

GENERAL

1. THE ELECTRICAL SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE (CEC) AND WITH ALL PROVINCIAL AND MUNICIPAL LAWS, RULES AND ORDINANCES.
2. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOUR AND EQUIPMENT NECESSARY FOR INSTALLING, TESTING AND PLACING IN INITIAL OPERATION THE COMPLETE ELECTRICAL SYSTEM.
3. EXAMINE ALL PLANS AND SPECIFICATIONS PERTAINING TO THIS CONTRACT. NOTIFY CONTRACT ADMINISTRATOR OF ERRORS OR OMISSIONS BEFORE SUBMITTING THE PRICE. FAILING SUCH NOTIFICATION, THIS CONTRACTOR SHALL MEET ALL SUCH REQUIREMENTS WITHOUT EXTRA COST TO THE CITY.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, PAY ALL NECESSARY FEES AND GIVE ALL NECESSARY NOTICES.
5. ALL WORK COMPLETED SHALL BE ACCOMPLISHED IN A FIRST CLASS & WORKMAN LIKE STYLE
6. ALL EQUIPMENT SUPPLIED UNDER THIS CONTRACT SHALL BE NEW AND SHALL BE CSA AND LOCALLY APPROVED.
7. ALL WORK SHALL BE LAID OUT IN ITS MECHANICAL APPEARANCE. IT SHALL BE LOGICALLY ARRANGED FOR SIMPLICITY OF ACCESSIBILITY AND ELECTRICAL EFFICIENCY.
8. THE CONTRACTOR SHALL PROVIDE LAMACOID NAMEPLATES FOR ALL ELECTRICAL DISTRIBUTION EQUIPMENT/DEVICES AND SHALL MOUNT THE NAMEPLATES ON ALL EQUIPMENT TO INDICATE FUNCTION, VOLTAGE AND POWER OF DEVICES.
9. THIS SPECIFICATION IS NOT INTENDED TO RESTATE THE APPLICABLE CODES. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ALL GROUNDING, ETC. AND FOLLOWING ALL WIRING METHODS.
10. 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.
11. 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.
12. 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.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING ALL COSTS AND MEETING ALL REQUIREMENTS OF MANITOBA HYDRO TO PROVIDE A 120V 300W CUSTOMER SERVICE POINT.

DELIVERABLES

1. THE CONTRACTOR SHALL MAINTAIN ONE SET OF PLANS AT JOB SITE WHICH HE SHALL CLEARLY NOTE ALL 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.
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/NCA 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.

POLES & BASES

1. POLES TO BE 6.1 METERS (20') HIGH, STEEL, PRIMED AND POWDER-COATED.
2. POLES TO BE VALMONT 4RS-20-0.0-03 COMPLETE WITH 8" ARM COMPRISED OF 2" STEEL PIPE.
3. BASES TO BE HOT DIPPED GALVANIZED METAL SCREW IN POLE BASE AS PER DETAIL 1.

LIGHTING

1. LIGHTING SHALL CONSIST OF FOUR (4) 67W 120V LED CUTOFF LUMINAIRES MOUNTED ON 6.1 METER STEEL POLES. LUMINAIRES TO BE:
 - a. 3 x GE EVOLVE LED ROADWAY SCALABLE COBRA HEAD ERS1-0-CX-BX-5-40-1-BLCK-LT OR APPROVED EQUAL.
 - b. 1 x GE EVOLVE LED ROADWAY SCALABLE COBRA HEAD ERS1-0-CX-CX-5-40-1-BLCK-LT OR APPROVED EQUAL.
2. LIGHTING TO MEET THE FOLLOWING LIGHTING CRITERIA:
 - a. 10 LUX ±10% AVERAGE ILLUMINANCE
 - b. ≤ 4.0 AVERAGE/MIN
 - c. < 10 MAX/MIN
 - d. CCT: ≤4000K

AIMING AND ACCEPTANCE TESTING

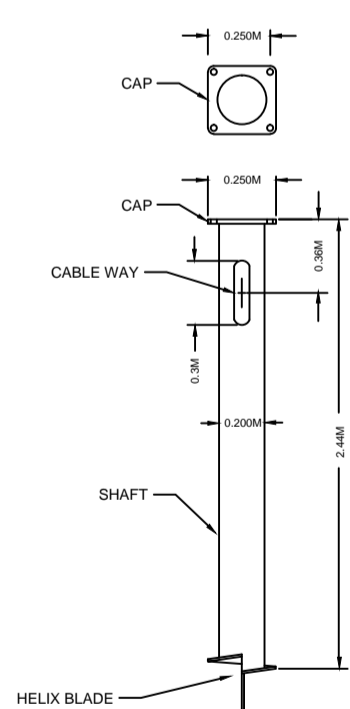
1. THE CONTRACTOR SHALL MEET THE CONTRACT ADMINISTRATOR ON SITE TO VERIFY/AIM LUMINAIRES AND TO MEASURE LIGHTING LEVELS ON COMPLETION OF THE WORK. NOTE THAT SITE VISIT WILL BE REQUIRED AFTER DARK.

APPROVED EQUAL LUMINAIRES

1. ANY LUMINAIRES SUBMITTED FOR APPROVAL MUST COME COMPLETE WITH PDF DESCRIPTION AND THE LATEST VERSION OF ELECTRONIC IES FILES. ALL IES FILES MUST BE LM-79 & LM-80 COMPLIANT. LUMINAIRES WILL BE EVALUATED BY THE CITY USING THE LATEST VERSION OF LIGHTING ANALYSTS AG32 SOFTWARE.

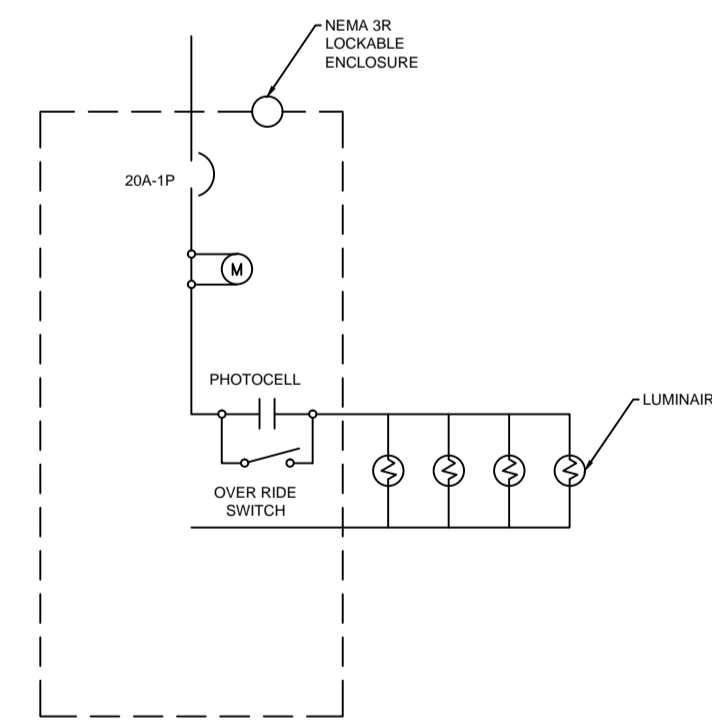
NOTES:

1. WIRING TO BE RWU90, MINIMUM #12 AWG, RUN IN 50 mm LOW DENSITY POLYETHYLENE
 2. CONDUIT OUTDOORS. ALL PVC CONNECTIONS TO BE WATERTIGHT COMPLETE WITH FS BOXES. NO UNDERGROUND SPLICES WILL BE PERMITTED.
 3. ALL LUMINAIRE LOCATIONS TO BE CONFIRMED BY CONTACT ADMINISTRATOR PRIOR TO COMMENCING WORK.
 4. THE CONTRACTOR TO COORDINATE ALL LOCKS WITH THE PARKS & OPEN SPACE DIVISION ELECTRICIAN. PROVIDE THREE (3) SETS OF KEYS FOR THE LOCKABLE DEVICES.
- TRENCHING:
1. CONTRACTOR TO PROVIDE TRENCHING REQUIRED TO POWER ALL LUMINAIRES. DEPTH TO BE MINIMUM 450MM AS PER CODE. PROVIDE MINIMUM 6" SAND ABOVE AND BELOW WIRING. PROVIDE WEATHERPROOF FLANKING ABOVE SAND. MAINTAIN ACCURATE LOCATIONS OF TRENCHING FOR INCLUSION ON AS-BUILT DRAWINGS.
 2. CONTRACTOR TO COORDINATE TRENCHING WITH CONTRACT ADMINISTRATOR. CONTRACTOR TO PROVIDE SOIL COMPACTION TO 95% STANDARD PROCTOR DENSITY. RE-SOD AS REQUIRED TO RETURN AREA TO ORIGINAL CONDITION.
 3. THE CONTRACTOR SHALL INFORM THE CONTRACT ADMINISTRATOR AT LEAST FIVE DAYS IN ADVANCE OF INSTALLING 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.



HOT DIPPED GALVANIZED METAL SCREW-IN POLE BASE

DETAIL 1



SINGLE LINE DIAGRAM

DETAIL 2

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:
1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
SEE PROVINCIAL REGULATION 210/72 FOR DETAILS

200 WM	WATERMAIN	200 WM	SL, HYDRO	150 WM	WATERMAIN	150 WM
⊕	HYDRANT	⊕	MTS	+	HYDRANT	+
⊗	VALVE	⊗	TRAFFIC SIGNALS	X	VALVE	X
525 LDS	LAND DRAINAGE SEWER	525 LDS	GAS	50 GAS	300 LDS	LAND DRAINAGE SEWER
375 WWS	WASTEWATER SEWER	375 WWS	SURVEY BAR	250 WWS	250 WWS	WASTEWATER SEWER
○	MANHOLE	⊙	BASE, POLE & LUMINAIRE	X	TOP OF ASPHALT	00.000
□	CATCH BASIN	■	BURIED LIGHT CABLE	●	TOP OF LIMESTONE BASE	00.000
▽	CURB INLET	▼	TREE			
◁	REDUCER	◁				
×	COUPLER	×				
⊕	ANODE	⊕				
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING
				LEGEND-PROFILE	PROPOSED	

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPV. UG STRUCTURES COMMITTEE DATE

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.	FIELD BOOK #:
POSTED TO LBIS	
1 ISSUED FOR TENDER	5/9/12
NO. REVISIONS	DATE BY

CITY OF WINNIPEG URBAN DESIGN PARKS AND PUBLIC SPACES	
DESIGNED BY GA/lwb/TB	CHECKED BY GA
DRAWN BY lwb/TB	APPROVED BY GA
HOR. SCALE N.A.	RELEASED FOR CONSTRUCTION
VERTICAL N.A.	DATE

LANDSCAPE ARCHITECTS' ENGINEER'S SEAL
711-2012
FILENAME: COSTELLO PARK PATHWAY LIGHTING

THE CITY OF WINNIPEG
Planning, Property and Development Depart.
Urban Design
Parks and Public Spaces
Unit 15-30 Fort Street

Winnipeg

COSTELLO PARK PATHWAY LIGHTING
90 COSTELLO DRIVE

SHEET 1 OF 1
CITY DRAWING NUMBER
C.45-C6