

LIGHTING DESIGN CRITERIA		
STREET NAMES	ROAD X/ROAD Y	
LAND USE	RESIDENTIAL	
CLASSIFICATION	ARTERIAL/COLLECTOR	
PEDESTRIAN ACTIVITY	MEDIUM	
ILLUMINATION TYPE	9m DAVIT AEL LED FIXTURE	
ILLUMINATION INFORMATION		
	DESIRED	DELIVERED
AVERAGE ILLUMINANCE	22.0 LUX	23.0 LUX
UNIFORMITY RATIO	3.0:1	2.3:1

LLF=0.78 AEL XXXX LED XXXX ON FREESTANDING ORNAMENTAL POLES.

REFERENCE DRAWINGS		
REBUILD		
REFERENCE	PARENT	SUB
ROADS		
WATER		
SANITARY		
DRAINAGE		

Legend	
	NEW COMBINATION TRAFFIC SIGNAL POLE
	EXISTING COMBINATION TRAFFIC SIGNAL POLE
	EXISTING SIGN POLE
	NEW STREET LIGHT POLE
	EXISTING STREET LIGHT POLE
	LUMINAIRE ON BLACK PHASE CONDUCTOR
	LUMINAIRE ON RED PHASE CONDUCTOR
	NEW JUNCTION BOX
	EXISTING JUNCTION BOX
	VEHICLE PHASE
	PEDESTRIAN PHASE
	ELECTRICAL UTILITY POLE
	TRAFFIC CONTROLLER
	NEW ELEC. CONDUIT
	EXISTING ELEC. CONDUIT

WIRING COLOUR CODES		
ITEM	SIGNAL SECTION	CONDUCTOR COLOUR
PHASE 2 10cc SIG. CABLE JACKET	RED BALL	RED
	YELLOW BALL	BROWN
	GREEN BALL	PURPLE
	YELLOW ARROW	LIGHT BROWN
PHASE 4 10cc SIG. CABLE JACKET	RED BALL	RED
	YELLOW BALL	BROWN
	GREEN BALL	PURPLE
	YELLOW ARROW	LIGHT BROWN
PHASE 6 10cc SIG. CABLE JACKET	RED BALL	RED
	YELLOW BALL	BROWN
	GREEN BALL	PURPLE
	YELLOW ARROW	LIGHT BROWN
PHASE 8 10cc SIG. CABLE JACKET	RED BALL	RED
	YELLOW BALL	BROWN
	GREEN BALL	PURPLE
	YELLOW ARROW	LIGHT BROWN
CONTROLLER POWER		BLACK
LUMINAIRE CTT. 'R'		RED
LUMINAIRE CTT. 'B'		BLACK
FIRE INDICATION		WHITE LIGHT
LIGHTS (SONIC)		BLUE
NEUTRAL		WHITE
GROUND/BOND		GREEN

NO.	DATE	DESCRIPTION	BY	APPD.
1	2017/11/1	ISSUED FOR REVIEW	BW	

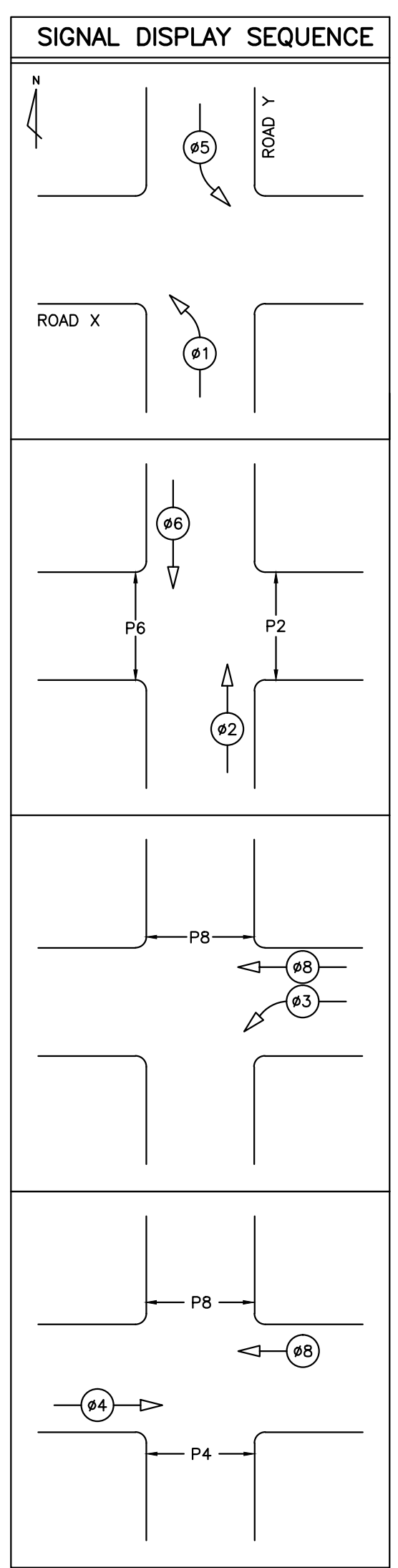
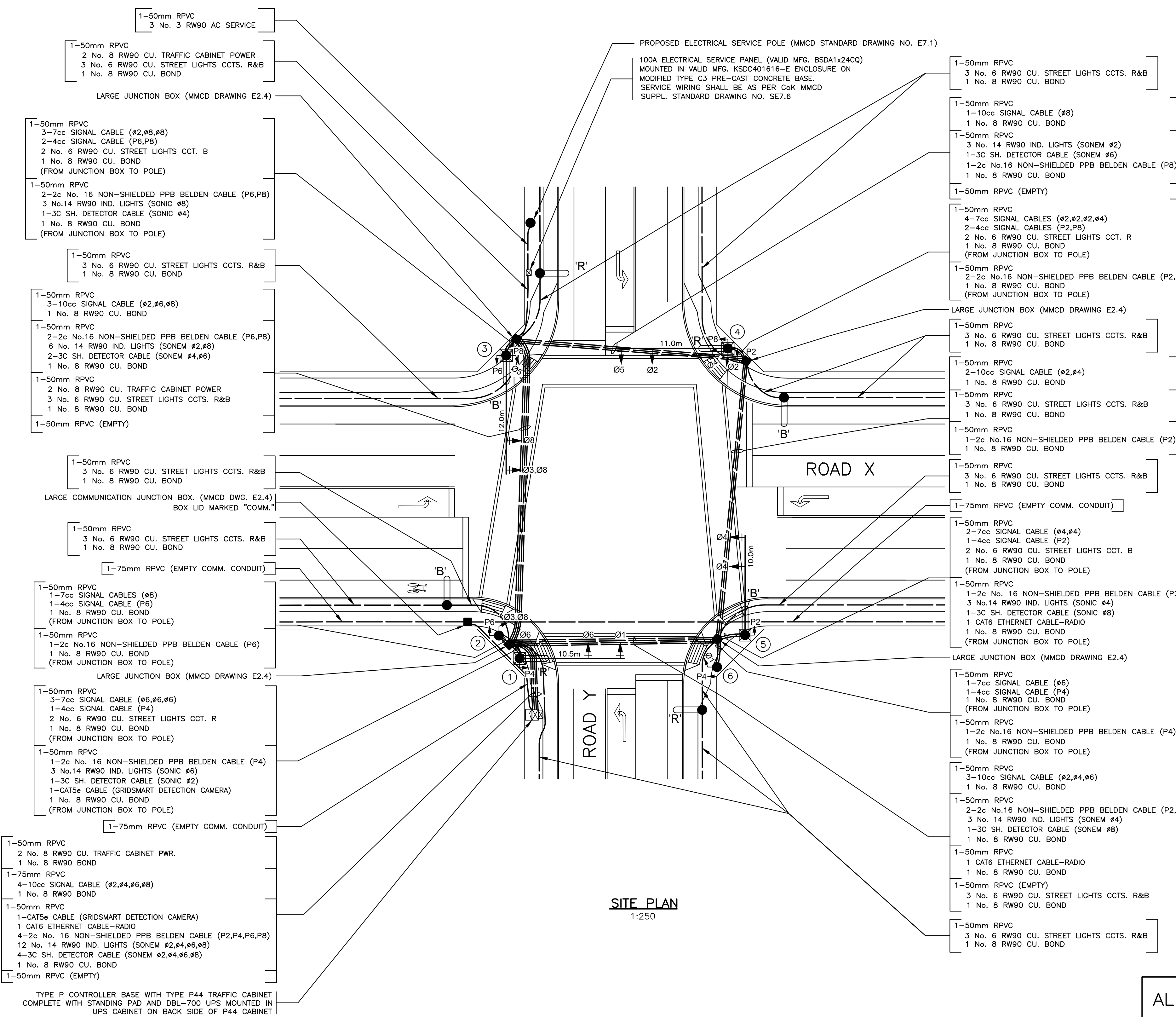
REVISIONS & ISSUES	
DESIGN B.W.	DATE: 17/11/01
DRAWN B.W.	DATE: 17/11/01
CHECK	DATE:
APPD BY CONSULT.	DATE:
APPD BY CITY	DATE:

SCALE	HOR:	VER:
	1:250	1:50

**CITY OF KAMLOOPS ENGINEERING**

ROAD X AT ROAD Y  
TRAFFIC SIGNAL-ELECTRICAL

SHEET	1	OF	2
CITY DWG. NO.		REVISION	1



**NOTES:**

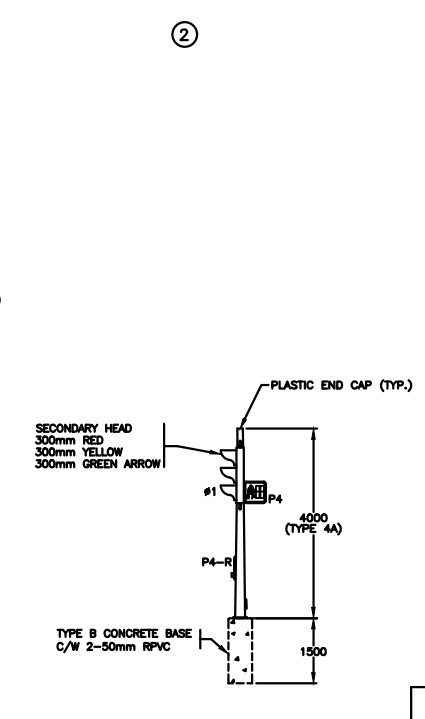
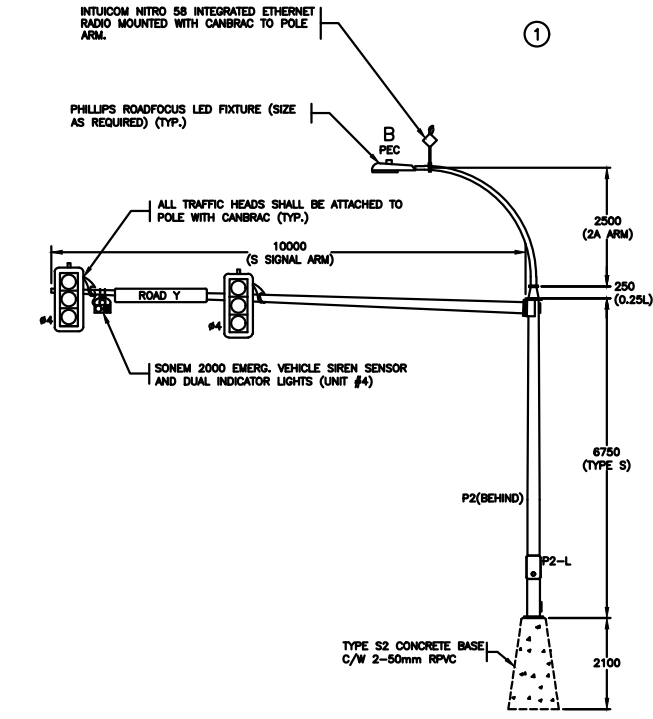
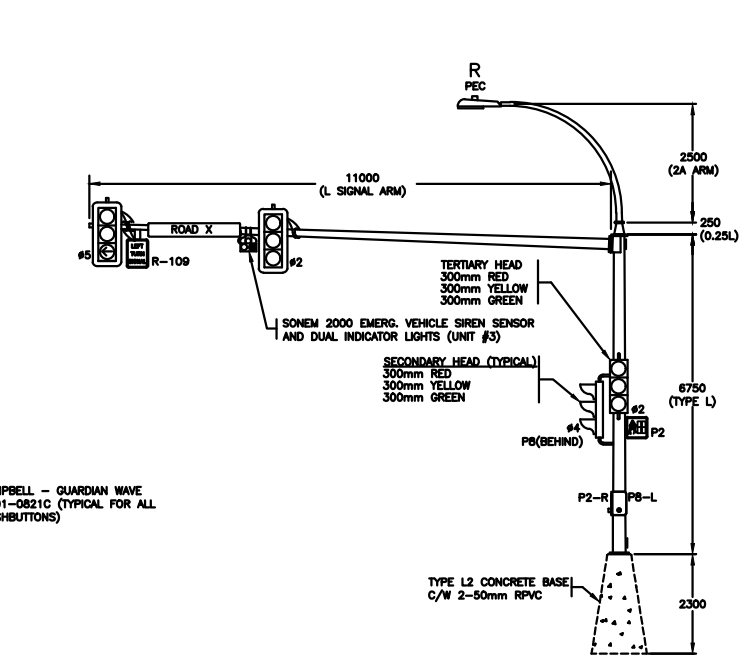
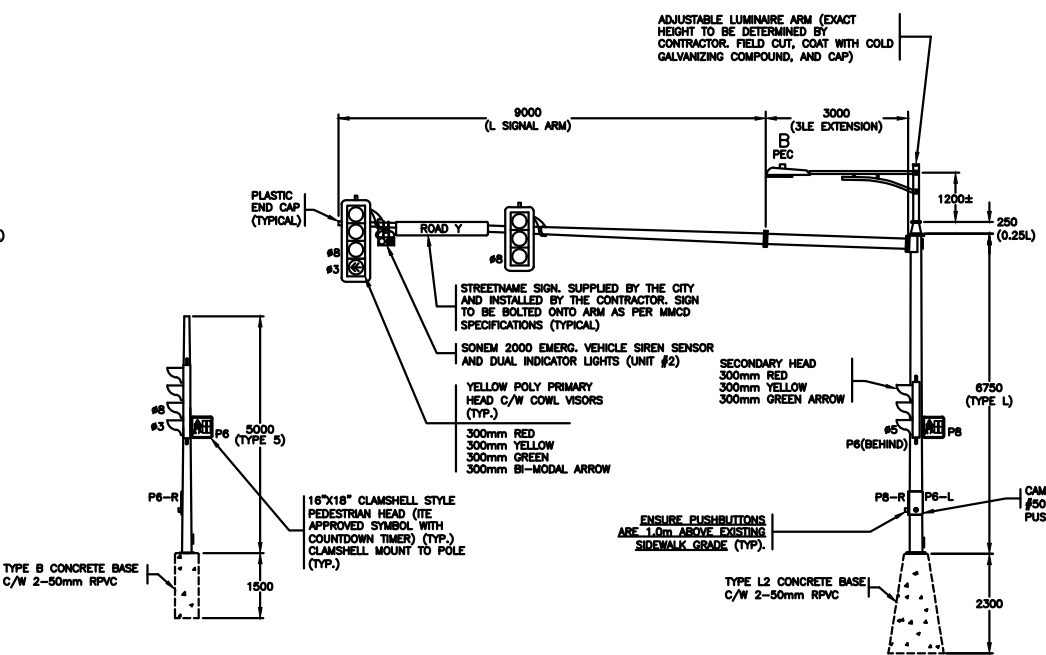
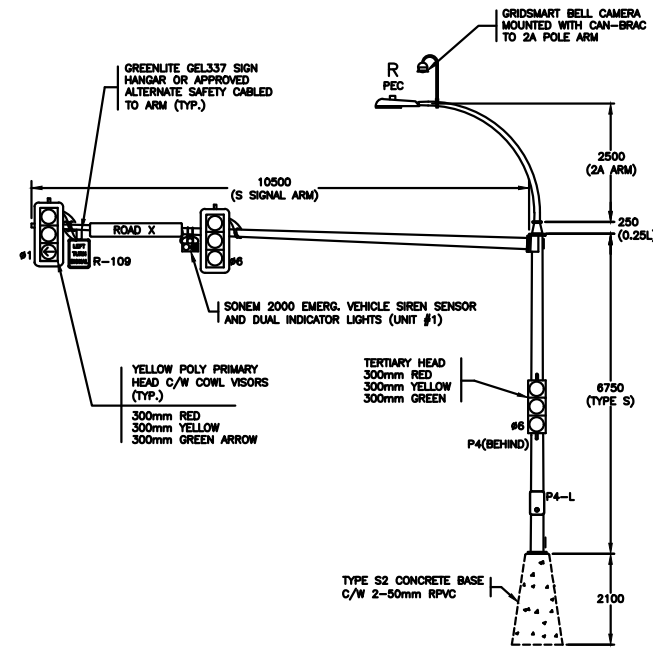
- ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH MMCD, CITY OF KAMLOOPS, MMCD SUPPLEMENTAL SPECIFICATIONS, AND DESIGN MANUAL.
- ALL SIGNAL CABLE SHALL MEET CURRENT C.S.A. STANDARDS C22.2 - No.239-97 CONTROL CABLE SIGNALS SHALL ALL BE WIRED WITH SIGNAL CABLE (STRANDED COPPER CONDUCTORS FOR ALL UNDERGROUND, RISERS IN POLE CONDUCTORS TO BE STRANDED) No. 12 RW90 XLPE CU FOR STREET LIGHTING WIRE, HANDHOLE TO LUMINAIRE.
- TRAFFIC SIGNAL CABLE (10cc, 7cc AND 4cc) SHALL BE SUPPLIED BY THE CITY OF KAMLOOPS.
- CONDUITS, BASES, & JUNCTION BOXES SHALL BE INSTALLED BY A QUALIFIED ELECTRICAL CONTRACTOR WHO IS REQUIRED TO OBTAIN A PERMIT FROM THE ELECTRICAL SAFETY BRANCH INSPECTOR.
- EXACT POSITION OF ALL EQUIPMENT SHALL BE CONFIRMED BY ELECTRICAL ENGINEER & CIVIL ENGINEER, AND CITY TRAFFIC AND ELECTRICAL DEPARTMENT IN THE FIELD BEFORE INSTALLATION.
- ALL SIGNAL HEADS SHALL BE WIRED SEPARATELY WITHIN THE POLE TO THE NEAREST JUNCTION BOX USING STRANDED CONDUCTOR.
- EACH 2 CONDUCTOR No.16 NON-SHIELDED PUSH BUTTON CABLE SHALL RUN CONTINUOUS, WITH NO SPLICES, FROM THE CONTROLLER TO THE RESPECTIVE PUSH BUTTON, OR POLE HAND HOLE TO POLE HAND HOLE.
- ALL CONDUITS UNDER ROADWAY SHALL BE BURIED MIN. 900mm DEEP ALL OTHER CONDUITS SHALL BE BURIED MIN. 600mm DEEP & EMBEDDED IN SAND 150mm ABOVE, & BELOW, A "BURIED CABLE" MARKER TAPE SHALL BE INSTALLED IN ALL TRENCHES (300mm ABOVE INSTALLED CONDUIT & MIN. 300mm BELOW GRADE).
- ALL CONDUCTORS, NOT IN SIGNAL CABLE, SHALL BE STRANDED COPPER, TYPE RW90 AND TWIN INSULATED, COLOUR CODED.
- EMPTY CONDUITS SHALL HAVE A NYLON PULL STRING INSTALLED AND ENDS CAPPED.
- COMMON CIRCUIT WIRING SHALL BE TY-WRAPPED TOGETHER & TAGGED IN JUNCTION BOXES AND ACCESS POINTS USING PANDUIT MP250-C 1.D. TAGS AND INDELIABLE BLACK MARKER PEN.
- REFER TO B.C. HYDRO REGULATIONS FOR SERVICE CONNECTION DETAILS.
- CONTRACTOR SHALL ARRANGE FOR EXACT SERVICE LOCATION WITH B.C. HYDRO & TELUS & CITY OF KAMLOOPS PRIOR TO CONSTRUCTION.
- CONCRETE JUNCTION BOXES SHALL BE LARGE STYLE (MIN 750mm DEEP) (MMCD DRAWING E2.4)
- ALL TRAFFIC SIGNAL CONDUCTORS TO BE SPLICED/CONNECTED IN THE JUNCTION BOX.
- 1.0m OF CABLE OR CONDUCTOR SLACK IS TO BE COILED IN EACH JUNCTION BOX.
- PUSHBUTTON CABLES AND TRAFFIC CAMERA CABLES SHALL BE SPLICED IN POLE HAND HOLES. SPLICING OF PUSHBUTTON CABLES AND TRAFFIC CAMERA CABLES IN JUNCTION BOXES IS NOT PERMITTED.
- ALL SONEM CABLES SHALL BE CONTINUOUS FROM TRAFFIC SIGNAL CABINET TO POLE DEVICES. SPLICING OF SONEM CABLES IN JUNCTION BOXES OR POLE HAND HOLES IS NOT PERMITTED.
- ALL FIBER OPTIC CABLES SHALL BE INSTALLED COMPLETE WITH LC CONNECTORS SPLICED ON ALL ENDS. 2 FIBER BOXES AND 2 FIBER ADAPTORS SHALL BE SUPPLIED AND INSTALLED FOR EACH RUN OF CABLE (1 FIBER BOX AND 1 FIBER ADAPTOR AT EACH END).
- ALL TRAFFIC POLES/ARMS AND STREET LIGHT POLES SHALL BE GALVANIZED.
- ALL CONDUCTORS IN JUNCTION BOXES SHALL BE HUNG FROM R.PVC CONDUIT SUPPORT BAR.

**ALL EQUIPMENT SHALL BE NEW EXCEPT WHERE NOTED**

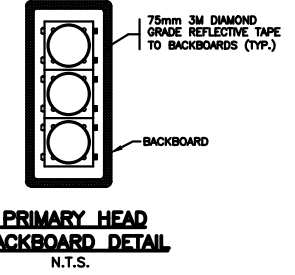
**CALL BC ONE CALL (1-800-474-6886) FOR STAKING OF UTILITIES PRIOR TO CONSTRUCTION**

**NOTE:** EXISTING FACILITY INFORMATION HAS BEEN ILLUSTRATED SOLELY ON FIELD OBSERVATION, ACTUAL CONDITIONS MAY VARY.

**SITE PLAN**  
1:250



**POLE ELEVATIONS**  
1:75



**PRODUCTS SUPPLIED BY CITY OF KAMLOOPS AND INSTALLED BY CONTRACTOR**

PRODUCT	MANUFACTURER	SPECIFICATION
TRAFFIC SIGNAL CABINET	ECONOLITE	P44
TRAFFIC SIGNAL CONTROLLER	ECONOLITE	COBALT EOS
TRAFFIC SIGNAL UPS/CABINET	TECH POWER/ECONOLITE	DBL800
EMERGENCY PRE-EMPTION	RGH PACIFIC	SONEM 2000
ETHERNET RADIO	INTUICOM	NITRO 58 INTEGRATED
VIDEO DETECTION SYSTEM	GRIDSMART	BELL CAMERA AND GS3
VIDEO DETECTION CABLE	GRIDSMART SPEC.	CAT-6
TRAFFIC SIGNAL CABLE	---	CITY OF KAMLOOPS
STREET NAME SIGNS	CITY OF KAMLOOPS	CITY OF KAMLOOPS

**PRODUCTS SUPPLIED AND INSTALLED BY CONTRACTOR**

PRODUCT	MANUFACTURER	SPECIFICATION
PRIMARY SIGNAL HEAD MOUNTS	FORTRAN	CANBRAC
SECONDARY SIGNAL HEAD MOUNTS	GREENLITE	SIDE MOUNT ARMS GEL 189
TRAFFIC SIGNAL HOUSINGS	ECONOLITE	YELLOW POLY
TRAFFIC SIGNAL LED'S	DURALIGHT/DIALIGHT	ITE STANDARD
PED. SIGNAL HOUSINGS	SIEMENS	YELLOW POLY CLAMSHELL STYLE
PUSHBUTTON CAST PLATES/PUSHBUTTONS	CAMPBELL	GUARDIAN WAVE #501-0821C
LED STREET LIGHT FIXTURES	PHILLIPS ROADFOCUS	SIZE AS REQUIRED

**ALL EQUIPMENT SHALL BE NEW EXCEPT WHERE NOTED**

**REFERENCE DRAWINGS**

REBUILD	PARENT	SUB
ROADS		
WATER		
SANITARY		
DRAINAGE		

**Legend**

- NEW COMBINATION TRAFFIC SIGNAL POLE
- EXISTING COMBINATION TRAFFIC SIGNAL POLE
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- LUMINAIRE ON BLACK PHASE CONDUCTOR
- LUMINAIRE ON RED PHASE CONDUCTOR
- NEW JUNCTION BOX
- EXISTING JUNCTION BOX
- VEHICLE PHASE
- PEDESTRIAN PHASE
- ELECTRICAL UTILITY POLE
- TRAFFIC CONTROLLER
- NEW ELEC. CONDUIT
- EXISTING ELEC. CONDUIT

NO.	DATE	ISSUED FOR REVIEW	BY
2	17/11/01	ISSUED FOR REVIEW	SW
1	17/11/01	ISSUED FOR REVIEW	SW

**REVISIONS & ISSUES**

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17/11/01	17/11/01
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SCALE: HOR: 1:250, VER: 1:50

**CITY OF KAMLOOPS ENGINEERING**

ROAD X AT ROAD Y  
TRAFFIC SIGNAL-ELECTRICAL

SHEET 2 OF 2

CITY DWS. NO. \_\_\_\_\_ REVISION 2