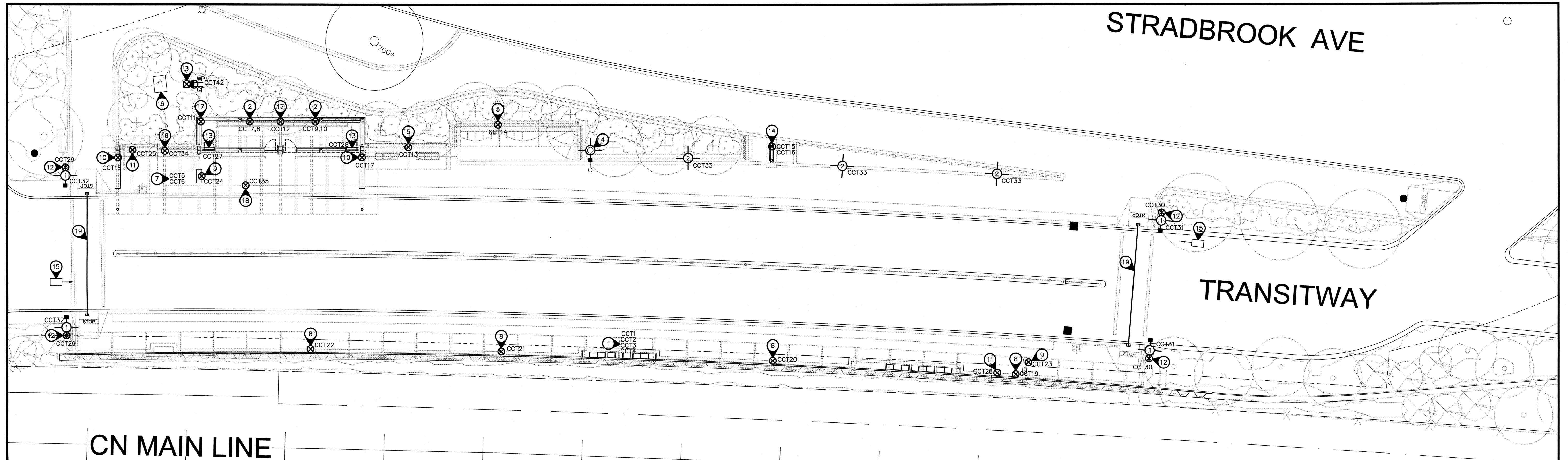


STRADBROOK AVE

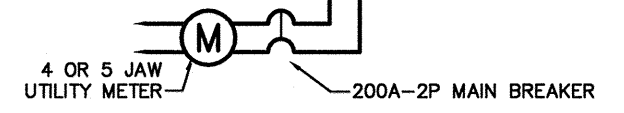
TRANSITWAY

CN MAIN LINE



1
EI **ELECTRICAL LAYOUT**
SCALE: 1:50

DESCRIPTION	BKR	CIRCUIT	BKR	DESCRIPTION
* SOUTH CANOPY LIGHTING (#10 WIRE)	15	1	31	POST LIGHTS
* SOUTH CANOPY LIGHTING (#10 WIRE)	15	2	32	POST LIGHTS
* SOUTH CANOPY LIGHTING (#10 WIRE)	15	3	33	POST LIGHTS
* SOUTH CANOPY LIGHTING (#10 WIRE)	15	4	34	SIGN BAND
* NORTH CANOPY LIGHTING	15	5	35	T.V.'s
* NORTH CANOPY LIGHTING	15	6	36	SPACE
BB HEAT	20	7	37	SPACE
BB HEAT	20	8	38	SPACE
BB HEAT	20	9	39	SPACE
BB HEAT	20	10	40	SPACE
* SHELTER LIGHTING	15	11	41	SPACE
* SHELTER LIGHTING	15	12	42	SPACE
* SHELTER LIGHTING	15	13	43	SPACE
* SHELTER LIGHTING	15	14	44	SPACE
* PILLAR SIGNAGE (FUTURE)	15	15	45	SPACE
* PILLAR SIGNAGE (500W)	15	16	46	SPACE
* STATION IDENTIFICATION SIGNAGE	15	17	47	SPACE
* STATION IDENTIFICATION SIGNAGE	15	18	48	SPACE
* ILLUMINATED SIGNAGE	15	19	49	SPACE
* ILLUMINATED SIGNAGE	15	20	50	SPACE
* ILLUMINATED SIGNAGE	15	21	51	SPACE
* ILLUMINATED SIGNAGE	15	22	52	SPACE
EBDD	15	23	53	SPACE
EBDD	15	24	54	SPACE
* INFO KIOSK	15	25	55	SPACE
* INFO KIOSK	15	26	56	SPARE
POWER DOOR ASSIST	15	27	57	SPARE
POWER DOOR ASSIST	15	28	58	SPARE
BUS DETECTION AND WARNING SYSTEM	15	29	59	SPARE
BUS DETECTION AND WARNING SYSTEM	15	30	60	PANEL RECEPTACLE



POWER PEDESTAL 'A'
 NOTES: 1. POWER PEDESTAL TO BE W.P. LOCKABLE, CUTLER HAMMER OR APPROVED EQUAL.
 2. SIGN AND SHELTER LIGHTING CIRCUITS TO BE PHOTOCELL CONTROLLED.
 3. COORDINATE METERS WITH UTILITY.
 * PROVIDE H/AUTO SWITCH INSIDE CABINET. CIRCUITS INDICATED TO BE PHOTOCELL CONTROLLED (IN AUTO POSITION).

BUS DETECTION AND WARNING SYSTEM

Provide a complete and operational bus detection and warning system to the complete satisfaction of the Contract Administrator. Electrical provisions include, but are not necessarily limited to the following:
 1. Provision of the supply and install of directional probe system to detect inbound vehicles only. Probes to be located in the roadway 200m from the entrance to the station. All wiring to be in minimum 1.5" conduit. Provide 18"x24" splice pit at curb to C/W standards, for connection to probe. Wiring to be 14/4 shielded buried cable. One probe will be required west of the station (in east-bound lane) and one will be required east of the station (in west-bound lane). Coordinate conduit routing with Contract Administrator prior to road work or rough-in.
 2. Each probe is to be connected to a processor c/w power supply in heated electrical enclosure. Upon detection of vehicle, processor is to signal a timed relay which will activate the following after a programmable delay
 a) signal devices at east end of station are to operate upon activation of west-bound (inbound) vehicles only. Devices at west end of station to operate similarly.
 b) audible chime at north and south pedestrian crossings.
 c) illuminate flashing LED lights mounted on poles (both sides of pedestrian crossing). Lights are to continue flashing for a programmable duration. Initial setting to be 30 seconds from activation. LED signals to be Edwards 103 series, NEMA 4X rated weather-proof and vandal-resistant.
 d) chime is to sound every time a vehicle passes the detector and lights to flash for full duration after each vehicle.
 3. Manufacturer: Probes to be Sure Action Incorporated P8000 c/w 212 Processor or approved equal.
 4. Equipment is to be supplied by local manufacturer's rep, such as National Industrial Communications Inc. Final connections to be performed by manufacturer's representative.
 5. Provide complete commissioning and training of system to Contract Administrator's satisfaction.

SPECIFIC ELECTRICAL NOTES

- WIRE AND CONNECT 4 CIRCUITS OF 120V CANOPY LED LIGHTING AS REQUIRED. COORDINATE WITH CANOPY SUPPLIER. LIGHTING IS SUPPLIED AND INSTALLED BY OTHERS.
- WIRE AND CONNECT NEW HEATED SHELTER AS REQUIRED. COORDINATE POWER ACCESS WITH SUPPLIER. ELECTRICAL INCLUDES 2x 2kW ELECTRIC BASEBOARD HEATERS AND SHELTER LIGHTING.
- APPROXIMATE LOCATION OF POWER PEDESTAL 'A' C/W RECEPTACLE. COORDINATE LOCATION WITH UTILITY AND LANDSCAPE ARCHITECT.
- RELOCATED STREET LIGHT (BY HYDRO, N.I.C.).
- WIRE AND CONNECT NEW UNHEATED SHELTER AS REQUIRED. COORDINATE POWER ACCESS WITH SUPPLIER. ELECTRICAL INCLUDES SHELTER LIGHTING.
- APPROXIMATE LOCATION OF UTILITY TRANSFORMER.
- WIRE AND CONNECT 2 CIRCUITS OF 120V CANOPY LED LIGHTING AS REQUIRED. COORDINATE WITH CANOPY SUPPLIER. LIGHTING IS SUPPLIED AND INSTALLED BY OTHERS.
- WIRE AND CONNECT ILLUMINATED SIGN ARM AS REQUIRED.
- WIRE AND CONNECT EBDD AS REQUIRED.
- WIRE AND CONNECT STATION IDENTIFICATION SIGNAGE AS REQUIRED.
- WIRE AND CONNECT INFO KIOSK AS REQUIRED.
- PROVIDE BUS WARNING FLASHING LIGHTS AND AUDIBLE CHIME MOUNTED ON LUMINAIRE POLE @ 2150mm A.F.G. WIRE AND CONNECT TO BUS DETECTION AND WARNING SYSTEM.
- WIRE AND CONNECT POWER DOOR ASSIST AS REQUIRED.
- WIRE AND CONNECT PILLAR ILLUMINATED SIGN AS REQUIRED. PROVIDE 2 CIRCUITS OF 120V POWER.
- BUS DETECTION PROBE. LOCATE 200m FROM STATION. REFER TO CIVIL DRAWINGS. TIE TO BUS DETECTION AND WARNING SYSTEM.

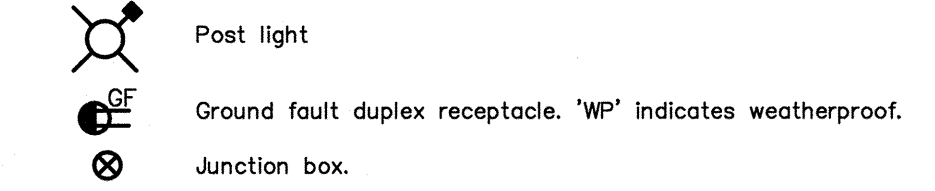
SPECIFIC ELECTRICAL NOTES CONT'D

- WIRE AND CONNECT SIGN BAND AS REQUIRED.
- WIRE AND CONNECT SHELTER LIGHTING AS REQUIRED.
- WIRE AND CONNECT T.V.'s AS REQUIRED. CONFIRM LOCATION. PROVIDE ONE 3/4" CONDUIT BACK TO PEDESTAL A FOR FUTURE COMMUNICATION WIRING.
- ONE EXISTING EMPTY 2" CONDUIT IS AVAILABLE FOR POWER CABLING CROSSING THE TRANSITWAY.

GENERAL ELECTRICAL NOTES

- COORDINATE ROUTING OF ALL UNDERGROUND CONDUITS WITH LANDSCAPE ARCHITECT.

SYMBOL SCHEDULE



LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	LAMPS
1	ASYMMETRIC INDIRECT LUMINAIRE MOUNTED ON 15' POLE	REBELLE	1-150W MH
2	SYMMETRIC INDIRECT LUMINAIRE MOUNTED ON 18' POLE	REBELLE	1-150W MH

NOTE: REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.

U:\31\035\A\Draw\Business Station_2011-01-18.dwg



LOCATION UNDERGROUND STRUCTURES
 APPROVED BY: [Signature]
 DATE: MM/DD/YY
 SUPV. U/G STRUCTURES COMMITTEE

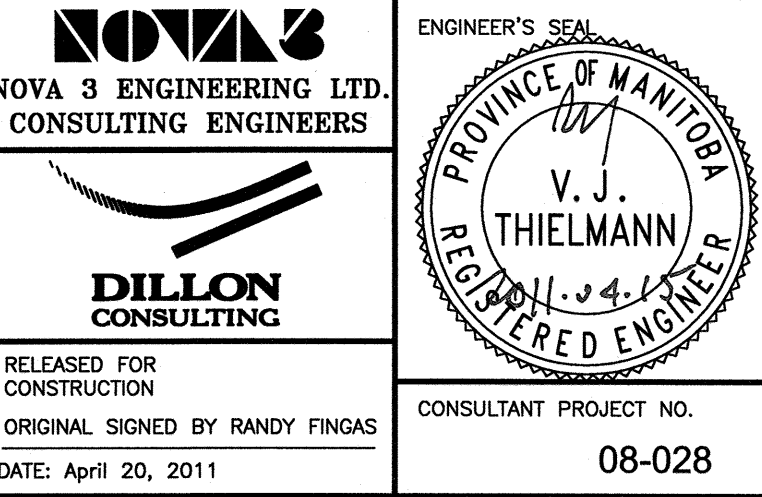
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES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

B.M. ELEV.	BM ELEV.	DESIGNED BY	DZ
		DRAWN BY	DF
		CHECKED BY	VJT
		APPROVED BY	-
		HOR. SCALE	1:150
		VERTICAL	
0		ISSUED FOR TENDER	2011.04.20
		DATE	BY
		DATE	2011-04-15
		DATE	April 20, 2011

NOVA 3 ENGINEERING LTD.
 CONSULTING ENGINEERS

DILLON CONSULTING

RELEASED FOR CONSTRUCTION
 ORIGINAL SIGNED BY RANDY FINGAS
 DATE: April 20, 2011



THE CITY OF WINNIPEG TRANSIT DEPARTMENT

Winnipeg

SOUTHWEST RAPID TRANSIT CORRIDOR - STAGE 1
 STATION CONSTRUCTION, WARSAW RECONSTRUCTION & ASSOCIATED WORKS

HARKNESS STATION
 ELECTRICAL LAYOUT

CITY DRAWING NUMBER: P-3325-27
 SHEET OF: 27 OF 28
 CONSULTANT DRAWING NUMBER: C7-B2200-T