



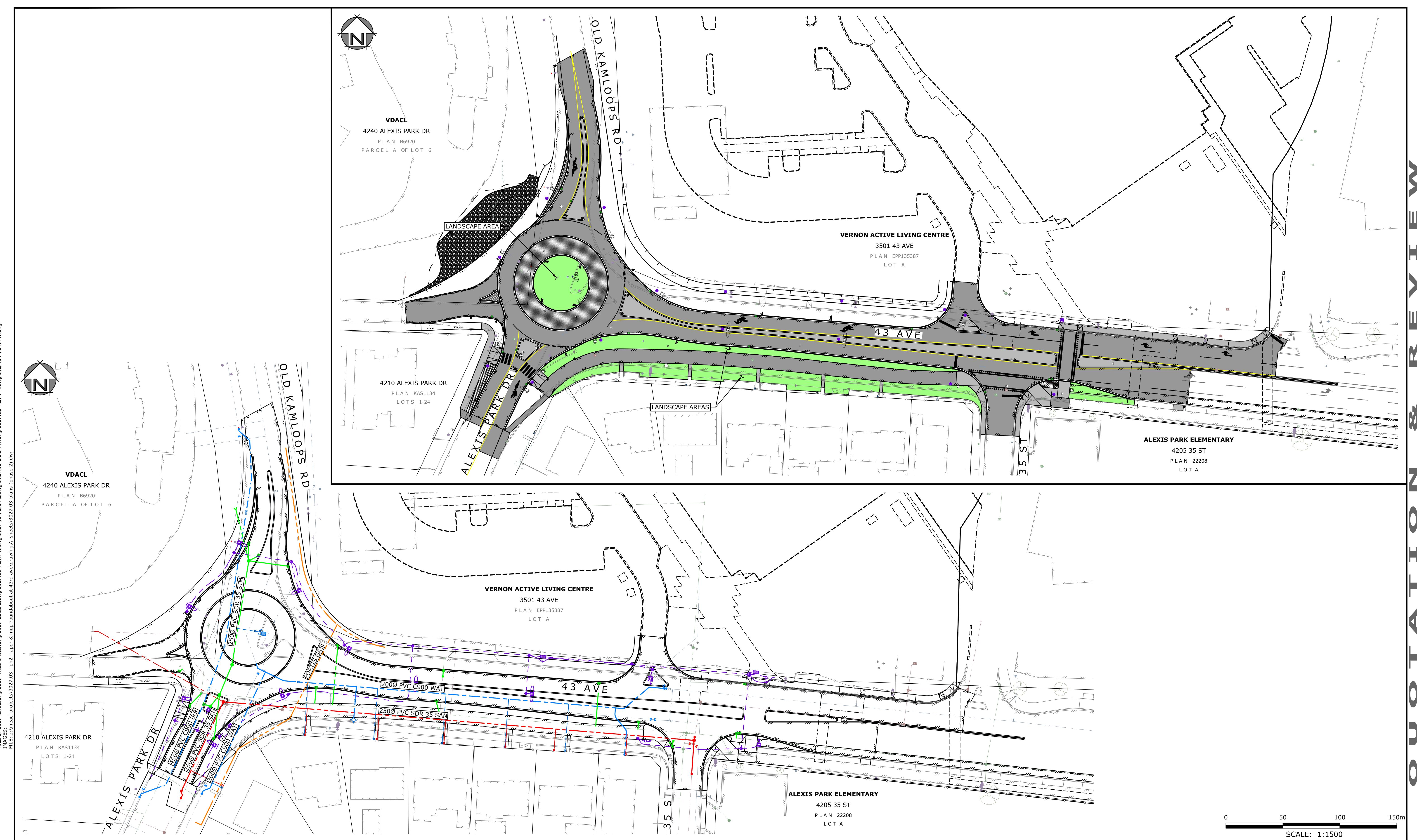
REGIONAL DISTRICT NORTH OKANAGAN

APDR - PHASE 2
ALEXIS PARK DR & 43 AVE ROUNDABOUT
OLD KAMLOOPS RD TO 35 ST
RE-ISSUED FOR QUOTATION & REVIEW



3710B 28th Street,
Vernon, BC, V1T 9X2

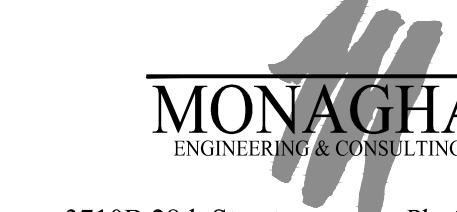
QUOTATION & REVIEW



LEGEND:

(EXISTING SYMBOLS SHOWN GREY/SOLID)

- EDGE OF ASPHALT
- EDGE OF GRAVEL
- EDGELINE
- BULDING
- TOP OF BANK
- BOTTOM OF BANK
- DITCH
- TREELINE
- SANITARY DRAIN
- WATER
- GAS
- HYDRO/TEL
- ANCHOR POLE
- HYDRO/TEL POLE
- LOW POWER TRANSFORMER
- SHAW CABLE TUB/VULT
- INTERSECTION BOX
- TRANSFORMER
- KIOSK
- TRAFFIC SIGNAL
- STREET LIGHT
- CAP
- INSPECTION CHAMBER
- SANITARY MANHOLE
- SEWER MANHOLE
- DRY WELL
- CATCHBASIN MANHOLE
- CATCHBASIN
- DRAINAGE INVERT
- HEADWALL
- PIPE
- WATER VALVE
- CURB STOP
- FIRE HYDRANT
- BLOW-OFF
- REDUCER
- COUPLER
- PROPERTY PIN
- HUB
- MONUMENT
- BOREHOLE
- SIGN
- TREE

EGBC PERMIT TO PRACTICE No. 1001446

 3710B 28th Street, Vernon, BC, V1T 9X2
 Ph: (250) 503-1023 Fax: (250) 503-1024

Seal

Scale 1:500

Date MAR 2025

Designed CH/CFB

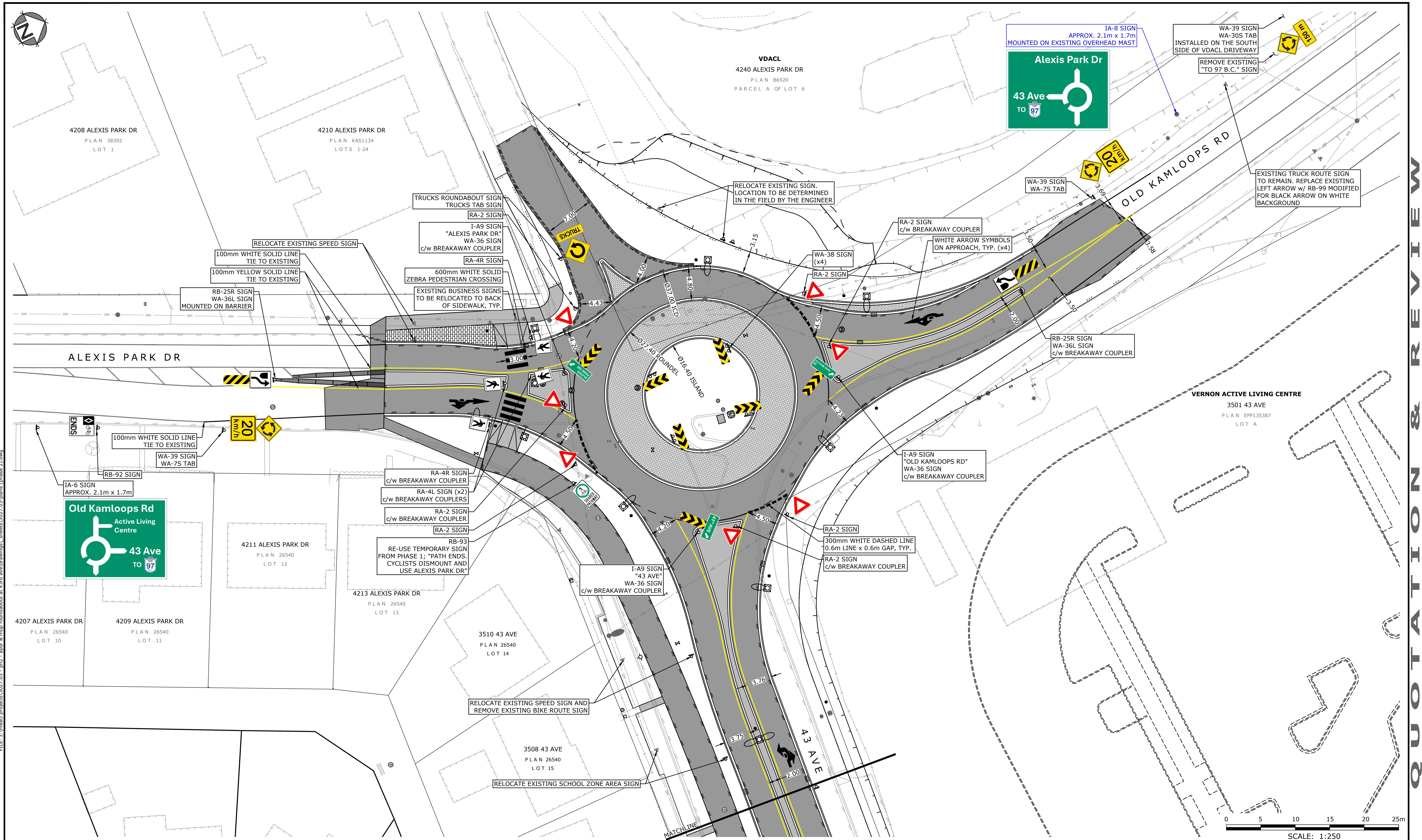
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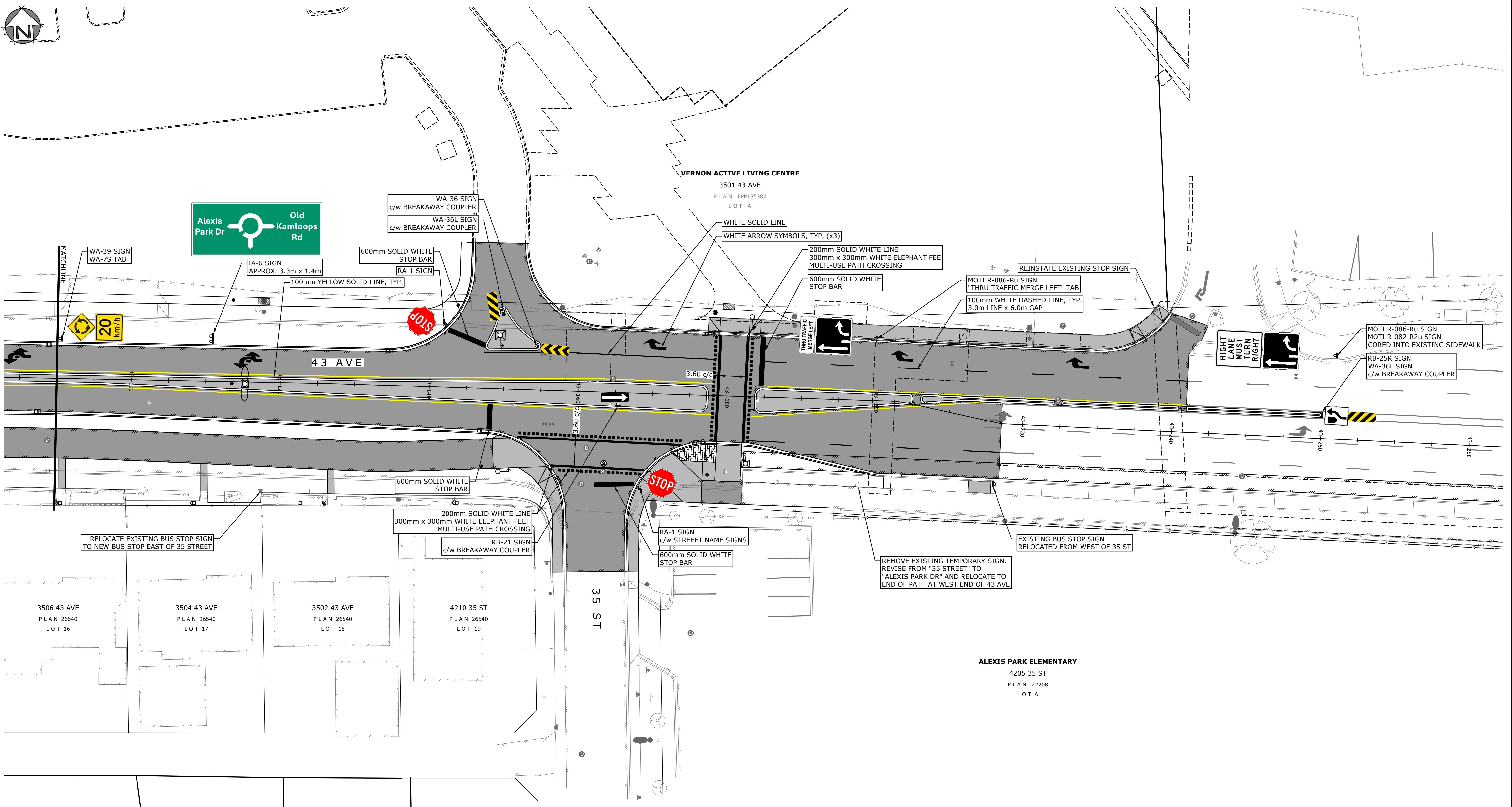
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CITY OF VERNON & RDNO
ALEXIS PARK DR & 43 AVE ROUNDABOUT
OVERALL SURFACE WORKS
AND UTILITY PLANS

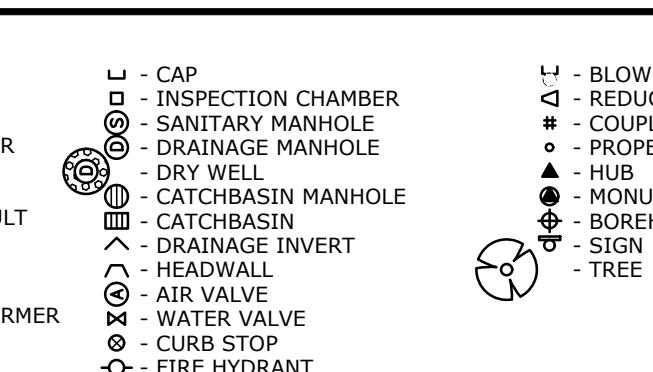
Project No. 3027.03
 Client File No. 25-48-INF
 Sheet No. 2 OF 22
 Drawing No. C100 Rev. D





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SCALE: 1:250

LEGEND:	
(EXISTING SYMBOLS SHOWN GREY/SOLID)	- EDGE OF ASPHALT - EDGE OF GRAVEL - FENCELINE - BUILDING - TOP OF BANK - BOTTOM OF BANK - DITCH - TREELINE - SANITARY - STORM DRAIN - WATER - GAS - HYDRO/TEL
	- GUY WIRE - ANCHOR POLE - HYDRO/TEL POLE - TRANSFORMER - TEL TUB/VULT - SHAW CABLE TUB/VULT - JUNCTION BOX - SERVICE BOX - KIOSK - LOW POWER TRANSFORMER - TRAFFIC SIGNAL - STREET LIGHT
	- CAP - INSPECTION CHAMBER - SANITARY MANHOLE - STORM SEWAGE MANHOLE - DRY WELL - CATCHBASIN MANHOLE - CATCHBASIN - DRAINAGE INVERT - HEADWALL - GATE - WATER VALVE - CURB STOP - FIRE HYDRANT
	- BLOW-OFF - REDUCER - COUPLER - PROPERTY PIN - HUB - MONUMENT - BOREHOLE - SIGN - TREE



EGBC PERMIT TO PRACTICE No. 1001446
MONAGHAN
 ENGINEERING & CONSULTING LTD.

3710B 28th Street,
 Vernon, BC, V1T 9X2
 Ph: (250) 503-1023
 Fax: (250) 503-1024



Seal

Scale 1:250

Date MAR 2025

Designed CH/CFB

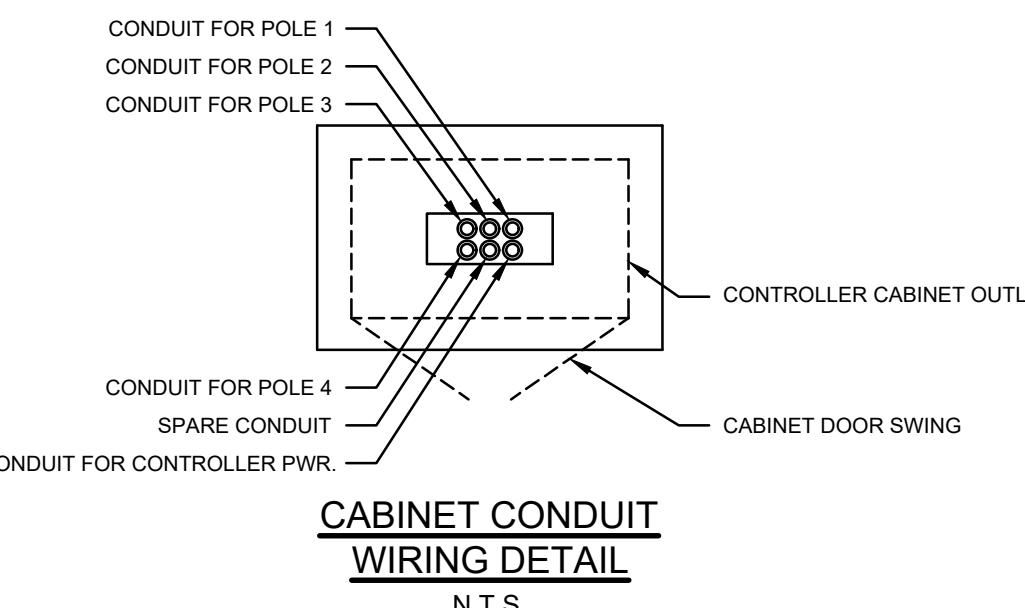
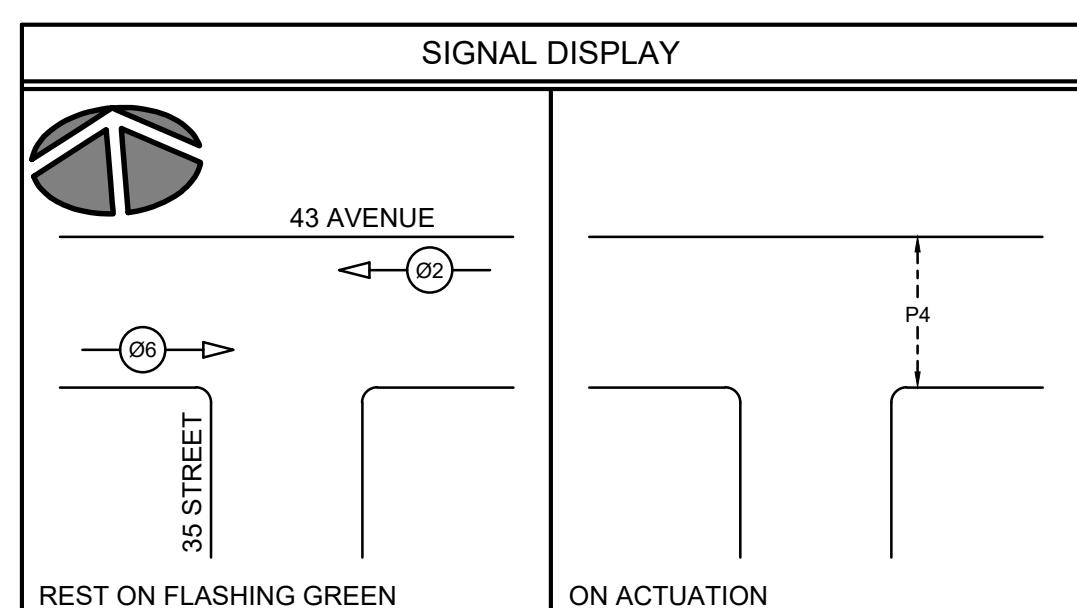
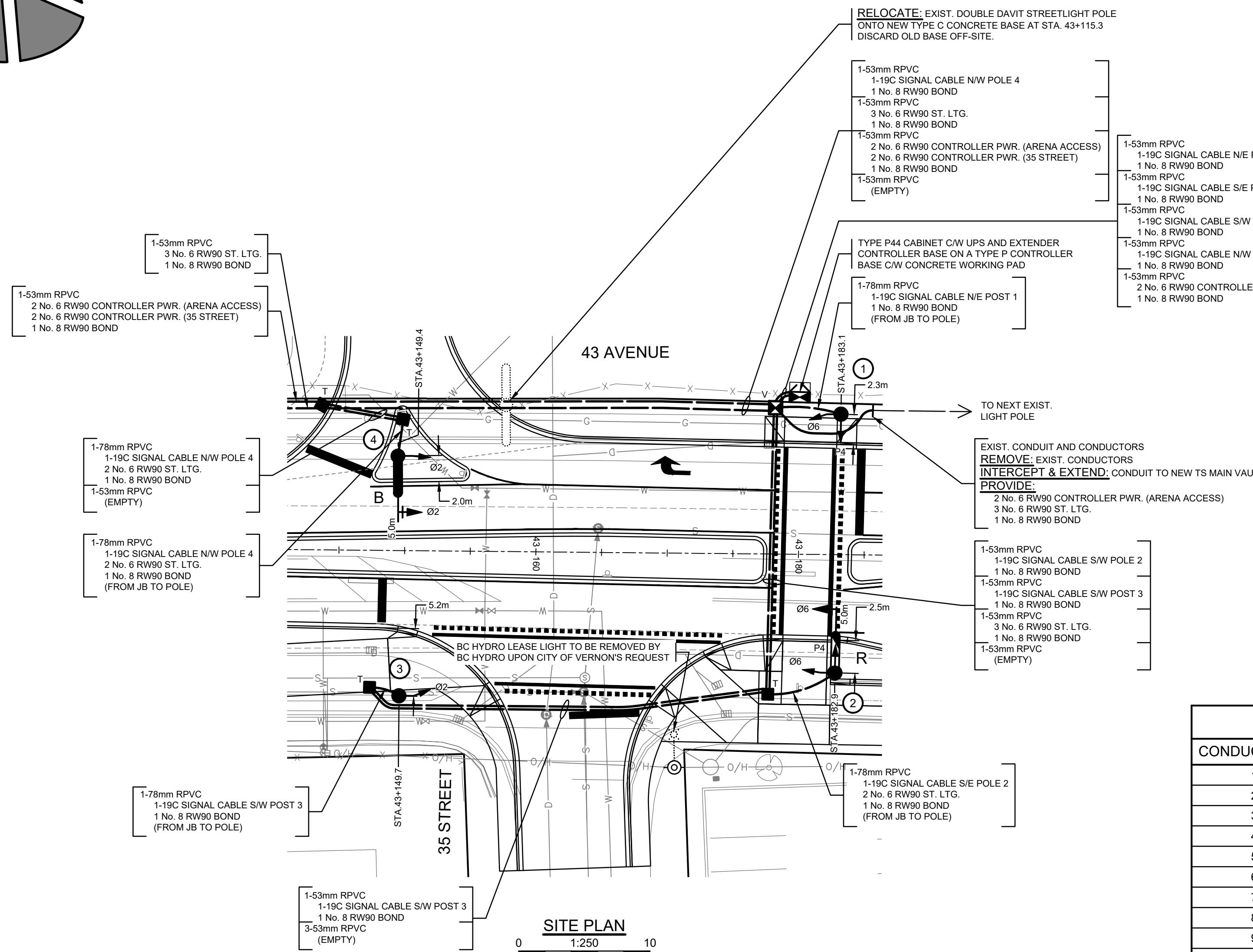
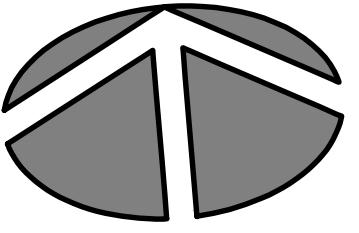
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CITY OF VERNON & RDNO
 ALEXIS PARK DR & 43 AVE ROUNDABOUT
 PAVEMENT MARKINGS
 & SIGNAGE PLAN

Project No. 3027.03
 Client File No. 25-48-INF
 Sheet No. 4 OF 22
 Drawing No. C102 Rev. C



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 PRIOR TO ORDERING POLES AND INSTALLING CONCRETE BASES

CHECK BEFORE YOU DIG

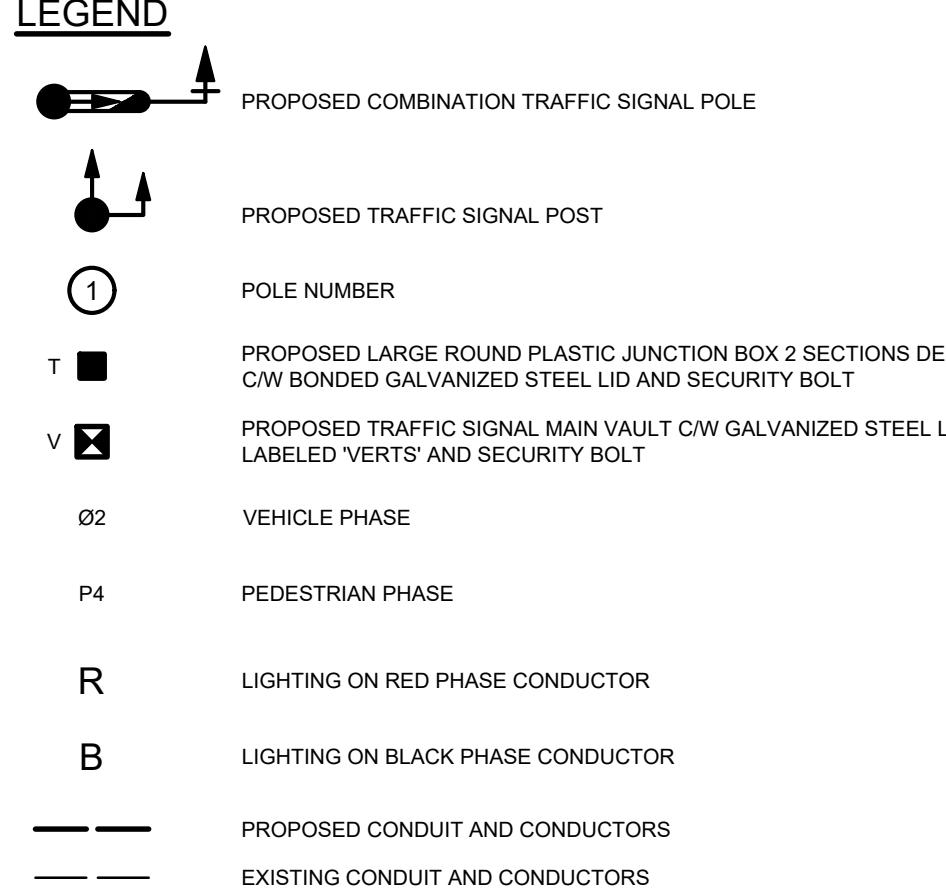
CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING BASES.

LOCATING EQUIPMENT

FOR CLARITY CONDUITS, JUNCTION BOXES AND
STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN
OFFSETS. CONTRACTOR SHALL LOCATE ALL
EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS
NOTED AND SHALL NOT RELY ON COORDINATES
OBTAINED FROM DMD DIGITAL DRAWINGS.
CONTRACTOR TO REPORT ANY CONFLICTS OR
DISCREPANCIES TO DMD & ASSOCIATES
PRIOR TO ORDERING EQUIPMENT.

EXCAVATION NEAR OVERHEAD UTILITY POLE

ANY UNDERGROUND EXCAVATION WITHIN SOIL FOUNDATION INTERACTION AREA REQUIRES TEMPORARY UTILITY POLE SUPPORT. REFER TO ES55 E3-04 GUIDE FOR CIVIL EXCAVATION NEAR DISTRIBUTION POLES FOR DETAILS. REFER TO BC HYDRO WORK ON WOOD POLES MANUAL (ON SAFEHUB) AND BC HYDRO 2017-1-F POLE HOLDING REQUIREMENTS FOR APPROVED TEMPORARY POLE SUPPORT METHODS. FOR MORE INFORMATION CONTACT workmethods@bchydro.com



NOTES

1. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2009 MASTER MUNICIPAL CONSTRUCTION DOCUMENT, SUPPLEMENTAL SPECIFICATIONS ISSUED WITH THIS CONTRACT (IF ANY) AND THESE DRAWINGS.
2. ALL COMMON CIRCUIT WIRING SHALL BE TAGGED & TY-RAPPED AS DETAILED IN THE MMCD.
3. ALL SIGNAL HEAD SECTIONS SHALL BE WIRED SEPARATELY FROM THE BASE OF THE POLE, INCLUDING A SEPARATE NEUTRAL AND BOND FOR EACH SIGNAL HEAD.
4. ALL SINGLE CONDUCTORS SHALL BE STRANDED COPPER, TYPE RW90 INSULATED AND COLOUR CODED.
5. CONDUCTORS INSIDE POLES SHALL BE:
No.14 RW90 X-LINK FOR SIGNALS
No.12 RW90 X-LINK FOR ALL OTHER CONDUCTORS
No. 8 RW90 BOND
6. EXACT POSITION AND ELEVATION OF ALL EQUIPMENT SHALL BE LAYED OUT BY THE CONTRACTOR AND REVIEWED BY CONTRACT ADMINISTRATOR IN THE FIELD BEFORE CONSTRUCTION.
7. CONTRACTOR SHALL PROVIDE ALL SURVEY LAYOUT.
8. ALL SIGNAL HARDWARE TO BE MOUNTED WITH BOLTS. HOLES SHALL BE DRILLED, TAPPED AND SPRAYED WITH GALVANIZING COMPOUND. ALL MOUNTING BOLTS TO BE COATED WITH SILVER GRADE ANTI-SEIZE COMPOUND. THIS INCLUDES BOLTS FOR JUNCTION BOXES.
9. DO NOT USE THIS DRAWING FOR PAVEMENT MARKINGS.
10. THERE SHALL BE NO SPLICING OF CABLES IN JUNCTION BOXES, EXCEPT FOR STREET LIGHTING AND BOND WIRES.
11. ALL SIGNAL CONDUCTOR SPLICES SHALL BE MADE IN POLE HANDHOLES.
12. CONDUITS AND SIGNAL POLE BASE SHALL BE INSTALLED TO SUIT ULTIMATE GRADE.
13. ALL CONDUITS ENTERING A JUNCTION BOX SHALL HAVE BELL ENDS.
14. ALL SPLICES BELOW GRADE SHALL BE BLACKBURN OR TECHSPAN INSULATED/WATERPROOF LUG CONNECTORS WITH APPROPRIATE WIRE SIZE FOR THE REQUIRED INSTALLATION.
15. NO IMAGE SENSOR CABLE SHALL BE SPLICED. THEY MUST TERMINATE AT THE CAMERA AND IN THE CONTROLLER CABINET ONLY.
16. ALL WIRE COUNTS SHALL INCLUDE No. 8 RW90 CONTINUOUS BOND CONDUCTOR
17. SEE B.C. HYDRO REGULATIONS FOR SERVICE CONNECTION DETAILS.
18. CONTRACTOR TO ARRANGE FOR EXACT SERVICE LOCATION WITH B.C. HYDRO PRIOR TO COMMENCING CONSTRUCTION.
19. PROVIDE HYDRO TWINE PULL STRING IN ALL EMPTY CONDUITS.
20. ALL RPVC STUB OUTS REQUIRE AN ELECTRICAL RED MARKER BALL PLACED AT THE END OF THE STUB.
21. P44 CABINET AND METERED KIOSK TO BE WRAPPED WITH DESIGN APPROVED BY THE CITY OF VERNON.

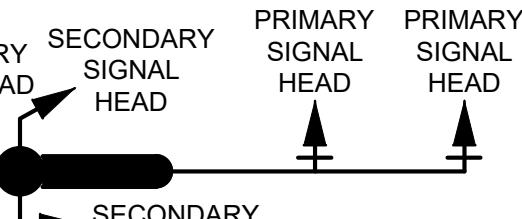
COLOUR CODING (19 CONDUCTOR SIGNAL CABLE)

CONDUCTOR No.	SIGNAL ASSIGNMENT	LETTERING	CONDUCTOR COLOUR
1	NEUTRAL	WHITE ONE	WHITE
2	PRIMARY PB RETURN	WHITE TWO	WHITE
3	PRIMARY PB	-	BLACK
4	SECONDARY PB	-	ORANGE
5	PRIMARY RED	RED ONE	RED
6	SECONDARY RED	RED TWO	RED
7	THIRD RED	RED THREE	RED
8	PRIMARY PED DW	RED FOUR	RED
9	SECONDARY PED DW	RED FIVE	RED
10	PRIMARY AMBER	AMBER ONE	YELLOW
11	SECONDARY AMBER	AMBER TWO	YELLOW
12	PRIMARY LT AMBER	AMBER THREE	YELLOW
13	SECONDARY LT AMBER	AMBER FOUR	YELLOW
14	SECONDARY PED WALK	AMBER FIVE	YELLOW
15	PRIMARY GREEN	GREEN ONE	BLUE
16	SECONDARY GREEN	GREEN TWO	BLUE
17	PRIMARY LT GREEN	GREEN THREE	BLUE
18	SECONDARY LT GREEN	GREEN FOUR	BLUE
19	PRIMARY PED WALK	GREEN FIVE	BLUE

CONDUCTOR COLOUR CODE

(HANDHOLE TO SIGNAL HEADS)		
ITEM	SIGNAL SECTION	CONDUCTOR COLOUR
Ø2	RED YELLOW GREEN	RED YELLOW BLUE
Ø6	RED YELLOW GREEN	RED YELLOW (RED T.T.) BLUE
P4	DON'T WALK WALK PUSH BUTTON	BROWN BLUE PURPLE/PURPLE (BROWN T.T.)
ITEM	CIRCUITS	CONDUCTOR COLOUR
SIGNAL NEUTRAL	NEUTRAL	WHITE
STREET LIGHTING LUMINAIRES	B R	BLACK RED
TRAFFIC CONTROLLER	POWER	BLACK
PHOTOCELL	POWER SWITCH LEG	BLACK RED
PANEL SUPPLY	POWER POWER	BLACK RED
NEUTRAL	NEUTRAL	WHITE
GROUND/BOND	GROUND/BOND	GREEN

NOTE: T T DENOTES TAPE TRACER



SIGNAL CABLE NOTES

SIGNAL CABLE NOTES

1. REFER TO CONTRACT DRAWINGS AND SECTION 16550 FOR DETAILED SPECIFICATIONS.
2. CABLE TO BE POLYETHYLENE INSULATED POLYVINYL CHLORIDE JACKETED, RATED AT 600 VOLTS.
3. CONDUCTORS TO BE No.14 AWG STRANDED.
4. REFERENCE TO CSA 22.2 - No. 239-97

ALL EQUIPMENT IS NEW
EXCEPT WHERE NOTED

NOT FOR CONSTRUCTION

2025.12.09

Monaghan Engineering and Consulting Ltd.
3710B - 28th Street, Vernon, BC V1T 9X2 & (250) 503-1023

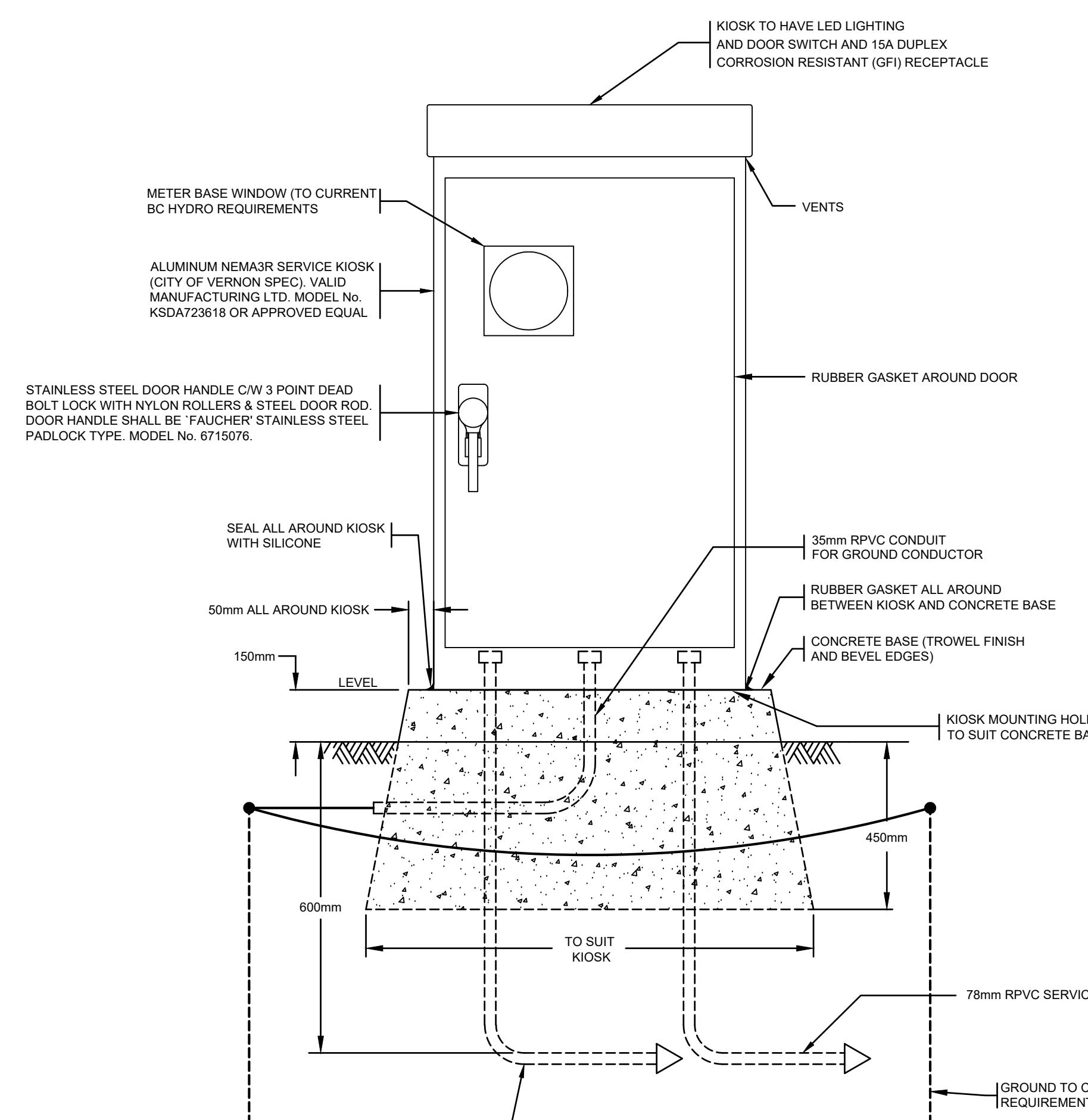
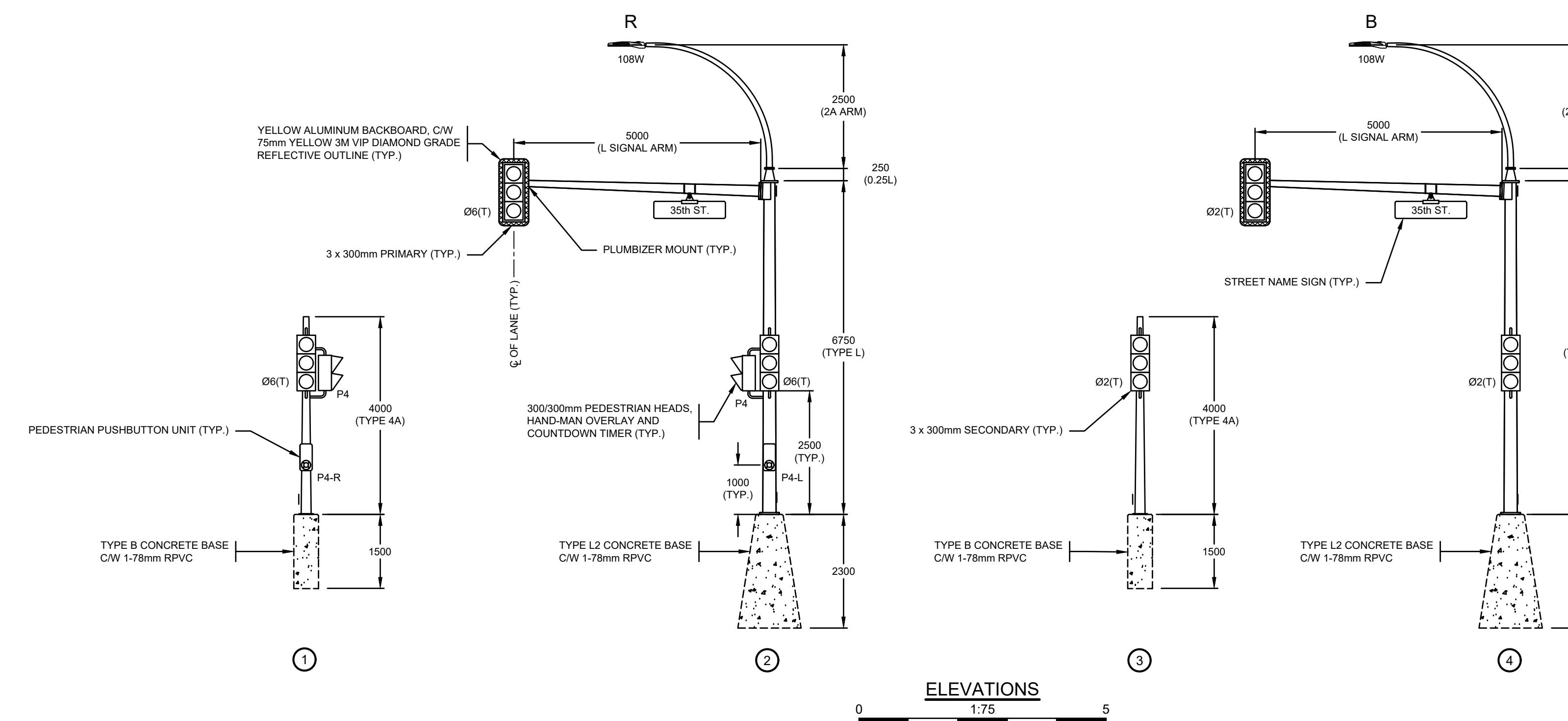
**APDR - PHASE 2
TRAFFIC SIGNAL
43 AVENUE AT 35 STREET**

8497B-25-02 of 03 SHEET No. E-02 REVISION

RECOGNIZED PRODUCT LIST			
PRODUCT	MANUFACTURER	SPECIFICATION	EXCEPTIONS
LED LUMINAIRES	LUMEC ROADFOCUS	RFM-108W48LED-3K-G2-R3M-UNV-DMG-API-FAWS-HS-PH9-RCD7-GY3	PEC WHERE NOTED. C/W WATTAGE AND LUMEN OUTPUT LABELS
TRAFFIC CONTROLLER CABINET **	ECONOLITE	TYPE P44DD C/W EXTENDER BASE & UPS	CABINET TO BE WRAPPED WITH DESIGN APPROVED BY THE CITY OF VERNON
SERVICE KIOSK	VALID MANUFACTURING LTD.	REFER TO THIS SHEET FOR DETAILS	KIOSK TO BE WRAPPED WITH DESIGN APPROVED BY THE CITY OF VERNON
POLES AND ANCHOR BOLTS	NOVA POLE	MoT/MMCD	GALVANIZED
TRAFFIC SIGNAL MAIN VAULT	A.E. CONCRETE	CITY OF KELOWNA SPEC. DWG SS-E2.3	LABELED 'VER TS'
	LEKO PRECAST		
	KON-KAST		
ROUND PLASTIC JUNCTION BOXES	NOVA POLE	MoT	
	WEST COAST ENG.		
SIDE MOUNT SIGNAL BRACKETS	GREENLITE TRAFFIC	MoT	YELLOW
SIGNAL HEADS	ECONOLITE	MoT	YELLOW POLYCARBONATE HOUSING. ALL CONNECTIONS MUST BE FORK, NO SPADE CONNECTORS ALLOWED
QUICK CHANGE KIT FOR LED TRAFFIC SIGNALS	GGI ROAD AND TRAFFIC. CONTACT IAN SINCLAIR.	QCK-12-PAK	EACH PACKAGE IS ENOUGH FOR A 3 SECTION TRAFFIC SIGNAL
PEDESTRIAN HEADS	ECONOLITE	MoT	YELLOW POLYCARBONATE HOUSING C/W NON-CUTOFF VISORS
PEDESTRIAN PUSHBUTTON UNIT *	POLARA WAVE	WAVE	CONTACT LOGAN TYSON AT INTERPROVINCIAL TRAFFIC SERVICES LTD. MAIN: 604.542.8500 OR CELL: 236.339.3426
PEDESTRIAN LED DISPLAYS	DIALIGHT / INTERPROVINCIAL TRAFFIC SERVICES. CONTACT ROB HAY AT (604) 542-8500	NEW ITE STANDARD	SOLID LED HAND/MAN AND SOLID LED COUNTDOWN SIGNALS
MID-SPAN PLUMBIZER KIT	GREENLITE TRAFFIC		
LED SIGNALS	DIALIGHT LED	12"	15 YEAR WARRANTY
MID-SPAN LARGE STREET NAME SIGN CUSHION HANGER	GREENLITE TRAFFIC	GEL 336 N	
STREET NAME SIGN	VALLEY TRAFFIC SYSTEMS	14" x 36" DIAMOND GRADE	
	SHERINE INDUSTRIES		

* SUPPLIED BY THE CITY OF VERNON AND INSTALLED BY CONTRACTOR

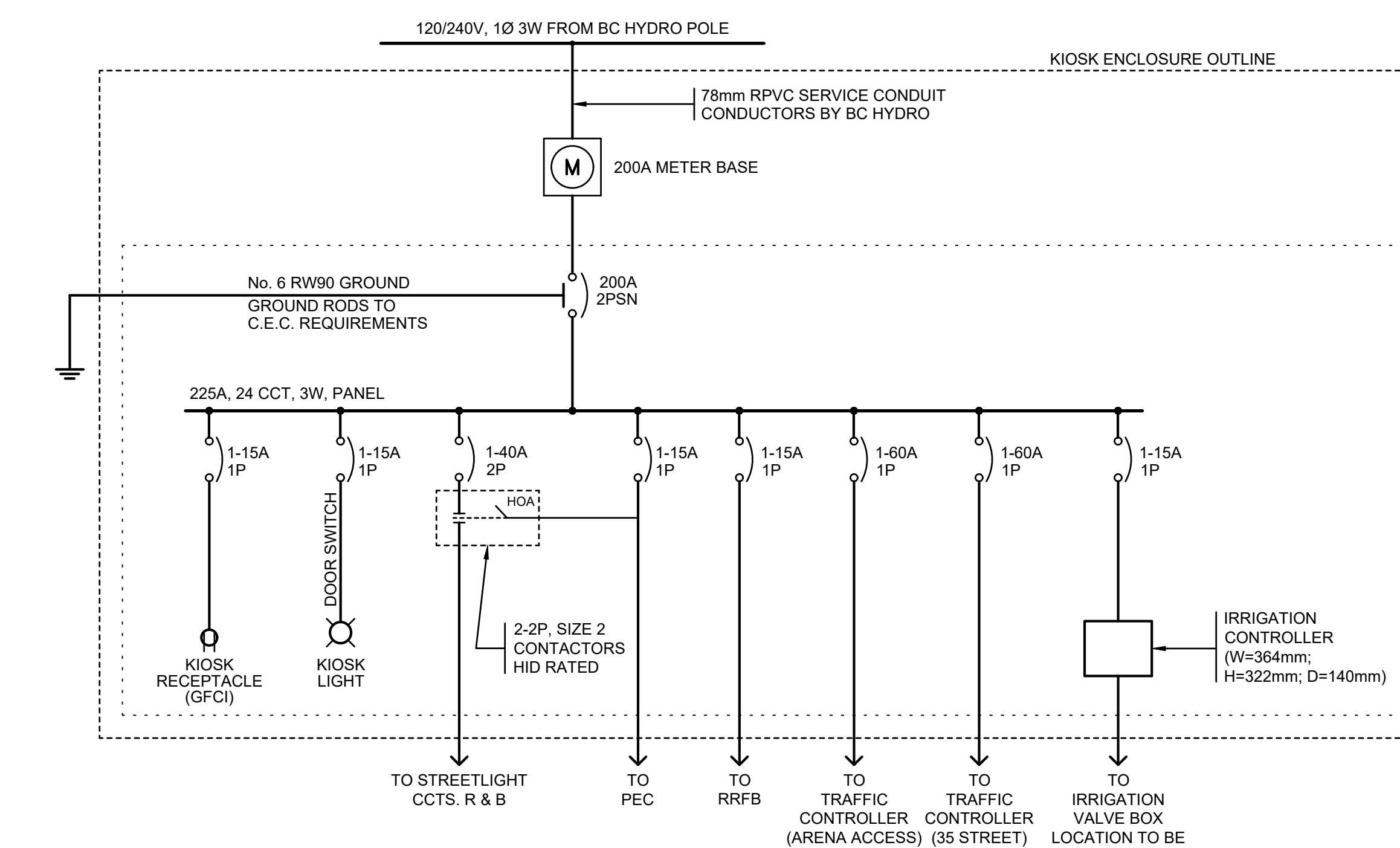
** SUPPLIED AND INSTALLED BY THE CITY OF VERNON (3 MONTHS DELIVERY TIME REQUIRED)



SERVICE KIOSK DETAIL

KIOSK NO

1. CONTRACTOR SHALL SUPPLY KIOSK SHOP DRAWINGS FOR APPROVAL PRIOR TO MANUFACTURING.
2. KIOSK SHALL BE SECURED TO CONCRETE BASE WITH A MINIMUM OF 6 CONCRETE INSERTS.
3. CONCRETE SHALL HAVE A STRENGTH OF 25Mpa AT 28 DAYS.
4. LOCATE CONDUITS IN CONCRETE BASE TO SUIT KIOSK EQUIPMENT.
5. KIOSK SHALL MEET THE APPROVAL OF THE PROVINCIAL ELECTRICAL INSPECTOR & SHALL BARE A 'PROVINCIAL INSPECTION' STICKER.
6. SERVICE PANEL SHALL HAVE LAMICOID NAME PLATES INDICATING VOLTAGES & LABELING ALL EQUIPMENT.
7. A TYPE WRITTEN PANEL DIRECTORY SHALL BE LOCATED ON THE INSIDE OF THE PANEL DOOR.
8. ALL BREAKERS SHALL BE RATED AT A MINIMUM OF 22,000 AIC.
9. CONTACTORS AND SWITCHES MUST BE APPROVED FOR CONTROL OF DISCHARGE LIGHTING.
10. RUBBER GASKET SHALL BE INSTALLED BETWEEN KIOSK AND CONCRETE BASE.
11. HOA (HAND-OFF-AUTO) SWITCHES REQUIRED FOR STREETLIGHTS.
12. KIOSK SHALL BE HEATED.
13. KIOSK SHALL HAVE A CIRCULATION FAN AND VENTING WITH A PLEATED AIR FILTER.
14. KIOSK TO BE WRAPPED WITH DESIGN APPROVED BY THE CITY OF VERNON.



SERVICE KIOSK SINGLE LINE DIAGRAM

NOT FOR CONSTRUCTION

Monaghan Engineering and Consulting Ltd.
3710B - 28th Street, Vernon, BC V1T 9X2 & (250) 503-1023

APDR - PHASE 2
TRAFFIC SIGNAL
43 AVENUE AT 35 STREET

PROJECT No.	SHEET No.	REVISION
8497B-25-03 of 03	E-03	.

CANCEL PRINTS BEARING PREVIOUS LETTER