

Appendix L – Manitoba Hydro Preliminary Design Drawings

NOTES :

CONSTRUCTION STANDARDS

TO BE CONSTRUCTED IN ACCORDANCE WITH MANITOBA HYDRO DISTRIBUTION AND SUBTRANSMISSION STANDARDS, LATEST EDITION.
NO MAJOR CHANGE SHALL BE MADE WITHOUT APPROVAL OF THE DESIGN ENGINEER OR DELEGATE.

SURVEYS TO STAKE OUT SURVEY MONUMENTS, IF IN THE VICINITY OF THE NEW CONSTRUCTION TO PREVENT DAMAGE OR LOSS.

FOR CLEARANCE OF EXISTING WATER & WASTE DEPARTMENT PLANT CONTACT THE SURVEY & INSPECTION BRANCH 48 HOURS PRIOR TO CONSTRUCTION AT 986-3322

NOTE: INDICATION OF ALL UNDERGROUND UTILITIES IS FOR ILLUSTRATIVE PURPOSES ONLY. CONTACT THE APPLICABLE UTILITIES FOR SPECIFIC PLANT LOCATIONS AND CLEARANCES.

| REEL NUMBER | MANUFACTURER | MANUFACTURE DATE |
|-------------|--------------|------------------|
| | | |
| | | |
| | | |
| | | |

| AUTHORITY | NOTIFIED | NOT REQ'D | OBTAINED |
|------------------|----------|-----------|----------|
| DISTRICT | | | |
| CITY OF WINNIPEG | | N/A | |
| M.T.S. | | N/A | |
| GAS | | N/A | |
| SHAW | | N/A | |
| PROPERTY | | N/A | |
| COMMUNICATIONS | | N/A | |
| S.C.C. | | N/A | |

| LOCATION | LUMINAIRE | TYPE | MOUNTING HEIGHT | AVG. CONC. | U.R. RATIO | U.R. RATIO | MAX. SPACING |
|----------|-----------|------|-----------------|------------|------------|------------|--------------|
| | | | | | | | |
| | | | | | | | |

CONTACT "CLICK BEFORE YOU DIG MANITOBA" AT

[ClickBeforeYouDigMB.com](#)

THREE FULL WORKING DAYS

PRIOR TO CONSTRUCTION FOR LOCATION OF WATER, WASTEWATER, LAND DRAINAGE UTILITIES AND MANITOBA HYDRO UTILITIES

| | |
|--|-------------|
| CONSTRUCTION CONCURRENCE | |
| I, _____ | DATE: _____ |
| OF _____ | |
| CONCUR WITH THIS PLAN FOR CONSTRUCTION. CUSTOMER IS RESPONSIBLE TO PROVIDE FINISHED GRADES, LOCATE AND MARK ANY CUSTOMER OWNED UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION (IE. SEWER LINES, WATER LINES, POWER LINES, ETC). | |
| SIGN: _____ | DATE: _____ |

**PRELIMINARY NOT
TO BE USED FOR
CONSTRUCTION**

INSTALL 8 - 25' STRAIGHT SHAFT S/L'S.
HDD 352M #4 AL C/N S/L CABLE IN 2" PIPE.
INSTALL GROUND RODS AS MARKED.
INSTALL BASES USING CD 300-6.
USE CD 310-4 FOR S/L CONNECTIONS.

ANGLE LUMINAIRES DOWN

CAUTION GAS

GROUNDING

- USE OF COPPERWELD GROUND RODS**
COPPERWELD GROUND RODS SHALL BE USED IN ALL AREAS OF THE PROVINCE ON THE DISTRIBUTION GROUNDING SYSTEM.
- CONNECTION TO GROUND RODS**
ALL CONNECTIONS TO GROUND RODS SHALL BE MADE USING AN APPROVED CONNECTION. ALL CONNECTIONS SHALL BE INSPECTED TO ASSURE A PROPER CONNECTION HAS BEEN MADE.
- SEASONAL VARIATIONS OF GROUND RESISTANCE**
THE DEPTH OF ALL GROUND RODS SHALL BE SUFFICIENT TO ENSURE ADEQUATE GROUNDING RESISTANCE DURING ALL SEASONS. GROUND RESISTANCE CAN INCREASE DUE TO VARIATIONS IN THE WATER TABLE AND THE DEPTH OF THE FROST. A GROUND ROD LENGTH OF 3 METERS IS MINIMUM.
- EQUIPMENT, CASES AND CUBICLES**
ALL CASES OF DISTRIBUTION APPARATUS INSTALLATIONS, SUCH AS TRANSFORMERS, VOLTAGE REGULATORS, CIRCUIT RECLOSERS, CAPACITORS, CONCENTRIC NEUTRAL/ CORRUGATED TAPE SHIELD DIPS AND RISERS, DISTRIBUTION CENTER CUBICLES, JUNCTION POINT CUBICLES, ETC., CONNECTED TO PRIMARY LINES SHALL BE GROUNDING.
- OVERHEAD NEUTRAL, CONCENTRIC NEUTRAL/CONCENTRIC TAPE SHIELD OF CABLE AND GROUND INTERCONNECTION**
THE PRINCIPLE OF RUNNING THE GROUNDING CONDUCTORS IN OPEN VIEW WHERE CONNECTIONS ARE MADE SHALL BE OBSERVED WHENEVER POSSIBLE. THIS APPLIES TO GROUND INTERCONNECTIONS BETWEEN SURGE ARRESTERS, ACRS, CONCENTRIC NEUTRAL/CONCENTRIC TAPE SHIELD OF CABLE, TRANSFORMER BANKS, ETC. THESE GROUNDING CONDUCTOR INTERCONNECTIONS SHALL BE PLAINLY SEEN BY PERSONS WORKING ON THE POLE IN ORDER THAT APPROPRIATE SAFETY MEASURES RELATING TO SECOND POINTS OF CONTACT MAY BE TAKEN. IT ALSO APPLIES WHERE GROUNDING CONDUCTORS ARE RUN TO THE NEUTRAL ON A Z OR XY TYPE LINE AND DIP AND RISER POLES OF THE RUD SYSTEM TAP OFF. REASONABLE SLACKNESS SHOULD BE MAINTAINED IN THESE CONDUCTORS TO PREVENT VIBRATION FAILURE.
- GROUNDING IN ROCK AREAS**
WHERE GROUND CONDITIONS ARE SUCH THAT GROUND RODS CANNOT BE DRIVEN AT TRANSFORMER INSTALLATIONS OR OTHER POINTS WHERE THEY ARE NORMALLY REQUIRED, GROUNDING POINTS SHALL BE ESTABLISHED IN THE NEAR VICINITY.

SUPERSEDES ORIGINAL SEALED BY E. WEBER ON 94-07-11

| APPROVED | REVISIONS | MANITOBA HYDRO DISTRIBUTION STANDARDS |
|--|----------------------------------|---------------------------------------|
| ORIGINAL DRAWING SEALED BY D.R. ORR 15-10-22 | 23-06-04 15-09-03 06-07-02 | GROUNDING |
| DRAWN C.A. | CHECKED G.D./C.W. | DATE 15-09 |
| CD 50-5 | | REV 0001 of 3 04 |
| 1-04430-DA-56800-0001 | | |

**INSTALL NEW GROUND RODS AS
PER CD 50-5**

**CAUTION:
SEWER, WATER AND GAS
IN WORK AREA
USE SOFT DIG AS REQUIRED**

**MB HYDRO SHALL CUT, CAP AND ABANDON
ORIGINAL FEED TO THE STREET LIGHTS
PRIOR TO REMOVAL. ALL FINAL
WILL BE COMPLETED BY MB HYDRO.**

**ALL STREET LIGHT CABLE TO BE INSTALLED
IN 2" CONDUIT. FIELD BEND WHERE REQUIRED.**

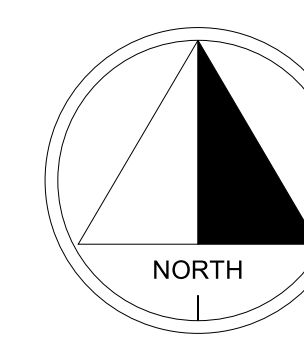
**UPON DISCONNECT BY MB HYDRO
THE CONTRACTOR SHALL INSTALL
TEMPORARY #6 OVERHEAD FEED IN
ORDER TO MAINTAIN LIGHTING DURING
CONSTRUCTION.
AT THE END OF CONSTRUCTION TEMPORARY
OVERHEAD SHALL BE DISCONNECTED BY
THE CONTRACTOR**

THIS IS A PRINT OF A DOCUMENT
THAT HAS
BEEN ELECTRONICALLY
AUTHENTICATED WITH
TECHNOLOGY AUTHORIZED BY THE
EGM.
THE ORIGINAL IS IN ELECTRONIC
FORM.

**INSTALL NEW STREET LIGHTS AND CABLE
ON ALIGNMENTS AS SHOWN.**

**U/G SL CABLE TO BE MINIMUM
1.0m AWAY FROM ALL OTHER
UTILITIES UNLESS OTHERWISE
NOTED**

| CONTACT | NAME | PHONE NUMBER | E-MAIL ADDRESS |
|-----------------------------|------------------------------------|----------------|------------------------------|
| DESIGN | JEREMY REITER | (204) 281-7052 | JREITER@HYDRO.MB.CA |
| DESIGN ENGINEER | KEVIN VANDENBERGHE | (204) 360-3459 | KVANDENBERGH@HYDRO.MB.CA |
| PROJECT MANAGER | DIANA NEWBURY | (204) 226-8325 | DNEWBURY@HYDRO.MB.CA |
| ENERGY SERVICES COORDINATOR | RYAN AUBRY | (204) 325-3097 | RAUBRY@HYDRO.MB.CA |
| U/G CONSTRUCTION | JEFF BREAKKEY | (204) 871-2003 | JSBREAKKEY@HYDRO.MB.CA |
| OH CONSTRUCTION | N/A | | |
| HYDRO GAS | N/A | | |
| SHAW | N/A | | |
| MTS | N/A | | |
| CUSTOMER | CITY OF WINNIPEG MARK MARKENTIN | (204) 471-3101 | MWARKENTIN@WINNIPEG.CA |
| DISTRICT ENG TECH | GHAD CORMIER | (431) 326-2772 | CCORMIER@HYDRO.MB.CA |
| CUSTOMER CONSULTANT | TETRA TECH MARIA ASALLOVA | (204) 954-6874 | MARIA.ASALLOVA@TETRATECH.COM |



| INSTALLED | | | |
|-----------|--------------|---------|-----------|
| Quantity | Fixture Type | Wattage | Pole Type |
| 8 | LED | 40 | EXCLUSIVE |
| | | | |
| | | | |
| | | | |

| SALVAGED | | | |
|----------|--------------|---------|-----------|
| Quantity | Fixture Type | Wattage | Pole Type |
| 7 | LED | 31 | EXCLUSIVE |
| | | | |
| | | | |
| | | | |

| NO | DATE | REVISIONS | BY | CHKD | APP | ORIGINAL DRAWING SEALED BY | AREA | MANITOBA HYDRO DISTRIBUTION PLANNING & DESIGN | | | |
|----------------|------|--------------------|----|------|-----|----------------------------------|----------------|--|--|------------------|------|
| | | | | | | | 4901 | WO# P-42615 | | NETWORK# 4309377 | |
| | | | | | | | STATION NUMBER | CSC: FORT GARRY | | | |
| | | | | | | | 1027 | STREETLIGHTING PROJECT | | | |
| | | | | | | | FEEDER NUMBER | INSTALL 8 X 25' S/L STRAIGHT SHAFT STANDARDS | | | |
| DRAWING NUMBER | | REFERENCE DRAWINGS | | | | DRAW | JER | 8 PRE-CAST CONCRETE BASES AND 352M HDD #4 CN CABLE | | | |
| | | | | | | CHECK | | CROWSON BAY, WINNIPEG | | | |
| | | | | | | SCALE | 1:324 | 1-04707-DE-50000-XXXX | | | |
| | | | | | | DATE | 02/19/2026 | | | SHT. | REV. |
| | | | | | | | | | | 01/01 | 00 |

