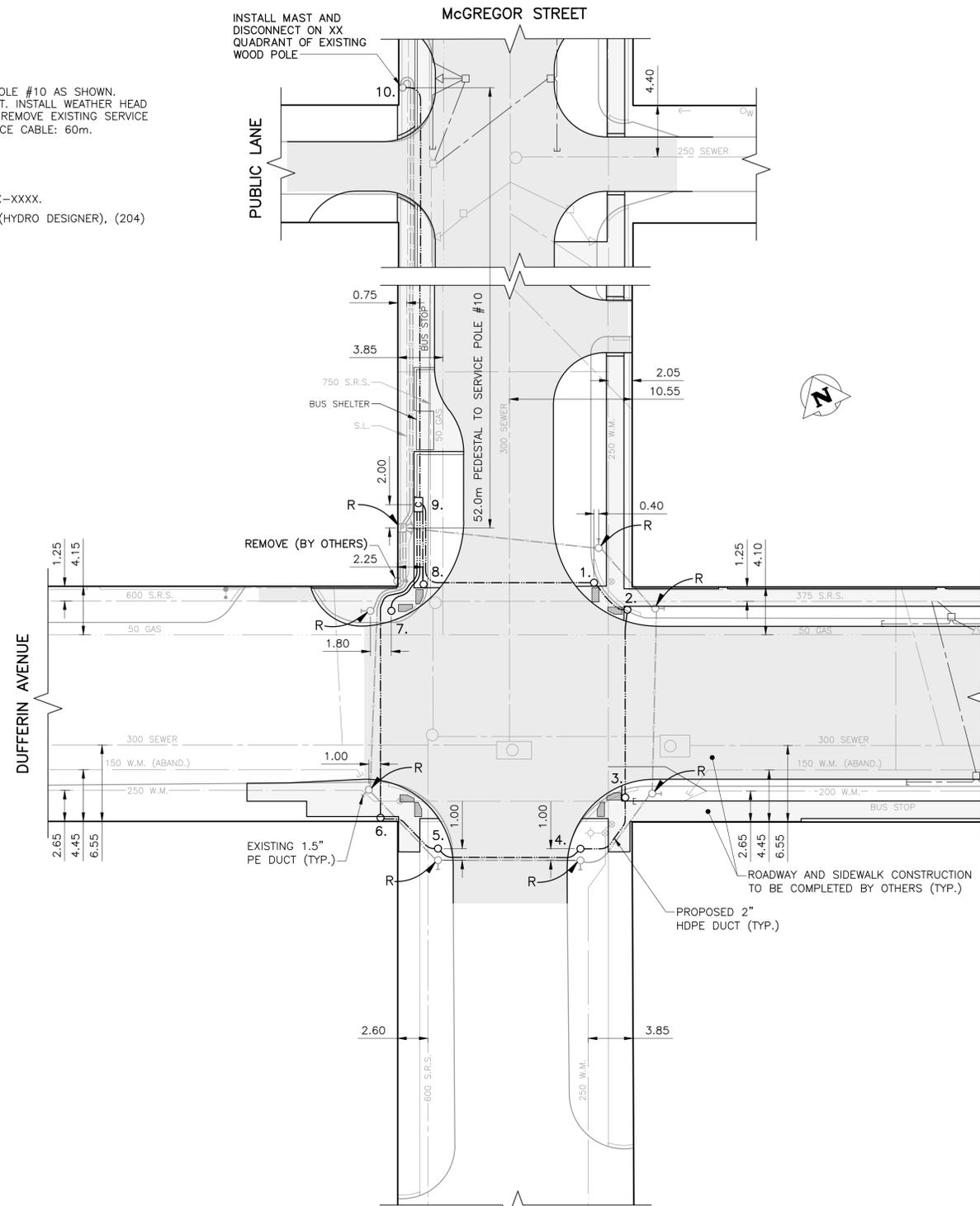


**CONSTRUCTION NOTES:**

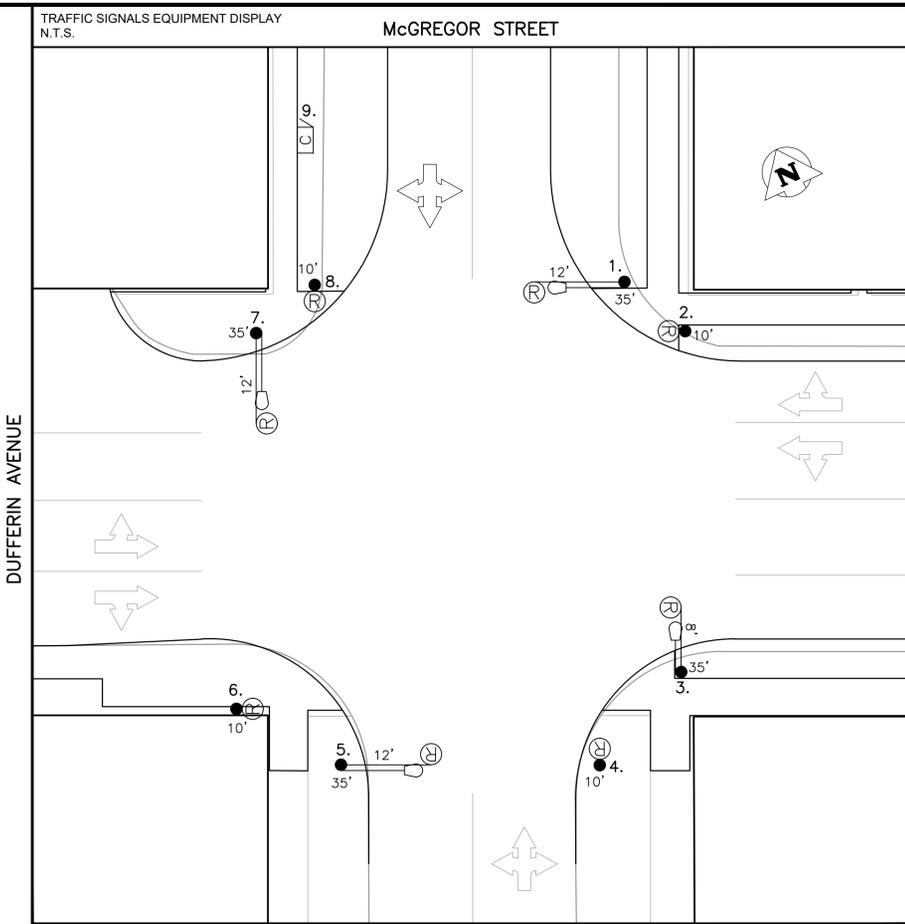
- PROJECT SCOPE**
1. INSTALL CONDUIT AND BASES AS SHOWN.
  2. INSTALL SERVICE AND GROUND ROD ON WOOD POLE #10 AS SHOWN. INSTALL MAST AND DISCONNECT ON XX QUADRANT. INSTALL WEATHER HEAD 150mm LOWER THAN THE LOWEST HYDRO WIRE. REMOVE EXISTING SERVICE FROM WOOD POLE #10. TOTAL LENGTH OF SERVICE CABLE: 60m.
  3. INSTALL EQUIPMENT AS SHOWN.

**PROJECT COORDINATION**

1. COORDINATE WORK WITH (CA'S NAME), (204) XXX-XXXX.
2. COORDINATE HYDRO SERVICE INSTALLATION WITH (HYDRO DESIGNER), (204) XXX-XXXX. RE: JUTA PERMIT No. BXXXX



PLAN VIEW: UNDERGROUND CONSTRUCTION  
1:250



DUFFERIN AVENUE

McGREGOR STREET

**EQUIPMENT DISPLAY LEGEND**

EXISTING		PROPOSED (AS SHOWN BELOW)	
	PEDESTRIAN HEAD WITH PCS		VEHICLE DETECTION AREA
	PEDESTRIAN CORRIDOR BOX		TRAFFIC SIGNAL POLE
	RFB (PHASE 'A' OR 'B')		WOOD POST
	TRAFFIC SIGNAL HEAD		APS SINGLE DIRECTION
	APS DUAL DIRECTION (2 SEPARATE BRANCHES)		PUSH BUTTON & DIRECTION (APB = ADJUSTABLE PB)
	LOW ARM (SHOWN FROM CENTRE) HIGH ARM (SHOWN FROM SIDE)		RED FLASHER
	LUMINAIRE		AMBER FLASHER (1/228A - CIRCUIT NUMBER)
	CAMERA		ELECTRONIC DISPLAY

NO.	EQUIPMENT LIST	ARM	BASE	B.B.	NO.	EQUIPMENT LIST	ARM	BASE	B.B.
1.	35' SIGNAL FOR 150 WATT (15000 LUMEN) LUMINAIRE	12'	OD	DC	9.	332 CABINET/170 CONTROLLER			
2.	10' SIGNAL		G	G	10.	HYDRO WOOD SERVICE:			
3.	35' SIGNAL FOR 90 WATT (9000 LUMEN) LUMINAIRE	8'	OD	DC					
4.	10' SIGNAL		G	G					
5.	35' SIGNAL FOR 90 WATT (9000 LUMEN) LUMINAIRE	12'	OD	DC					
6.	10' SIGNAL		G	G					
7.	35' SIGNAL FOR 90 WATT (9000 LUMEN) LUMINAIRE	12'	OD	DC					
8.	10' SIGNAL		G	G					

**TRAFFIC SIGNALS UNDERGROUND LEGEND**

EXISTING		PROPOSED (AS SHOWN BELOW)	
	1 1/2" PE CONDUIT		POLE BASE
	2" PE CONDUIT		WOOD POST
	4" PVC CONDUIT		CONTROLLER BASE
	AERIAL / BURIED CABLE		PEDESTAL BASE
	CONDUIT STUB		TERMINAL BASE
	BREAK-IN		SERVICE BOX (PIT)
	SPICE		24" PRECAST PIT
	SAW-CUT LOOPS		30" PRECAST PIT
	PREFORMED LOOPS		36" PRECAST PIT
			REMOVAL

**SIGNAL BASE BOLT SQUARE TYPES**

BOLT SQUARE (B.S.)	DIA.
TYPE "A" - 8 1/8"	
TYPE "B" - 6 3/4"	
TYPE "C" - 8 1/8" SCREW TYPE	
TYPE "D" - 12 3/4" x 1 1/4" DIA. BOLTS, 24" DIA.	
TYPE "E" - 12 3/4" x 1 1/4" DIA. BOLTS, 28" DIA.	
TYPE "FOD" - 12 3/4" PRECAST, 1 1/4" DIA. BOLTS, 28" DIA.	
TYPE "E" - 9 9/16" SCREW TYPE	
TYPE "F" - 9 9/16"	
TYPE "G" - 8 1/8", 1 1/4" DIA. BOLTS, 89mm PROJ.	
TYPE "GS" - 8 1/8", 1 1/4" DIA. BOLTS, 76mm PROJ.	
TYPE "PG" - 8 1/8" PRECAST, 1 1/4" DIA. BOLTS	
TYPE "H" - 9 7/8" SCREW TYPE	
TYPE "I" - 7 3/4"	
TYPE "J" - 10 5/8", 1 1/4" DIA. BOLTS	
TYPE "K" - 10 5/8", PRECAST, 1 1/4" DIA. BOLTS	
TYPE "L" - 6", 5/8" DIA. BOLTS	
TYPE "M" - 8 1/8", 5/8" DIA. BOLTS	
TYPE "PM" - 8 1/8", PRECAST, 5/8" DIA. BOLTS	

**INTERNAL REVIEW**

TIMINGS (INITIAL):	NEW TIMINGS?	DATE	INITIALS
TIMINGS (PRE-FC):	NEW TIMINGS?	DATE	INITIALS
OPERATIONS:	DAYS REQUIRED	DATE	INITIALS
UNDERGROUND CONSTRUCTABILITY:	DAYS REQUIRED	DATE	INITIALS
LAB:	REQUIRE IFC DWG?	DAYS REQUIRED	DATE
TMC:		DATE	INITIALS
STREET LIGHTING:		DATE	INITIALS
TRAFFIC MANAGEMENT:		DATE	INITIALS

EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED
	WATERMAIN			GAS			TELEPHONE	
	HYDRANT			ROADWAY			WOOD POLE	
	SHUT-OFF VALVE			CURB & CURB RAMP			STREET LIGHT	
	MANHOLE			WARNING TILE			GUY-WIRE	
	CATCH BASIN			CULVERT			FENCE	
	CURB INLET			BUILDING			TREE	
	HYDRO			TREE			TREE	

**UNDERGROUND STRUCTURES**

PENDING	
UNDERGROUND STRUCTURES ID	DATE (YYYY/MM/DD)
PENDING	
WATER & WASTE REVIEW ID	

NOTE: LOCATIONS OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

**CONSTRUCTION REVISIONS**

NO.	REVISION	DATE (YYYY/MM/DD)	BY
A	ISSUED FOR INTERNAL REVIEW		

**ACCOUNTS:**

PENDING

**DESIGNED BY:** J.S.

**DRAWN BY:** J.S.

**CHECKED BY:**

**APPROVED BY:**

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ENGINEER'S SEAL

PRELIMINARY

NOT FOR CONSTRUCTION

**THE CITY OF WINNIPEG**  
PUBLIC WORKS DEPARTMENT  
TRANSPORTATION DIVISION

FLASHING RED LIGHTS  
DUFFERIN AVE. & MCGREGOR ST.

UNITS: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED

DRAWING NUMBER: S-1740