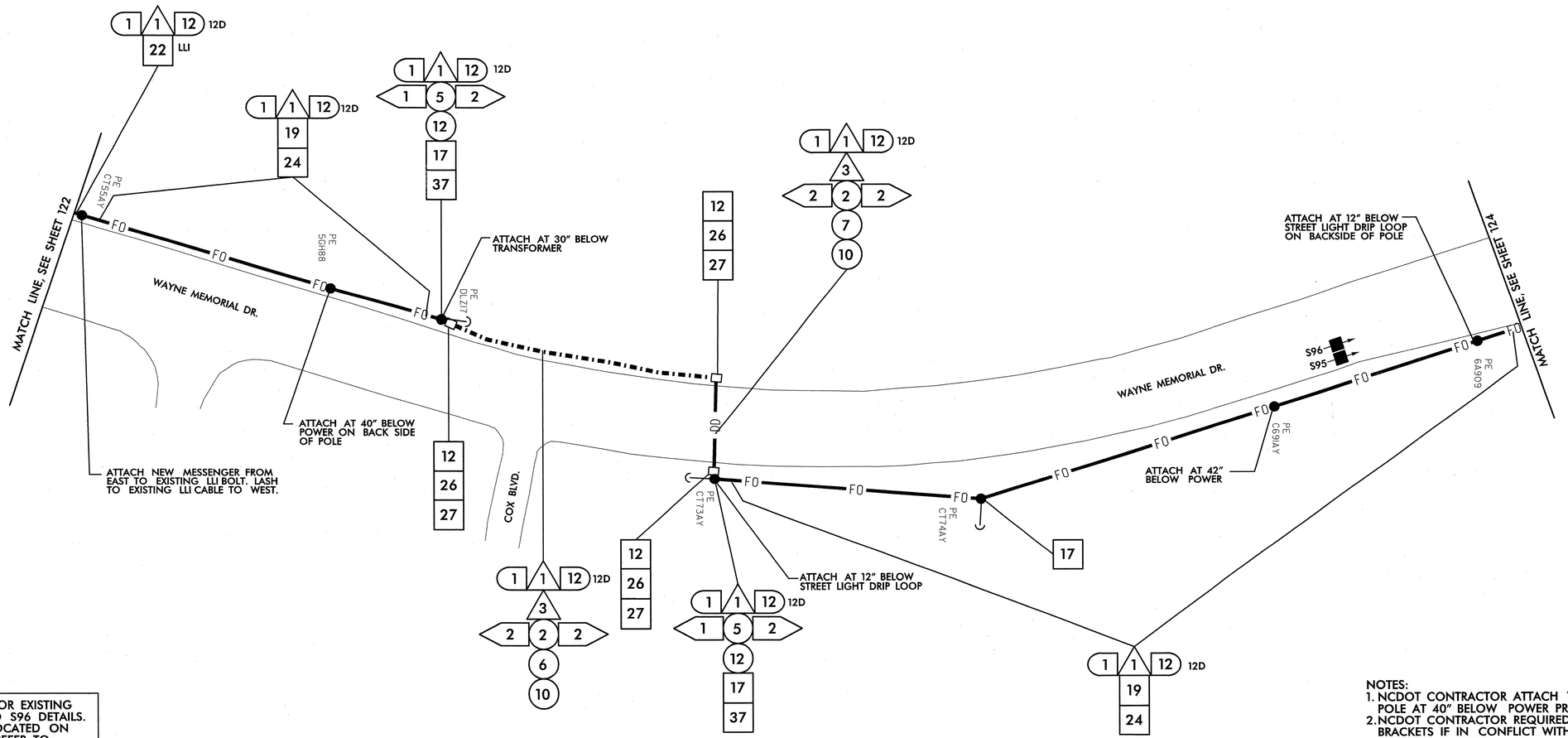
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames:

2/20/2009
K:\rdi_tpto_1\s\0\174606 goldsboro signal system\plans\sht 122.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	123



SEE SIGNAL PLAN 04-0968 FOR EXISTING SYSTEM DETECTORS S95 AND S96 DETAILS. INTERSECTION 04-0968 IS LOCATED ON CABLE ROUTING SHEET 124. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

(1) INSTALL PVC CONDUIT
(2) INSTALL POLYETHYLENE CONDUIT
(3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
(4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
(5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
(6) TRENCH CONDUIT
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(9) INSTALL CABLE(S) IN EXISTING CONDUIT
(10) INSTALL CABLE(S) IN NEW CONDUIT
(11) INSTALL CABLE(S) IN EXISTING RISER
(12) INSTALL CABLE(S) IN NEW RISER
(13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
(14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
(15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
(16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
(17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

[1] INSTALL CABINET FOUNDATION
[2] REMOVE EXISTING CABINET FOUNDATION
[3] MODIFY EXISTING CABINET FOUNDATION
[4] REMOVE EXISTING CONTROLLER AND CABINET
[5] INSTALL NEW CONTROLLER
[6] INSTALL NEW 332 BASE MOUNTED CABINET
[7] INSTALL NEW 336S BASE MOUNTED CABINET
[8] INSTALL NEW 336S POLE MOUNTED CABINET
[9] INSTALL CCTV CAMERA ASSEMBLY
[10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11] INSTALL JUNCTION BOX
[12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
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[41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Mobility & Safety Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

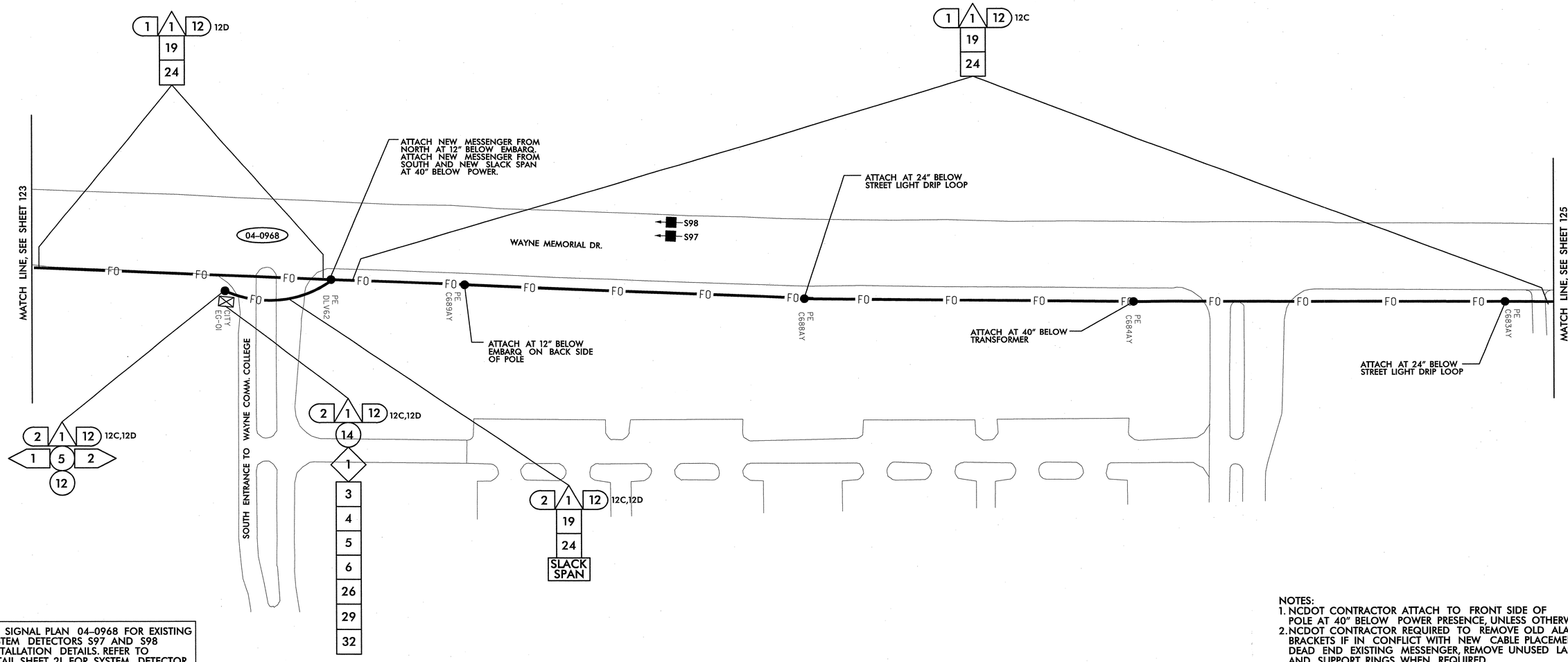
PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030472 KEVIN W. SMITH
SIGNATURE
2/20/09
DATE
CADD Filename:

2/20/2009
k:\rdl_tpb_tts\GIR46016 goldsboro signal system\plans\sht_123.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	124



SEE SIGNAL PLAN 04-0968 FOR EXISTING SYSTEM DETECTORS S97 AND S98 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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PLANS PREPARED IN THE OFFICE OF:
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P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Public Protection and Safety Through Excellence in Traffic Engineering
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE
2/20/09
DATE
CADD Filenames

2/20/2009
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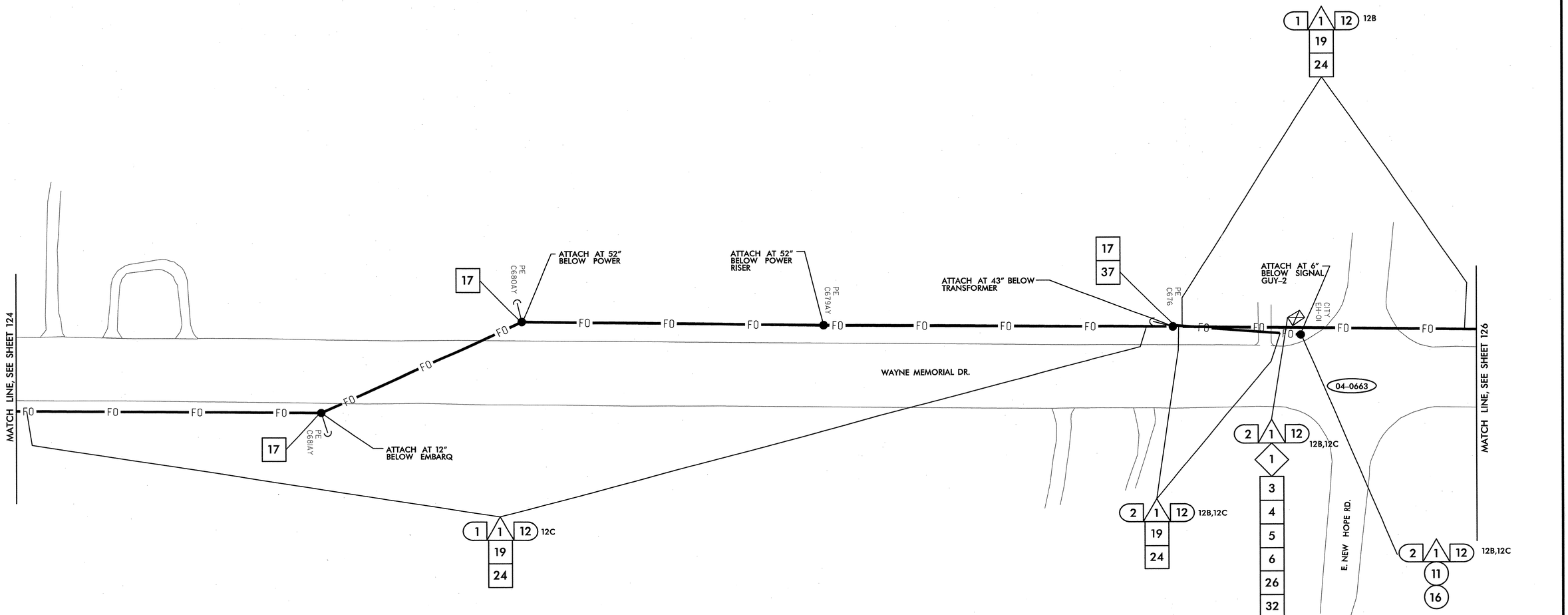
PROJECT REFERENCE NO.	SHEET NO.
U-5016	125



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PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030472 KEVIN W. SMITH
SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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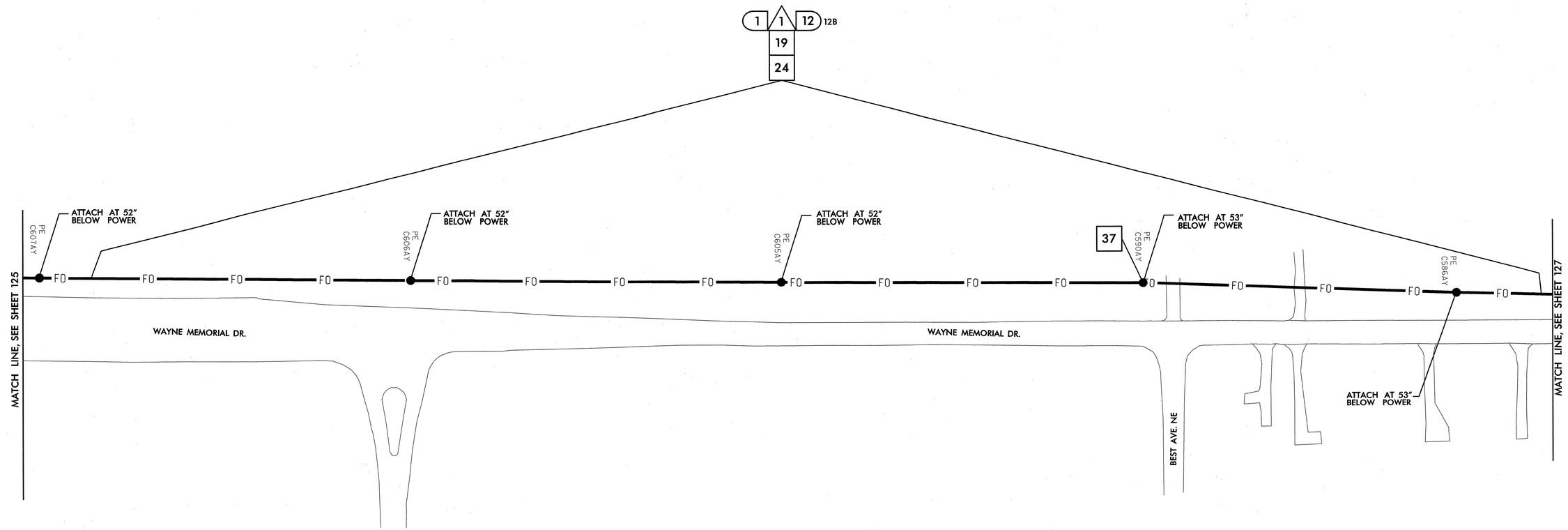
PROJECT REFERENCE NO.	SHEET NO.
U-5016	126



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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames:

2/20/2009
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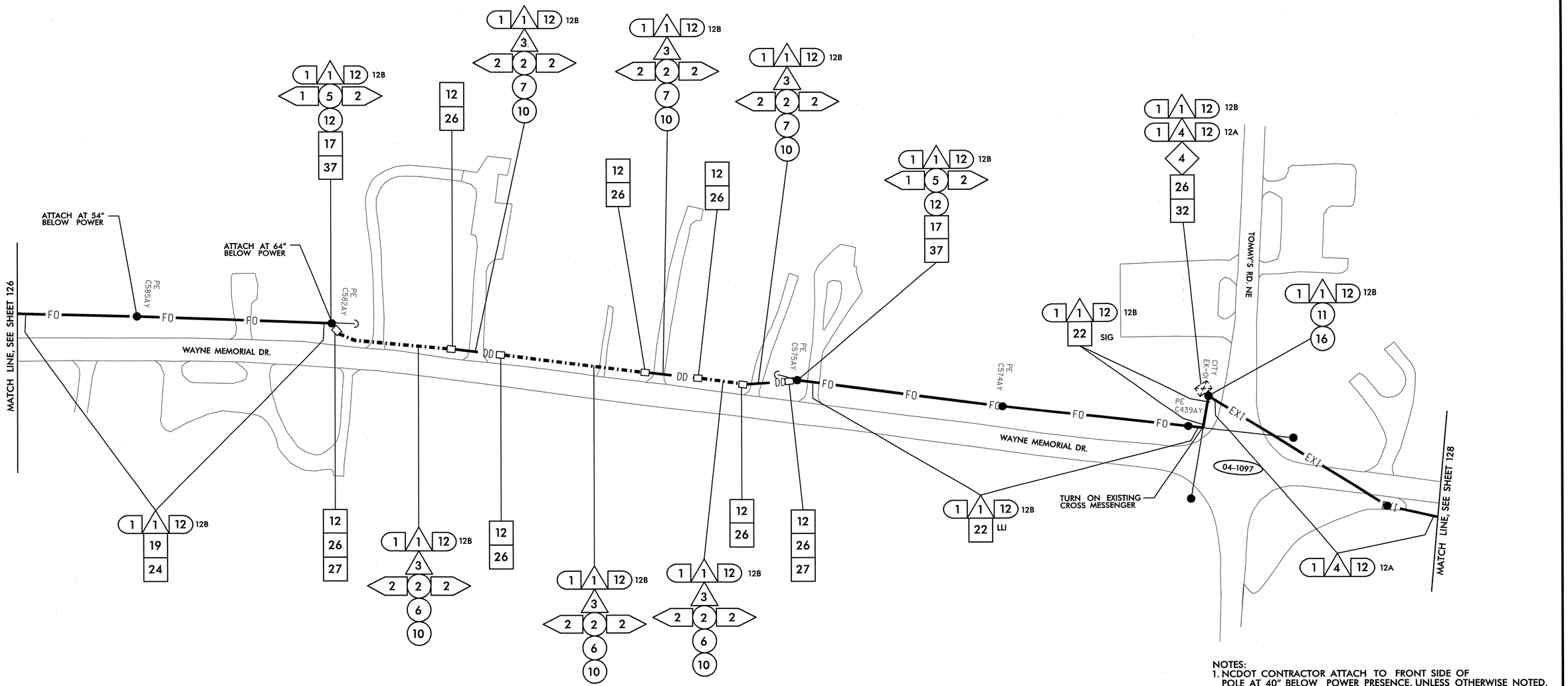
PROJECT REFERENCE NO.	SHEET NO.
U-5016	127



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- 6 INSTALL NEW 332 BASE MOUNTED CABINET
- 7 INSTALL NEW 336S BASE MOUNTED CABINET
- 8 INSTALL NEW 336S POLE MOUNTED CABINET
- 9 INSTALL CCTV CAMERA ASSEMBLY
- 10 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 11 INSTALL JUNCTION BOX
- 12 INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- 13 REMOVE EXISTING JUNCTION BOX
- 14 INSTALL WOOD POLE
- 15 REMOVE EXISTING WOOD POLE
- 16 INSTALL AERIAL GUY ASSEMBLY
- 17 INSTALL STANDARD GUY ASSEMBLY
- 18 INSTALL SIDEWALK GUY ASSEMBLY
- 19 INSTALL MESSENGER CABLE
- 20 REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- 21 REMOVE EXISTING COMMUNICATIONS CABLE
- 22 LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- 23 LASH CABLE(S) TO EXISTING MESSENGER CABLE
- 24 LASH CABLE(S) TO NEW MESSENGER CABLE
- 25 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- 26 STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- 27 INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- 28 INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- 29 MODIFY EXISTING ELECTRICAL SERVICE
- 30 INSTALL NEW ELECTRICAL SERVICE
- 31 INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- 32 INSTALL FIBER OPTIC TRANSCEIVER
- 33 INSTALL DIAL-UP MODEM
- 34 INSTALL RADIO TRANSCEIVER
- 35 INSTALL YAGI ANTENNA (8.5dB)
- 36 INSTALL YAGI ANTENNA (13dB)
- 37 BOND MESSENGER CABLE TO POLE GROUND
- 38 RECONNECT RAILROAD PREEMPTION EQUIPMENT
- 39 RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- 40 INSTALL PRE-FORMED CABINET FOUNDATION PAD
- 41 INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
DEPARTMENT OF TRANSPORTATION
Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

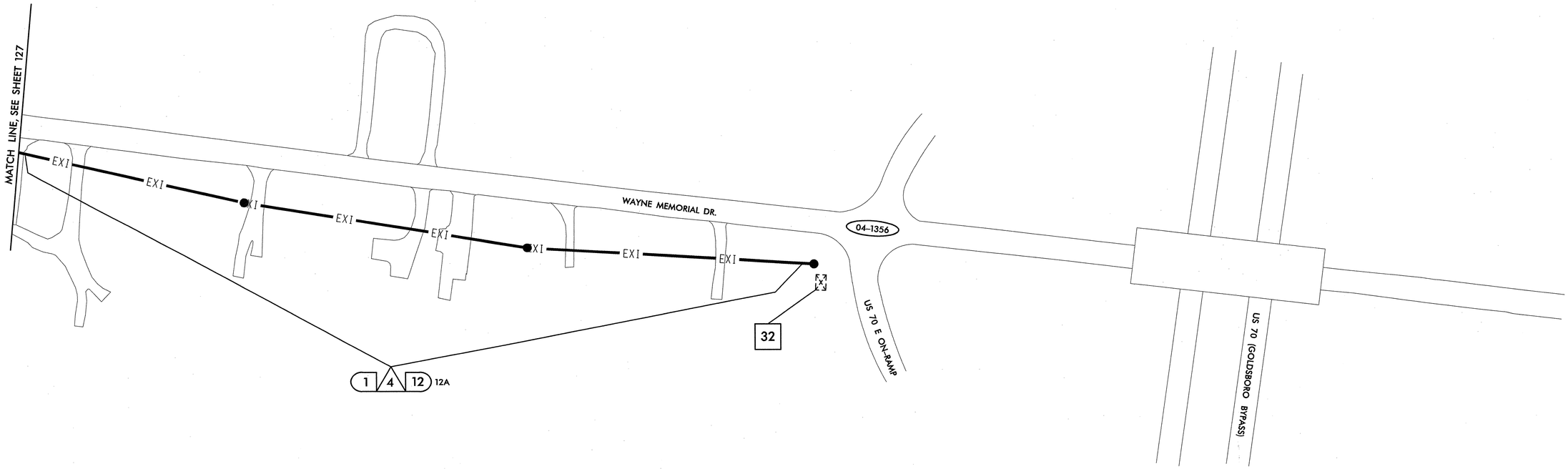
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames:

2/20/2009
K:\raf_tpto_ths\DIII\46016 goldsboro signal system\plans\sht_127.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	128



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- (1) INSTALL SMFO CABLE
- (2) INSTALL FIBER OPTIC DROP CABLE
- (3) INSTALL TRACER WIRE
- (4) REUSE EXISTING SMFO CABLE
- (5) INSTALL PLENUM RATED SMFO CABLE
- (6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ⟨1⟩ INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ⟨2⟩ INSTALL UNDERGROUND SPLICE ENCLOSURE
- ⟨3⟩ INSTALL AERIAL SPLICE ENCLOSURE
- ⟨4⟩ MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ⟨5⟩ INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
- [15] REMOVE EXISTING WOOD POLE
- [16] INSTALL AERIAL GUY ASSEMBLY
- [17] INSTALL STANDARD GUY ASSEMBLY
- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- [21] REMOVE EXISTING COMMUNICATIONS CABLE
- [22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- [23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
- [24] LASH CABLE(S) TO NEW MESSENGER CABLE
- [25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- [26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
- [36] INSTALL YAGI ANTENNA (13dB)
- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

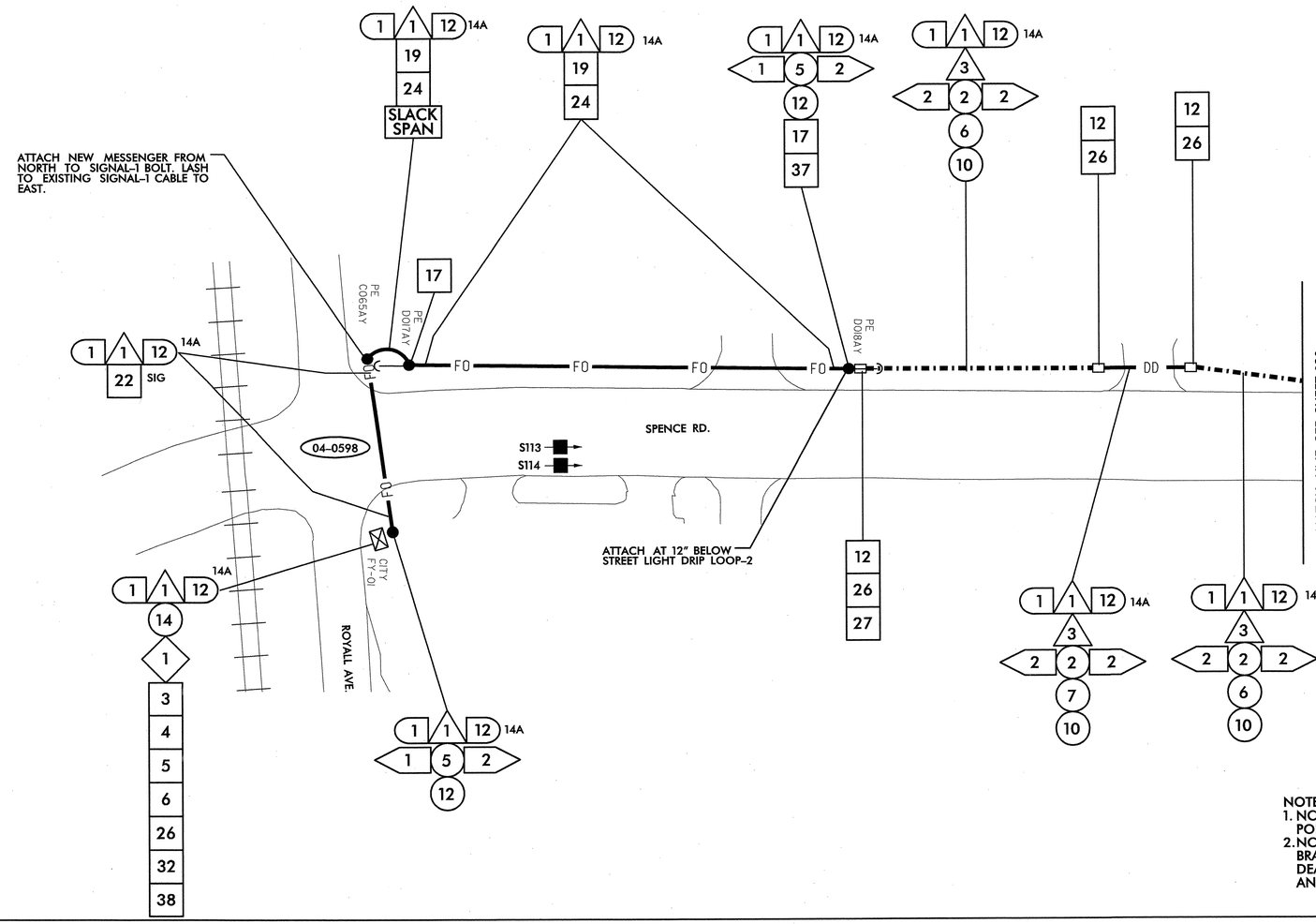
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
K:\ral_tpo_Ths\DIT46016 goldsboro signal system\plans\sht_128.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	129



SEE SIGNAL PLAN 04-0598 FOR EXISTING SYSTEM DETECTORS S113 AND S114 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
- 1 INSTALL PVC CONDUIT
- 2 INSTALL POLYETHYLENE CONDUIT
- 3 INSTALL RIGID, GALVANIZED STEEL CONDUIT
- 4 INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- 5 INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- 6 TRENCH CONDUIT
- 7 DIRECTIONAL DRILL CONDUIT
- 8 BORE AND JACK CONDUIT
- 9 INSTALL CABLE(S) IN EXISTING CONDUIT
- 10 INSTALL CABLE(S) IN NEW CONDUIT
- 11 INSTALL CABLE(S) IN EXISTING RISER
- 12 INSTALL CABLE(S) IN NEW RISER
- 13 INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- 14 INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- 15 INSTALL NEW RISER INTO POLE MOUNTED CABINET
- 16 REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- 17 INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- 1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- 2 INSTALL UNDERGROUND SPLICE ENCLOSURE
- 3 INSTALL AERIAL SPLICE ENCLOSURE
- 4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- 5 INSTALL TERMINAL SPLICE BOX
- 1 INSTALL CABINET FOUNDATION
- 2 REMOVE EXISTING CABINET FOUNDATION
- 3 MODIFY EXISTING CABINET FOUNDATION
- 4 REMOVE EXISTING CONTROLLER AND CABINET
- 5 INSTALL NEW CONTROLLER
- 6 INSTALL NEW 332 BASE MOUNTED CABINET
- 7 INSTALL NEW 336S BASE MOUNTED CABINET
- 8 INSTALL NEW 336S POLE MOUNTED CABINET
- 9 INSTALL CCTV CAMERA ASSEMBLY
- 10 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 11 INSTALL JUNCTION BOX
- 12 INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- 13 REMOVE EXISTING JUNCTION BOX
- 14 INSTALL WOOD POLE
- 15 REMOVE EXISTING WOOD POLE
- 16 INSTALL AERIAL GUY ASSEMBLY
- 17 INSTALL STANDARD GUY ASSEMBLY
- 18 INSTALL SIDEWALK GUY ASSEMBLY
- 19 INSTALL MESSENGER CABLE
- 20 REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- 21 REMOVE EXISTING COMMUNICATIONS CABLE
- 22 LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- 23 LASH CABLE(S) TO EXISTING MESSENGER CABLE
- 24 LASH CABLE(S) TO NEW MESSENGER CABLE
- 25 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- 26 STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- 27 INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- 28 INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- 29 MODIFY EXISTING ELECTRICAL SERVICE
- 30 INSTALL NEW ELECTRICAL SERVICE
- 31 INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- 32 INSTALL FIBER OPTIC TRANSCEIVER
- 33 INSTALL DIAL-UP MODEM
- 34 INSTALL RADIO TRANSCEIVER
- 35 INSTALL YAGI ANTENNA (8.5dB)
- 36 INSTALL YAGI ANTENNA (13dB)
- 37 BOND MESSENGER CABLE TO POLE GROUND
- 38 RECONNECT RAILROAD PREEMPTION EQUIPMENT
- 39 RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- 40 INSTALL PRE-FORMED CABINET FOUNDATION PAD
- 41 INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

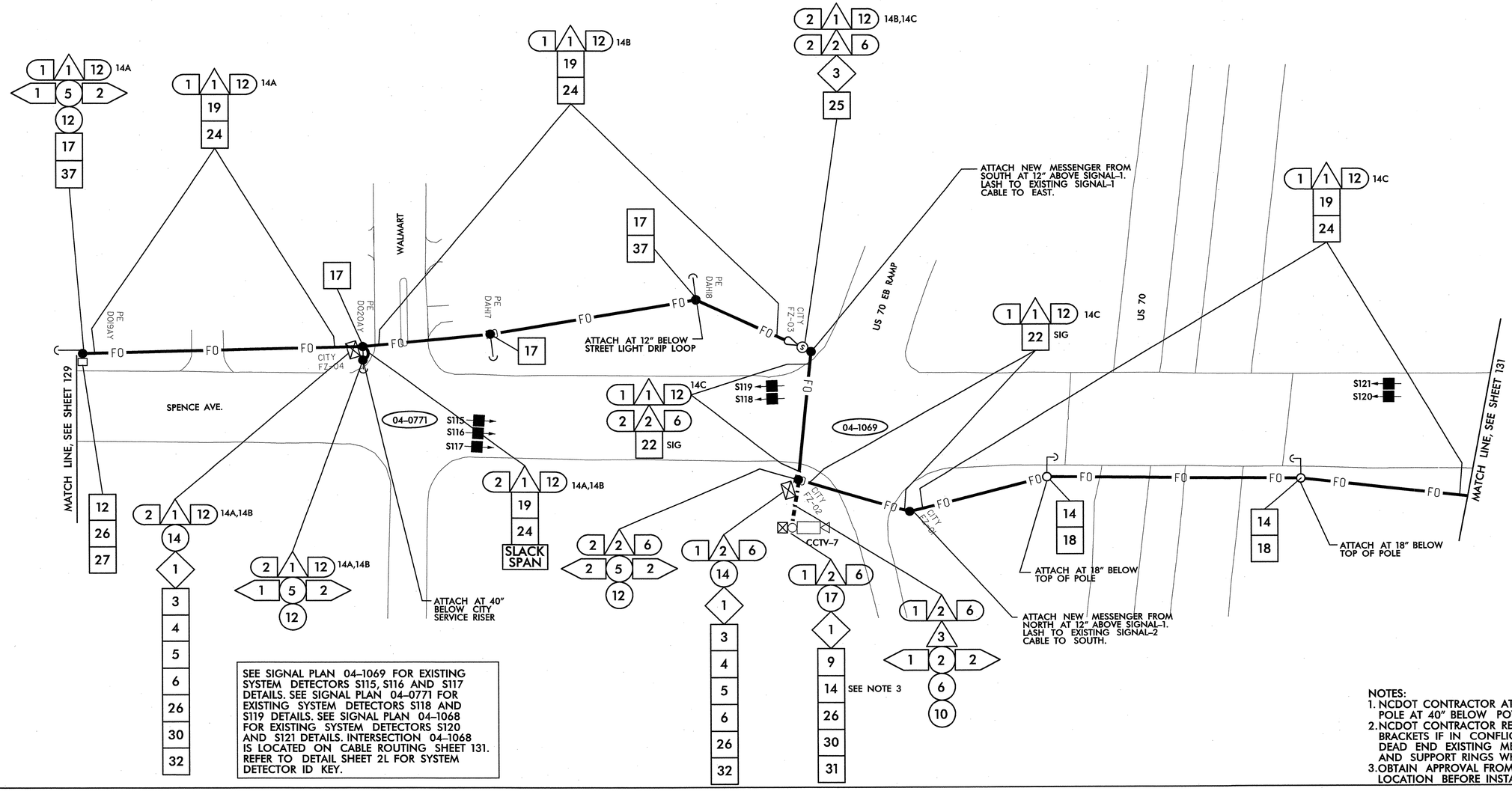
PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
k:\raf_tpo_tis\011746016 goldsboro signal system\plans\sht 129.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	130



SEE SIGNAL PLAN 04-1069 FOR EXISTING SYSTEM DETECTORS S115, S116 AND S117 DETAILS. SEE SIGNAL PLAN 04-0771 FOR EXISTING SYSTEM DETECTORS S118 AND S119 DETAILS. SEE SIGNAL PLAN 04-1068 FOR EXISTING SYSTEM DETECTORS S120 AND S121 DETAILS. INTERSECTION 04-1068 IS LOCATED ON CABLE ROUTING SHEET 131. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. OBTAIN APPROVAL FROM ENGINEER FOR CCTV CAMERA POLE LOCATION BEFORE INSTALLATION.

1	INSTALL SMFO CABLE	10	INSTALL CABLE(S) IN NEW CONDUIT	3	MODIFY EXISTING CABINET FOUNDATION	17	INSTALL STANDARD GUY ASSEMBLY
2	INSTALL FIBER OPTIC DROP CABLE	11	INSTALL CABLE(S) IN EXISTING RISER	4	REMOVE EXISTING CONTROLLER AND CABINET	18	INSTALL SIDEWALK GUY ASSEMBLY
3	INSTALL TRACER WIRE	12	INSTALL CABLE(S) IN NEW RISER	5	INSTALL NEW CONTROLLER	19	INSTALL MESSENGER CABLE
4	REUSE EXISTING SMFO CABLE	13	INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS	6	INSTALL NEW 332 BASE MOUNTED CABINET	20	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
5	INSTALL PLENUM RATED SMFO CABLE	14	INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)	7	INSTALL NEW 336S BASE MOUNTED CABINET	21	REMOVE EXISTING COMMUNICATIONS CABLE
6	INSTALL LOOP LEAD-IN CABLE	15	INSTALL NEW RISER INTO POLE MOUNTED CABINET	8	INSTALL NEW 336S POLE MOUNTED CABINET	22	LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
1	INSTALL PVC CONDUIT	16	REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING	9	INSTALL CCTV CAMERA ASSEMBLY	23	LASH CABLE(S) TO EXISTING MESSENGER CABLE
2	INSTALL POLYETHYLENE CONDUIT	17	INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET	10	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION	24	LASH CABLE(S) TO NEW MESSENGER CABLE
3	INSTALL RIGID, GALVANIZED STEEL CONDUIT	1	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET	11	INSTALL JUNCTION BOX	25	INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
4	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	2	INSTALL UNDERGROUND SPLICE ENCLOSURE	12	INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX	26	STORE 30 FEET OF EACH COMMUNICATIONS CABLE
5	INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING	3	INSTALL AERIAL SPLICE ENCLOSURE	13	REMOVE EXISTING JUNCTION BOX	27	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
6	TRENCH CONDUIT	4	MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER	14	INSTALL WOOD POLE	28	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
7	DIRECTIONAL DRILL CONDUIT	5	INSTALL TERMINAL SPLICE BOX	15	REMOVE EXISTING WOOD POLE	29	MODIFY EXISTING ELECTRICAL SERVICE
8	BORE AND JACK CONDUIT	1	INSTALL CABINET FOUNDATION	16	INSTALL AERIAL GUY ASSEMBLY	30	INSTALL NEW ELECTRICAL SERVICE
9	INSTALL CABLE(S) IN EXISTING CONDUIT	2	REMOVE EXISTING CABINET FOUNDATION				

31	INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA	38	RECONNECT RAILROAD PREEMPTION EQUIPMENT
32	INSTALL FIBER OPTIC TRANSCEIVER	39	RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
33	INSTALL DIAL-UP MODEM	40	INSTALL PRE-FORMED CABINET FOUNDATION PAD
34	INSTALL RADIO TRANSCEIVER	41	INSTALL BASE ADAPTER
35	INSTALL YAGI ANTENNA (8.5dB)		
36	INSTALL YAGI ANTENNA (13dB)		
37	BOND MESSENGER CABLE TO POLE GROUND		

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Department of Transportation
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames

2/20/2009
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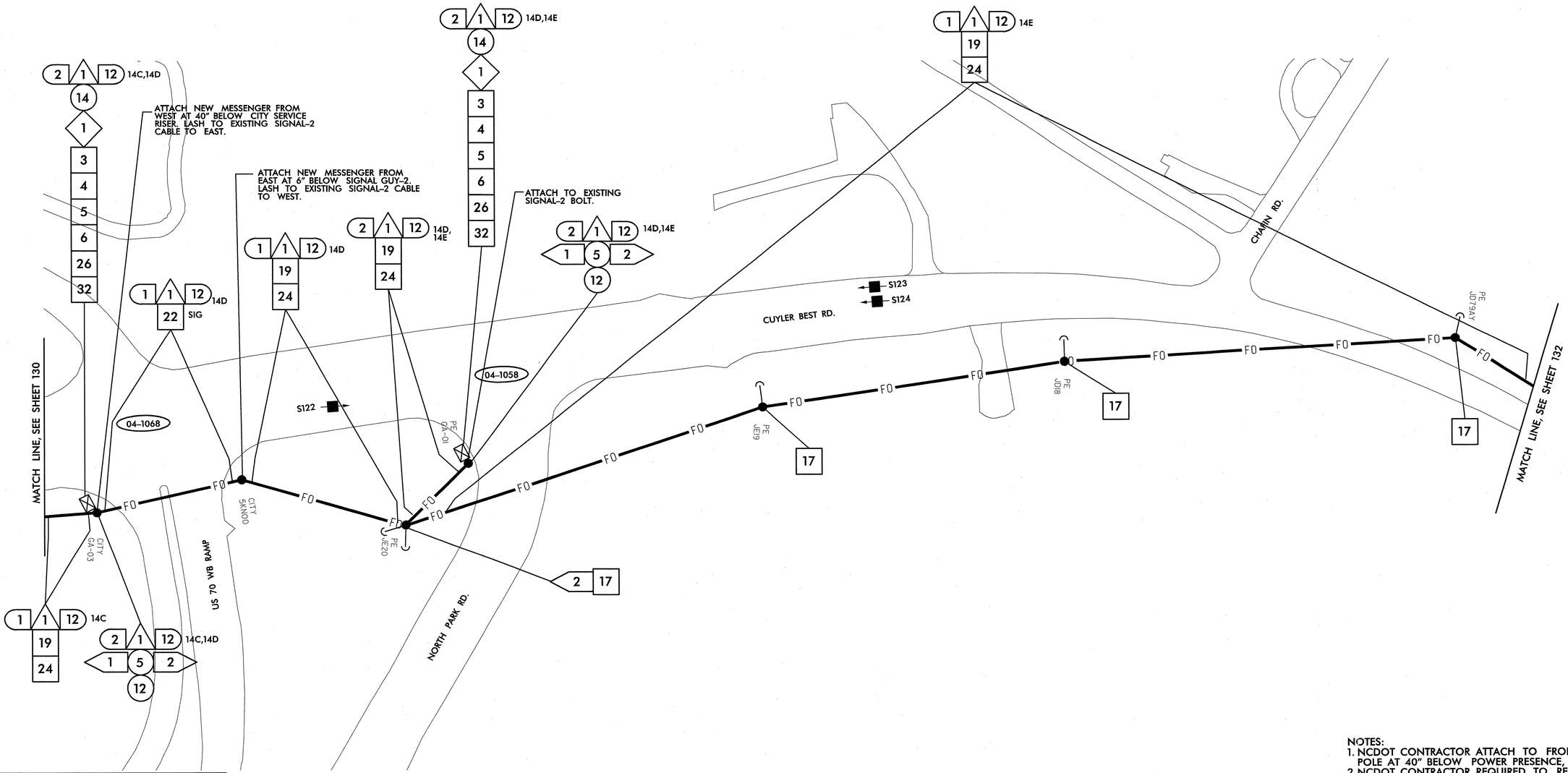
PROJECT REFERENCE NO.	SHEET NO.
U-5016	131



SEE SIGNAL PLAN 04-1058 FOR EXISTING SYSTEM DETECTORS S122, S123AND S124 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
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15. REMOVE EXISTING WOOD POLE
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17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE
31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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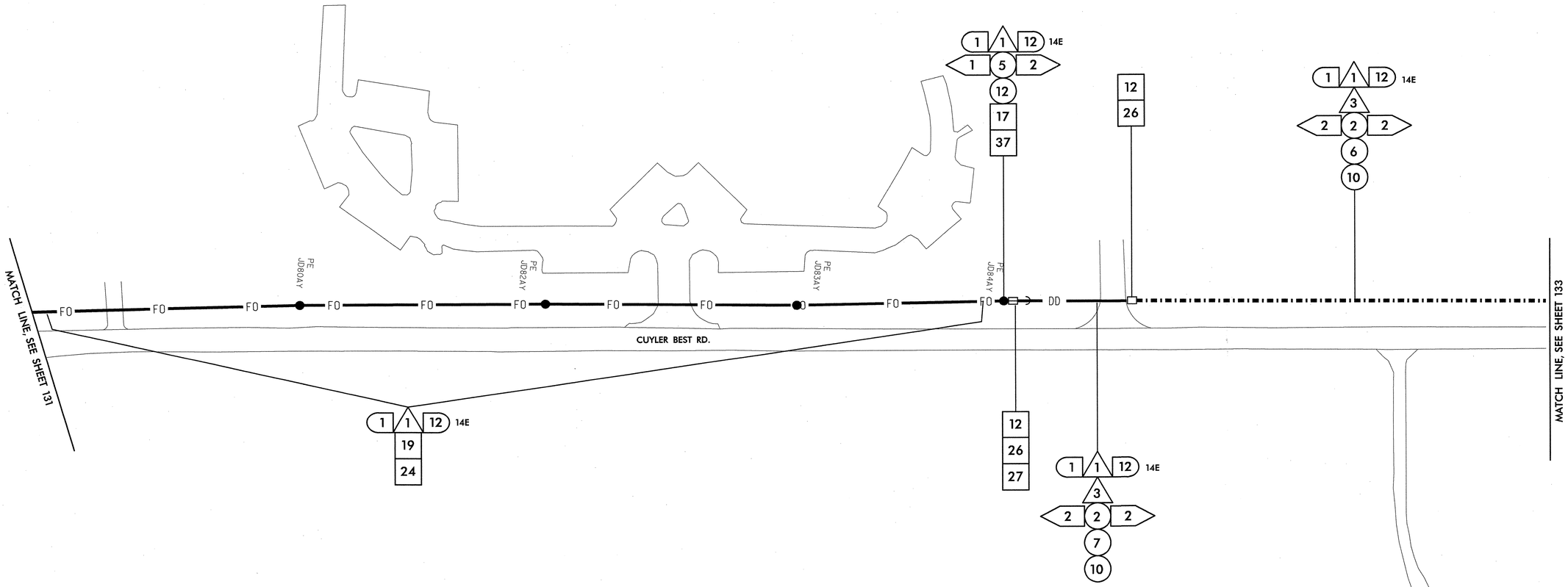
PROJECT REFERENCE NO.	SHEET NO.
U-5016	132



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY
17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE
31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030472 KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames

2/20/2009
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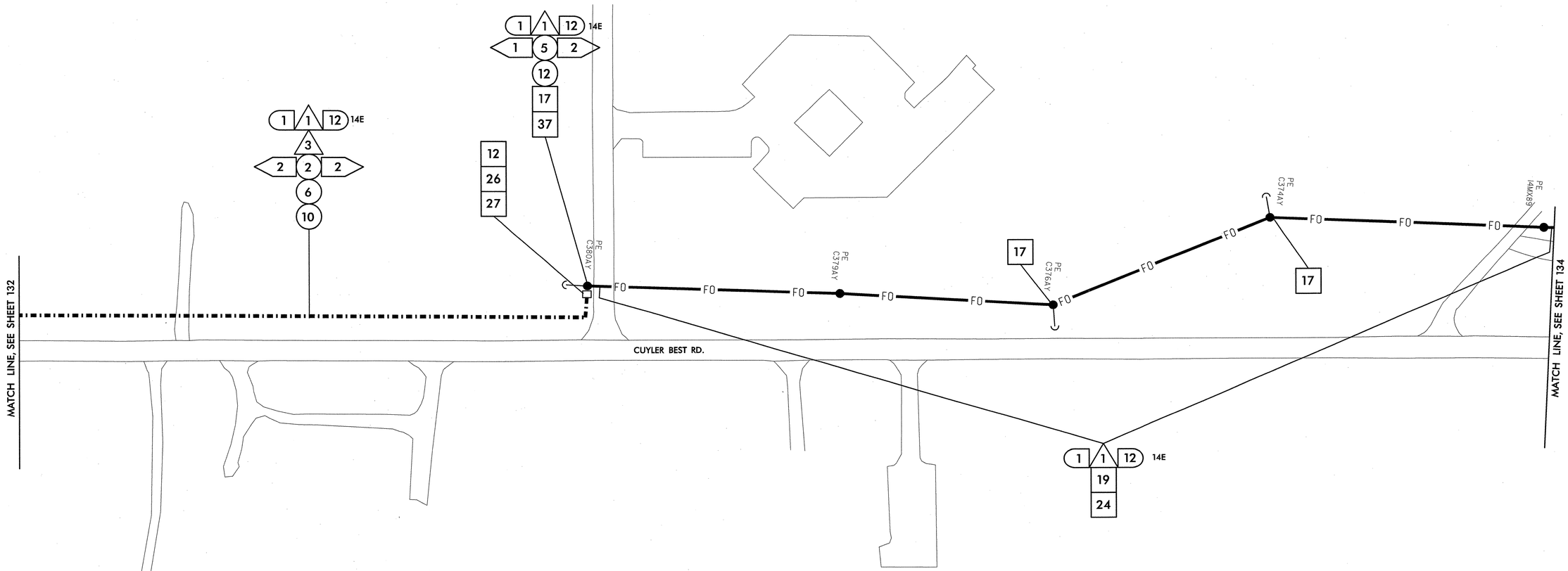
PROJECT REFERENCE NO.	SHEET NO.
U-5016	133



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- [6] INSTALL NEW 332 BASE MOUNTED CABINET
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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
DEPARTMENT OF TRANSPORTATION
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filenames

2/20/2009
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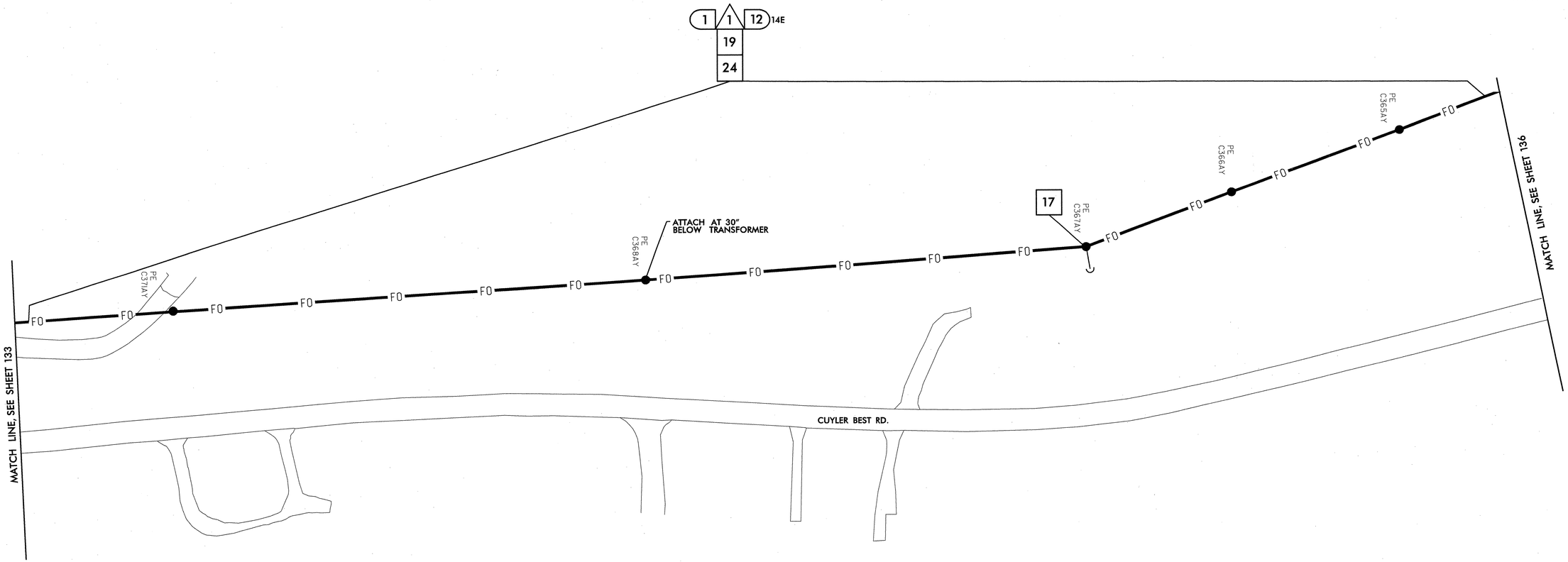
PROJECT REFERENCE NO.	SHEET NO.
U-5016	134



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PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

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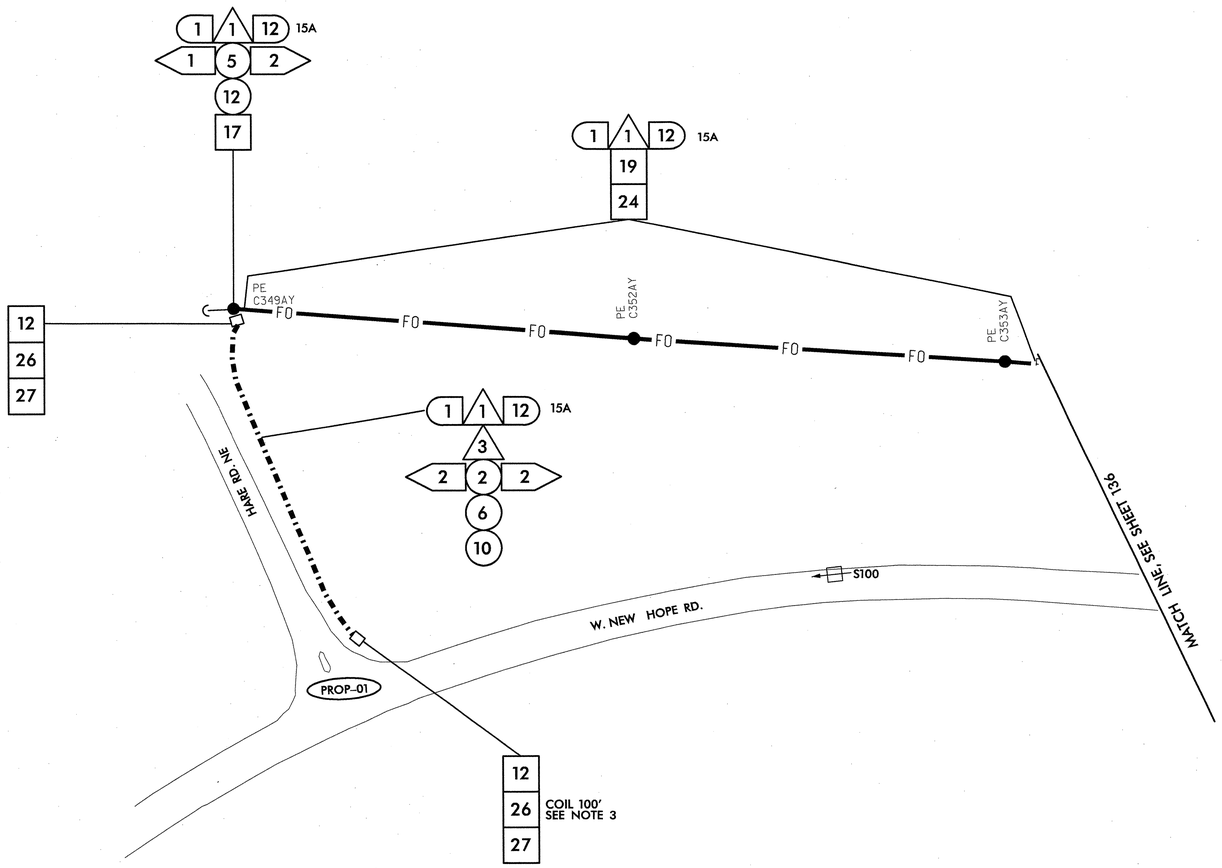
PROJECT REFERENCE NO.	SHEET NO.
U-5016	135



INSTALLATION DETAILS FOR SYSTEM DETECTOR S100 WILL BE PROVIDED WITH SIGNAL PLAN FOR PROP-01.

NOTES:
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2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. CAP AND SEAL CABLE.

- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
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CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

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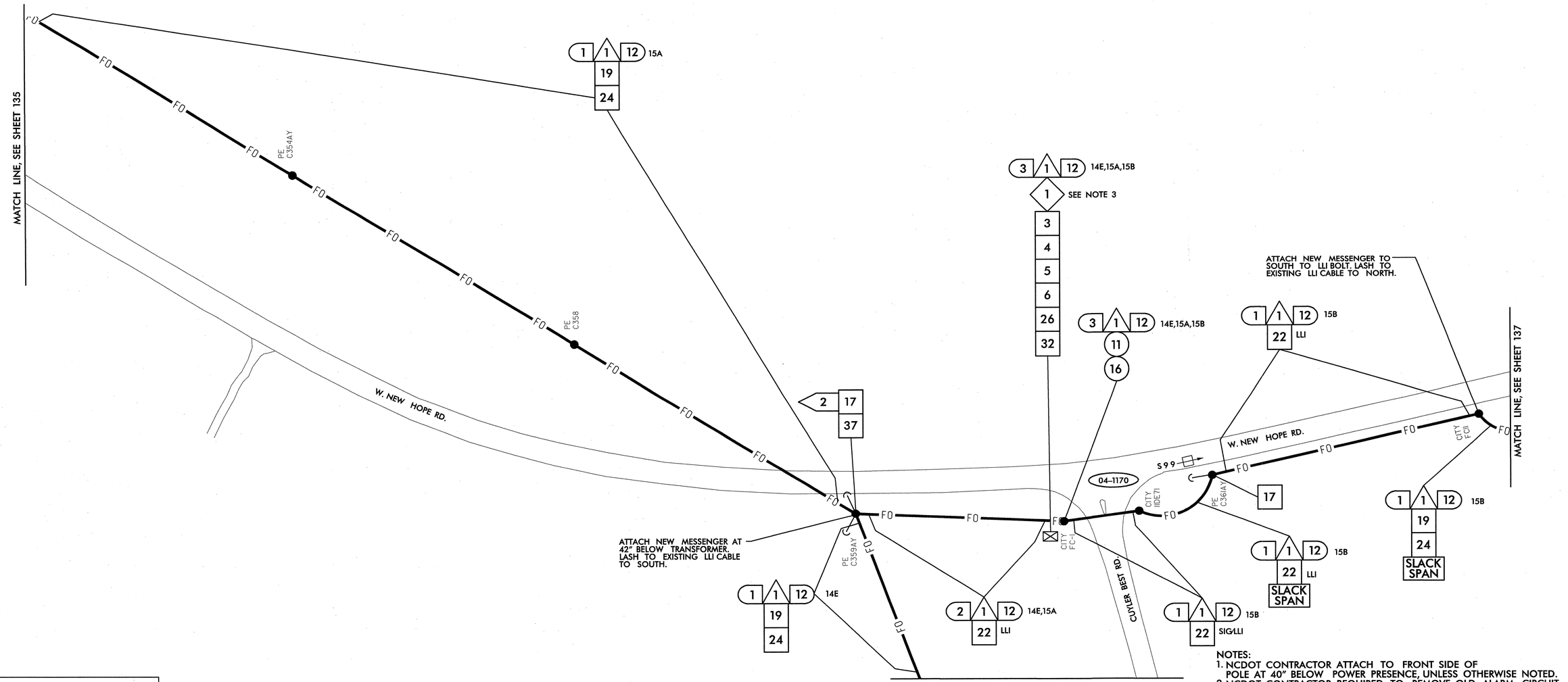
PROJECT REFERENCE NO.	SHEET NO.
U-5016	136



SEE SIGNAL PLAN 04-1170 FOR SYSTEM DETECTOR S99 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ◇1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE
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- ◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ◇5 INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
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- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
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- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
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- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
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- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Mobility & Safety Division
750 Greenfield Pkwy, Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
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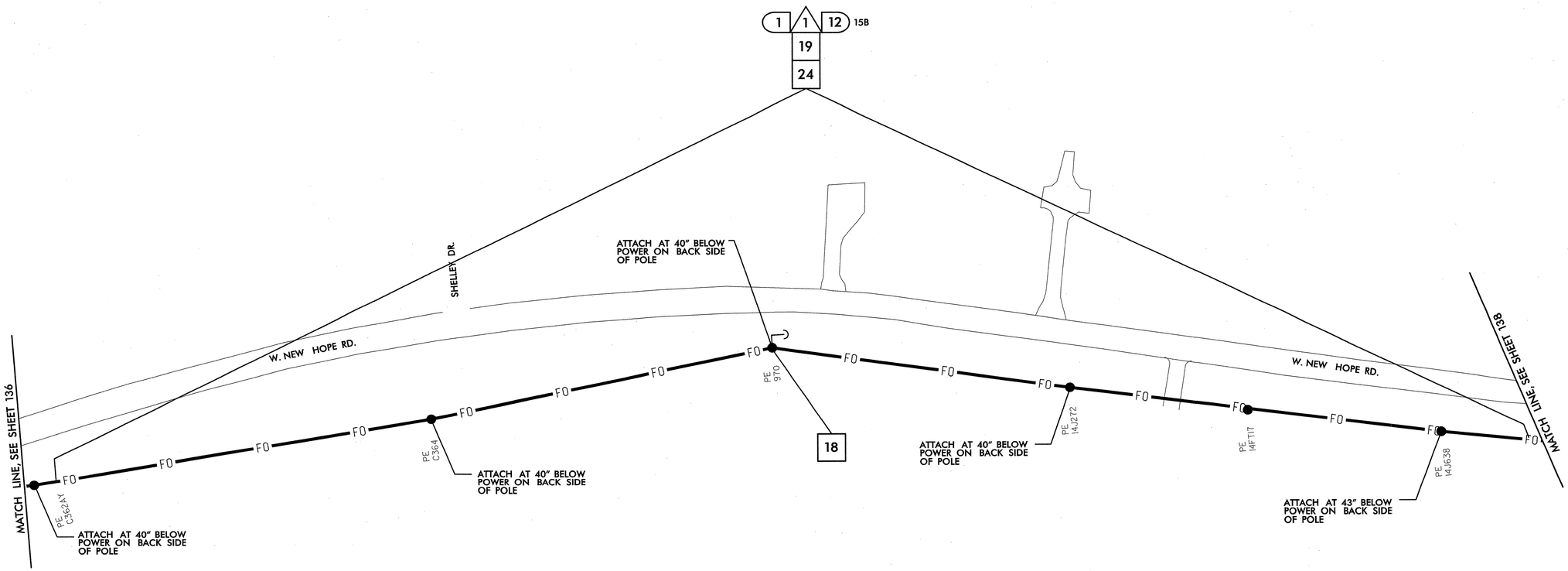
PROJECT REFERENCE NO.	SHEET NO.
U-5016	137



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Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Mobility & Safety Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

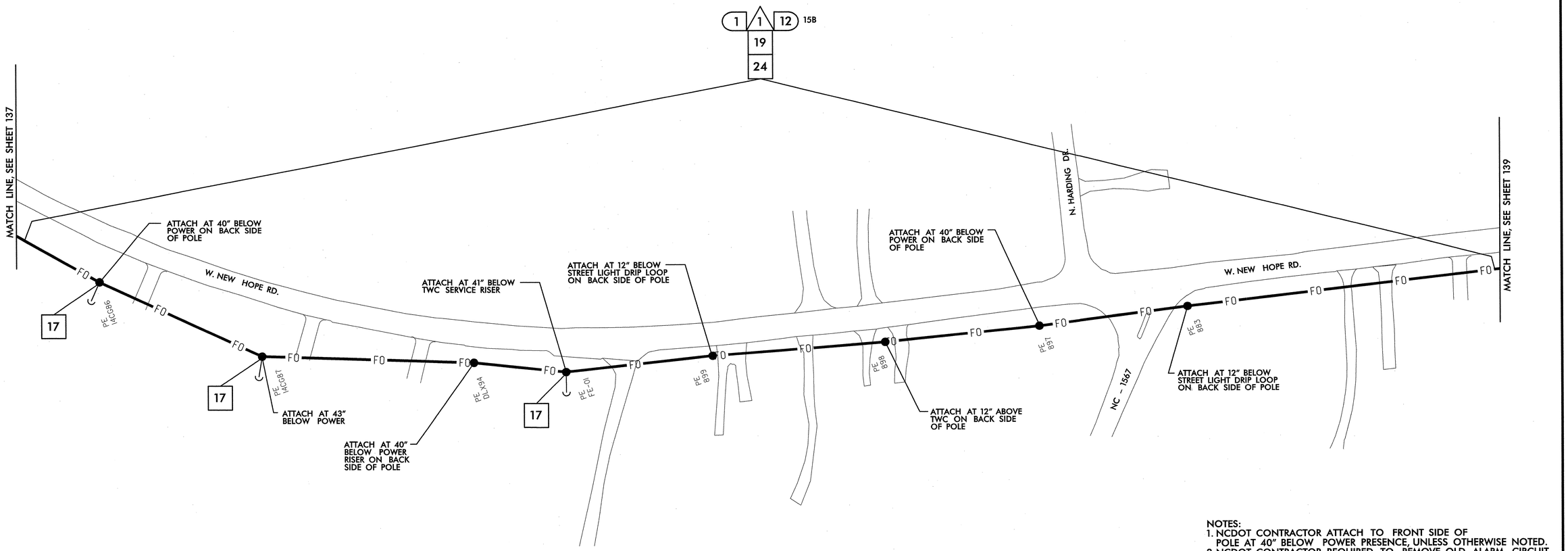
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/24/09 DATE

CADD Filename:

2/20/2009
kvan_tpo_1\sum46016 goldsboro signal system\plans\sht# 137.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	138



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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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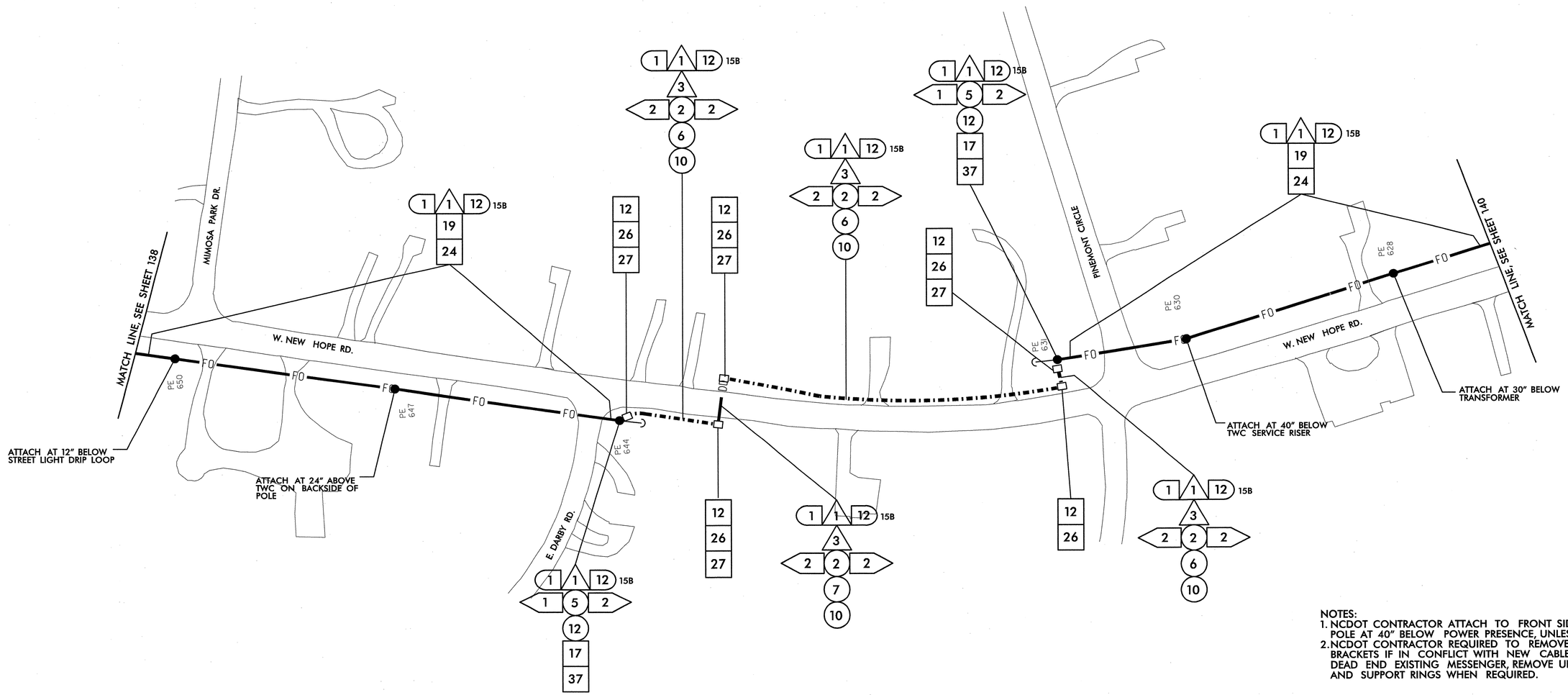
PROJECT REFERENCE NO.	SHEET NO.
U-5016	139



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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
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REVISIONS	INIT.	DATE

SEAL
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SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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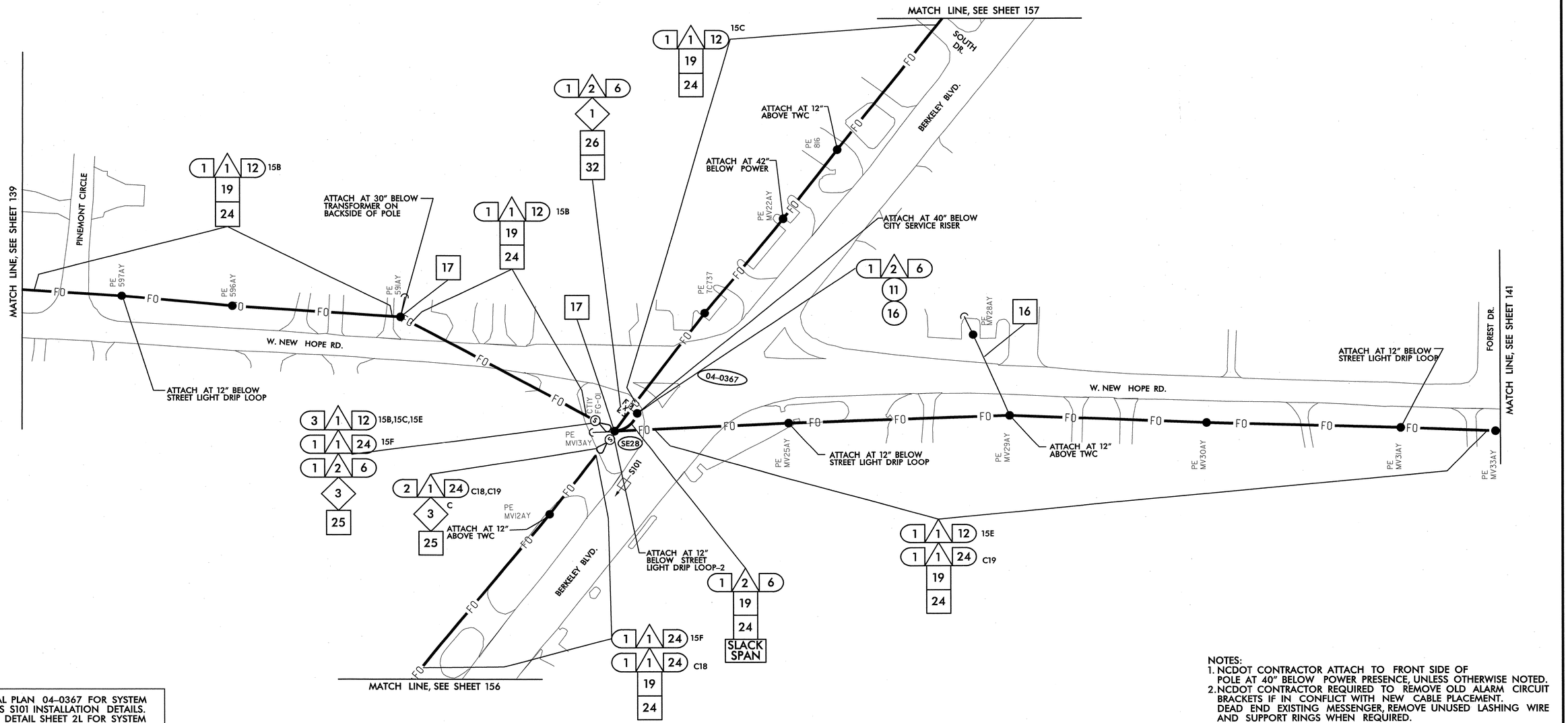
PROJECT REFERENCE NO.	SHEET NO.
U-5016	140



SEE SIGNAL PLAN 04–0367 FOR SYSTEM DETECTORS S101 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
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29. MODIFY EXISTING ELECTRICAL SERVICE
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31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
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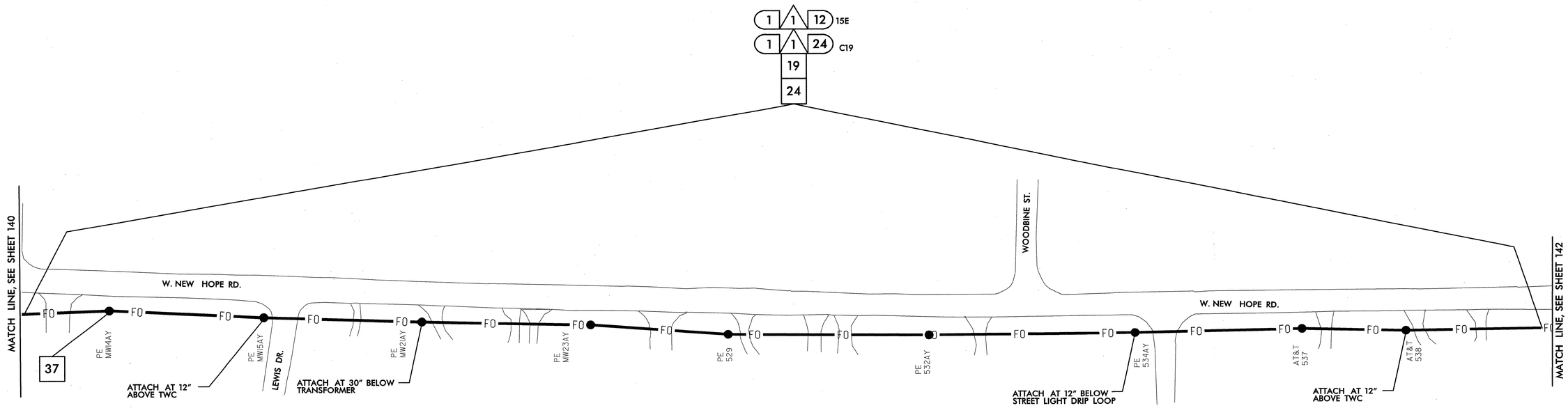
PROJECT REFERENCE NO.	SHEET NO.
U-5016	141



NOTES:
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- (1) INSTALL SMFO CABLE
- (2) INSTALL FIBER OPTIC DROP CABLE
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- (4) REUSE EXISTING SMFO CABLE
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- (6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
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- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
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- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- (1) INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- (2) INSTALL UNDERGROUND SPLICE ENCLOSURE
- (3) INSTALL AERIAL SPLICE ENCLOSURE
- (4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
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- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
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- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Mobility & Safety Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

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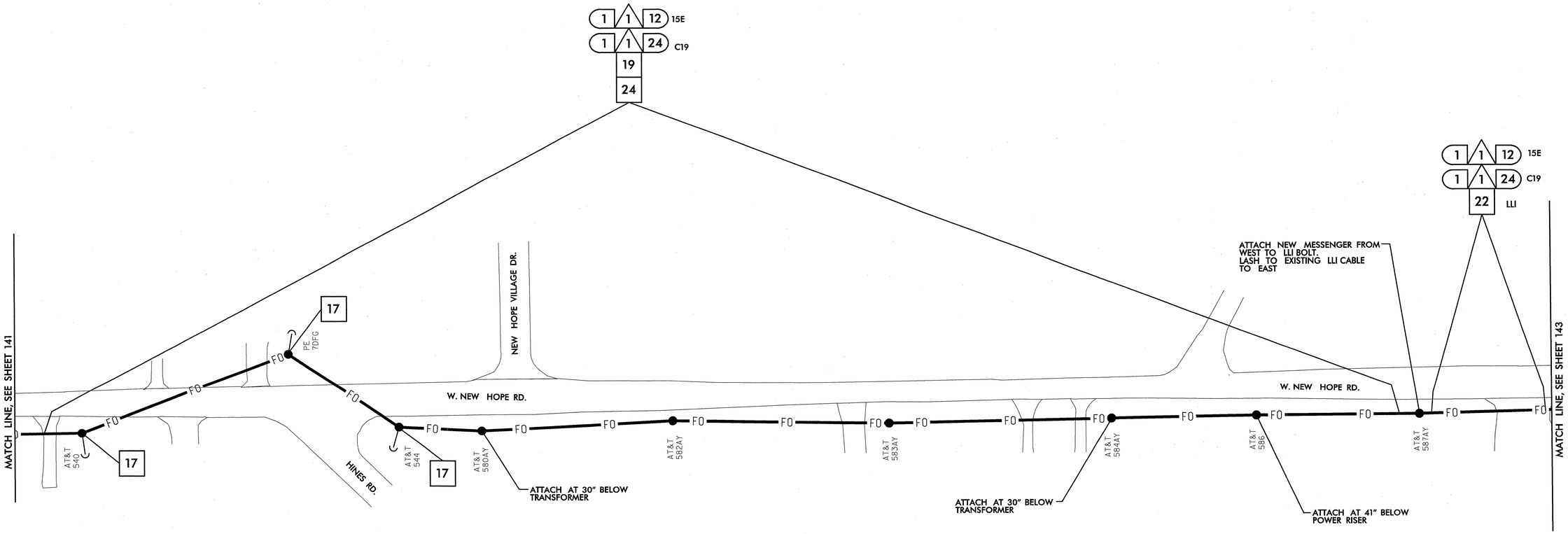
PROJECT REFERENCE NO.	SHEET NO.
U-5016	142



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PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Transportation Management Unit
NC DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
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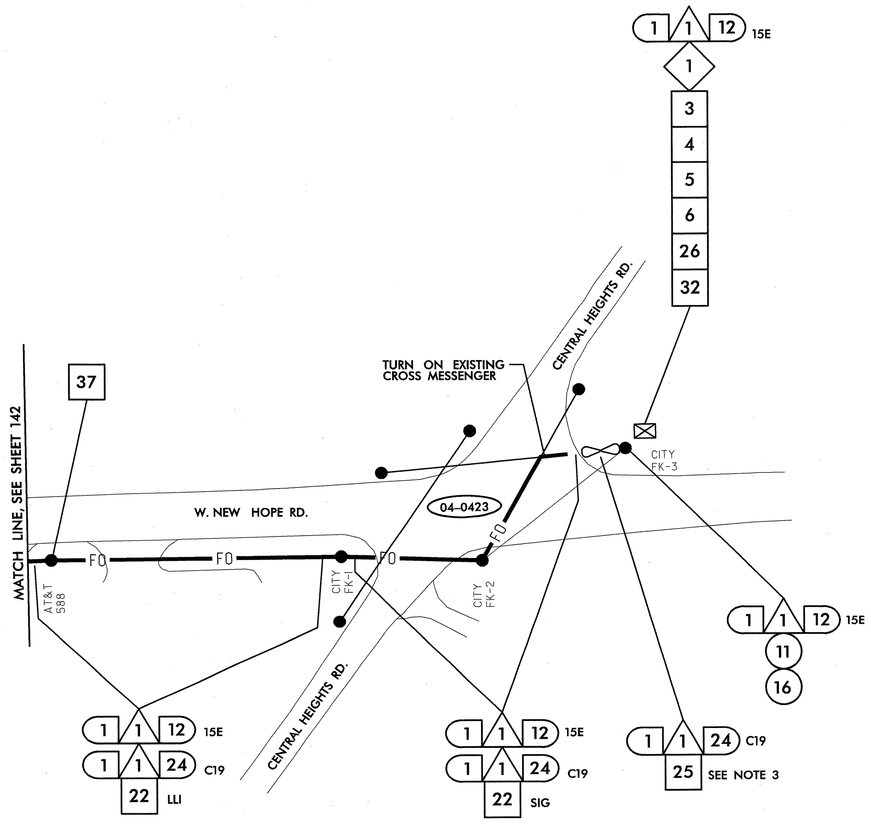
PROJECT REFERENCE NO.	SHEET NO.
U-5016	143



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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
Department of Transportation
State of North Carolina
Division of Highways

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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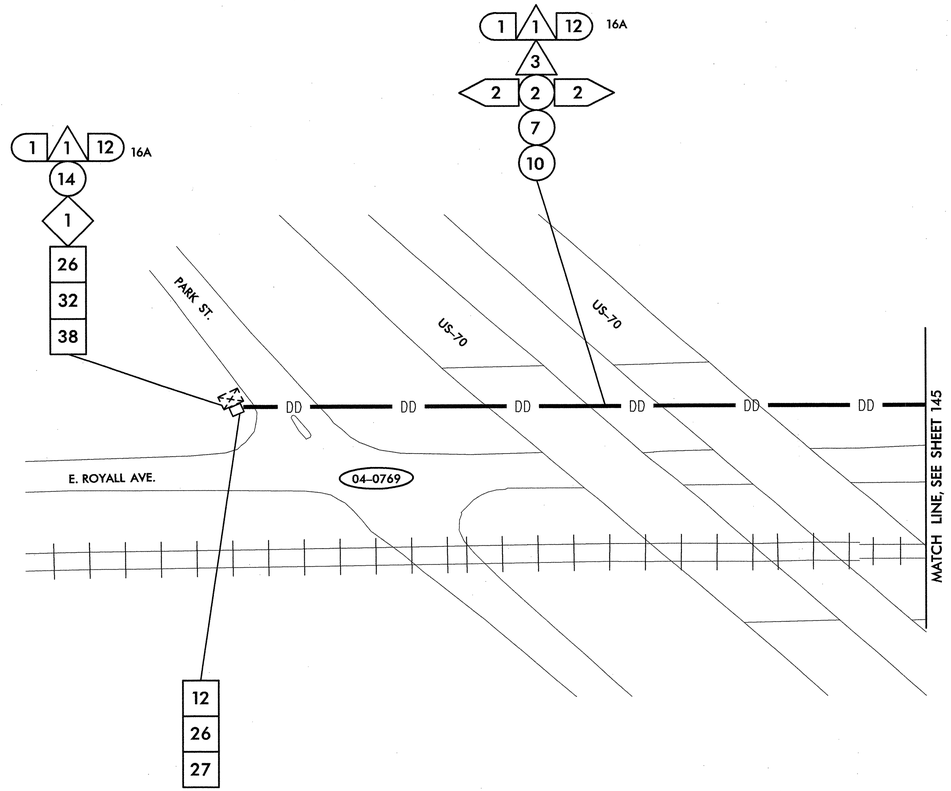
PROJECT REFERENCE NO.	SHEET NO.
U-5016	144



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CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
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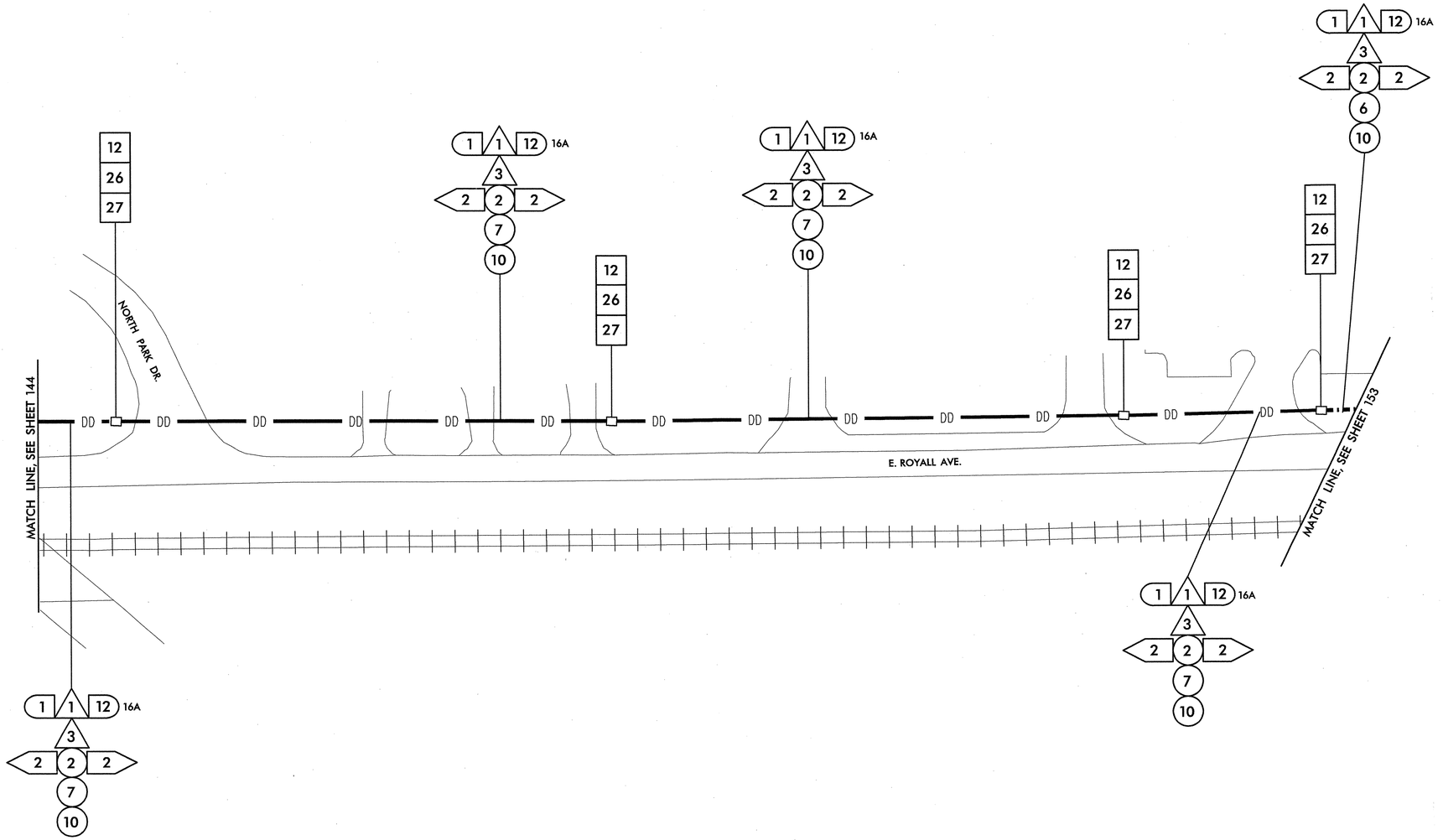
PROJECT REFERENCE NO.	SHEET NO.
U-5016	145



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET

1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX

1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

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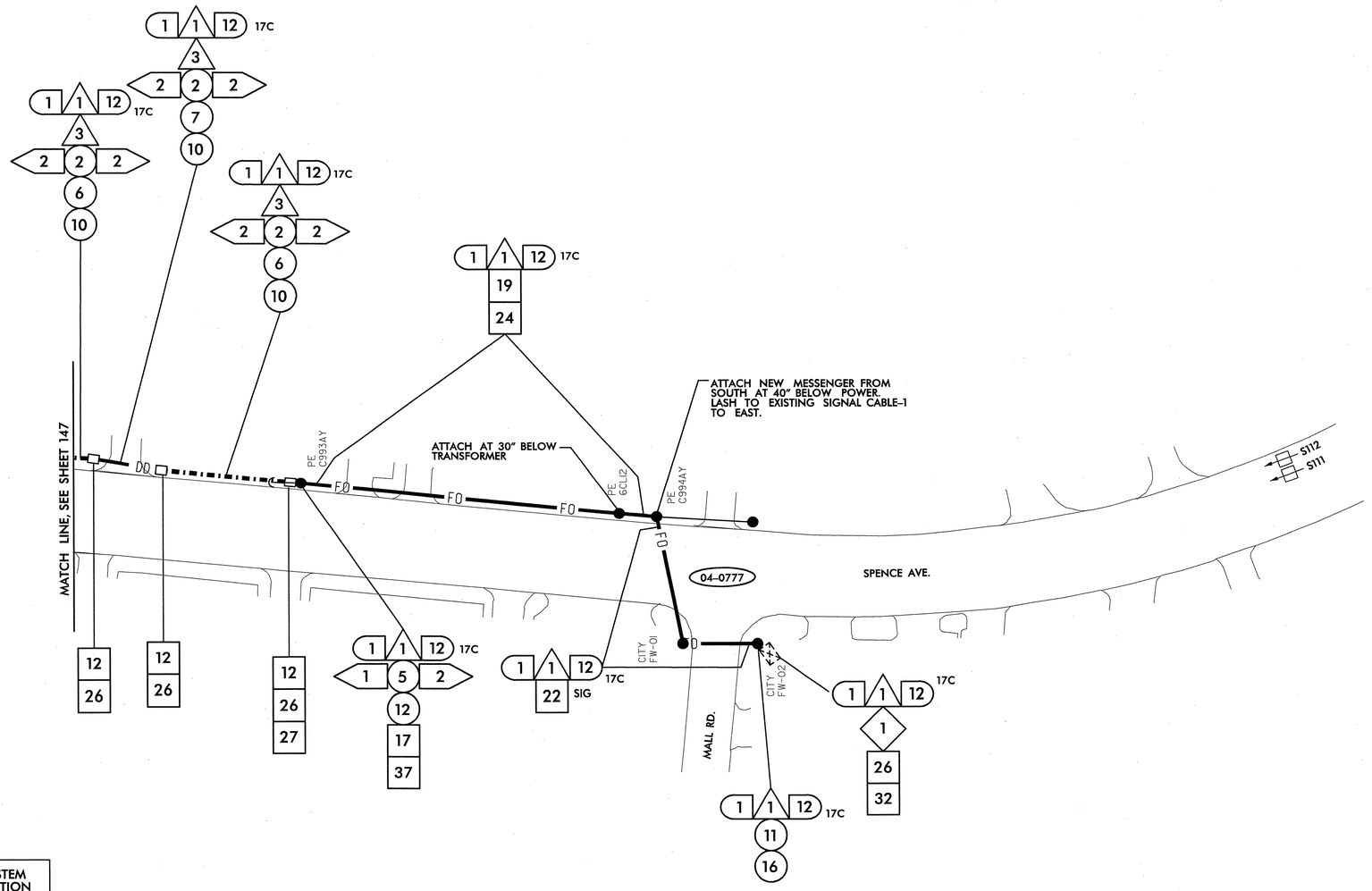

SEE SIGNAL PLAN 04-0777 FOR SYSTEM DETECTORS S111 AND S112 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
Division of Highways
North Carolina Department of Transportation
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

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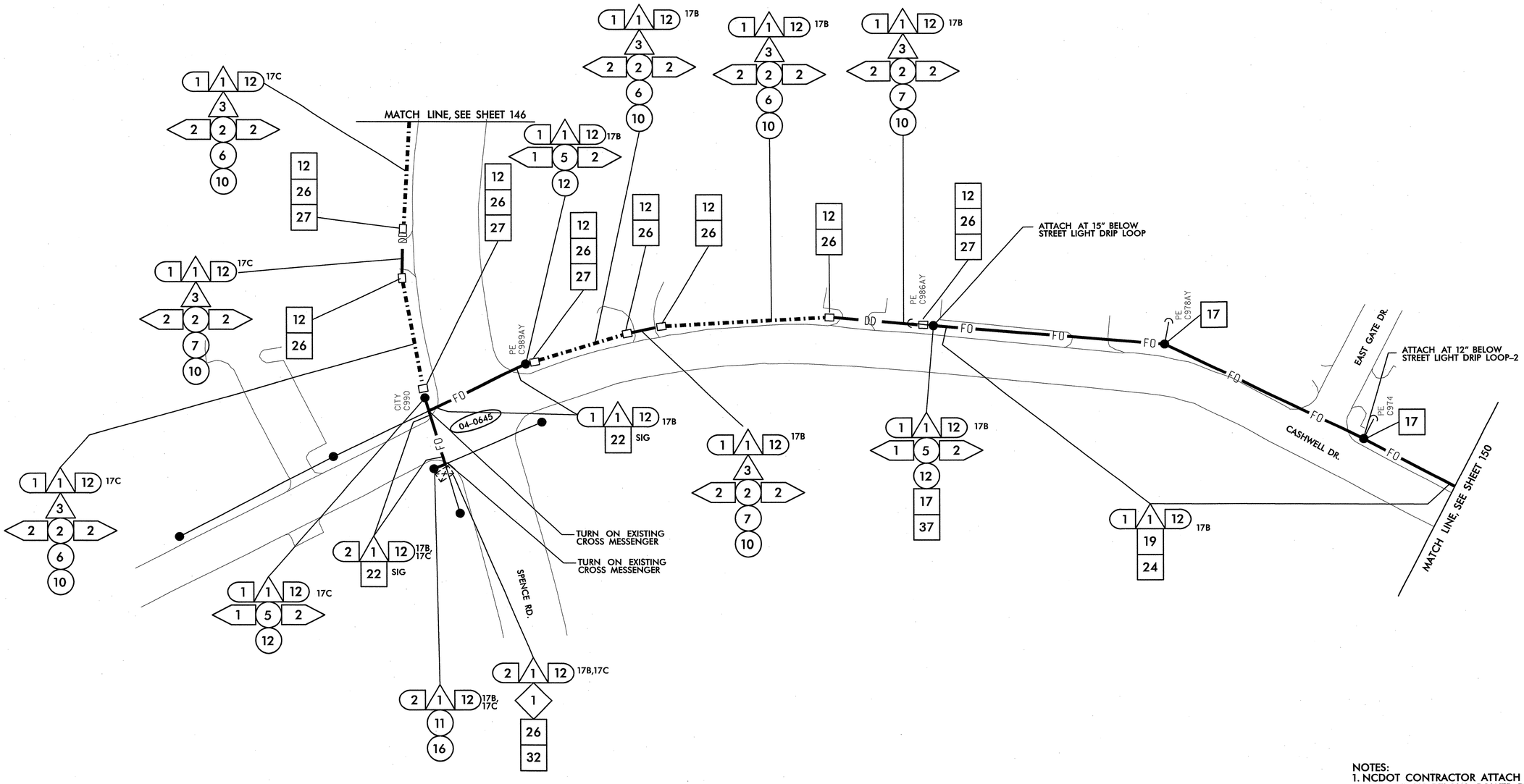
PROJECT REFERENCE NO.	SHEET NO.
U-5016	147



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38	RECONNECT RAILROAD PREEMPTION EQUIPMENT
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40	INSTALL PRE-FORMED CABINET FOUNDATION PAD
41	INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
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Traffic Engineering and Safety Systems Branch
NCDEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH

PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

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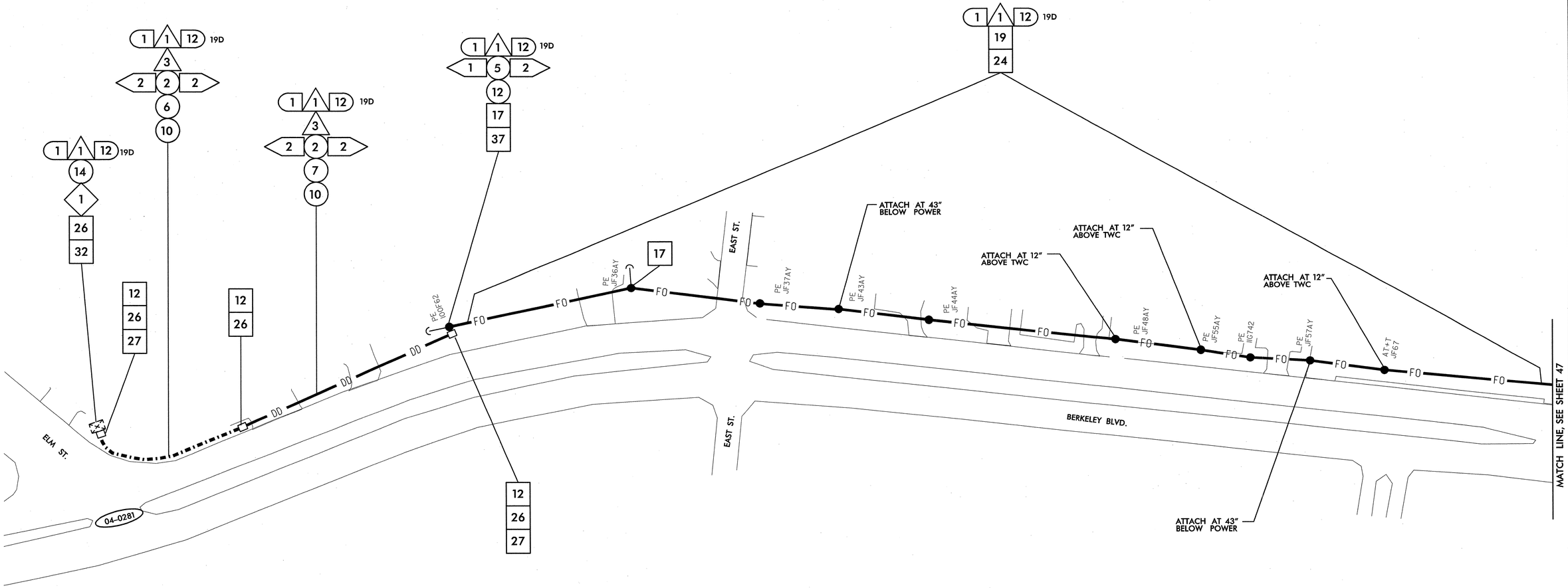

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- (4) REUSE EXISTING SMFO CABLE
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- (6) INSTALL LOOP LEAD-IN CABLE
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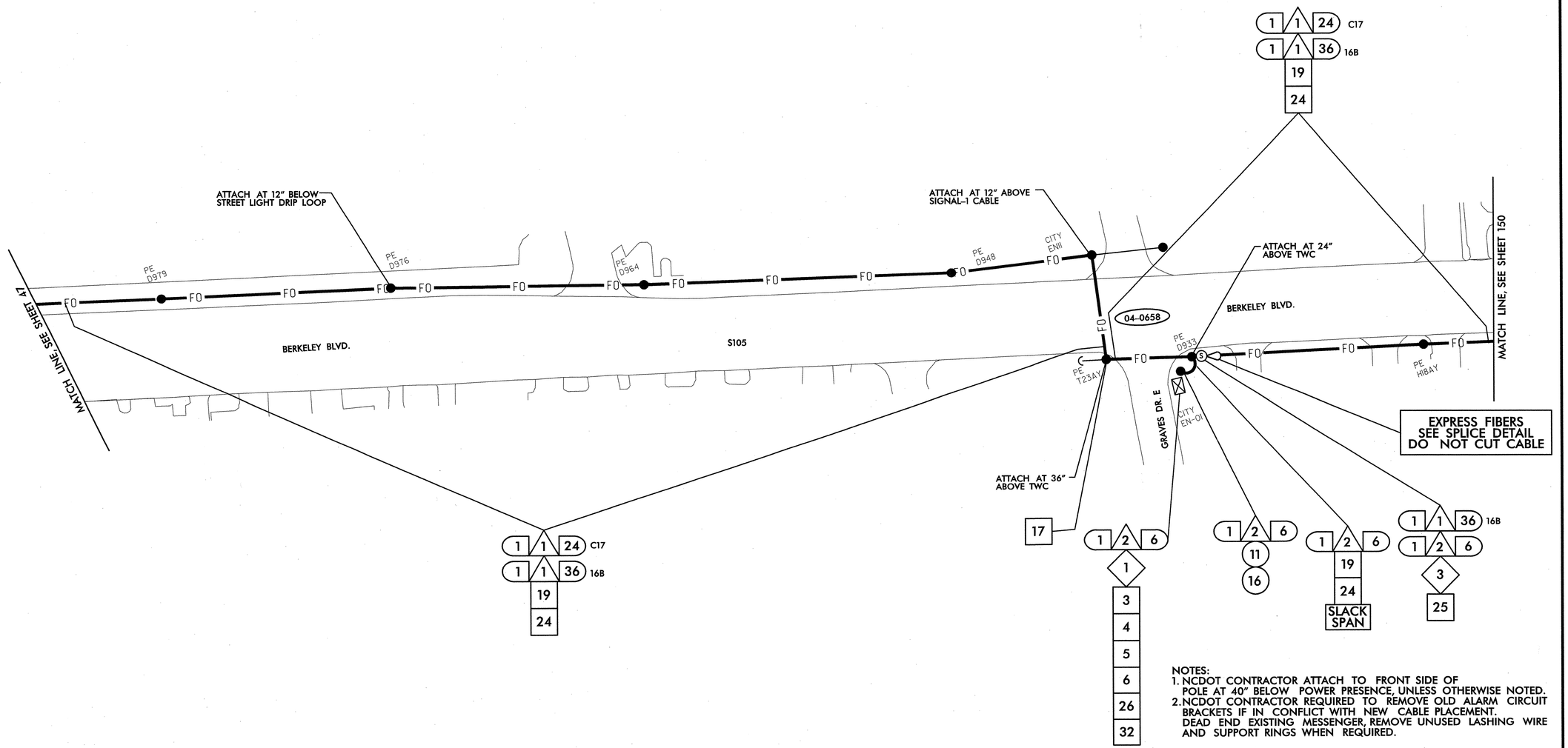

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2. REMOVE EXISTING CABINET FOUNDATION

3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY

17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE

31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

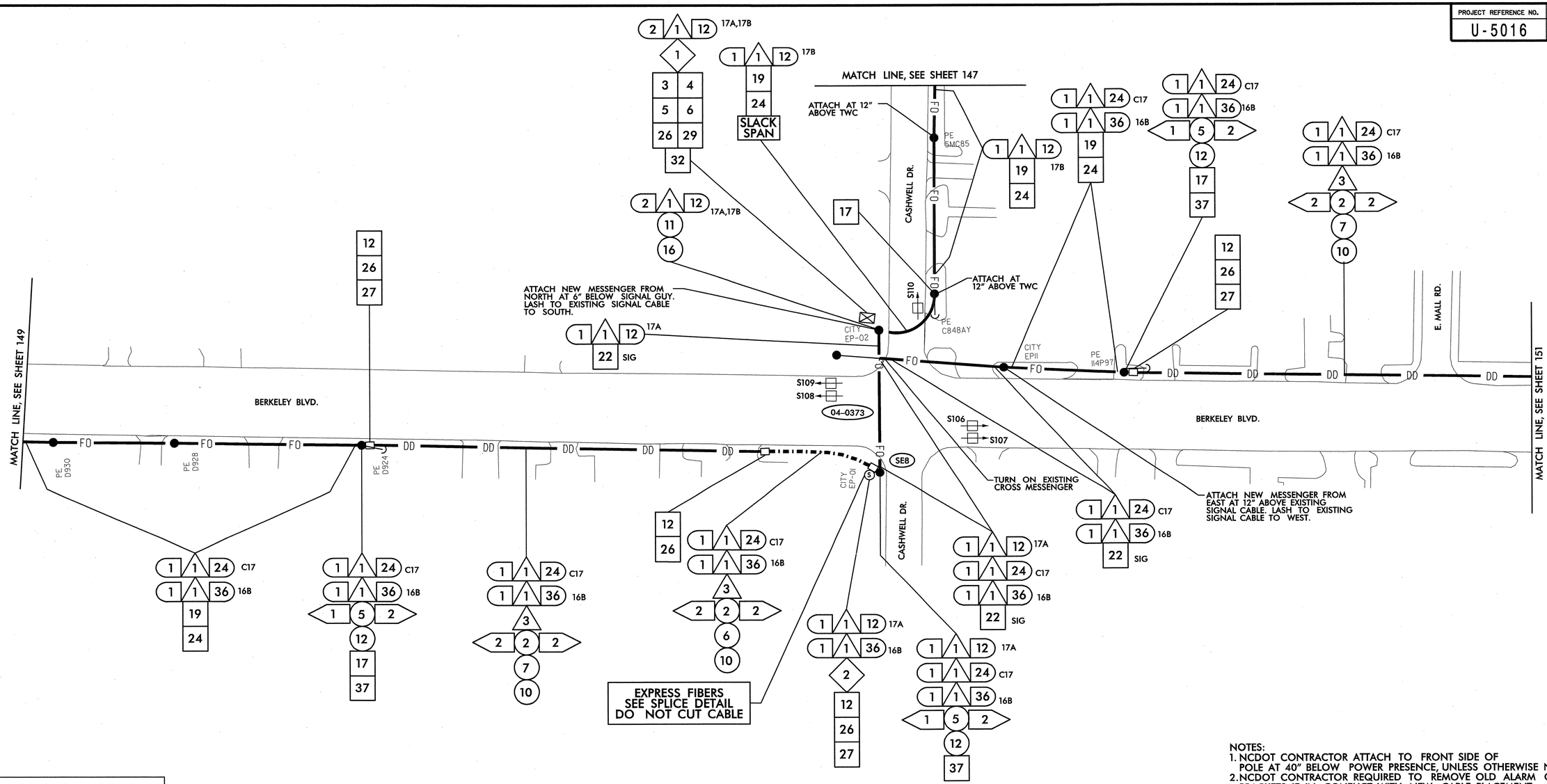
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030472 KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
K:\Traf_Tps\Oll\46016 goldsboro signal system\plans\sht_149.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	150



SEE SIGNAL PLAN 04–0373 FOR SYSTEM DETECTORS S106, S107, S108, S109 AND S110 INSTALLATION DETAILS.REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE
1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
5. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
6. TRENCH CONDUIT
7. DIRECTIONAL DRILL CONDUIT
8. BORE AND JACK CONDUIT
9. INSTALL CABLE(S) IN EXISTING CONDUIT
10. INSTALL CABLE(S) IN NEW CONDUIT
11. INSTALL CABLE(S) IN EXISTING RISER
12. INSTALL CABLE(S) IN NEW RISER
13. INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
14. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
15. INSTALL NEW RISER INTO POLE MOUNTED CABINET
16. REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX
1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION
3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
12. INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
13. REMOVE EXISTING JUNCTION BOX
14. INSTALL WOOD POLE
15. REMOVE EXISTING WOOD POLE
16. INSTALL AERIAL GUY ASSEMBLY
17. INSTALL STANDARD GUY ASSEMBLY
18. INSTALL SIDEWALK GUY ASSEMBLY
19. INSTALL MESSENGER CABLE
20. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
21. REMOVE EXISTING COMMUNICATIONS CABLE
22. LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
23. LASH CABLE(S) TO EXISTING MESSENGER CABLE
24. LASH CABLE(S) TO NEW MESSENGER CABLE
25. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
26. STORE 30 FEET OF EACH COMMUNICATIONS CABLE
27. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
28. INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
29. MODIFY EXISTING ELECTRICAL SERVICE
30. INSTALL NEW ELECTRICAL SERVICE
31. INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
32. INSTALL FIBER OPTIC TRANSCEIVER
33. INSTALL DIAL-UP MODEM
34. INSTALL RADIO TRANSCEIVER
35. INSTALL YAGI ANTENNA (8.5dB)
36. INSTALL YAGI ANTENNA (13dB)
37. BOND MESSENGER CABLE TO POLE GROUND
38. RECONNECT RAILROAD PREEMPTION EQUIPMENT
39. RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
40. INSTALL PRE-FORMED CABINET FOUNDATION PAD
41. INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

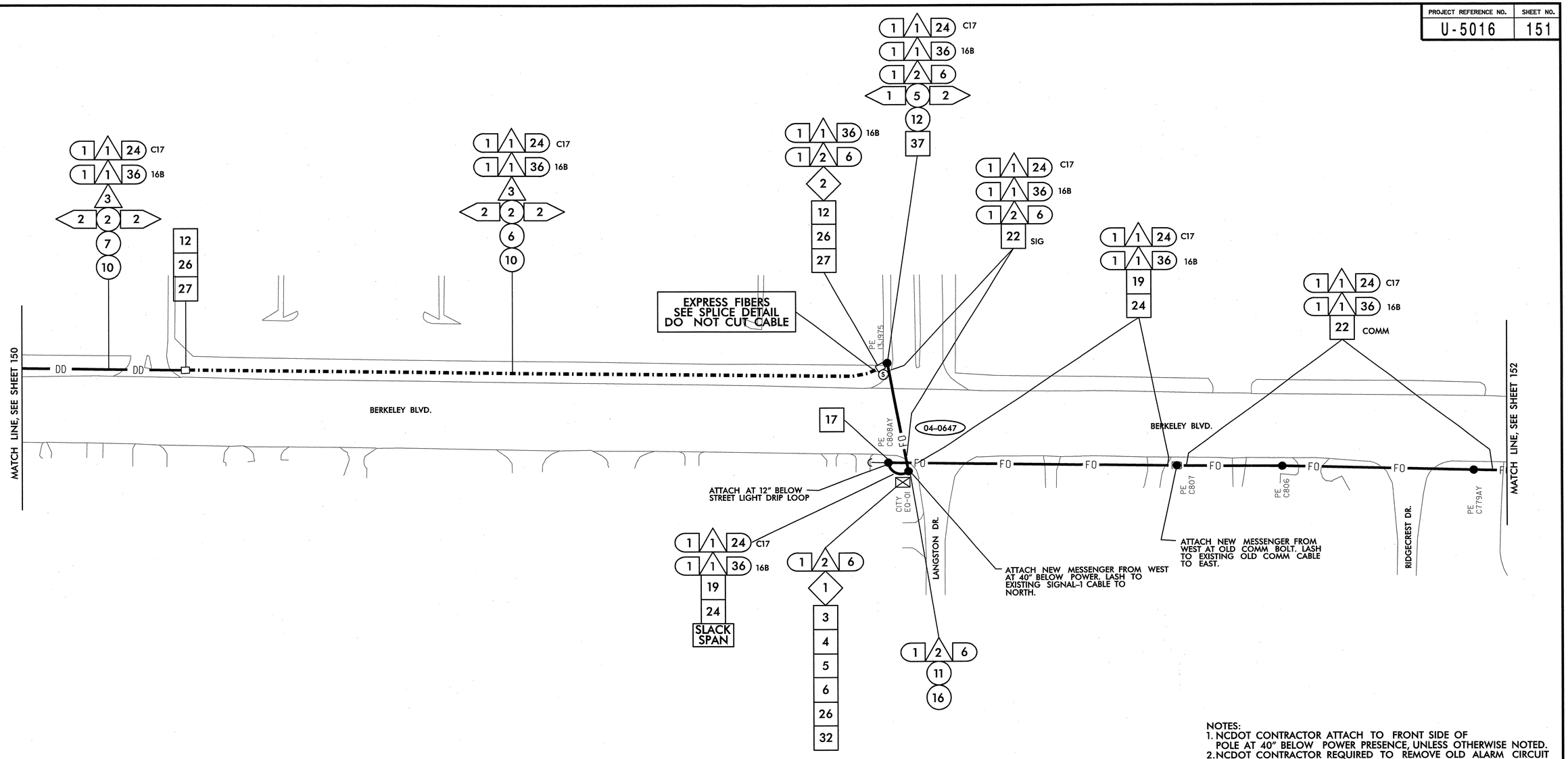
PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames

2/20/2009
kvan_tpo_TrSU1746016 goldsboro signal system\plans\sht 150.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	151



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ◇1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE
- ◇3 INSTALL AERIAL SPLICE ENCLOSURE
- ◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ◇5 INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
- [15] REMOVE EXISTING WOOD POLE
- [16] INSTALL AERIAL GUY ASSEMBLY
- [17] INSTALL STANDARD GUY ASSEMBLY
- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- [21] REMOVE EXISTING COMMUNICATIONS CABLE
- [22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- [23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
- [24] LASH CABLE(S) TO NEW MESSENGER CABLE
- [25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- [26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
- [33] INSTALL DIAL-UP MODEM
- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
- [36] INSTALL YAGI ANTENNA (13dB)
- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

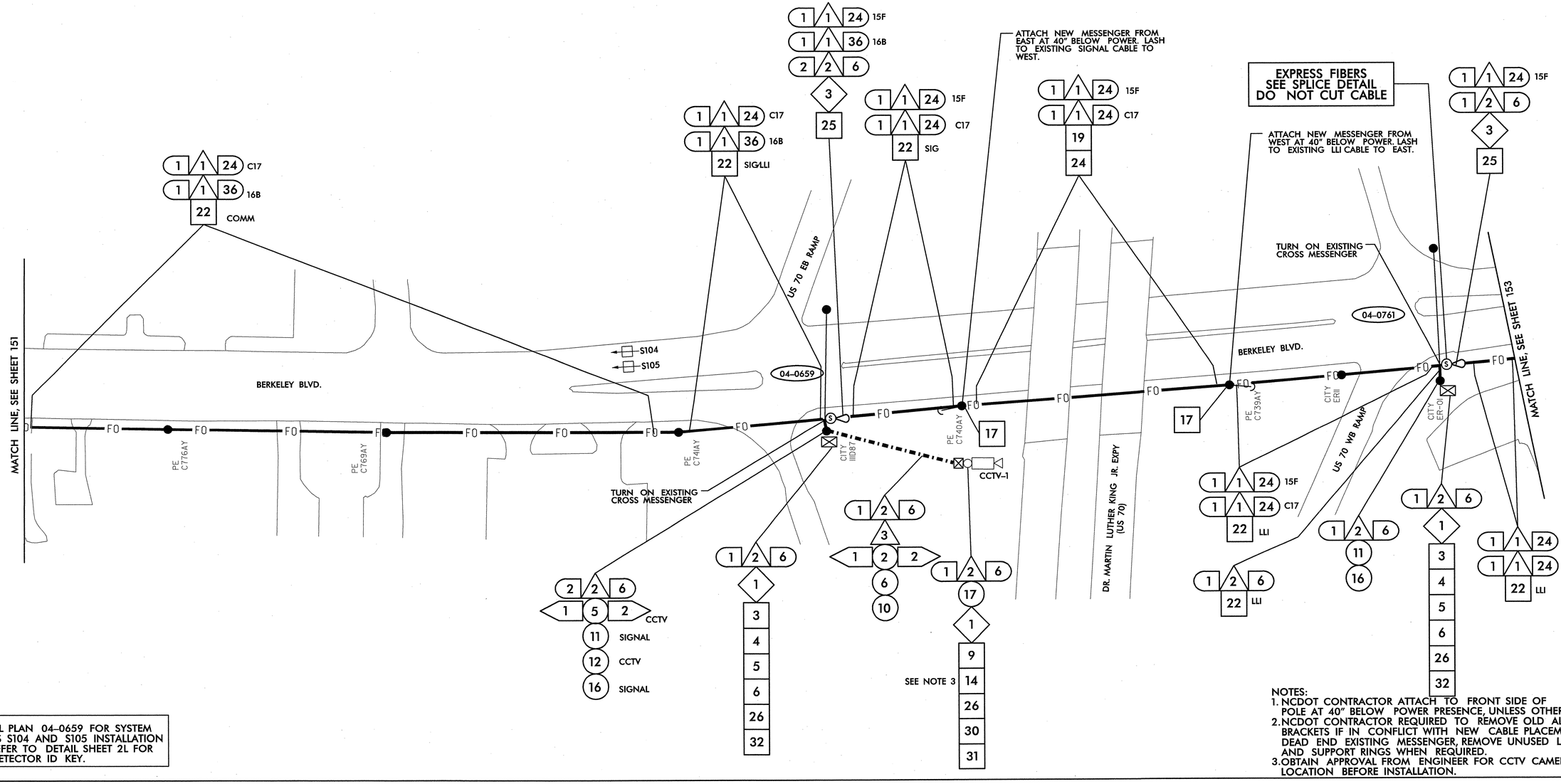
PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
k:\val_tpo_ts\01746016_goldsboro_signal_system\plans\sht_151.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	152



SEE SIGNAL PLAN 04-0659 FOR SYSTEM DETECTORS S104 AND S105 INSTALLATION DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. OBTAIN APPROVAL FROM ENGINEER FOR CCTV CAMERA POLE LOCATION BEFORE INSTALLATION.

1	INSTALL SMFO CABLE
2	INSTALL FIBER OPTIC DROP CABLE
3	INSTALL TRACER WIRE
4	REUSE EXISTING SMFO CABLE
5	INSTALL PLENUM RATED SMFO CABLE
6	INSTALL LOOP LEAD-IN CABLE
(1)	INSTALL PVC CONDUIT
(2)	INSTALL POLYETHYLENE CONDUIT
(3)	INSTALL RIGID, GALVANIZED STEEL CONDUIT
(4)	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
(5)	INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
(6)	TRENCH CONDUIT
(7)	DIRECTIONAL DRILL CONDUIT
(8)	BORE AND JACK CONDUIT
(9)	INSTALL CABLE(S) IN EXISTING CONDUIT
(10)	INSTALL CABLE(S) IN NEW CONDUIT
(11)	INSTALL CABLE(S) IN EXISTING RISER
(12)	INSTALL CABLE(S) IN NEW RISER
(13)	INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
(14)	INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
(15)	INSTALL NEW RISER INTO POLE MOUNTED CABINET
(16)	REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
(17)	INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
<1>	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
<2>	INSTALL UNDERGROUND SPLICE ENCLOSURE
<3>	INSTALL AERIAL SPLICE ENCLOSURE
<4>	MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
<5>	INSTALL TERMINAL SPLICE BOX
[1]	INSTALL CABINET FOUNDATION
[2]	REMOVE EXISTING CABINET FOUNDATION
[3]	MODIFY EXISTING CABINET FOUNDATION
[4]	REMOVE EXISTING CONTROLLER AND CABINET
[5]	INSTALL NEW CONTROLLER
[6]	INSTALL NEW 332 BASE MOUNTED CABINET
[7]	INSTALL NEW 336S BASE MOUNTED CABINET
[8]	INSTALL NEW 336S POLE MOUNTED CABINET
[9]	INSTALL CCTV CAMERA ASSEMBLY
[10]	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
[11]	INSTALL JUNCTION BOX
[12]	INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
[13]	REMOVE EXISTING JUNCTION BOX
[14]	INSTALL WOOD POLE
[15]	REMOVE EXISTING WOOD POLE
[16]	INSTALL AERIAL GUY ASSEMBLY
[17]	INSTALL STANDARD GUY ASSEMBLY
[18]	INSTALL SIDEWALK GUY ASSEMBLY
[19]	INSTALL MESSENGER CABLE
[20]	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21]	REMOVE EXISTING COMMUNICATIONS CABLE
[22]	LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
[23]	LASH CABLE(S) TO EXISTING MESSENGER CABLE
[24]	LASH CABLE(S) TO NEW MESSENGER CABLE
[25]	INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26]	STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27]	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28]	INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
[29]	MODIFY EXISTING ELECTRICAL SERVICE
[30]	INSTALL NEW ELECTRICAL SERVICE
[31]	INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
[32]	INSTALL FIBER OPTIC TRANSCEIVER
[33]	INSTALL DIAL-UP MODEM
[34]	INSTALL RADIO TRANSCEIVER
[35]	INSTALL YAGI ANTENNA (8.5dB)
[36]	INSTALL YAGI ANTENNA (13dB)
[37]	BOND MESSENGER CABLE TO POLE GROUND
[38]	RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39]	RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40]	INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41]	INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
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750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

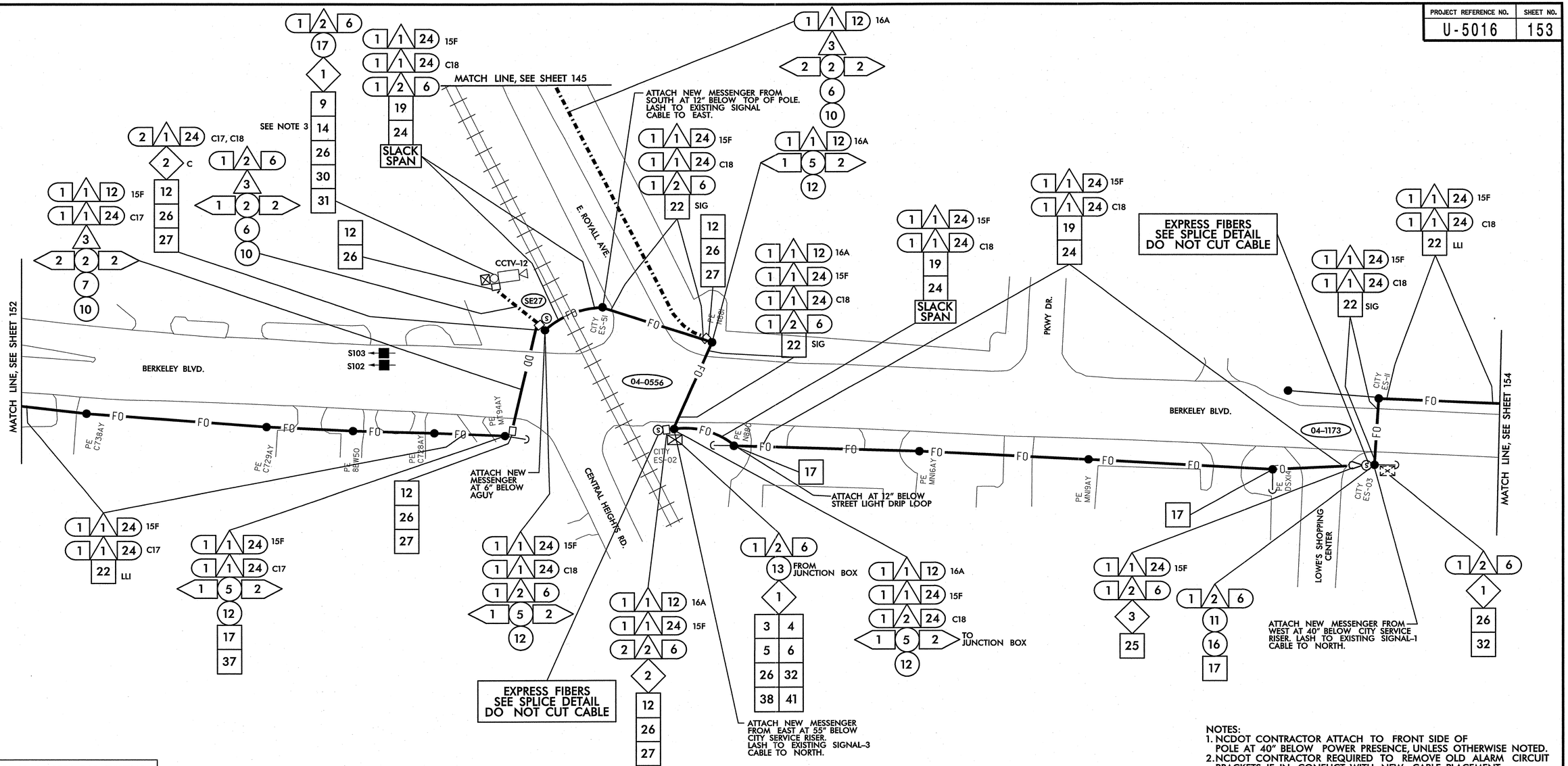
PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames

2/20/2009
K:\raf_tpo_TIs\0174606 goldsboro signal system\plans\sht_152.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	153



SEE SIGNAL PLAN 04-0556 FOR EXISTING SYSTEM DETECTORS S102 AND S103 DETAILS. REFER TO DETAIL SHEET 2L FOR SYSTEM DETECTOR ID KEY.

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. OBTAIN APPROVAL FROM ENGINEER FOR CCTV CAMERA POLE LOCATION BEFORE INSTALLATION.

1. INSTALL SMFO CABLE
2. INSTALL FIBER OPTIC DROP CABLE
3. INSTALL TRACER WIRE
4. REUSE EXISTING SMFO CABLE
5. INSTALL PLENUM RATED SMFO CABLE
6. INSTALL LOOP LEAD-IN CABLE

1. INSTALL PVC CONDUIT
2. INSTALL POLYETHYLENE CONDUIT
3. INSTALL RIGID, GALVANIZED STEEL CONDUIT
4. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
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17. INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
1. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
2. INSTALL UNDERGROUND SPLICE ENCLOSURE
3. INSTALL AERIAL SPLICE ENCLOSURE
4. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
5. INSTALL TERMINAL SPLICE BOX
1. INSTALL CABINET FOUNDATION
2. REMOVE EXISTING CABINET FOUNDATION

3. MODIFY EXISTING CABINET FOUNDATION
4. REMOVE EXISTING CONTROLLER AND CABINET
5. INSTALL NEW CONTROLLER
6. INSTALL NEW 332 BASE MOUNTED CABINET
7. INSTALL NEW 336S BASE MOUNTED CABINET
8. INSTALL NEW 336S POLE MOUNTED CABINET
9. INSTALL CCTV CAMERA ASSEMBLY
10. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
11. INSTALL JUNCTION BOX
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24. LASH CABLE(S) TO NEW MESSENGER CABLE
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PLANS PREPARED IN THE OFFICE OF:
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/26/09 DATE

CADD Filenames

2/26/2009
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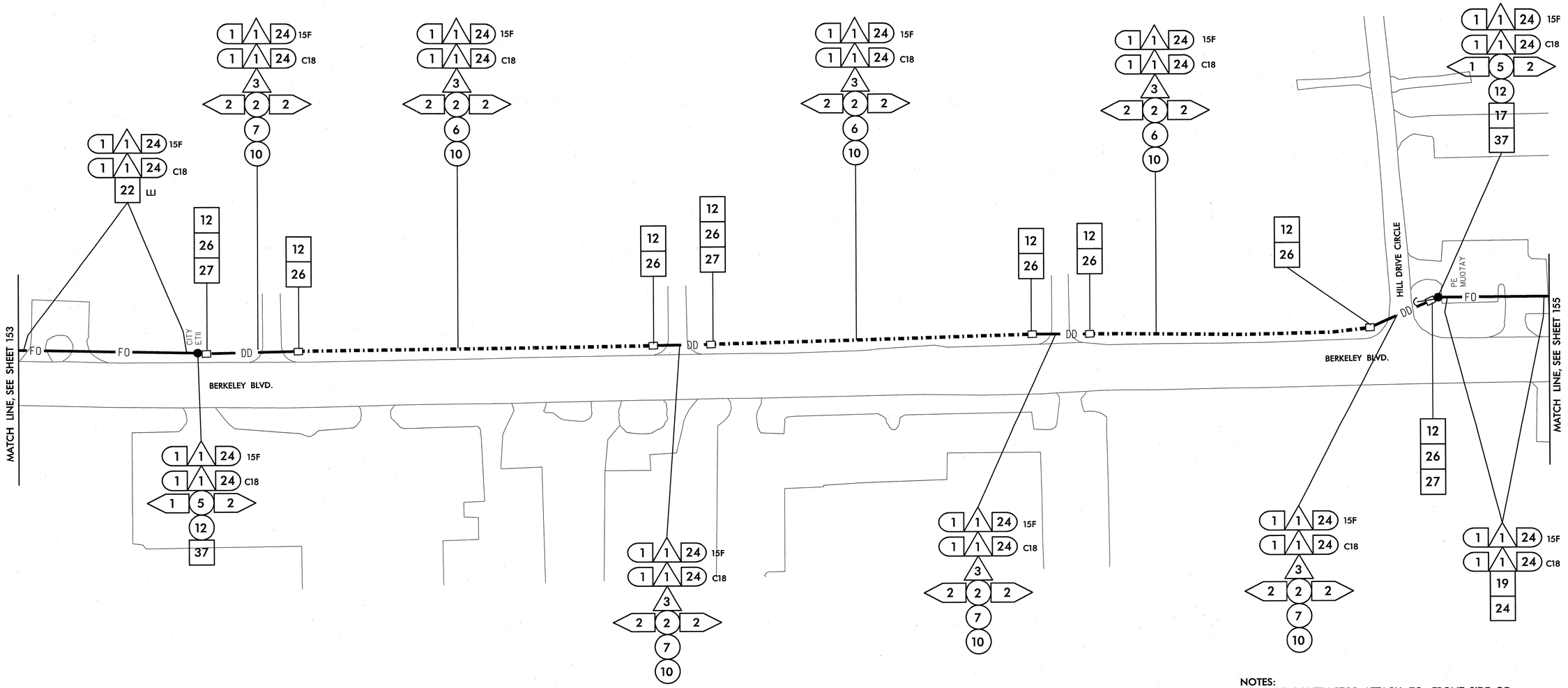
PROJECT REFERENCE NO.	SHEET NO.
U-5016	154



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- 1 INSTALL SMFO CABLE
- 2 INSTALL FIBER OPTIC DROP CABLE
- 3 INSTALL TRACER WIRE
- 4 REUSE EXISTING SMFO CABLE
- 5 INSTALL PLENUM RATED SMFO CABLE
- 6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
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- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ◇1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE
- ◇3 INSTALL AERIAL SPLICE ENCLOSURE
- ◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ◇5 INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
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- [9] INSTALL CCTV CAMERA ASSEMBLY
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- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

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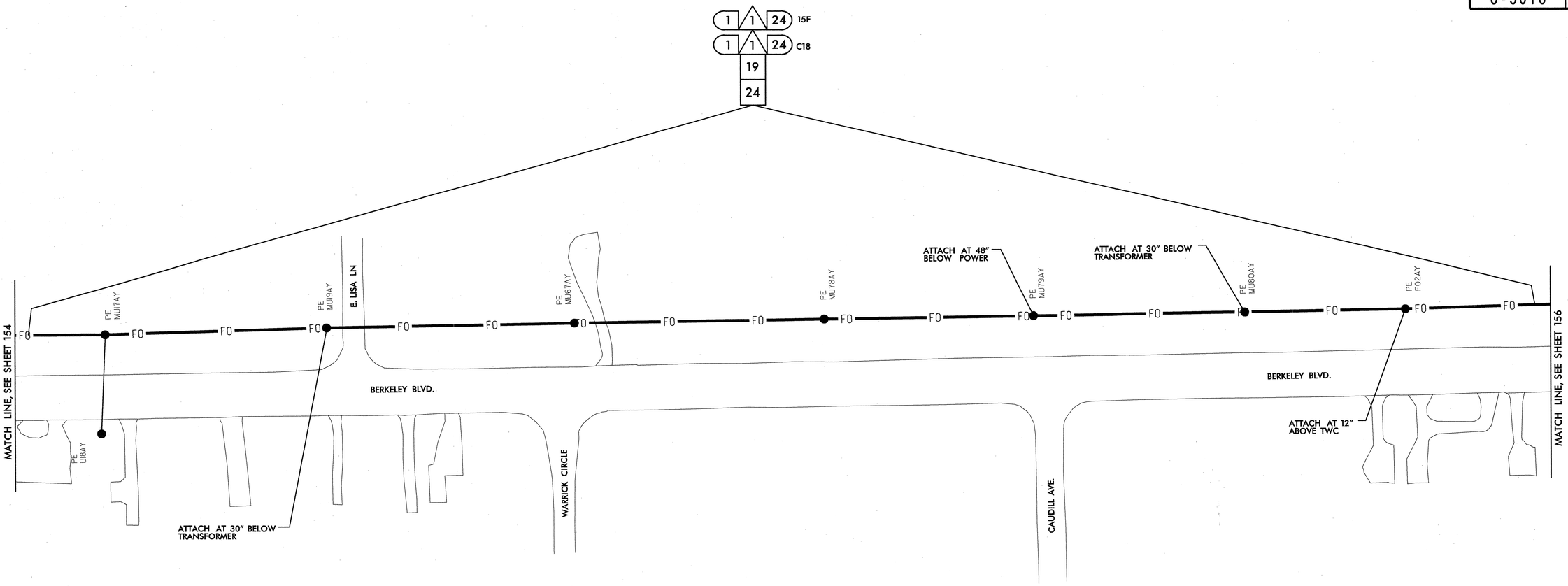

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

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CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

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SIGNATURE — DATE 2/20/09

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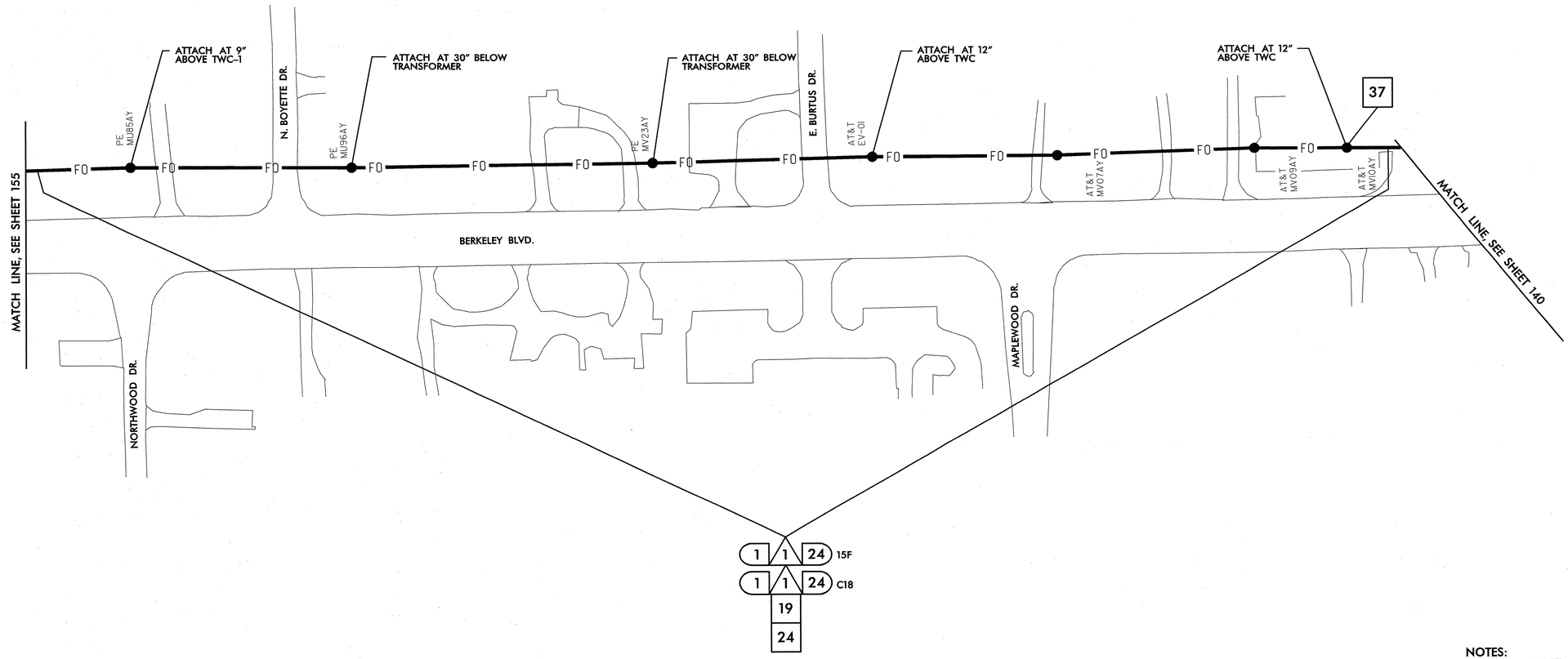
U-5016	156



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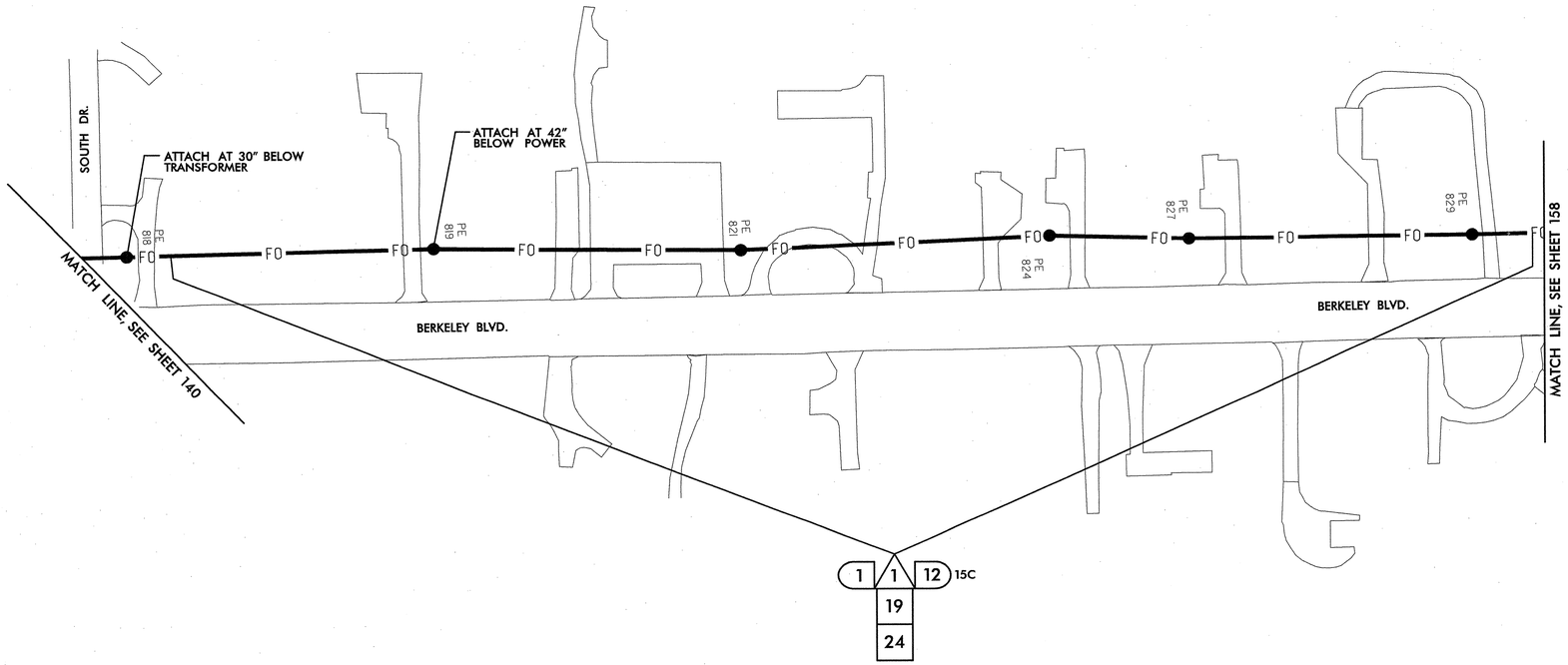

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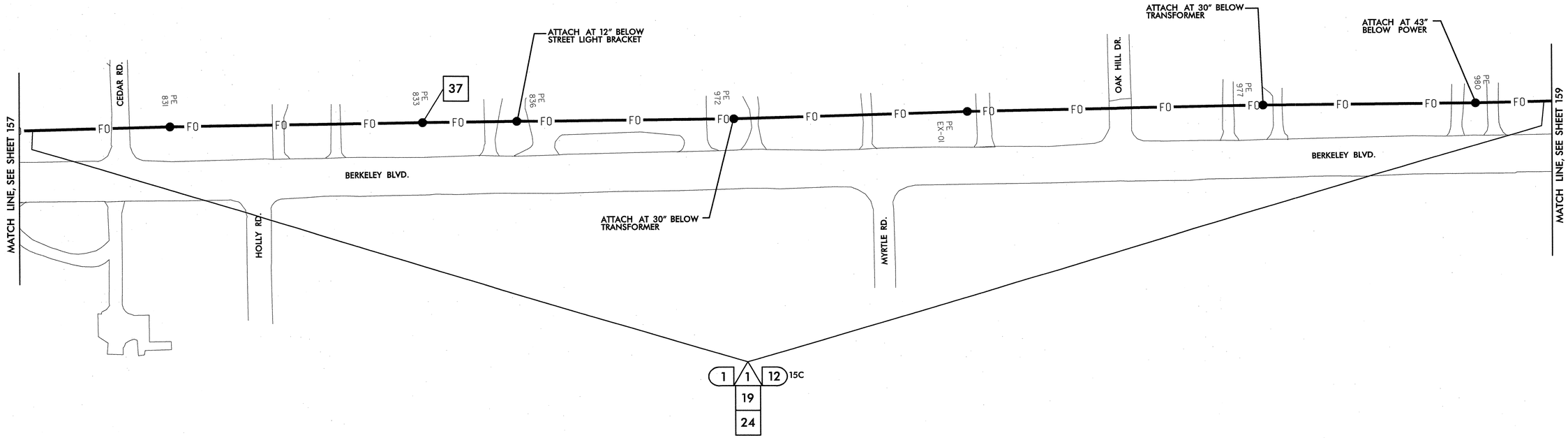

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- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ◇1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE
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- ◇4 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- ◇5 INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
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- [16] INSTALL AERIAL GUY ASSEMBLY
- [17] INSTALL STANDARD GUY ASSEMBLY
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- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
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- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
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- [35] INSTALL YAGI ANTENNA (8.5dB)
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- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Department of Transportation
Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
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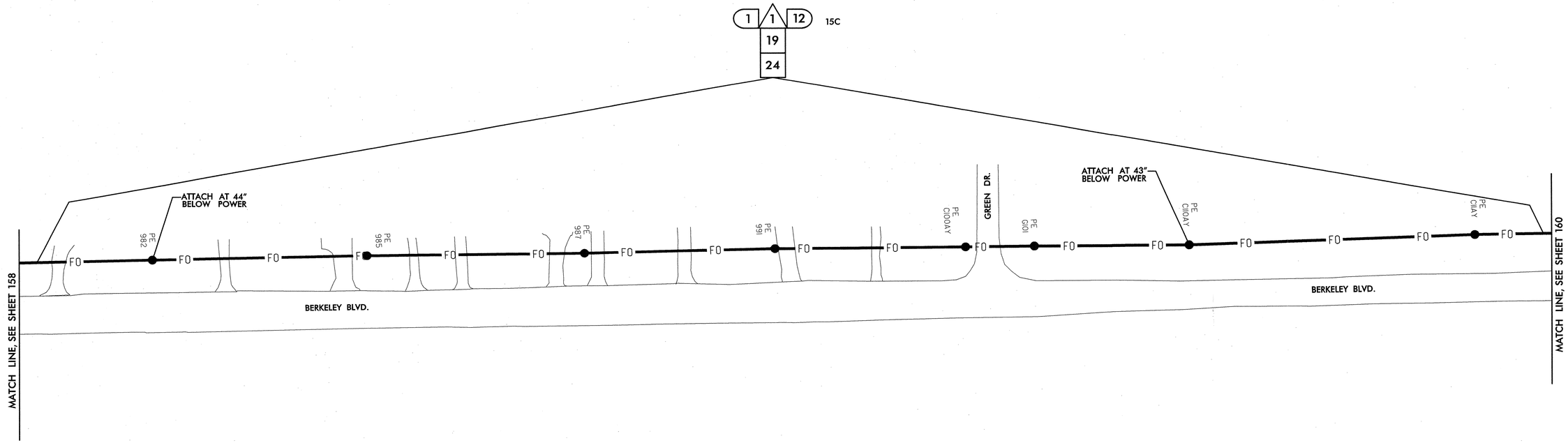
PROJECT REFERENCE NO.	SHEET NO.
U-5016	159



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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030472 KEVIN W. SMITH
SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
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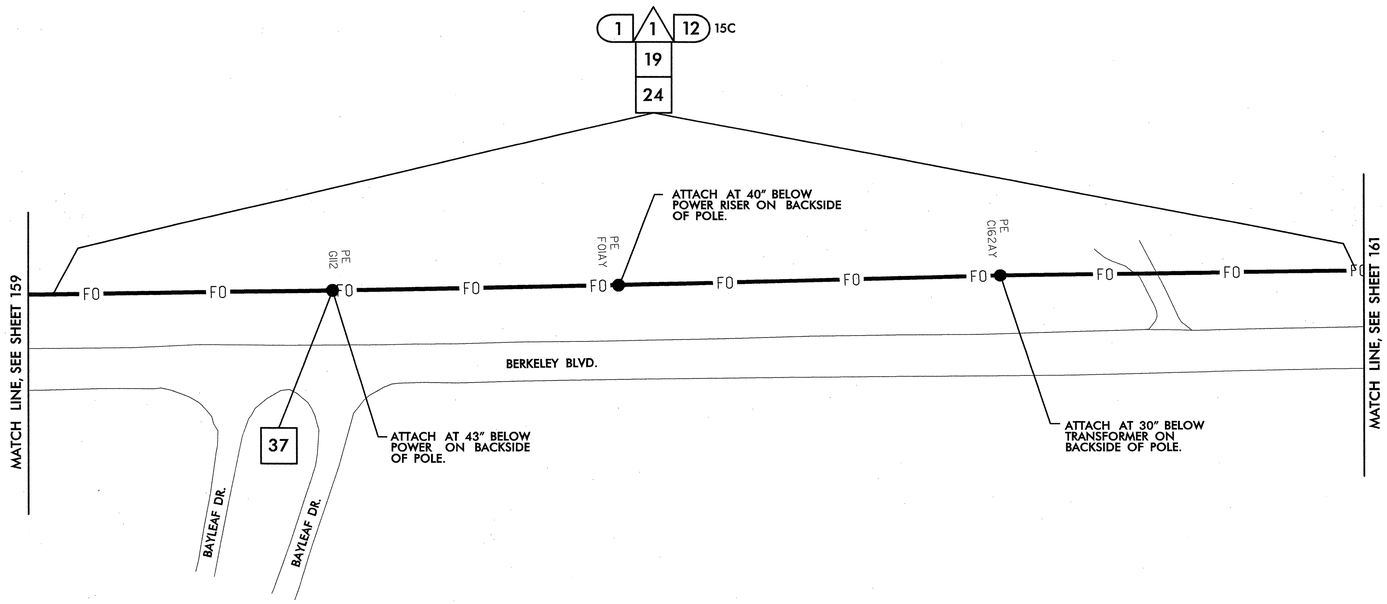
PROJECT REFERENCE NO.	SHEET NO.
U-5016	160



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PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames

2/20/2009
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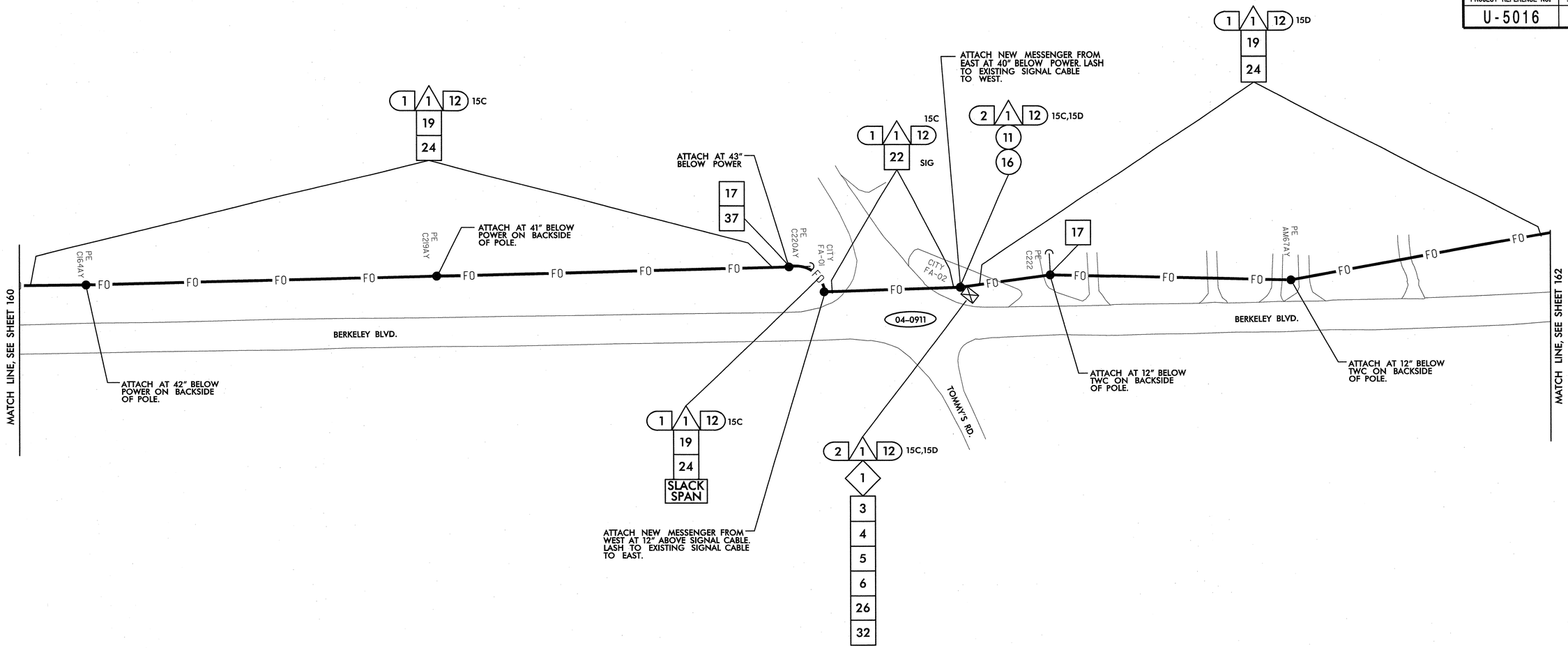
PROJECT REFERENCE NO.	SHEET NO.
U-5016	161



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CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
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DIVISION 4 WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames:

2/20/2009
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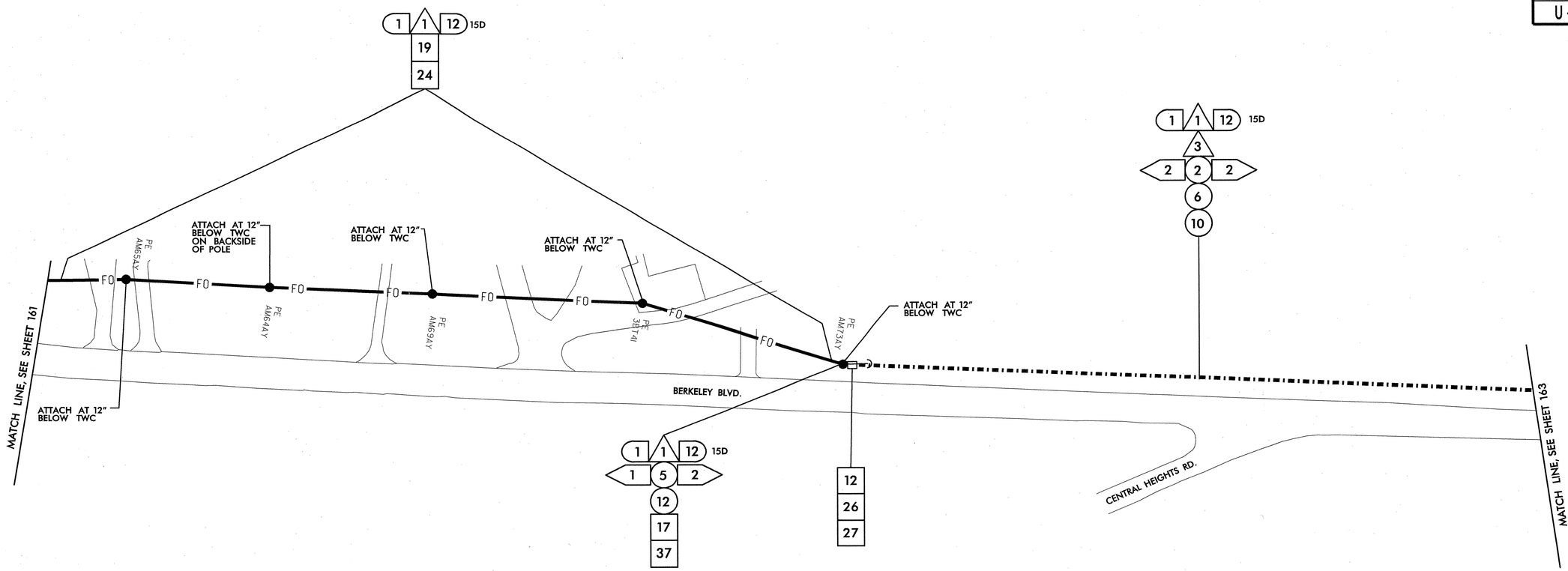
PROJECT REFERENCE NO.	SHEET NO.
U-5016	162



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[20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
[21] REMOVE EXISTING COMMUNICATIONS CABLE
[22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
[23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
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[25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
[26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
[27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
[28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
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[31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
[32] INSTALL FIBER OPTIC TRANSCEIVER
[33] INSTALL DIAL-UP MODEM
[34] INSTALL RADIO TRANSCEIVER
[35] INSTALL YAGI ANTENNA (8.5dB)
[36] INSTALL YAGI ANTENNA (13dB)
[37] BOND MESSENGER CABLE TO POLE GROUND
[38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
[39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
[40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
[41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NC DEPARTMENT OF TRANSPORTATION
Integrated Mobility Division
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

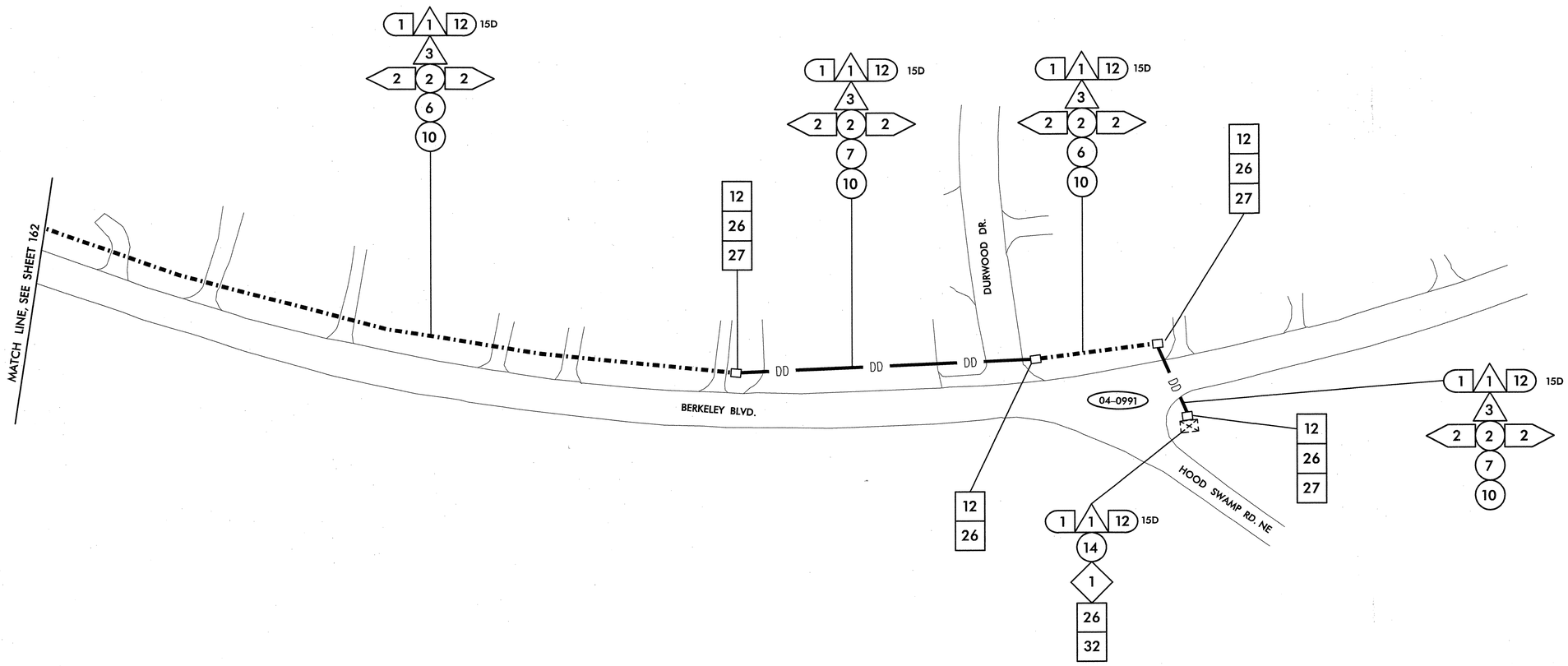
DIVISION 4 — WAYNE COUNTY
PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
k:\rdi_tpto_tts\0117462\06 goldsboro signal system\plans\sht_162.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	163



NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.

- (A1) INSTALL SMFO CABLE
- (A2) INSTALL FIBER OPTIC DROP CABLE
- (A3) INSTALL TRACER WIRE
- (A4) REUSE EXISTING SMFO CABLE
- (A5) INSTALL PLENUM RATED SMFO CABLE
- (A6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- (A1) INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- (A2) INSTALL UNDERGROUND SPLICE ENCLOSURE
- (A3) INSTALL AERIAL SPLICE ENCLOSURE
- (A4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- (A5) INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
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- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
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PLANS PREPARED IN THE OFFICE OF:
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750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

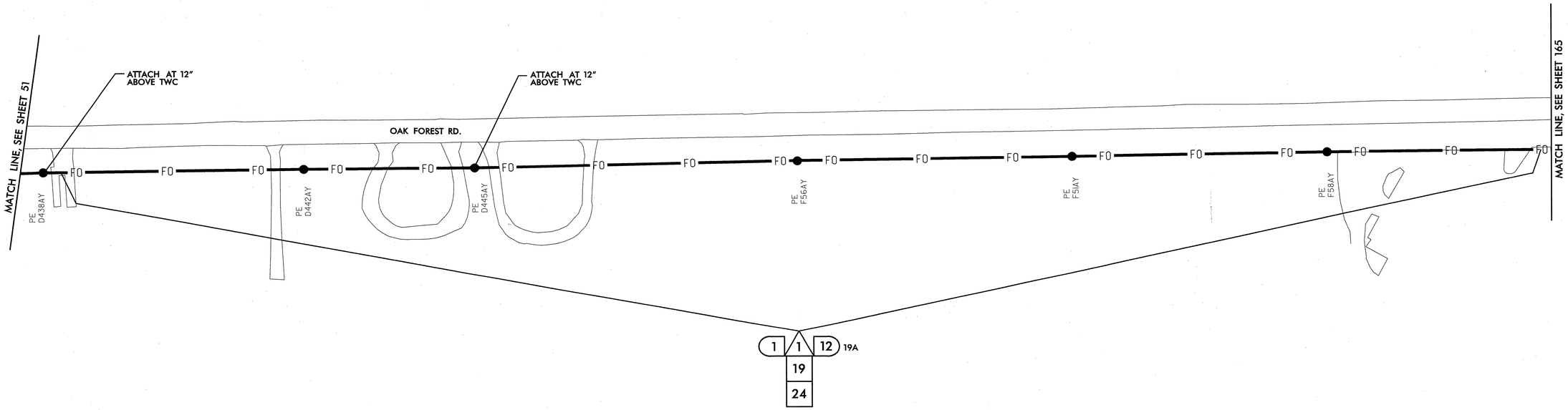
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filenames

2/20/2009
k:\rdi_tpto_its\011460\6 goldsboro signal system\plans\sht_l63.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	164



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PLANS PREPARED IN THE OFFICE OF:
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P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
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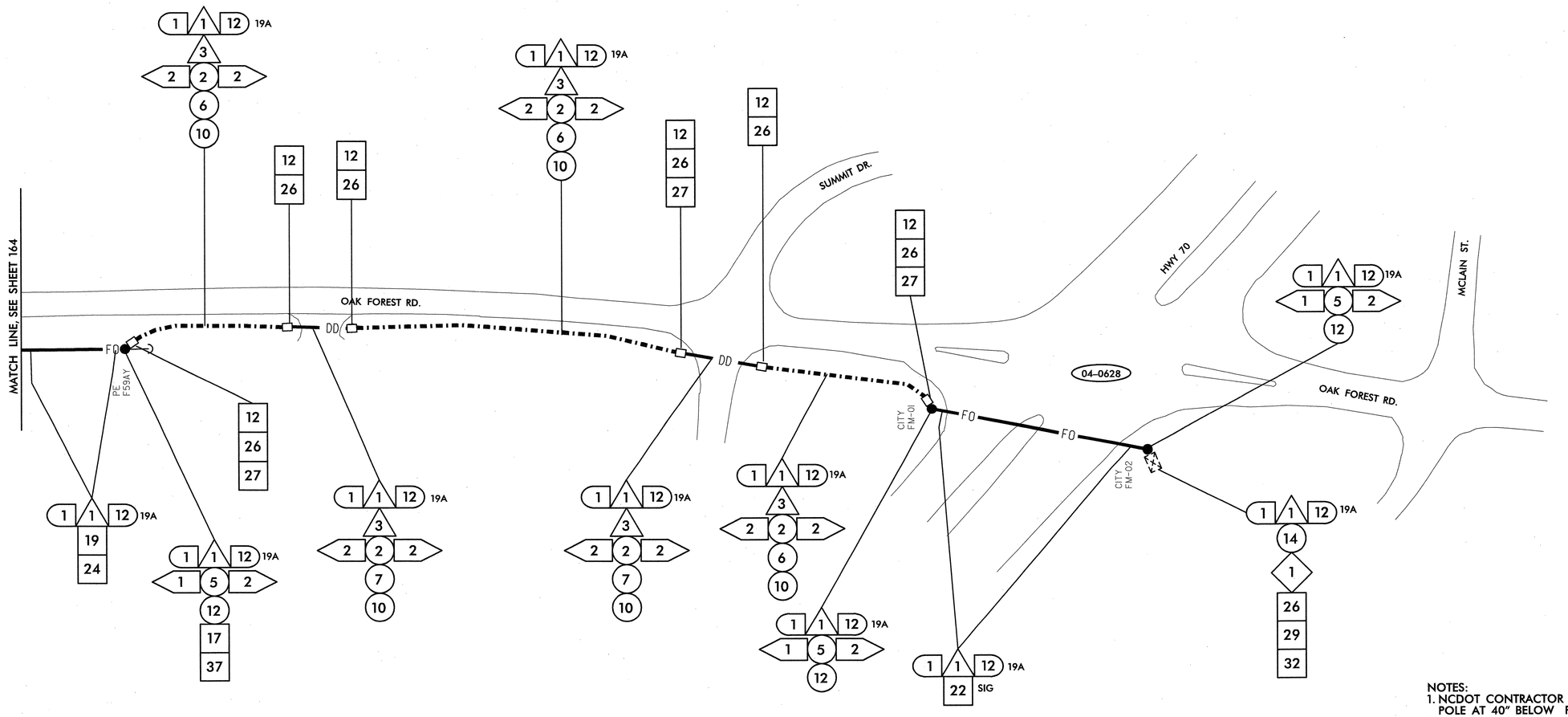
PROJECT REFERENCE NO.	SHEET NO.
U-5016	165



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PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
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SCALE 0 50

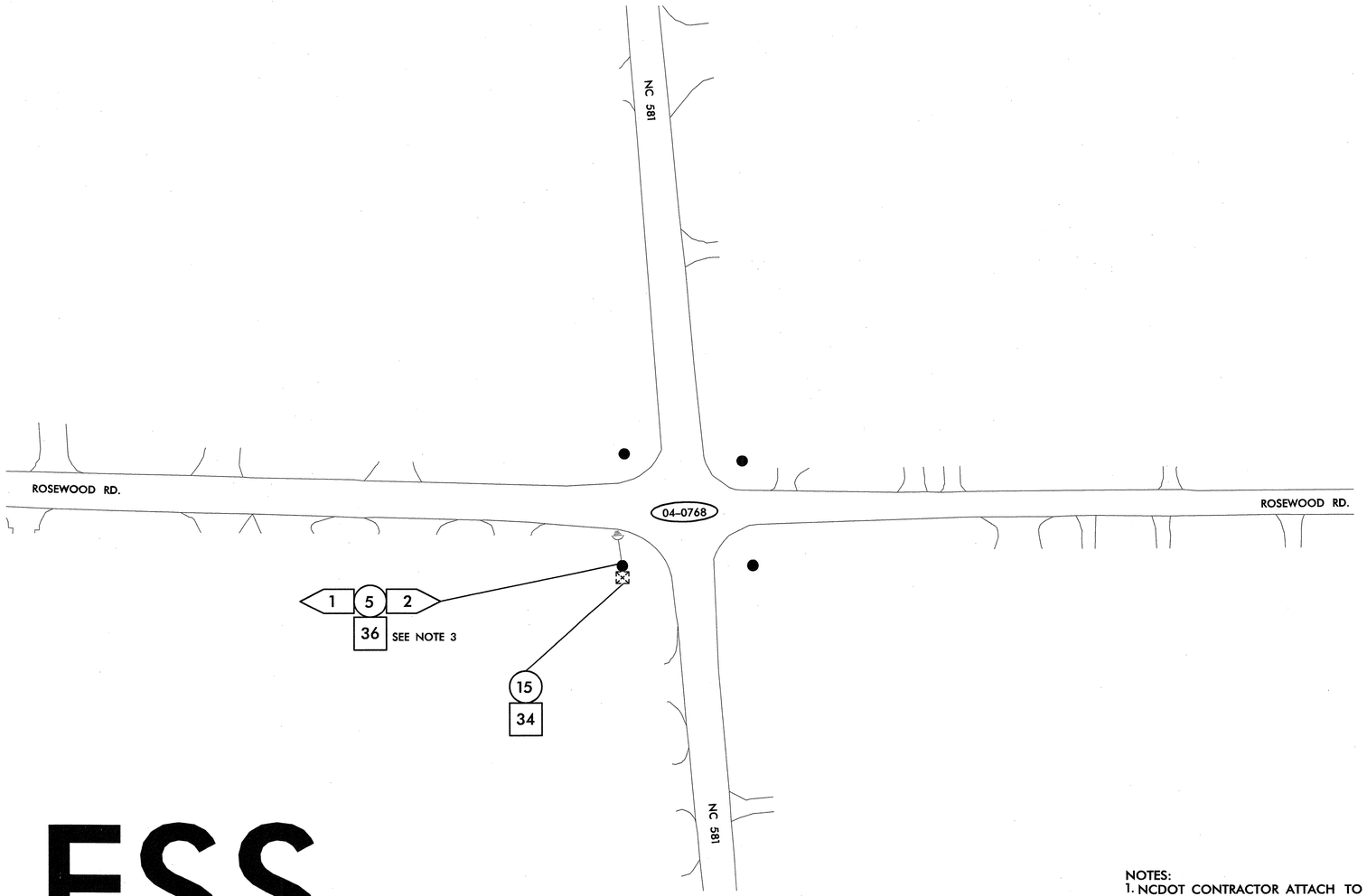
CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4		WAYNE COUNTY	
PLAN DATE: FEBRUARY 2009		REVIEWED BY: K. SMITH	
PREPARED BY: K. VANPATTEN		REVIEWED BY: F. BURCHETT	
REVISIONS		INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filenames:

2/20/2009
k:\rdi_tpro_1\SIG\T46016 goldsboro signal system\plans\rt_165.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	166



WIRELESS

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Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

SCALE 0 50

Traffic Engineering and Safety Systems Branch
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

CITY OF GOLDSBORO
COMPUTERIZED
SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009	REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN	REVIEWED BY: F. BURCHETT

REVISIONS	INIT.	DATE

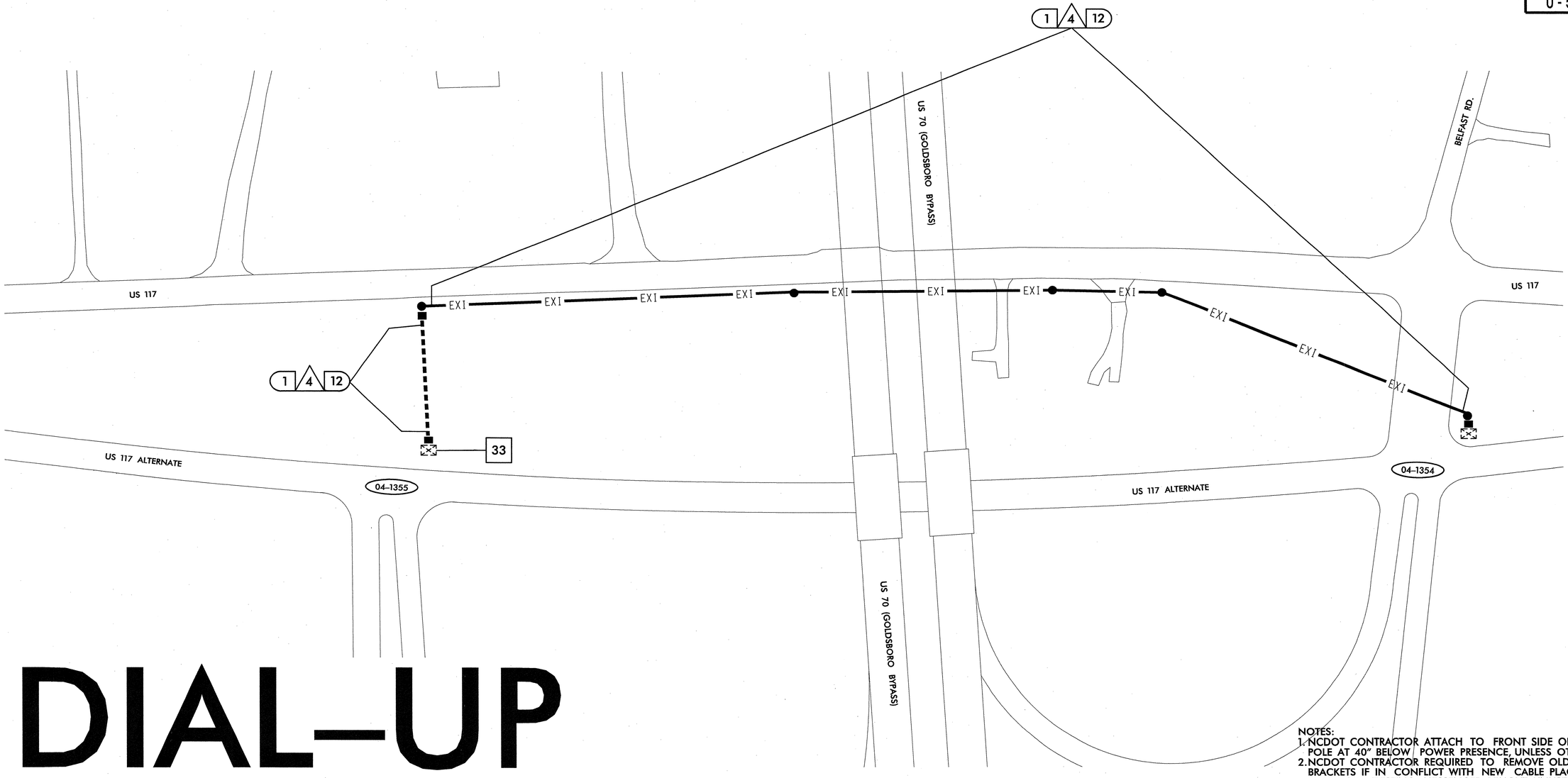
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE 2/20/09 DATE

CADD Filename:

2/20/2009
K:\PAL_TPTO_TS\Oll\46016 Goldsboro Signal System\Plans\sht_166.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-5016	167



DIAL-UP

NOTES:
1. NCDOT CONTRACTOR ATTACH TO FRONT SIDE OF POLE AT 40" BELOW POWER PRESENCE, UNLESS OTHERWISE NOTED.
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- △1 INSTALL SMFO CABLE
- △2 INSTALL FIBER OPTIC DROP CABLE
- △3 INSTALL TRACER WIRE
- △4 REUSE EXISTING SMFO CABLE
- △5 INSTALL PLENUM RATED SMFO CABLE
- △6 INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
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- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- ◇1 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- ◇2 INSTALL UNDERGROUND SPLICE ENCLOSURE
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- [6] INSTALL NEW 332 BASE MOUNTED CABINET
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- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
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Traffic Engineering and Safety Systems Branch
Traffic Management Unit
Traffic Signal Systems
Transportation Mobility & Safety Division
NCDOT
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 WAYNE COUNTY

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NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

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CADD Filenames

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PROJECT REFERENCE NO.	SHEET NO.
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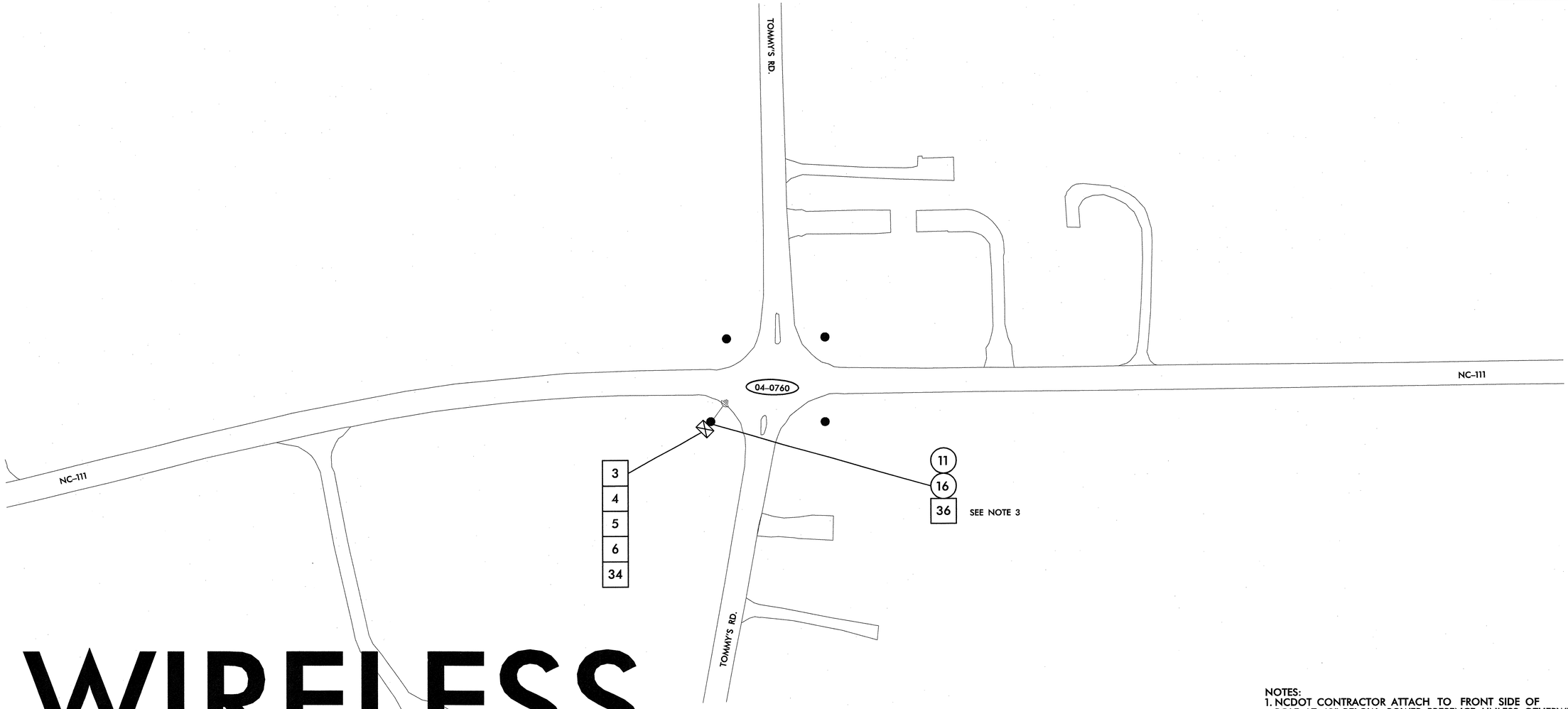

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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE

CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

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NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH

SIGNATURE — DATE 2/20/09

CADD Filename:

2/20/2009
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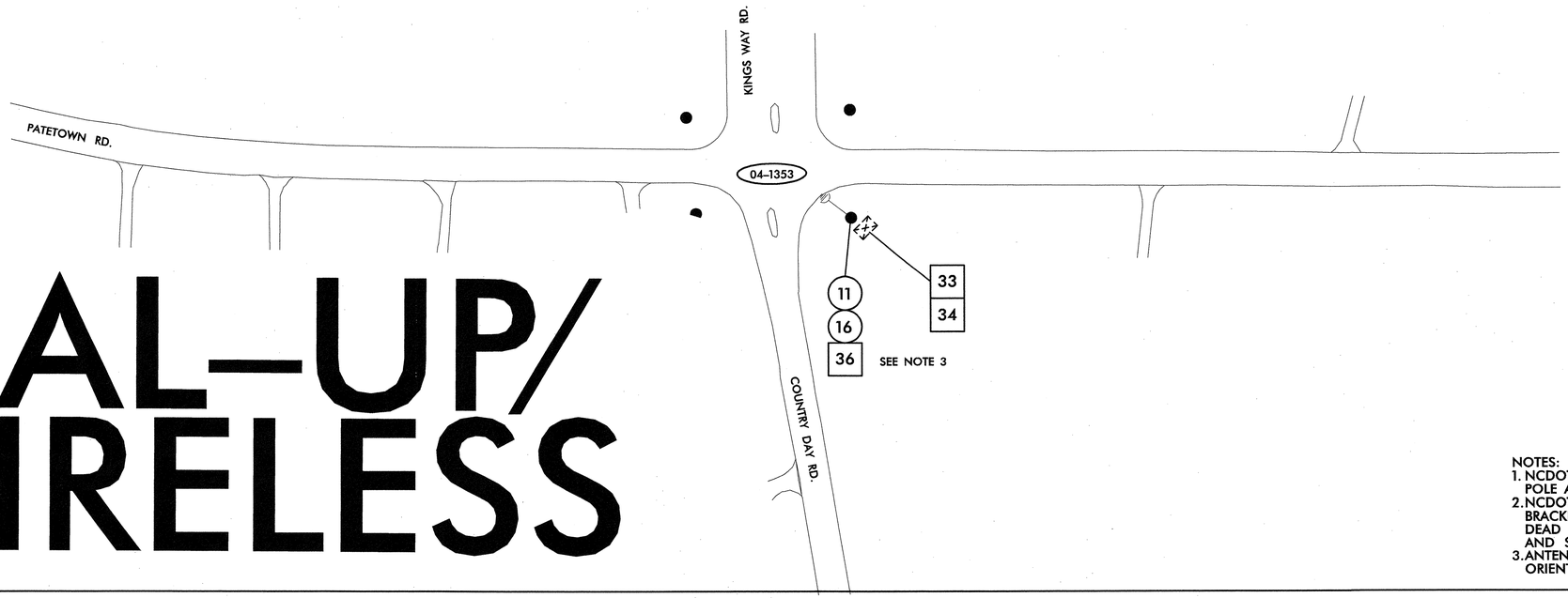
PROJECT REFERENCE NO.	SHEET NO.
U-5016	169

DIAL-UP/ WIRELESS



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Traffic Engineering and Safety Systems Branch
Traffic Engineering Unit
STATE OF NORTH CAROLINA
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SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE: FEBRUARY 2009 — REVIEWED BY: K. SMITH
PREPARED BY: K. VANPATTEN — REVIEWED BY: F. BURCHETT

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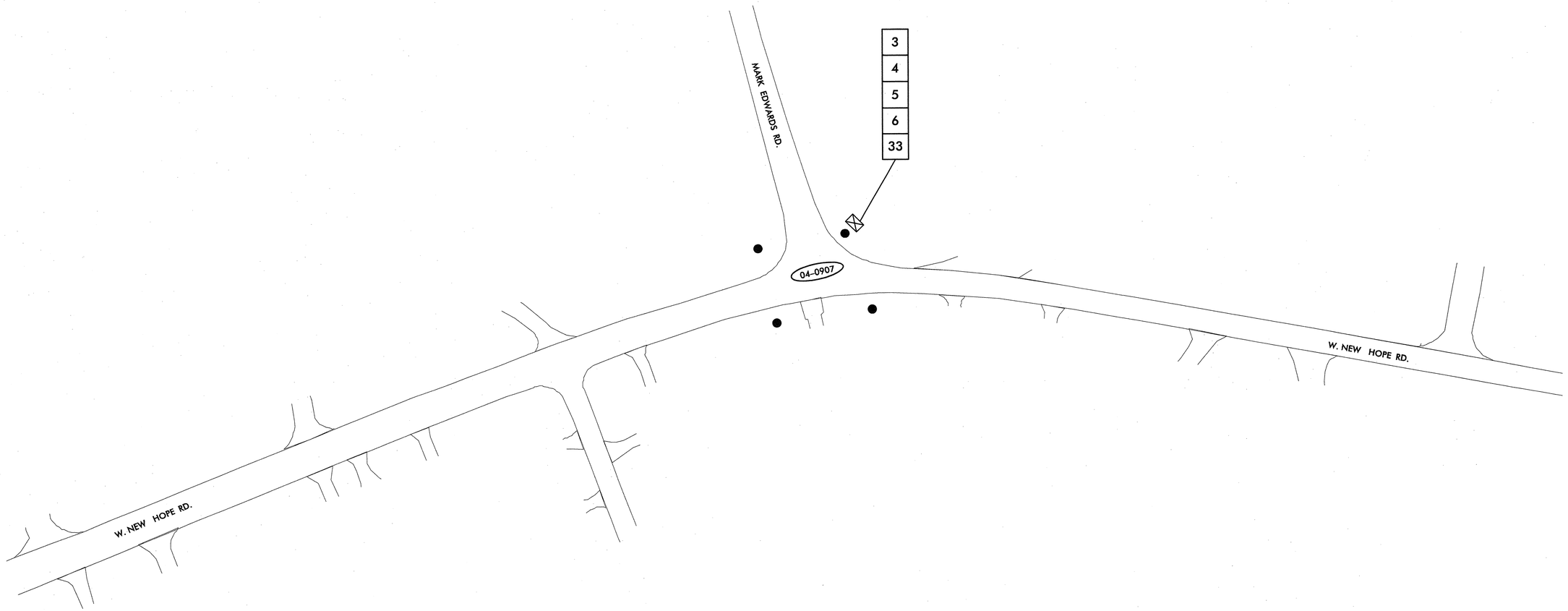
PROJECT REFERENCE NO.	SHEET NO.
U-5016	170



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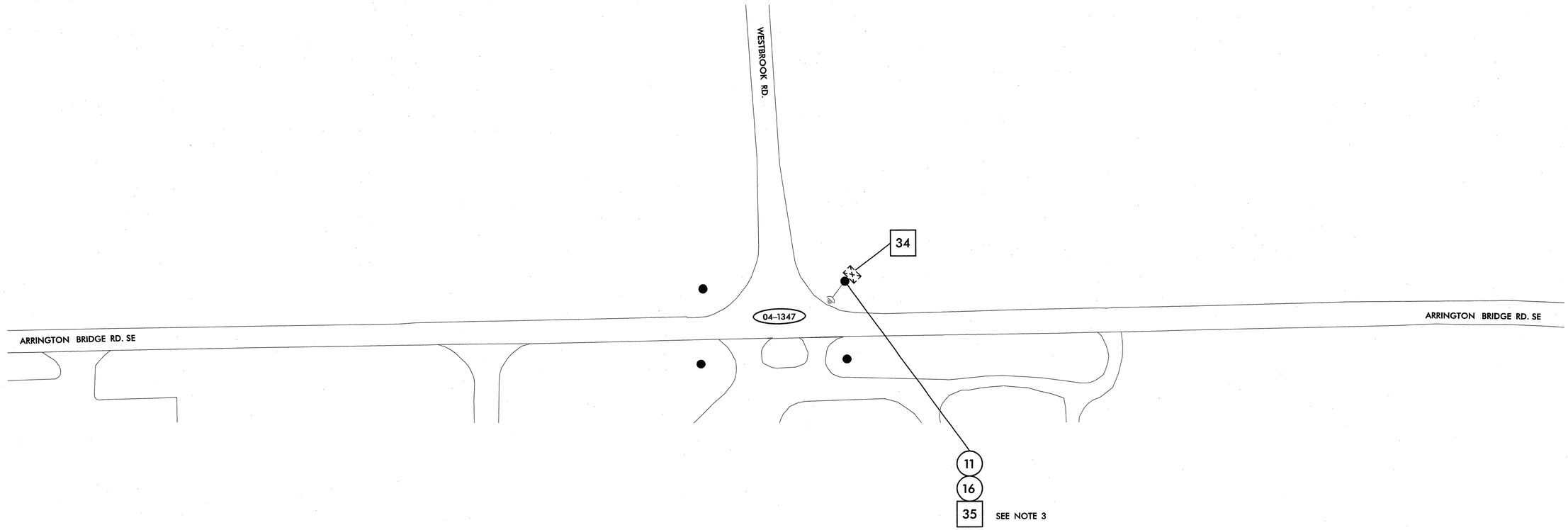

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2. NCDOT CONTRACTOR REQUIRED TO REMOVE OLD ALARM CIRCUIT BRACKETS IF IN CONFLICT WITH NEW CABLE PLACEMENT. DEAD END EXISTING MESSENGER, REMOVE UNUSED LASHING WIRE AND SUPPORT RINGS WHEN REQUIRED.
3. ANTENNA ORIENTATION IS FOR DISPLAY PURPOSES ONLY. FINAL ORIENTATION TO BE DETERMINED DURING FIELD SURVEY.

- (A1) INSTALL SMFO CABLE
- (A2) INSTALL FIBER OPTIC DROP CABLE
- (A3) INSTALL TRACER WIRE
- (A4) REUSE EXISTING SMFO CABLE
- (A5) INSTALL PLENUM RATED SMFO CABLE
- (A6) INSTALL LOOP LEAD-IN CABLE
- (1) INSTALL PVC CONDUIT
- (2) INSTALL POLYETHYLENE CONDUIT
- (3) INSTALL RIGID, GALVANIZED STEEL CONDUIT
- (4) INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- (5) INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- (6) TRENCH CONDUIT
- (7) DIRECTIONAL DRILL CONDUIT
- (8) BORE AND JACK CONDUIT
- (9) INSTALL CABLE(S) IN EXISTING CONDUIT
- (10) INSTALL CABLE(S) IN NEW CONDUIT
- (11) INSTALL CABLE(S) IN EXISTING RISER
- (12) INSTALL CABLE(S) IN NEW RISER
- (13) INSTALL NEW CABLE(S) IN EXISTING CONDUIT STUBOUTS
- (14) INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHERE AVAILABLE)
- (15) INSTALL NEW RISER INTO POLE MOUNTED CABINET
- (16) REPLACE EXISTING WEATHERHEAD WITH HEAT SHRINK TUBING
- (17) INSTALL RIGID METAL CONDUIT INTO POLE MOUNTED CABINET
- (◇1) INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- (◇2) INSTALL UNDERGROUND SPLICE ENCLOSURE
- (◇3) INSTALL AERIAL SPLICE ENCLOSURE
- (◇4) MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- (◇5) INSTALL TERMINAL SPLICE BOX
- [1] INSTALL CABINET FOUNDATION
- [2] REMOVE EXISTING CABINET FOUNDATION
- [3] MODIFY EXISTING CABINET FOUNDATION
- [4] REMOVE EXISTING CONTROLLER AND CABINET
- [5] INSTALL NEW CONTROLLER
- [6] INSTALL NEW 332 BASE MOUNTED CABINET
- [7] INSTALL NEW 336S BASE MOUNTED CABINET
- [8] INSTALL NEW 336S POLE MOUNTED CABINET
- [9] INSTALL CCTV CAMERA ASSEMBLY
- [10] INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- [11] INSTALL JUNCTION BOX
- [12] INSTALL OVERSIZED HEAVY-DUTY JUNCTION BOX
- [13] REMOVE EXISTING JUNCTION BOX
- [14] INSTALL WOOD POLE
- [15] REMOVE EXISTING WOOD POLE
- [16] INSTALL AERIAL GUY ASSEMBLY
- [17] INSTALL STANDARD GUY ASSEMBLY
- [18] INSTALL SIDEWALK GUY ASSEMBLY
- [19] INSTALL MESSENGER CABLE
- [20] REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- [21] REMOVE EXISTING COMMUNICATIONS CABLE
- [22] LASH CABLE(S) TO EXISTING SIGNAL/ COMMUNICATIONS CABLE
- [23] LASH CABLE(S) TO EXISTING MESSENGER CABLE
- [24] LASH CABLE(S) TO NEW MESSENGER CABLE
- [25] INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE
- [26] STORE 30 FEET OF EACH COMMUNICATIONS CABLE
- [27] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 1
- [28] INSTALL FIBER OPTIC DELINEATOR MARKER TYPE 2
- [29] MODIFY EXISTING ELECTRICAL SERVICE
- [30] INSTALL NEW ELECTRICAL SERVICE
- [31] INSTALL VIDEO OPTIC TRANSCEIVER WITH DATA
- [32] INSTALL FIBER OPTIC TRANSCEIVER
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- [34] INSTALL RADIO TRANSCEIVER
- [35] INSTALL YAGI ANTENNA (8.5dB)
- [36] INSTALL YAGI ANTENNA (13dB)
- [37] BOND MESSENGER CABLE TO POLE GROUND
- [38] RECONNECT RAILROAD PREEMPTION EQUIPMENT
- [39] RECONNECT PUSH BUTTON PREEMPTION EQUIPMENT
- [40] INSTALL PRE-FORMED CABINET FOUNDATION PAD
- [41] INSTALL BASE ADAPTER

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh N.C. 27636-3068
(919) 677-2000

Traffic Engineering and Safety Systems Branch
NCDEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems
750 Greenfield Pkwy., Garner, NC 27529

SCALE 0 50

CITY OF GOLDSBORO COMPUTERIZED SIGNAL SYSTEM UPGRADE
CABLE ROUTING SHEET

DIVISION 4 — WAYNE COUNTY

PLAN DATE:	FEBRUARY 2009	REVIEWED BY:	K. SMITH
PREPARED BY:	K. VANPATTEN	REVIEWED BY:	F. BURCHETT

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030472 ENGINEER KEVIN W. SMITH
SIGNATURE 2/20/09 DATE
CADD Filename:

2/20/2009
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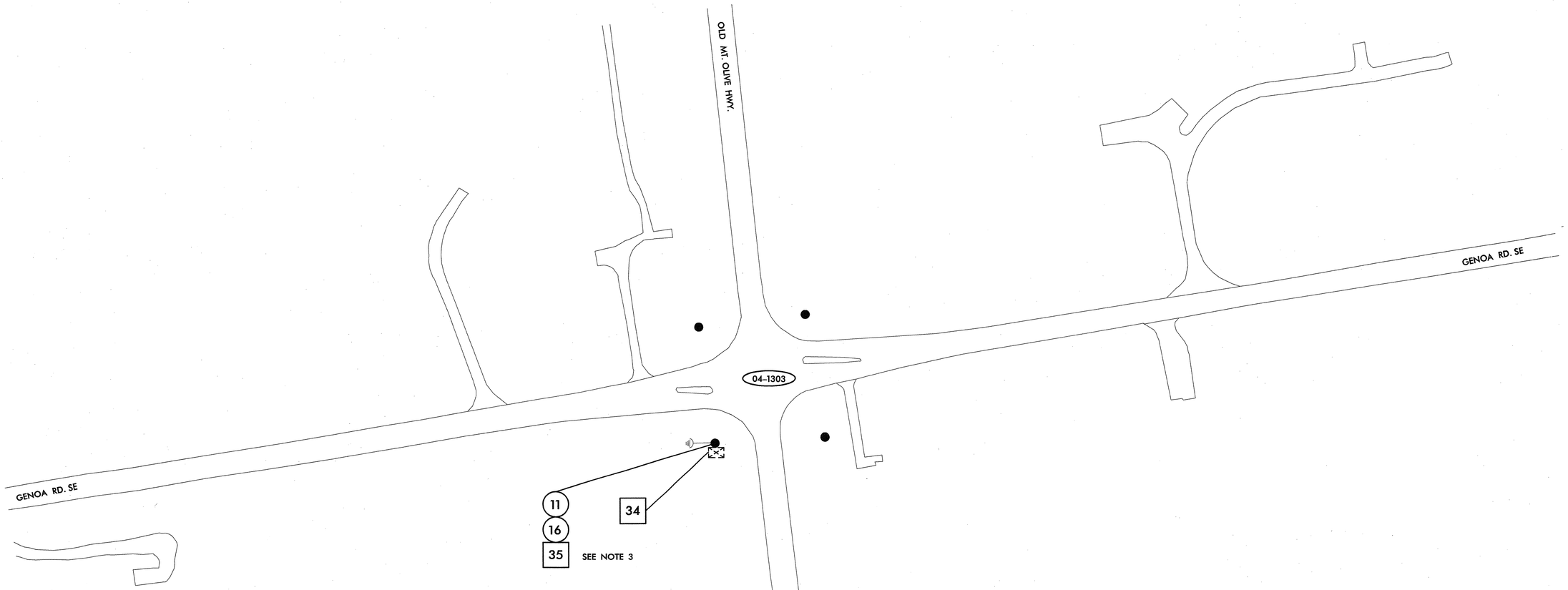
PROJECT REFERENCE NO.	SHEET NO.
U-5016	172



WIRELESS

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SIGNATURE 2/24/09 DATE

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