

Install 8.5 dBd Yagi antenna (vertically polarized)
Attach antenna 40" below power

SYLVA
HISTORIC
DISTRICT

NAD 83/NA 2011

14-0423

Mill Street

Schulman Street

14-0414

US 23 Business (W Main Street)

14-0681

Walnut Street

Pole Mounted Cabinet:
Install new 2" riser between
cabinet & hand hole of metal
pole - see installation note 2

Install Ethernet Edge Switch
Install 900 MHz serial/Ethernet
Spread Spectrum Radio

Pole Mounted Cabinet
Install new 2" riser between cabinet & hand hole of metal pole - see installation note 2
Install cell modem
Install Ethernet Edge Switch
Install 900 MHz serial/Ethernet Spread Spectrum Radio

Spring Street

Spring Street

14-0399

US 23 Business (W Main Street)

Install 6 dBd Omni
(vertically polarized).
Attach antenna on top of pole
a minimum of 6' away from
the vertical shaft member,
while maintaining 3' from
adjacent signal head

Pole Mounted Cabinet:
Install new 2" riser between
cabinet & hand hole of metal
pole - see installation note 2
Install Ethernet Edge Switch
Install 900 MHz serial/Ethernet
Spread Spectrum Radio

Install 6 dBD Omni antenna (vertically polarized) Attach antenna on top of pole at a minimum of 6' away from the vertical shaft member, while maintaining 3' from adjacent signal head
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Install 8.5 dBi Yagi antenna
(vertically polarized).
Attach antenna on mast arm
at a minimum of 6' away from
the vertical shaft member,
while maintaining 3' from
adjacent signal head

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024. See RSD 1736.01 for Spread Spectrum Radio drawing.
2. Install Coaxial Cable:
 - A. On wood poles, requiring a new rigid galvanized steel riser, install a 2" riser with weatherhead and route the coaxial cable to the antenna.
 - B. On metal poles with mast arms, run coaxial cable up through the pole and out the mast arm; field drill a 1/2" hole up through the bottom of mast arm for installation of the coaxial cable to the antenna.
 - C. On metal strain poles, run coaxial cable up through the pole and out the weatherhead and route the coaxial cable to the antenna.
 - D. Between the point of exiting the riser, metal pole or mast arm and the antenna, secure the coaxial cable to the structure using 3/4" stainless steel straps every 12".
3. If an existing 2" spare rigid galvanized steel riser is available, install the coaxial cable in the spare riser.
4. Install wireless antenna on pole with RF warning sign. (Note: RF warning sign not required when antenna is installed on an NCDOT-owned pole.)
5. Maintain proper clearance from all utilities per the National Electric Safety Code.
6. Install wireless serial/Ethernet radio with exterior disconnect switch located on cabinet.
(Note: RF antenna disconnect switch and decal are not required when the antenna is installed on an NCDOT-owned pole.)
7. Reference "wireless radio antenna typical details."
8. Request a cell modem from Deputy Division Traffic Engineer (828)331-5253 and allow Division an eight week lead time to acquire the cell modem.

Plans Prepared By:



Prepared for the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529

Division 14 Jackson County Sylva

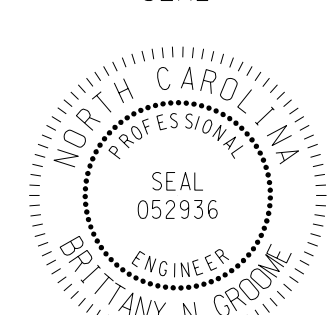
PLAN DATE:	June 2025	REVIEWED BY:	BN Groome
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PREPARED BY:	DJ White	REVIEWED BY:	LM Moon
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REVISIONS	INIT.	DATE
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DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SF AI



Signed by

Brittany Grooms

DATE