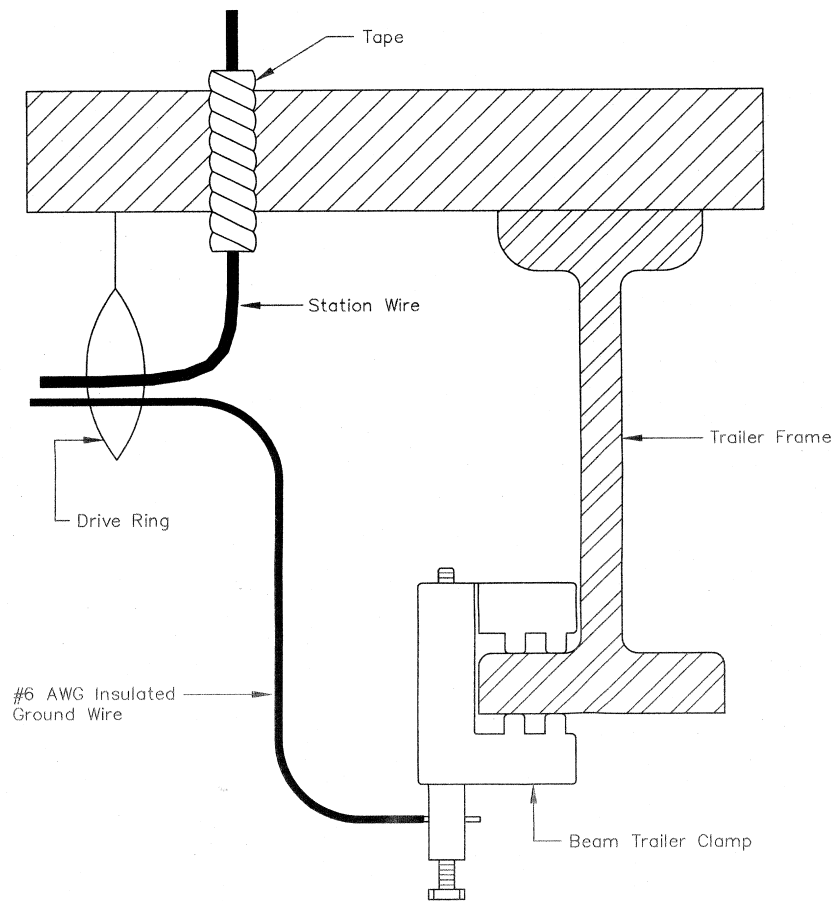


FIGURE 20
MOBILE HOME INSTALLATION



[66 FR 43317, Aug. 17, 2001, as amended at 69 FR 18803, Apr. 9, 2004]

§ 1755.510 Construction and assembly unit drawings.

(a) The construction and assembly unit drawings in this section shall be used by borrowers to assist the installer in making the customer access location installations.

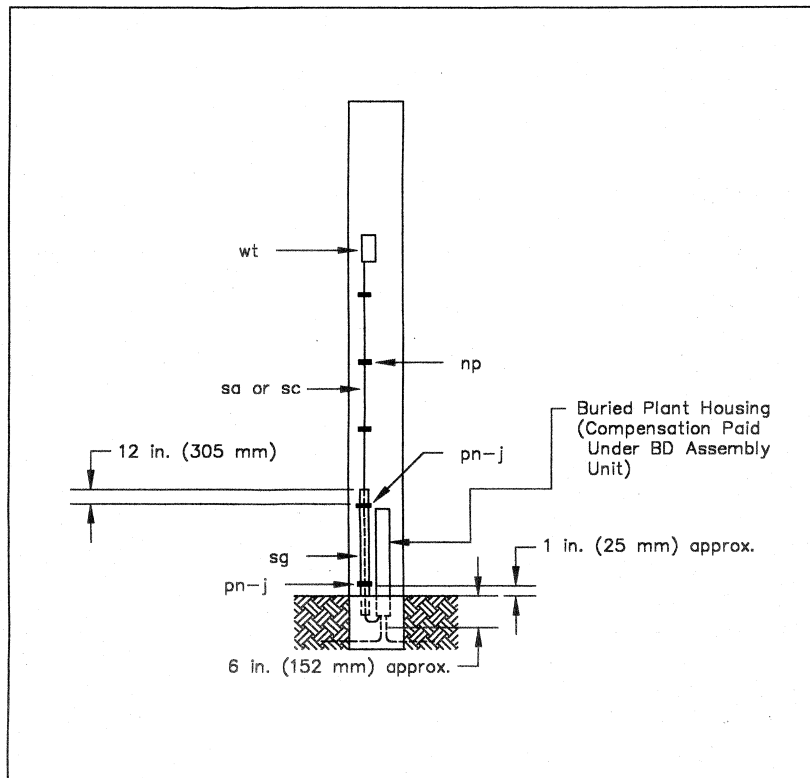
(b) The asterisks appearing on the construction drawings indicate that the items are no longer listed in the RUS Informational Publication (IP) 344-2, "List of Materials Acceptable for Use on Telecommunications Systems of RUS Borrowers." RUS IP 344-2 can

Rural Utilities Service, USDA

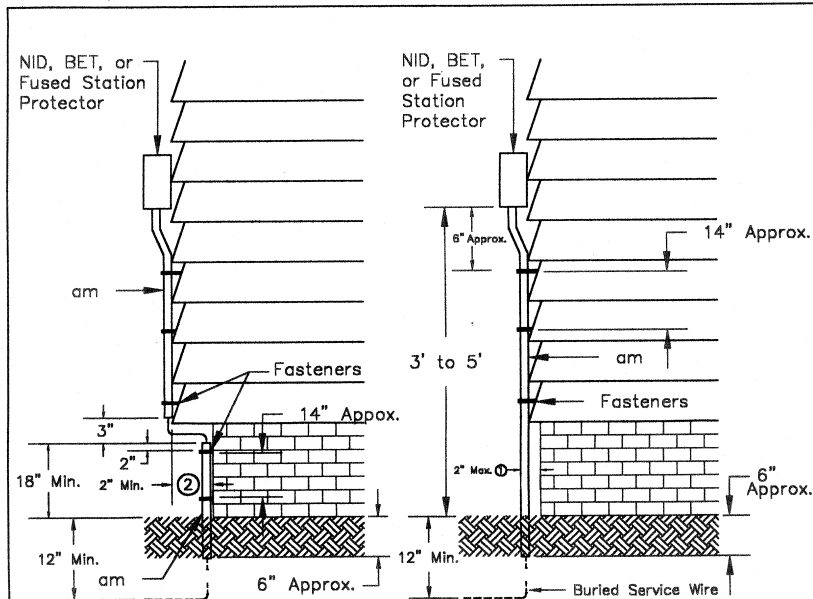
§ 1755.510

be obtained from the Superintendent of Documents, P. O. Box 371954, Pittsburgh, PA 15250-7954, telephone number (202) 512-1800.

(c) Drawings BM50, BM83, 312-1, 501-1, 501-2, 503-2, 504, 505, 506, 507, 508-1, 510, 510-1, 510-2, 513, 815, 815-1, 958, and 962 are as follows:



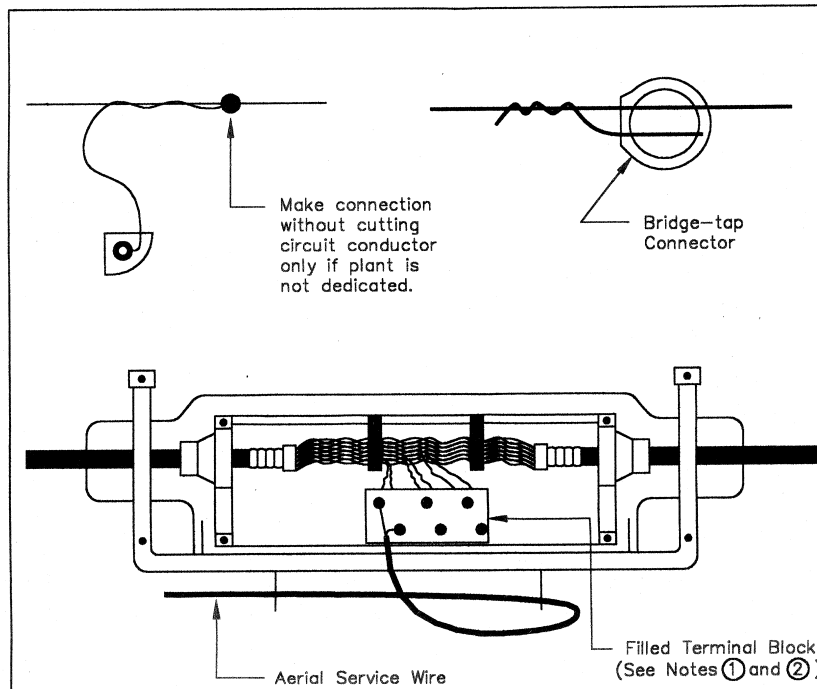
ITEMS	MATERIALS	NO. REQ'D
wt	Terminal, wire, filled, unprotected, pole-mounted (specify pair size)	1
*pn	Strap, riser guard	2
*np	Clamp, one-hole, offset	as req'd
sa or sc	Wire or cable, filled, buried	as req'd
sg	Guard, riser, 1 in. ID by 8 ft (25 mm ID by 2.4 m)	as req'd
j	Screws, lag (size as required)	4
RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES BURIED SERVICE WIRE OR CABLE INSTALLATION TO POLE-MOUNTED WIRE TERMINAL		
Scale: NTS		March 2001
BM50		



Notes:

- ① Where an obstruction of less than 2 in. is encountered, the buried service guard (item am) shall extend from the NID, BET, or fused protector to 6 in. below the ground.
- ② Where an obstruction of greater than 2 in. is encountered, the buried service guard (item am) shall be divided as shown (from the NID, BET, or fused protector to the obstruction, and from 3 in. below the obstruction to 6 in. below the ground). In lieu of divided service guards (item am), a continuous flexible conduit may be used from the NID, BET, or fused protector to 6 in. below the ground.
- ③ For converting English units to metric units use 1 in. = 25.4 mm and 1 ft = 0.3048 m.

ITEM	MATERIAL	NO. REQ'D
am	Guard, buried service (including fasteners)	1
RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES BURIED SERVICE GUARD		
Scale: NTS		March 2001
BM83		



Notes:

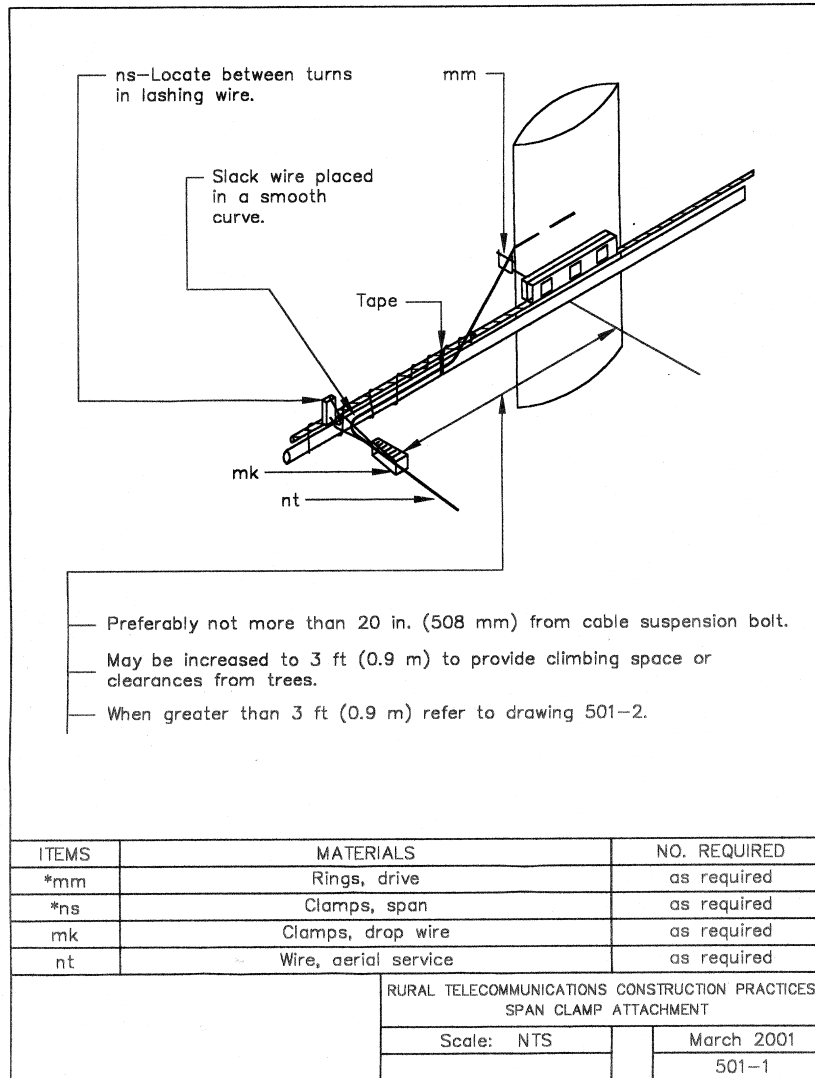
- ① Where aerial service wire connections are made along aerial plastic cable, unprotected filled terminal blocks equipped with lead-out wires shall be used.
- ② Conductors of the aerial service wire shall be connected directly to the binding posts of the filled terminal block.

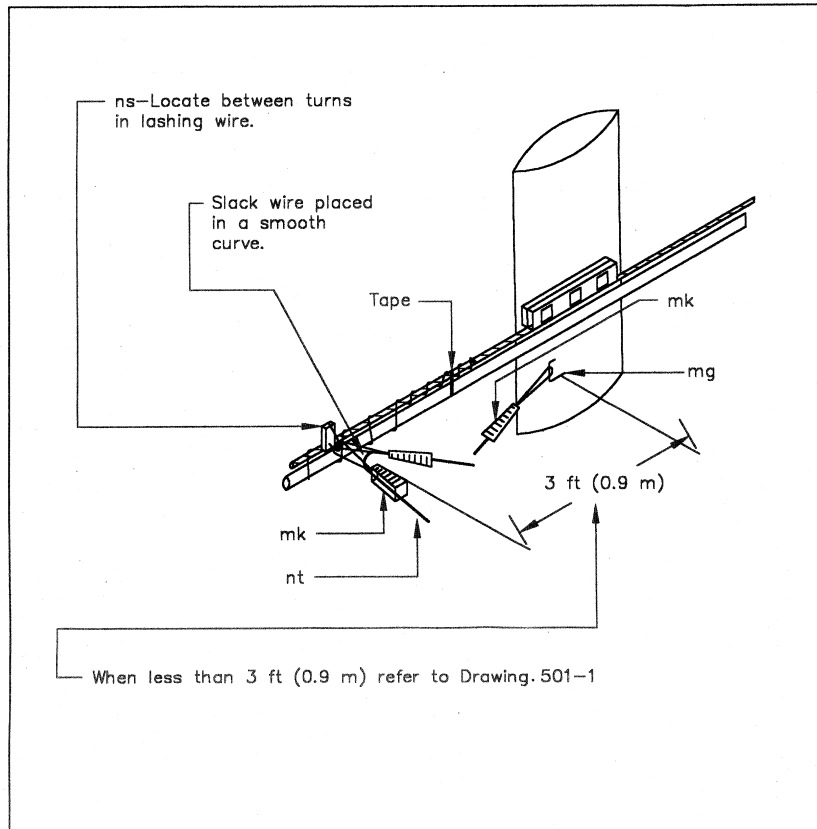
RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES
 AERIAL PLASTIC CABLE DETAILS OF WIRE
 CONNECTIONS TO FILLED TERMINAL BLOCKS

Scale: NTS

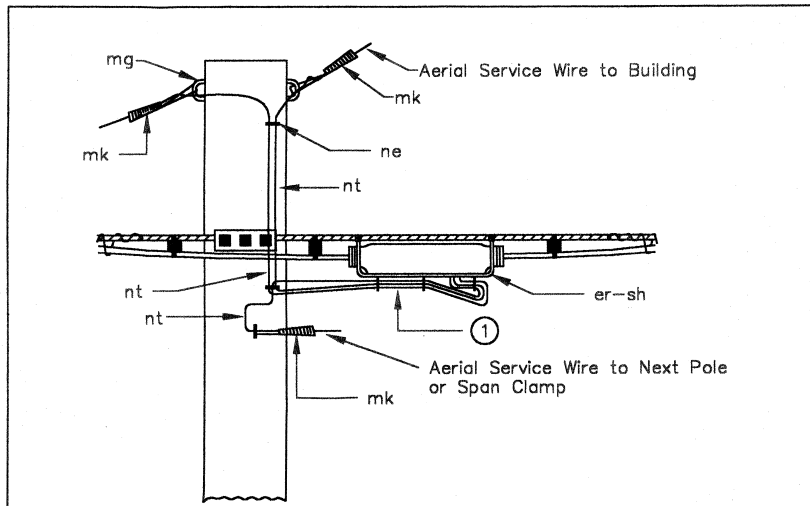
March 2001

312-1





ITEMS	MATERIALS	NO. REQUIRED
*mg	Hooks, drive	as required
*ns	Clamps, span	as required
mk	Clamps, drop wire	as required
nt	Wire, aerial service	as required
RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES SPAN CLAMP ATTACHMENT		
Scale: NTS		March 2001
		501-2



Note:

- ①. Install aerial service wiring through all rings on bottom of terminal housing. Turn wire back around last ring to assigned pair. Form wire loosely to avoid sharp bends.

ITEMS	MATERIALS	NO. REQUIRED
*mg	Hooks, drive	as required
*ne	Rings, bridle	as required
er	Enclosures, ready-access	—
sh	Blocks, filled, terminal, unprotected	—
nt	Wire, aerial service	as required
mk	Clamps, drop wire	as required

RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES
 SERVICE WIRE CONNECTIONS TO AERIAL CABLE

Scale: NTS	March 2001
	503-2

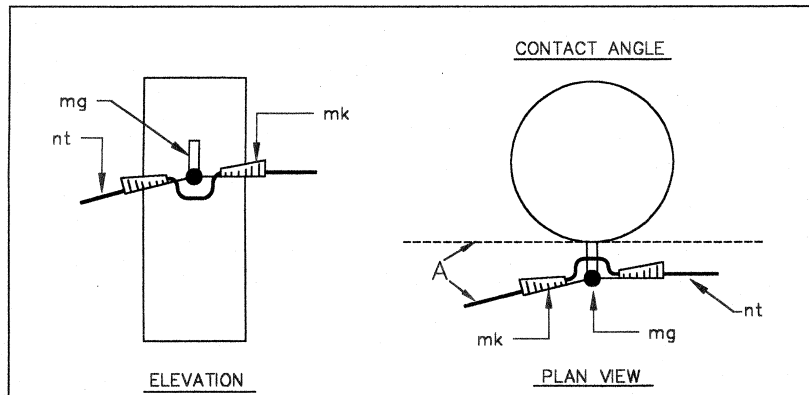


FIGURE A: Aerial service wires whose contact angle (A) exceeds five degrees and/or whose adjacent span lengths are different by 25 percent or more.

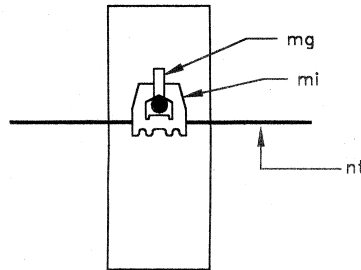
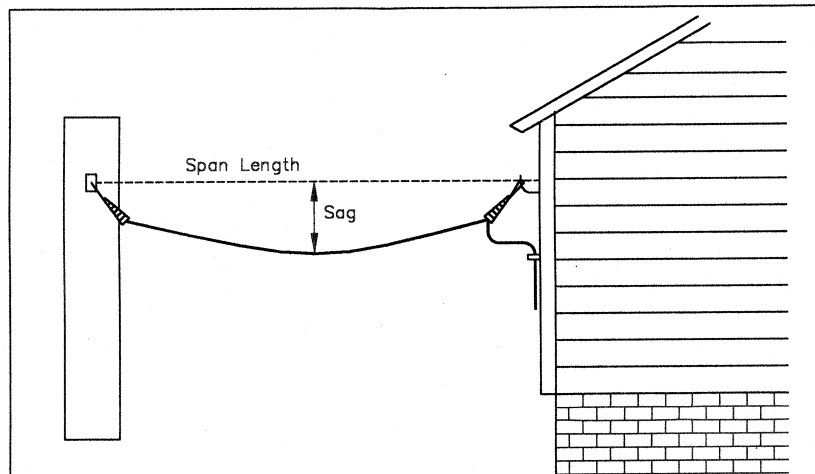


FIGURE B: Aerial service wires whose contact angle (A) is less than five degrees and/or whose adjacent span lengths are different by less than 25 percent.

ITEMS	MATERIALS	NO. REQUIRED
*mg	Hooks, drive	as required
nt	Wire, aerial service	as required
mk	Clamps, drop wire	as required
*mi	Support, drop wire	as required
RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES SERVICE WIRE ATTACHMENT AT INTERMEDIATE POLE		
Scale: NTS		March 2001
		504



MINIMUM STRINGING SAG – COPPER COVERED STEEL REINFORCED (CCSR) and NONMETALLIC REINFORCED (NMR) AERIAL SERVICE WIRES

SPAN LENGTH ft (m)	SAG—MEDIUM AND LIGHT LOADING DISTRICTS	SAG—HEAVY LOADING DISTRICT
100 (30.5) OR LESS	20 in. (510 mm)	20 in. (510 mm)
125 (38)	34 in. (860 mm)	34 in. (860 mm)
150 (46)	4 ft (1.2 m)	4 ft (1.2 m)
175 (53)	5,5 ft (1.7 m)	7 ft (2.1 m)
200 (61)	7 ft (2.1 m)	11 ft (3.4 m)
225 (66.5)	9 ft (2.7 m)	
250 (76)	11 ft (3.4 m)	

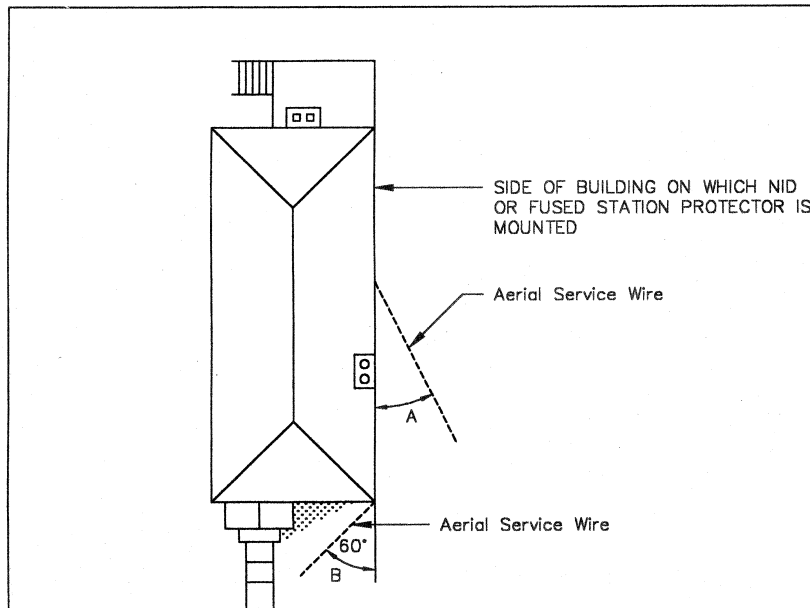
Note: To reduce vibration and dancing, service wire shall be twisted one complete turn for each 10 ft (3 m) of span length at the time installation.

RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES
AERIAL SERVICE WIRE SAGS

Scale: NTS

March 2001

505



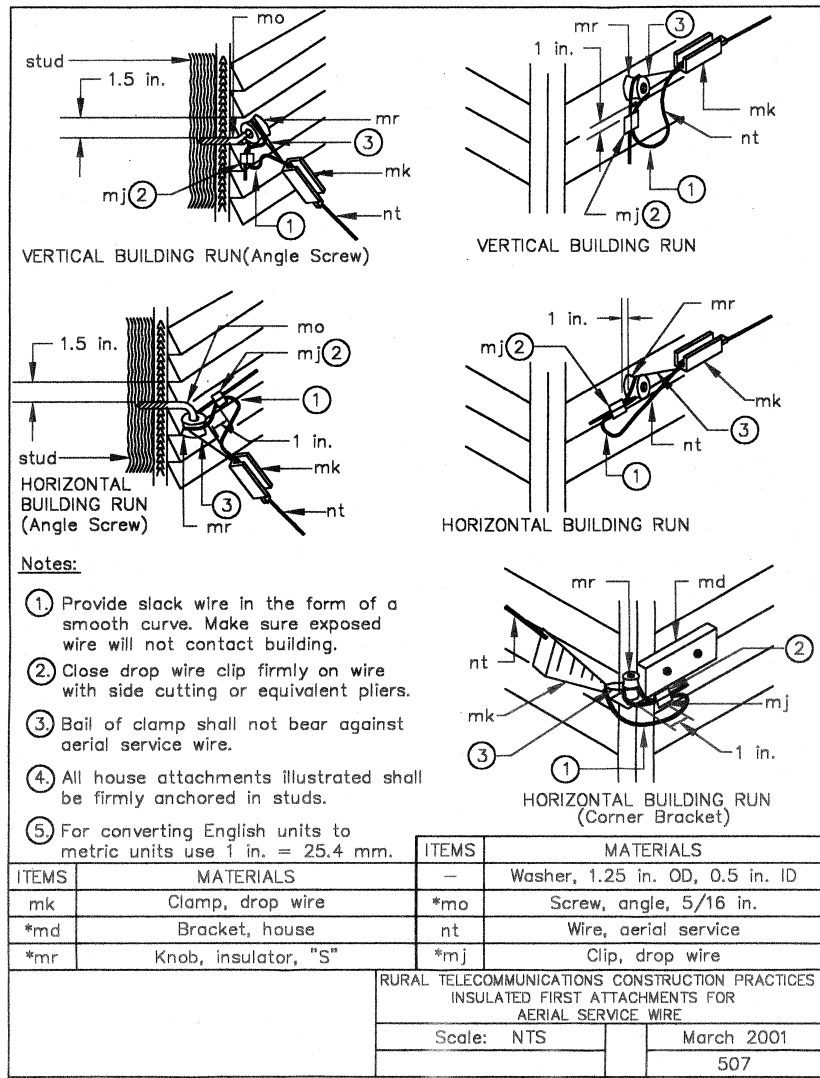
Frame Buildings Where NIDs Containing Fuseless Station Protectors are Used on Fire Resistant Buildings.

Use house hook or drop wire hook for any angle except angle B. When necessary to place service wire within angle B use "S" knob with corner bracket to avoid service wire attachment on front of building.

Frame Buildings Where Fused Station Protectors are Used.

If angle A is less than 30° use "S" knob. If angle A is greater than 30° use "S" knob with 5/16 in. (7.9 mm) angle screw. When necessary to place service wire within angle B use "S" knob with corner bracket to avoid service wire attachments on front of buildings.

		RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES	
		SELECTION OF SERVICE WIRE ATTACHMENT	
Scale: NTS		March 2001	
		506	



House hook (drop wire hook with wood screw may also be used)

ph

MASONRY

MASONRY OR FULL BRICK VENEER

mw ①

my (house hook may also be used)

my

mk

mk

mk

np

mk

my

np

mk

4 in.

mr

md ①

mk

mj

1 in.

②

Notes:

- ① See Table 4 for appropriate fasteners to be used with attachments. Expansion anchors not required on frame buildings, attachments must be firmly secured in studs.
- ② Provide slack wire in the form of a smooth curve.
- ③ For converting English units to metric units use 1 in. = 25.4 mm.

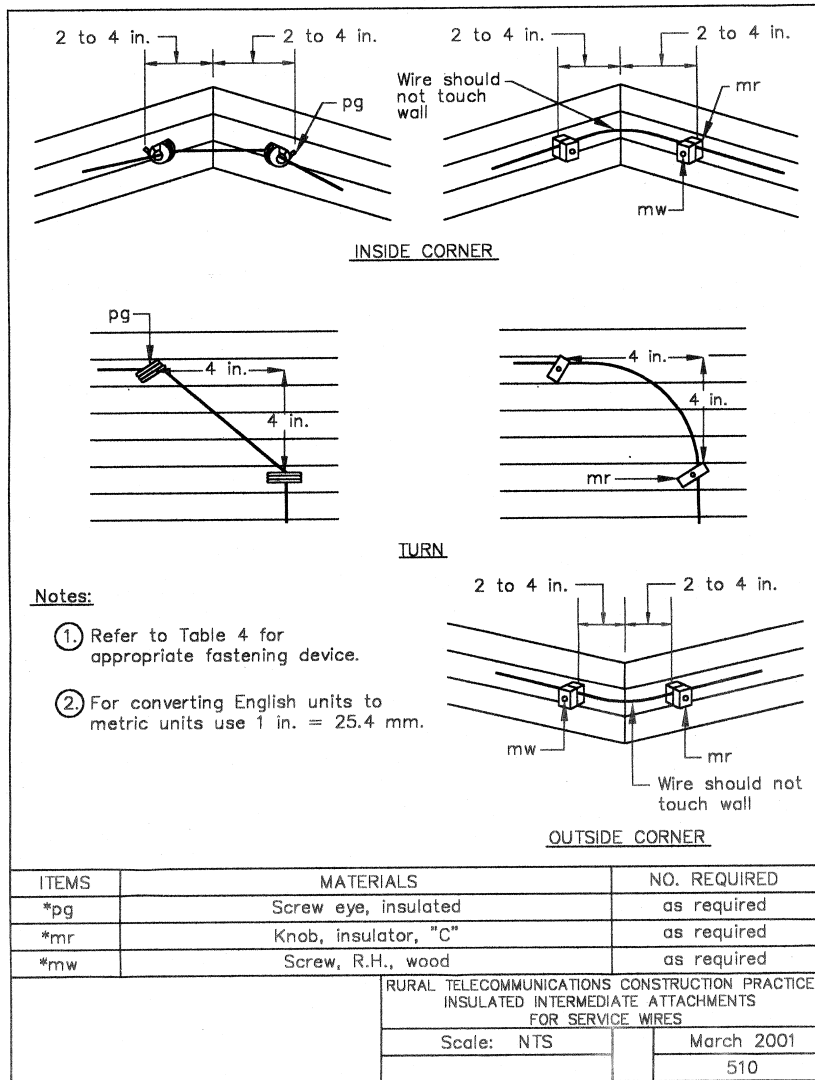
ITEMS	MATERIALS	ITEMS	MATERIALS
		*mw	Screw, R.H., stainless steel, wood
mk	Clamp, drop wire	*my	Hook, drop wire
*md	Bracket, house	*ph	Anchor, expansion
*mr	Knob, insulator, "S"	np	Clamp, cable
-	Hook, house	*mj	Clip, drop wire

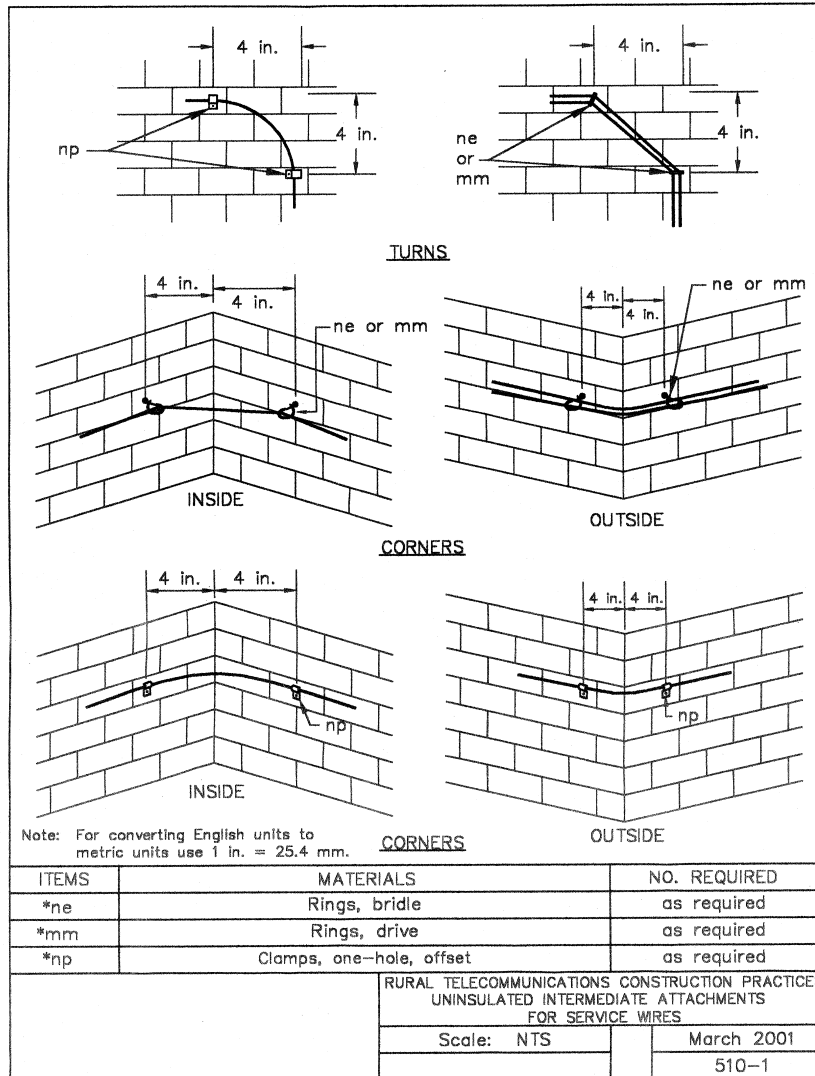
RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES
UNINSULATED FIRST ATTACHMENTS FOR
AERIAL SERVICE WIRE

Scale: NTS

March 2001

508-1





SKETCH A: Buried Service Above Grade Entrance

SKETCH B: Aerial Service Wire - Aerial Service Entrance

SKETCH C: Buried Service - Below Grade Entrance

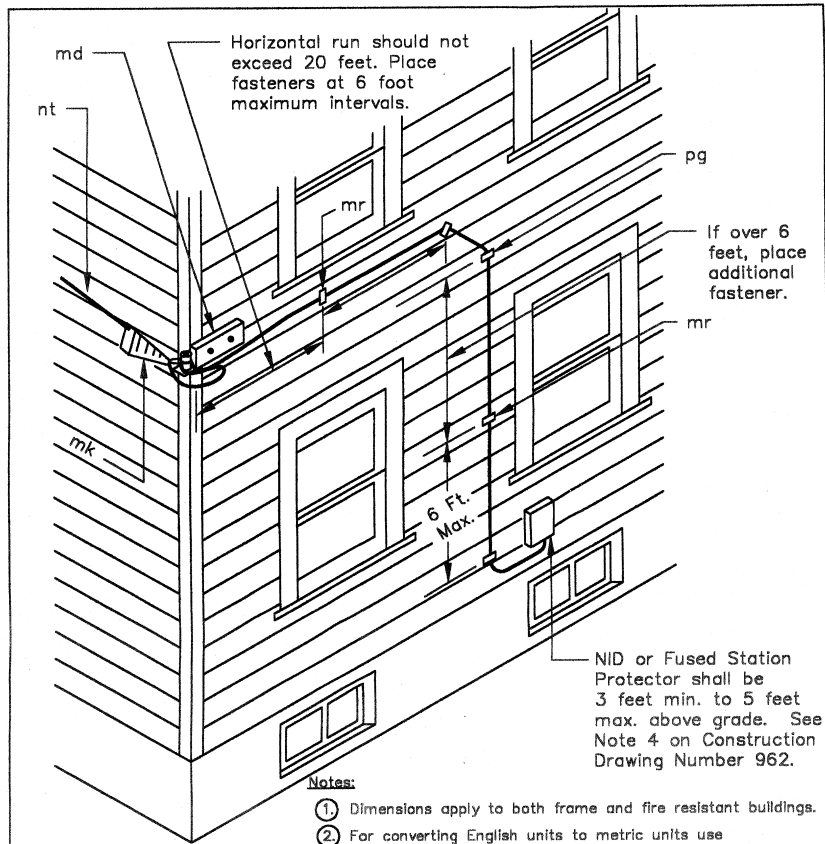
Notes:

- ① The first attachment of the buried wire to the building should be located approximately 4 inches above the ground. The remaining attachments shall be spaced approximately 14 inches apart.
- ② A porcelain or plastic tube shall be employed only when insulated attachments are required for support of aerial service wire on buildings.
- ③ Entrance hole shall be drilled to slope slightly upward. Except where a porcelain or plastic tube is required, all wires entering the hole shall be taped for a tight fit. When the aerial service wire approaches from above the entrance hole, a drip loop shall be made as shown.
- ④ Insert short piece of aerial service wire to cushion "C" knob.
- ⑤ Seal both ends of hole or conduit with duct seal.
- ⑥ For converting English units to metric units use 1 in. = 25.4 mm.

ITEMS	MATERIALS	ITEMS	MATERIALS
*mr	Knob, insulator, "C"	*mw	Screw, wood
nt	Wire, aerial service	sa/sc	Wire or cable, filled, buried
-	Tube, plastic	sp	Sealer, duct
*np	Clamp, one-hole, offset		

RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES
SERVICE ENTRANCES

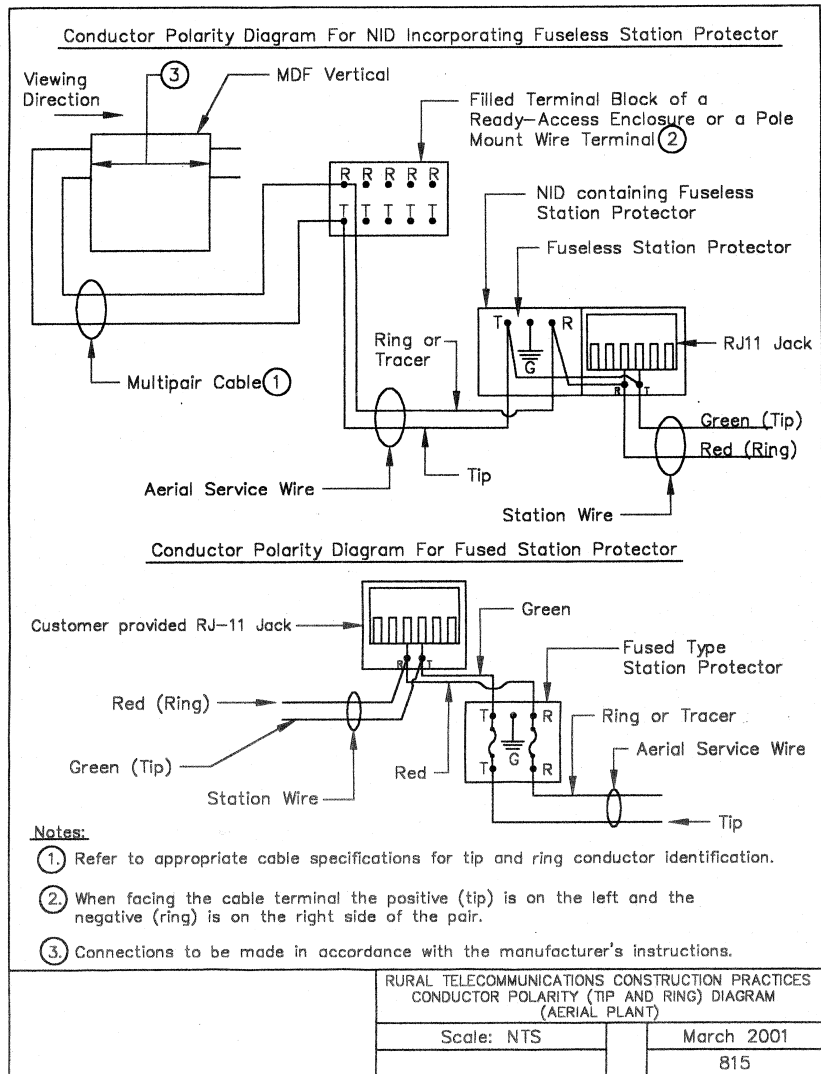
Scale: NTS	March 2001
510-2	

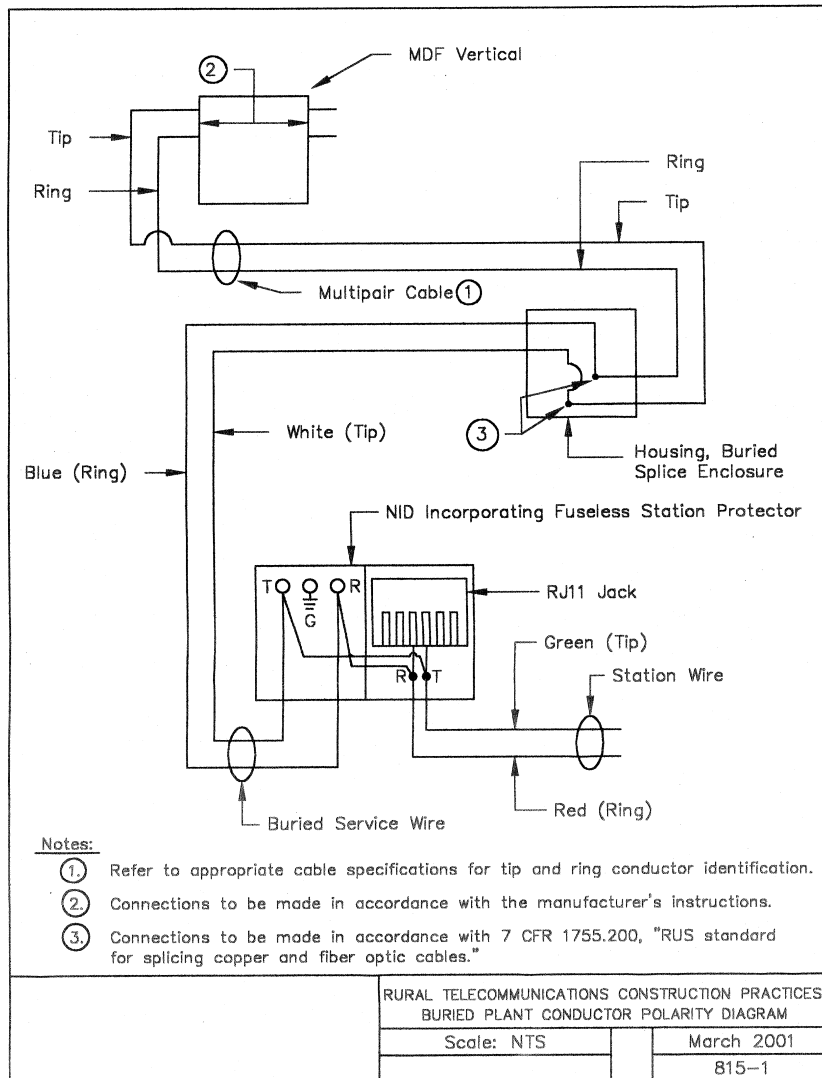


Notes:

- ① Dimensions apply to both frame and fire resistant buildings.
- ② For converting English units to metric units use 1 ft = 0.3048 m.

ITEMS	MATERIALS	ITEMS	MATERIALS
mk	Clamp, drop wire	nt	Wire, aerial service
*md	Bracket, corner	*pg	Screweyes, porcelain, insulated
*mr	Knob, "C"	*mr	Knob, insulator
RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES AERIAL SERVICE WIRE RUN ON BUILDINGS			
Scale: NTS		March 2001	
513			





The diagram illustrates the installation of a marker on a cable. On the left, a cable with a shielded bonding connector is shown with a marker (tm) and a wire tie. On the right, the same cable is shown with a marker (tm) and a cable tie. Labels include 'Tape over shield bonding connector', 'tm', 'Wire tie', and 'Cable tie'.

Notes:

- Markers shall be installed on all buried wires and cables at each housing as shown in 7 CFR 1755.200.
- The marker shall be wrapped around the cable in a manner such that the printed portion of the marker is completely covered and protected by at least one layer of transparent tape. On cables too large for this to be accomplished with a single marker, a second marker shall be applied so that the clear tape of the second marker provides protection for the printed portion of the first. The information shall be legibly printed and shall be readily visible.
- The markers shall contain the following information unless indicated otherwise by the Borrower or Borrower's Engineer.

Buried Service Wire:

Line 1 - Subscribers identification (Such as: name, telephone number, or address)

Buried Cable or Wire:

Line 1 - Nearest sequential marking
 Line 2 - Direction of cable or wire
 Line 3 - Cable reel number
 Line 4 - Name of cable manufacturer
- Other methods or materials of directional marking may be used when specified by the Borrower or the Borrower's Engineer.

Buried Service Wire Marker

Line 1	Tom Brown 5671234	
--------	----------------------	--

Transparent tape

Printing area

Buried Cable Marker

Line 1	3461	
Line 2	West to Housing 18	
Line 3	Reel #6942	
Line 4	Manufacturer	

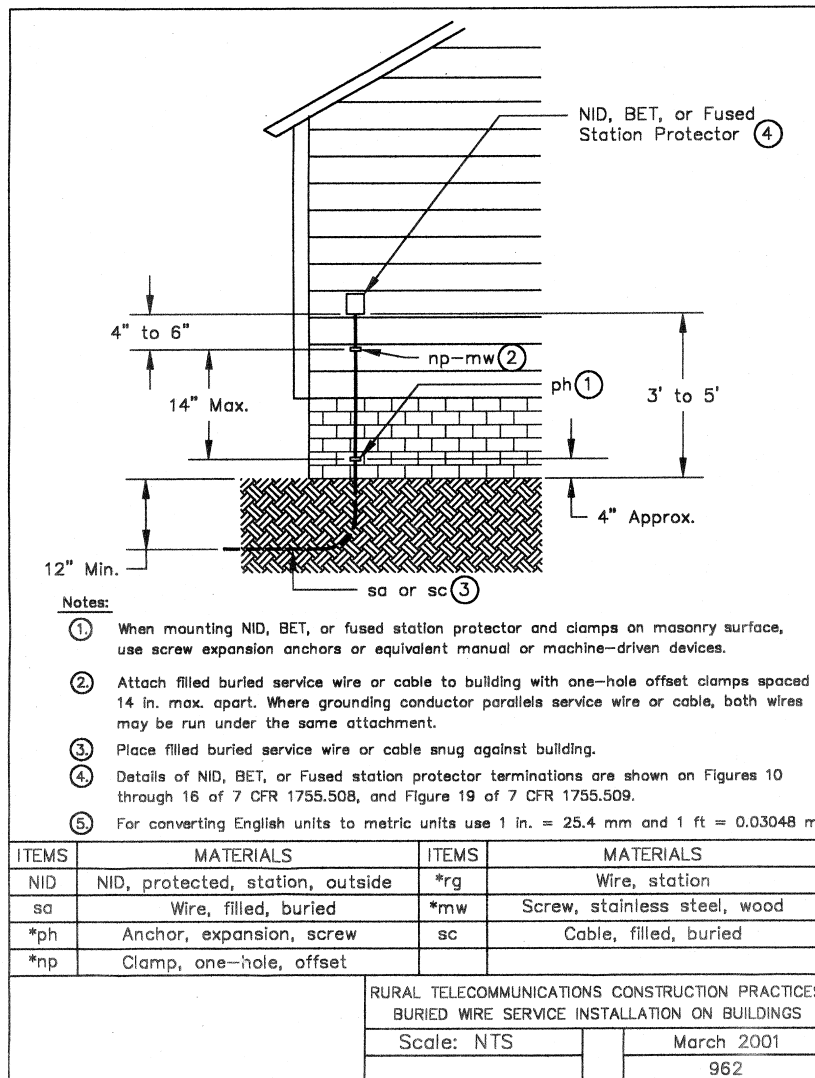
Transparent tape

Printing area

ITEM	MATERIAL	NO. REQ'D
*tm	Tape, marker	as required

RURAL TELECOMMUNICATIONS CONSTRUCTION PRACTICES
BURIED CABLE AND WIRE DIRECTIONAL MARKING

Scale: NTS	March 2001
958	



[66 FR 43327, Aug. 17, 2001]

§§ 1755.511–1755.521 [Reserved]

§ 1755.522 RUS general specification for digital, stored program controlled central office equipment.

(a) *General.* (1) This section covers general requirements for a digital tele-

phone central office switching system, which is fully electronic and controlled by stored program processors. A digital switching system transfers information which is digitally encoded from any input port to a temporarily addressed exit port. The information may enter