## SUMMARY OF ELECTRICAL WORK

PATHWAY LIGHTING IS TO BE INSTALLED FOR KIRKBRIDGE PARK, THE LIGHTING WILL CONSIST OF 17 x 100W HPS POST TOP LUMINAIRES INSTALLED ADJACENT TO THE PATHWAY. ALL LIGHTING TO BE CONTROLLED VIA AN OUTDOOR DISTRIBUTION CABINET C/W PHOTOCELL. AT THE PANEL 3 NEW 15A-1P BREAKERS TO MATCH EXISTING AND A NEW MULTI-POLE LIGHTING CONTACTOR TO CONTROL THE 3 NEW CIRCUITS FROM THE EXISTING PHOTOCELL

GENERAL

1. THE ELECTRICAL SYSTEM SHALL

RULES AND ORDINANCES.

PROVINCIAL AND MUNICIPAL LAWS,

2. THE CONTRACTOR SHALL PROVIDE ALL

COMPLETE ELECTRICAL SYSTEM.

3. EXAMINE ALL PLANS AND SPECIFICATIONS

FAILING SUCH NOTIFICATION, THIS

CONTRACTOR SHALL MEET ALL SUCH

4. THE CONTRACTOR SHALL OBTAIN ALL

5. ALL EQUIPMENT SUPPLIED UNDER THIS

BE CSA AND LOCALLY APPROVED.

6. ALL WORK SHALL BE LAID OUT IN ITS

OF ACCESSIBILITY AND ELECTRICAL

7. THE CONTRACTOR SHALL PROVIDE

ELECTRICAL DISTRIBUTION

LAMACOID NAMEPLATES FOR ALL

EQUIPMENT/DEVICES AND SHALL

MOUNTTHE NAME PLATES ON ALL

EQUIPMENT TO INDICATE FUNCTION,

VOLTAGE AND POWER OF DEVICES

CONTRACT SHALL BE NEW AND SHALL

MECHANICAL APPEARANCE. IT SHALL BE

LOGICALLY ARRANGED FOR SIMPLICITY

NECESSARY PERMITS, PAY ALL

NECESSARY NOTICES.

EFFICIENCY.

0.18V

NECESSARY FEES AND GIVE ALL

PERTAINING TO THIS CONTRACT, NOTIFY

CONTRACT ADMINISTRATOR OF ERRORS OR

OMISSIONS BEFORE SUBMITTING THE PRICE.

REQUIREMENTS WITHOUT EXTRA COST TO THE

MATERIALS, LABOUR AND EQUIPMENT

NECESSARY FOR INSTALLING, TESTING

AND PLACING IN INITIAL OPERATION THE

- 1. POST TOP LUMINARIES TO BE VANDAL-RESISTANT SDL LIGHTING: VP80-LR2-100S-120/240-A11-PC/8G. LUMINAIRES TO BE MOUNTED ON 20 FOOT(6.1 METER) STEEL POLES. POLES TO BE INSTALLED ON POURED CONCRETE BASES REFER TO DETAIL A AND POLES TO BE SAME COLOUR AS EXISTING. NOTE THAT BASE TO EXTEND 50mm ABOVE GRADE
- 2. THE LIGHTS WILL BE POWERED AND ALTERNATED ON 3 CIRCUITS USING #4 AWG RWU COPPER WIRE AS SHOWN ON DETAIL B. THERE WILL BE NO UNDERGROUND SPLICING OF THE #4 AWG RWU COPPER WIRE.
- 3, ALL LUMINAIRE SHALL BE OFFSET 2 METERS NORTH OF THE THE PATHWAY AND SPACED 30 METERS APART WITH LOCATIONS TO BE CONFIRMED BY CONTRACT ADMINISTRATOR (TONNI BUUS 986-3781 cell 803-3351) PRIOR TO COMMENCING WORK.
- 4. AT THE PANEL THE CONTRACTOR SHALL PROVIDE 3 NEW 15A 1P BREAKERS TO MATCH EXISTING AND A NEW MULTI-POLE LIGHTING CONTACTOR TO CONTROL THE 3 NEW CIRCUITS.
- 5. THE CONTRACTOR SHALL INFORM THE CONTRACT ADMINISTRATOR AT LEAST FIVE DAYS IN ADVANCE OF POURING THE BASES TO ALLOW THE CONTRACT ADMINISTRATOR TO VERIFY LOCATIONS AND WITNESS PROCESSES, THE CONTRACTOR TO ALSO INFORM THE CONTRACT ADMINISTRATOR AT LEAST FIVE DAYS IN ADVANCE OF THE TRENCHING TO ALLOW THE CONTRACT ADMINISTRATOR TO WITNESS THE PROCESS AND TO VERIFY WIRING IS CONTINUOUS BETWEEN DEVICES.
- 6. ALL DIMENSIONS IN METERS UNLESS INDICATED OTHERWISE.
- 7. THE CONTRACTOR, UPON THE COMPLETION OF THE JOB, MEET THE CONTRACT ADMINISTRATOR ON SITE DURING THE EVENING FOR THE PURPOSE OF AIMING THE LIGHTS. CONTRACTOR TO PROVIDE MANPOWER AND EQUIPMENT TO ROTATE THE LUMINAIRES TO ENSURE THAT LIGHTING DISTRIBUTION IS APPROPRIATELY AIMED WITH RESPECT TO THE PATHWAY.

#### TRENCHING

B

BRAIRMOR

CONTRACTOR TO PROVIDE TRENCHING REQUIRED TO POWER ALL LUMINAIRES, DEPTH TO BE MINIMUM 600mm AS PER ELECTRICAL CODE, PROVIDE MINIMUM 150mm SAND ABOVE AND BELOW WIRING, MAINTAIN ACCURATE LOCATIONS OF TRENCHING FOR INCLUSION ON AS-BUILT DRAWINGS. CONTRACTOR TO COORDINATE TRENCHING WITH CONTRACT ADMINISTRATOR.

CONTRACTOR TO PROVIDE SOIL COMPACTION TO 95% PROCTOR DENSITY, RE-SOD AS REQUIRED IN ACCORDANCE WITH THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS CW 3510 TO RETURN AREA TO ORIGINAL CONDITION.

**ASPHALT** 

PARKING

LOT

- 8. THIS SPECIFICATION IS NOT INTENDED TO RESTATE THE APPLICABLE CODES. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLY WITH THE REQUIREMENTS OF PROVIDING ALL GROUNDING, ETC. AND THE LATEST EDITION OF THE CANADIAN FOLLOWING ALL WIRING METHODS. ELECTRICAL CODE (CEC) AND WITH ALL
  - 9. THE CONTRACTOR SHALL EXAMINE THE CONDITIONS OF THE SITE AND SHALL BE RESPONSIBLE FOR ALL EQUIPMENT, MATERIAL, AND LABOUR NECESSARY FOR THE WORK REQUIRED FOR THIS PROJECT.
  - 10. PRIOR TO SCHEDULING FINAL INSPECTION THE CONTRACTOR SHALL ENSURE THAT ALL WORK IS COMPLETED AND IN PARTICULAR THAT OPERATION AND MAINTENANCE MANUALS ARE COMPLETED, ALL NAMEPLATES INSTALLED, VERIFICATION TESTS HAVE BEEN DONE AND CERTIFICATES HAVE BEEN RECEIVED THAT INDICATE WORK INSTALLED CONFORMS TO ALL REQUIREMENTS.
  - 11. ALL TREES WITHIN THE CONSTRUCTION AREA MUST BE PROTECTED FOR THE DURATION OF THE CONSTRUCTION PERIOD IN ACCORDANCE WITH SECTION 3.19(CW 1130 SITE REQUIREMENTS) CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS.

#### DELIVERABLES

1. THE CONTRACTOR SHALL MAINTAIN ONE SET OF PLANS AT JOB SITE WHICH HE SHALL CLEARLY NOTE ALL WIRING RUN CHANGES. OR DEVIATIONS FROM THE CONTRACT DOCUMENT AS THE JOB PROGRESSES. THE CONTRACTOR SHALL SUBMIT THREE SETS OF AS-BUILT DRAWINGS TO THE CONTRACT ADMINISTRATOR ON COMPLETION OF THE JOB.

CIRCUIT SCHEMATIC DETAIL B

2. THE CONTRACTOR SHALL PROVIDE THREE COPIES OF OPERATIONS & MAINTENANCE (O & M) MANUALS. THE O & M MANUALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF TECHNICAL BULLETIN #15 ISSUED BY THE JOINT MAA/WCA COMMITTEE AND THE CONTRACT GENERAL CONDITIONS. THE CONTRACTOR SHALL SUBMIT ONE PRELIMINARY COPY PRIOR TO THE COMPLETION OF WORK. REVISE AS DIRECTED AND SUBMIT FINAL COPIES TO THE CONTRACT ADMINISTRATOR.

#### LAYOUT

1. THE CONTRACTOR SHALL LAYOUT ALL WORK, ESTABLISHING ALL LINES, LEVELS AND CENTRES AND SHALL ASSUME RESPONSIBILITY FOR ANY ERRORS RESULTING FROM FAILURE TO USE ADEQUATE CAUTION. FINAL LOCATIONS MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR.

#### POLES

- 1. POLES TO BE 6.1 METERS (20') HIGH, STEEL, AND TO BE PRIMED AND POWDER COATED BLACK.
- 2. BASES TO BE POURED CONCRETE AS PER DETAIL A.

#### LIGHTING

- 1. POST TOP LUMINAIRES SHALL MEET THE FOLLOWING CRITERIA: (A) CSA APPROVED OR ULC LISTED
  - (B) SUITABLE FOR WET LOCATION
  - (C) HEAVY-DUTY SPUN ALUMINUM HOUSING
  - (D) CORROSION RESISTANT HARDWARE (E) HEAT AND SHOCK RESISTANT POLYCARBONATE LENS
  - (F) LAMP SHALL BE 100W HPS
- (G) APPROVED POST TOP LUMINAIRE: (I) VP80 LR2 100S  $\frac{120}{240}$  A11 PC 8G SDL LIGHTING SYSTEMS OR APPROVED EQUAL.

### GROUNDING

**BASEBALI** DIAMOND

2.59V

117.4V

2.75V

0.72V

116.7V

1. THE ENTIRE INSTALLATION SHALL BE GROUNDED IN CONFORMANCE WITH LATEST EDITION OF THE CEC.

SOCCER

**FIELD** 

CIRCUIT

DISTANCE

**VOLT DROP** 

VOLTAGE

127mm (5") dia, 6.1m (20') High Round Street Light Standard Powder Coated Same Colour As Luminare Finished Bolt Projection-45-50mm Grade 19x600 Anchor Bolts Cast In Place Concrete Pile Shall Be Sulfate Resistant Type 50 Having A 28 Day Compressive Strength of 30 Mpa Min. 38mm Dia. Rigid PVC Conduit Sleeve C/W. Pull Cord 10M Rings @ 300mm O.C. 4-20M Vert. Cont. 400mm Cylindrical Poly Wrapped Greased Sonotube Concrete Form 400 Lamp Standard Base Detail A SCALE: N.T.S.

**DISTRIBUTION** 

0

 $\propto$ 

**ENCLOSURE** 

EXIST.

**ASPHALT** 

PARKING

1. 3 NEW 15A-1P BREAKERS

2. NEW MULTI-POLE LIGHTING

EXISTING PHOTOCELL

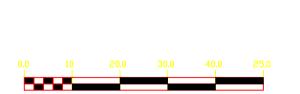
CONTACTOR TO CONTROL

THE 3 NEW CIRCUITS FROM

TO MATCH EXISTING

# NOTE UNDERGROUND SPLICES WILL NOT BE PERMITTED

METRIC WHOLE NUMBERS INDICATE MILLIMETRES DECIMALIZED NUMBERS INDICATE METRES



### WARNING

F POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTO I) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION. ) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.

SEE PROVINCIAL REGULATION 210/72 FOR DETAILS

|                | WATERMAIN           | 200 . WM |                            | SL , HYDRO                  |               | <u>150</u> √M _                 | WATERMAIN             | 150 WM   | LOCATION APPROVED   | B.M.           | FIELD BOOK #: |                   |                           | LANDSCAPE ARCHITEC<br>ENGINEER'S SEAL |
|----------------|---------------------|----------|----------------------------|-----------------------------|---------------|---------------------------------|-----------------------|----------|---|----------------|---------------|-------------------|---------------------------|---------------------------------------|
| <b></b>        | HYDRANT             | +        |                            | RTS.                        |               | t                               | HYDRANT               | t        |   | B.M.<br>ELE∨.  |               |                   |                           | ENGINEER S SEAL                       |
| 8              | VALVE               | ⊗        | ··                         | TRAFFIC SIGNALS             |               |                                 | VALVE                 | X        | UNDERGROUND STRUCTURES  | POSTED TO LBIS | <u> </u>      | THE PARKS WAT     | TERWAYS AND               |                                       |
| 525_ LDS_      | LAND DRAINAGE SEWER | 525_ LDS | 50_GAS                     | GAS                         | <u>50 GAS</u> | <u>300</u> <u>T</u> <u>D</u> S_ | LAND DRAINAGE SEWER   | 300 LDS  | OUD / H/E OTDUCTURED TATE   |                |               |                   | INITY INITIATIVES         |                                       |
| <u>375</u> WWS | WASTEWATER SEWER    | 375 WWS  | <b>+</b>                   | SURVEY BAR                  |               | 250_WWS                         | WASTEWATER SEWER      | 250 WWS  | SUPV. U/G STRUCTURES DATE COMMITTEE   |                |               |                   |                           |                                       |
| 0              | MANHOLE             | •        | POLE T                     | OP LUMINARES                |               | X                               | TOP OF ASPHALT        | (00.00)  | NOTE:   |                |               | DESIGNED<br>RY    | CHECKED                   |                                       |
|                | CATCH BASIN         |          | $\overset{\triangle}{\to}$ | EXIST.POLE TOP LUMINARES    |               |                                 | TOP OF LIMESTONE BASE | [00.000] | LOCATION OF UNDERGROUND STRUCTURES AS   |                |               | T B               | RZ RZ                     | _                                     |
| ▽              | CURB INLET          | ▼        | <del></del>                | PROP. POLE & LUMINARE       |               |                                 |                       |          | SHOWN ARE BASED ON THE BEST INFORMATIO<br>AVAILABLE BUT NO GUARANTEE IS GIVEN | N .            |               | DRAWN<br>BY TD    | APPROVED BY RZ            |                                       |
| ◁              | REDUCER             | ◀        | <b>→</b>                   | PROP. BASE, POLE & LUMINARE |               |                                 |                       |          | THAT ALL EXISTING UTILITIES ARE SHOWN O                                       | R              |               |                   |                           |                                       |
| χ              | COUPLER             | χ        |                            | BURIED LIGHT CABLE          |               |                                 |                       |          | THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT       |                |               | HDR. SCALE 1:400  | RELEASED FOR CONSTRUCTION | BID OPPORTUNITY                       |
| Ŋ              | AN□DE               | ₹        | <b>*</b>                   | TREE                        |               |                                 |                       |          | ☐ LOCATION OF ALL SERVICES MUST BE ☐ DBTAINED FROM THE INDIVIDUAL UTILITIES   |                |               | VERTICAL          |                           | FILENAME :                            |
| EXISTING       | LEGEND-PLAN         | PROPOSED | EXISTING                   | LEGEND-PLAN                 | PROPOSED      | EXISTING                        | LEGEND-PROFILE        | PROPOSED | BEFORE PROCEEDING WITH CONSTRUCTION.  | NO. REVISIONS  | DATE BY       | DATE JULY 20,2011 | DATE JULY 20,2010         | PLOT DATE:                            |



# THE CITY OF WINNIPEG

Planning, Property and Development Depart. Parks Waterways and Community Initiatives Unit 15-30 Fort Street

KIRKBRIDGE PARK PATHWAY LIGHTING SITE IMPROVEMENTS

SHEET OF CITY DRAWING NUMBER K,5-M2