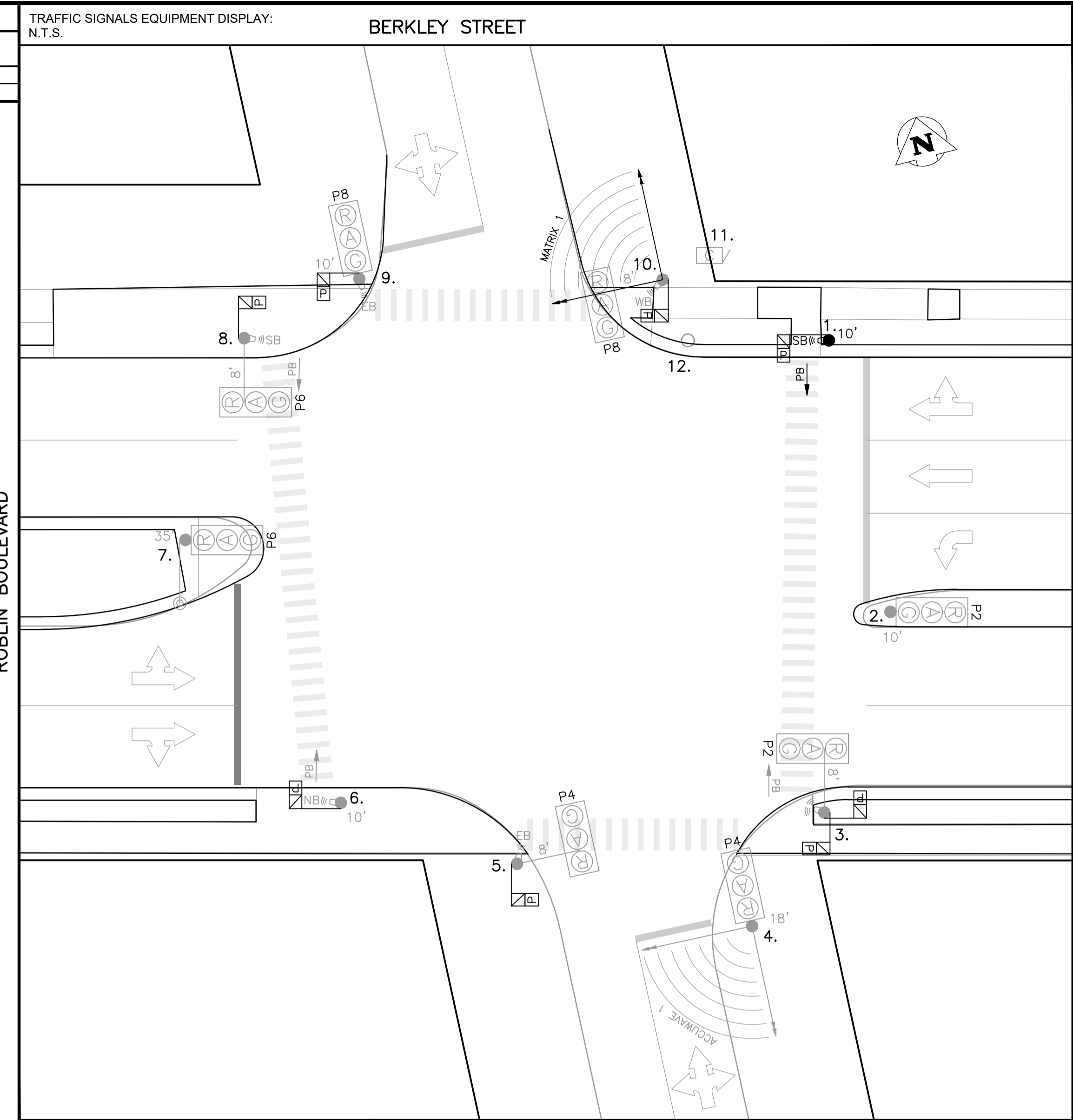


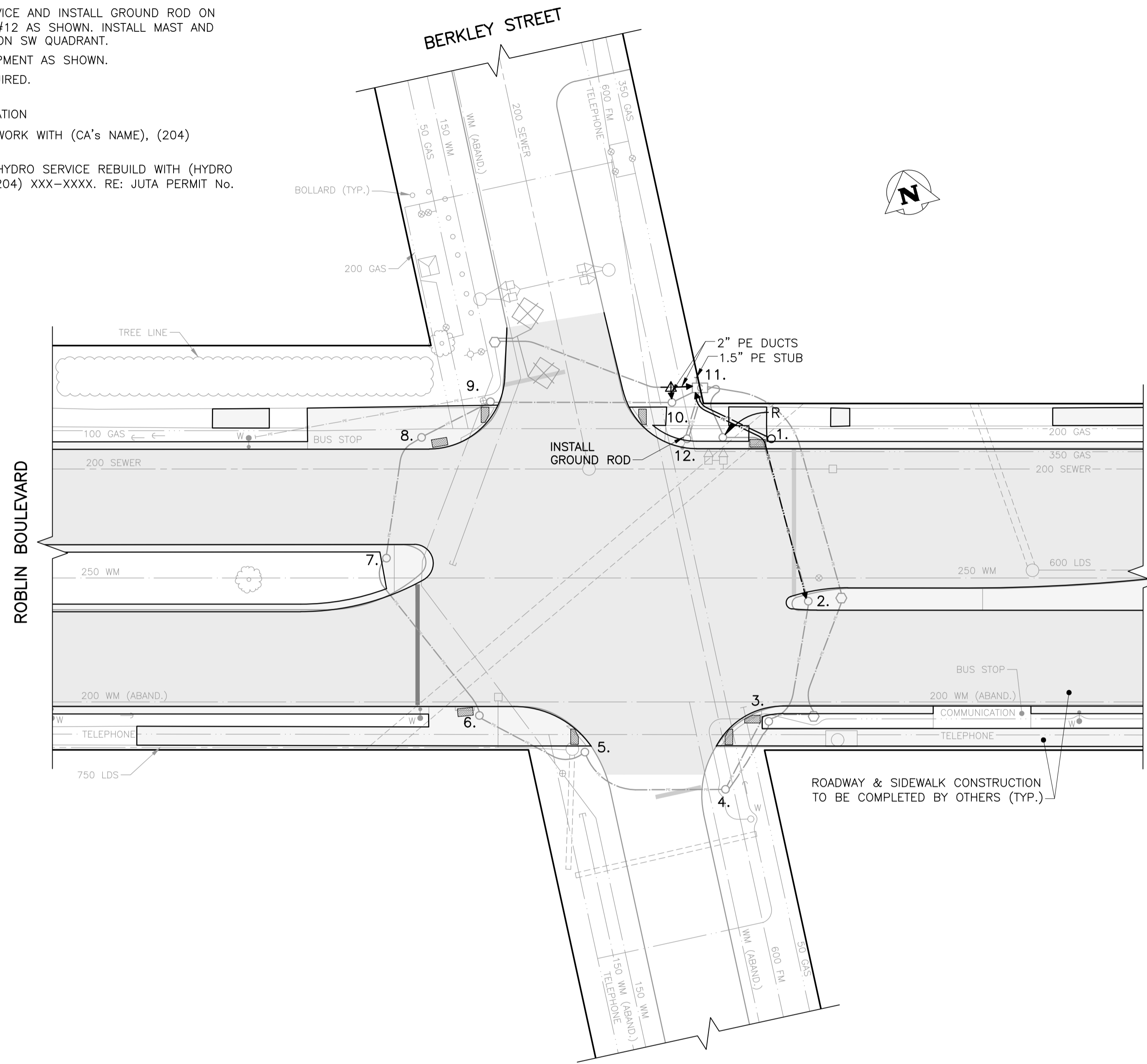
DETECTION CONNECTION DETAILS			
SENSOR NO.	POLE NO.	DETECTION LOCATION	NOTES
ACCUWAVE 1	4	NB LANE	
MATRIX 1	10	SB LANE	



CONSTRUCTION NOTES:

- PROJECT SCOPE**
1. INSTALL CONDUIT, BASE AND PIT AS SHOWN.
 2. REBUILD SERVICE AND INSTALL GROUND ROD ON WOOD POLE #12 AS SHOWN. INSTALL MAST AND DISCONNECT ON SW QUADRANT.
 3. INSTALL EQUIPMENT AS SHOWN.
 4. TIMINGS REQUIRED.

- PROJECT COORDINATION**
1. COORDINATE WORK WITH (CA'S NAME), (204) XXX-XXXX.
 2. COORDINATE HYDRO SERVICE REBUILD WITH (HYDRO DESIGNER), (204) XXX-XXXX. RE: JUTA PERMIT No. BXXXXX



PLAN VIEW: UNDERGROUND CONSTRUCTION

1:250

INTERNAL REVIEW			
OPERATIONS:	DATE	INITIALS	
TIMINGS (INITIAL):	DATE	INITIALS	
TIMINGS (PRE-FCI):	DATE	INITIALS	
TMC:	DATE	INITIALS	
STREET LIGHTING:	DATE	INITIALS	
TRAFFIC MANAGEMENT:	DATE	INITIALS	
FACILITIES PLANNING:	DATE	INITIALS	

EQUIPMENT DISPLAY LEGEND				EQUIPMENT LIST				EQUIPMENT LIST			
EXISTING	PROPOSED (AS SHOWN BELOW)	NO.	DESCRIPTION	ARM	BASE	B.B.	NO.	DESCRIPTION	ARM	BASE	B.B.
		1.	10' SIGNAL		A	A	11.	332 CABINET/170 CONTROLLER			
		2.	10' SIGNAL		A	A	12.	HYDRO WOOD SERVICE:			
		3.	DAVIT	8'	A	AD					
		4.	18' SIGNAL		A	A					
		5.	DAVIT	8'	A	AD					
		6.	10' SIGNAL		A	A					
		7.	35' SIGNAL FOR CAMERA		A	AD					
		8.	DAVIT	8'	A	AD					
		9.	10' SIGNAL		A	A					
		10.	DAVIT	8'	A	AD					

TRAFFIC SIGNALS UNDERGROUND LEGEND				SIGNAL BASE BOLT SQUARE TYPES			
EXISTING	PROPOSED (AS SHOWN BELOW)	DESCRIPTION	SYMBOL	BOLT SQUARE (B.S.)	DIA.	DESCRIPTION	SYMBOL
		1 1/2" PE CONDUIT		TYPE "A" - 8 1/8"		TYPE "B" - 6 3/4"	
		2" PE CONDUIT		TYPE "C" - 8 1/8" SCREW TYPE		TYPE "D" - 12 3/4", 1 1/4" DIA. BOLTS, 24" DIA.	
		2" ENT CONDUIT		TYPE "OD" - 12 3/4", 1 1/4" DIA. BOLTS, 28" DIA.		TYPE "PD" - 12 3/4", PRECAST, 1 1/4" DIA. BOLTS	
		AERIAL / BURIED CABLE		TYPE "E" - 9 9/16" SCREW TYPE		TYPE "F" - 9 9/16"	
		CONDUIT STUB		TYPE "G" - 8 1/8", 1 1/4" DIA. BOLTS, 89mm PROJ.		TYPE "GS" - 8 1/8", 1 1/4" DIA. BOLTS, 76mm PROJ.	
		BREAK-IN		TYPE "H" - 9 7/8" SCREW TYPE		TYPE "I" - 7 3/4"	
		SPICE		TYPE "J" - 10 5/8", 1 1/4" DIA. BOLTS		TYPE "K" - 10 5/8", PRECAST, 1 1/4" DIA. BOLTS	
		SAW-CUT LOOPS		TYPE "L" - 6", 5/8" DIA. BOLTS		TYPE "PM" - 8 1/8", PRECAST, 5/8" DIA. BOLTS	
		PREFORMED LOOPS					

EXISTING			LEGEND			PROPOSED			UNDERGROUND STRUCTURES			CONSTRUCTION REVISIONS			ACCOUNTS:			ENGINEER'S SEAL:		
	HYDRANT	150 WM		ROADWAY	PROPERTY LINE		TELEPHONE	TELEPHONE	UNDERGROUND STRUCTURES ID	DATE (YYYY/MM/DD)	R.S.	WT PENDING	DESIGNED BY							
	VALVE	150 WM		SIDEWALK	PROPERTY LINE		COMMUNICATION	COMMUNICATION			R.S.		DRAWN BY							
	SEWER	300 SEWER		CURB & CURB RAMP	PROPERTY LINE		STREET LIGHT	STREET LIGHT			C.H.		CHECKED BY							
	MANHOLE	300 SEWER		WARNING TILE	PROPERTY LINE		BANNER POLE	BANNER POLE												
	CATCH BASIN	300 SEWER		SLOPE	PROPERTY LINE		RAILWAY POLE	RAILWAY POLE												
	CURB INLET	300 SEWER		CULVERT	PROPERTY LINE		GUY-WIRE	GUY-WIRE												
	HYDRO	HYDRO		BUILDING	PROPERTY LINE		FENCE	FENCE												
	GAS	100 GAS		TREE	PROPERTY LINE		GUARDRAIL	GUARDRAIL												

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DIVISION

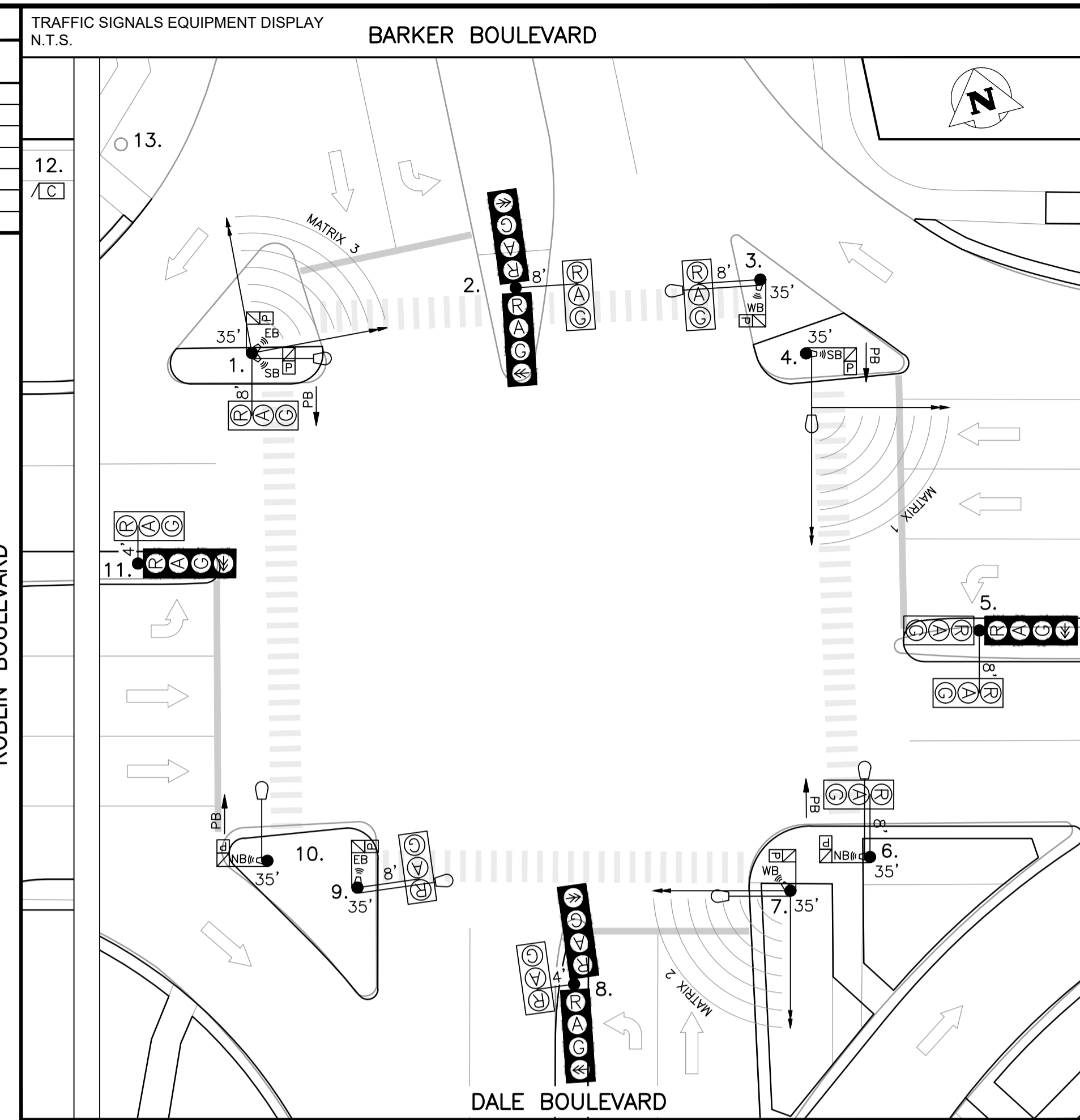
TRAFFIC SIGNALS
BERKLEY ST. & ROBLIN BLVD.

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DRAWING NUMBER:
S-1033

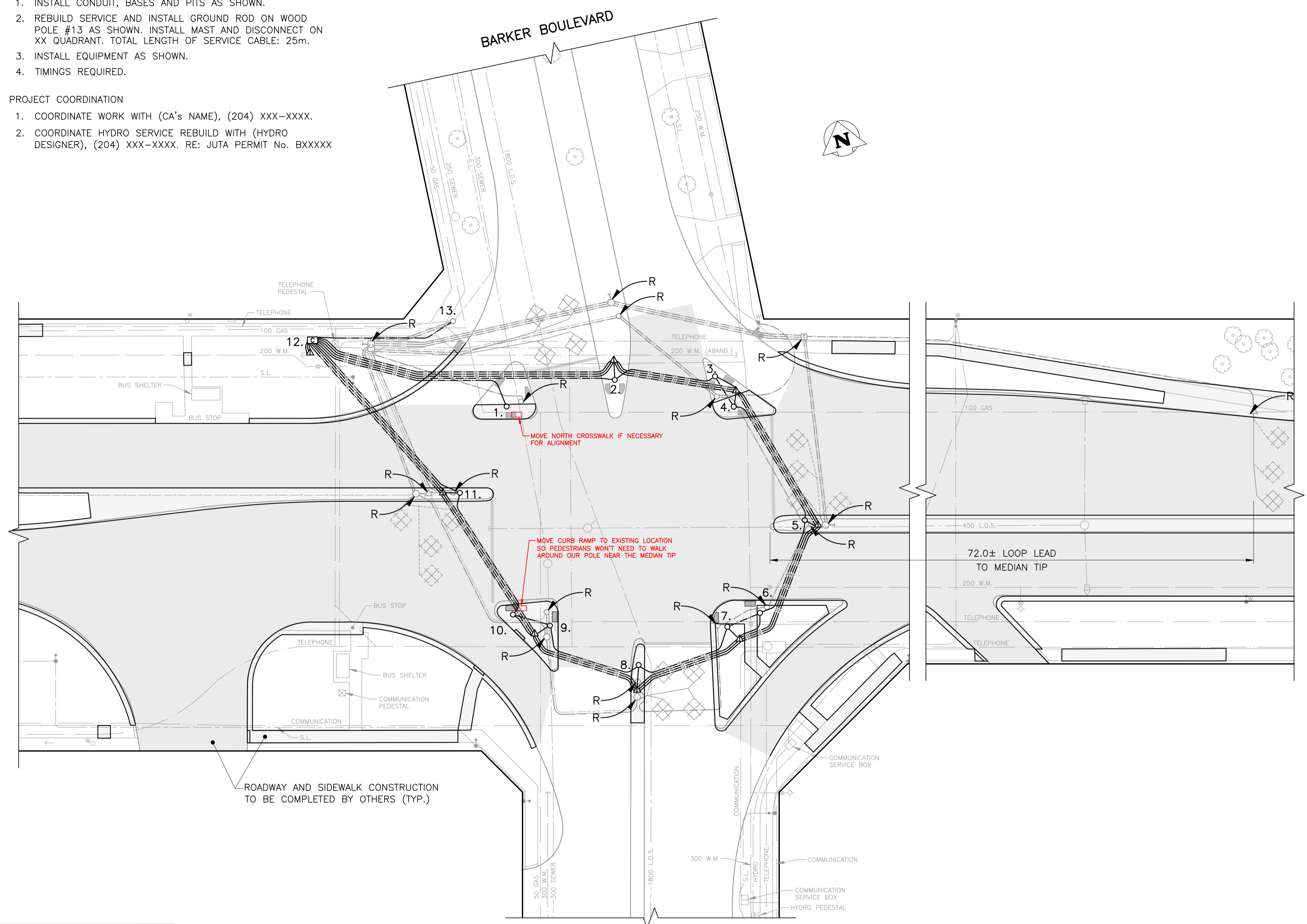
DETECTION CONNECTION DETAILS			
SENSOR NO.	POLE NO.	DETECTION LOCATION	NOTES



CONSTRUCTION NOTES:

- PROJECT SCOPE**
1. INSTALL CONDUIT, BASES AND PITS AS SHOWN.
 2. REBUILD SERVICE AND INSTALL GROUND ROD ON WOOD POLE #13 AS SHOWN. INSTALL MAST AND DISCONNECT ON XX QUADRANT. TOTAL LENGTH OF SERVICE CABLE: 25m.
 3. INSTALL EQUIPMENT AS SHOWN.
 4. TIMINGS REQUIRED.

- PROJECT COORDINATION**
1. COORDINATE WORK WITH (CA's NAME), (204) XXX-XXXX.
 2. COORDINATE HYDRO SERVICE REBUILD WITH (HYDRO DESIGNER), (204) XXX-XXXX. RE: JUTA PERMIT No. BXXXXX



EQUIPMENT DISPLAY LEGEND

	EXISTING		PROPOSED (AS SHOWN BELOW)

NO.	EQUIPMENT LIST	ARM	BASE	B.B.	NO.	EQUIPMENT LIST	ARM	BASE	B.B.
1.	35' SIGNAL FOR XX WATT LUMINAIRE	8'	OD	DD	10.	35' SIGNAL FOR XX WATT LUMINAIRE	OD	DD	
2.	CANTILEVER	8'	OD	DC	11.	CANTILEVER	4'	OD	DC
3.	35' SIGNAL FOR XX WATT LUMINAIRE	8'	OD	DD	12.	332 CABINET/2070 CONTROLLER			
4.	35' SIGNAL FOR XX WATT LUMINAIRE AND DETECTION		OD	DD	13.	HYDRO WOOD SERVICE:			
5.	CANTILEVER	8'	OD	DC					
6.	35' SIGNAL FOR XX WATT LUMINAIRE	8'	OD	DD					
7.	35' SIGNAL FOR XX WATT LUMINAIRE AND DETECTION		OD	DD					
8.	CANTILEVER	4'	OD	DC					
9.	35' SIGNAL FOR XX WATT LUMINAIRE	8'	OD	DD					

TRAFFIC SIGNALS UNDERGROUND LEGEND

	EXISTING		PROPOSED (AS SHOWN BELOW)
	EXISTING		PROPOSED (AS SHOWN BELOW)
	EXISTING		PROPOSED (AS SHOWN BELOW)
	EXISTING		PROPOSED (AS SHOWN BELOW)
	EXISTING		PROPOSED (AS SHOWN BELOW)
	EXISTING		PROPOSED (AS SHOWN BELOW)
	EXISTING		PROPOSED (AS SHOWN BELOW)
	EXISTING		PROPOSED (AS SHOWN BELOW)

SIGNAL BASE BOLT SQUARE TYPES

	TYPE "A" - 8 1/8"
	TYPE "B" - 6 3/4"
	TYPE "C" - 8 1/8" SCREW TYPE
	TYPE "D" - 12 3/4", 1 1/4" DIA. BOLTS, 24" DIA.
	TYPE "E" - 12 3/4", 1 1/4" DIA. BOLTS, 28" DIA.
	TYPE "F" - 12 3/4", PRECAST, 1 1/4" DIA. BOLTS
	TYPE "G" - 9 9/16" SCREW TYPE
	TYPE "H" - 9 9/16"
	TYPE "I" - 8 1/8"
	TYPE "J" - 8 1/8", 1 1/4" DIA. BOLTS, 89mm PROJ.
	TYPE "K" - 8 1/8", 1 1/4" DIA. BOLTS, 76mm PROJ.
	TYPE "L" - 7 3/4"
	TYPE "M" - 10 5/8", 1 1/4" DIA. BOLTS
	TYPE "N" - 10 5/8", 1 1/4" DIA. BOLTS
	TYPE "O" - 6", 5/8" DIA. BOLTS
	TYPE "P" - 8 1/8", PRECAST, 5/8" DIA. BOLTS

INTERNAL REVIEW

OPERATIONS:	DATE	INITIALS
TIMINGS (INITIAL):	DATE	INITIALS
TIMINGS (PRE-IFC):	DATE	INITIALS
TMC:	DATE	INITIALS
STREET LIGHTING:	DATE	INITIALS
TRAFFIC MANAGEMENT:	DATE	INITIALS
FACILITIES PLANNING:	DATE	INITIALS

PLAN VIEW: UNDERGROUND CONSTRUCTION
1:300

EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED
	WATERMAIN			PROPERTY LINE			TELEPHONE	
	HYDRANT			ROADWAY			COMMUNICATION	
	VALVE			SIDEWALK			WOOD POLE	
	SEWER			CURB & CURB RAMP			STREET LIGHT	
	MANHOLE			WARNING TILE			BANNER POLE	
	CATCH BASIN			SLOPE			RAILWAY POLE	
	CURB INLET			CULVERT			GUY-WIRE	
	HYDRO			BUILDING			FENCE	
	GAS			TREE			GUARDRAIL	

UNDERGROUND STRUCTURES

UNDERGROUND STRUCTURES ID	DATE (YYYY/MM/DD)

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

ACCOUNTS:

WT PENDING

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THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DIVISION

TRAFFIC SIGNALS
BARKER BLVD./DALE BLVD. & ROBLIN BLVD.

UNITS: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED
DRAWING NUMBER: S-1204

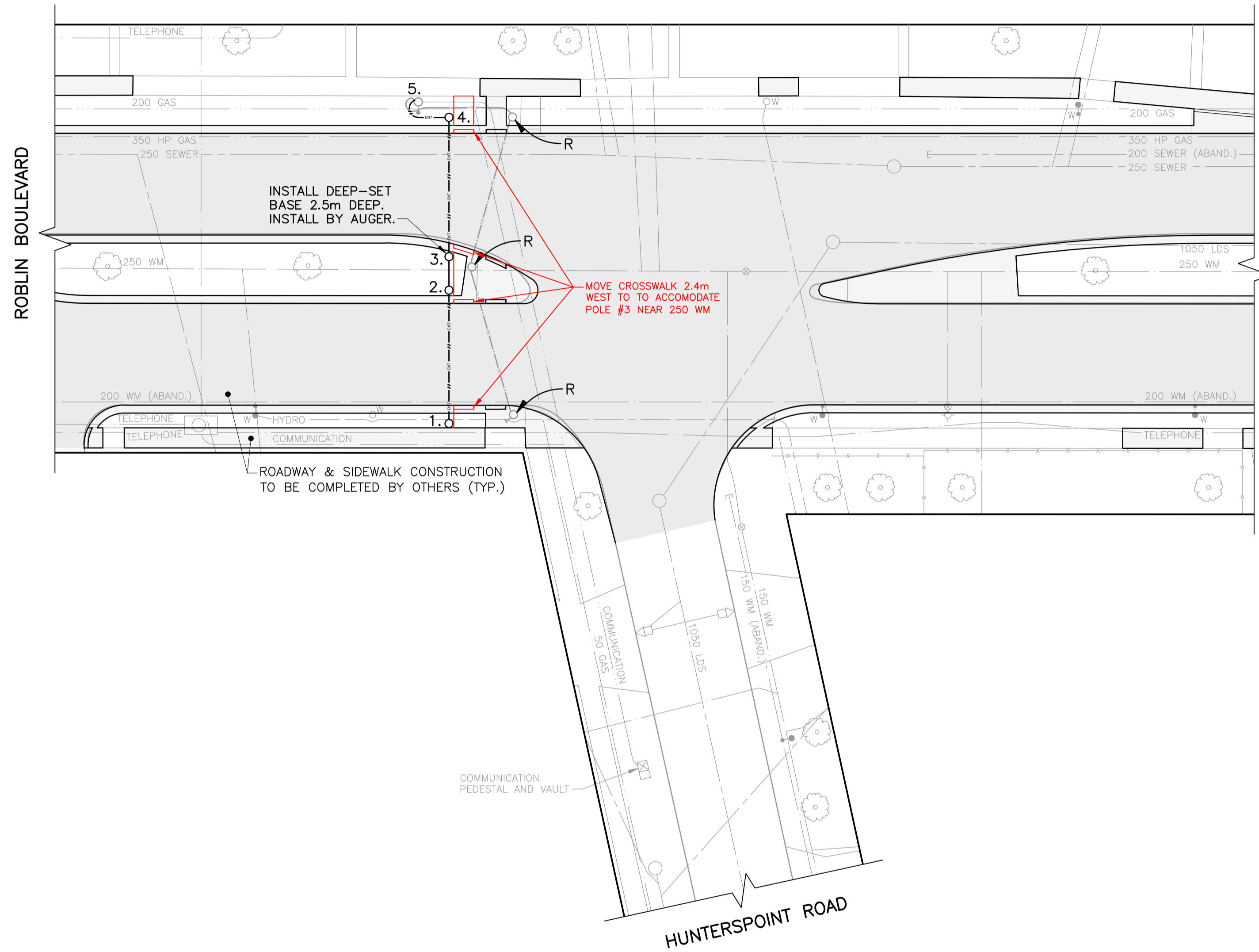
CONSTRUCTION NOTES:

PROJECT SCOPE

1. INSTALL CONDUIT AND BASES AS SHOWN. INSTALL DEEP-SET BASE #3 2.5m DEEP.
2. INSTALL EQUIPMENT AS SHOWN.
3. CROSSING TIME FOR NORTH CROSSWALK: 17 SECONDS, SOUTH CROSSWALK: 16 SECONDS.

PROJECT COORDINATION

1. COORDINATE WORK WITH (CA'S NAME), (204) XXX-XXXX.

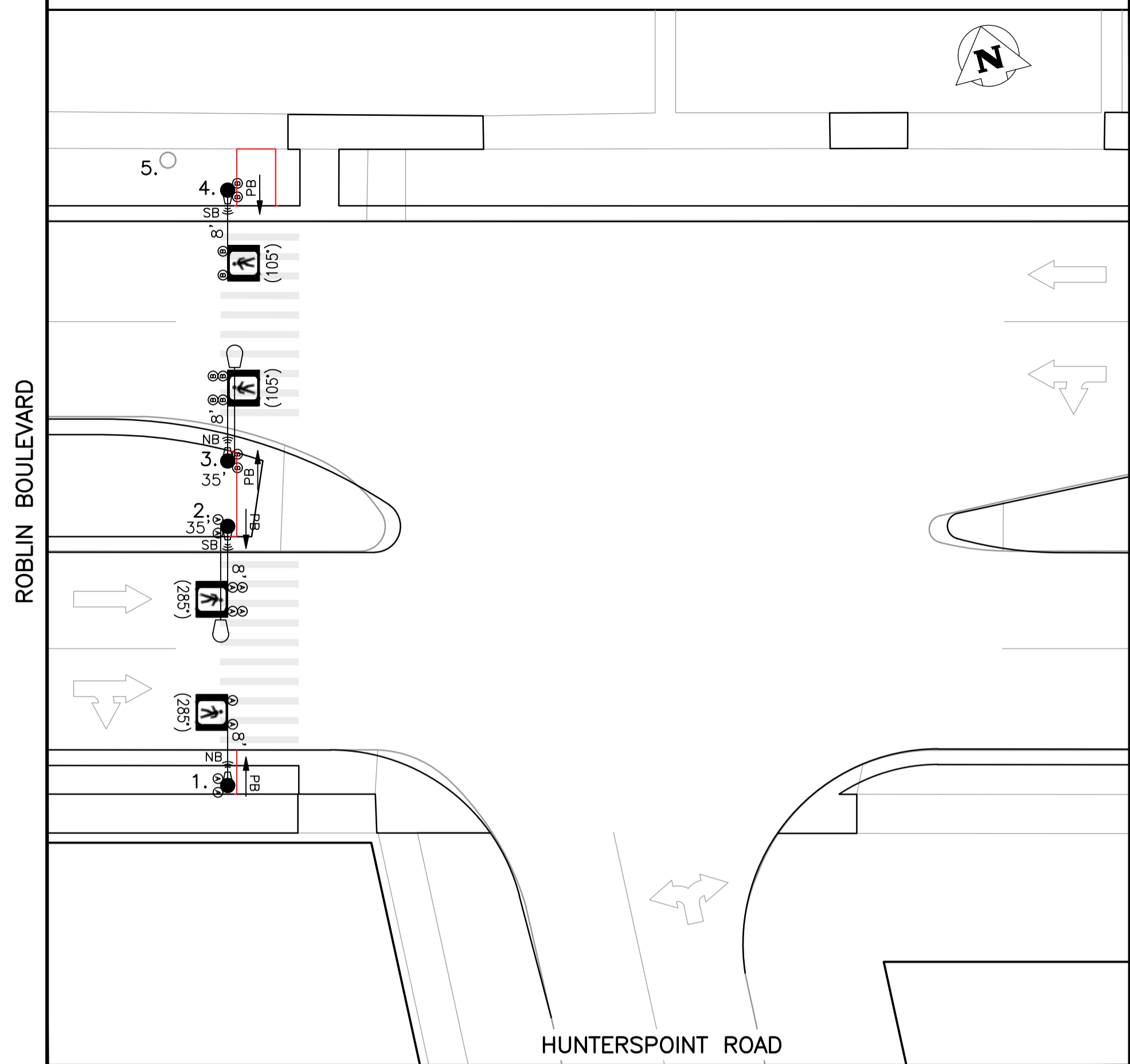


PLAN VIEW: UNDERGROUND CONSTRUCTION

1:250

INTERNAL REVIEW			
OPERATIONS:	DATE	INITIALS	
TIMINGS (INITIAL):	NEW TIMINGS?	DATE	INITIALS
TIMINGS (PRE-FC):	NEW TIMINGS?	DATE	INITIALS
TMC:	DATE	INITIALS	
STREET LIGHTING:	DATE	INITIALS	
TRAFFIC MANAGEMENT:	DATE	INITIALS	
FACILITIES PLANNING:	DATE	INITIALS	

TRAFFIC SIGNALS EQUIPMENT DISPLAY
N.T.S.



EQUIPMENT DISPLAY LEGEND			
EXISTING	PROPOSED (AS SHOWN BELOW)	TRAFFIC SIGNAL HEAD	TRAFFIC SIGNAL POLE
PEDESTRIAN HEAD	VEHICLE DETECTION AREA	TRAFFIC SIGNAL HEAD	TRAFFIC SIGNAL POLE
PEDESTRIAN HEAD WITH PCS	PB PUSH BUTTON & DIRECTION	TRAFFIC SIGNAL POLE	TRAFFIC SIGNAL POLE
PEDESTRIAN CORRIDOR BOX	APB APS SINGLE DIRECTION	TRAFFIC SIGNAL POLE	TRAFFIC SIGNAL POLE
		TRAFFIC SIGNAL POLE	TRAFFIC SIGNAL POLE
		TRAFFIC SIGNAL POLE	TRAFFIC SIGNAL POLE
		TRAFFIC SIGNAL POLE	TRAFFIC SIGNAL POLE
		TRAFFIC SIGNAL POLE	TRAFFIC SIGNAL POLE
		TRAFFIC SIGNAL POLE	TRAFFIC SIGNAL POLE
		TRAFFIC SIGNAL POLE	TRAFFIC SIGNAL POLE

NO.	EQUIPMENT LIST	ARM	BASE	B.B.	NO.	EQUIPMENT LIST	ARM	BASE	B.B.
1.	CANTILEVER		8' OD	DC					
2.	35' SIGNAL FOR XX WATT LUMINAIRE		8' OD	DD					
3.	35' SIGNAL FOR XX WATT LUMINAIRE *BASE AT 2.5m DEPTH		8' G*	GD					
4.	CANTILEVER		8' OD	DC					
5.	HYDRO WOOD SERVICE:								

TRAFFIC SIGNALS UNDERGROUND LEGEND				SIGNAL BASE BOLT SQUARE TYPES	
EXISTING	PROPOSED (AS SHOWN BELOW)	DISCONNECTED (LOOPS ONLY)		BOLT SQUARE (B.S.)	DIA.
1 1/2" PE CONDUIT	POLE BASE			TYPE "A" - 8 1/8"	
2" PE CONDUIT	CONTROLLER BASE			TYPE "B" - 6 3/4"	
2" ENT CONDUIT	PEDESTAL BASE			TYPE "C" - 8 1/8" SCREW TYPE	
AERIAL / BURIED CABLE	TERMINAL BASE			TYPE "D" - 12 3/4", 1 1/4" DIA. BOLTS, 24" DIA.	
CONDUIT STUB	SERVICE BOX (PIT)			TYPE "OD" - 12 3/4", 1 1/4" DIA. BOLTS, 28" DIA.	
BREAK-IN	24" PRECAST PIT			TYPE "PD" - 12 3/4", PRECAST, 1 1/4" DIA. BOLTS	
SPICE	30" PRECAST PIT			TYPE "E" - 9 9/16" SCREW TYPE	
SAW-CUT LOOPS	36" PRECAST PIT			TYPE "F" - 9 9/16"	
PERFORMED LOOPS	REMOVAL			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 "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 "PM" - 8 1/8", PRECAST, 5/8" DIA. BOLTS	

EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED
150 WM	WATERMAIN	150 WM	PROPERTY LINE	TELEPHONE	TELEPHONE	TELEPHONE	TELEPHONE	TELEPHONE
HYDRANT	HYDRANT	VALVE	ROADWAY	COMMUNICATION	COMMUNICATION	COMMUNICATION	COMMUNICATION	COMMUNICATION
300 SEWER	SEWER	300 SEWER	SIDEWALK	WOOD POLE	WOOD POLE	WOOD POLE	WOOD POLE	WOOD POLE
MANHOLE	MANHOLE	CATCH BASIN	CURB & CURB RAMP	STREET LIGHT	STREET LIGHT	STREET LIGHT	STREET LIGHT	STREET LIGHT
CURB INLET	CURB INLET	HYDRO	WARNING TILE	BANNER POLE	BANNER POLE	BANNER POLE	BANNER POLE	BANNER POLE
100 GAS	GAS	100 GAS	SLOPE	RAILWAY POLE	RAILWAY POLE	RAILWAY POLE	RAILWAY POLE	RAILWAY POLE
			CULVERT	GUY-WIRE	GUY-WIRE	GUY-WIRE	GUY-WIRE	GUY-WIRE
			BUILDING	FENCE	FENCE	FENCE	FENCE	FENCE
			TREE	GUARDRAIL	GUARDRAIL	GUARDRAIL	GUARDRAIL	GUARDRAIL

UNDERGROUND STRUCTURES		CONSTRUCTION REVISIONS	
UNDERGROUND STRUCTURES ID	DATE (YYYYMMDD)		
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.			

NO.	REVISION	DATE (YYYYMMDD)	BY	APPROVED BY
A	ISSUED FOR INTERNAL REVIEW			

ACCOUNTS:	ENGINEER'S SEAL:

PRELIMINARY
NOT FOR CONSTRUCTION

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DIVISION

**PEDESTRIAN CORRIDOR
HUNTERSPOINT RD. & ROBLIN BLVD.**

UNITS: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED
DRAWING NUMBER: S-1413