

Section M - Pilasters, Terminal Poles

ES54 M0	General	
M0-02	General Notes	
ES54 M1	Pilaster on Wood Poles	
M1-01	Pilaster on Wood Poles	
ES54 M2	Pilaster on Concrete Poles	OBSOLETE
ES54 M3	High Pilaster	
M3-01	High Pilaster	
ES54 M4	Pilaster on Wood Poles with Galvanized Steel Culvert	
M4-01	Pilaster on Wood Poles Galvanized Steel Culvert	

DESIGNED	RECOMMENDED	ACCEPTED	ENGINEER OF RECORD	PILASTERS, TERMINAL POLES TABLE OF CONTENTS	
 M. KELVIN	 L. STEVANOVIC	 F. DENNERT	 2017-02-15	PAGE 1 OF 1 ES54 M0-01 R 2	
DISTRIBUTION STANDARDS 					

REVISIONS:

Scope

This section covers the installation of pilasters and ducts on wooden poles.

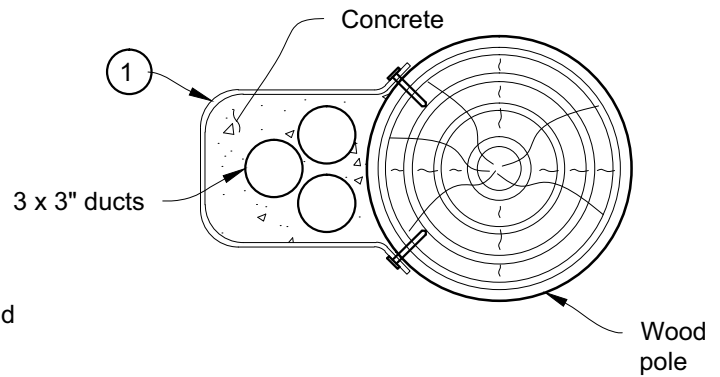
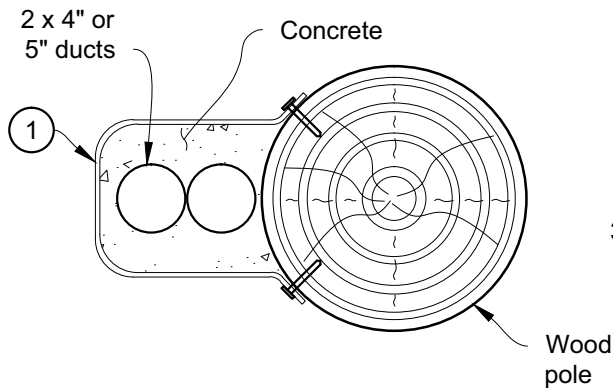
Number of Ducts

The maximum number of ducts in pilasters shall comply with the following table.

Table 1: Maximum Combination of Ducts

Type of Pilaster	No. of Ducts	Size of Duct (mm)
Small pilaster	1	125
	1	100
	2	75
Large pilaster	2	125
	2	100
	3	75

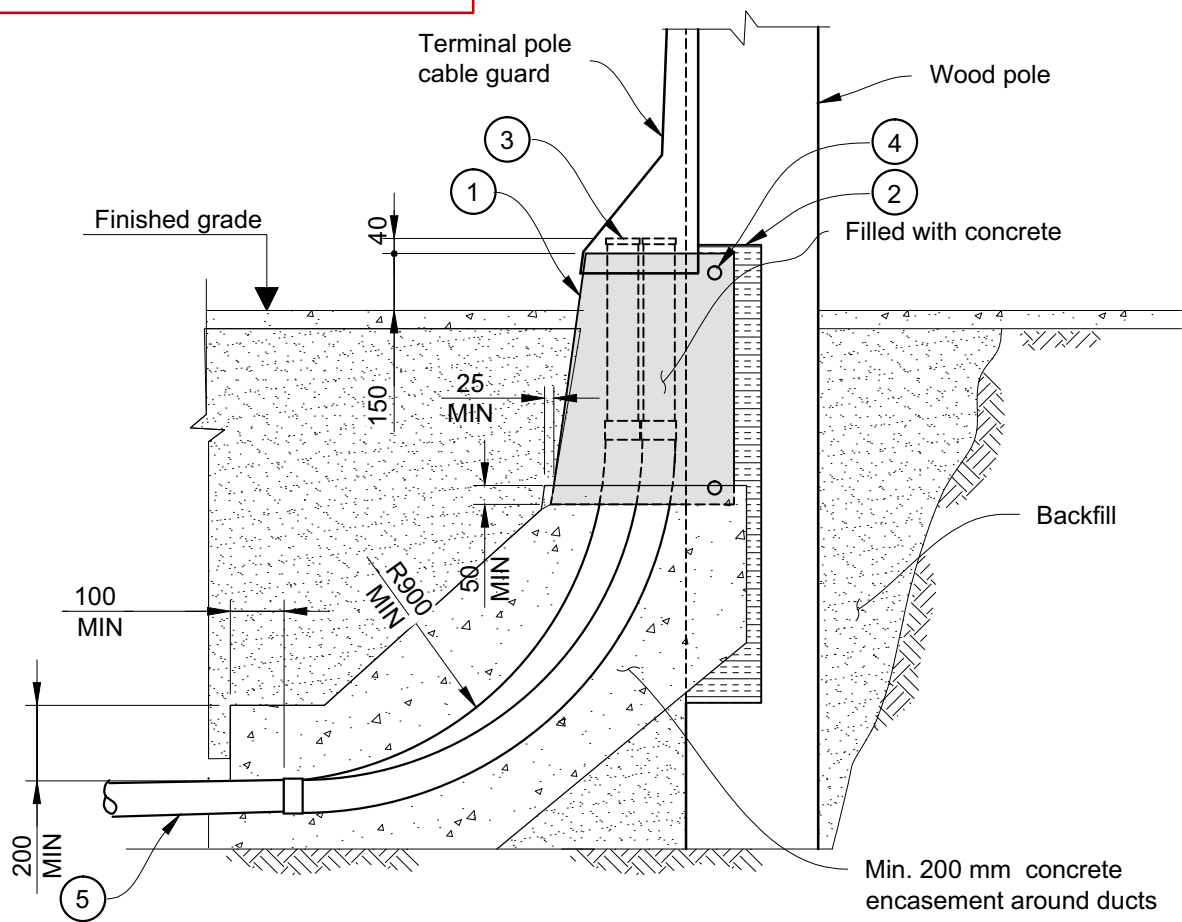
DESIGNED  M. KELVIN	RECOMMENDED  L. STEVANOVIC	ACCEPTED  F. DENNERT	ENGINEER OF RECORD  2017-02-15	GENERAL NOTES			
DISTRIBUTION STANDARDS 				ISSUED: MAR 2016 REPLACES: N/A ORIGINALLY ISSUED: MAR 2016	PAGE 1 OF 1	ES54 M0-02	R 0



CAUTION:

Pole ground electrodes shall not be encased in concrete

Plan



Elevation

REVISIONS: R.3 - PILASTER ELEVATION RAISED MAR '16 MK

DESIGNED  M. KELVIN	RECOMMENDED  L. STEVANOVIC	ACCEPTED  F. DENNERT	ENGINEER OF RECORD  2017-02-15	PILASTER ON WOOD POLES	
DISTRIBUTION STANDARDS 		ISSUED: MAR 2016 REPLACES: JUL 2002 ORIGINALLY ISSUED: MAR 1980		PAGE 1 OF 2	ES54 M1-01.01
					^R 3

Notes

1. Caps on ducts in pilaster shall not be cemented.
2. Cover the entire contact area on the pole with 0.5 m x 1.4 m sheet of clear 4 mil thick polyethylene. Install the duct bends and secure temporarily to the pole above the pilaster position with wire.
3. Secure the fibreglass pilaster to the pole with common nails.
4. Encase the concrete past 50 mm at the bottom line of the pilaster.
5. Backfill to finished grade and fill the fibreglass pilaster with concrete mix.
6. The BC Hydro Designer shall ensure that the pole ground electrode is not encased in concrete. The ground electrode shall be accessible for future maintenance and testing.
7. For pole quadrant designation refer to ES54 M0-02.

Bill of Material

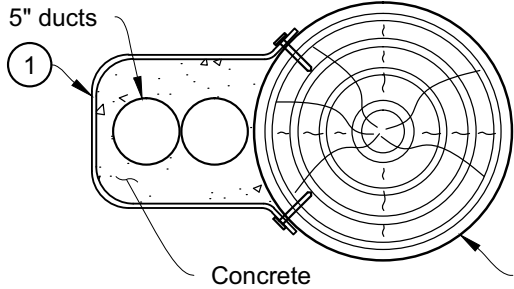
Item	Description	Catalogue ID	Quantity	Supplied By
1	Pilaster large	400-0543	1	BC Hydro
	Pilaster small	400-0533		
2	Polyethylene cover	N/A	1	Contractor
3	75 mm duct caps	401-0173	As required	Contractor
	100 mm duct caps	96021451	As required	Contractor
	125 mm duct caps	401-0175	As required	BC Hydro
4	75 mm common nails	N/A	4	Contractor
5	75 mm duct, 90 deg. elbow	400-4021	As required	Contractor
	100 mm duct, 90 deg. elbow	96021350	As required	Contractor
	125 mm duct, 90 deg. elbow	400-4035	As required	BC Hydro
6	Concrete mix	N/A	As required	Contractor

Reference Standards

ES53 M1-01	Structures on Wood Poles
ES53 M1-02	Structures on Wood Poles
ES54 Z8-01	Pilasters, Guards, and Adapters and Pole Mounting Hardware

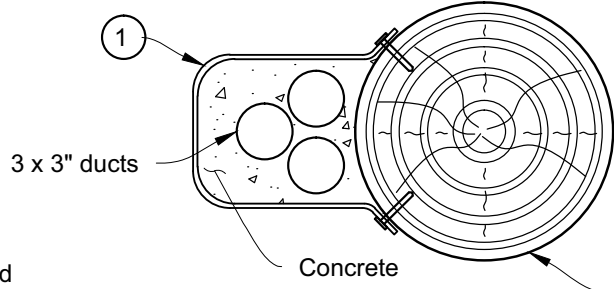
DESIGNED  M. KELVIN	RECOMMENDED  L. STEVANOVIĆ	ACCEPTED  F. DENNERT	ENGINEER OF RECORD  2017-02-15	PILASTER ON WOOD POLES	
DISTRIBUTION STANDARDS 	ISSUED: MAR 2016 REPLACES: JUL 2002 ORIGINALLY ISSUED: MAR 1980	PAGE 2 OF 2	ES54 M1-01.02		R 3

2 x 4" or
5" ducts



Concrete

Wood
pole



3 x 3" ducts

Concrete

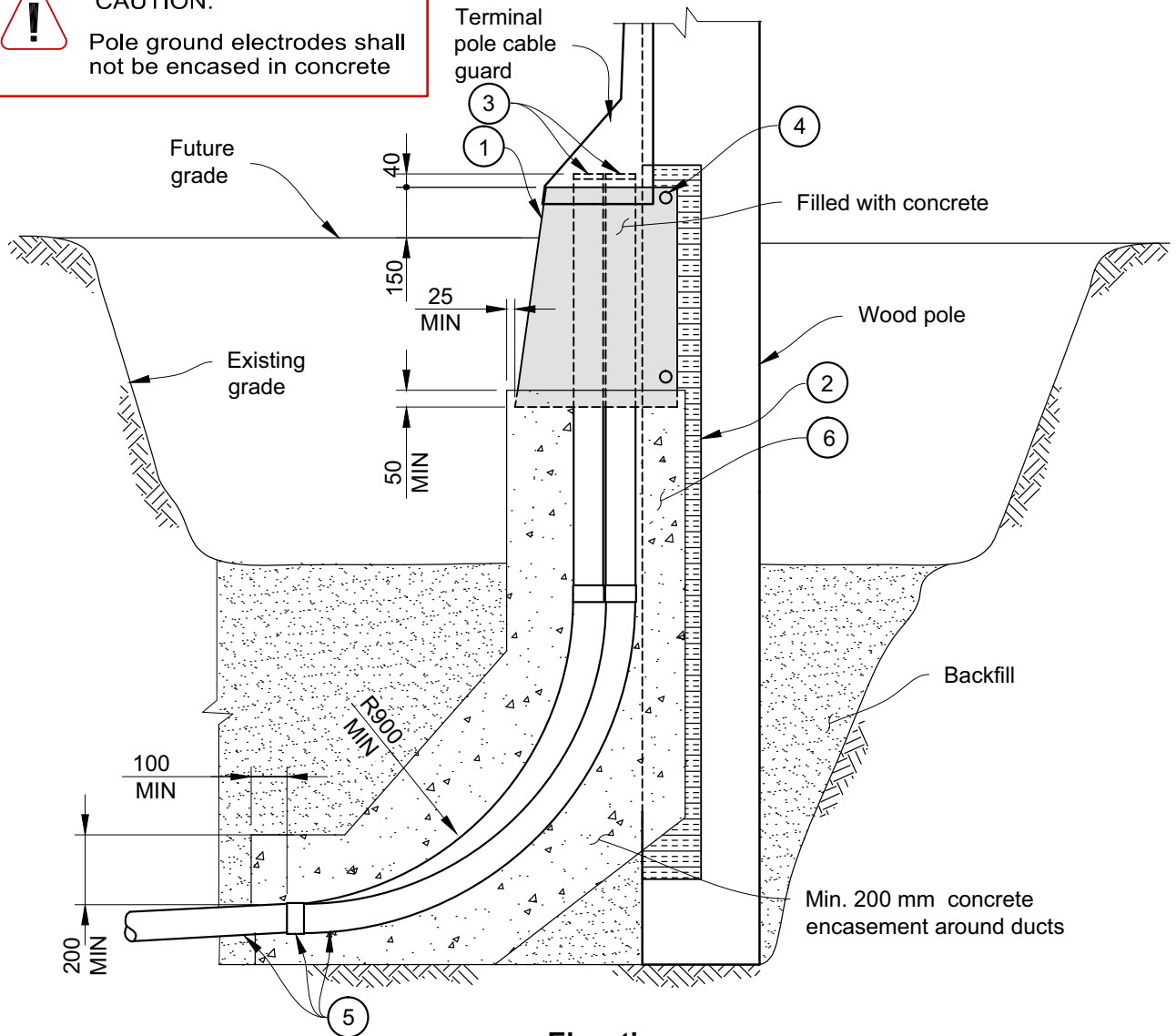
Wood
pole

Plan



CAUTION:

Pole ground electrodes shall
not be encased in concrete



Elevation

REVISIONS: R.2 - PILASTER ELEVATION RAISED. MAR '16 MK

DESIGNED  M. KELVIN	RECOMMENDED  L. STEVANOVIC	ACCEPTED  F. DENNERT	ENGINEER OF RECORD  2017-02-15	HIGH PILASTER	
DISTRIBUTION STANDARDS 	ISSUED: MAR 2016 REPLACES: JUL 2002 ORIGINALLY ISSUED: MAR 1980			PAGE 1 OF 2	ES54 M3-01.01
					R 2

Notes

1. See ES54 M1-01 for pilaster installation.
2. The concrete encasement below grade shall be equal to or more than the length of concrete encasement above ground.
3. The BC Hydro Designer shall ensure that the pole ground electrode is not encased in concrete. The ground electrode shall be accessible for future maintenance and testing.
4. For pole quadrant designation, refer to ES54 M0-02.

Bill of Material

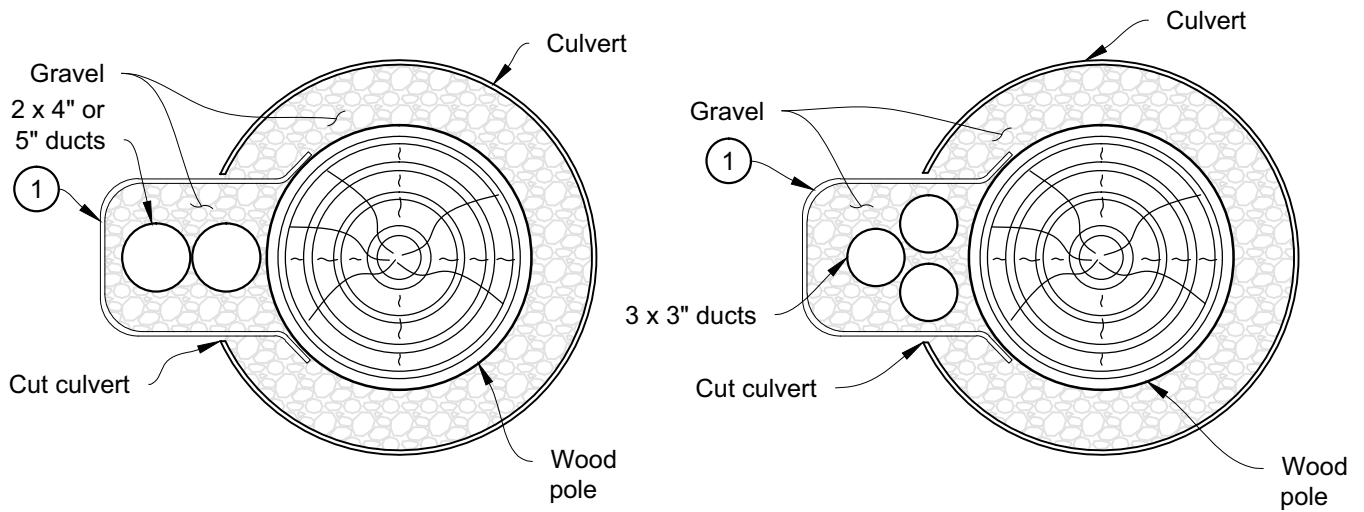
Item	Description	Catalogue ID	Quantity	Supplied By
1	Pilaster large	400-0543	1	BC Hydro
	Pilaster small	400-0533		
2	Polyethylene cover	N/A	1	Contractor
3	75 mm duct caps	401-0173	As required	Contractor
	100 mm duct caps	96021451	As required	Contractor
	125 mm duct caps	401-0175	As required	BC Hydro
4	75 mm common nails	N/A	4	Contractor
5	75 mm duct, 90 deg. elbow	400-4021	As required	Contractor
	100 mm duct, 90 deg. elbow	96021350	As required	Contractor
	125 mm duct, 90 deg. elbow	400-4035	As required	BC Hydro
6	Concrete mix	N/A	As required	Contractor

Reference Standards

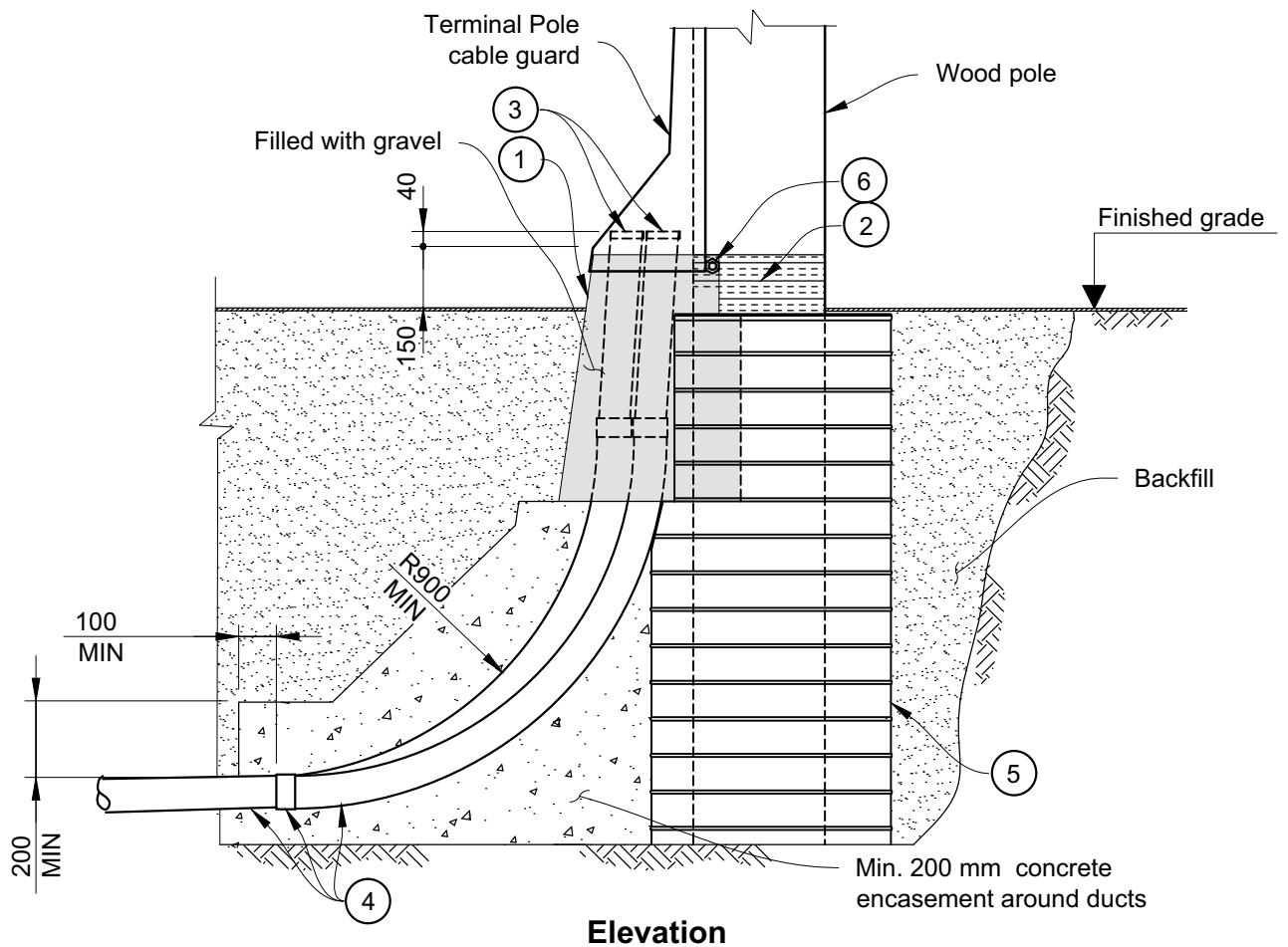
ES53 M1-01	Structures on Wood Poles
ES53 M1-02	Structures on Wood Poles
ES54 Z8-01	Pilasters, Guards, and Adapters and Pole Mounting Hardware

DESIGNED  M. KELVIN	RECOMMENDED  L. STEVANOVIC	ACCEPTED  F. DENNERT	ENGINEER OF RECORD  2017-02-15	HIGH PILASTER	
DISTRIBUTION STANDARDS 		ISSUED: MAR 2016 REPLACES: JUL 2002 ORIGINALLY ISSUED: MAR 1980		PAGE 2 OF 2	ES54 M3-01.02 R 2

REVISIONS: R.2 - PILASTER ELEVATION RAISED. MAR '16 MK



Plan



Elevation

DESIGNED  M. KELVIN		RECOMMENDED  L. STEVANOVIC	ACCEPTED  F. DENNERT	ENGINEER OF RECORD  2017-02-15	PILASTER ON WOOD POLES GALVANIZED STEEL CULVERT			
REVISIONS:	DISTRIBUTION STANDARDS 			ISSUED: MAR 2016 REPLACES: N/A ORIGINALLY ISSUED: MAR 2016		PAGE 1 OF 2	ES54 M4-01.01	R 0

Notes

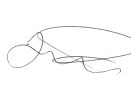
1. See ES54 M1-01 for pilaster installation.
2. Galvanized metal culvert shall be used as pole ground electrode.
3. For pole quadrant designation refer to ES54 M0-02.

Bill of Material

Item	Description	Catalogue ID	Quantity	Supplied By
1	Pilaster large	400-0543	1	BC Hydro
	Pilaster small	400-0533		
2	Polyethylene cover	N/A	1	Contractor
3	75 mm duct caps	401-0173	As required	Contractor
	100 mm duct caps	96021451	As required	Contractor
	125 mm duct caps	401-0175	As required	BC Hydro
4	75 mm duct, 90 deg. elbow	400-4021	As required	Contractor
	100 mm duct, 90 deg. elbow	96021350	As required	Contractor
	125 mm duct, 90 deg. elbow	400-4035	As required	BC Hydro
5	Culvert	N/A	1	Contractor
6	75 mm common nails	N/A	2	Contractor
7	Concrete mix	N/A	As required	Contractor

Reference Standards

ES53 M1-01	Structures on Wood Poles
ES53 M1-02	Structures on Wood Poles
ES54 Z8-01	Pilasters, Guards, and Adapters and Pole Mounting Hardware

DESIGNED  M. KELVIN	RECOMMENDED  L. STEVANOVIC	ACCEPTED  F. DENNERT	ENGINEER OF RECORD  2017-02-15	PILASTER ON WOOD POLES GALVANIZED STEEL CULVERT	
DISTRIBUTION STANDARDS 			ISSUED: MAR 2016 REPLACES: N/A ORIGINALLY ISSUED: MAR 2016		PAGE 2 OF 2
				ES54 M4-01.02	R 0

REVISIONS: