



Ministry of Forests, Lands and
Natural Resource Operations
Omenica Region
Prince George Resource District

Chuchinka-Colbourne FSR
Roadway Widening and Upgrade
Geometric Alignment
Km 31 to Km 33.6

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Stations: 33+223.50 to 33+863.50

ROAD DESIGN SPECIFICATIONS

Design Speed: 30 km/h
Avg. Stab. Road Width: 6.0m
Fav. Grade Max. 10%
Adv. Grade Max 10%

Plan Scale 1:1000

Profile Vert Scale 1:100
Profile Horz Scale 1:1000

Project Location Coordinates

Notes:
- Ground model data obtained by Lidar Survey method by McElhanney Survey Consulting Ltd. Oct. 2013
- 30km/h Speed Limit through the Canyon, remainder designed to minimum 60km/h.

Latitude: 51-15-03
Longitude: -119-53-14
Elevation: 610m
Datum: NAD83
UTM Combined Scale Factor:
n/a

Survey Control Stations

Point Name	Northing	Easting	Elevation	Description

Plan Legend (all may not be applicable)

Profile Legend

—+—

L-line Location

—

Road Edges

—

Cleaning Limits

—

Culverts

GPS Base Station

Old Iron Bar found (tied)

Old Pipe Post found (tie)

Survey Control Points tie

Benchmark

Edge of Wetland

—

Existing Road Edges

—

Breakline

—

Powerline

—

Draw

Test Pit

Stream

Tension Crack

Timberline

Cut / Fill limits

Powerpole

—

Finished Road Surface

—

Profile Subgrade

—

Cut / Fill limits

—

Original Ground

1st Stratum

2nd Stratum (Rock)

Ditch Invert Right

Ditch Invert Left

Curve Table (Da = deflection angle for a 10m arc.)

	29, C28	30, C29	31, C30	32, C31	33, C32	34, C33
IP Stn.	33+297.75	33+343.47	33+395.32	33+492.65	33+585.84	33+639.62
IP X	526532.99	526516.76	526543.76	526578.92	526623.01	526779.11
IP Y	6057540.84	6057583.60	6057632.60	6057723.40	6057805.54	6058005.73
BC Stn.	33+293.34	33+311.10	33+381.88	33+480.31	33+568.83	33+773.54
Arc. Len.	8.79	60.65	26.83	24.64	33.93	105.92
EC Stn.	33+302.14	33+371.75	33+408.72	33+504.95	33+602.76	33+879.46
Radius	65.00	70.00	200.00	200.00	200.00	70.00
Angle	-7°45'01"	49°38'28"	-7°41'14"	7°03'27"	9°43'09"	86°41'40"
Tangent	4.40	32.38	13.44	12.33	17.00	66.07
Da, a=10.00	8°48'53"	8°11'06"	2°51'53"	2°51'53"	2°51'53"	8°11'06"
Design Speed	40.00	40.00	40.00	40.00	40.00	40.00

EARTH WORK VOLUMES (Bank cubic meters)

L-Stn m.	Strip V. Cu. m.	SG Cut V. Cu. m.	SG Fill V. Cu. m.	B/W Vol. Cu. m.	Srf1 Fill V. Cu. m.
33+400.00	666.4	3247.7	1648.3	-1700.0	669.8
33+600.00	296.6	525.8	388.9		532.3
33+800.00	279.1	4.0	1345.7	1070.0	561.6
34+000.00					
Pg. Tot.	1202.1	3777.5	3383.9		1763.6
Cum. Tot.	4692.2	14278.3	8745.2		8556.3

CULVERT TABLE

L-Stn m.	Cul DIA mm.	Cul Len m.	Cul Len L m.	Cul Len R m.	Cul Skew deg.	Cul Cmt
33+328.19	600	12.44	6.34	6.10	90.00000	xdrain
33+458.20	600	13.00	7.00	6.00	93.00000	xdrain

SOIL TYPES

ROAD TEMPLATES

OB - Overburden
OR - Organics
SL - Silt
FS - Fine Sand & Silt
SA - Sand
SG - Sand & Gravel
CG - Sand & Course Gravel
SC - Sand/Cobbles/Gravel
GR - Gravel
BO - Boulders
FR - Fractured Rock (Talus)
RR - Riprapable Rock
SR - Solid Rock

TP = Taper template
TO = Turnout Template
8M = 8.0m wide finished running surface
8WS = 8m wide finished running surface with retaining wall

Surfacing depth = 0.3m
Ditch Slopes = 1.5:1 Ditch Depth = 0.3 Width = 0.3
F Slope = Final Slope Left or Right



Prepared by:

Celltic Engineering Ltd.
DESIGN & CONSTRUCTION

Dwg Num: 110-022-003

Survey By: see Notes above
Design By: Edward Folk, P.Eng.
Approved By:

Plot Date: 16/06/29

Design File Name: Colbourne FSR Road upgrade\110-022-003- Road Design\Design File\Road Eng\Chuchinka-

