

Paluch, Alisha TRAN:EX

From: Ahmo, George TRAN:EX
Sent: Monday, March 25, 2013 4:20 PM
To: King, Spencer TRAN:EX
Cc: Siddiqui, Faisal TRAN:EX; Babineau, John TRAN:EX
Subject: 23269 H33 Mills to Muir Collision Data

Spencer,

As requested, collision history for Highway 33.

LKI: July 2011

Segment 1327

LKI 125.2 to LKI 128.9, ~ 500 m east of Muir to ~ 500 m west of Mills respectively



Collision Details Report: 3/27/2013...
Collision Summary Report: 3/27/2013...
Collision Summary Report: 3/27/2013...
Collision Summary Report: 3/27/2013...

Please contact me if you have any questions,

George Ahmo

Regional Traffic EIT

Ministry of Transportation and Infrastructure | Southern Interior Region

250 819 1599, George.Ahmo@gov.bc.ca

Collision Details Report

Location:

Highway:	33	Segment:	1327	KM:	126.7	Node:		Place:	KELOWNA	On:	33	At:	ROXBY
Collision Case No:	R4189715					Police File No:	12 1986			Severity:	Personal injury		
Collision Date:	2012-01-13					Speed Limit (Km/h):	50 - Posted			Weather Condition:	Clear		
Collision Time:	20:34					Advisory Speed Limit:	Unknown			Road Surface:	Dry		
Police Presence:	Attended					Traffic Flow:	Two Way Traffic			Lighting Condition:	Dark/some illum.		
Total Killed:	0					Traffic Control:	Stop sign			Pedestrian Location:	Not applicable		
Total Injured:	1					Number of Lanes:	0			Pedestrian Action:	Not applicable		
Total Vehicles:	2					Road Class:	Unknown			Land Usage:	Business/shopping		
Primary Occurrence:	Intersection 90'					Road Curve:	Unknown			Police Detachment:	Kelowna Mun - RCMP - R		
Collision Location:	At intersection					Road Gradient:	Unknown			Region:	2 - Southern Interior Region		
1st Contact Location:	Off roadway					Road Type:	Asphalt			District:	5 - Okanagan Shuswap District		
										Contract Mgmt. Area:	8 - South Okanagan SA		

	Vehicle 1	Vehicle 2
Direction:	North	Unknown
Vehicle Type:	Passenger car	Passenger car
Vehicle Usage (Stolen):	Personal	Personal
Driver License Class (N/L):	500	500
Pre-collision Action (1st event):	Going straight ahead	Going straight ahead
Second Event:	Other motor vehicle	
Third Event:	Not applicable	Not applicable
Damage Severity:	Moderate	Unknown
First Contributing Factor:		
Second Contributing Factor:		
Third Contributing Factor:		s22
Fourth Contributing Factor:		

Report Date: 2013-03-25

User: s15

Environment: PRD

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Report Number: CIS-002

TRA-2014-00156
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Collision Details Report

Location:

Highway:	33	Segment:	1327	KM:	126.7	Node:		Place:	KELOWNA	On:	33 HWY	At:	ROXBY RD
Collision Case No:	R4392878					Police File No:	12 9392			Severity:	Property damage only		
Collision Date:	2012-02-28					Speed Limit (Km/h):	50 - Posted			Weather Condition:	Clear		
Collision Time:	15:17					Advisory Speed Limit:	Unknown			Road Surface:	Dry		
Police Presence:	Attended					Traffic Flow:	Two Way Traffic			Lighting Condition:	Daylight		
Total Killed:	0					Traffic Control:	Yellw traffic signal			Pedestrian Location:	Not applicable		
Total Injured:	0					Number of Lanes:	4			Pedestrian Action:	Not applicable		
Total Vehicles:	2					Road Class:	Undivided			Land Usage:	Business/shopping		
Primary Occurrence:	Intersection 90'					Road Curve:	Straight			Police Detachment:	Kelowna Mun - RCMP - R		
Collision Location:	At intersection					Road Gradient:	Flat			Region:	2 - Southern Interior Region		
1st Contact Location:	Off roadway					Road Type:	Asphalt			District:	5 - Okanagan Shuswap District		
										Contract Mgmt. Area:	8 - South Okanagan SA		

	Vehicle 1	Vehicle 2
Direction:	North	East
Vehicle Type:	Passenger car	Truck: pickup
Vehicle Usage (Stolen):	Personal	Personal
Driver License Class (N/L):	700(N)	560
Pre-collision Action (1st event):	Making left turn	Going straight ahead
Second Event:	Other motor vehicle	
Third Event:	Not applicable	Not applicable
Damage Severity:	Moderate	Light
First Contributing Factor:		
Second Contributing Factor:		
Third Contributing Factor:		s22
Fourth Contributing Factor:		

Report Date: 2013-03-25

User: s15

Environment: PRD

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Report Number: CIS-002

TRA-2014-00156
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Collision Details Report

Location:

Highway:	33	Segment:	1327	KM:	126.7	Node:		Place:	KELOWNA	On:	33 HWY	At:	ROXBY RD
Collision Case No:	R4464817					Police File No:	12 51414			Severity:	Property damage only		
Collision Date:	2012-09-13					Speed Limit (Km/h):	50 - Posted			Weather Condition:	Cloudy		
Collision Time:	15:07					Advisory Speed Limit:	Unknown			Road Surface:	Dry		
Police Presence:	Attended					Traffic Flow:	Two Way Traffic			Lighting Condition:	Daylight		
Total Killed:	0					Traffic Control:	Stop sign			Pedestrian Location:	Not applicable		
Total Injured:	0					Number of Lanes:	4			Pedestrian Action:	Not applicable		
Total Vehicles:	2					Road Class:	Undivided			Land Usage:	Business/shopping		
Primary Occurrence:	Intersection 90'					Road Curve:	Straight			Police Detachment:	Kelowna Mun - RCMP - R		
Collision Location:	At intersection					Road Gradient:	Flat			Region:	2 - Southern Interior Region		
1st Contact Location:	Off roadway					Road Type:	Asphalt			District:	5 - Okanagan Shuswap District		
										Contract Mgmt. Area:	8 - South Okanagan SA		

	Vehicle 1	Vehicle 2
Direction:	South	East
Vehicle Type:	Sport Utility Vehicle	Passenger car
Vehicle Usage (Stolen):	Business/commercial	Personal
Driver License Class (N/L):	500	500
Pre-collision Action (1st event):	Going straight ahead	Going straight ahead
Second Event:	Other motor vehicle	
Third Event:	Not applicable	Not applicable
Damage Severity:	Severe	Severe
First Contributing Factor:		
Second Contributing Factor:		
Third Contributing Factor:		s22
Fourth Contributing Factor:		

Report Date: 2013-03-25

User: s15

Environment: PRD

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Report Number: CIS-002

TRA-2014-00156
Page 13

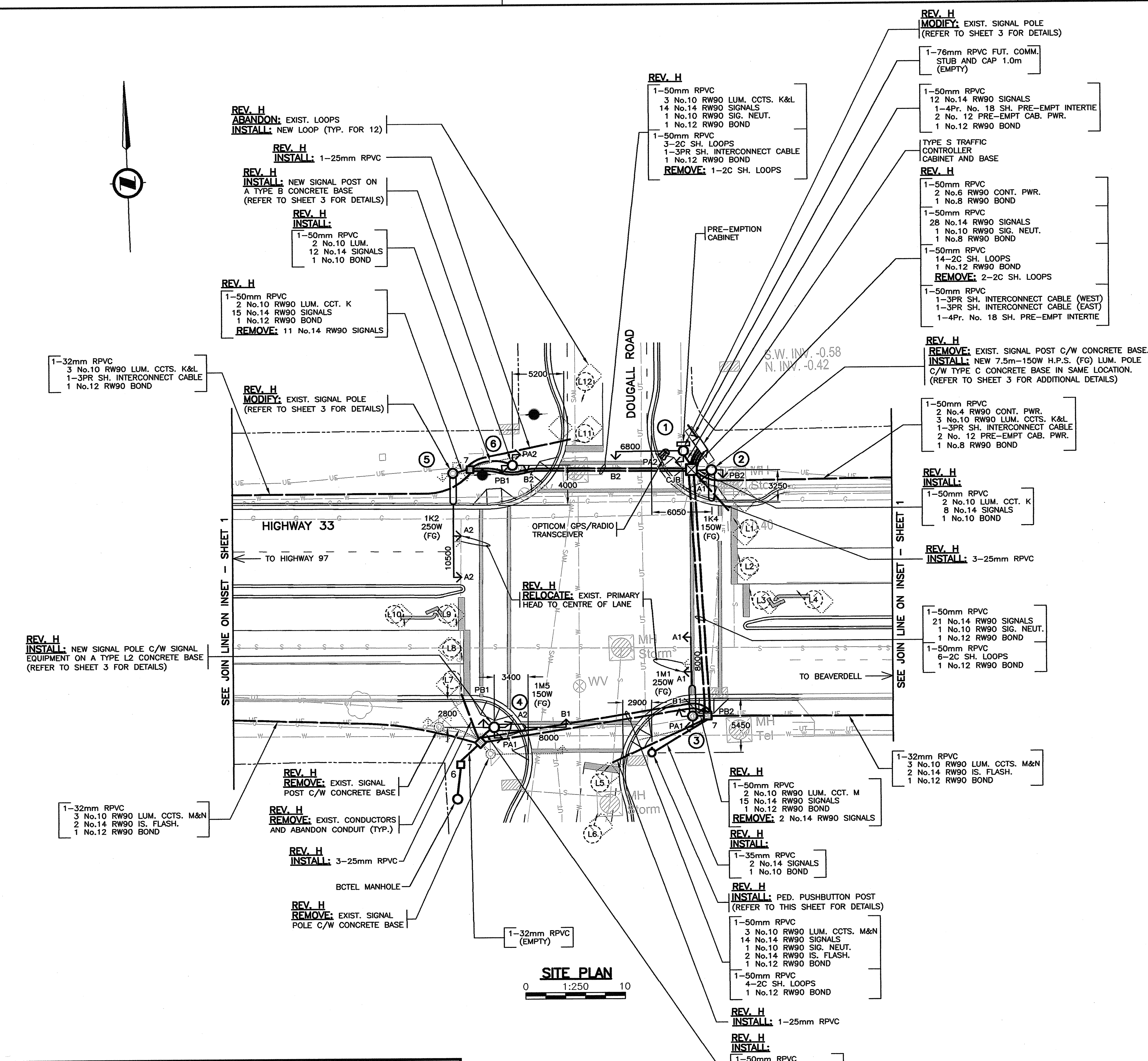
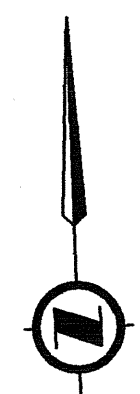
Subset: Highway 33

 \mathbb{Z}_R

Collision Type	Total Killed	Total Injury	Total Vehicle	Primary Occurance	Location Type
			2		
INJ	0	1		2 Intersection 90'	At intersection
PDO	0	0		2 Intersection 90'	At intersection
PDO	0	0		2 Intersection 90'	At intersection

First Contributing Factor for First Vehicle	Road Surface Condition	Weather Conditions	Vehicle 1 Direction
NR		NR	
s22	Dry Dry Dry	Clear Clear Cloudy	North North South

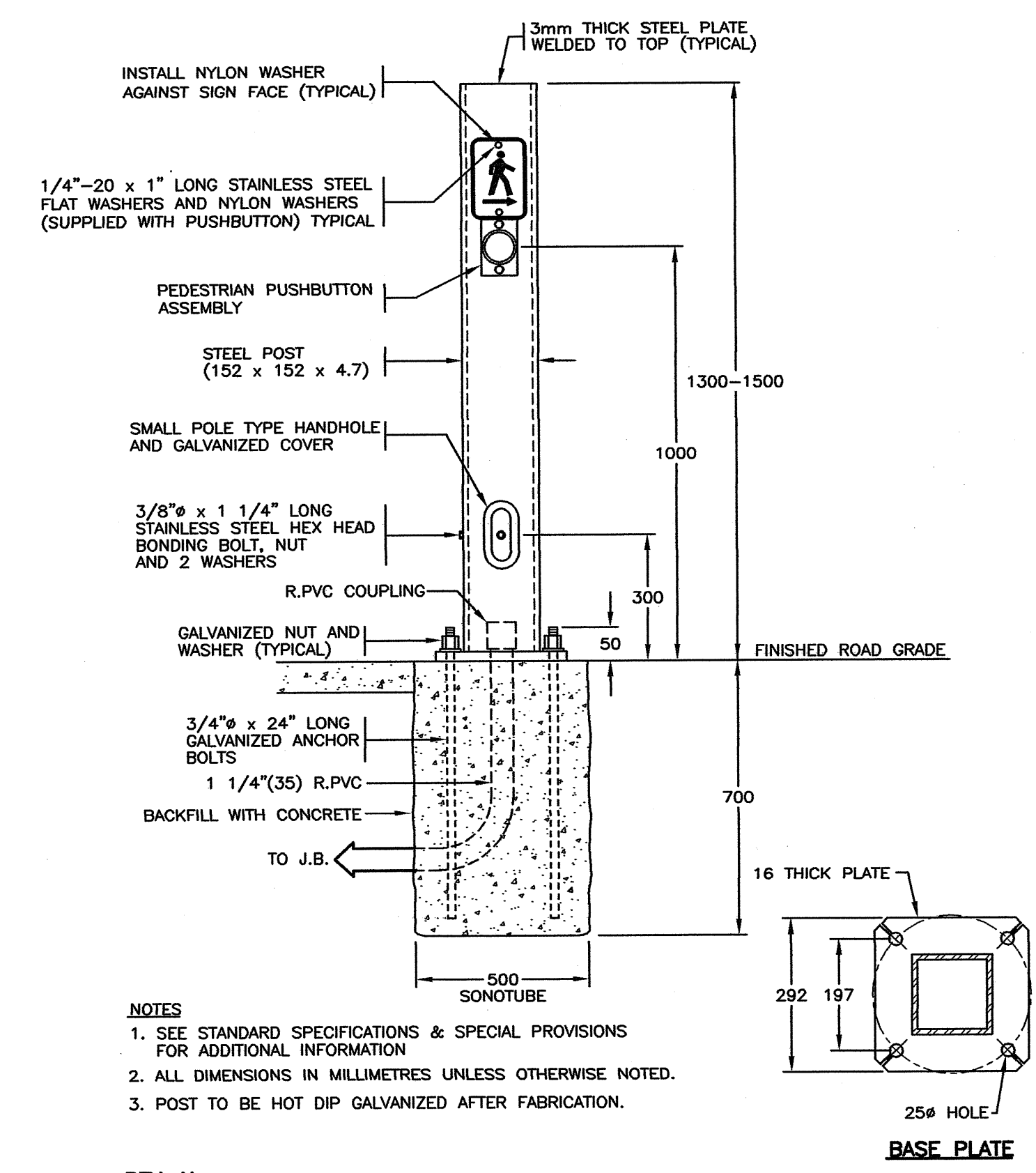
Vehicle 2 Direction	Place	On	At
	$\frac{N}{R}$		
Unknown	KELOWNA		33 ROXBY
East	KELOWNA	33 HWY	ROXBY RD
East	KELOWNA	33 HWY	ROXBY RD



COLOUR CODE		
ITEM	SIGNAL SECTION	CONDUCTOR COLOUR
A1	RED	RED
	YELLOW	YELLOW
	GREEN	BLUE
A2	RED	RED
	YELLOW	YELLOW (RED T.T.)
	GREEN	BLUE
B1	RED	RED
	YELLOW	BROWN
	GREEN	BLUE
B2	RED	RED
	YELLOW	BROWN (ORANGE T.T.)
	GREEN	BLUE
PA1 (CHIRP)	DON'T WALK	YELLOW
	WALK	BLUE
	PUSH BUTTON	PURPLE/PURPLE (YELLOW T.T.)
PA2 (CHIRP)	DON'T WALK	YELLOW (RED T.T.)
	WALK	BLUE
	PUSH BUTTON	PURPLE/PURPLE (RED T.T.)
PB1 (CUCKOO)	DON'T WALK	BROWN
	WALK	BLUE
	PUSH BUTTON	PURPLE/PURPLE (BROWN T.T.)
PB2 (CUCKOO)	DON'T WALK	BROWN (ORANGE T.T.)
	WALK	BLUE
	PUSH BUTTON	PURPLE/PURPLE (ORANGE T.T.)
CONTROLLER POWER		BLACK
LUMINAIRE CTS. 'K&M'		RED
LUMINAIRE CTS. 'L&N'		BLACK
ISLAND FLASHER		ORANGE
NEUTRAL		WHITE
GROUND/BOND		GREEN

NOTE: T.T. DENOTES TAPE TRACER

DETECTOR LOOP DETAILS						
LOOP			INDUCTANCE			PHASE
LOOP No.	SIZE	TURNS	LOOP	LEAD	TOTAL	
L 1	1.8 DIA.	4	95	3	98	A2
L 2	1.8 DIA.	4	95	3	98	A2
L 3	1.8 DIA.	4	95	3	98	A2
L 4	1.8 DIA.	4	95	3	98	A2
L 5	1.8 DIA.	4	95	19	114	B2
L 6	1.8 DIA.	4	95	19	114	B2
L 7	1.8 DIA.	4	95	31	126	A1
L 8	1.8 DIA.	4	95	31	126	A1
L 9	1.8 DIA.	4	95	31	126	A1
L 10	1.8 DIA.	4	95	31	126	A1
L 11	1.8 DIA.	4	95	17	112	B1
L 12	1.8 DIA.	4	95	17	112	B1



REFER TO SHEET 1 FOR NOTES

REFER TO SHEET 3 FOR ELEVATIONS

POSTED SPEED 50 km/h

DO NOT USE THIS DRAWING FOR PAVEMENT MARKING STANDARDS

ALL DIMENSIONS ARE IN MILLIMETERS EXCEPT WHERE NOTED

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" FOR APPLICABLE STANDARD DRAWINGS

CHECK BEFORE YOU DIG
CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR.

OVERHEAD POWER LINE CONFLICTS
CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES LTD.

PRE-EMPTION CONDUCTOR LABELLING			
ITEM	LABEL	COLOUR	CONDUCTOR TYPE
PRE-EMPT. ENCLOSURE PWR.	N/A	BLACK/WHITE	RW90
GPS/RADIO SENSOR CABLE	S1	N/A	GPS/RADIO ANTENNA CABLE
PRE-EMPT. INTERTIE	PRE-INT	N/A	BELDEN 9389

INTERSECTION ILLUMINANCE DESIGN CRITERIA		
ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
INTERSECTION NAME	HIGHWAY 33/DOUGALL ROAD	
PEDESTRIAN CONFLICT AREA	MEDIUM	
ROAD CLASSIFICATION	MAJOR/MAJOR	
ILLUMINATION LEVEL (AVG.)	26 LUX	30.6 LUX
UNIFORMITY RATIO (AVG./MIN.)	3:1	2.0:1

ALL EQUIPMENT IS EXISTING EXCEPT WHERE NOTED

DMD & Associates Ltd.
#12-17358 104A Avenue, Surrey, BC, Canada V4N 5M3
www.dmdeng.com 604/589-9010
office@dmdeng.com Fax 604/589-9012
DMD PROJECT No. 4143-13-05 of 08

REV	DATE	REVISIONS	DRAWN
B	MAR/08	RECORD DRAWING	UNIQUE
C	FEB/00	REMOVAL OF EMERGENCY PRE-EMPTION	NJP
D	SEP/01	REMOVAL OF LOOPS ON RTE 97. RECORD DRAWING.	KCH
E	JAN/08	GPS BASED PRE-EMPTION ADDED	CDC
F	MAR/10	RECORD DRAWING	ABC
G	MAY/13	LIGHTING REVISION TO SUIT BUS PULL OUTS	BK
H	JUL/13	SIGNAL REVISION TO SUIT CHANGE IN GEOMETRICS	ML

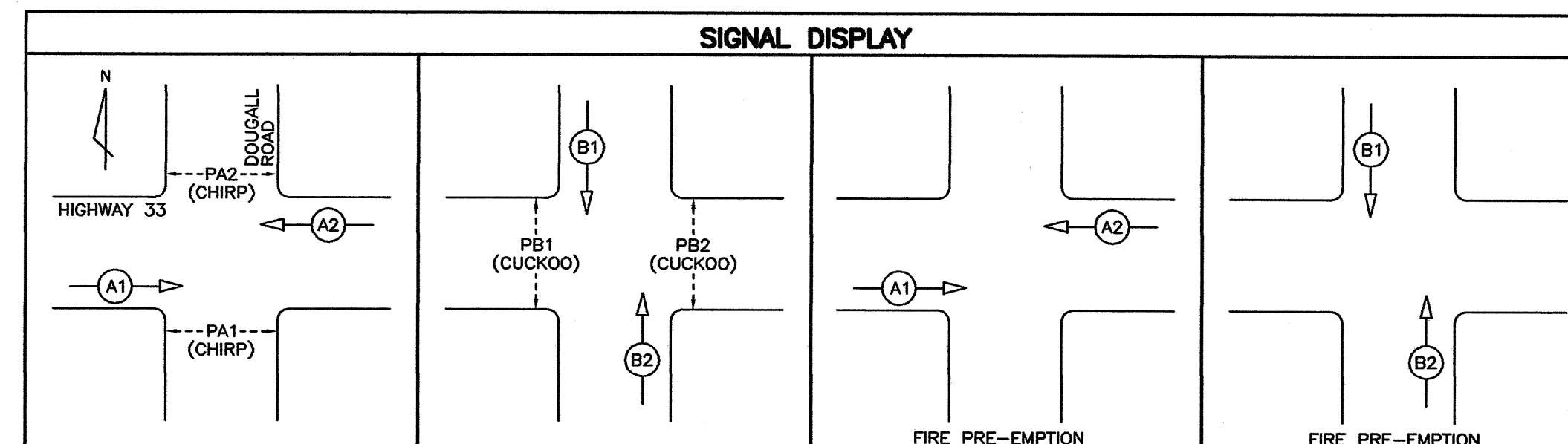
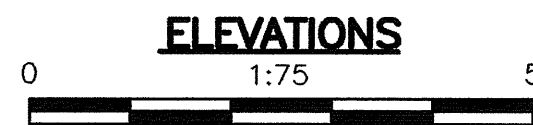
BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE
ELECTRICAL ENGINEERING CENTRE





SIGNAL AND LIGHTING REVISION
HIGHWAY 33 AT DOUGALL ROAD AND ROXBY STREET
KELOWNA

SITE PLAN ENLARGEMENT - COLOUR CODE - DETAILS

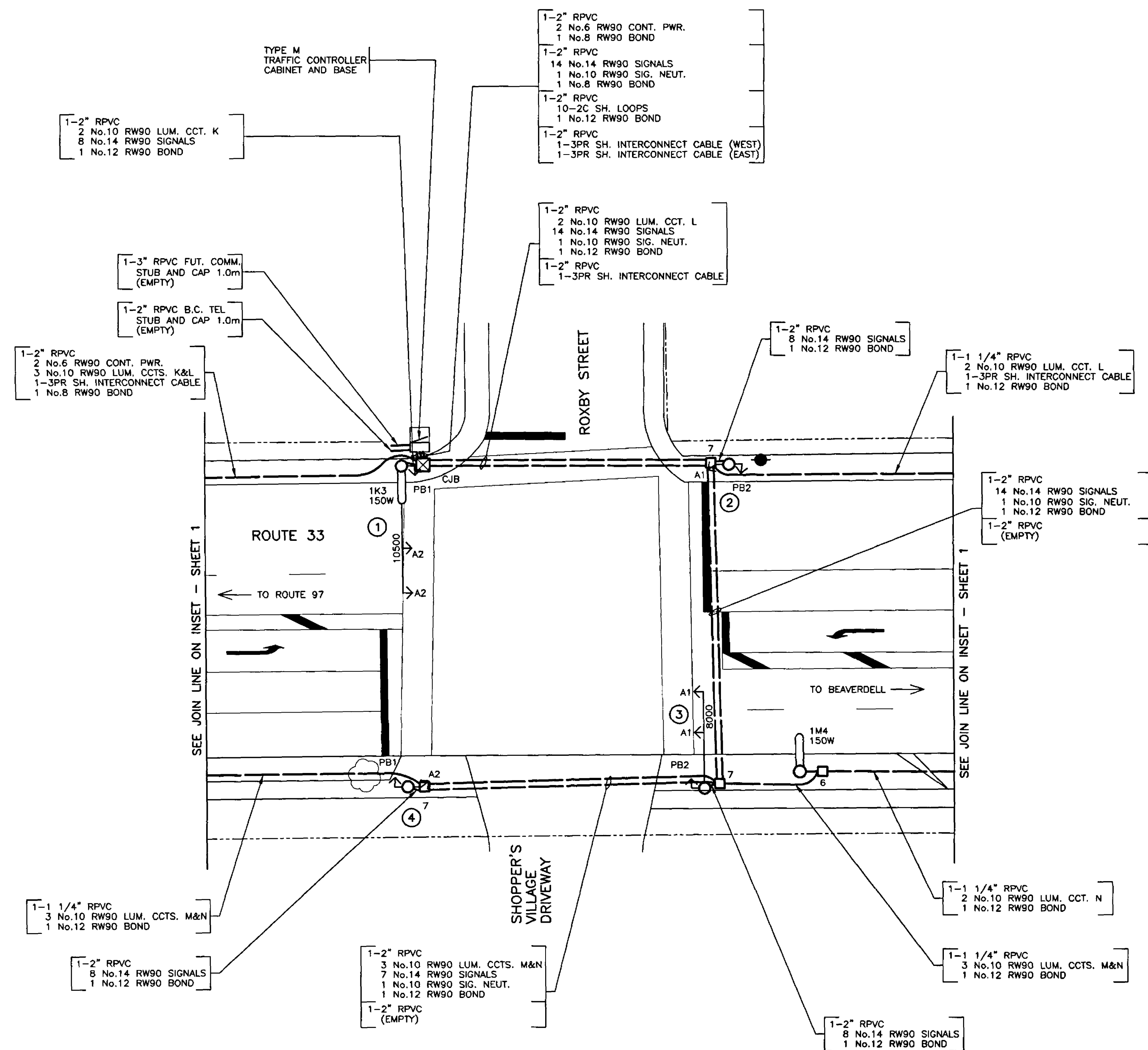
DESIGNED	MS	DATE	JUL/13
QUALITY CONTROL	DJW	DATE	JUL/13
TRAN ELECTRICAL DESIGN REVIEW	DP	DATE	JUL/13

ELECTRICAL ENGINEER OF RECORD (FOR CURRENT REVISION)
DATE: JUL 09 2013
SHEET NUMBER: 2 OF 5
SITE: 4143-13-05
HWY DIST: 5
REG: 2
DRAWING NUMBER: TE-95013-2



 DMD & Associates Ltd. #112-17358 104A Avenue, Surrey, BC, Canada V4N 5M3 www.dmdeng.com 604/589-9010 office@dmdeng.com Fax: 604/589-9012 DMD PROJECT NO. 4143-13-06 of 08				 BRITISH COLUMBIA MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE ELECTRICAL ENGINEERING CENTRE																																			
CAD FILENAME: <u>990133G.dwg</u>				SIGNAL AND LIGHTING REVISION HIGHWAY 33 AT DOUGLAL ROAD AND ROXBYS STREET KELOWNA																																			
<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>REVISIONS</th> <th>DRAWN</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>MAY95</td> <td>NEW CONTROLLER, SPLIT PHASES AND RE-CONFIGURED LOOPS</td> <td>UNIQUE</td> </tr> <tr> <td>B</td> <td>MAR96</td> <td>RECORD DRAWING</td> <td>UNIQUE</td> </tr> <tr> <td>C</td> <td>FEB00</td> <td>REMOVAL OF EMERGENCY PRE-EMPTION</td> <td>NJP</td> </tr> <tr> <td>D</td> <td>SEP01</td> <td>LOOP TABLE REVISED. RECORD DRAWING.</td> <td>KCH</td> </tr> <tr> <td>E</td> <td>JAN06</td> <td>GPS BASED PRE-EMPTION ADDED</td> <td>LCB</td> </tr> <tr> <td>F</td> <td>MAR10</td> <td>MODIFIED SIGNAL DISPLAY & RECORD DRAWING</td> <td>ABC</td> </tr> <tr> <td>G</td> <td>JUL13</td> <td>NEW POLES, SIGNAL DISPLAYS AND AUDIBLES ADDED</td> <td>ER</td> </tr> </tbody> </table>				REV	DATE	REVISIONS	DRAWN	A	MAY95	NEW CONTROLLER, SPLIT PHASES AND RE-CONFIGURED LOOPS	UNIQUE	B	MAR96	RECORD DRAWING	UNIQUE	C	FEB00	REMOVAL OF EMERGENCY PRE-EMPTION	NJP	D	SEP01	LOOP TABLE REVISED. RECORD DRAWING.	KCH	E	JAN06	GPS BASED PRE-EMPTION ADDED	LCB	F	MAR10	MODIFIED SIGNAL DISPLAY & RECORD DRAWING	ABC	G	JUL13	NEW POLES, SIGNAL DISPLAYS AND AUDIBLES ADDED	ER	ELEVATIONS - WIRING DIAGRAM - DETAILS <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;">  ELECTRICAL ENGINEER OF RECORD (FOR CURRENT REVISION) DATE <u>JUL 09 2013</u> </div> <div style="width: 20%; text-align: center;">  </div> <div style="width: 30%;"> DESIGNED <u>MS</u> DATE <u>JUL/13</u> QUALITY CONTROL <u>DJW</u> DATE <u>JUL/13</u> QUALITY ASSURANCE <u>DJW</u> DATE <u>JUL/13</u> TRAN ELECTRICAL DESIGN REVIEW <u>SP</u> DATE <u>JULY/13</u> </div> </div>			
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SHEET NUMBER		SITE CODE	HWY DIST	REG	DRAWING NUMBER																																		
SHEET	3 OF 5		5	2	TE-95013-3																																		

CANCEL PRINTS BEARING PREVIOUS LETTER



COLOUR CODE		
ITEM	SIGNAL SECTION	CONDUCTOR COLOUR
A1	RED YELLOW GREEN	RED YELLOW BLUE
A2	RED YELLOW GREEN	RED YELLOW (RED T.T.) BLUE
PB1	DON'T WALK WALK PUSH BUTTON	BROWN BLUE PURPLE/PURPLE (BROWN T.T.)
PB2	DON'T WALK WALK PUSH BUTTON	BROWN (ORANGE T.T.) BLUE PURPLE/PURPLE (ORANGE T.T.)
CONTROLLER POWER		BLACK
LUMINAIRE CTS. 'K&W'		RED
LUMINAIRE CTS. 'L&N'		BLACK
ISLAND FLASHER		ORANGE
NEUTRAL		WHITE
GROUND/BOND		GREEN

NOTE: T.T. DENOTES TAPE TRACER

POSTED SPEED 50 km/h

REFER TO SHEET 1 FOR NOTES


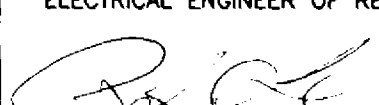

DO NOT USE THIS DRAWING FOR
PAVEMENT MARKING STANDARDS

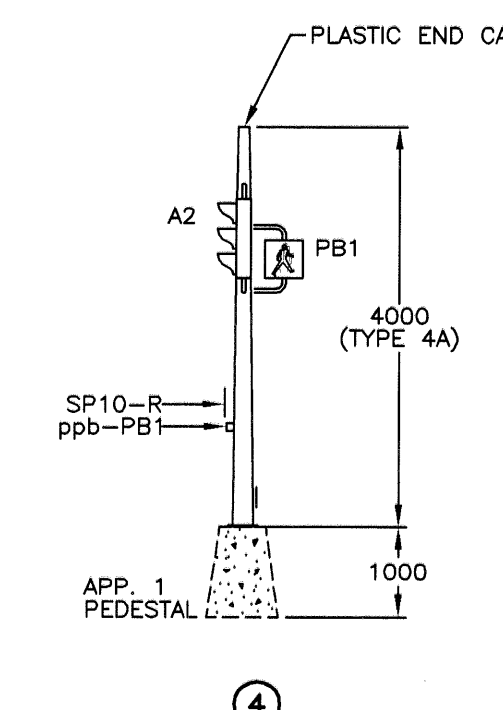
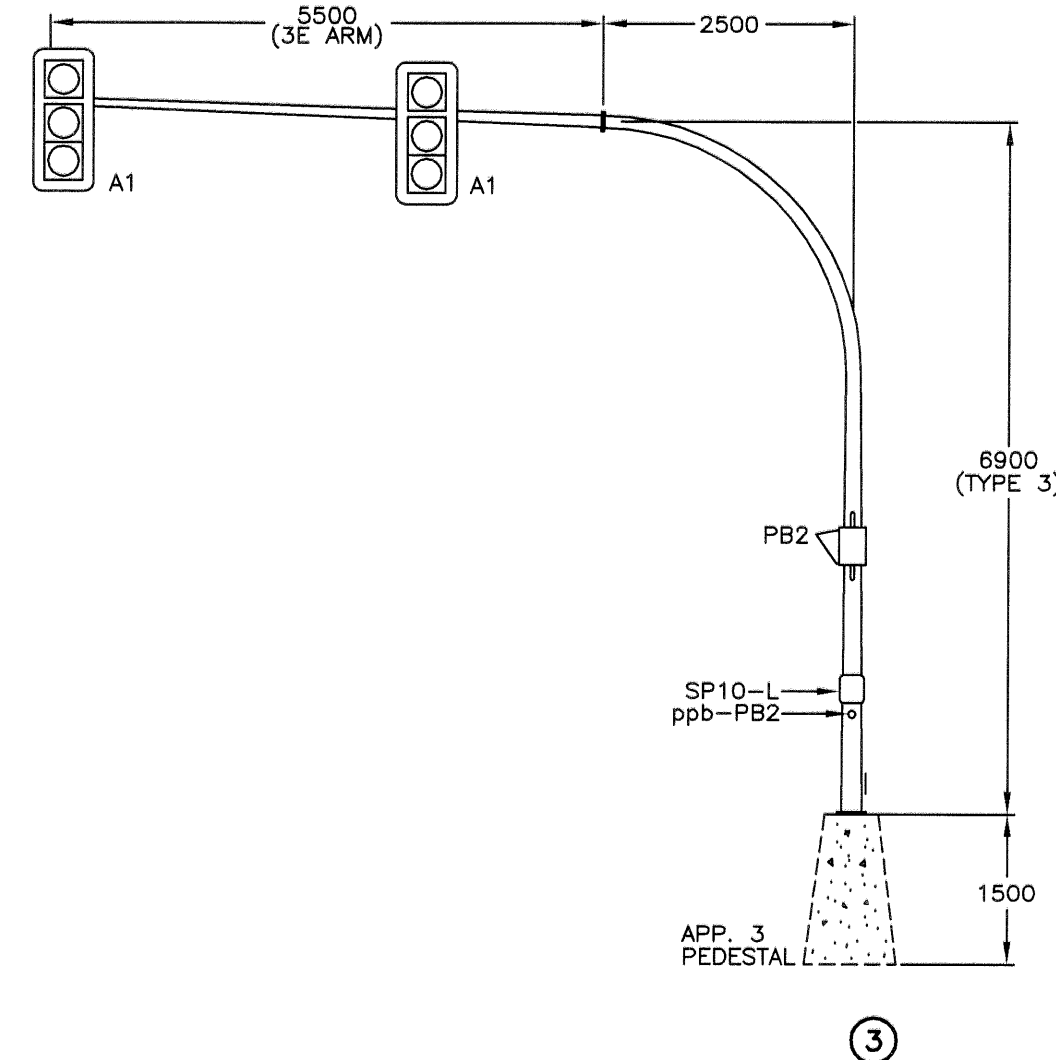
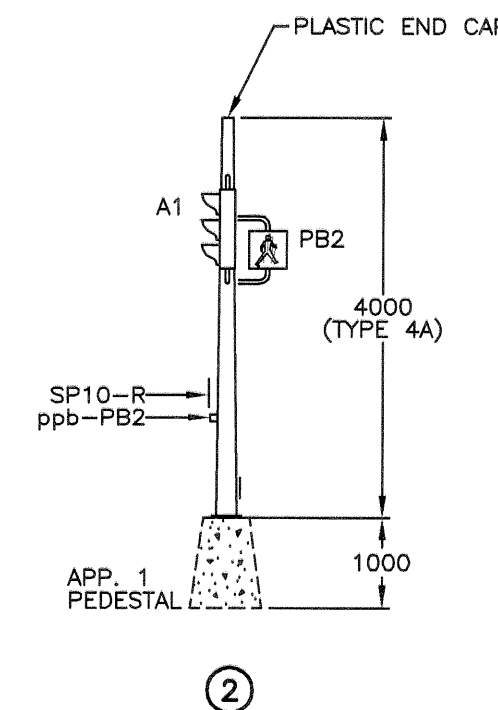
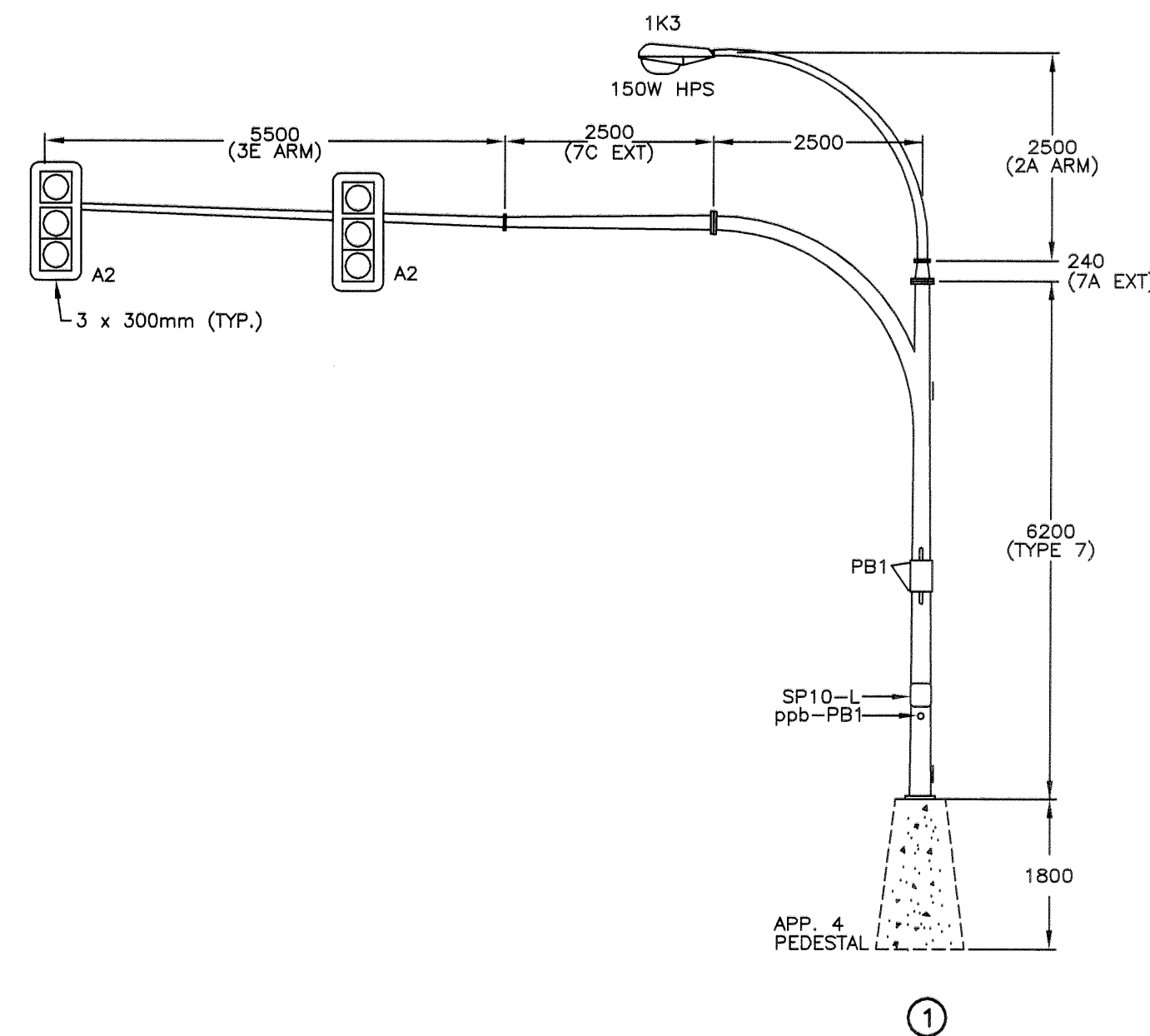
ALL DIMENSIONS ARE IN MILLIMETERS
EXCEPT WHERE NOTED

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION"
FOR APPLICABLE STANDARD DRAWINGS

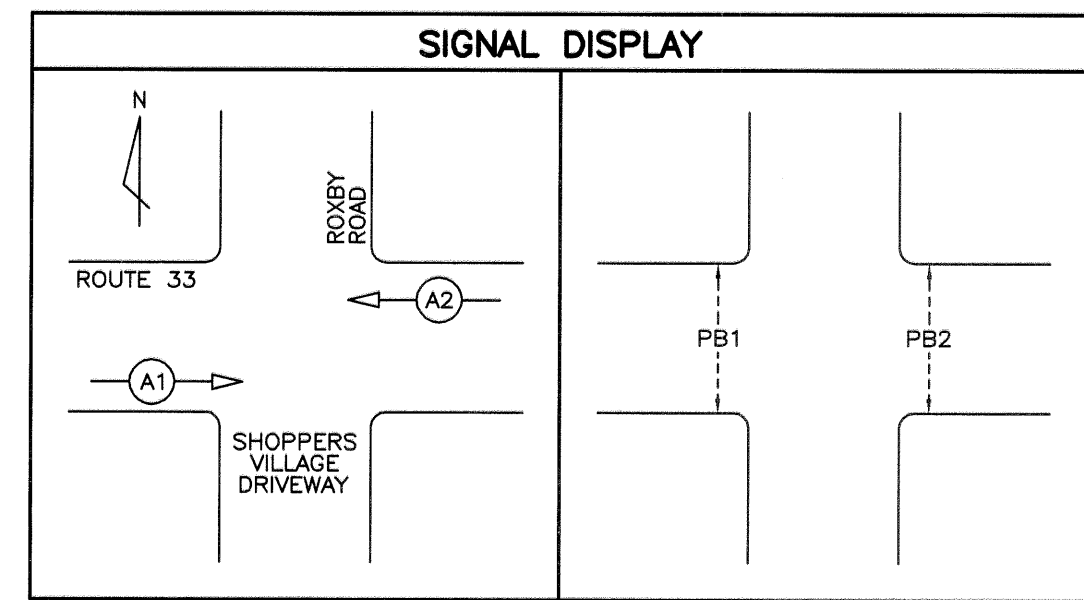
ALL EQUIPMENT IS EXISTING
EXCEPT WHERE NOTED

REFER TO SHEET 5 FOR
ELEVATIONS

 <div style="text-align: center;"> MINISTRY OF TRANSPORTATION AND HIGHWAYS ELECTRICAL ENGINEERING SECTION </div>																																	
<div style="text-align: center;"> SIGNAL AND LIGHTING REVISION ROUTE 33 AT DOUGALL ROAD AND ROXBY STREET KELOWNA </div>																																	
DESIGNED BY <u>DAG</u> DATE <u>FEB/00</u> CHECKED BY <u>DS</u> DATE <u>March 27/00</u> M.O.T.H. ELECTRICAL DESIGN APPROVAL <u>DS</u> DATE <u>March 27/00</u>																																	
<div style="text-align: center;"> REVISIONS </div> <table border="1" style="width: 100%;"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>DRAWN</th> </tr> </thead> <tbody> <tr> <td>JAN95</td> <td></td> <td>CAD DRAWING ISSUED, UPGRADED TO 1994 STANDARDS</td> <td>UNIQUE DRAFTING SERVICES LTD</td> </tr> <tr> <td>A MAY95</td> <td></td> <td>NEW CONTROLLER, SPLIT PHASES AND RE-CONFIGURED LOOPS</td> <td>UNIQUE DRAFTING SERVICES LTD</td> </tr> <tr> <td>B MAR96</td> <td></td> <td>RECORD DRAWING</td> <td>UNIQUE DRAFTING SERVICES LTD</td> </tr> <tr> <td>C FEB/00</td> <td></td> <td>REMOVAL OF EMERGENCY PRE-EMPTION</td> <td>NJP</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REV	DATE	DESCRIPTION	DRAWN	JAN95		CAD DRAWING ISSUED, UPGRADED TO 1994 STANDARDS	UNIQUE DRAFTING SERVICES LTD	A MAY95		NEW CONTROLLER, SPLIT PHASES AND RE-CONFIGURED LOOPS	UNIQUE DRAFTING SERVICES LTD	B MAR96		RECORD DRAWING	UNIQUE DRAFTING SERVICES LTD	C FEB/00		REMOVAL OF EMERGENCY PRE-EMPTION	NJP												
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<div style="text-align: center;"> SITE PLAN ENLARGEMENT - COLOUR CODE (ROXBY STREET) ELECTRICAL ENGINEER OF RECORD (FOR CURRENT REVISION)  DATE <u>3/27/00</u> </div> <div style="text-align: right;">  </div>																																	
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ALL SIGNAL DISPLAYS
ARE LED



ALL EQUIPMENT IS EXISTING
EXCEPT WHERE NOTED

REFER TO SHEET 1 FOR NOTES

ALL DIMENSIONS ARE IN MILLIMETERS
EXCEPT WHERE NOTED

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION"
FOR APPLICABLE STANDARD DRAWINGS

LCP Signal Management Inc. 1447 Gabriola Drive Coquitlam, B.C. V3E 2C6 Ph: (604)-942-3631 Fax: (604)-945-9809		MINISTRY OF TRANSPORTATION ELECTRICAL ENGINEERING CENTRE	
DESIGNED BY <u>CDC</u> DATE <u>AUG/05</u> CHECKED BY <u>[Signature]</u> DATE <u>23/11/05</u> M.O.T. ELECTRICAL DESIGN REVIEW <u>ABC</u> DATE <u>DEC 14/05</u>		SIGNAL AND LIGHTING REVISION ROUTE 33 AT DOUGALL ROAD AND ROXBY STREET KELOWNA	
REVISIONS		ELEVATIONS - DETAILS (ROXBY STREET)	
REV	DATE	DESCRIPTION	DRAWN
JAN95		CAD DRAWING ISSUED, UPGRADED TO 1994 STANDARDS	UNIQUE DRAFTING SERVICES LTD.
A	MAY95	NEW CONTROLLER, SPLIT PHASES AND RE-CONFIGURED LOOPS	UNIQUE DRAFTING SERVICES LTD.
B	MAR96	RECORD DRAWING	UNIQUE DRAFTING SERVICES LTD.
C	FEB/00	REMOVAL OF EMERGENCY PRE-EMPTION	NJP
D	AUG/05	RECORD DRAWING	PMB
SHEET NUMBER 5 OF 5		SITE CODE 5 HWY DIST 2 REGION TE-95013-5	

MINISTRY OF TRANSPORTATION ELECTRICAL ENGINEERING CENTRE	
SIGNAL AND LIGHTING REVISION ROUTE 33 AT DOUGALL ROAD AND ROXBY STREET KELOWNA	
ELEVATIONS - DETAILS (ROXBY STREET)	
ELECTRICAL ENGINEER OF RECORD (FOR CURRENT REVISION) <u>[Signature]</u> DATE <u>23 Nov 05</u>	
SHEET NUMBER 5 OF 5	SITE CODE 5 HWY DIST 2 REGION TE-95013-5

REC-A(06/01)

Paluch, Alisha TRAN:EX

From: King, Spencer TRAN:EX
Sent: Wednesday, April 17, 2013 11:54 AM
To: 'Andrew Albiston'; Babineau, John TRAN:EX; Demuriak, Brandon TRAN:EX; 'dleung@mcelhanney.com'; Irvine, Grant M TRAN:EX; McKenzie, Scott TRAN:EX; Porco, Ugo TRAN:EX; Siddiqui, Faisal TRAN:EX; 'spirillo@mcelhanney.com'; Ware, Don TRAN:EX
Subject: FW: 23269 H33 Muir to Mills - Draft Response to RSA
Attachments: MCSL Comments on Hwy 33 RSA.pdf

FYI

Spencer King

Senior Project Manager
Ministry of Transportation and Infrastructure
Ph: 250-828-4976
Cell s17
Email: spencer.king@gov.bc.ca

From: Denny Leung [<mailto:dleung@mcelhanney.com>]
Sent: Wednesday, April 17, 2013 11:46 AM
To: King, Spencer TRAN:EX; 'Andrew Albiston'
Cc: McKenzie, Scott TRAN:EX; 'spirillo@mcelhanney.com'
Subject: 23269 H33 Muir to Mills - Draft Response to RSA

Hi Spencer,

Attached is our draft response table to the RSA prepared by EBA for your review. Let me know if you need the WORD file.

We can discuss this in more detail during our conference call meeting tomorrow. Please forward the document to others as you see fit.

Thanks
Denny

Denny Leung, P.Eng.,
Senior Transportation Engineer



McElhanney Consulting Services Ltd.
100 - 780 Beatty Street, Vancouver BC V6B 2M1
T 604.683.8521 / D 604.424.4860
Email: DLeung@mcelhanney.com / Web: www.mcelhanney.com/mcsl



Intersection	Issue	RSA Suggestion	MCSL Comments	Consensus Reached with MoTI and City of Kelowna
N/R				
Roxy Rd	13	Vulnerable Road User Accommodation at Roxy Rd	<ul style="list-style-type: none"> Provide illumination on all quadrants of the intersection to increase pedestrian conspicuity Provide pedestrian countdown timers to assist users with limited mobility 	<ul style="list-style-type: none"> We will confirm if current illumination level meets today's lighting standard during detail design. Agree: current MoTI policy is to retrofit existing signalized intersections with countdown timers as funding permits.
	14	Traffic Control on South Leg of Roxy Rd	<ul style="list-style-type: none"> Provide stop sign (RA-1) and stop line / message pavement markings on south leg of Roxy Rd to clarify traffic control 	<ul style="list-style-type: none"> Agree.

N/R

Paluch, Alisha TRAN:EX

From: Siddiqui, Faisal TRAN:EX
Sent: Tuesday, July 2, 2013 10:20 AM
To: Chow, Adrienne B TRAN:EX
Cc: King, Spencer TRAN:EX; Babineau, John TRAN:EX; Irvine, Grant M TRAN:EX
Subject: Fw: Hwy 33 - signed electrical dwgs
Attachments: 950132H.pdf; 950133G.pdf; 950142E.pdf; 950143E.pdf; 950111D.pdf; 950121D.pdf; 950122G.pdf; 950123G.pdf

Adrienne,

For your review and acceptance.
Do you have all the TECs?

Faisal

From: King, Spencer TRAN:EX
Sent: Tuesday, July 02, 2013 10:17 AM Pacific Standard Time
To: Babineau, John TRAN:EX
Cc: Siddiqui, Faisal TRAN:EX; Irvine, Grant M TRAN:EX
Subject: FW: Hwy 33 - signed electrical dwgs

Hi John,

These are the revised electrical.

N/R

Best regards,

Spencer King

Senior Project Manager
Ministry of Transportation and Infrastructure
Ph: 250-828-4976
Cell s17
Email: spencer.king@gov.bc.ca

From: Denny Leung [<mailto:dleung@mcelhanney.com>]
Sent: Thursday, June 27, 2013 11:41 AM
To: King, Spencer TRAN:EX
Cc: Morris Signorelli (DMD) (morris@dmdeng.com); Mike Cetnarowski (DMD); Rob Bedard
Subject: FW: Hwy 33 - signed electrical dwgs

Hi Spencer

Attached are the signed/sealed electrical drawings.

Thanks

Denny

From: Mike Cetnarowski (DMD) [<mailto:mike@dmdeng.com>]
Sent: Thursday, June 27, 2013 11:18 AM
To: Denny Leung
Cc: Morris Signorelli (DMD) (morris@dmdeng.com); Rob Bedard
Subject: Re: Hwy 33 - signed electrical dwgs

Denny,

Drawings attached. Full size set couriered over to you as well.

Thank you,
Mike Cetnarowski, P.Eng.
604-589-9010 ext 215

On 26/06/2013 4:48 PM, Denny Leung wrote:

Hi Mike,

Can you send me the signed IFT electrical dwgs (hard copy full size and pdf).

Thanks
Denny

Denny Leung, P.Eng.,
Senior Transportation Engineer

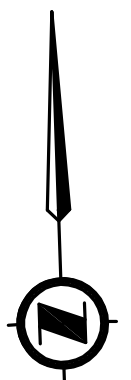


McElhanney Consulting Services Ltd.
100 - 780 Beatty Street, Vancouver BC V6B 2M1
T 604.683.8521 / D 604.424.4860
Email: DLeung@mcelhanney.com / Web: www.mcelhanney.com/mcsi



This message and attachment may contain privileged and confidential information. If you are not the intended recipient, please notify us of our error, do not disseminate or copy this communication, and destroy all copies.





REV. H
ABANDON: EXIST. LOOPS
INSTALL: NEW LOOP (TYP. FOR 12)

REV. H
INSTALL: 1-25mm RPVC

REV. H
INSTALL: NEW SIGNAL POST ON
A TYPE B CONCRETE BASE
(REFER TO SHEET 3 FOR DETAILS)

REV. H
INSTALL:

1-50mm RPVC
2 No.10 LUM.
12 No.14 SIGNALS
1 No.10 BOND

REV. H
1-50mm RPVC
2 No.10 RW90 LUM. C.T. K
15 No.14 RW90 SIGNALS
1 No.12 RW90 BOND
REMOVE: 11 No.14 RW90 SIGNALS

1-32mm RPVC
3 No.10 RW90 LUM. C.TS. K&L
1-3PR SH. INTERCONNECT CABLE
1 No.12 RW90 BOND

REV. H
MODIFY: EXIST. SIGNAL POLE
(REFER TO SHEET 3 FOR DETAILS)

REV. H
INSTALL: NEW SIGNAL POLE C/W SIGNAL
EQUIPMENT ON A TYPE L2 CONCRETE BASE
(REFER TO SHEET 3 FOR DETAILS)

1-32mm RPVC
3 No.10 RW90 LUM. C.TS. M&N
2 No.14 RW90 IS. FLASH.
1 No.12 RW90 BOND

REV. H
REMOVE: EXIST. SIGNAL
POST C/W CONCRETE BASE

REV. H
REMOVE: EXIST. CONDUCTORS
AND ABANDON CONDUIT (TYP.)

REV. H
INSTALL: 3-25mm RPVC

BCTEL MANHOLE

REV. H
REMOVE: EXIST. SIGNAL
POLE C/W CONCRETE BASE

REV. H
1-50mm RPVC
3 No.10 RW90 LUM. C.TS. K&L
14 No.14 RW90 SIGNALS
1 No.10 RW90 SIG. NEUT.
1 No.12 RW90 BOND
REMOVE: 1-2C SH. LOOPS

1-50mm RPVC
3-2C SH. LOOPS
1-3PR SH. INTERCONNECT CABLE
1 No.12 RW90 BOND
REMOVE: 1-2C SH. LOOPS

REV. H
MODIFY: EXIST. SIGNAL POLE
(REFER TO SHEET 3 FOR DETAILS)

1-76mm RPVC FUT. COMM.
STUB AND CAP 1.0m
(EMPTY)

1-50mm RPVC
12 No.14 RW90 SIGNALS
1-4Pr. No. 18 SH. PRE-EMPT INTERTIE
2 No. 12 PRE-EMPT CAB. PWR.
1 No.12 RW90 BOND

TYPE S TRAFFIC
CONTROLLER
CABINET AND BASE

REV. H

1-50mm RPVC
2 No.6 RW90 CONT. PWR.
1 No.8 RW90 BOND

1-50mm RPVC
28 No.14 RW90 SIGNALS
1 No.10 RW90 SIG. NEUT.
1 No.8 RW90 BOND

1-50mm RPVC
14-2C SH. LOOPS
1 No.12 RW90 BOND
REMOVE: 2-2C SH. LOOPS

1-50mm RPVC
1-3PR SH. INTERCONNECT CABLE (WEST)
1-3PR SH. INTERCONNECT CABLE (EAST)
1-4Pr. No. 18 SH. PRE-EMPT INTERTIE

REV. H
REMOVE: EXIST. SIGNAL POST C/W CONCRETE BASE
INSTALL: NEW 7.5m-150W H.P.S. (FG) LUM. POLE
C/W TYPE C CONCRETE BASE IN SAME LOCATION.
(REFER TO SHEET 3 FOR ADDITIONAL DETAILS)

1-50mm RPVC
2 No.4 RW90 CONT. PWR.
3 No.10 RW90 LUM. C.TS. K&L
1-3PR SH. INTERCONNECT CABLE
2 No. 12 PRE-EMPT CAB. PWR.
1 No.8 RW90 BOND

REV. H
INSTALL:

1-50mm RPVC
2 No.10 LUM. C.T. K
8 No.14 SIGNALS
1 No.10 BOND

REV. H
INSTALL: 3-25mm RPVC

1-50mm RPVC
21 No.14 RW90 SIGNALS
1 No.10 RW90 SIG. NEUT.
1 No.12 RW90 BOND

1-50mm RPVC
6-2C SH. LOOPS
1 No.12 RW90 BOND

1-32mm RPVC
3 No.10 RW90 LUM. C.TS. M&N
2 No.14 RW90 IS. FLASH.
1 No.12 RW90 BOND

REV. H
1-50mm RPVC
2 No.10 RW90 LUM. C.T. M
15 No.14 RW90 SIGNALS
1 No.12 RW90 BOND
REMOVE: 2 No.14 RW90 SIGNALS

REV. H
INSTALL:

1-35mm RPVC
2 No.14 SIGNALS
1 No.10 BOND

REV. H
INSTALL: PED. PUSHBUTTON POST
(REFER TO THIS SHEET FOR DETAILS)

1-50mm RPVC
3 No.10 RW90 LUM. C.TS. M&N
14 No.14 RW90 SIGNALS
1 No.10 RW90 SIG. NEUT.
2 No.14 RW90 IS. FLASH.
1 No.12 RW90 BOND

1-50mm RPVC
4-2C SH. LOOPS
1 No.12 RW90 BOND

REV. H
INSTALL: 1-25mm RPVC

REV. H
INSTALL:

1-50mm RPVC
2 No.10 LUM. C.T. M
15 No.14 SIGNALS
1 No.10 BOND

SITE PLAN

0 1:250 10

CHECK BEFORE YOU DIG

CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL
DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE
LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE
UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR.

OVERHEAD POWER LINE CONFLICTS

CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION
THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE
REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES.
CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES
TO DMD & ASSOCIATES LTD.

PRE-EMPTION CONDUCTOR LABELLING			
ITEM	LABEL	COLOUR	CONDUCTOR TYPE
PRE-EMPT. ENCLOSURE PWR.	N/A	BLACK/WHITE	RW90
GPS/RADIO SENSOR CABLE	S1	N/A	GPS/RADIO ANTENNA CABLE
PRE-EMPT. INTERTIE	PRE-INT	N/A	BELDEN 9389

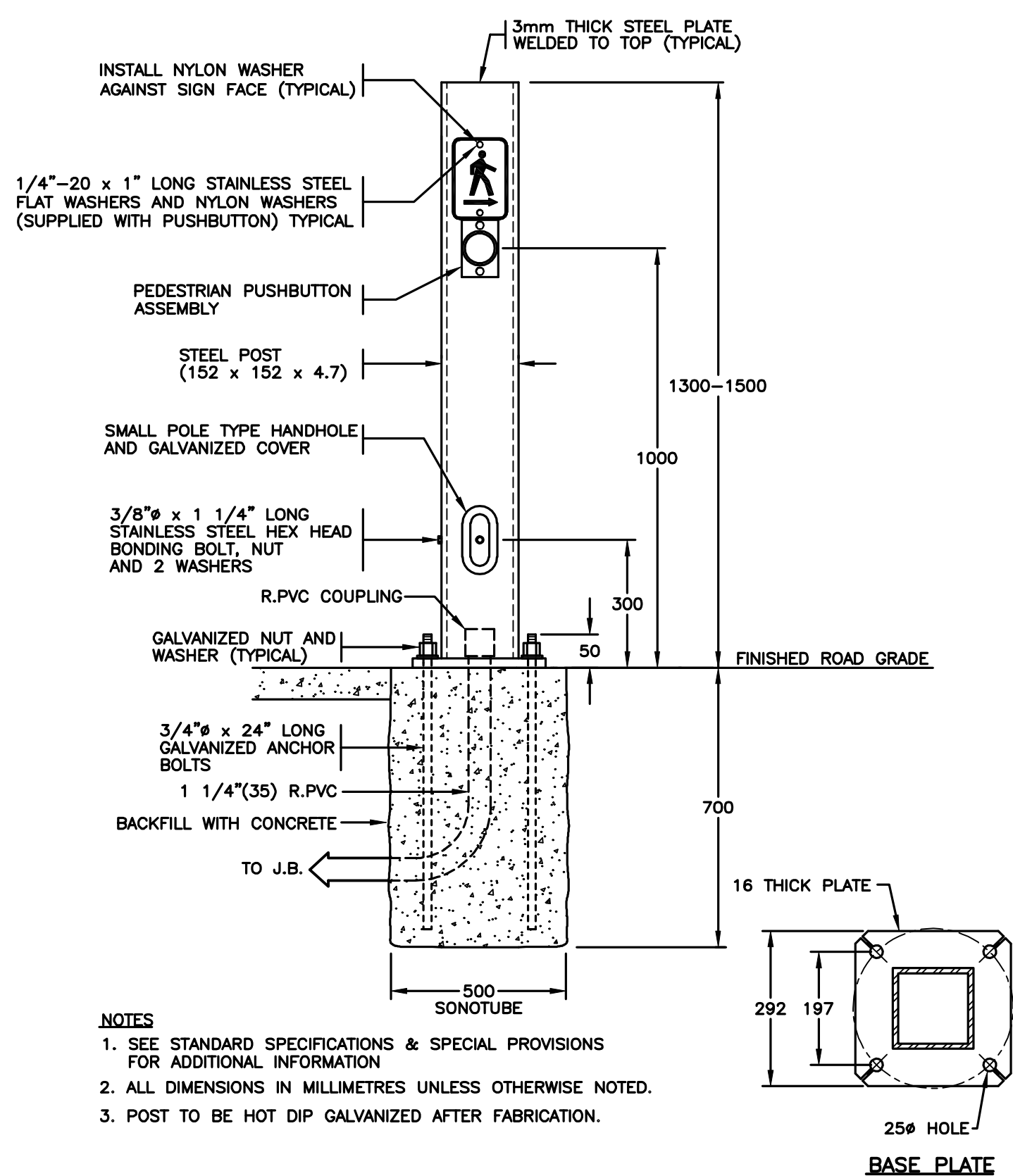
INTERSECTION ILLUMINANCE DESIGN CRITERIA		
ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
INTERSECTION NAME	HIGHWAY 33/DOUGALL ROAD	
PEDESTRIAN CONFLICT AREA	MEDIUM	
ROAD CLASSIFICATION	MAJOR/MAJOR	
ILLUMINATION LEVEL (AVG.)	26 LUX	30.6 LUX
UNIFORMITY RATIO (AVG.:MIN.)	3:1	2.0:1

REV. H
ALL EQUIPMENT IS EXISTING
EXCEPT WHERE NOTED

COLOUR CODE

ITEM	SIGNAL SECTION	CONDUCTOR COLOUR
A1	RED	RED
	YELLOW	YELLOW
A2	RED	RED
	YELLOW	YELLOW (RED T.T.)
B1	RED	RED
	YELLOW	BROWN
B2	RED	BROWN
	YELLOW	BROWN (ORANGE T.T.)
PA1 (CHIRP)	DON'T WALK	YELLOW
	WALK	BLUE
PA2 (CHIRP)	DON'T WALK	PURPLE/PURPLE (YELLOW T.T.)
	WALK	PURPLE/PURPLE (RED T.T.)
PB1 (CUCKOO)	DON'T WALK	BROWN
	WALK	BLUE
PB2 (CUCKOO)	DON'T WALK	BROWN (ORANGE T.T.)
	WALK	BLUE
CONTROLLER POWER		BLACK
LUMINAIRE C.TS. 'K&M'		RED
LUMINAIRE C.TS. 'L&N'		BLACK
ISLAND FLASHER		ORANGE
NEUTRAL		WHITE
GROUND/BOND		GREEN

NOTE: T.T. DENOTES TAPE TRACER



- NOTES
- SEE STANDARD SPECIFICATIONS & SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
 - ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
 - POST TO BE HOT DIP GALVANIZED AFTER FABRICATION.

REV. H
INSTALL: PUSHBUTTON POST INSTALLATION DETAILS
N.T.S.

REV. H
INSTALL & RETAG: LOOPS

DETECTOR LOOP DETAILS						
LOOP			INDUCTANCE			PHASE
LOOP No.	SIZE	TURNS	LOOP	LEAD	TOTAL	
L 1	1.8 DIA.	4	95	3	98	A2
L 2	1.8 DIA.	4	95	3	98	A2
L 3	1.8 DIA.	4	95	3	98	A2
L 4	1.8 DIA.	4	95	3	98	A2
L 5	1.8 DIA.	4	95	19	114	B2
L 6	1.8 DIA.	4	95	19	114	B2
L 7	1.8 DIA.	4	95	31	126	A1
L 8	1.8 DIA.	4	95	31	126	A1
L 9	1.8 DIA.	4	95	31	126	A1
L 10	1.8 DIA.	4	95	31	126	A1
L 11	1.8 DIA.	4	95	17	112	B1
L 12	1.8 DIA.	4	95	17	112	B1

REFER TO SHEET 1 FOR NOTES

REFER TO SHEET 3 FOR
ELEVATIONS

POSTED SPEED 50 km/h


DO NOT USE THIS DRAWING FOR
PAVEMENT MARKING STANDARDS

ALL DIMENSIONS ARE IN MILLIMETERS
EXCEPT WHERE NOTED

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION"
FOR APPLICABLE STANDARD DRAWINGS



DMD & Associates Ltd.
#12-17358 104A Avenue, Surrey, BC, Canada V4N 5M3
www.dmdeng.com 604/589-9010
office@dmdeng.com Fax 604/589-9012
DMD PROJECT No. 4143-13-05 of 08




BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION
AND INFRASTRUCTURE
ELECTRICAL ENGINEERING CENTRE

REV	DATE	REVISIONS	DRAWN
B	MAR96	RECORD DRAWING	UNIQUE
C	FEB/00	REMOVAL OF EMERGENCY PRE-EMPTION	NIP
D	SEP01	REMOVAL OF LOOPS ON RTE 97. RECORD DRAWING.	KCH
E	JAN06	GPS BASED PRE-EMPTION ADDED	CDC
F	MAR/10	RECORD DRAWING	ABC
G	MAY/13	LIGHTING REVISION TO SUIT BUS PULL OUTS	BK
H	JUN/13	SIGNAL REVISED TO SUIT CHANGE IN GEOMETRICS	ML

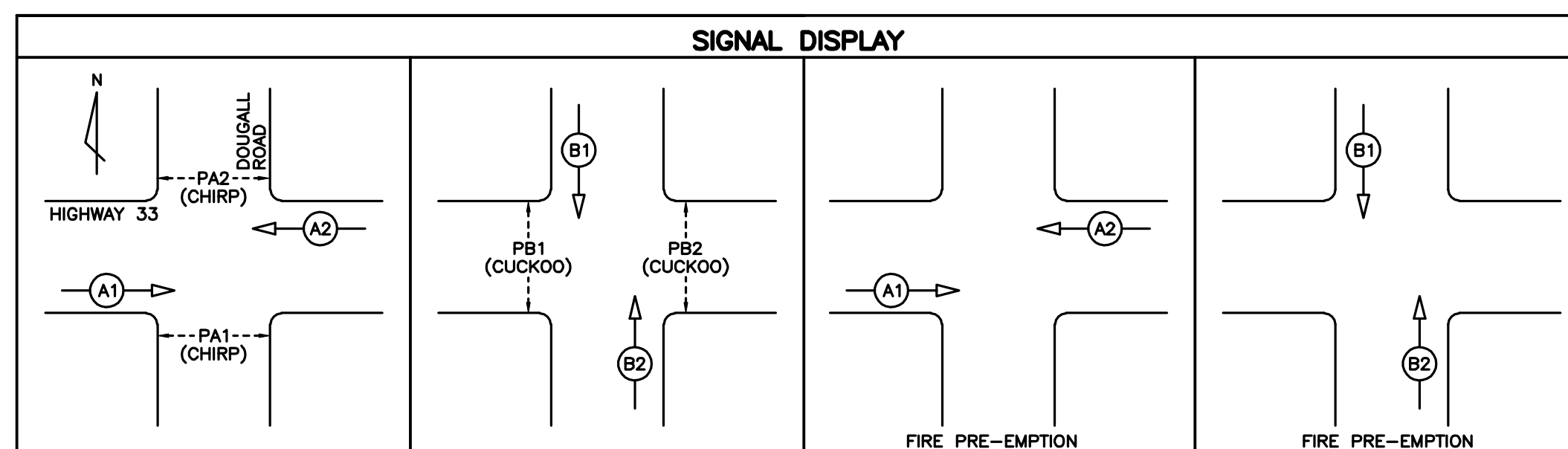
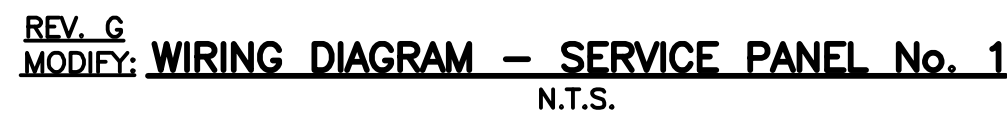
SIGNAL AND LIGHTING REVISION
HIGHWAY 33 AT DOUGALL ROAD AND ROXBYS STREET
KELOWNA

SITE PLAN ENLARGEMENT - COLOUR CODE - DETAILS



DESIGNED: _____ MS DATE: JUN/13
QUALITY CONTROL: _____ DJW DATE: JUN/13
QUALITY ASSURANCE: _____ DJW DATE: JUN/13
TRAN ELECTRICAL DESIGN REVIEW: _____ DATE: _____

SHEET NUMBER: 2 OF 5
SITE CODE: _____
HWY DIST: 5
REG: 2
DRAWING NUMBER: TE-95013-2
H



SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION"
FOR APPLICABLE STANDARD DRAWINGS

TRA-2014-00156
Page 28

Paluch, Alisha TRAN:EX

From: Denny Leung <dleung@mcelhanney.com>
Sent: Friday, May 3, 2013 2:58 PM
To: Santino Pirillo; King, Spencer TRAN:EX; 'Andrew Albiston'; Babineau, John TRAN:EX; Demuriak, Brandon TRAN:EX; 'dleung@mcelhanney.com'; Irvine, Grant M TRAN:EX; McKenzie, Scott TRAN:EX; Porco, Ugo TRAN:EX; Siddiqui, Faisal TRAN:EX; 'spirillo@mcelhanney.com'; Ware, Don TRAN:EX
Subject: RE: 23269 H33 Muir to Mills - Draft concept plans and costs
Attachments: 2013 05 01-Hwy 33 Improvements Cost Est.pdf

Spencer and team,
Attached is the draft cost estimate for the civil and electrical/lighting components.

Also please click on the following link to retrieve the draft concept plans. Please call if you have any questions.

s15

Thanks
Denny

*Denny Leung, P.Eng.,
Senior Transportation Engineer*



McElhanney Consulting Services Ltd.
100 - 780 Beatty Street, Vancouver BC V6B 2M1
T 604.683.8521 / D 604.424.4860
Email: DLeung@mcelhanney.com / Web: www.mcelhanney.com/mcsl

From: Santino Pirillo
Sent: Wednesday, May 01, 2013 10:51 PM
To: King, Spencer TRAN:EX; 'Andrew Albiston'; Babineau, John TRAN:EX; Demuriak, Brandon TRAN:EX; 'dleung@mcelhanney.com'; Irvine, Grant M TRAN:EX; McKenzie, Scott TRAN:EX; Porco, Ugo TRAN:EX; Siddiqui, Faisal TRAN:EX; 'spirillo@mcelhanney.com'; Ware, Don TRAN:EX
Subject: RE: 23269 H33 Muir to Mills - Design meeting

Spencer & Team:

We made good progress and completed the updated civil portions of the concept and costing. We are awaiting for the electrical/lighting components from DMD. So this is an advance notice we will be sending the concept and costing by the end of this week. Thus allowing the team 3-4 days next week to review for consideration before we meet next Thursday to confirm finalizing details.

Regards
Santino

-----Original Appointment-----

From: King, Spencer TRAN:EX [<mailto:Spencer.King@gov.bc.ca>]

Sent: Friday, April 26, 2013 11:51 AM

To: King, Spencer TRAN:EX; 'Andrew Albiston'; Babineau, John TRAN:EX; Demuriak, Brandon TRAN:EX; 'dleung@mcelhanney.com'; Irvine, Grant M TRAN:EX; McKenzie, Scott TRAN:EX; Porco, Ugo TRAN:EX; Siddiqui, Faisal TRAN:EX; 'spirillo@mcelhanney.com'; Ware, Don TRAN:EX

Subject: 23269 H33 Muir to Mills - Design meeting

When: Thursday, May 09, 2013 1:00 PM-3:00 PM (UTC-08:00) Pacific Time (US & Canada).

Where: Kelowna boardroom

When: Thursday, May 9, 2013 1:00 PM-3:00 PM (GMT-08:00) Pacific Time (US & Canada).

Where: Kelowna boardroom

Note: The GMT offset above does not reflect daylight saving time adjustments.

~~*~*~*~*~*~*~*~*

All,

Please try to make this date work. McElHanney will be presenting 50% design

Best regards,

Spencer King

<< File: 23269MoM130412_ Design.doc >>



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SCHEDULE OF PRICES Highway 33 Mills to Muir Paving Resurface Conceptual Cost Estimates Revised Date: May 3, 2013 (DRAFT)			
Item No.	Item Description	Extended Amount	Sub-total

NR

2.0 Pedestrian Countdown Timers

N/R

Roxby Rd. s17

N/R

6.0 Raised Concrete Median

N/R

Between Asher Rd. & Roxby Rd.
Between Roxby Rd. & Rutland Rd. s17

N/R

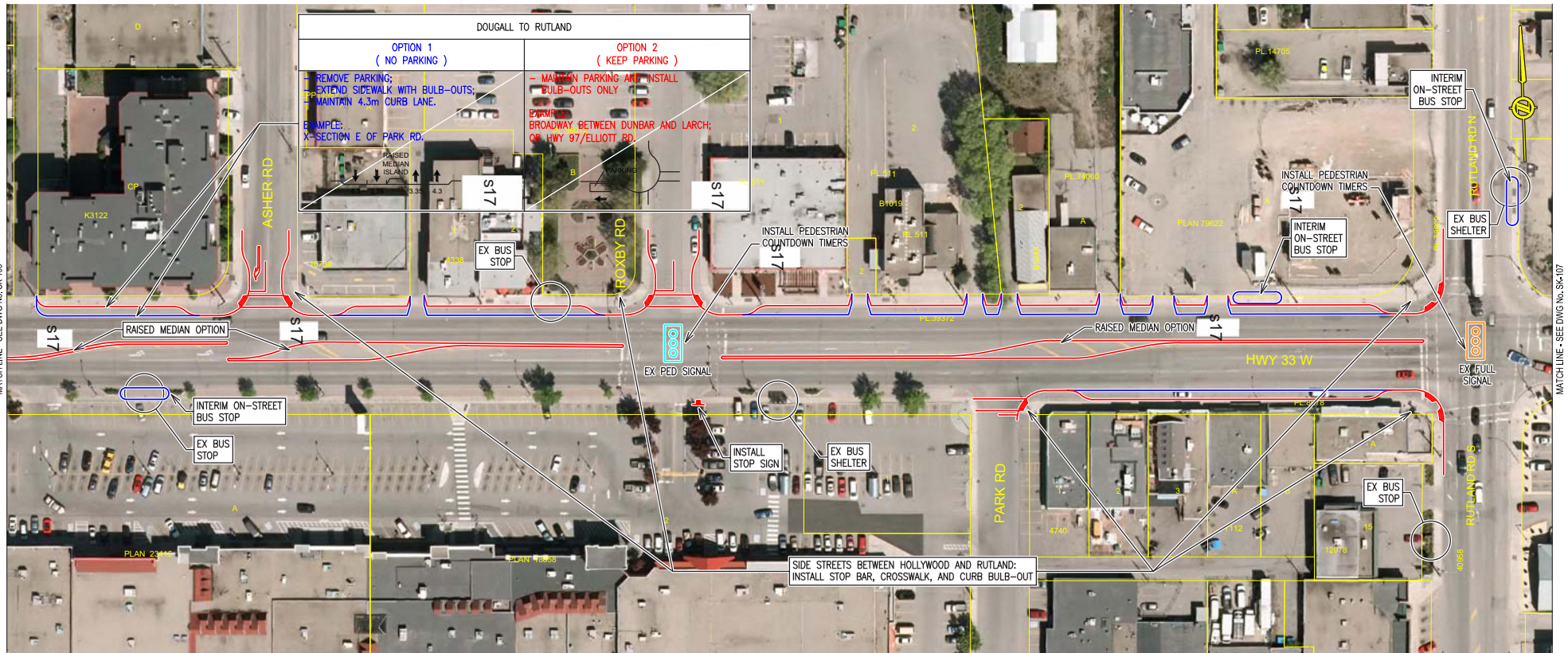
Total Option 1 (No parking) + 15% Contingency

N/R

Total Option 2 (With parking) + 15% Contingency

Notes:

- 1 Rounded to the nearest \$10,000
- 2 Does not include Engineering & Project Management, Construction Supervision Property Cost & Utility Relocation
- 3 Does not include Intersection vehicle detection loops replacement costs which is assumed to be included in the milling and paving contract.



NOTES:

1. USE THERMOPLASTIC MARKING FOR ALL CROSSWALKS, STOP BARS, TURN ARROWS, SPEED STENCILS AND OPTICAL SPEED BARS.
2. STREET LIGHTING MODIFICATION COSTS:

SECTION	COST
MILLS TO HOLLYWOOD	\$17
HOLLYWOOD TO RUTLAND	
RUTLAND TO MUIR	

FOR DISCUSSION ONLY
 MAY 2, 2013

				MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE	
SCALE: 1:1000		HIGHWAY 33 MILLS TO MUIR PAVING RESURFACE PROJECT PEDESTRIAN SAFETY IMPROVEMENTS PLAN			
DESIGNED BY: DATE 13/05/08 CHECKED BY: DATE 13/05/08 DRAWN BY: DATE 13/05/08 REVIEWED BY: DATE		Design Manager:		Prepared under direction of:	
REVISIONS				ENGINEER OF RECORD:	
FILE AND PROJECT No.: 2111-03020-0		REGION: 2		PAGE: 6 OF 10	
DRAWING No.: SK106		REV:		CANCEL PRINTS BEARING PREVIOUS LETTER	

Paluch, Alisha TRAN:EX

From: Denny Leung <dleung@mcelhanney.com>
Sent: Tuesday, July 9, 2013 3:06 PM
To: King, Spencer TRAN:EX
Cc: Rob Bedard; 'Mike Cetnarowski (DMD)'; 'Erick Ruiz (DMD) (erick@dmdeng.com)'; Siddiqui, Faisal TRAN:EX; 'Andrew Albiston' (aalbiston@kelowna.ca); Babineau, John TRAN:EX; Babineau, John TRAN:EX
Subject: RE: FW: 23269 H33 Muir to Mills - Additional design work
Attachments: Hwy 33 Muir to Mills (JUL 9).pdf

Hi Spencer,

1. Mike Cetnarowski from DMD has gone over the comments with Adrienne by phone and hand delivered the attached revised full size drawings to Adrienne around 2pm. Total number of drawing sheets/revision numbers remained the same. The drawings are stamped with today's date July 9, 2013.
2. There is no change to Schedule 3.
- 3.

NR

Thanks
Denny

Denny Leung, P.Eng.,
Senior Transportation Engineer



McElhanney Consulting Services Ltd.
100 - 780 Beatty Street, Vancouver BC V6B 2M1
T 604.683.8521 / D 604.424.4860
Email: DLeung@mcelhanney.com / Web: www.mcelhanney.com/mcsl

From: King, Spencer TRAN:EX [mailto:Spencer.King@gov.bc.ca]
Sent: Tuesday, July 09, 2013 10:29 AM
To: Denny Leung
Cc: Rob Bedard; 'Mike Cetnarowski (DMD)'; 'Erick Ruiz (DMD) (erick@dmdeng.com)'; Siddiqui, Faisal TRAN:EX; 'Andrew Albiston' (aalbiston@kelowna.ca); Babineau, John TRAN:EX; Babineau, John TRAN:EX
Subject: RE: FW: 23269 H33 Muir to Mills - Additional design work

Hi Denny,

1. Attached is the FINAL Schedule 3 and Schedule 7 that is currently with contracts and was submitted to you for comment 5-July. I have reviewed against the Electrical Schedule 7 and Special Provisions sent yesterday and find no changes. We will Please confirm. (note audible signal quant is different – ignore)

2. Therefore, please have the latest set of electrical drawings with EEC today. EEC will review and forward to Contract when approved.
3. Please have DMD answer the Adrienne's questions from Monday. If changes are required to any tender documents, advise without delay

Best regards,

Spencer King

Senior Project Manager
Ministry of Transportation and Infrastructure
Ph: 250-828-4976
Cel s17
Email: spencer.king@gov.bc.ca

From: Denny Leung [<mailto:dleung@mcelhanney.com>]
Sent: Monday, July 8, 2013 11:24 AM
To: King, Spencer TRAN:EX
Cc: Rob Bedard; Mike Cetnarowski (DMD); Erick Ruiz (DMD) (erick@dmdeng.com); Siddiqui, Faisal TRAN:EX; 'Andrew Albiston' (aalbiston@kelowna.ca); Babineau, John TRAN:EX
Subject: FW: FW: 23269 H33 Muir to Mills - Additional design work

Hi Spencer,

NR

Thanks
Denny

From: Erick Ruiz (DMD) [<mailto:erick@dmdeng.com>]
Sent: Monday, July 08, 2013 11:15 AM
To: Denny Leung
Cc: Mike Cetnarowski (DMD)
Subject: Re: FW: 23269 H33 Muir to Mills - Additional design work

Denny,

Please find attached the new tender set as per your request.

Regards,

Erick Ruiz
Senior Electrical Design Technician
Ext. 208

DMD & Associates Ltd.
Electrical Consultants

Surrey, BC - Tel: 604/589-9010
Lynden, WA - Tel: 877/249-8080

Web Site: www.dmdeng.com

On 04/07/2013 10:33 AM, Denny Leung wrote:

Yes, please proceed. Thanks Mike.

From: Mike Cetnarowski (DMD) [<mailto:mike@dmdeng.com>]
Sent: Thursday, July 04, 2013 10:33 AM
To: Denny Leung
Cc: DMD (Erick Ruiz)
Subject: Re: FW: 23269 H33 Muir to Mills - Additional design work

Denny, we'll issue a new tender set. Do we have to go ahead to proceed with the extra work?

Mike

On 04/07/2013 10:25 AM, King, Spencer TRAN:EX wrote:

Tender has not been issued.

Spencer King

Senior Project Manager
Ministry of Transportation and Infrastructure
Ph: 250-828-4976
Cell s17
Email: spencer.king@gov.bc.ca

From: Denny Leung [<mailto:dleung@mcelhanney.com>]
Sent: Thursday, July 4, 2013 10:09 AM
To: Mike Cetnarowski (DMD)
Cc: Morris Signorelli (DMD) (morris@dmdeng.com); Rob Bedard; 'Andrew Albiston' (aalbiston@kelowna.ca); King, Spencer TRAN:EX; Santino Pirillo; Siddiqui, Faisal TRAN:EX; Babineau, John TRAN:EX
Subject: RE: FW: 23269 H33 Muir to Mills - Additional design work

Spencer, please confirm. Since the tender has not been issued, I assume DMD can reissue a new IFT set?

Denny

From: Mike Cetnarowski (DMD) [<mailto:mike@dmdeng.com>]
Sent: Thursday, July 04, 2013 10:02 AM
To: Denny Leung
Cc: Morris Signorelli (DMD) (morris@dmdeng.com); Rob Bedard; 'Andrew Albiston' (aalbiston@kelowna.ca); King, Spencer TRAN:EX (Spencer.King@gov.bc.ca); Santino Pirillo; Siddiqui, Faisal TRAN:EX (Faisal.Siddiqui@gov.bc.ca); Babineau, John TRAN:EX (John.Babineau@gov.bc.ca)
Subject: Re: FW: 23269 H33 Muir to Mills - Additional design work

Denny,

To modify the tender drawings and update Schedule 3/7 will be s21 . Would you like us to make this an "Addendum No 1" with a revision triangle, or issue a new "For Tender" set? Let me know.

Thank you,
Mike Cetnarowski, P.Eng.
604-589-9010 ext 215

On 03/07/2013 5:02 PM, Denny Leung wrote:

Hi Morris,

NR

Please provide your fee estimate for this additional design work.

Thanks

Denny

Denny Leung, P.Eng.,
Senior Transportation Engineer



McElhanney Consulting Services Ltd.
100 - 780 Beatty Street, Vancouver BC V6B 2M1
T 604.683.8521 / D 604.424.4860
Email: DLeung@mcelhanney.com / Web: www.mcelhanney.com/mcs/

From: King, Spencer TRAN:EX [<mailto:Spencer.King@gov.bc.ca>]
Sent: Wednesday, July 03, 2013 11:21 AM
To: 'Andrew Albiston'
Cc: Siddiqui, Faisal TRAN:EX; Babineau, John TRAN:EX; Rob Bedard;
Santino Pirillo; Denny Leung
Subject: 23269 H33 Muir to Mills - Additional design work

Hi Andrew,

Faisal and Denny have been finalising the traffic signal designs for our project and some modifications are required to the DMD design and TECs'. This is likely to additional to the agreed scope.

Please proceed with the revisions as discussed between Denny and Faisal with haste.

Best regards

Spencer King
Senior Project Manager
Ministry of Transportation and Infrastructure
Ph: 250-828-4976
Cell s17
Email: spencer.king@gov.bc.ca



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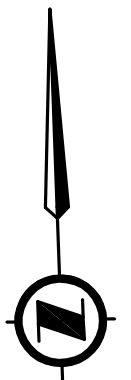
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REV. H
ABANDON: EXIST. LOOPS
INSTALL: NEW LOOP (TYP. FOR 12)

REV. H
INSTALL: 1-25mm RPVC
NEW SIGNAL POST ON
A TYPE B CONCRETE BASE
(REFER TO SHEET 3 FOR DETAILS)

REV. H
INSTALL:
1-50mm RPVC
2 No.10 LUM.
12 No.14 SIGNALS
1 No.10 BOND

REV. H
1-50mm RPVC
2 No.10 RW90 LUM. CCT. K
15 No.14 RW90 SIGNALS
1 No.12 RW90 BOND
REMOVE: 11 No.14 RW90 SIGNALS

REV. H
MODIFY: EXIST. SIGNAL POLE
(REFER TO SHEET 3 FOR DETAILS)

REV. H
MODIFY: EXIST. SIGNAL POLE
(REFER TO SHEET 3 FOR DETAILS)

REV. H
INSTALL: NEW SIGNAL POLE C/W SIGNAL
EQUIPMENT ON A TYPE L2 CONCRETE BASE
(REFER TO SHEET 3 FOR DETAILS)

1-32mm RPVC
3 No.10 RW90 LUM. CCTS. M&N
2 No.14 RW90 IS. FLASH.
1 No.12 RW90 BOND

REV. H
REMOVE: EXIST. SIGNAL
POST C/W CONCRETE BASE

REV. H
REMOVE: EXIST. CONDUCTORS
AND ABANDON CONDUIT (TYP.)

REV. H
INSTALL: 3-25mm RPVC

REV. H
REMOVE: EXIST. SIGNAL
POLE C/W CONCRETE BASE

REV. H
1-50mm RPVC
3 No.10 RW90 LUM. CCTS. K&L
14 No.14 RW90 SIGNALS
1 No.10 RW90 SIG. NEUT.
1 No.12 RW90 BOND
REMOVE: 1-2C SH. LOOPS

REV. H
MODIFY: EXIST. SIGNAL POLE
(REFER TO SHEET 3 FOR DETAILS)

1-76mm RPVC FUT. COMM.
STUB AND CAP 1.0m
(EMPTY)

1-50mm RPVC
12 No.14 RW90 SIGNALS
1-4Pr. No. 18 SH. PRE-EMPT INTERTIE
2 No. 12 PRE-EMPT CAB. PWR.
1 No.12 RW90 BOND

TYPE S TRAFFIC
CONTROLLER
CABINET AND BASE

REV. H
1-50mm RPVC
2 No.6 RW90 CONT. PWR.
1 No.8 RW90 BOND

1-50mm RPVC
28 No.14 RW90 SIGNALS
1 No.10 RW90 SIG. NEUT.
1 No.8 RW90 BOND

1-50mm RPVC
14-2C SH. LOOPS
1 No.12 RW90 BOND
REMOVE: 2-2C SH. LOOPS

1-50mm RPVC
1-3PR SH. INTERCONNECT CABLE (WEST)
1-3PR SH. INTERCONNECT CABLE (EAST)
1-4Pr. No. 18 SH. PRE-EMPT INTERTIE

REV. H
REMOVE: EXIST. SIGNAL POST C/W CONCRETE BASE.
INSTALL: NEW 7.5m-150W H.P.S. (FG) LUM. POLE
C/W TYPE C CONCRETE BASE IN SAME LOCATION.
(REFER TO SHEET 3 FOR ADDITIONAL DETAILS)

1-50mm RPVC
2 No.4 RW90 CONT. PWR.
3 No.10 RW90 LUM. CCTS. K&L
1-3PR SH. INTERCONNECT CABLE
2 No. 12 PRE-EMPT CAB. PWR.
1 No.8 RW90 BOND

REV. H
INSTALL:
1-50mm RPVC
2 No.10 LUM. CCT. K
8 No.14 SIGNALS
1 No.10 BOND

REV. H
INSTALL: 3-25mm RPVC

1-50mm RPVC
21 No.14 RW90 SIGNALS
1 No.10 RW90 SIG. NEUT.
1 No.12 RW90 BOND
1-50mm RPVC
6-2C SH. LOOPS
1 No.12 RW90 BOND

1-32mm RPVC
3 No.10 RW90 LUM. CCTS. M&N
2 No.14 RW90 IS. FLASH.
1 No.12 RW90 BOND

REV. H
1-50mm RPVC
2 No.10 RW90 LUM. CCT. M
15 No.14 RW90 SIGNALS
1 No.12 RW90 BOND
REMOVE: 2 No.14 RW90 SIGNALS

REV. H
INSTALL:
1-35mm RPVC
2 No.14 SIGNALS
1 No.10 BOND

REV. H
INSTALL: PED. PUSHBUTTON POST
(REFER TO THIS SHEET FOR DETAILS)

1-50mm RPVC
3 No.10 RW90 LUM. CCTS. M&N
14 No.14 RW90 SIGNALS
1 No.10 RW90 SIG. NEUT.
2 No.14 RW90 IS. FLASH.
1 No.12 RW90 BOND
1-50mm RPVC
4-2C SH. LOOPS
1 No.12 RW90 BOND

REV. H
INSTALL: 1-25mm RPVC

REV. H
INSTALL:
1-50mm RPVC
2 No.10 LUM. CCT. M
15 No.14 SIGNALS
1 No.10 BOND

SITE PLAN
0 1:250 10

CHECK BEFORE YOU DIG

CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL
DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE
LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE
UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR.

OVERHEAD POWER LINE CONFLICTS

CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION
THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE
REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES.
CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES
TO DMD & ASSOCIATES LTD.

PRE-EMPTION CONDUCTOR LABELLING			
ITEM	LABEL	COLOUR	CONDUCTOR TYPE
PRE-EMPT. ENCLOSURE PWR.	N/A	BLACK/WHITE	RW90
GPS/RADIO SENSOR CABLE	S1	N/A	GPS/RADIO ANTENNA CABLE
PRE-EMPT. INTERTIE	PRE-INT	N/A	BELDEN 9389

REV. H

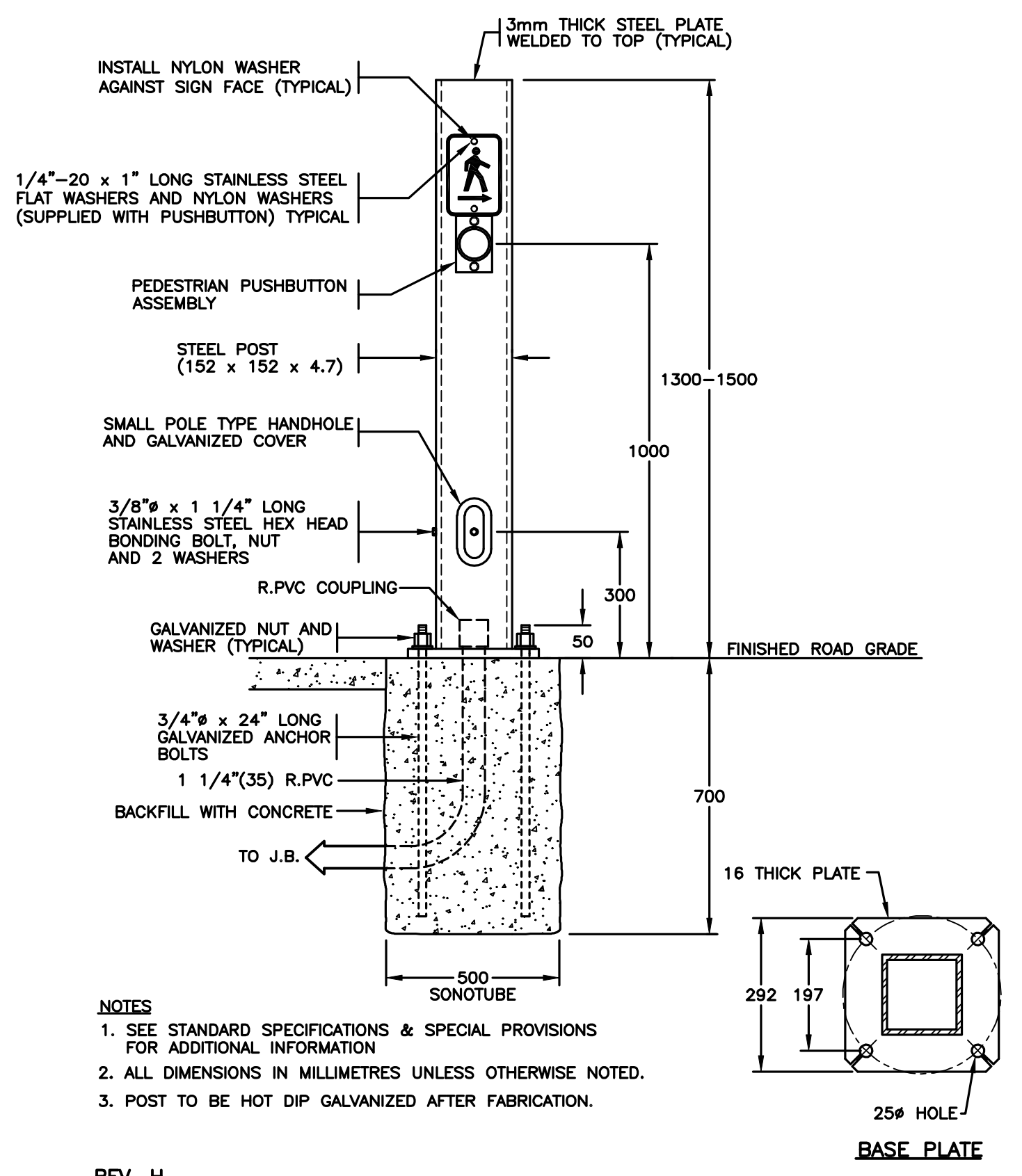
INTERSECTION ILLUMINANCE DESIGN CRITERIA		
ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
INTERSECTION NAME	HIGHWAY 33/DOUGALL ROAD	
PEDESTRIAN CONFLICT AREA	MEDIUM	
ROAD CLASSIFICATION	MAJOR/MAJOR	
ILLUMINATION LEVEL (AVG.)	26 LUX	30.6 LUX
UNIFORMITY RATIO (AVG.:MIN.)	3:1	2.0:1

REV. H

ALL EQUIPMENT IS EXISTING
EXCEPT WHERE NOTED

COLOUR CODE		
ITEM	SIGNAL SECTION	CONDUCTOR COLOUR
A1	RED	RED
	YELLOW	YELLOW
A2	RED	RED
	YELLOW	YELLOW (RED T.T.)
B1	RED	RED
	YELLOW	BROWN
B2	RED	BROWN
	YELLOW	BROWN (ORANGE T.T.)
PA1 (CHIRP)	DON'T WALK	YELLOW
	WALK	BLUE
PA2 (CHIRP)	DON'T WALK	PURPLE/PURPLE (YELLOW T.T.)
	WALK	PURPLE/PURPLE (RED T.T.)
PB1 (CUCKOO)	DON'T WALK	BROWN
	WALK	BLUE
PB2 (CUCKOO)	DON'T WALK	BROWN (ORANGE T.T.)
	WALK	BLUE
CONTROLLER POWER		BLACK
LUMINAIRE CCTS. 'K&M'		RED
LUMINAIRE CCTS. 'L&N'		BLACK
ISLAND FLASHER		ORANGE
NEUTRAL		WHITE
GROUND/BOND		GREEN

NOTE: T.T. DENOTES TAPE TRACER



- NOTES
- SEE STANDARD SPECIFICATIONS & SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION
 - ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
 - POST TO BE HOT DIP GALVANIZED AFTER FABRICATION.

REV. H
INSTALL: PUSHBUTTON POST INSTALLATION DETAILS
N.T.S.

REV. H
INSTALL & RETAG: LOOPS

DETECTOR LOOP DETAILS						
LOOP			INDUCTANCE			PHASE
LOOP No.	SIZE	TURNS	LOOP	LEAD	TOTAL	
L 1	1.8 DIA.	4	95	3	98	A2
L 2	1.8 DIA.	4	95	3	98	A2
L 3	1.8 DIA.	4	95	3	98	A2
L 4	1.8 DIA.	4	95	3	98	A2
L 5	1.8 DIA.	4	95	19	114	B2
L 6	1.8 DIA.	4	95	19	114	B2
L 7	1.8 DIA.	4	95	31	126	A1
L 8	1.8 DIA.	4	95	31	126	A1
L 9	1.8 DIA.	4	95	31	126	A1
L 10	1.8 DIA.	4	95	31	126	A1
L 11	1.8 DIA.	4	95	17	112	B1
L 12	1.8 DIA.	4	95	17	112	B1

REFER TO SHEET 1 FOR NOTES

REFER TO SHEET 3 FOR
ELEVATIONS

POSTED SPEED 50 km/h


DO NOT USE THIS DRAWING FOR
PAVEMENT MARKING STANDARDS

ALL DIMENSIONS ARE IN MILLIMETRES
EXCEPT WHERE NOTED

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION"
FOR APPLICABLE STANDARD DRAWINGS



DMD & Associates Ltd.
#12-17358 104A Avenue, Surrey, BC, Canada V4N 5M3
www.dmdeng.com 604/589-9010
office@dmdeng.com Fax 604/589-9012
DMD PROJECT No. 4143-13-05 of 08



BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION
AND INFRASTRUCTURE
ELECTRICAL ENGINEERING CENTRE

CAD FILENAME: 950132H.dwg			
REV	DATE	REVISIONS	DRAWN
B	MAR/96	RECORD DRAWING	UNIQUE
C	FEB/00	REMOVAL OF EMERGENCY PRE-EMPTION	NIP
D	SEP/01	REMOVAL OF LOOPS ON RTE 97. RECORD DRAWING.	KCH
E	JAN/06	GPS BASED PRE-EMPTION ADDED	CDC
F	MAR/10	RECORD DRAWING	ABC
G	MAY/13	LIGHTING REVISION TO SUIT BUS PULL OUTS	BK
H	JUL/13	SIGNAL REVISED TO SUIT CHANGE IN GEOMETRICS	ML


SHEET 2 OF 5		SITE CODE	HWY DIST	REG	DRAWING NUMBER
			5	2	TE-95013-2

DESIGNED: MS DATE: JUL/13

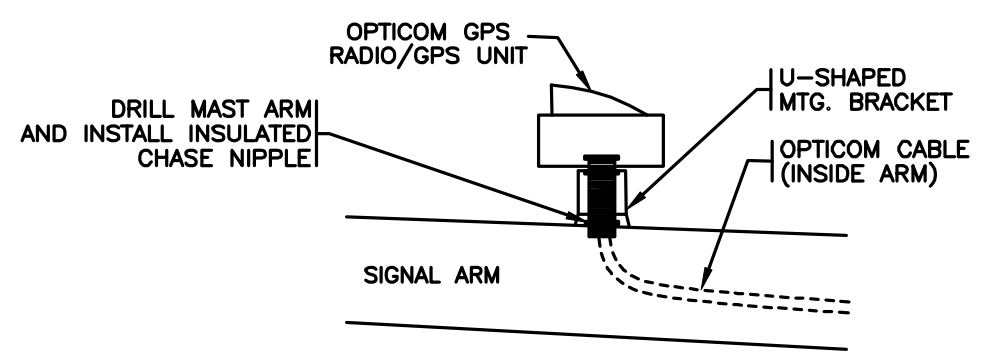
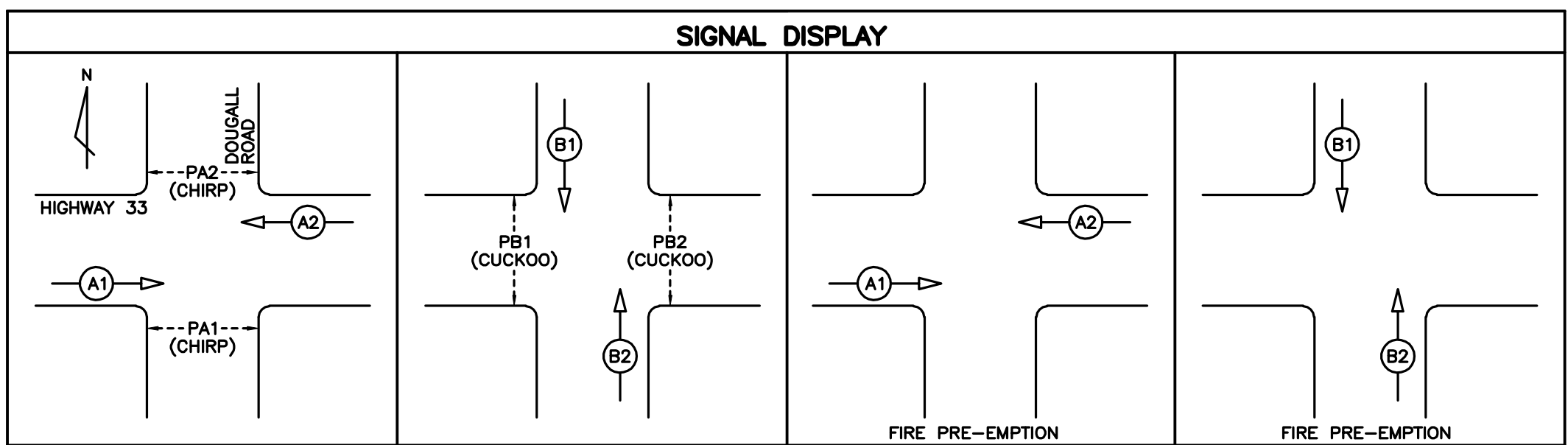
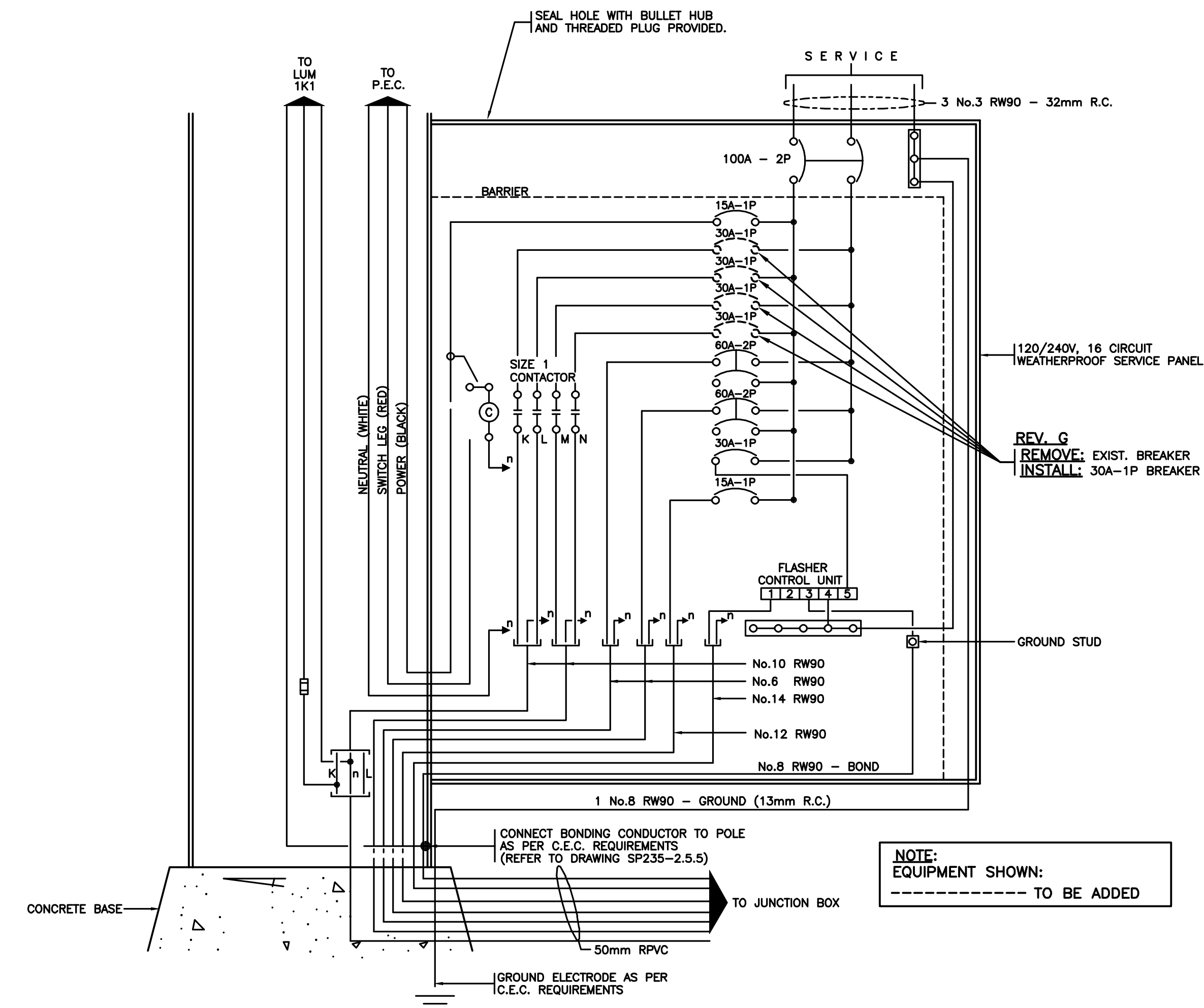
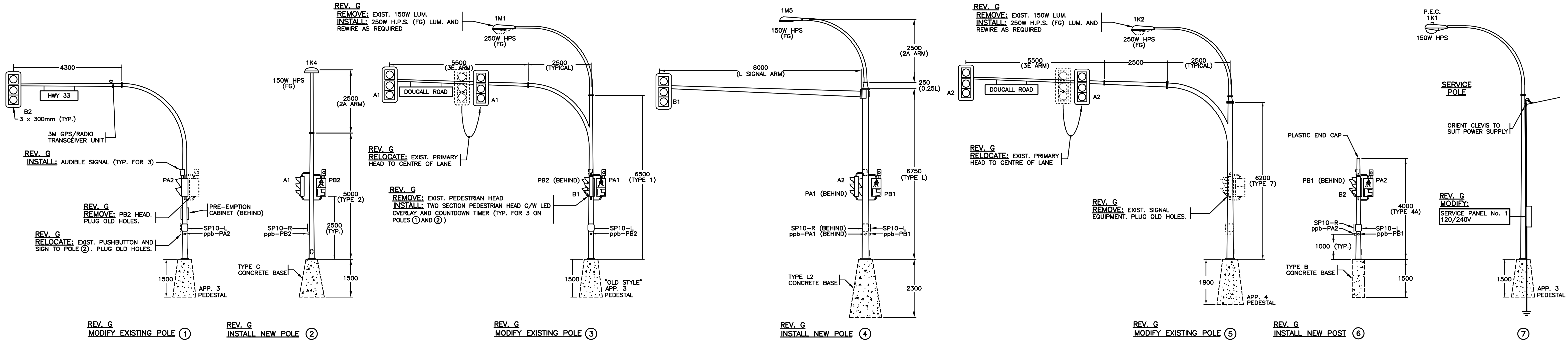
QUALITY CONTROL: DJW DATE: JUL/13

QUALITY ASSURANCE: DJW DATE: JUL/13

TRAN ELECTRICAL DESIGN REVIEW: DATE:



ELECTRICAL ENGINEER OF RECORD
(FOR CURRENT REVISION)
DATE: JUL 09 2013



OPTICOM GPS ANTENNA DETAIL
N.T.S.

REFER TO SHEET 1 FOR NOTES

ALL DIMENSIONS ARE IN MILLIMETERS
EXCEPT WHERE NOTED

SEE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION"
FOR APPLICABLE STANDARD DRAWINGS

REV. G
MODIFY: WIRING DIAGRAM - SERVICE PANEL No. 1
N.T.S.

REV. H

ALL EQUIPMENT IS EXISTING
EXCEPT WHERE NOTED

DMD & Associates Ltd. #12-17358 104A Avenue, Surrey, BC, Canada V4N 5M3 www.dmdeng.com office@dmdeng.com 604/589-9010 Fax 604/589-9012 DMD PROJECT No. 4143-13-06 of 08				BRITISH COLUMBIA MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE ELECTRICAL ENGINEERING CENTRE			
CAD FILENAME 950133G.dwg							
SIGNAL AND LIGHTING REVISION HIGHWAY 33 AT DOUGALL ROAD AND ROXBYS STREET KELOWNA							
ELEVATIONS - WIRING DIAGRAM - DETAILS							
DESIGNED MS DATE JUL/13				QUALITY CONTROL DJW DATE JUL/13			
QUALITY ASSURANCE DJW DATE JUL/13				TRAN ELECTRICAL DESIGN REVIEW DATE			
SHEET NUMBER		SITE CODE		HWY DIST		REG	
3		5		5		2	
DRAWING NUMBER		TE-95013-3					
G		G					

Paluch, Alisha TRAN:EX

From: Siddiqui, Faisal TRAN:EX
Sent: Tuesday, July 2, 2013 2:21 PM
To: Denny Leung; Babineau, John TRAN:EX
Cc: King, Spencer TRAN:EX; Rob Bedard; King, Spencer TRAN:EX
Subject: RE: Hwy 33 - Signed/sealed TECs

Denny,

While I will get you a detailed response on your questions below; in short the background info is that back in 2009, BC Transit commissioned a TSP project along Hwy 33 and then later relocated the route along Hwy 97. Therefore, TSP devices (GPS Opticom) were installed but they never became functional. In the end, same devices were used for Emergency pre-emption purpose. I will get you an answer soon but in my memory recollection we have emergency pre-emption along most of the intersections and need to show that accordingly except Rutland intersection where the city was supposed to supply preemption devices but it was never done.

Audible signals at Hollywood and Rutland intersections are installed through another project and they might be already functional as we speak so we don't think that was part of your project and no need to show them on your TECs.

Advance left turn for WB at Rutland, I am not sure what is the source of your rationale but our records show higher safety concerns relative to other three directions. Also, the commissioning/monitoring/operations of our electrical infrastructure mainly signals is done through our office and we NEED to see that 4th advance LT signal added in this project. Not sure about your recent discussion with Spencer because we spoke last week and it was not a concern for him.

Hope this helps in the interim while I get you a more detailed response.

Thanks,

Faisal

From: Denny Leung [dleung@mcelhanney.com]
Sent: Tuesday, July 02, 2013 1:32 PM
To: Babineau, John TRAN:EX; Siddiqui, Faisal TRAN:EX
Cc: King, Spencer TRAN:EX; Rob Bedard
Subject: RE: Hwy 33 - Signed/sealed TECs

Hi Faisal,

As mentioned by John, the Ministry's existing signal timing sheets (STS) do contradict with the existing electrical drawings. I will try to update the TEC as much as possible based on the available information. Please clarify the following:

N/R

N/R

5. Roxby

- a) No new electrical drawing submitted so we will not show on TEC.
- b) John asked to show existing emergency pre-emption but existing STS does not show this. Please advise.
- c) Existing electrical dwg shows Roxby "Street"; however, street signs on Google street view is showing Roxby "Road". Also local businesses address use Roxby Road, We will continue to use Roxby Road.
- d) Existing STS shows phase A for Hwy 33. We will update to show phase A1 for EB and A2 for WB.

N/R

Thanks,
Denny

From: Babineau, John TRAN:EX [mailto:John.Babineau@gov.bc.ca]
Sent: Friday, June 28, 2013 12:44 PM
To: Denny Leung
Cc: Siddiqui, Faisal TRAN:EX; King, Spencer TRAN:EX
Subject: RE: Hwy 33 - Signed/sealed TECs

Denny,

Please see attached comments regarding the TECs. I have included all our existing drawings in a separate email.

A few general comments for the TECs:

- Clearly state 300mm bimodal countdown timers with pedestrian head on top and countdown time below
- The Ministry no longer uses the Chirp Chirp audible, and instead uses the Canadian melody
- The type of emergency pre-emption needs to be specified
- Include Zps-015-5 ped pushbutton signs at all intersections with countdown timers. I have attached the sign record.

Our electrical drawings and timing sheets contradict each other in many locations. This was a pre-existing condition but is something that we need to address at this time. In order to clearly understand what existing infrastructure is on the corridor, please contact the City of Kelowna and determine which intersections have Transit Signal Priority and which have emergency pre-emption. If they are unable to assist, Jamie Hill of Westcana Electric (250 491 9080, jamie@westcana.com) may have further information.

N/R

Please coordinate with Faisal Siddiqui on these updates next week as I will be unavailable.

John Babineau, EIT
250 828 4304 (w)

s22

From: Denny Leung [<mailto:dleung@mcelhanney.com>]
Sent: Friday, June 28, 2013 9:30 AM
To: Babineau, John TRAN:EX; King, Spencer TRAN:EX
Cc: Rob Bedard; Ahmad Puri; Santino Pirillo
Subject: RE: Hwy 33 - Signed/sealed TECs

With TECs attached.

From: Denny Leung
Sent: Friday, June 28, 2013 9:28 AM
To: Babineau, John TRAN:EX (John.Babineau@gov.bc.ca); King, Spencer TRAN:EX (Spencer.King@gov.bc.ca)
Cc: Rob Bedard; Ahmad Puri; Santino Pirillo
Subject: Hwy 33 - Signed/sealed TECs

Hi Spencer and John,

Attached are the signed/sealed TECs for the seven intersections along Hwy 33, from Muir to Mills.

I hope to forward the STSs and Synchro files by end of today. As mentioned on the phone, this task is taking a lot of effort as we need to re-coordinate all the signals. The added advance lefts at Rutland has changed the cycle length and therefore all the coordinated signals need to be adjusted to match the new cycle length. A new Synchro model has to be built for this corridor.

As requested by John, we are also recalculating the pedestrian clearance time using a slower walking speed of 1m/s (instead of 1.2 m/s) due to the aging population.

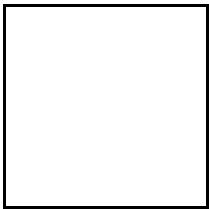
Please note that the above tasks were not part of the original scope.

Thanks
Denny

Denny Leung, P.Eng.,
Senior Transportation Engineer



McElhanney Consulting Services Ltd.
100 - 780 Beatty Street, Vancouver BC V6B 2M1
T 604.683.8521 / D 604.424.4860
Email: DLeung@mcelhanney.com / Web: www.mcelhanney.com/mcsl



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Paluch, Alisha TRAN:EX

From: Siddiqui, Faisal TRAN:EX
Sent: Thursday, July 4, 2013 3:34 PM
To: Chow, Adrienne B TRAN:EX
Cc: Babineau, John TRAN:EX; King, Spencer TRAN:EX; 'Denny Leung'; Barry, Art TRAN:EX
Subject: RE: Hwy 33 - Signed/sealed TECs
Attachments: TEC HWY33@GERSTMAR ROAD 2013 JULY 04.pdf; TEC HWY33@HOLLYWOOD ROAD 2013 JULY 04.pdf; TEC HWY33@MILLS ROAD 2013 JULY 04.pdf; TEC HWY33@MOLNAR ROAD 2013 JULY 04.pdf; TEC HWY33@RUTLAND ROAD 2013 JULY 04.pdf; TEC HWY33@ROXBY ROAD 2013 JULY 04.pdf; TEC HWY33@DOUGALL ROAD 2013 JULY 04.pdf

Adrienne,

Signed TECs are attached.

NR

Please cc Spencer on your response when you accept the drawings.

Thanks,

Faisal

From: Denny Leung [mailto:dleung@mcelhanney.com]
Sent: Thursday, July 4, 2013 11:27 AM
To: Siddiqui, Faisal TRAN:EX; King, Spencer TRAN:EX
Cc: Babineau, John TRAN:EX; Rob Bedard; Ahmad Puri; 'Andrew Albiston' (aalbiston@kelowna.ca)
Subject: RE: Hwy 33 - Signed/sealed TECs

Hi Faisal,

Thanks again for your comments and coordinating your field crew to document the existing electrical infrastructure. I have revised the attached signed/sealed TECs accordingly.

N/R

We are in the process of updating the Synchro model to include the WB left turn phase at Rutland and will submit the seven (7) STSs soon.

Please call if you have any questions.

Thanks
Denny

Denny Leung, P.Eng.,
Senior Transportation Engineer



McElhanney Consulting Services Ltd.
100 - 780 Beatty Street, Vancouver BC V6B 2M1
T 604.683.8521 / D 604.424.4860
Email: DLeung@mcelhanney.com / Web: www.mcelhanney.com/mcsl

-----Original Message-----

From: Siddiqui, Faisal TRAN:EX [<mailto:Faisal.Siddiqui@gov.bc.ca>]
Sent: Wednesday, July 03, 2013 9:18 AM
To: Denny Leung
Cc: Babineau, John TRAN:EX
Subject: Fw: Hwy 33 - Signed/sealed TECs

After you gone through these comments let's talk on the phone to see if you still have any questions..

----- Original Message -----

From: Harvey Duggan [<mailto:Harvey@westcana.com>]
Sent: Wednesday, July 03, 2013 09:10 AM Pacific Standard Time
To: Siddiqui, Faisal TRAN:EX
Subject: RE: Hwy 33 - Signed/sealed TECs

N/R

Roxby - nothing in place for TSP or P/E, no GSP equipment of any kind ever installed.

N/R

Hope this helps.

Best Regards,

Harvey Duggan
Kelowna Controller Shop Foreman

t: 250-491-9080 | f: 250-491-9085 | s22 | @: harvey@westcana.com

Unit A 960 Alsgard St. | Kelowna, BC | V1X 7J2

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-----Original Message-----

From: Siddiqui, Faisal TRAN:EX [mailto:Faisal.Siddiqui@gov.bc.ca]

Sent: Tuesday, July 02, 2013 5:22 PM

To: Harvey Duggan

Subject: RE: Hwy 33 - Signed/sealed TECs

Thank you so much Harvey. Yes, a more definitive response would be really valuable here.

NR

Hope to hear from you tomorrow.

Thanks,

Faisal

From: Harvey Duggan [Harvey@westcana.com]

Sent: Tuesday, July 02, 2013 4:36 PM

To: Siddiqui, Faisal TRAN:EX

Subject: RE: Hwy 33 - Signed/sealed TECs

N/R

N/R

Roxby - no Gps or fire equipment ever installed. I think locally is known as Roxby Road.

N/R

Best Regards,

Harvey Duggan
Kelowna Controller Shop Foreman

t: 250-491-9080 | f: 250-491-9085 | s22 | @: harvey@westcana.com

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-----Original Message-----

From: Siddiqui, Faisal TRAN:EX [mailto:Faisal.Siddiqui@gov.bc.ca]

Sent: Tuesday, July 02, 2013 1:41 PM

To: Jamie Hill; Harvey Duggan

Cc: Babineau, John TRAN:EX

Subject: FW: Hwy 33 - Signed/sealed TECs

Importance: High

There seems to be inconsistency between the drawings and the STSs causing confusions along Hwy 33 which I would like to clean up with this project.

What I need to know is where we have TSP installed and functional. If only prewired, please specify the type of device if any installed. Same for Emerg. pre-emption.

Your attention to this matter is appreciated. I can put a response together to the consultant with other answers requested in the email below.

Thanks,

Faisal

From: Denny Leung [dleung@mcelhanney.com]
Sent: Tuesday, July 02, 2013 1:32 PM
To: Babineau, John TRAN:EX; Siddiqui, Faisal TRAN:EX
Cc: King, Spencer TRAN:EX; Rob Bedard
Subject: RE: Hwy 33 - Signed/sealed TECs

Hi Faisal,

As mentioned by John, the Ministry's existing signal timing sheets (STS) do contradict with the existing electrical drawings. I will try to update the TEC as much as possible based on the available information. Please clarify the following:

N/R

N/R

5. Roxby

- a) No new electrical drawing submitted so we will not show on TEC.
- b) John asked to show existing emergency pre-emption but existing STS does not show this. Please advise.
- c) Existing electrical dwg shows Roxby "Street"; however, street signs on Google street view is showing Roxby "Road". Also local businesses address use Roxby Road, We will continue to use Roxby Road.
- d) Existing STS shows phase A for Hwy 33. We will update to show phase A1 for EB and A2 for WB.

N/R

Thanks,
Denny

From: Babineau, John TRAN:EX [mailto:John.Babineau@gov.bc.ca]
Sent: Friday, June 28, 2013 12:44 PM
To: Denny Leung
Cc: Siddiqui, Faisal TRAN:EX; King, Spencer TRAN:EX
Subject: RE: Hwy 33 - Signed/sealed TECs

Denny,

Please see attached comments regarding the TECs. I have included all our existing drawings in a separate email.

A few general comments for the TECs:

- Clearly state 300mm bimodal countdown timers with pedestrian head on top and countdown time below
- The Ministry no longer uses the Chirp Chirp audible, and instead uses the Canadian melody
- The type of emergency pre-emption needs to be specified
- Include Zps-015-5 ped pushbutton signs at all intersections with countdown timers. I have attached the sign record.

Our electrical drawings and timing sheets contradict each other in many locations. This was a pre-existing condition but is something that we need to address at this time. In order to clearly understand what existing infrastructure is on the corridor, please contact the City of Kelowna and determine which intersections have Transit Signal Priority and which have emergency pre-emption. If they are unable to assist, Jamie Hill of Westcana Electric (250 491 9080, jamie@westcana.com) may have further information.

N/R

Please coordinate with Faisal Siddiqui on these updates next week as I will be unavailable.

John Babineau, EIT
250 828 4304 (w)

s22

From: Denny Leung [<mailto:dleung@mcelhanney.com>]
Sent: Friday, June 28, 2013 9:30 AM
To: Babineau, John TRAN:EX; King, Spencer TRAN:EX
Cc: Rob Bedard; Ahmad Puri; Santino Pirillo
Subject: RE: Hwy 33 - Signed/sealed TECs

With TECs attached.

From: Denny Leung
Sent: Friday, June 28, 2013 9:28 AM
To: Babineau, John TRAN:EX (John.Babineau@gov.bc.ca); King, Spencer TRAN:EX (Spencer.King@gov.bc.ca)
Cc: Rob Bedard; Ahmad Puri; Santino Pirillo
Subject: Hwy 33 - Signed/sealed TECs

Hi Spencer and John,

Attached are the signed/sealed TECs for the seven intersections along Hwy 33, from Muir to Mills.

I hope to forward the STSs and Synchro files by end of today. As mentioned on the phone, this task is taking a lot of effort as we need to re-coordinate all the signals. The added advance lefts at Rutland has changed the cycle length and

therefore all the coordinated signals need to be adjusted to match the new cycle length. A new Synchro model has to be built for this corridor.

As requested by John, we are also recalculating the pedestrian clearance time using a slower walking speed of 1m/s (instead of 1.2 m/s) due to the aging population.

Please note that the above tasks were not part of the original scope.

Thanks
Denny

Denny Leung, P.Eng.,
Senior Transportation Engineer

[cid:image001.jpg@01CE7714.76645060]

McElhanney Consulting Services Ltd.
100 - 780 Beatty Street, Vancouver BC V6B 2M1 T 604.683.8521 / D 604.424.4860
Email: DLeung@mcelhanney.com<mailto:GStankerl@mcelhanney.com> /
Web: www.mcelhanney.com/mcsl<http://www.mcelhanney.com/mcsl>

[cid:image002.jpg@01CE7714.76645060]

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[http://www.mcelhanney.com/McElhanneyLogoSignature.jpg]

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This message and attachment may contain privileged and confidential information. If you are not the intended recipient, please notify us of our error, do not disseminate or copy this communication, and destroy all copies.

Traffic Engineering Checklist

Location: Highway 33 @ Roxby Road, Kelowna, BC
(route, cross street and city)

Project Number: 2111-03020-0 MoT Intersection SiteCode: _____

Instructions:

- This checklist must be completed for all new or modifications to existing traffic signals.
- Attach supplementary pages if the space provided is not adequate.
- Page 3 must be signed by a MoT Traffic Engineer for completion.

2. Scope (Briefly describe the scope of work)

- Modification of the existing traffic signal (pedestrian signal)

- Installation of Countdown Timers with 300mm Bimodal on top and countdown underneath

3. Civil Design Scope

Comments based on: ☒ civil design drawings # R2-893-405
and/or: new electrical drawings TE # 95013-4 Rev D

Crosswalk revisions required?

No ☐ yes ☒ See Drawing # R2-893-405
(description or attach drawing)

Stop lines revisions required?

No ☐ yes ☒ See Drawing # R2-893-405
(description or attach drawing)

Lane marking revisions required?

No ☐ yes ☒ See Drawing # R2-893-405
(description or attach drawing)

Turning path revisions required?

No ☒ yes ☐ _____
(description or attach drawing)

Civil Design prepared by:



(Engineer's signature)

Denny Leung

(print name)

July 4, 2013

(date)

4. Traffic Design Scope

Road classification: Urban Arterial Undivided (UAU)
(rural arterial, urban arterial, etc.)

Signing modifications required? (if yes describe in detail or attach drawing)

Guide Sign modifications required?

No ☒ yes ☐ _____
(size & location – stn.#)

Lane Use sign modifications required?

No ☒ yes ☐ _____
(location(s) – stn.#)

Turn restrictions sign modifications required?

No ☒ yes ☐ _____
(type & location – stn.#)

Other sign modifications required?

No ☐ yes ☒ See Drawing # R2-893-705 (Add Zps-015-5 signs)
(description & location – stn.#)

Traffic Engineering Checklist

Location: Highway 33 @ Roxby Road, Kelowna, BC
(route and cross street)

4. Traffic Design Scope (continued)

Special features revisions required? (describe in detail if yes)

Advance warning signs (complete table below)?

No ☒ yes ☐ _____

(Which approaches?)

Approach	Speed km/h	Grade %	Approach	Speed km/h	Grade %
North			East		
South			West		
Road name: _____			Road name: _____		

Island flashers:

No ☒ yes ☐ _____
(Note those which exceed standards.)

Emergency preemption:

No ☒ yes ☐ _____
(Type – hardwire, audible, radio, strobe)

Indication lights: no ☒ yes ☐ _____
(Type and location)

Rail preemption: (which approaches?)

No ☒ yes ☐ _____

Blank-out display: no ☒ yes ☐ _____
(Type and approach)

Pedestrian Accommodation:

No ☐ yes ☒ Countdown timers to be installed
(Describe Location – Audibles, special pushbuttons, etc)

Cyclist Accommodation:

No ☒ yes ☐ _____
(Describe Location– loops, stencils, pushbuttons)

Transit/HOV Requirements:

No ☒ yes ☐ _____
(Describe – HOV laning, additional phasing)

Special detector requirements:

No ☒ yes ☐ _____
(Advance loops, queue loops, etc.)

Future requirements (within 5 years):

No ☒ yes ☐ _____
(e.g. advance arrows, different phasing, etc.)

Controller requirements:

New ☐ or Use existing ☒ M cabinet ☒ or S cabinet ☐ _____

Other items or comments: (Attach supplementary pages if the space provided is not adequate.)

Install countdown timers

No Changes to the existing phasing

5. Signal Phasing - ATTACH a preliminary timing sheet showing the following:

assignments • advance warning times • resting/recall phases

- Synchro Analysis reports

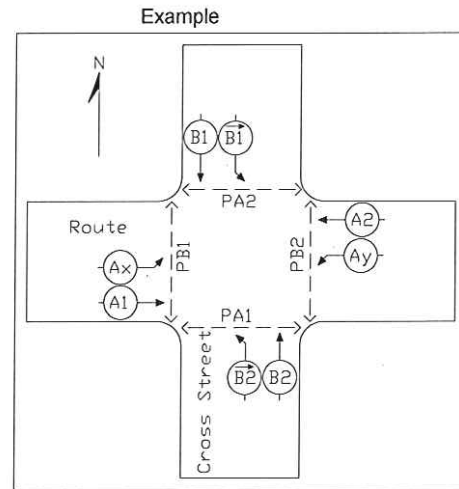
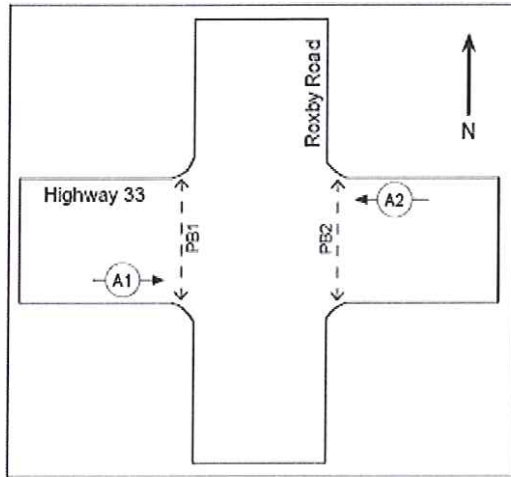
• phase

Traffic Engineering Checklist

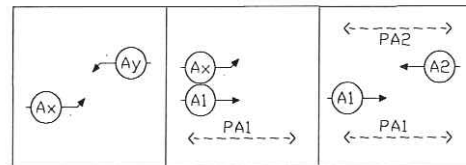
Location: Highway 33 @ Roxby Road, Kelowna, BC
(route and cross street)

5. Signal Phasing (continued)

Signal Phasing Layout (show all movements and north arrow).



Signal Phasing Sequencing (relative to Signal Phasing Layout above).



Show all combinations of vehicle and pedestrian movements in sequence.

Show emergency, railway, bus and other preemption sequences.

Identify clearance and preemption phases.

Traffic engineering prepared by:



(Engineer's signature)

Denny Leung
(print name)

July 4, 2013
(date)

6. MoT Traffic Engineering Approval (Must be completed for a checklist prepared by a consultant)

- ☒ Recommend to proceed.
☐ Changes required (*consultant must resubmit*):

(MOT Traffic Engineer signature)

(print name)

(date)

Paluch, Alisha TRAN:EX

From: Babineau, John TRAN:EX
Sent: Tuesday, January 7, 2014 1:40 PM
To: 'Jamie Hill'; King, Spencer TRAN:EX
Cc: Barry, Art TRAN:EX; Siddiqui, Faisal TRAN:EX; 'John Flintoft'; 'harvey@westcana.com'
Subject: RE: Rte 33 Muir to Mills Revised QA Deficiency List
Attachments: RE: Rte 33 CDTs

Jamie,

Please provide your cost estimate for Option 2 (Westcana to complete the works) listed below. Would it be possible to get this information today?

Thank you,

John Babineau, EIT
250 828 4304 (w)
s22

From: Jamie Hill [<mailto:jamie@westcana.com>]
Sent: December 31, 2013 8:35 AM
To: King, Spencer TRAN:EX
Cc: Barry, Art TRAN:EX; Siddiqui, Faisal TRAN:EX; 'John Flintoft'; harvey@westcana.com; Babineau, John TRAN:EX
Subject: Rte 33 Muir to Mills Revised QA Deficiency List

Good morning Spencer,

With regards to the Rte 33 Muir to Mills Project, we have been informed by Faisal Siddiqui, RTE, that all intersections within your project on Rte 33 were required by the Traffic Engineering Checksheets (TECs) to have countdown timers and their associated signs installed. In reviewing the construction completed to date, it has been observed that the following intersections did not meet this criteria;

- N/R
- Rte 33 @ Roxby
- N/R

In comparing the TECs with the electrical design, it appears that the electrical designer missed this requirement, and that the approved electrical designs did not reflect this requirement. Subsequently, the electrical sub-contractor appears to have been unaware of this requirement and the work was not bid on, nor completed. As such, we have included this issue in the QA electrical deficiency report; revised copy attached.

I can offer two suggested courses to rectify this situation;

- The designer can issue revised project drawings and the project electrical subcontractor can bid on and install this work as an extra. The problem with this is that the design revision may take several weeks, as well, the expected delivery date for countdown timers is 8 to 12 weeks or more, and the electrical subcontractor does not have excess stock in this item. This option could take 3 to 4 months to complete.

- Westcana has sufficient units in stock and can complete installation within 2 weeks. We can also send revised electrical designs to the designer, who can incorporate the revisions in their final record drawing revision.

Please let me know how you wish to proceed.

Thanks,

Jamie Hill
Okanagan Area Manager

t: 250-491-9080 | f: 250-491-9085 | s22 | @: Jamie@westcana.com



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Paluch, Alisha TRAN:EX

From: Jamie Hill <jamie@westcana.com>
Sent: Tuesday, January 7, 2014 9:11 AM
To: Siddiqui, Faisal TRAN:EX
Cc: King, Spencer TRAN:EX; 'John Flintoft'; 'Harvey Duggan'; Babineau, John TRAN:EX; Barry, Art TRAN:EX
Subject: RE: Rte 33 CDTs
Attachments: Rte 33 Muir to Mills QA 01072014.docx

Spencer,

In accordance with Faisal's directions, we have revised the QA deficiency list to include the supply and installation of MOTI standard CDT pedestrian signs. This has not been distributed. Copy is attached for your records.

Thanks.

Jamie

From: Siddiqui, Faisal TRAN:EX [<mailto:Faisal.Siddiqui@gov.bc.ca>]
Sent: January-06-14 12:50 PM
To: Jamie Hill
Cc: King, Spencer TRAN:EX; John Flintoft; Harvey Duggan; Babineau, John TRAN:EX
Subject: RE: Rte 33 CDTs

Yes, signs at all locations with CDTs which would be all signalized intersections including the 4 intersections still missing CDTs and audibles are only installed where defined in the TEC/Design.

Faisal

From: Jamie Hill [<mailto:jamie@westcana.com>]
Sent: Monday, January 6, 2014 12:48 PM
To: Siddiqui, Faisal TRAN:EX
Cc: King, Spencer TRAN:EX; 'John Flintoft'; harvey@westcana.com; Babineau, John TRAN:EX
Subject: Rte 33 CDTs

Faisal,

Ron Hagardt, the electrical contractor for the Rte 33 Project was in this morning to discuss installing CDT's in all of the intersections along Rte 33.

- He pointed out that he has not installed CDT signs at any of these locations. I assume that you wish CDT signs installed at all locations which have CDT's. Please confirm and I'll add it to the deficiency list.
- He asked where you wished audible peds to be installed. All intersections or just those identified on the design? Please advise.

FYI, we intend to install the quad left turn operation on Wednesday, Jan 9.

Thanks,

Jamie Hill
Okanagan Area Manager

t: 250-491-9080 | f: 250-491-9085 | s22 | @: Jamie@westcana.com



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QA ELECTRICAL INSPECTION OF: RTE 33 MUIR TO MILL PROJECT

DRAWINGS:

N/R

- **HWY 33 AT DOUGALL RD AND ROXBY STREET – TE95013-2**
- **HWY 33 AT DOUGALL RD AND ROXBY STREET – TE95013-3**

N/R

DATE OF INSPECTION: DEC 16, 2013, QA revised DEC 31, 2013, QA revised JAN 7, 2014

INSPECTED BY: WESTCANA ELECTRIC, KELOWNA

PROJECT SCOPE: LIGHTING INSTALLATIONS AND TRAFFIC SIGNAL CHANGES

WORK REMAINING:

- “AS BUILT” DRAWINGS REFLECTING ANY CHANGES DURING CONSTRUCTION
- DEFICIENCY LIST TO BE ADDRESSED

DEFICIENCIES:

The following items were noted as deficiencies to the Ministry of Transportation and Highways “Standard Specifications for Highway Construction”, the Canadian Electrical Code, the Traffic Engineering Checksheets, and /or the project electrical drawings:

COUNTDOWN TIMERS

- In reviewing the Traffic Engineering Checksheets submitted by Faisal Siddiqui, MOTI Regional Traffic Engineer, the TECs state that countdown timers are to be installed in all intersections. In comparing the TECs with the electrical design and the construction completed to date, it has been noted that the following intersections did not include the installation of countdown timers; Rte 33 @ Mills, Rte 33 @ Gertsmar, Rte 33 @ Roxby and Rte 33 @ Molnar.
- MOTI standard CDT pedestrian signs must be supplied and installed at each pedestrian push button location which controls a CDT pedestrian head.

N/R

Page 51 redacted for the following reason:

N/R

Paluch, Alisha TRAN:EX

From: Siddiqui, Faisal TRAN:EX
Sent: Wednesday, September 11, 2013 10:13 AM
To: 'Jamie Hill'; Babineau, John TRAN:EX
Cc: 'John Flintoft'; 'harvey@westcana.com'; Barry, Art TRAN:EX; King, Spencer TRAN:EX
Subject: RE: Rte 33 Muir to Mills
Attachments: Hwy 33 Muir to Mills (JUL 9).pdf; TEC HWY33@GERSTMAR ROAD 2013 JULY 04.pdf; TEC HWY33@HOLLYWOOD ROAD 2013 JULY 04.pdf; TEC HWY33@MILLS ROAD 2013 JULY 04.pdf; TEC HWY33@MOLNAR ROAD 2013 JULY 04.pdf; TEC HWY33@RUTLAND ROAD 2013 JULY 04.pdf; TEC HWY33@ROXBY ROAD 2013 JULY 04.pdf; TEC HWY33@DOUGALL ROAD 2013 JULY 04.pdf; Fw: Hwy 33 - Signed/sealed TECs

Jamie,

Hwy 33 electrical improvements are delivered through the paving project. Spencer King is the Project Manager.

We did have some discussion with your office during the design phase—please see attached correspondence. Sorry, if we were not clear that there was a project coming on this corridor. Like any other project delivered through rehab and capital expansion, Westcana will be performing QA/QC on all works, in addition to the controller works required for Rutland intersection and implementation of the new timing plan.

My sincere apology for any confusion Jamie—wish we had better resources these days.

Spencer, Westcana will be providing you a cost estimate of their works.

Thanks,

Faisal

From: Jamie Hill [<mailto:jamie@westcana.com>]
Sent: Wednesday, September 11, 2013 9:35 AM
To: Siddiqui, Faisal TRAN:EX; Babineau, John TRAN:EX
Cc: 'John Flintoft'; harvey@westcana.com
Subject: FW: Rte 33 Muir to Mills

John / Faisal,

NR

Could you please forward me a set of approved electrical designs, an engineering check sheet and a new timing sheet, so that we can begin the process.

Thanks.

Jamie

From: Barry, Art TRAN:EX [<mailto:Art.Barry@gov.bc.ca>]
Sent: September-11-13 8:54 AM
To: Jamie Hill
Subject: RE: Rte 33 Muir to Mills

Jamie,

NR

Once you have spoken to Don and Ron and have a better ide of costs let me know please and I will send out a WO.
Thanks,
Art

Art Barry
Manager, Electrical Services
Southern Interior Region, Operations



From: Jamie Hill [<mailto:jamie@westcana.com>]
Sent: Wednesday, September 11, 2013 8:38 AM
To: Barry, Art TRAN:EX
Subject: Rte 33 Muir to Mills

Art,

Don has arranged the requested meeting with Ron for 12:00 in my office, thanks.

NR

Thanks,

Jamie Hill
Okanagan Area Manager

t: 250-491-9080 | f: 250-491-9085 | s22 | @: Jamie@westcana.com



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Paluch, Alisha TRAN:EX

From: Siddiqui, Faisal TRAN:EX
Sent: Wednesday, July 3, 2013 9:18 AM
To: 'dleung@mcelhanney.com'
Cc: Babineau, John TRAN:EX
Subject: Fw: Hwy 33 - Signed/sealed TECs

After you gone through these comments let's talk on the phone to see if you still have any questions..

----- Original Message -----

From: Harvey Duggan [mailto:Harvey@westcana.com]
Sent: Wednesday, July 03, 2013 09:10 AM Pacific Standard Time
To: Siddiqui, Faisal TRAN:EX
Subject: RE: Hwy 33 - Signed/sealed TECs

N/R

Roxby - nothing in place for TSP or P/E, no GSP equipment of any kind ever installed.

N/R

Hope this helps.

Best Regards,

Harvey Duggan
Kelowna Controller Shop Foreman

t: 250-491-9080 | f: 250-491-9085 | s22 | @: harvey@westcana.com

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-----Original Message-----

From: Siddiqui, Faisal TRAN:EX [mailto:Faisal.Siddiqui@gov.bc.ca]

Sent: Tuesday, July 02, 2013 5:22 PM

To: Harvey Duggan

Subject: RE: Hwy 33 - Signed/sealed TECs

Thank you so much Harvey. Yes, a more definitive response would be really valuable here.

NR

Hope to hear from you tomorrow.

Thanks,

Faisal

From: Harvey Duggan [Harvey@westcana.com]

Sent: Tuesday, July 02, 2013 4:36 PM

To: Siddiqui, Faisal TRAN:EX

Subject: RE: Hwy 33 - Signed/sealed TECs

N/R

Roxby - no Gps or fire equipment ever installed. I think locally is known as Roxby Road.

N/R

Again, if you need certainty on any of this let me know and I'll have to make a run.

Best Regards,

Harvey Duggan
Kelowna Controller Shop Foreman

t: 250-491-9080 | f: 250-491-9085 s22 | @: harvey@westcana.com

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-----Original Message-----

From: Siddiqui, Faisal TRAN:EX [mailto:Faisal.Siddiqui@gov.bc.ca]

Sent: Tuesday, July 02, 2013 1:41 PM

To: Jamie Hill; Harvey Duggan

Cc: Babineau, John TRAN:EX

Subject: FW: Hwy 33 - Signed/sealed TECs

Importance: High

There seems to be inconsistency between the drawings and the STSs causing confusions along Hwy 33 which I would like to clean up with this project.

What I need to know is where we have TSP installed and functional. If only prewired, please specify the type of device if any installed. Same for Emerg. pre-emption.

Your attention to this matter is appreciated. I can put a response together to the consultant with other answers requested in the email below.

Thanks,

Faisal

From: Denny Leung [dleung@mcelhanney.com]
Sent: Tuesday, July 02, 2013 1:32 PM
To: Babineau, John TRAN:EX; Siddiqui, Faisal TRAN:EX
Cc: King, Spencer TRAN:EX; Rob Bedard
Subject: RE: Hwy 33 - Signed/sealed TECs

Hi Faisal,

As mentioned by John, the Ministry's existing signal timing sheets (STS) do contradict with the existing electrical drawings. I will try to update the TEC as much as possible based on the available information. Please clarify the following:

N/R

5. Roxby

- a) No new electrical drawing submitted so we will not show on TEC.
- b) John asked to show existing emergency pre-emption but existing STS does not show this. Please advise.
- c) Existing electrical dwg shows Roxby "Street"; however, street signs on Google street view is showing Roxby "Road". Also local businesses address use Roxby Road, We will continue to use Roxby Road.
- d) Existing STS shows phase A for Hwy 33. We will update to show phase A1 for EB and A2 for WB.

N/R

Thanks,
Denny

From: Babineau, John TRAN:EX [mailto:John.Babineau@gov.bc.ca]
Sent: Friday, June 28, 2013 12:44 PM
To: Denny Leung
Cc: Siddiqui, Faisal TRAN:EX; King, Spencer TRAN:EX
Subject: RE: Hwy 33 - Signed/sealed TECs

Denny,

Please see attached comments regarding the TECs. I have included all our existing drawings in a separate email.

A few general comments for the TECs:

- Clearly state 300mm bimodal countdown timers with pedestrian head on top and countdown time below
- The Ministry no longer uses the Chirp Chirp audible, and instead uses the Canadian melody

- The type of emergency preemption needs to be specified
- Include Zps-015-5 ped pushbutton signs at all intersections with countdown timers. I have attached the sign record.

Our electrical drawings and timing sheets contradict each other in many locations. This was a pre existing condition but is something that we need to address at this time. In order to clearly understand what existing infrastructure is on the corridor, please contact the City of Kelowna and determine which intersections have Transit Signal Priority and which have emergency preemption. If they are unable to assist, Jamie Hill of Westcana Electric (250 491 9080, jamie@westcana.com<<mailto:jamie@westcana.com>>) may have further information.

N/R

Please coordinate with Faisal Siddiqui on these updates next week as I will be unavailable.

John Babineau, EIT
250 828 4304 (w)
s22

From: Denny Leung [<mailto:dleung@mcelhanney.com>]
Sent: Friday, June 28, 2013 9:30 AM
To: Babineau, John TRAN:EX; King, Spencer TRAN:EX
Cc: Rob Bedard; Ahmad Puri; Santino Pirillo
Subject: RE: Hwy 33 - Signed/sealed TECs

With TECs attached.

From: Denny Leung
Sent: Friday, June 28, 2013 9:28 AM
To: Babineau, John TRAN:EX (John.Babineau@gov.bc.ca<<mailto:John.Babineau@gov.bc.ca>>); King, Spencer TRAN:EX (Spencer.King@gov.bc.ca<<mailto:Spencer.King@gov.bc.ca>>)
Cc: Rob Bedard; Ahmad Puri; Santino Pirillo
Subject: Hwy 33 - Signed/sealed TECs

Hi Spencer and John,

Attached are the signed/sealed TECs for the seven intersections along Hwy 33, from Muir to Mills.

I hope to forward the STSs and Synchro files by end of today. As mentioned on the phone, this task is taking a lot of effort as we need to re-coordinate all the signals.

NR

A new Synchro model has to be built for this corridor.

As requested by John, we are also recalculating the pedestrian clearance time using a slower walking speed of 1m/s (instead of 1.2 m/s) due to the aging population.

Please note that the above tasks were not part of the original scope.

Thanks
Denny

Denny Leung, P.Eng.,
Senior Transportation Engineer

[cid:image001.jpg@01CE7714.76645060]

McElhanney Consulting Services Ltd.
100 - 780 Beatty Street, Vancouver BC V6B 2M1 T 604.683.8521 / D 604.424.4860
Email: DLeung@mcelhanney.com<mailto:GStankerl@mcelhanney.com> / Web:
www.mcelhanney.com/mcsl<http://www.mcelhanney.com/mcsl>

[cid:image002.jpg@01CE7714.76645060]

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[http://www.mcelhanney.com/McElhanneyLogoSignature.jpg]

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SIGNAL TIMING SHEET

DATE ISSUED	DECEMBER 21, 2009	INTERSECTION	HIGHWAY 33 AT ROXBY ST./SHOPPER'S VILLAGE DRIVEWAY
CONTROLLER TYPE	LMD 8000	LOCATION	KELOWNA
CABINET TYPE	"M" RACK	SHEET NUMBER & REVISION	TE-95013-4C
SEQUENCE	SEQUENTIAL	SITE CODE	

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE SETTING	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
DESCRIPTION		HIGHWAY 33 EW		PEDESTRIAN CROSSING				
FUNCTION		A		PB				
OVERLAP								
MINIMUM GREEN		----		----				
PASSAGE								
YELLOW		4.2		3.0				
RED		2.0		----				
MAX I/MAX II		----		----				
MAXPLAN (1,2,3,4)		44		27				
MAXPLAN (5,6,7,8)								
WALK		39		7				
PEDESTRIAN CLEAR		5		20				
WALK		FLASH		STEADY				
RECALL		CNA1		OFF				
MEMORY		OFF		OFF				
COORDINATION ON PHASE		XXXX						
FIRST GREEN DISPLAY				XXXX				
INTERSECTION FLASH		YELLOW						
AWF TIME								
AWF TIME [CH1/CH2]								
DELAY DETECTION TIMING	NONE		PROGRAMMING COMMENTS					
			1. COORDINATED WITH GERSTMAR, HOLLYWOOD, RUTLAND, DOUGALL, AND MILLS					
			2. PHASE 2 SET TO CNA1					
			3.					
			4.					
PRE-EMPTION TYPE	NONE		OPERATIONAL COMMENTS					
DELAY TIME	NONE		1. HARDWIRE COMMUNICATION TO MASTER AT RTE 33 AT RTE 97					
PRE-EMPTION TIME	NONE		2.					
VOLUME LOGGING & MOES	MOES ON - 15 MINUTES		3.					
SCM	ON		4. HWY 33 POSTED SPEED LIMIT = 50KM/HR					

PED PERMISSIVE	0	CYCLE (1 TO 8)															
		1	2	3	4	5	6	7	8								
		80															
OFFSET (1 TO 4)		74															

TIME CLOCK SETTINGS						ADDITIONAL TIME CLOCK INFORMATION
TIME OF DAY	DAY OF WEEK	MAXPLAN (1 TO 8)	CYCLE (1 TO 8)	OFFSET (1 TO 4)	SERVICEPLAN (1 TO 8)	
0600-2200	SUN-SAT	1	1	1	--	MAX 1 COORDINATION ENABLED

ENGINEER OF RECORD S.D.A. GRANT

DATE

RECEIVED & DISTRIBUTED BY MOT

DATE

DATE IMPLEMENTED: 2010 FEB 23 @
0920 HRS

COORDINATION SHEET 1

DATE ISSUED	DECEMBER 21, 2009	INTERSECTION	HIGHWAY 33 AT ROXBY			
MAXPLAN	1	LOCATION	KELOWNA			
DAY OF WEEK	SUN-SAT	CYCLE LENGTH [sec]	80			
TIME OF DAY	0600-2200	OFFSETS [sec]	74			

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE SETTING	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
		HIGHWAY 33 E/W		PEDESTRIAN CROSSING				
FUNCTION		A		PB				
OVERLAP								
MINIMUM GREEN								
YELLOW		4.2		3.0				
RED		2.0						
VEHICULAR CLEARANCE		6.2						
PED WALK		39		7				
PED CLEARANCE		5		20				
AWF								
COORDINATED PHASES		XXXX						

TOTAL SPLIT								
TOTAL SPLIT GREEN TIME								

PHASE NUMBER	1	2	3	4	5	6	7	8
FORCE OFF (FO)				34				
START PERMISSIVE (SP)				0				
END OF PERMISSIVE (EP)				1				
END PED PERMISSIVE (EPP)								
MAXGREEN (MAX)		44		27				

PERMISSIVE	PHASES	SP	EP
1	4	0	1

SIGNAL TIMING SHEET

DATE ISSUED	DECEMBER 21, 2009	INTERSECTION	HIGHWAY 33 AT ROXBY ST./SHOPPER'S VILLAGE DRIVEWAY
CONTROLLER TYPE	LMD 8000	LOCATION	KELOWNA
CABINET TYPE	"M" RACK	SHEET NUMBER & REVISION	TE-95013-4C
SEQUENCE	SEQUENTIAL	SITE CODE	

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE SETTING	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
DESCRIPTION		HIGHWAY 33 E/W		PEDESTRIAN CROSSING				
FUNCTION		A		PB				
OVERLAP								
MINIMUM GREEN		----		----				
PASSAGE								
YELLOW		4.2		3.0				
RED		2.0		----				
MAX I/MAX II		----		----				
MAXPLAN (1,2,3,4)		44		27				
MAXPLAN (5,6,7,8)								
WALK		39		7				
PEDESTRIAN CLEAR		5		20				
WALK		FLASH		STEADY				
RECALL		CNA1		OFF				
MEMORY		OFF		OFF				
COORDINATION ON PHASE		XXXX		XXXX				
FIRST GREEN DISPLAY								
INTERSECTION FLASH		YELLOW						
AWF TIME								
AWF TIME [CH1/CH2]								
DELAY DETECTION TIMING	NONE		PROGRAMMING COMMENTS					
			1. COORDINATED WITH GERSTMAR, HOLLYWOOD, RUTLAND, DOUGALL, AND MILLS					
			2. PHASE 2 SET TO CNA1					
			3.					
			4.					
PRE-EMPTION TYPE	NONE		OPERATIONAL COMMENTS					
DELAY TIME	NONE		1. HARDWARE COMMUNICATION TO MASTER AT RTE 33 AT RTE 97					
PRE-EMPTION TIME	NONE		2.					
VOLUME LOGGING & MOES	MOES ON - 15 MINUTES		3.					
SCM	ON		4. HWY 33 POSTED SPEED LIMIT = 50KM/HR					

PED PERMISSIVE	0	CYCLE (1 TO 8)															
		1	2	3	4	5	6	7	8								
		80															
OFFSET (1 TO 4)		74															

TIME CLOCK SETTINGS							ADDITIONAL TIME CLOCK INFORMATION
TIME OF DAY	DAY OF WEEK	MAXPLAN (1 TO 8)	CYCLE (1 TO 8)	OFFSET (1 TO 4)	SERVICEPLAN (1 TO 8)		
0600-2200	SUN-SAT	1	1	1	--		MAX 1 COORDINATION ENABLED

ENGINEER OF RECORD S.D.A. GRANT

DATE

RECEIVED & DISTRIBUTED BY MOT

DATE

DATE IMPLEMENTED: 2010 FEB 23 @

TEMP CONSTRUCTION TS REMOVED 2013 NOVEMBER 25 @ 115 HRS 0920 HRS

COORDINATION SHEET 1

DATE ISSUED	DECEMBER 21, 2009	INTERSECTION	HIGHWAY 33 AT ROXBY			
MAXPLAN	1	LOCATION	KELOWNA			
DAY OF WEEK	SUN-SAT	CYCLE LENGTH [sec]	80			
TIME OF DAY	0600-2200	OFFSETS [sec]	74			

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE SETTING	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
		HIGHWAY 33 E/W		PEDESTRIAN CROSSING				
FUNCTION		A		PB				
OVERLAP								
MINIMUM GREEN								
YELLOW		4.2		3.0				
RED		2.0						
VEHICULAR CLEARANCE		6.2						
PED WALK		39		7				
PED CLEARANCE		5		20				
AWF								
COORDINATED PHASES		XXXX						

TOTAL SPLIT								
TOTAL SPLIT GREEN TIME								

PHASE NUMBER	1	2	3	4	5	6	7	8
FORCE OFF (FO)				34				
START PERMISSIVE (SP)				0				
END OF PERMISSIVE (EP)				1				
END PED PERMISSIVE (EPP)								
MAXGREEN (MAX)		44		27				

PERMISSIVE	PHASES	SP	EP
1	4	0	1

SIGNAL TIMING SHEET

DATE ISSUED	SEPTEMBER 17, 2013	INTERSECTION	HIGHWAY 33 AT ROXBY STREET
CONTROLLER TYPE	LMD 8000	LOCATION	KELOWNA
CABINET TYPE	"M" RACK	SHEET NUMBER & REVISION	TE-95013-4C
SEQUENCE	SEQUENTIAL	SITE CODE	

PHASE NUMBER	1				2				3				4				5				6				7				8			
PHASE SETTING	OFF				ON				OFF				ON				OFF				OFF				OFF				OFF			
DESCRIPTION					HIGHWAY 33								ROXBY STREET PEDESTRIAN																			
					EW																											
FUNCTION					A								PB																			
OVERLAP																																
MINIMUM GREEN					--								--																			
PASSAGE					--								--																			
YELLOW					4.2								3.0																			
RED					2.0								--																			
MAX I/MAX II*							--		--					--		--																
MAXPLAN (1,2,3,4)*																																
MAXPLAN (5,6,7,8)																																
WALK					40*								7																			
PEDESTRIAN CLEAR					5								20																			
WALK					FLASH								STEADY																			
RECALL*					CNA1								OFF																			
MEMORY					OFF								OFF																			
COORDINATION ON PHASE*																																
FIRST GREEN DISPLAY													XXXX																			
INTERSECTION FLASH					YELLOW																											
AWF TIME																																
AWF TIME [CH1/CH2]																																
DELAY DETECTION TIMING	NONE								PROGRAMMING COMMENTS																							
									1. TEMPORARY STS ISSUED FOR CONSTRUCTION*																							
									2. COORDINATION REMOVED*																							
									3.																							
									4.																							
PRE-EMPTION TYPE	NONE								OPERATIONAL COMMENTS																							
DELAY TIME	NONE								1.																							
PRE-EMPTION TIME	NONE								2.																							
VOLUME LOGGING & MOES	MOES ON - 15 MINUTES								3.																							
SCM	OFF*								4.																							
HWY 33 POSTED SPEED LIMIT = 50KM/H																																

PED PERMISSIVE	CYCLE (1 TO 8)*							
	1	2	3	4	5	6	7	8
OFFSET (1 TO 4)								

TIME CLOCK SETTINGS*						ADDITIONAL TIME CLOCK INFORMATION
TIME OF DAY	DAY OF WEEK	MAXPLAN (1 TO 8)	CYCLE (1 TO 8)	OFFSET (1 TO 4)	SERVICEPLAN (1 TO 8)	

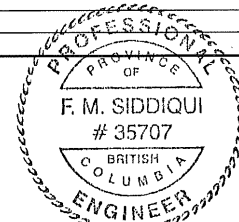
JOHN E. BABINEAU
DESIGNED BY

16-Sep-13
DATE

FAISAL M. SIDDIQUI
CHECKED BY

17-Sep-13
DATE

2013 OCTOBER 28 @ 1100 HRS
DATE IMPLEMENTED



F. M. Siddiqui
SEP 17, 2013