

FISHERIES AND OCEANS



RESTORATION OF THE NEW FERROLLE LIGHT TOWER

PORT AUX CHOIX, NL

PROJECT NO.: F6879-159011
ISSUED FOR TENDER

DATE: JULY 14, 2015

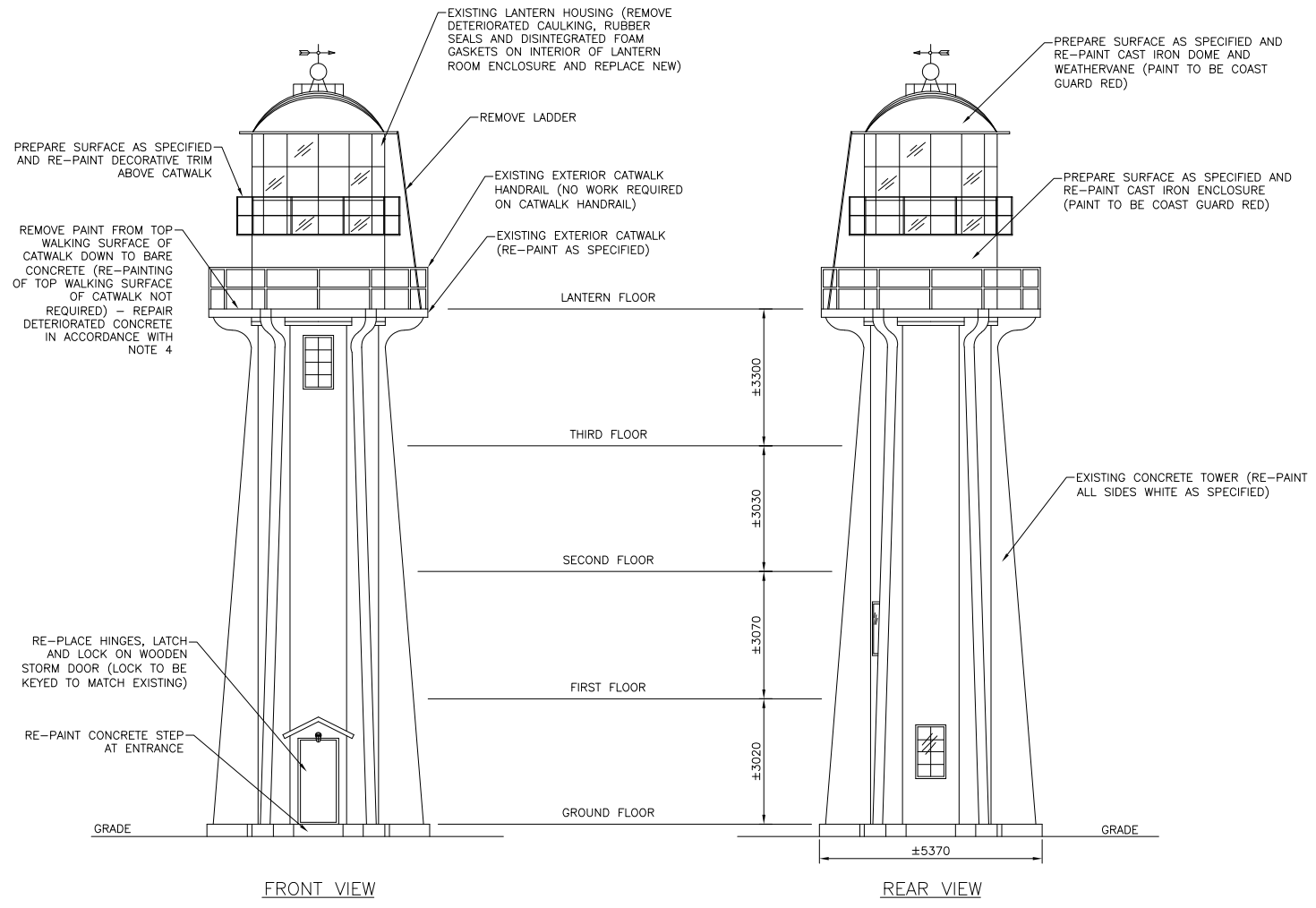
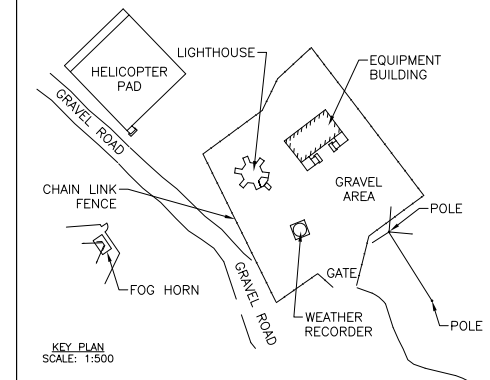
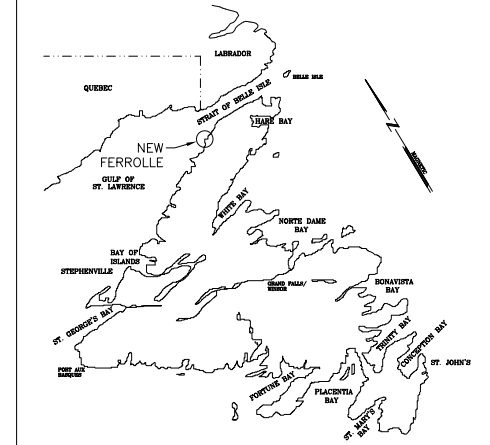
CLIENT/OWNER:
DEPARTMENT OF FISHERIES & OCEANS,
REAL PROPERTY, SAFETY & SECURITY

PRIME CONSULTANTS:
AFN ENGINEERING INC.

DRAWING LIST:

<u>TITLE</u>	
12P0204A008C1	WORK PLAN

PROVINCE OF NEWFOUNDLAND
 PERMIT HOLDER
 This Permit Allows
 APN ENGINEERING INC.
 To practice Professional Engineering in Newfoundland and Labrador.
 Permit No. as issued by APENL F0292 which is valid for the year 2015.



GALVANIZED STEEL SECTIONS:

- EXTERIOR GALVANIZED STEEL SECTIONS: PRESSURE WASH OR ABRASIVE BLAST TO REMOVE ALL EXISTING COATING THAT ARE ON THE STEEL SURFACE. POWER TOOL CLEAN SSPC-SP-11 TO ROUGHEN THE EXPOSED GALVANIZED SURFACE AND TO REMOVE ALL RUST THAT HAS DEVELOPED ON THE SURFACE. TO MEET THE REQUIREMENTS OF SSPC-SP-11, THE SURFACE IS TO BE POWER TOOL CLEANED TO BARE METAL. WHEN VIEWED WITHOUT MAGNIFICATION, THE SURFACE SHALL BE FREE OF ALL VISIBLE OIL, GREASE, DIRT, MILL SCALE, RUST, PAINT, OXIDES, CORROSION PRODUCTS, AND OTHER FOREIGN MATTER. SLIGHT RESIDUES OF RUST AND PAINT MAY BE LEFT IN THE LOWER PORTION OF PITS IF THE ORIGINAL SURFACE IS PITTED. THE SURFACE PROFILE SHALL NOT BE LESS THAN 1 MIL (25 MICRONS).
- DEPARTMENTAL REPRESENTATIVE WILL CONDUCT AN INSPECTION PRIOR TO RE-PAINING TO CONFIRM THAT THE SURFACES HAVE BEEN PREPARED PROPERLY. NO RE-PAINING IS TO BE INITIATED WITHOUT THE APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE.

ACCEPTABLE PAINT PRODUCTS (OR APPROVED EQUIVALENTS) FOR GALVANIZED STEEL SECTIONS, ARE AS FOLLOWS:

- PRIME SURFACE BY APPLYING 2 COATS OF AMERLOCK 2 SURFACE TOLERANT EPOXY COATING (OR APPROVED EQUIVALENT) AT 5-7 MILS DRY FILM THICKNESS PER COAT. APPLY ONE COAT OF AMERSHIELD HIGH SOLIDS POLYURETHANE COATING (OR APPROVED EQUIVALENT) AT 3-5 MILS DRY FILM THICKNESS.
- ALL RED PAINT TO BE "COAST GUARD RED".

CONCRETE TOWER:

- WHERE CRACKS ARE IDENTIFIED IN CONCRETE, APPLY MASTER EMACO N425 (OR APPROVED EQUIVALENT) IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ALLOW REPAIRS TO CURE. DEPARTMENTAL REPRESENTATIVE WILL CLARIFY CRACKS TO BE REPAIRED AT THE PRE-TENDER SITE VISIT.
- ONCE REPAIRS HAVE CURED, PRESSURE WASH THE ENTIRE EXTERIOR CONCRETE STRUCTURE TO REMOVE ALL LOOSE COATINGS AND OTHER CONTAMINANTS THAT ARE ON THE SURFACE.
- APPLY 1 COAT TOUCH UP COAT OF MASTER PROTECT HB300 SB COATING (OR APPROVED EQUIVALENT) TO ANY BARE CONCRETE AREAS. OBTAIN DEPARTMENTAL REPRESENTATIVE'S APPROVAL BEFORE PROCEEDING WITH SUBSEQUENT COATS.
- APPLY 2 COATS OF MASTER PROTECT HB300 SB COATING (OR APPROVED EQUIVALENT) TO THE ENTIRE CONCRETE SURFACE. APPLY AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

CAST IRON SECTIONS:

- PRESSURE WASH USING FRESH WATER TO REMOVE ALL CHLORIDES AND CONTAMINANTS THAT ARE ON THE SURFACE. ABRASIVE BLAST THE SUBSTRATE TO SSPC-SP-10 NEAR WHITE METAL TO ACHIEVE AN ANCHOR PROFILE OF 2.0 MILS. THE SSPC-SP10'S DEFINITION OF A NEAR-WHITE METAL BLAST CLEAN REQUIRES THE SURFACE TO BE FREE OF ALL VISIBLE OIL, GREASE, DIRT, MILL SCALE, RUST, COATING, OXIDES, CORROSION PRODUCTS, AND OTHER FOREIGN MATTER WHEN VIEWED WITHOUT MAGNIFICATION. THE STANDARD ALSO PROVIDES REQUIREMENTS FOR "RANDOM STAINING" ON THE SURFACE WHICH SHALL NOT EXCEED FIVE PERCENT OF EACH UNIT AREA OF SURFACE. THE SURFACE SHALL BE CLEANED OF OIL, GREASE, AND DUST AFTER THE NEAR-WHITE METAL BLASTING PROCEDURE.
- ANY BLASTED AREAS THAT SHOW PITTING ARE TO BE FILLED WITH BELZONA 1111 SUPER METAL PASTE GRADE METALLIC FILLER (OR APPROVED EQUIVALENT). PITS SHOULD BE FILLED FLUSH WITH SURROUNDING STEEL AREA PRIOR TO PRIMING.
- ONCE ALL PITTING HAS BEEN ADDRESSED APPLY ONE COAT OF AMERCOAT 370 EPOXY (OR APPROVED EQUIVALENT) AT 5 MILS DRY FILM THICKNESS.
- APPLY ONE COAT (BY PLURAL SPRAY) OF PPG AMERTHANE 490 ELASTOMERIC POLYUREA HIBRID COATING (OR APPROVED EQUIVALENT) AT 80 MILS DRY FILM THICKNESS.
- APPLY ONE COAT OF PPG AMERSHIELD HIGH SOLIDS POLYURETHANE (OR APPROVED EQUIVALENT) AT 3 MILS DRY FILM THICKNESS.

- NOTES:**
- SCAFFOLDING MUST BE DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER, LICENSED BY PEG-NL TO PRACTICE ENGINEERING IN THE PROVINCE OF NL.
 - SAMPLE RESULTS APPENDED TO THE SPECIFICATIONS INDICATE THAT THE EXTERIOR PAINT ON THE CONCRETE SURFACES IS LEAD BASED. ALL LEAD PAINT REMOVAL ACTIVITIES ARE TO BE IN ACCORDANCE WITH SPECIFICATION SECTION 02 83 12, WITH SPECIFIC REFERENCE TO THE "GUIDELINE FOR LEAD ON CONSTRUCTION PROJECTS FROM OCCUPATIONAL HEALTH AND SAFETY BRANCH, ONTARIO MINISTRY OF LABOUR, APRIL, 2011". A COPY OF THIS DOCUMENT CAN BE PROVIDED BY THE DEPARTMENTAL REPRESENTATIVE UPON REQUEST.
 - PRESSURE WASH THE TOWER AND IDENTIFY CRACKS IN THE PRESENCE OF THE DEPARTMENTAL REPRESENTATIVE. IF CRACKS GREATER THAN 25mm ARE IDENTIFIED ON CONCRETE TOWER, APPLY REPAIR MORTAR AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE. FOR BIDDING ASSUME 20 LINEAR METRES OF CRACKS TO BE REPAIRED.
 - PATCHING OF SPALLED CONCRETE, SHALL BE DONE TO APPROVAL OF THE ENGINEER IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICES FOR SURFACE PREPARATION, MIXING, APPLICATION, CURING AND OTHER STEPS FOR CONCRETE REPAIR. REMOVE LOOSE AND CRACKED CONCRETE AND CHIP LIGHTLY TO EXPOSE COMPETENT AND SOUND CONCRETE SURFACE. PRE-WET THE CHIPPED CONCRETE SURFACES WITH CLEAN WATER TO ACHIEVE A SATURATED SURFACE DRY CONDITION. APPLY SIKA TOP ARMATEC 110 EPOCHEM BONDING AGENT TO THE CHIPPED CONCRETE SURFACES. FOLLOWING THAT, AND BEFORE THE BONDING AGENT DRIES, POUR 35MPa CONCRETE AND FINISH TO MATCH SURROUNDING CONCRETE. REDUCE CONCRETE AGGREGATE SIZE TO 10mm OR AS OTHERWISE DIRECTED BY THE ENGINEER BASED ON SITE CONDITIONS (COORDINATE MIX DESIGN WITH ENGINEER). FOR BIDDING, ASSUME THE SURFACE AREA OF CONCRETE REPAIR IS 2 SQUARE METRES.

A	ISSUED FOR TENDER	14/07/15	P.H.	N.H.
no.	revision	date	by	approved
no.	revision	date	par	approve
Project - projet				
RESTORATION OF THE NEW FERROLLE LIGHT TOWER				
Drawing - dessin				
WORK PLAN				
drawn - dessine	P.H.	designed - dessine par	N.H.	
date - date	JULY 14, 2015	checked - verifie	N.H.	
scale - echelle	AS SHOWN	approved for tender - approuve pour l'offre		
project no. - projet no.	drawing no. - no du dessin	sheet - feuille		
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