



APECM
Certificate of Authorization
MCW/AGE Consulting Professional Engineers
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DO NOT SCALE DRAWINGS

Revision/Revisions	Description/Description	Date/Date
0	ISSUED FOR CONSTRUCTION	2016/11/02

PUBLIC WORKS AND GOVERNMENT SERVICES AGENCY

Project title/Titre du projet
EMERSON, MANITOBA HIGHWAY 75, UNITED STATES BORDER
EXPANSION AND REDEVELOPMENT OF THE EMERSON PORT OF ENTRY

Approved by/Approve par
KEI

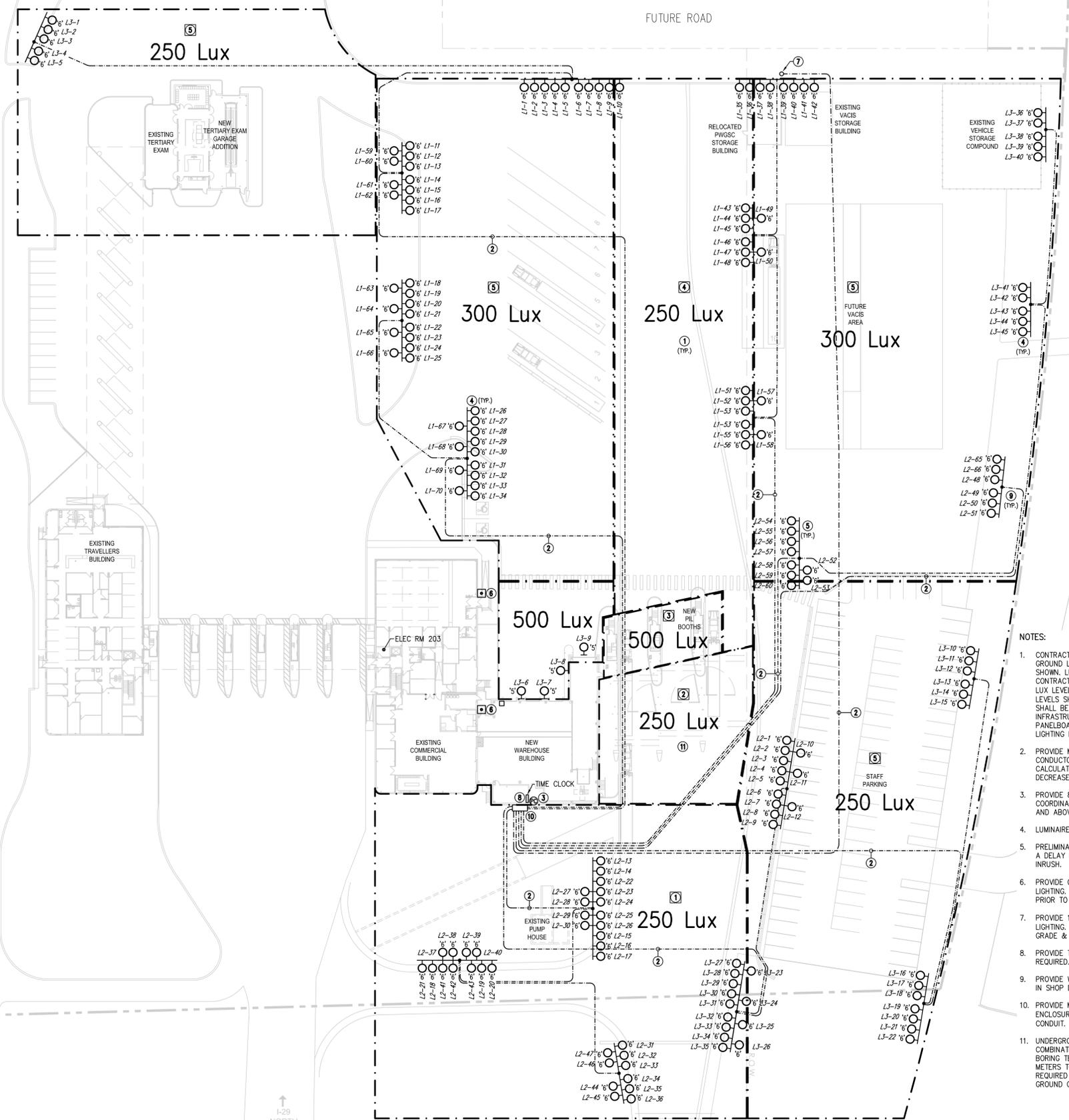
Designed by/Concept par
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Drawn by/Dessine par
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JAMES HUTCHINGS

PWGSC Architectural and Engineering Resources Manager / Ressources Architectural et de Directeur d'ingénierie, TPSCC

Drawing title/Titre du dessin
SITE PLAN - LIGHTING LAYOUT

Project No./No. du projet R.068431.001	Sheet/Feuille E1.1 of 26	Revision no./La Révision no. 0
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- AREA DESIGNATION:
- 1 APPROACH
 - 2 PRE INSPECTION
 - 3 INSPECTION POINT (COVERED)
 - 4 POST INSPECTION
 - 5 SECONDARY (ENHANCED)

- NOTES:
1. CONTRACTOR SHALL PROVIDE LIGHTING LEVELS SHOWN AT GROUND LEVEL FOR EACH AREA UTILIZING POLE LOCATIONS SHOWN. LUMINAIRE COUNT IS REPRESENTATIONAL. CONTRACTOR SHALL INCREASE OR DECREASE AS REQUIRED. LUX LEVELS SHOWN ARE AN AVERAGE. MAXIMUM/MINIMUM LEVELS SHALL BE NO MORE THAN 6:1. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL INFRASTRUCTURE INCLUDING CIRCUITS, CONDUIT, PANELBOARD, RELAY CONTROL AS REQUIRED TO MEET LIGHTING LEVELS.
 2. PROVIDE MINIMUM OF 103mm CONDUIT & #8 AWG CONDUCTOR. CONTRACTOR SHALL PROVIDE VOLTAGE DROP CALCULATION PRIOR TO INSTALLATION & INCREASE OR DECREASE CONDUIT & WIRE SIZES AS REQUIRED.
 3. PROVIDE 8 HOURS OF RE-PROGRAMMING & OWNER COORDINATION FOR LIGHTING CONTROL REQUIREMENTS OVER AND ABOVE INITIAL PROGRAMMING REQUIREMENTS.
 4. LUMINAIRE SHALL BE MINIMUM 80 CRI AT 4000K.
 5. PRELIMINARY PROGRAMMING OF RELAY PANELS SHALL HAVE A DELAY FOR EACH LUMINAIRE TO CONTROL CURRENT INRUSH.
 6. PROVIDE ON/OFF PUSHBUTTON CONTROL FOR SITE LIGHTING. COORDINATE INSTALLATION ON SITE WITH OWNER PRIOR TO ROUGH-IN.
 7. PROVIDE 103mm CONDUIT C/W PULL STRING FOR FUTURE LIGHTING. MOUNT ON OUTSIDE OF LIGHTING POLE TO ABOVE GRADE & CAP.
 8. PROVIDE TIME CLOCK & PHOTOCELL CONTROL AS REQUIRED.
 9. PROVIDE WIND LOADING CALCULATIONS ON POLES INCLUDED IN SHOP DRAWINGS FOR CONSULTANT REVIEW.
 10. PROVIDE MINIMUM WALL MOUNT NEMA 3R WEATHERPROOF ENCLOSURE 48"X36"X16" TO TERMINATE UNDERGROUND CONDUIT.
 11. UNDERGROUND CONDUIT INSTALLATION SHALL BE COMBINATION OF TRENCHING & HORIZONTAL DIRECTIONAL BORING TECHNIQUES WITH A MINIMUM DEPTH OF 2.5 METERS TO ROAD SURFACE. COORDINATION SHALL BE REQUIRED AROUND PIL BOOTHS FOR AMOUNT OF UNDERGROUND CONDUIT REQUIRED FOR PIL BOOTHS.

1 SITE PLAN - LIGHTING LAYOUT
E1.1 SCALE: 1:500