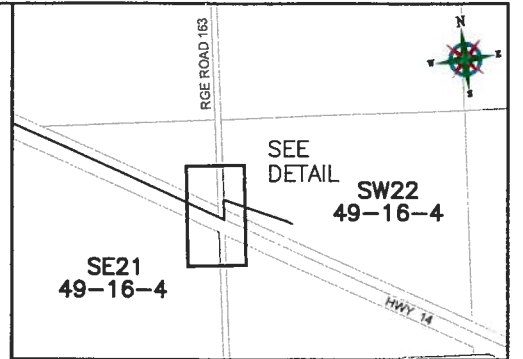


NOTES

- CONTRACTOR TO ARRANGE CNR S&C LOCATES AND FLAGGING PRIOR TO CONSTRUCTION.
- CABLE WARNING MARKERS ARE TO BE PLACED AT HANDHOLE LOCATION, AND NO CLOSER THAN 4.6m (15FT) TO THE RAIL, AND WHERE POSSIBLE CONDUIT CHANGES DIRECTION.
- "Construction, maintenance, and operation of the line shall be in accordance with Transport Canada General Orders E-11 and E-12 and C.S.A. Standards CAN/CSA-C22.3 No. 1-06 and CAN3-C22.3 No.7-06 as applicable."
- CONDUIT TO BE INSTALLED AT 1.2m(4") DEPTH ON CNR RIGHT-OF-WAY.
- CABLE SHEATH MAKEUP - SINGLE POLYETHYLENE JACKET, SINGLE ARMOR FIBRE OPTIC CABLE. METHOD OF INSTALLATION: BORED
- METHOD OF CONSTRUCTION: HORIZONTAL DIRECTIONAL DRILL WITH DRILLING MUD PRESSURE USED TO KEEP HOLE OPEN WHILE BRINGING BACK PIPE.



SAMPLE
UNDERGROUND
COMMUNICATION CROSSING

PLAN SHOWING TYPICAL CONDUIT FOR
FIBRE OPTIC CABLE
CROSSING
**CANADIAN NATIONAL
RAILWAY**
WITHIN
S.W.1/4 SEC. 22 TWP. 49 RGE. 16 W.4 M.
BEAVER COUNTY

LEGEND

	RG-6 DROP CABLE (UNLESS OTHERWISE NOTED)		GAS	GAS LINE		EXISTING TRANSFORMER		EXISTING CATV PED
	TRENCH LINE		WTR	WATER		STREET LIGHT		EXISTING BELL PED
	PROPOSED PEDESTAL		PWR	UNDERGROUND HYDRO		WATER VALVE		HYDRO POLE
	PROPOSED PEDESTAL AND VAULT		BELL	UNDERGROUND BELL		FIRE HYDRANT		BELL POLE
	PROPERTY LINE		TEL	EXISTING CATV		TREE		ROGERS POLE
	RIGHT OF WAY		CATV	EXISTING CATV		SIGN		MAIL BOX
	FACE OF CURB		X	FENCE		GUY AND ANCHOR		SEWER GRATE
	EDGE OF PAVEMENT		SAN	SANITARY SEWER		PANEL		GROUND
	SIDEWALK		STRM	STORM SEWER		VAULT		BOLSTER
	RAILROAD		PIPELINE	PIPELINE		MANHOLE		CROSSING
			CARRIER PIPE	CARRIER PIPE				CROSSING

HAND DIG WITHIN
1 METER
OF UNDERGROUND SERVICES

REV	DATE	DESCRIPTION
1	APR. 16/09	SUBMISSION
0	FEB. 2/09	PRELIMINARY

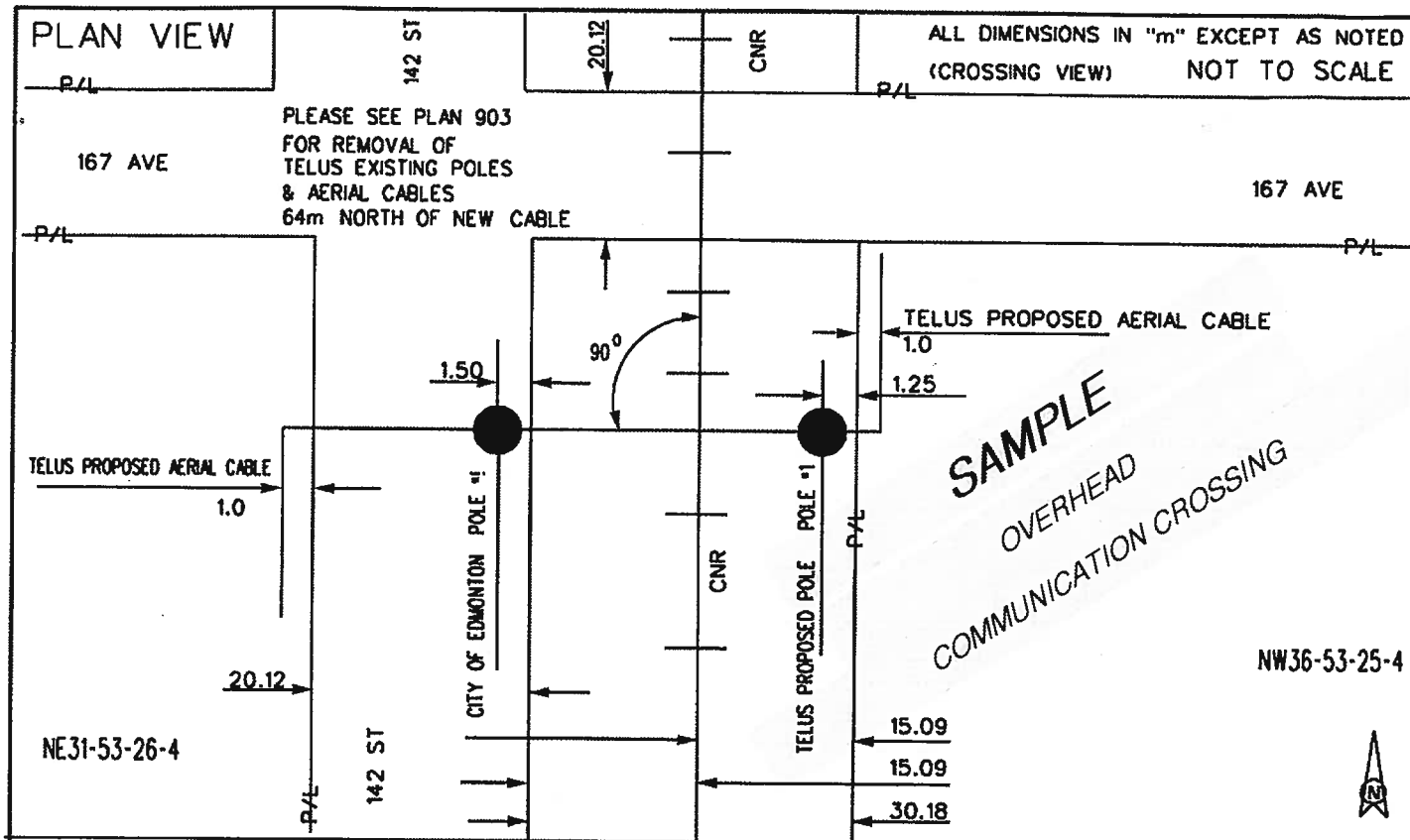
REVISIONS

ROGERS CONTACTS			
Glen McIndless ROGERS CABLE & TELECOM 8200 Dixie Road Brampton, Ontario L6T 0C1 (647) 747-2972			
KEEN #:	810586	DATE:	09/04/16
DRAWN BY:	AG	DATE:	09/02/09
DESIGN BY:	TM	DATE:	
NETWORK:		DATE:	
APPROVED:	DM	DATE:	09/04/16

8200 Dixie Road
Brampton, Ontario
L6T 0C1

PROJECT NAME:
**RFI FER
HOLDEN RURAL
(ROUTE 'A')**

SCALE AS SHOWN	ROGERS PROJECT # Y080245	SHEET NO. CNR XING
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POLE DATA

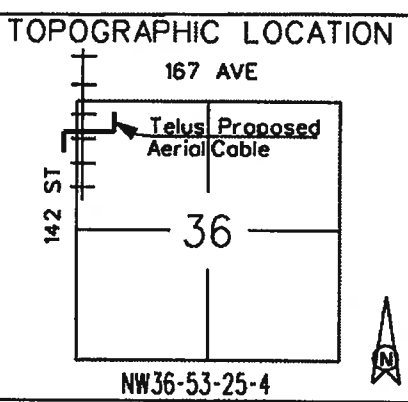
POLE	CLASS	DIMENSIONS				
		B	D	E	F	G
CITY OF EDM #1	5 WOOD	11.0	2.0	9.1m	9.1m	N/A
TELUS #2	5 WOOD	11.0	2.0	9.1m	9.1m	N/A

CO-ORDINATES:

64 m S of N Bdy. and
1 m E of W Bdy. of
SEC. 36 TWP. 53 RGE 25 W 4 M

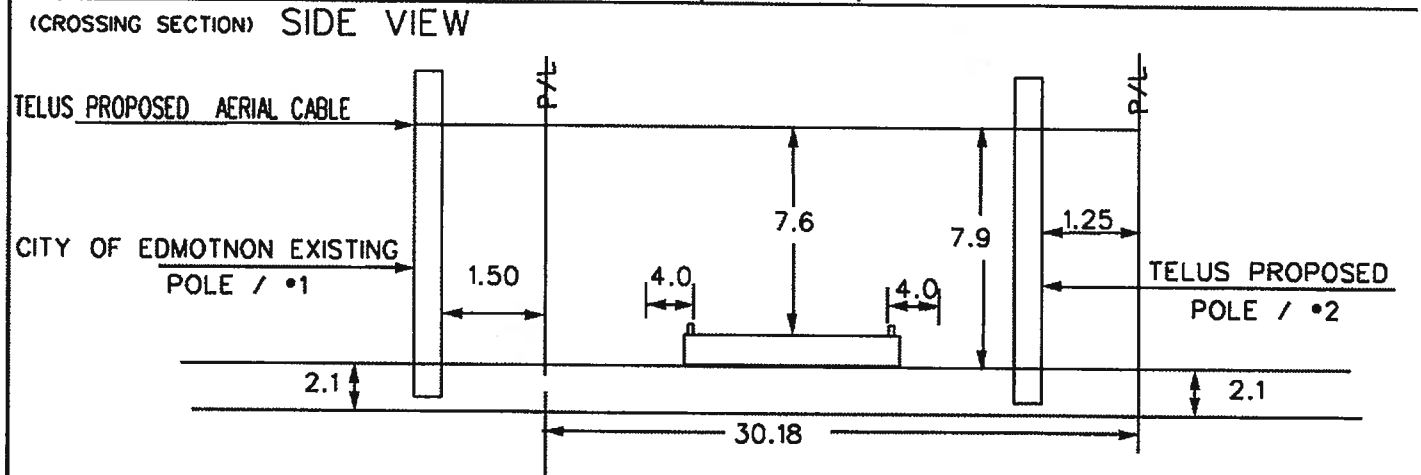
GUY ASSEMBLY DATA

GUY NO	ANC ROD (M)	L (m)	H (m)	S (kN)
N/A	N/A	N/A	N/A	N/A



CONDUCTOR AND MESSENGER DATA

POLE NO.	CABLE POWER	ATTACHMENTS	OVERAL L DIA (mm)	OVERALL MASS (kg/m)	BREAKING STRENGTH (kN)
TELUS #1	48 VA	A2	14.0	.19	46.9
TELUS #2	48 VA	A1	28.7	1.615	46.9



FILE No.:

DATED:

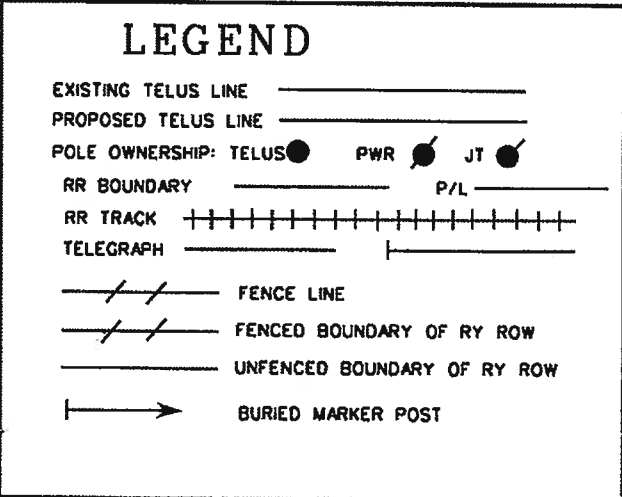
REASON:

Railway Company _____

Railway Description -
Aerial
 Crossing without occupancy
 Crossing with 30.18 m. of occupancy
 _____ m. of occupancy only

MINIMUM VERTICAL CLEARANCE UNDER MAXIMUM SAG CONDITIONS FOR HEAVY SNOW LOADING	
ABOVE RAILS	7.6
ABOVE (OR BELOW) LINE OF SIGHT OF RAILWAY CONDUCTORS	2.4
ABOVE GROUND	7.9

- ### NOTES:
- Construction, maintenance and operation of the line shall be in accordance with railway standards, Transport Canada General Orders E11 & E12 Canadian Standards CAN/CSA-C22.3 No.1 and CAN3-C22.3 No. 7 as applicable.
 - Cable voltage does not exceed 150V line to ground or 300V between any two points of the circuit.
 - Excavation or boring operations shall begin at a minimum of 4 meters from the nearest rail. The railway roadbed must not be disturbed.
 - Contact Railway Company 10 working days prior to construction at telephone number _____
 - Mechanical protection extended to width of right-of-way.



Approved pursuant to Master Agreement between
TELUS Communications Company
and _____ CANADIAN NATIONAL RAILWAY
dated the _____ day of _____

Description of crossing
Subdivision: WESTLOCK
Mileage: 3.21

Effective date: _____

Special Terms: _____

Approved by: _____
Title: _____

ORIGINATOR: SHARON SCHILKE
PHONE NO.: 493-4076
DATE: SEPT. 9/2009

ALTERATION • 1 DATE: Sept. 10/09 2321882

WORK ID: 2321882 EXCH: CASTLE DOWNS

TELUS Form 4189 (99/06)

PLAN NO. 903A